



U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services

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CHECK LIST OF PHILIPPINE FISHES

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RESEARCH REPORT 20

Fish and Wildlife Service, Albert M. Day, Director

United States Department of the Interior, Oscar L. Chapman, Secretary

UNITED STATES GOVERNMENT PRINTING OFFICE : 1953

For sale by the Superintendent of Documents, United States Government Printing Office
Washington 25, D. C. : Price \$2.25 (paper cover)

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A knowledge of the number and kinds of fishes that comprise the fauna is indispensable to any program designed to explore or develop commercial fisheries, or to further the knowledge of the fishery resources as a basis for their conservation and management. Therefore this check list of Philippine fishes was prepared as a fundamental item of the Philippine Fishery Program of the Fish and Wildlife Service.¹

The East Indies is the greatest center of fish life in the world. The Philippine Islands form an integral part of the East Indies, from the standpoints of geology, botany, zoology, and anthropology. In this East Indian center, with its wonderful coral reefs, its vast shoreline of every imaginable character, its lagoons and great marine abysses, lives the greatest variety of fishes in the world. From thence fishes have spread westward through the Indian Ocean to the Red Sea and the east coast of Africa. Carried by ocean currents or making their way from reef to reef and shoal to shoal, some kinds have gone north to southern Japan, or traversed the tropical seas to Australia, the Caroline, Marshall, and Hawaiian Islands, or extended their range throughout Polynesia to Tahiti, the Tuamotu and Marquesas Islands. Even the Galápagos Islands and the west coast of Mexico have been reached by a few.

The Philippines occupy a strategic position in the geographic distribution of fishes. Of course, the fish fauna in general is strongly East Indian. At the same time, Japanese and Chinese elements are evident, while some fishes of the Hawaiian Islands, the Tonga or Samoan Islands, or the Andamans or Red Sea contribute to the composition of the Philippine fish fauna. The largest fish in the world, the whale shark, is common in the Philippines. In Luzon live the smallest fish in the world, minute gobies from 7.5 to 11 mm. in length.

The first recorded attempt to prepare a check list of Philippine fishes was by Jose Gogorza y Gonzales (1885), a 3-page list published in Madrid under the title *Peces de las Islas Filipinas*. Two years later, also in Madrid, he published a 22-page list under the title *Datos para la Fauna Filipina*.

In 1895 Casto de Elera began the publication in Manila of a *Catalogo sistemático de toda la fauna de Filipinas*. The part on *Pisces* contains 167 pages.

In the same year J. Palacky, a Bohemian scientist, wrote a work entitled *Die Verbreitung der Fische*. It includes a 3-page list of

¹ Authorized by the Philippine Rehabilitation Act of 1946 (Title 50 App., U. S. Code, Sec. 1789).

Philippine fishes, compiled from various authors. This list does not mention the preceding works or various brief lists in Spanish books or pamphlets.

The author examined carefully the collections and library materials in the museum of Santo Tomas University on which Casto de Elera based his catalog. In the same way, the collections in the museum of the Ateneo de Manila were studied, and many discussions were held with Padre Sanchez and other Jesuits who had helped build up the collections. The chief and almost the only scientific publication these early workers in Manila had was Günther's Catalog. Without adequate literature or authentic material for comparison, it was inevitable that the work of Gogorza and de Elera contained errors. Many of the records are so improbable that it has been deemed best to discard entirely their lists, along with those of Palacky. No doubt many valuable records have been sacrificed by so doing, but there seemed to be no way in which to differentiate between the doubtful or impossible and the valid records.

The first check list of real scientific value was prepared by David Starr Jordan and R. E. Richardson (1910). This list included 830 species and was based largely on the specimens studied and determined by Dr. Jordan, Alvin Seale, Richard Crittenden McGregor, Barton Warren Evermann, R. E. Richardson, and the writer. Of course, it included also the work of the great European specialists, especially Günther, Müller, Peters, Boulenger, Bleeker, Cuvier and Valenciennes, Kner, and Vaillant. This list was a great help at the time of its publication.

In 1927, Herre, assisted by Lucia A. Manikis, and Claro Martin, completed a new check list, containing about 1,900 species. In preparing this list full advantage was taken of the great collection amassed by Seale and Herre. Every fish in this collection was listed. This new check list was in the hands of the public printer and in process of publication when the author went to the United States on leave. During this leave, the manuscript was withdrawn by an official and lost.

In 1937, aided by Claro Martin, Hilario A. Roxas published a check list of the fishes recorded from the Philippine Islands, which contained 1,918 species, including a few duplications. Unlike the earlier unpublished Herre check list, it was based solely on published records and paid no attention to specimens actually present in collections, thus omitting many important and common representatives of the Philippine fauna.

This publication lists approximately 2,145 species of the fishes known to inhabit the waters of the Philippines on May 1, 1948. A number of additional species taken a few miles outside the political boundaries of the Philippines are listed but are not included in the approximation as they have not yet been taken within the nominal limits of the archipelago. In all probability the Philippine fish fauna totals about 2,400 species.

Every effort has been made to ensure accuracy and completeness, an impossibility with respect to some groups of fishes. Before the recent war Manila had one of the most complete ichthyological libraries in the world. The Japanese entirely destroyed the Bureau of Science, its collections, laboratories, and great library. This list

has, therefore, been prepared for the most part 6,000 miles distant from the nearest adequate ichthyological library.

In the publications concerning Philippine fishes collected by the U. S. S. *Albatross* many localities are given. These lists abound in errors partly as a result of the unfamiliarity of the collectors with Spanish, Tagalog, Visayan, and other languages. Every effort has been made to correct such errors, but it has been impossible to determine what was meant by some local names. Talajit Island is a case in point; it is not known to mariners and is not on any navigation chart. Places which could not be located have not been included in the check list.

The author has tried to give the more important references for each fish listed, and those synonyms about which there was no doubt. It might have been desirable in a work of this nature to include complete synonymy. This was not possible, primarily because the author did not have accessible the resources of extensive libraries dealing with fishes, and hence was unable to check all the references to a given fish. A more important reason for giving only the more immediately pertinent instead of all the references to particular fish was to avoid confusion and minimize the cost of publication.

In the case of some early authors one may note marked discrepancies in citations. In the Stanford University library and the library of the Fish and Wildlife Service are several editions of Lacépède's *Histoire Naturelle des Poissons*. One of them is of an earlier date than any listed in Dean's *Bibliography of Fishes*. In some instances citations have been made from this edition. Two editions of Cuvier and Valenciennes' *Histoire Naturelle des Poissons* were issued simultaneously, each with different pagination. In some cases page references are made to both editions.

Little attention has been paid to subspecies. In few cases are there well-marked variations or subspecies among fresh-water Philippine fishes. In each instance much more extensive study is necessary before the relationships can be properly understood.

In some groups of fishes various species undergo marked morphological or other changes during life. Often those divergencies so apparent in living fish tend to disappear and the specimens become remarkably uniform in appearance when preserved in alcohol. This has caused workers who know only museum specimens to group widely different fishes together. On the other hand some fishes, unlike in many important particulars, may superficially resemble each other so closely in habits as well as general appearance, as to deceive most field workers. Thus it is important to know fishes (or any other animals) in their natural habitat and also in the museum collection.

Another factor that has contributed to the confusion about some species is the fact that many fishes undergo marked changes or transform themselves as they develop to maturity. As a result some fishes have been described at various ages under altogether different names. This has cluttered the synonymy and it is often difficult to trace all the changes a fish may undergo before it reaches its final growth. Some of these changes are as great as those of insects as they transform from a caterpillar stage to adult moth or butterfly. In some families of fishes the males and females have divergent appearances, so much so that they have often been described under different names and even placed in different genera.

Some of the early European explorers collected at Manila. The first publication on Philippine fishes was that of Marion de Procé who described 3 species of botete or puffers which he had collected at Manila. Numerous fishes were collected at Manila by the various great expeditions sponsored by the French Government. Accounts of some were published by the eminent Baron Cuvier, and others appeared in the scientific accounts of the voyages. The celebrated English collector, Hugh Cuming, was in the Philippines from 1836 to 1839 or 1840, and obtained a number of fishes for the British Museum. Various German and French scientists and travelers collected a few fishes from time to time, which were reported upon by various authors. The most important of these were first, Dr. F. Jagor, who spent two years in the Philippines, about 1859-61; his fishes went to Dr. Wilhelm Peters of Berlin; second, Dr. A. B. Meyer of Dresden, who collected extensively at Manila, Santa Cruz, Laguna Province, and Cebu in 1870. Dr. Albert Günther described his new fishes and Meyer published a list of the species he collected.

In the meantime Dominican friars interested in natural history had started a museum at the University of Santo Tomas. By the first third of the nineteenth century they had accumulated a considerable collection of fishes, and about 1840 added a stuffed whale shark to their collection. Soon after 1865 interested Jesuit priests started a museum at their new school, the Ateneo de Manila. They soon had a larger collection of fishes than the one at Santo Tomas, but very little seems to have been added to either collection after 1885 or 1890.

From 1907 to 1910 the U. S. Bureau of Fisheries steamer *Albatross* was in Philippine waters and made enormous collections. These were taken to Washington, D. C., and even yet have been reported upon only in part.

From 1906 to 1916 Alvin Seale, of the Philippine Bureau of Science, made large and important collections of fishes in the Philippines, especially from Mindoro southward. Many of these were painted from life by a Spanish artist, forming a very valuable portfolio.

From 1920 to 1928 the author collected in all parts of the Philippines and began a series of monographs on important families of Philippine fishes. Return trips of 7 to 14 months' duration were made to the Philippines and adjacent regions in 1929, 1931, 1933, 1936-37, 1940-41, and 1947-48. During these trips extensive collections were made and many papers published.

It is thus readily seen that a large amount of collecting has been done in Philippine waters during the past 130 years, but the Philippine fish fauna is by no means completely known. The shoreline of the Islands is so extensive and so varied, and the seas about and within them have such strongly contrasting depths, currents, and ecological conditions that a bewildering variety of fish life has developed. As yet we do not have an adequate knowledge of the fresh-water fishes of a single one of the larger islands. This can only be obtained by collecting the fishes from every stream on a given island and from the source of each stream to its mouth.

No collecting of fishes has ever been undertaken in certain regions, and a rich harvest awaits the one who collects intensively and extensively in those places. Among the more promising are the islands comprising Batanes Province north of Luzon; the shore of Luzon, from La Union Province north to Bangui, then across the top to

Aparri, and southward at least as far as Baler; the east coasts of Samar and Mindanao; the Sarangani Islands and the coast of Cotabato Province from Sarangani Bay to the mouth of the Rio Grande de Mindanao; the Cuyo Islands and the Cagayan Islands; the coasts of Palawan, especially the southwestern part, and of Balabac; the Island of Cagayan Sulu. As a matter of fact, one will be repaid for careful collecting practically anywhere along Philippine coasts.

More kinds of fishes have been listed from the Dumaguete area of Negros Oriental Province than from any other one place in the Philippines. This is only partly due to the great richness of the sea about Dumaguete, and the fact that it has been one of the author's favorite collecting grounds for many years. For more than thirty years Dr. James W. Chapman and Prof. Guillermo Magdamo, of Silliman University, have been on the lookout for rarities and have added greatly to our knowledge of Philippine fishes.

ACKNOWLEDGMENTS

The assistance and cooperation of many individuals have made this check list a reality. Dr. Hilary J. Deason, Chief, Office of Foreign Activities, Fish and Wildlife Service, by giving me a special appointment as a member of his staff, provided the opportunity and incentive for its preparation and he gave continuous aid and encouragement during the progress of the work. Dr. George S. Myers and Miss Margaret Storey of the Natural History Museum, Stanford University, assisted by locating and verifying many obscure references unavailable in Manila. Dr. Earl S. Herald, formerly of the Fish and Wildlife Service, rearranged the family Syngnathidae. Dr. Wilbert M. Chapman, Director of the School of Fisheries, University of Washington, revised the genus *Salarias* as represented in Philippine waters.

Assistance has been given by many colleagues and students in the Philippines during this assignment and during the author's previous fishery research extending over many years. In particular, thanks are due Dr. Deogracias V. Villadolid, Director of the Philippine Bureau of Fisheries and other members of that organization: H. R. Montalban, Jose Montilla, Claro Martin, Jose S. Domantay, Agustin F. Umali, Porfirio R. Manacop, G. J. Blanco, G. Ablan, and A. G. Agco. Dr. B. V. Gonzalez, President of the University of the Philippines and Dr. A. T. Feliciano of the Department of Zoology, University of the Philippines, also have given material assistance.

The check list was edited for publication by Miss Faxon W. Cook and Mrs. Barbara B. Aller. Miss Florence Warnick verified the literature citations, and has read the proofs and prepared the index with the assistance of Miss Signa Faye Stinnett.

Class I. LEPTOCARDII. Lancelets

Order A. CIRROSTOMI. Cirrostomes

Family 1. BRANCHIOSTOMIDÆ. Lancelets

Genus 1. BRANCHIOSTOMA Costa.

Branchiostoma Costa, Cenni Zoologici Napoli, p. 49, 1834; type, *B. lubricum* Costa = *Limax lanceolatus* Pallas. Günther, Cat. Fishes British Mus., vol. 8, p. 513, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 726, 1901. Hubbs, Occas. Papers Mus. Zool., Univ., of Michigan No. 105, p. 1, 1922. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 19, 1936.

Amphioxus Yarrell, Hist. British Fishes, vol. 2, p. 468, 1836; type, *Limax lanceolatus* Pallas.

Amphioxides Gill, American Naturalist, vol. 29, p. 458, 1895; type, *Branchiostoma pelagicum* Günther.

Dolichorhynchus Willey, Quart. Jour. Microscop. Soc. London, ser. 2, vol. 44, p. 269, 1901; type, *Dolichorhynchus indicus* Willey.

1. *Branchiostoma belcheri* (Gray).

From Tasmania to Borneo, the Philippines, China, and Japan. Lives in the sand.

Amphioxus belcheri Gray, Proc. Zool. Soc. London, p. 35, 1847; Bass Straits. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 262, 1851. Bleeker, *ibid.*, vol. 2, p. 60; Borneo; also numerous other records from Borneo. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 4, 1913; Misaki, Sagami to Kiusiu, Japan.

Branchiostoma belcheri Herre, Fishes Philippine Bureau Science Collection, 1922-28; Manila Bay and Batangas Bay, Batangas Province, Luzon; Sulu Sea, Sulu Province; coast of Mindoro. Chu, Index Piscium Sinensium, p. 1, 1931; Amoy.

Class II. ELASMOBRANCHII. Sharks, Skates, and Rays; Chimæras

Subclass SELACHII. Sharks

Order B. NOTIDANI

Family 2. HEXANCHIDÆ. Cow Sharks

Genus 2. HEXANCHUS Rafinesque.

Sharks of the Mediterranean Sea, Atlantic, and Pacific Oceans.

Hexanchus Rafinesque, Caratteri Alcuni Nuovi Generi, p. 14, 1810; type, *Squalus griseus* Bonnaterre.

Notidanus Cuvier, Règne Animal, ed. 1, vol. 2, p. 128, 1817; type *Squalus griseus* L.

Monopterhinus Blainville, Faune Française, p. 77, 1828; type, *Squalus griseus* Gmelin.

2. *Hexanchus griseus* (Bonnaterre). Cow shark.

Japan; Philippines; Cuba; Mediterranean; Scotland; Indian Ocean and Natal coast.

Squalus griseus Bonnaterre, Ichthyologie, p. 9, 1788; Mediterranean, after *le grisé* Bonnaterre. Gmelin, in Linnæus, Syst. Nat., vol. 1, p. 1789, 1795; after Broussonet.

Hexanchus griscus Rafinesque, Caratteri Alcuni Nuovi Generi, p. 14, 1810; Sicily. Yarrell, Hist. British Fishes, vol. 2, p. 515, 1836; Müller and Henle, Plagiostomen, p. 80, 1838. Dumeril, Hist. Nat. Poissons, vol. 1, p. 431, pl. 4, figs. 9-12, 1865. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 19, 1896. Jordan and Evermann, *ibid.*, vol. 4, pl. 2, fig. 8, 1900. Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 16, p. 571, 1905; Japan; not California. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 16, 1913; Nice, France. Herre, Collection Silliman University, 1935; Dumaguete, Oriental Negros Province; Manila Bay, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 11, 1941.

Monopterus griseus Blainville, Bull. Soc. Philom., p. 121, 1816.
Notidanus griseus Cuvier, Règne Animal, vol. 2, p. 128, 1817. Agassiz, Recherches poissons fossiles, pl. E, figs. 2-4, 1835. Agassiz, *ibid.*, Texte, p. 92, 1838. Couch, British Fishes, vol. 1, p. 21, pl. 4, 1865. Günther, Cat. Fishes British Mus., vol. 8, p. 397, 1870.

Notidanus vacca Cuvier, Règne Animal, ed. 1, vol. 2, p. 128, 1817.

Notidanus monge Risso, Hist. Nat., vol. 3, Poissons, p. 129, 1826; Nice.

Order C. EUSELACHII

Family 3. SCYLLIORHINIDÆ. Cat Sharks

Sharks with large four-sided horny or leathery eggcases, bearing filaments or tendrils at the corners or along one side.

Genus 3. APRISTURUS Garman.

Small deep-sea sharks of the Pacific, Indian, and Atlantic Oceans. *Apristurus* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 96, 1913; orthotype, *Scylliorhinus indicus* Brauer.

3. *Apristurus herklotsi* (Fowler).

Pentanchus herklotsi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 238, fig. 3, 1934; Sulu Sea, "Jolo" in text; only the type known. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 54, fig. 4, 1941; near Cagayan Sulu Island, in southern part of the Sulu Sea; type.

4. *Apristurus verweyi* (Fowler).

Pentanchus verweyi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 237, fig. 2, 1934; vicinity Sibuko Bay, British North Borneo. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 54, fig. 3, 1941; Sipadan Island, vicinity Sibuko Bay, British North Borneo.

Genus 4. ATELOMYCTERUS Garman.

Philippines to India; and northern Australia.

Atelomycterus Garman, Mem. Mus. Comp. Zool., vol. 36, p. 100, 1913; orthotype, *Scyllium marmoratus* Bennett. Herre, Philippine Jour. Sci., vol. 26, p. 122, 1925. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 61, 1941. *Atelomycterus* Fowler, Mem. Bishop Mus., vol. 10, p. 17, 1928; error.

5. *Atelomycterus marmoratus* (Bennett). Marbled cat-shark.

The Philippines, East Indies, Indo-China, Siam, Malaya, and India.

Scyllium marmoratum Bennett, Life of Raffles, p. 693, 1830; Sumatra. Günther, Cat. Fishes British Mus., vol. 8, p. 400, 1870; Singapore; Sumatra; East Indies; India. Day, Fishes India, p. 724, pl. 190, fig. 2, 1878.

Scyllium maculatum Gray, Illustrations Indian Zoology, vol. 1, pl. 98, fig. 1, 1832; India. Müller and Henle, Plagiostomen, p. 5, pl. 7, 1841; Indian Ocean. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1373, 1850; Singapore; Indian Ocean; Canton, China Sea. Bleeker, Verh. Bat. Gen., vol. 24, p. 16, 1852; Batavia.

Scylliorhinus marmoratus Steindachner, Ann. Naturh. Hofmus. Wien, vol. 11, p. 227, 1896; Bangkok. Weber, Siboga-Exped., vol. 57, Fische, p. 595, 1913; Sulu Sea, Philippines; Sapeh Strait; Saleyer.

Scylliorhinus marmoratus Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 1, p. 462, 1908; India; Malay Archipelago.

Atelomycterus marmoratus Garman, Mem. Mus. Comp. Zool. vol. 36, p. 100, 1913; Pinang; Singapore; India; Malay Archipelago. Herre,

Philippine Jour. Sci., vol. 26, p. 123, 1925; Dicuayan Island, Busuanga; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 10, 1934; Dumaguete, Oriental Negros Province; Linapacan Island, Palawan; Siasi and Sitankai, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 62, fig. 6, 1941; Jolo and Siasi, Sulu Province; Makassar market, Celebes.

Ateleomycterus marmoratus Fowler, Mem. Bishop Mus., vol. 10, p. 17, 1928; error.

Genus 5. *CHILOSCYLLIUM* Müller and Henle.

Philippines and East Indies, north to China, west to India, south to Australia.

Chiloscyllium Müller and Henle, Sitzber. Akad. Wiss. Berlin, p. 112, 1837; logotype, *Scyllium plagiosum* Bennett. Müller and Henle, Plagiostomen, p. 17, 1838. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 60, 1913. Herre, Philippine Jour. Sci., vol. 26, p. 117, 1925.

6. *Chiloscyllium griseum* Müller and Henle.

East Indies, Turtle Islands off entrance to Sandakan Bay, north to China and Japan, west to India, Red Sea, and South Africa.

Chiloscyllium griseum Müller and Henle, Plagiostomen, p. 19, 1841; Japan. Regan, Proc. Zool. Soc. London, p. 360, pl. 11, fig. 1, pl. 13, fig. 3, 1908; Kurrachee; Malabar; Madras; Vizagapatam; Pinang; Malay Peninsula; Moluccas. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 64, 1913; India, South Africa, Japan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, 1936-37 Exped.; Sim Sim Laut Island, Sulu Sea, near entrance to Sandakan Bay.

Hemiscyllium griseum Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 88, 1941; China Seas.

Chiloscyllium plagiosum Müller and Henle, Plagiostomen, p. 18, 1841; not of Bennett. Bleeker, Verh. Bat. Gen., vol. 24, p. 17, 1852; Batavia and Samarang, Java.

Chiloscyllium obscurum Gray, List Fishes British Mus., p. 35, 1851; Moluccas.

Chiloscyllium hasseltii Bleeker, Verh. Bat. Gen., vol. 24, p. 19, 1852; Batavia, Java.

Chiloscyllium indicum obscura Günther, Cat. Fishes British Mus., vol. 8, p. 413, 1870; Moluccas; Vizagapatam.

Chiloscyllium indicum Day, Fishes India, p. 726, pl. 188, fig. 3, 1878; India; Malay Archipelago; not of Gmelin.

7. *Chiloscyllium indicum* (Gmelin).

East Indies, Philippines, Formosa, China, India, Ceylon, Red Sea, and Cape of Good Hope.

Squalus indicus Gmelin, in Linnaeus, Syst. Nat., vol. 1, p. 1503, 1789; Indian Ocean. Bloch and Schneider, Syst. Ichth., p. 137, 1801; East Indies.

Chiloscyllium indicum Günther, Cat. Fishes British Mus., vol. 8, p. 411, 1870; Vizagapatam, India; Pinang. Martens, Preuss. Exped. Ost-Asien, p. 409, 1876; Hong Kong; Bangkok; Singapore. Day, Fishes of India, p. 726, pl. 188, fig. 3, 1878. Günther, Reports Voy. Challenger, Zool. vol. 1, Shore Fishes, pt. 6, p. 51, 1880; Manila. Regan, Proc. Zool. Soc. London, p. 362, pl. 13, fig. 2, 1908; Cape of Good Hope; types of *Squalus caudatus* Gray, and *Chiloscyllium phymatodes* Bleeker. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 65, 1913; Pinang, Singapore. Smith, Proc. U. S. Nat. Mus., vol. 45, p. 568, 1913; Kowloon, Hong Kong. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Fourth Pan Pac. Sci. Congress, Java, p. 487, 1930; East Indies; Philippines.

Squalus tuberculatus Bloch and Schneider, Syst. Ichth., p. 137, 1801; on *Le Squalé dentelé* Lacépède, Hist. Nat. Poissons, vol. 1, p. 281, pl. 11, fig. 1, 1798.

Scyllorhinus tuberculatus Blainville, Bull. Soc. Philom. Paris, p. 121, 1816; name only.

Chiloscyllium tuberculatum Müller and Henle, Plagiostomen, p. 19, 1841; Cape of Good Hope. Bleeker, Verh. Bat. Gen., vol. 24, p. 20, 1852;

Samarang, Java. Kner, *Reise Novara*, Fische, p. 412, 1865; Madras, India.

Chiloscyllium phymatodes Bleeker, Verh. Bat. Gen., vol. 24, p. 21, 1852; Samarang, Java.

Squalus caudatus Gray, in Gronow, Cat. Fishes, p. 8, 1854; in Mari Indico.

8. *Chiloscyllium plagiosum* (Bennett).

The Philippines and East Indies, north to Japan, west in the Indian Ocean to Madagascar and Cape Colony.

Scyllium plagiosum Bennett, Life Raffles, p. 694, 1830; Sumatra.

Chiloscyllium plagiosum Müller and Henle, Plagiostomen, p. 17, 1841: Indian Ocean; Japan; in part. Regan, Proc. Zool. Soc. London, p. 362, pl. 12, fig. 1, 1908; Manila; Singapore, Manado; Formosa; Amoy, China; Japan. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 62, 1913; Hong Kong; Siam; Singapore; Pinang. Herre, Philippine Jour. Sci., vol. 26, p. 120, 1925; common; Manila Bay; Calapan, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo.

Chiloscyllium margaritiferum Bleeker, Ned. Tijds. Dierk., vol. 1, p. 243, 1864; Obi Island.

Chiloscyllium indicum plagiosa Günther, Cat. Fishes British Mus., vol. 8, p. 412, 1870; Amoy, China; Japan; Formosa.

Chiloscyllium indicum margaritifera Günther, Cat. Fishes, British Mus., vol. 8, p. 412, 1870; China; Japan; not of Bleeker.

Chiloscyllium indicum obscura Günther, Cat. Fishes, British Mus., vol. 8, p. 413, 1870; Cape Seas; India, Ceylon, China; in part.

Chiloscyllium indicum Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 605, fig. 2, 1903; Nagasaki; not of Gmelin.

Chiloscyllium caeruleopunctatum Pellegrin, Bull. Soc. Zool. France, vol. 39, p. 230, 1914; Fort Dauphin, Madagascar.

Hemisicyllium plagiosum Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 86, 1941; Philippines; after Jordan and Fowler.

9. *Chiloscyllium punctatum* Müller and Henle.

The Philippines and East Indies, north to China, south to Australia.

Scyllium punctatum van Hasselt, Allgemeine Konst en Letterbode, May, 1823; Java.

Chiloscyllium punctatum Müller and Henle, Plagiostomen, p. 19, pl. 3, 1841; Java. Bleeker, Jour. Indian Archipelago, vol. 3, p. 68, 1849; Celebes. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 330, 1865; Seas of Indies; China. Günther, Cat. Fishes, British Mus., vol. 8, p. 413, 1870. Regan, Proc. Zool. Soc. London, p. 360, 1908; Thursday Island; Singapore; Java. Ogilby and McCulloch, Jour. Proc. Roy. Soc. New South Wales, vol. 42, p. 287, fig. 1, and pl. 43, fig. 2, 1909; Moreton Bay; Dunk Island. Smith, Proc. U. S. Nat. Mus., vol. 45, p. 567, 1913; Siasi market, Sulu Province; Zamboanga market, Zamboanga Province, Mindanao; Cebu market. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 61, 1913; Philippines; Singapore; southern Celebes. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 576, 1913; Lombok; Saleyer. Herre, Philippine Jour. Sci., vol. 26, p. 118, 1925; San Miguel Bay, Camarines Sur Province, and Manila Bay, Luzon. Whitley, Australian Zool., vol. 4, p. 227, 1926; Northwest Islet, Capricorn Group and off Flat Top Island, Mackay, Queensland. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 10, 1934; Cebu; Dumaguete. Whitley, Fishes of Australia, Part 1, p. 75, figs. 28, 59, and 78, 1940; North Australia; Queensland, southward to Moreton Bay, Australia; Western Australia.

Hemisicyllium punctatum Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 85, 1941; Batavia, Java.

Genus 6. *HALAELURUS* Gill.

South Africa to the East Indies, Philippines, Japan, Australia, and coast of Chile.

Halaelurus Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, p. 407, 1861. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 601, 1903. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 81, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 41, 1941.

Holohalaelurus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 235, 1934; type, *Scylliorhinus regani* Gilchrist.
Aulohalaelurus Fowler, *ibid.*, p. 237, type, *Catulus labiosus* Waite.

10. *Halaelurus bürgeri* (Müller and Henle).

Japan, China, Philippines, East Indies, and India.

Scyllium bürgeri Müller and Henle, *Plagiostomen*, p. 8, pl. 2, 1841; Japan. Schlegel, *Fauna Japonica*, Poiss., p. 301, 1850; bays of southwest to Japan. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 1, p. 69, 1856; Amboina. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 16, p. 209, 1858; Batjan. Kner, *Reise Novara*, Fische, p. 412, 1865; Madras, India. Günther, *Cat. Fishes British Mus.*, vol. 8, p. 404, 1870; Japan, Formosa, Amboina.

Scyllium bürgerii Weber, in *Semon, Zool. Forschungsreisen, Australia*, vol. 5, p. 276, 1895; Amboina.

Catulus bürgeri Jordan and Snyder, *Annot. Zool. Japon.*, vol. 3, p. 38, 1901; Nagasaki.

Halaelurus bürgeri Jordan and Fowler, *Proc. U. S. Nat. Mus.*, vol. 26, p. 601; 1903; Nagasaki and Misaki, Japan. Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 83, 1913; Japan to the East Indies. Fowler, *Proc. Fourth (1929) Pacific Sci. Congress, Java*, p. 485, 1930; China; Japan. Schmidt, *Trans. Pacific Comm. Acad. Sci. U. S. S. R.*, vol. 11, p. 4, 1931; Nagasaki. Herre, *Lingnan Sci. Jour.*, vol. 17, p. 426, 1938; China Sea, between Hainan and Luzon. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 44, 1941; Japan; India; East Indies; Philippines; China; Formosa.

11. *Halaelurus garmani* Fowler.

East Indies and the Philippines.

Halaelurus garmani Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 85, p. 235, fig. 1, 1934; East Indies. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 49, fig. 1, 1941; type specimen. Herre, *Collection of Silliman University*, 1947; Dumaguete, Oriental Negros Province, 3 specimens, 340-358 mm. in length.

Genus 7. *PENTANCHUS* Smith and Radcliffe.

Small deep-sea sharks of the Philippines.

Pentanchus, Smith and Radcliffe, *Proc. U. S. Nat. Mus.*, vol. 41, p. 490, 1912; orthotype, *Pentanchus profundicolus* Smith and Radcliffe. Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 95, 1913.

12. *Pentanchus profundicolus* Smith and Radcliffe.

Pentanchus profundicolus Smith and Radcliffe, *Proc. U. S. Nat. Mus.*, vol. 41, p. 490, text figure and pl. 42, 1912; Mindanao Sea. Garman, *Mem. Mus. Comp. Zool.*, vol. 37, p. 95, 1913; on Smith and Radcliffe. Herre, *Philippine Jour. Sci.*, vol. 26, p. 127; 1925; between Mindanao and Leyte; after Smith and Radcliffe. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 58, 1941; from the type.

Genus 8. *SCYLLIORHINUS* Blainville.

Small sharks of temperate and warm seas.

Catulus Valmont, *Dict. Hist. Nat.*, vol. 10, p. 114, 1768. Valmont, *ibid.*, vol. 12, p. 421, 1768.

Scylliorhinus Blainville, *Bull. Soc. Philom. Paris*, p. 121, 1816; type, *Squalus canicula* L. Gill, *Ann Lyceum. Nat. Hist. New York*, vol. 7, p. 407, 1862. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 34, 1941.

Scyllium Cuvier, *Règne Animal*, vol. 2, p. 124, 1817; type, *Squalus canicula* L.

Scylliorhinus Blainville, *Faune Française, Poissons*, p. 68, 1825; type, *Squalus catulus* L.

Scylliodus Agassiz, *Recherches Poissons Fossiles*, vol. 3, p. 377, 1843; type, *Scylliodus antiquus* Agassiz.

Thyellina Agassiz, *ibid.*, p. 378; type, *Thyellina angusta* Agassiz.

Palaeoscyllium Wagner, *Anz. Bayerisch. Akad.*, vol. 44, p. 291, 1857. Marek, *Palaeontograph.*, *Beitr. Naturg. Vorwelt.*, vol. 11, p. 67, 1863; type, *Palaeoscyllium decheni* Marek.

Trigonodus Winkler, *Arch. Mus. Teyler*, vol. 4, p. 20, 1876; type, *Trigonodus primus* Winkler.

13. *Scylliorhinus torazame* (Tanaka).

Japan and the Philippines.

Scyllium laticeps Nyström, Svenska Vetenskap-Akad. Handlingar, vol. 13, p. 49, 1887; Japan; not of Duméril.

Catulus torazame Tanaka, Jour. Coll. Sci. Tokyo, vol. 23, p. 6, pl. 2, fig. 2, 1908; Misaki, Sagami. Garman, Mem. Mus. Comp. Zool., vol. 26, p. 77, 1913; Misaki. Tanaka, Japanese Fishes Life Colors, No. 8, 1933.

Halaeturus torazame Tanaka, Fishes Japan, vol. 5, p. 87, 1912. Schmidt, Comptes Rendus Acad. Sci. U.S.S.R., p. 18 (p. 225), figs. 1-2, 1930; Tokyo; Fusan; Misaki; Japan.

Halaeturus torazame Schmidt, Copeia, No. 2, p. 48, figs. 1-3, 1930. Schmidt, Trans. Pacific Comm. Acad. Sci. U.S.S.R., vol. 11, p. 4, 1931; Misaki; Fusan.

Scylliorhinus torazame Fowler, Proc. (1929) Fourth Pacific Sci. Congress, Java, p. 484, 1930; reference. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 36, 1941; Japan; Korea; after Tanaka. Herre, Collection, Silliman University, 1947; Dumaguete, Oriental Negros Province; 2 specimens 225 mm. and 330 mm. long.

Family 4. ORECTOLOBIDÆ

A large family of shore-dwelling, pelagic, or deep-sea sharks.

Genus 9. CIRRHOSCYLLIUM Smith and Radcliffe.

Cirrhoscyllium Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 45, p. 568, 1913; orthotype, *Cirrhoscyllium expolatum* Smith and Radcliffe. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 72, 1941.

14. *Cirrhoscyllium expolatum* Smith and Radcliffe.

Cirrhoscyllium expolatum Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 45, p. 568, text figs. 1 and 2 (dermal denticles and teeth), and pl. 45, 1913; China Sea, northwest of the Batanes Islands, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 72, 1941; type specimen.

Genus 10. ORECTOLOBUS Bonaparte.

Western Pacific, from Australia to Japan.

Orectolobus Bonaparte, Iconografia Fauna Italica, Pesci, vol. 3, fasc. 7, 1834-1841; orthotype, *Squalus barbatus* Gmelin. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 49, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 92, 1941.

Crossorhinus Smith, Proc. Zool. Soc. London, p. 86, 1837; type, *Squalus lobatus* Schneider=*Squalus barbatus* Gmelin. Müller and Henle, Sitzber. Akad. Wiss. Berlin, vol. 2, p. 113, 1837. Müller and Henle, Plagiostomen, p. 21, 1838; orthotype, *Squalus barbatus* Gmelin.

Eucrossorhinus Regan, Proc. Zool. Soc. London, p. 357, 1908; orthotype, *Crossorhinus dasypogon* Bleeker.

15. *Orectolobus japonicus* Regan.

Japan, China, and the Philippines.

Crossorhinus barbatus Müller and Henle, Plagiostomen, p. 21, pl. 5, 1841; not of Gmelin. Schlegel, Fauna Japonica, p. 301, 1846; Goto Islands; Nagasaki, Japan. Günther, Cat. Fishes British Mus., vol. 8, p. 414, 1870; Japan. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 38 (128), 1901; Goto Islands.

Crossorhinus lobatus Müller and Henle, Plagiostomen, plate, 1841; Japan; not Bloch and Schneider.

Orectolobus barbatus Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 606, 1903; Hakata and Nagasaki.

Orectolobus japonicus Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 435, 1906; China and Japan. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 50, pl. 56, fig. 3 (heart), 1913; Japan. Tanaka, Japanese Fishes Life Colors, No. 12, 1933. Martin, Philippine Jour. Sci., vol. 66, p. 388, pl. 1, 1938; off Siquijor Island.

Genus 11. STEGOSTOMA Müller and Henle.

The Philippines, East Indies, Indian Ocean to east coast of Africa. Marine, but entering rivers.

Stegostoma Müller and Henle, Sitzber. Akad. Wiss. Berlin, p. 112, 1837; orthotype, *Squalus fasciatus* Hermann. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 59, 1913. Fowler, Bull. 100, U. S. Nat. Mus. vol. 13, p. 99, 1941.

16. *Stegostoma varium* (Seba). Tiger shark; Zebra shark; Butanding.

The Philippines, East Indies, and western Pacific generally from China and Japan to New South Wales; west through the Indian Ocean to the Red Sea, east coast of Africa, and Madagascar. Reaches a length of more than 3 meters.

Squalus varius Seba, Thesaurus, vol. 3, p. 105, pl. 34, fig. 1, 1761.

Squalus tigrinus Pennant, Indian Zool., p. 24, 1769; Indian Ocean; name only. Forster, Zool. Ind., p. 24, pl. 13, fig. 2, 1781.

Squalus fasciatus Hermann, Tab. Affin., p. 302, 1783; on *Squalus varius* Seba. Thesaur., vol. 3, p. 105, pl. 34, fig. 1, 1758. Bloch, Naturges. Auslând. Fische, vol. 1, p. 19, pl. 113, 1785; Tranquebar. Shaw, Naturalist's Miscellany, vol. 11, pl. 434, 1800; Indian Seas.

Squalus tygrinus Bonnaterre, Ichthyologie, p. 18, pl. 8, fig. 23, 1788; "La mer des Indes."

Squalus longicaudus Gmelin, in Linnaeus, Syst. Nat., vol. 1, p. 1496, 1789.

Squalus maculatus Bloch and Schneider, Syst. Ichth., p. 130, 1801; not of Bonnaterre, 1788.

Scyliorhinus fasciatus Blainville, Bull. Soc. Philom. Paris, p. 121, 1816; name only.

Scyllium quinquecarinatum van Hasselt, Allgemeine Konst en Letterbode, May 1823; Java.

Scyllium heptagonum Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 61, pl. 17, fig. 1, 1835; Djedda, Red Sea.

Stegostoma fasciatum Müller and Henle, Plagiostomen, p. 24, pl. 7, 1837; Indian Ocean; Red Sea. Günther, in Playfair and Günther, Fishes Zanzibar, p. 140, 1866; Zanzibar; Aden. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 100, fig. 7, 1941; Philippines; Bombay; India; Makassar, Celebes; Massaua, Red Sea.

Stegostoma carinatum Blyth, Jour. Asiatic Soc. Bengal, vol. 16, p. 725, pl. 25, fig. 1, 1847; India.

Squalus pantherinus (Kuhl and van Hasselt) Bleeker, Verh. Bat. Gen., vol. 24, p. 23, 1852; name in synonymy.

Squalus cirrosus Gray, Cat. Fishes described by Gronow, p. 46, 1854.

Stegostoma (Scyllium) fasciatum Guichenot, Mem. Soc. Sci. Cherbourg, ser. 2, vol. 2, p. 148, 1866; Madagascar.

Stegostoma tigrinum Günther, Cat. Fishes British Mus., vol. 8, p. 409, 1870; India, Ceylon, Zanzibar, Formosa. Day, Fishes India, p. 725, pl. 187, fig. 4, 1878; Red Sea; East Africa; India; Malay Archipelago. Waite, Records Australian Mus., vol. 3, p. 133, 1899; Hawkesbury River, New South Wales; Cape York, Australia. Regan, Proc. Zool. Soc. London, p. 363, 1908; Zanzibar; Formosa; Sarawak, Borneo; northwest Australia; India; Ceylon. Tanaka, Fishes Japan, vol. 4, p. 65, pl. 16, figs. 55-58, 1911; Tokyo market. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 155, 1927; Philippines. Fowler, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 100, 1928; Bombay; Philippines. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 486, 1930; Philippines; Queensland; East Indies; China; Formosa; Indian Ocean. Bernard, Ann. South African Mus., vol. 32, p. 45, 1937; Algoa Bay; St. Francis Bay; Durban. Whitley, Fishes of Australia, Part 1, Sharks, p. 84, fig. 75, 1940; western and northern Australia, Queensland, New South Wales.

Stegostoma fasciatus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 672, 1871; Koseir, Red. Sea.

Stegastoma tygrinum Ogilby and McCulloch, Jour. Proc. Roy. Soc. New South Wales, vol. 42, p. 295, 1909; Little Mulgrave River; Port Jackson District; Cape York, Normanton; Doboo, Aru (Aroo) Islands; Dunk Islands. McCulloch, Fishes New South Wales, ed. 2, p. 7, pl. 2, fig. 18a, 1927.

Stegastoma varium Garman, Mem. Mus. Comp. Zool., vol. 36, p. 59, 1913; India; East Indies; Africa. Herre, Philippine Jour. Sci., vol. 26, p. 125, 1925; Manila Bay; river at San Jose del Monte, Bulacan Province; coast of Batangas Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Tortonese, Bull. Mus. Zool. Anat.

Family 5. RHINEODONTIDÆ. Whale Sharks

A single genus with one species, occurring in all warm seas.

Genus 12. RHINEODON Smith.

Common in the Gulf of Mexico, the Gulf of California, about the Seychelles and elsewhere in the Indian Ocean, but apparently more abundant in the Philippines than elsewhere.

Rhineodon Smith, Zool. Jour., vol. 4, p. 443, 1829; orthotype, *Rhineodon typus* Smith; *Rhincodon* by misprint. Müller and Henle, Archiv Naturges., vol. 1, p. 84, 1837. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 626, 1903.

Rhinodon Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 317, 1839.

Rinodon Müller and Henle, Plagiostomen, p. 77, 1841. Smith, African Pisces, pl. 26, 1849. Günther, Cat. Fishes British Mus., vol. 8, p. 396, 1870.

Micristodus Gill, Proc. Acad. Nat. Sci. Phila., vol. 17, p. 177, 1865; orthotype, *Micristodus punctatus* Gill.

Rhincodon Garman, Mem. Mus. Nat. Hist., vol. 36, p. 41, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 115, 1941.

17. *Rhineodon typus* Smith. Whale shark.

Largest of all fishes. Distribution is that of the genus.

Rhineodon typus Smith, Zool. Jour., vol. 4, p. 443, 1829; Table Bay, South Africa; *Rhincodon* by misprint. Gudger, Zoologica, vol. 1, No. 19, p. 5, figs. 118-131, 1915; also many later papers, with plates, figures, and photographs, and bibliography too extensive to list here. Herre, Fishery Resources Philippine Islands, p. 38, pl. 31, fig. 3, 1927; Salinas, Cavite Province, Luzon. Barnard, Ann. South African Mus., vol. 21, p. 37, pl. 2, fig. 3, 1925-27; Cape Seas. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 488, 1930; Philippines; also Australia; East Indies; Japan; California; Peru; Chile; Atlantic and Indian Oceans. Chevey, Inst. Océanogr. Indo-chine, 28° note, Sta. Marit. de Cauda, Annam, pp. 1-32, 1936; Cochin China. Herre, Sci. Monthly, vol. 55, pp. 151-158, 1942; Mariveles Bay, observation by Capt. Piddington, 1816; also Sulu (Sooloo) Islands and Cebu (Zebu); published in Jour. Asiatic Soc., Bengal, 1835; Bacolod, Occidental Negros, photograph in Philippine Free Press for Sept. 10, 1910; Luzon; Manila Bay, Navotas, Rizal Province; Mariveles Bay, Bataan Province; Batangas Bay, Barrio Aplaya, Bauan, Batangas Province; Gulf of Albay, Albay Province; Maqueda Bay, Samar; Barrio Garat, Libagon, on the east, and Barrio San Vicente, Malitbog, on the west side of Sogod Bay, and Maasin on the southwest coast of Leyte; Cebu and Argau, Cebu; Silay, Occidental Negros Province; Iloilo market, Panay; San Jose, Antique Province; Panay, photo in Philippine Free Press, Feb. 25, 1933; Iligan Bay, Lanao Province; off Tagolo Point, Dapitan Bay, and Zamboanga market, Zamboanga Province, Mindanao; Tapiantana Islands and Jolo market, Sulu Province; near Darvel Bay off Sibutu Island, Sulu Province, near boundary line between Philippines and Borneo; Balabac Strait, Palawan Province.

Rhinodon typicus Müller and Henle, Plagiostomen, p. 77, pl. 35, fig. 2 (teeth), 1841; Cape of Good Hope. Andrew Smith, Illustr. Zool. South Africa, Fishes, pl. 26, 1849; Cape Town. Günther, Cat. Fishes, vol. 8, p. 396, 1870; Seychelles. Günther, Fische der Südsee, vol. 3, p. 486, 1910; Florida, Cape of Good Hope; Seychelles; Ceylon; Madras; Japan; California; Panama; Peru; Chile. Smith, Proc. Biol. Soc. Washington, vol. 24, p. 97, 1911; Occidental Negros, Philippines. Jordan, Science, vol. 41, p. 463, 1915; Cebu. Tanaka, Japanese Fishes Life Colors, No. 24, 1933.

Micristodus punctatus Gill, Proc. Acad. Nat. Sci. Phila., vol. 17, p. 177, 1865; Gulf of California; (teeth). Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 52, 1896. Mowbray, Science, Cruise *Nourmahal*, V. Astor No. 1, 1933; Albemarle Island, Galapagos.

Selache maxima Thomas, Cannibals and Convicts Expedition Western Pacific, p. 380, 1887; Red Scar Bay, South coast of New Guinea; not of Gunner.

Rhinodon pentalineatus Kishinouye, Zool. Anzeiger, vol. 24, p. 694, figures, 1891; Cape Inubo, Japan.

Rhinodon typus Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 511, 1891.

Rincondon typus Garman, Mem. Mus. Comp. Zool., vol. 36, p. 42, 1913; Cape of Good Hope; Japan; Knight's Key, Florida. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 116, 1941; Philippines; near Ormond, Florida.

Family 6. LAMNIDÆ. Mackerel Sharks; Man-Eaters; Pating; Chacon

Genus 13. **CARCHARODON** Müller and Henle. Great white shark; Man-eater shark.

Cycocephalus Schaeffer, Epistola studii ichth., page 20, 1760; type, *Squalus carcharias* L.

Carcharodon Müller and Henle, Mag. Nat. Hist. Charlesworth, ser. 2, vol. 2, p. 37, 1838; on A. Smith manuscript haplotype, *Carcharodon capensis* Smith=*Carcharodon carcharias* L. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 32, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 109, 1941.

18. *Carcharodon carcharias* (Linnaeus).

A very large shark, very powerful and voracious. In all tropical and temperate seas.

Squalus carcharias Linnaeus, Syst. Nat., et. 10, vol. 1, p. 235, 1758; Europe. Forskål, Descript. Animal., pp. 11, 20, 1775; Djedda, Red Sea. Lacépède, Hist. Nat. Poissons, vol. 1, p. 169, pl. 8, fig. 1, 1798; Africa. Forster, Descript. Animal., Lichtenstein ed., p. 256, 1844; Tanna Island, New Hebrides. Bennett, Gatherings Nat. Australasia, p. 26, 1860; Australia.

Carcharodon verus Agassiz, Recherches Poissons Fossiles, vol. 3, pl. F, fig. 3, 1836; p. 91, 1838; on *Carcharodon smithii* Müller and Henle.

Carcharodon capensis Smith, Proc. Zool. Soc. London, p. 86, 1837. Smith, Illustr. Zool. South Africa, Fishes, pl. 4, 1849; Cape of Good Hope.

Carcharodon smithii Bonaparte, Mem. Soc. Sci. Neuchâtel, vol. 2, p. 9, 1839; on Smith.

Carcharodon rondeletii Müller and Henle, Plagiostomen, p. 70, 1841; Mediterranean; Atlantic; Cape Seas; Pacific Ocean. Günther, Cat. Fishes, vol. 8, p. 392, 1870. Günther, Fische der Südsee, vol. 3, p. 485, 1910; between Polynesia and western South America.

Carcharias atwoodi Storer, Proc. Boston Soc. Nat. Hist., vol. 3, p. 72, 1848; Provincetown, Massachusetts.

Carcharodon carcharias Jordan and Gilbert, Bull. 16, U. S. Nat. Mus., p. 875, 1883. Stevenson, Trans. Vassar Bros. Inst., vol. 2, p. 83, pls. 1-2, 1884. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 50, 1896; Monterey Bay, Soquel, California. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 32, pl. 5, figs. 5-9, 1913; Massachusetts Bay, Massachusetts. Herre, Philippine Jour. Sci., vol. 26, p. 114, 1925; Camiguin Strait, off Misamis Oriental Province, Mindanao; Malampaya Sound, Palawan. McCulloch, Fishes New South Wales, ed. 2, p. 8, pl. 2, fig. 23a, 1927. Fowler, Mem. Bishop Mus., vol. 10, p. 18, fig. 3, 1928; Hawaiian Islands; New Caledonia. Tanaka, Japanese Fishes Life Colors, No. 20, 1933. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 110, 1941; after Garman.

Family 7. CARCHARIIDÆ. Gray Sharks; Pating

A large family of medium-sized to large sharks; some dangerous.

Genus 14. APRIONODON Gill.

Rather small sharks of the Philippines, East Indies, Indian Ocean, and the western Atlantic.

Aprion Müller and Henle, Plagiostomen, p. 31, 1841; preoccupied.

Aprionodon Gill, Proc. Acad. Nat. Sci. Phila., Supplement, p. 59, 1861; Ann. Lyceum Nat. Hist. New York, vol. 7, p. 411, 1862; type, *Aprionodon punctatus* Gill. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 117, 1913.

19. *Aprionodon acutidens* (Rüppell).

Red Sea to the East Indies, Philippines, Caroline and Gilbert Islands. *Carcharias acutidens* Rüppell, Neue Wirbelt. Fische Rothen Meeres, p. 65, pl. 18, fig. 3, 1835; Djedda, Red Sea. Günther, Cat. Fishes British Mus., vol. 8, p. 361, 1870; Seychelles. Day, Fishes India, p. 713, pl. 189, fig. 1, 1878; Red Sea; Sind; Indian Ocean. Ogilby, Proc. Linn. Soc. New South Wales, ser. 2, vol. 3, p. 1767, 1888; Torres Strait. Günther, Fische der Südsee, vol. 3, p. 478, 1910; Ponapé, Carolines. *Squalus acutidens* Gray, List Fishes British Mus., p. 43, 1851.

Carcharias (Aprionodon) acutidens, Duméril, Hist. Nat. Elasmobr., vol. 1, p. 349, 1865; Red Sea; (?) Mexico.

Aprion acutidens Schmeltz, Cat. Mus. Godeffroy, No. 4, p. 28, 1869; Port Mackay.

Aprionodon acutidens Garman, Mem. Mus. Comp. Zool., vol. 36, p. 118, 1913; Apiang, Gilbert Islands. Tortonese, Boll. Mus. Zool. Anat. Comp. Toriño, ser. 3, vol. 45, No. 63, p. 9, 1935-36; Massaua, Mar Rosso. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 141, 1941; after Hilgendorf, Herre, motorship *Spencer F. Baird*, Turung Bay, Malampaya Sound, Palawan, Philippines, October, 1947; length 790 mm.

20. *Aprionodon brevipinna* (Müller and Henle).

East Indies, Philippines, Japan, Arabia.

Carcharias (Aprion) brevipinna Müller and Henle, Plagiostomen, p. 31, pl. 9, 1841; Java. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 25.

Squalus (Aprion) brevipinna Gray, List Fishes British Mus., p. 42, 1851; reference.

Carcharias (Prionidon) brevipinna Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 509, 1853; Batavia, Java.

Carcharias (Aprionodon) brevipinna Gill, Ann. Lyceum Nat. Hist., New York, vol. 7, p. 411, 1861; name only. Duméril, Hist. Nat. Elasmobr., vol. 1, 348, 1865.

Carcharias brevipinna Günther, Cat. Fishes British Mus., vol. 8, p. 361, 1870; Java. Boulenger, Proc. Zool. Soc. London, p. 243, 1889; Muscat. Pietschmann, Sitzungsber. Akad. Wiss. Wien, vol. 117, p. 678, fig. 4, 1907; Japan.

Aprionodon brevipinna Garman, Mem. Mus. Comp. Zool., vol. 36, p. 117, 1913; Java. Izuka and Matsuura, Cat. Zool. Spec. Tokyo Mus., Vertebrata, p. 190, 1920; Boshu, Japan. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 144, 1941; after Müller and Henle. Herre, motor ship *Spencer F. Baird*, Turung Bay, Malampaya Sound, Palawan, Philippines, October 1947; length 990 mm.

21. *Aprionodon sitankaiensis* Herre.

Philippines.

Aprionodon sitankaiensis Herre, Fishes 1931 Philippine Exped., p. 11, 1934; Sitankai, Sibutu Islands, Sulu Archipelago. Roxas and Martin, Check List Philippine Fishes, p. 14, 1937; reference. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 143, 1941; after Herre.

Genus 15. **CARCHARIAS** Rafinesque. Pating.

Common in all tropical and warm temperature seas; species are numerous but the Philippines species are not well known.

Carcharias Rafinesque, Caratteri animali pianti Sicilia, p. 10, 1810; type, *Carcharias taurus* Rafinesque. Cuvier, Règne Animal, ed. 1, vol. 2, p. 125, 1817. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 119, 1941; in part.

Carcharhinus Blainville, Bull. Soc. Philom. Paris, p. 121, 1816; type, *Squalus commersonii* Blainville. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 123, 1913.

Eulamia Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, p. 401, 1861; type, *Carcharias lamia* Rafinesque.

Platyodon Gill, *ibid.*, type, *Carcharias menisorrhah* Müller and Henle.

Isogomphodon Gill, *ibid.*, type, *Carcharias oxyrhynchus* Müller and Henle.

Laniopsis Gill, *ibid.*, type, *Carcharias temmincki* Müller and Henle.

Isoplagiondon Gill, *ibid.*, type, *Carcharias sorrah* Müller and Henle.

22. *Carcharias albimarginatus* Rüppell.

The Red Sea, East Indies, and the Philippines.

Carcharias albimarginatus Rüppell, *Neue Wirbelt., Fische Rothen Meeres*, p. 64, pl. 18, fig. 1, 1835; Ras Mehamet, Red Sea. Umali, motorship *Theodore N. Gill*, May, 1948; Sulu Sea, Sulu Province, Philippines.

Carcharias (Prionodon) albimarginatus Müller and Henle, *Plagiostomen*, p. 44, 1841; Ras Mehamet. Duméril, *Hist. Nat. Elasmobr.*, vol. 1, p. 366, 1865 (Red Sea).

Squalus (Carcharinus) albimarginatus Gray, *List fishes British Mus.*, p. 46, 1851; reference.

Carcharias albomarginatus Günther, *Cat. Fishes British Mus.*, vol. 8, p. 370, 1870; compiled.

Carcharias (Prionodon) albomarginatus Klunzinger, *Verh. Zool.-bot. Gesell. Wien*, vol. 21, p. 660, 1871 (Red Sea). Martens, *Preuss. Exped. Ost-Asien*, vol. 1, p. 409, 1876; Makassar Straits. Brusina, *Glasnik Naravosl. Druzstva*, vol. 3, p. 223, 1888; Red Sea.

Carcharias pharaonis (Ehrenberg) Klunzinger, *Verh. Zool.-bot. Gesell. Wien*, vol. 21, p. 660, 1871; name in synonymy.

Carcharinus albimarginatus Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 141, 1913; Red Sea.

Eulamia albomarginata Fowler, *Proc. 4th (1929) Pacific Sci. Congress, Java*, p. 493, 1930.

Eulamia albimarginata Fowler, *Bull. 100, Proc. U. S. Nat. Mus.*, vol. 13, p. 174, 1941; Red Sea; East Indies; after Rüppell and Garman.

23. *Carcharias commersoni* (Blainville). Commerson's shark.

In all tropical seas, straying north to California and New York.

Squalus commersonii Blainville, *Bull. Soc. Philom. Paris*, p. 121, 1816; Mediterranean.

Squalus lamia Blainville, *Faune Française, Poissons*, p. 88, pl. 22, fig. C, 1820.

Carcharias lamia Risso, *Hist. Nat. Europe, Poissons*, vol. 3, p. 119, 1826. Günther, *Cat. Fishes British Mus.*, vol. 8, p. 372, 1870; Mediterranean; Atlantic. Günther, *Ann. Mag. Nat. Hist.*, ser. 4, vol. 13, p. 158, 1874; Shanghai.

Carcharias (Prionodon) lamia Müller and Henle, *Plagiostomen*, p. 37, pl. 12, 1841; Mediterranean Sea; Atlantic Ocean.

Carcharinus commersonii Garman, *Mem. Mus. Comp. Zool.* vol. 36, p. 140, 1913; middle Atlantic and Pacific Oceans; Mediterranean Sea.

Carcharias commersonii Herre, 1922-26 Collections; Manila Bay; Sibuyan Island; Sitankai, Sulu Province.

Eulamia commersonii Fowler and Ball, *Bishop Mus. Bull.* 26, p. 4, 1925; Kauai, Laysan, Nikoa, Gardner, and Wake Islands. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 20, 1928; Honolulu; Laysan, Gardner, and Wake Islands.

Eulamia lamia Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 169, 1941; described from Hawaiian specimen; none from Philippines; synonymy in part.

24. *Carcharias dussumieri* Müller and Henle.

The Philippines, East Indies, China, Indo-China, and across the Indian Ocean to the African coast.

Carcharias (Prionodon) dussumieri Müller and Henle, *Plagiostomen*, p. 47, pl. 19, fig. 8, 1841; China; Bombay; Pondicherry. Richardson, *Ichth. China Japan*, p. 194, 1846; China Sea; Canton. Duméril, *Hist. Nat. Elasmobr.*, vol. 1, p. 370, 1865; Bombay and Pondicherry, India.

Carcharias (Prionodon) javanicus Bleeker, *Verh. Bat. Gen.*, vol. 24, 1852; *Plagiostomen*, p. 38, pl. 2, fig. 5, Batavia, Java. Bleeker, *Acta Soc. Sci. Ind. Nederl.*, vol. 3, p. 2, 1858; Sinkawang, Borneo.

Carcharias dussumieri Günther, *Cat. Fishes British Mus.*, vol. 8, p. 367, 1870; Batavia, Java. Day, *Fishes India*, p. 714, pl. 187, fig. 2, 1878; India; Malay Archipelago; Malabar. Vinciguerra, *Ann. Mus. Civ.*

- Stor. Nat. Genova, ser. 3, vol. 10, p. 267, 1926; Sarawak, Borneo. Tirant, Service Océanogr. pêches Indo-Chine, 6^e note, p. 61, 1929; Cochin China. Chevey, Inst. Océanogr. Indo-Chine, 19^e note, p. 6, 1932; Indo-China. Herre, caught at Pier 5, Manila Bay, 1926; standard length 8 feet; Sulu Sea, 9 feet; in Ateneo de Manila Museum, mounted specimen, length over 3 meters; all specimens now destroyed. Herre, motor ship *Spencer F. Baird*, Turung Bay, Malampaya Sound, Palawan; Philippines; October, 1947.
- Carcharinus dussumieri* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 137, 1913; China; India; East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 12, 1934; Dumaguete, and various parts of the islands.
- Eulamia dussumieri* Fowler, Proc. Acad. Nat. Sci. Phila., p. 190, 1925; Delagoa Bay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 164, 1941; Cebu market; Hong Kong.
25. *Carcharias gangeticus* Müller and Henle.
A vicious and dangerous but not very large shark, reaching a length of 8 or 9 feet. Ranges across the Indian Ocean, East Indies, Philippines, Japan, and all over Polynesia. Enters rivers and is a permanent resident in some Philippine lakes.
- Carcharias (Prionodon) gangeticus* Müller and Henle, Plagiostomen, p. 39, pl. 13, 1841; "Ganges, 60 hours above the sea at Hoogly." Duméril, Hist. Nat. Elasmobr., vol. 1, p. 359, 1865; Bengal. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 519, 1901; Laysan.
- Carcharias (Prionodon) japonicus* Schlegel, Fauna Japonica, Poiss., p. 302, pl. 133, 1850; Japan.
- Squalus (Carcharinus) gangeticus* Gray, List Fishes British Mus., p. 45, 1851; Calcutta.
- Carcharias gangeticus* Günther, Cat. Fishes British Mus., vol. 8, p. 367, 1870; Ganges, at Calcutta, India; fresh waters Viti Levu, Fiji. Day, Fishes India, p. 715, pl. 187, fig. 1, 1878; India; Japan. Günther, Fische der Südsee, vol. 3, p. 479, 1910; Indian Ocean; Indian Archipelago; Tigris River to Bagdad; Viti Levu, Fiji. Herre, 1922-27 Collections; Manila Bay; Cebu; Agusan River at Monkayo, and Saug River, Davao Province, Mindanao; Parang, Jolo Island and Sitankai, Sulu Province. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 61, 1929; Saigon; Cholon; Cochin China.
- Carcharinus gangeticus* Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 38, 1901. Herre, Philippine Jour. Sci., vol. 34, p. 303, 1927; Lake Naujan, Mindoro. Tanaka, Japanese Fishes Life Colors, No. 26, 1933.
- Prionace japonica* Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 39, 1901; Nagasaki.
- Carcharias japonicus* Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 614, 1903; Hakodate; Tokyo; Wakanoura; Kawatana; Nagasaki.
- Carcharinus gangeticus* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 139, 1913; India; Fiji Islands; Japan.
- Eulamia gangeticus* Fowler, Mem. Bishop Mus., vol. 10, p. 20, 1928.
- Eulamia japonica* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 590, 1930; Tokyo markets.
- Carcharinus japonicus* Fang and Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 8, p. 233, fig. 8, 1932; Tsingtau. Wang, Contr. Biol. Lab. Sci. Soc. China, vol. 9, p. 92, 1933; Chusan I., Chekiang Prov., China.
- Eulamia gangetica* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 168, 1941; after Müller and Henle, and Garman.
26. *Carcharias limbatus* Müller and Henle.
Throughout the tropical Indo-Pacific and Atlantic Oceans.
- Carcharias microps* Lowe, Proc. Zool. Soc. London, p. 38, 1840; Madeira.
- Carcharias (Prionodon) limbatus* Müller and Henle, Plagiostomen, p. 49, pl. 19, fig. 9 (teeth), 1841. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 375, 1865; Martinique; Bahia, Brazil. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1425, 1906; Upolu, Samoa.
- Prionodon cucuri* Castelnau, Anim. Nouv. Amérique Sud, Poissons, p. 99, 1855; Bahia, Brazil.
- Isogomphodon maculipinnis* Poey, Repertorio, vol. 1, pp. 191 and 450, pl. 4, figs. 3-4, 1866; Cuba.

- Carcharias (Prionodon) mülleri* Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 56, p. 356, 1867; West Indies and Surinam, British Guiana.
- Carcharias limbatus* Günther, Cat. Fishes British Mus., vol. 8, p. 373, 1870; Cape Verde Islands; Chiapam, Central America; Seychelles; Indian Ocean. Day, Fishes India, p. 716, 1878; not pl. 184, fig. 2. Ribeiro, Arch. Mus. Nac., vol. 14, p. 153, pl. 3, 1907. Robinson, Natal Fisheries Report, p. 50, 1919; Natal. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 61, 1929; Cochin China, Kauffman, motorship *Theodore N. Gill*, April 1948; caught on reef near Pilas Island, off Basilan, Sulu Sea.
- Carcharias ehrenbergi* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 661, 1871; Koseir, Red Sea.
- Carcharias abbreviatus* (Ehrenberg) Klunzinger, *ibid*; name in synonymy.
- Isogomphodon limbatus* Jordan and Gilbert, Bull. 16, U. S. Nat. Mus., p. 23, 1883.
- Carcharinus (Isogomphodon) limbatus* Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 40, 1896.
- Gymnorhynchus abbreviatus* Hilgendorf, Symbol. Phys. Hempr. Ehrenberg, p. 8, pl. 7, fig. 2, 1899; Red Sea.
- Carcharinus limbatus* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 127, 1913; Rio de Janeiro; tropical and temperate seas. Herre, Jour. Pan Pacific Res. Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo.
- Eulamia limbatus* Fowler, Mem. Bishop Mus., vol. 10, p. 19, 1928; compiled. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 87, p. 362, 1935; Durban. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 48, fig. 10, 1936; compiled.
- Eulamia limbata* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 150, 1941; after Garman and Hilgendorf.

27. *Carcharias melanopterus* Quoy and Gaimard. Black-finned shark. All over the tropical Pacific and Indian Oceans from South Africa to the Marquesas Islands, north to Japan, south to Australia. Much of the extensive synonymy is omitted.
- Carcharias melanopterus* Quoy and Gaimard, Voy, *Uranie*, Zool. Poiss., p. 194, pl. 43, figs. 1-2, 1824; Waigiu; Marianes. Bennett, Life Raffles, p. 694, 1830; Sumatra. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 63, 1835; Red Sea. Günther, Cat. Fishes, vol. 8, p. 369, 1870; South Africa; Amboina. Peters, Monatsber. Akad. Wiss. Berlin, p. 853, 1876; New Ireland. Day, Fishes India, p. 715, pl. 185, fig. 3, 1878; India; Andaman Islands; Malay Archipelago. Ogilby, Cat. Fishes Australian Mus., Part 1, p. 2, 1888; Ugi, Solomon Islands. Jordan and Evermann, Bull. U. S. Fish Com., vol. 23, Part 1, p. 38, pl. 1, 1905; Honolulu; Samoa. Herre, Philippine Collections 1920-40; Manila Bay; Cabalian, Leyte; Cebu market; Zamboanga market, Zamboanga Province, Mindanao; Jolo, Siasi, and Sitankai, Sulu Province.
- Carcharias (Prionodon) melanopterus* Müller and Henle, Plagiostomen, p. 43, pl. 19, fig. 5, 1841; Waigiu. Bleeker, Verh. Bat. Gen., vol. 22, 1849; Madura, p. 6; Kammal, Madura Island. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 33; Batavia; Samarang; Surabaya; Kammal. Weber, *Siboga*-Exped., Fische, vol. 57, p. 590, 1913; Makassar; Aru Islands.
- Carcharias (Prionace) melanopterus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1382, 1850; Straits of Malacca.
- Carcharinus melanopterus* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 134, 1913; Apiang, Gilbert (Kingsmill) Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 23, 1936; Nukahiva, Marquesas Islands; Tahiti; Fiji. Umali, Edible Fishes Manila, p. 37, fig. 5, 1936; Manila markets.
- Eulamia melanopterus* Fowler, Mem. Bishop Mus., vol. 10, p. 20, 1928; Palmyra Island; Honolulu; Apiang, Gilbert Islands; Takarava, Tuamotus; Hanalei Bay, Hawaii; Solomon Islands; Thornton Island; Fanning Island; Guam. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 158, 1941; Abuyog, Leyte; Cagayan Sulu, Sulu Province.
- Carcharinus (Prionodon) melanopterus* Suvatti, Index Fishes Siam, p. 2, 1937; Ko Tan; Menam Can Phya; Sattahip.

28. *Carcharias menisorrh* Müller and Henle.

- Philippines, East Indies, Indo-China, and Indian Ocean to the Red Sea.
Carcharias (Prionodon) menisorrh Müller and Henle, *Plagiostomen*, p. 46, pl. 17, 1841; Java; Australia; Red Sea. Bleeker, *Verh. Bat. Gen.*, vol. 24, 1852, *Plagiostomen*, p. 35, pl. 1, fig. 3; Batavia and Samarang, Java.
Carcharias (Prionodon) tjtjot Bleeker, *Verh. Bat. Gen.*, vol. 24, 1852; *Plagiostomen*, p. 36, pl. 1, fig. 4 (head); Batavia.
Carcharias menisorrh Günther, *Cat. Fishes British Mus.*, vol. 8, p. 371, 1870; Moluccas; Batavia, Java. Day, *Fishes India*, p. 716, pl. 184, fig. 1, 1878; Red Sea; Malay Archipelago; Calicut, India.
Carcharinus menisorrh Fowler, *Jour. Acad. Nat. Sci. Phila.*, ser. 2, vol. 12, p. 499, 1904; Padang, Sumatra.
Carcharias tjtjot Pietschmann, *Sitzungsber. Akad. Wiss. Wien*, vol. 117, p. 683, figs. 7-8, (teeth), 1908; Japan.
Carcharinus menisorrh Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 135, 1913; Indian Seas; Mauritius; Panama. Herre, 1926 Collections, Manila Bay. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, *Fishes 1931 Philippine Exped.*, p. 12, 1934; Cebu, Cebu Province.
Eulamia menisorrh Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 161, 1941; Manila Bay.

29. *Carcharias pleurotaenia* Bleeker.

- Java, Singapore, Philippines.
Carcharias (Prionodon) pleurotaenia Bleeker, *Verh. Bat. Gen.*, vol. 24; 1852; *Plagiostomen*, p. 40, pl. 2, fig. 6 (head); Batavia, Java. Bleeker, *Versl. Akad. Amsterdam*, vol. 12, p. 36, 1861; Singapore.
Carcharias pleurotaenia Günther, *Cat. Fishes British Mus.*, vol. 8, p. 374, 1870; Batavia, Java.
Carcharinus pleurotaenia Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 137, 1913; Java.
Eulamia pleurotaenia Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 166, fig. 8, 1941; Manila market; Indian Archipelago.
Carcharias pleurotaenia Herre, Collection motor ship *Spencer F. Baird*; 2 specimens, male and female, Gulf of Lingayen, Pangasinan Province, Luzon; November, 1947.

30. *Carcharias sorrah* Müller and Henle.

- Philippines, East Indies, China, Indo-China, India to Madagascar.
Carcharias (Prionodon) sorrah Müller and Henle, *Plagiostomen*, p. 45, pl. 16, 1841; Java; Madagascar; Pondicherry, India. Bleeker, *Verh. Bat. Gen.*, vol. 24; 1852; *Plagiostomen*, p. 39; Batavia; Surabaja; Kammal.
Squalus (Carcharinus) sorrah Gray, *List Fishes British Mus.*, p. 47, 1851; Singapore.
Isoplagiodon sorrah Gill, *Ann. Lyceum Nat. Hist.*, New York, vol. 410, 1861; name only.
Carcharinus (Prionace) sorrah Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 344, 1863; Madagascar.
Prionodon sorrah Kner, *Reise Novara, Fische*, p. 414, 1865; Java.
Prionodon (Carcharias) sorrah Guichenot, *Mem. Soc. Sci. Cherbourg*, ser. 2, vol. 2, p. 148, 1866; Madagascar.
Carcharias sorrah Günther, *Cat. Fishes British Mus.*, vol. 8, p. 367, 1870; Indian Seas; Borneo. Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 4, 1906; Shortland Island, Solomon Islands. Vinciguerra, *Ann. Mus. Civ. Storia Nat. Genova*, ser. 3, vol. 10, p. 626, 1926; Sarawak, Borneo.
? *Carcharias phorcys* Jordan and Everman, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 39, pl. 2, 1905; Honolulu.
Carcharinus sorrah Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 132, 1913; Indian Seas; Madagascar; Borneo; Java.
Eulamia sorrah Fowler, *Mem. Bishop Mus.*, vol. 10, p. 19, pl. 1A, p. 19, 1928; Shortland Island, Solomon Islands; Honolulu; Kauai. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 156, 1941; San Roque Market, Cavite Province, Luzon; Batavia, Java; synonymy in part.

- 31. *Carcharias spallanzani* (Le Sueur).**
 Australia to the Indian Ocean.
Squalus spallanzani Le Sueur, Jour. Acad. Nat. Sci. Phila., vol. 2, p. 351, 1822; Terre de Witt, New Holland = Australia.
Carcharias (Prionodon) bleekeri Duméril, Hist. Nat. Elasmobr., vol. 1, p. 367, 1865; Pondicherry, India.
Carcharias bleekeri Günther, Cat. Fishes British Mus., vol. 8, p. 370, 1870; Seychelles. Day, Fishes India, p. 715, 1878; Seychelles. Bamber, Jour. Linn. Soc. London, vol. 31, Zool., p. 38, 1915; Sudanese Red Sea.
Carcharinus spallanzani Garman, Mem. Mus. Comp. Zool., vol. 36, p. 136, 1913; Indian Ocean.
Eulamia spallanzani Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 492, 1930; reference. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 163, 1941; Red Sea, Seychelles, India; after Günther.
Mapolamia spallanzani Whitley, Mem. Queensland Mus., vol. 10, pp. 189, 198, 1934; reference.
Carcharias spallanzani Umali, motorship *Theodore N. Gill*, May, 1948; Sulu Sea, southwest of Jolo, Sulu Province, Philippines.

Genus 16. ERIDACNIS Smith.

- A small deep-water shark of the Philippines and the Gulf of Aden, Indian Ocean.
Eridacnis Smith, Proc. U. S. Nat. Mus., vol. 45, p. 599, 1913; orthotype.
Eridacnis radcliffei Smith. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 200, 1941.

32. *Eridacnis radcliffei* Smith.

- Eridacnis radcliffei* Smith, Proc. U. S. Nat. Mus., vol. 45, pl. 47, 1913; off Jolo, Sulu Province, in 161 fathoms. Norman, Scientific Reports Murray Exped., vol. 7, p. 12, 1939; off Jolo Light, Jolo Island, Sulu Archipelago, Philippines; Gulf of Aden. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 200, 1941; off Capitancillo Island, between Leyte and Cebu; Apo Island, off Southern Negros, Oriental Negros Province; off Macabalan Point, Misamis Oriental Province; and off Port Tagolo, Zamboanga Province, Mindanao; Balukbaluk Island, west of Basilan, Sulu Province.

Genus 17. GALEOCERDO Müller and Henle.

- Species few, authors recognizing from one to three; found in all seas.
Galeocerdo Müller and Henle, Sitzungsber. Akad. Wiss. Berlin, p. 115, 1837; orthotype, *Galeocerdo tigrinus* Müller and Henle. Günther, Cat. Fishes British Mus., vol. 8, p. 377, 1870. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 148, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 185, 1941.
Boreogaleus Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, p. 401, 1861; orthotype, *Squalus arcticus* Faber.

33. *Galeocerdo arcticus* (Faber). Tiger shark; Spotted shark.

- In all tropical and temperate seas; occasional to coast of California, Cape Cod, Iceland, Japan. Fowler identifies this with *Squalus cuvier* Le Sueur, briefly and imperfectly described and not certainly identifiable.
Squalus arcticus Faber, Nat. Fische Islands, p. 17, 1829; Iceland.
Galeus maculatus Ranzani, Novi Comment. Acad. Sci. Bonom. vol. 1, p. 68, pl. 1, 1839; Brazil.
Galeocerdo arcticus Müller and Henle, Plagiostomen, p. 60, pl. 24, 1841; Northern Seas; Iceland; Farøe Islands; Norway. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 394, 1865; "mers du nord." Günther, Cat. Fishes British Mus., vol. 8, p. 377, 1870; Arctic seas. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 148, pl. 43, figs. 6-8, 1913; tropical and temperate seas to 70° or more from the equator. Waite, Records South Australian Mus., vol. 2, p. 13, fig. 11, 1921. Bernard, Ann. South African Mus., vol. 21, p. 27, 1925; Natal Coast. Fowler and Ball, Bull. Bishop Mus., vol. 26, p. 4, 1925; Laysan, Nihoa, Gardner, and Lisiansky Islands. McCulloch, Fishes New South Wales, ed. 2, p. 6, pl. 1, fig. 11a, 1927. Philipps, New Zealand Jour. Sci. Techn., vol. 10, p. 226, fig. 8, 1928; Bay of Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 19, fig. 5, 1928; Honolulu; Laysan and Nihoa Islands. Tirant, Serv-

- ice Océanogr. Pêches Indo-Chine, 6^e note, p. 62, 1929; Cochin China. Fowler, Proc. Fourth Pacific Sci. Congress, p. 490, 1930; East Indies; Japan; Hawaii; Atlantic Ocean. Chevey, Inst. Océanogr. Indo-Chine, 19^e note, p. 6, 1932; Indo-China. Giltay, Mem. Mus. Hist. Nat. Belgique, Hors Serie, vol. 5, fasc. 3, 1933; Dobo, Aru Islands. Fowler, Mem. Bishop Mus., vol. 11, p. 3, 1934; Ugi, Solomon Islands. Herre, Malampaya Sound, Palawan; specimen weighing 500 pounds caught by Alvin Seale. Herre, in collection at Silliman University, 1947; female 4 meters long; taken between Dumaguete, Oriental Negros Province, and Siquijor Island; contained 25 embryos, 1 of which is now in Silliman University Collection. Kauffman, motor ship *Theodore N. Gill*, April, 1948; Sulu Sea, on reefs near Pilas Island, west of Basilan Island, abundant; a specimen weighed 1,080 pounds and contained 53 embryos.
- Galeocerdo tigrinus* Müller and Henle, Plagiostomen, p. 59, pl. 23, 1841; Pondicherry, India. Blyth, Jour. Asiatic Soc. Bengal, vol. 20, p. 36, 1860; Calcutta, India. Günther, Cat. Fishes, vol. 8, p. 378, 1870; Japan; East Indies; Atlantic Ocean; Indian Seas. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 663, 1871; Koseir, Red Sea. Day, Fishes India, p. 718, 1878; Red Sea; India; Japan. Ogilby, Cat., Part 1, p. 3, 1888; Ugi; Solomon Islands. Boulenger, Proc. Zool. Soc. London, p. 243, 1889; Muscat, Arabia. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 612, 1903; Nagasaki. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 499, 1904; Padang, Sumatra. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 27, p. 940, 1904; Oahu, Hawaiian Islands. Southwell, Ceylon Administr. Report p. E 46, 1912-13. Zugmayer, Abh., Bayerisch Akad. Wiss., vol. 26, p. 8, 1913; Mekran and Oman, Arabia.
- Carcharias (Prionodon) fasciatus* Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 37; Nat. Tijds. Ned.-Ind., vol. 4, p. 510, 1853; Batavia, Java. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 5, p. 10, 1858-59; Sinkawang, Borneo.
- Galeocerdo rayneri* MacDonald and Barrow, Proc. Zool. Soc. London, p. 368, pl. 32, 1868; Australia; Lord Howe Island; Pacific. Günther, Cat. Fishes British Mus., vol. 8, p. 377, 1870; India. Day, Fishes India, p. 718, pl. 187, fig. 3, 1878; India; Australia. Ramsay, Proc. Linn. Soc. New South Wales, vol. 5, p. 95, 1880; Solomon Islands. Ogilby, Cat. Fishes New South Wales, p. 1, 1886; Solomon Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 591, 1913; Lumakera; Lombok. Robinson, Report Natal Fisheries, p. 50, 1919; Natal, South Africa. Pillay, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 350, 1929; Travancore, India. Whitley, Fishes Australia, Part 1, Sharks, p. 113, fig. 115, 1940; numerous localities.
- Galeocerdo obtusus* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 663, 1871; Koseir, Red Sea. Brusina, Glasnik Naravosl. Druzstva, vol. 3, p. 225, 1888; Red Sea.
- Galeocerdo hemprichii* (Ehrenberg) Klunzinger, Verh. Zool.-bot. Gesell. Wien, vol. 21, p. 663, 1871. Hilgendorf, Symbol. Physic. Hemprich-Ehrenberg, p. 8, pl. 5, fig. 3, 1899; Red Sea.
- Galeocerdo fasciatus* van Kampen, Bull. Dept. Agr. Indo-Neerl., vol. 8, p. 9, 1907.
- Galeocerdo cuvier* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 186, 1941.

Genus 18. HEMIGALEUS Bleeker.

Small sharks of the western Pacific and Indian Ocean.

Hemigaleus Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 45; type, *Hemigaleus microstoma* Bleeker.

34. *Hemigaleus machlani* Herre.

Hemigaleus machlani Herre, Philippine Jour. Sci., vol. 40, p. 231, 1929; Jolo, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 182, 1941; after Herre.

Genus 19. HEMITRIAKIS Herre.

Hemitriakis Herre, Philippine Jour. Sci., vol. 23, p. 70, 1923; type, *Hemitriakis leucoperiptera* Herre.

35. Hemitriakis leucoperiptera Herre.

Hemitriakis leucoperiptera Herre, Philippine Jour. Sci., vol. 23, p. 71, pl. 1, 1923; Dumaguete, Oriental Negros Province, Negros. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Herre, Fishes, 1931 Philippine Exped., p. 12, 1934; Dumaguete. Umali, motorship *Theodore N. Gill*, October, 1947; Bagac Bay, Bataan Province, in 26 fathoms; an immature female, 522 mm. long. *Triakis leucoperiptera* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 197, 1941; after Herre.

Genus 20. HYPOPRION Müller and Henle.

Small sharks of the Indo-Pacific and West Indies.

Hypoprion Müller and Henle, Plagiostomen, p. 34, 1841; orthotype, *Carcharias (Hypoprion) macloiti* Müller and Henle.

Hypoprionodon Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, pp. 399, 401, 409, 1862; orthotype, *Carcharias (Hypoprion) hemiodon* Müller and Henle.

36. Hypoprion hemiodon (Müller and Henle).

Carcharias (Hypoprion) hemiodon Müller and Henle, Plagiostomen, p. 35, pl. 19, fig. 12 (teeth), 1841; Pondicherry, India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 48, 1885; Manila Bay, Luzon; North Celebes.

Squalus (Hypoprion) hemiodon Gray, List Fishes British Mus., p. 43, 1851; Pondicherry, India.

Carcharias hemiodon Günther, Cat. Fishes British Mus., vol. 8, p. 362, 1870; Indian Seas; Calcutta, India. Day, Fishes India, p. 714, 1878; India; Houghly at Calcutta. Weber, *Siboga*-Exped., vol. 57, Fische, p. 590, 1913; Dama and northwest Waigiu; Luzon, Philippines. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 79, 1929; Saigon River to Thudamot.

Hypoprion hemiodon Garman, Mem. Mus. Comp. Zool., vol. 36, p. 122, 1913; Pondicherry and Calcutta, India. Herre, 1925, in University of Santo Tomas Museum, Manila; specimen said to be from Manila Bay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 146, 1941; after Garman. Herre, motorship *Spencer F. Baird*, Malampaya Sound, Palawan, Oct. 1947.

Genus 21. SCOLIODON Müller and Henle.

Generally distributed in the tropical and the temperate seas. Certain species common in Philippine, East Indian, and Chinese markets.

Scoliodon Müller and Henle, Sitzungsber. Akad. Wiss. Berlin, p. 114, 1837; type, *Carcharias (Scoliodon) laticaudus* Müller and Henle. Garman, Mem. Mus. Comp. Zool. vol. 36, p. 109, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 131, 1941

Atlopiopsis Lioy, Atti. Soc. Ital. Sci. Nat. Milano, vol. 8, p. 398, 1865; orthotype, *Atlopiopsis plejodon* Lioy=*Galeus cuvieri* Agassiz; fossil.

Rhizoprion Ogilby, Mem. Queensland Mus., vol. 3, p. 132, 1915; orthotype, *Carcharias (Scoliodon) crenidens* Klunzinger.

Rhizoprionodon Whitley, Australian Zoologist, vol. 5, p. 354, 1929; orthotype, *Carcharias (Scoliodon) crenidens* Klunzinger; proposed to replace *Rhizoprion*.

37. Scoliodon dumerili (Bleeker).

The East Indies, Philippines, and China.

Carcharias (Scoliodon) dumerilii Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 70, 1856; Amboina. Bleeker, *ibid.*, vol. 8, p. 9, 1869; Celebes.

Carcharias dumerili Günther, Cat. Fishes British Mus., vol. 8, p. 359, 1870; Amboina. Günther, in Brenchley, *Cruise Curaçoa*, p. 410, 1873; Celebes. Lunel, Mem. Soc. Phys. Hist. Nat., p. 282, 1881; Misol. Ogilby, Cat. Fishes Australian Mus., p. 1, 1888; New Hebrides.

Carcharias (Scoliodon) dumerili Bleeker, Ned. Tijds. Dierk., vol. 4, p. 119, 1873; on a Chinese drawing. Weber, *Siboga*-Exped. Fische, vol. 57, p. 589, 1913; Makassar.

Scoliodon dumerilii Garman, Mem. Mus. Comp. Zool., vol. 36, p. 11, 1913; Amboina. Herre, Bureau Science Collection, 1926; Manila Bay, Luzon. Fowler, Hong Kong Nat., vol. 1, p. 84, 1930; China. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete,

Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 11, 1934; Dumaguete. Fowler, Mem. Bishop Mus., vol. 11, p. 385, 1934; New Hebrides. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 132, 1941; after Bleeker.
Scoliodon dumerili Herre, motorship *Spencer F. Baird*, Malampaya Sound, Palawan; October, 1947.

38. *Scoliodon intermedius* Garman.

The Philippines, East Indies and Siam.
Scoliodon intermedius Garman, Mem. Mus. Comp. Zool., vol. 36, p. 115, 1913; Philippines; East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 11, 1934; Capiz, Capiz Province, Panay; Unisan, Tayabas Province, Luzon; Sitankai, Sulu Province. Suvatti, Index Fishes Siam, p. 2, 1937; Sriracha, Siam. Herre, 1940 Exped., Iloilo market. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 136, 1941; after Garman. Herre, motorship *Spencer F. Baird*, Malampaya Sound, Turung Bay, Palawan; October 1947.

39. *Scoliodon palasorrah* (Cuvier). Bongalolon.

The Philippines, East Indies, north to China and Japan, and west to the Red Sea and South Africa.

Carcharias palasorrah Cuvier, Règne Animal, ed. 2, vol. 2, p. 388, 1829; on *Pala sorrah* Russell. Fishes Coromandel, vol. 1, p. 9, pl. 14, 1803; Vizagapatam, Madras, India. Bleeker, Verh. Bat. Gen., vol. 25, p. 80, 1853; Bengal.

Carcharias acutus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 65, pl. 18, fig. 4, 1835; Djedda, Red Sea. Günther, Cat. Fishes British Mus., vol. 8, p. 358, 1870; Cape Seas; Pinang; Singapore; Vizagapatam; Japan. Day, Fishes India, p. 712, pl. 184, fig. 3, 1878; Madras. Tirant, Service Océanog. Pêches Indo-Chine, 6^e note, p. 60, 1929; Cochin China.

Carcharias (Scoliodon) acutus Müller and Henle, Plagiostomen, p. 29, 1841; Red Sea; India; Java. Richardson, Ichth. China Japan, p. 194, 1846; Canton; China Seas. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1381, 1850; Pinang; Singapore, Malay Peninsula. Bleeker, Nat. Tijds., Ned.-Ind., vol. 2, p. 473, 1851; Rio, Bintang Islands; *ibid.*, vol. 3, p. 446, 1852; Banka. Bleeker, Verh. Bat. Gen., vol. 24; 1852; Plagiostomen, p. 30; Batavia. Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 409, 1876; Formosa Strait; Bangkok; Singapore; Sunda Strait; Batjan.

Squalus (Scoliodon) acutus Gray, List Fishes British Mus., p. 41, 1851; China and Bengal.

Scoliodon acutus Kner, Reise *Novara*, Fische, p. 414, 1865; Ceylon. Fowler, Proc. Acad. Nat. Sci. Phila., p. 458, 1905; Baram, Borneo. Jordan and Seale, Bull. U. S. Bur. Fisheries., vol. 26, p. 3, 1907; Cavite, Cavite Province, Luzon.

Carcharinus (Scoliodon) acutus Bleeker, Ned. Tijds. Dierk., vol. 2, 172, 1865; Siam.

Scoliodon palasorrah Garman, Mem. Mus. Comp. Zool., vol. 36, p. 111, 1913; India and East Indies. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 494, 1930; Philippines. Chevey, Inst. Océanogr. Indo-Chine, 19^e note, p. 5, 1932; Indo-China. Herre, Jour., Pan Pacific Res. Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 11, 1934; Dumaguete. Herre, Bureau Science Collection, 1920-27; common in Manila and Cebu markets; Tacloban, Leyte; Iloilo market, Iloilo Province, Panay; Dapitan, Zamboanga Province, Mindanao; Jolo market, Sulu Province. Tortonese, Boll. Mus. Zool. Anat. Comp. Torino, ser. 3, vol. 45, p. 8, 1935-36; Massaua, Red Sea. Suvatti, Index Fishes Siam, p. 2, 1937; Samut Prakan, Laem Sing, Maeklong, Siam. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 137, 1941; Limbones Cove, Cavite Province; Langao Point, Sorsogon Province, Luzon.

Scoliodon palassorrah Umali, Edible Fishes Manila, p. 36, fig. 4, 1936; Manila Bay and Manila markets; error. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon.

40. *Scoliodon walbeehmi* (Bleeker).

Common in Philippine markets; occurs from Natal, South Africa, to Japan.

Carcharias (Scoliodon) walbeehmii Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 353, 1856; Rio, Bintang Islands.

Carcharias (Scoliodon) walbeehmi Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, 1857; p. 284, Tjirutjup, Biliton, p. 389, Kupang, Timor.

Carcharias walbeehmii Günther, Cat. Fishes British Mus., vol. 8, p. 359, 1870; East Indian Archipelago; Japan. Day, Fishes India, p. 712, pl. 185, fig. 2, 1878; Malabar, India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 48, 1885; Makassar, Celebes.

Carcharias walbeehmi Day, Fauna British India, Fishes, vol. 1, p. 10, 1889; India; Malay Archipelago; Japan. Bartlett, Sarawak Gazette, vol. 26, No. 366, p. 133, 1896; Baram and Moratubas, Sarawak, Borneo.

Scoliodon walbeehmi Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 127, 1901; Nagasaki. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 318, 1902; Formosa. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 161, pl. 63, fig. 2, 1909; Takao, Formosa. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 112, 1913; Singapore; Colombo; Pinang. Fowler Proc. Acad. Nat. Sci. Phila., p. 2, 1918; Philippines; Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 256, 1927; Philippines; Orion, Bataan Province, Luzon. Wu, Contrib. Biol. Lab. Sci. Soc. China, vol. 5, p. 6, fig. 4, 1929; Amoy. Fowler, Proc. Fourth Pacific Sci. Congress, p. 494, 1930; Philippines; Formosa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 11, 1934; Manila; Dumaguete, Oriental Negros Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, p. 406, fig. 1, 1934; Natal.

Scoliodon walbeehmii Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 235, 1908; Manila. Hora, Mem. Asiatic Soc. Bengal, vol. 6, p. 464, 1924; Tale Sap, Siam.

Carcharinus walbeehmi Barnard, Ann. South African Mus., vol. 21, p. 24, pl. 1, fig. 2, 1925; Natal coast.

Charcharias walbeehmii Tirant, Service Oceanogr. Pêches Indo-Chine, 6^e note, p. 60, 1929; Cochin China.

Carcharias walbeehmi Pillay, Jour. Bombay Soc. Nat. Hist., vol. 33, p. 350, 1929; Travancore.

Genus 22. **TRIAKIS** Müller and Henle.

Small sharks of the western Pacific and the coast of California and south along Mexico.

Triakis Müller and Henle, Ann. Mag. Nat. Hist. Charlesworth, vol. 2, p. 86, 1838; orthotype, *Triakis scyllium*. Müller and Henle, Plagiostomen, p. 36, 1841.

Rhinotriakis Gill, Proc. Acad. Nat. Sci. Phila., p. 468, 1862; orthotype, *Rhinotriakis henlei* Gill.

Triakis Günther, Cat. Fishes British Mus., vol. 8, p. 384, 1870.

41. *Triakis scyllium* Müller and Henle.

Japan, Korea, China, Formosa, and the Philippines.

Triakis scyllium Müller and Henle, Plagiostomen, p. 63, pl. 26, 1841; Japan. Steindachner, Ann. Hofmus. Naturh. Wien, vol. 11, p. 224, 1896; Kobe, Hogo, Nagasaki. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 336, 1900; Tokyo. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 318, 1902; Formosa. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 609, 1903; Tokyo; Tsuruga; Onomichi; Hakata. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 166, 1913; Japan. Fowler, Hong Kong Nat., vol. 1, p. 80, fig. 9, 1930; China. Fang and Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 8, p. 229, fig. 6, 1932; Chefoo. Tanaka, Japanese Fishes Life Colors, No. 13, 1933. Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 9, p. 91, 1933; Chusan Island, Fukien Province, China. Herre, 1933-34, Collection; Dumaguete, Oriental Negros Province, Negros. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 199, 1941; Japan.

Triakis scyllium Günther, Cat. Fishes British Mus., vol. 8, p. 384, 1870. Ishikawa and Matsuura, Prelim. Cat., p. 62, 1897.

Triakis semifasciata Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 13, p. 154, 1874; Chefoo, China; not of Girard.

Genus 23. TRIAENODON Müller and Henle.

One species, all over the tropical Indo-Pacific, to the west coast of Central America.

42. *Triaenodon obesus* (Rüppell).

A small shark found from the Red Sea and Madagascar to Hawaii and Cocos Island, off Costa Rica, Central America.

Carcharias obesus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 64, pl. 18, fig. 2, 1835; Djedda, Red Sea.

Triaenodon obesus Müller and Henle, Plagiostomen, p. 55, pl. 20, 1841; Indian Ocean; Red Sea. Günther, Cat. Fishes, vol. 8, p. 383, 1870; Red Sea; Seychelles, Indian Ocean; Aneiteum, New Hebrides. Günther, Fische der Südsee, vol. 3, p. 482, 1910; Misol; Makassar, Celebes; Aneiteum, New Hebrides; Tahiti. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 163, 1913; Red Sea; Indian Ocean. Weber, *Siboga-Exped.*, Fische, vol. 57, p. 592, 1913; Makassar, Celebes; Daanar, northwest coast of Waigai. Fowler and Ball, Bull. 26, Bishop Mus., p. 4, 1925; Laysan, Lisiansky, and Wake Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 22, fig. 7, 1928; Laysan Island. Herre, Mus. Santo Tomas University, from Manila Bay, specimen examined 1922. Herre, Bur. Science Collections, 1922-1933; Manila Bay; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 24, 1936; Cocos Island, off Costa Rica, Central America. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 194, 1941; Bonin Islands.

Leptocharias obesus Gray, List Fishes British Mus., p. 51, 1851.

Trioenodon obesus Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891.

Eulamia odontaspis Fowler, Proc. Acad. Nat. Sci. Phila., p. 63, fig. 2, 1908; Indian Ocean (?).

Family 8. SPHYRNIDÆ. Hammerhead Sharks

A very distinct and peculiar group, with but one genus, found in all tropical and temperate seas.

Genus 24. SPHYRNA Rafinesque.

Cestracion Klein, in Walbaum, Artedi Piscium, vol. 3, p. 580, 1792; inadmissible.

Sphyrna Rafinesque, Indice Ittiol. Siciliana, pp. 46 and 60, 1810; Sicily; type, *Squalus zygaena* L. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 211, 1941.

Sphyrnias Rafinesque, Analyse Nature, p. 93, 1815.

Cestrorhinus Blainville, Bull. Soc. Philom. Paris, vol. 8, p. 121, 1816.

Zygaena Cuvier, Règne Animal, vol. 2, p. 27, 1817; type, *Squalus zygaena* L.; not of Fabricius in Lepidoptera, 1775.

Zygoena Risso, Hist. Natur. Europe Merid., Poissons, vol. 3, p. 125, 1826; type, *Squalus zygaena* L.

Sphyrichthys Thienemann, Lehrb. Zool., p. 408, 1828.

Platysqualus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 318, 1838; type, *Squalus tiburo* L.

Zygana Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 318, 1839; type, *Zygaena laticeps* Cantor.

Sphyrna Høven, Handb. Dierk., vol. 2, p. 68, 1858.

Eusphyrna Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, pp. 403 and 412, 1862; type, *Zygaena blochii* Cuvier.

Reniceps Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, pp. 403 and 412, 1862; type, *Squalus tiburo* L.

43. *Sphyrna blochi* (Cuvier).

From India and Ceylon to the southern Philippines. Common in markets of the Sulu Islands, coast of Borneo, Java, and Malaya.

Squalus zygaena Bloch, Naturges. Ausländ. Fische, vol. 1, p. 29, pl. 117, 1785; (not of Linnaeus).

Zygaena blochii Cuvier, Règne Animal, vol. 2, p. 127, 1817; on Bloch. Valenciennes, Mem. Mus. Hist. Nat. Paris, vol. 9, p. 227, pl. 11, figs. 2a-2b, 1822. Bennett, Life Raffles, p. 694, 1830; Sumatra. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 73, 1863; Banka. Günther, Cat. Fishes British

Mus., vol. 8, p. 380, 1870; Calcutta, India; Malabar; Pinang; Singapore. Day, Fishes India, p. 719, pl. 184, fig. 4, 1878; Malabar, India; Malay Archipelago. Bartlett, Sarawak Gazette, vol. 26, No. 366, p. 134, 1896; Buntal and Morotabas, Sarawak. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, pp. 59 and 175, 1929; Cochin China.

Zygaena laticeps Cantor, Quart. Med. Jour. Calcutta, p. 315, pls. 1-3, 1837; young; Calcutta.

Zygaena laticeps Swainson, Nat. Hist. Animals, vol. 1, p. 134, fig. 11, head; 1838. Swainson, *ibid.*, vol. 2, Fishes, p. 318, fig. 97, dorsal view; 1839.

Sphyrna blochii Müller and Henle, Plagiostomen, p. 54, 1841. Bleeker, Jour. Indian Archipelago, vol. 3, p. 68, 1849; Celebes. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1386, 1850; Pinang; Singapore; Malay Peninsula. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 41, pl. 3, fig. 7; Batavia; Tegal; Samarang; Surabaya; Karmal. Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 409, 1876; Pontianak, Borneo. Fowler, Proc. Acad. Nat. Sci. Phila., p. 66, 1908; Pondicherry, India. Fowler, Jour. Bombay Soc. Nat. Hist., vol. 33, p. 101, 1928; Bombay, India. Herre, Copeia, No. 4, p. 142, 1930; Turtle Islands, Sulu Sea; and common in markets from Balabac to Sibutu Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, 1936-37 Exped.; Sitankai, Sulu Province; Tawau, Sandakan, and Kudat, British North Borneo; Kuching, Sarawak, Borneo; Singapore. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 221, 1941; Pondicherry and Bombay, India.

Sphyrnias blochii Gray, List Fishes British Mus., p. 50, 1851; India; Singapore.

Cestracion (Zygaena) blochii Duméril, Hist. Nat. Elasmobr., vol. 1, p. 383, 1865; Indian Ocean.

Zygaena blochi Volz, Nat. Tijds. Ned. Ind., vol. 66, p. 237, 1907; Benkulen. Sumatra.

Sphyrna blochi Pellégrin, Ann. Mus. Zool. Univ. Napoli, new series, vol. 3, No. 27, p. 2, 1912; Singapore. Suvatti, Index Fishes Siam, p. 3, 1937; Gulf of Siam; Thale Sap Songkhla; Chonburi.

Cestracion blochii Garman, Mem. Mus. Comp. Zool., vol. 36, p. 156, 1913; Pinang; East Indies and India.

Zygaena platycephalus van Hasselt, Allgemeine Konst en Letterbode, May, 1923; Java.

Cestracion blochi Hora, Mem. Asiatic Soc. Bengal, vol. 6, p. 464, 1924; Tale Sap, Siam. Chabanaud, Service Océanogr. Pêches Indo-Chine, 1^e note, p. 5, 1926; Poulo Condore, South China Sea.

44. *Sphyrna tiburo* (Linnaeus). Bonnethead shark.

In the tropical and temperate Atlantic and Pacific Oceans.

Squalus tiburo Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 234, 1758; "America."

Sphyrna tiburo Rafinesque, Indice Ittiol. Siciliana, p. 47, 1810; Sicily. Müller and Henle, Plagiostomen, p. 53, 1841. Gilbert and Starks, Mem. Calif. Acad. Sci., vol. 4, p. 13, 1903; Panama Bay. Fowler, Hong Kong Nat., vol. 1, p. 86, 1930; China. Herre, 1936-37 Collections; Zamboanga market, Zamboanga Province, Mindanao.

Zygaena tiburo Valenciennes, Mem. Mus. Hist. Nat. Paris, vol. 9, p. 226, pl. 12, figs. 2a-2b, 1822; Brazil. Günther, Cat. Fishes British Mus., vol. 8, p. 382, 1870; New Orleans; Belize; Bahia; the Atlantic Ocean; China.

Sphyrnias tiburo Gray, List Fishes British Mus., p. 50, 1851; China; American seas.

Reniceps tiburo Gill, Ann. Lyceum Nat. Hist., New York, vol. 7, p. 412, 1861. Jordan and Gilbert, Bull. 16, U. S. Nat. Mus., p. 25, 1883.

Sphyrnias tiburo Gray, List Fishes British Mus., p. 50, 1851; China; Middle America, vol. 1, p. 44, 1896. Jordan and Evermann, *ibid.*, vol. 4, pl. 5, fig. 19; abundant in the Atlantic Ocean from Long Island southward; in the Pacific Ocean, from Mazatlan, Mexico, to the Bay of Panama.

Cestracion tiburo Garman, Mem. Mus. Comp. Zool., vol. 36, p. 160, pl. 1, figs. 4-5, 1913; Massachusetts Bay.

45. *Sphyrna tudes* (Cuvier).

Tropical Atlantic, Indian, and Pacific Oceans.

Sphyrna tiburo Rafinesque, *Indice Ittiol. Siciliana*, p. 47, 1810; Sicily; not of Linnaeus.

Zygaena tudes Cuvier, *Règne Animal*, vol. 2, p. 393, 1817. Cuvier, in Valenciennes, *Mém. Mus. Hist. Nat. Paris*, vol. 9, p. 225, pl. 12, figs. 1a-b, 1822; Nice, France, in Mediterranean Sea; Cayenne; Coromandel. Cuvier, *Règne Animal*, ed. 3, pl. 117, fig. 1, 1839. Lay and Bennett, *Fishes Zoology* Capt. Beechey's Voy., p. 47, 1839; Oahu. Günther, *Cat. Fishes British Mus.*, vol. 8, p. 382, 1870; West Indies; Demarara, Guiana; Zanzibar; Sunatra. Day, *Fishes India*, p. 720, pl. 188, fig. 4, 1878; Mediterranean Sea; Indian Ocean; Indian Archipelago; Atlantic Ocean. Vinciguerra, *Ann. Mus. Civ. Storia Nat. Genova*, ser. 3, vol. 10, p. 626, 1926; Sarawak, Borneo. Tirant, *Service Océanogr. Pêches Indo-China*, 6^e note, p. 60, 1929; Purochai, Indo-China. *Sphyrna tudes* Müller and Henle, *Plagiostomen*, p. 53, 1841; Cayenne, French Guiana; Coromandel, India. Bleeker, *Verh. Bat. Gen.*, vol. 22, Madura, p. 6, 1849; Kammal, Madura. Fowler, *Proc. Acad. Nat. Sci. Phila.*, p. 66, 1908; Surinam, Dutch Guiana. Weber, *Siboga-Exped.*, vol. 57, Fische; p. 692, 1913; Makassar, Celebes; Timor. Herre, *Copeia*, No. 4, p. 144, 1930; Manila Bay; Cebu, Cebu Province, Zamboanga, Zamboanga Province, Mindanao. Suvatti, *Index Fishes Siam*, p. 1934; Samut Prakan, Gulf of Siam. Fowler, *Bull.* 100, U. S. Nat. Mus., p. 213, 1941; Mazatlan, Mexico; Panama; west coast of South America; Massana, Red Sea.

Sphyrna chiereghini Nardo, *Sinon. Moderna Pesc. Chiereghini*, p. 111, 1847; Venice, Italy.

Sphyrnias tudes Gray, *List Fishes British Mus.*, p. 50, 1851.

Cestracion (Zygaena) tudes Duméril, *Hist. Nat. Elasmobr.*, vol. 1, p. 384, 1865; Nice; Algeria; Cayenne.

Zygoena tudes Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar*, Poissons, p. 510, 1891.

Sphyrna (Platysqualus) tudes Jordan and Evermann, *Fishes North and Middle America*, vol. 1, p. 44, 1896; West Indies; Gulf of California to Bay of Panama.

Cestracion tudes Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 159, 1913; Rio de Janeiro, Brazil; Panama.

46. *Sphyrna zygaena* (Linnaeus). Hammerhead shark; Awal; Codosan; Binkungan; Balagbagan; Krosan; Ros.

In all warm seas, north to Japan, California, Massachusetts, and the Bay of Biscay, France. No attempt is made to include all the synonymy.

Squalus zygaena Linnaeus, *Syst. Nat.*, ed. 10, vol. 1, p. 234, 1758; Europe; America. Forskål, *Descript. Animal.*, 1775; p. 10, Arabia, p. 18, Malta. Bloch, *Naturges. Ausländ. Fische*, vol. 1, p. 29, pl. 117, 1785; Smyrna. Gmelin, *Syst. Nat. Linn.*, vol. 1, p. 1494, 1789; Atlantic, Mediterranean, American, and Indian seas. Mitchell, *Trans. Lit. Philos. Soc. New York*, vol. 1, p. 482, 1815; New York.

Cestracion zygaena Klein, *Neuer Schauplatz*, vol. 3, pp. 524, 706, 1776. Gill, *Ann. Lyceum Nat. Hist.*, New York, vol. 7, p. 403, 1862. Day, *Fishes Malabar*, p. 270, 1865. Duméril, *Hist. Nat. Elasmobr.*, vol. 1, p. 382, 1865; Mediterranean Sea and Atlantic Ocean; North and South America; Australia; Japan. Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 157, pl. 1, figs. 1-3, 1913; New York. Tanaka, *Japanese Fishes Life Colors*, No. 16, 1933.

Squalus zygaena Bonnat, *Tableau Encyclop. Ichth.*, p. 9, pl. 6, fig. 15, 1788; Atlantic Ocean and the Mediterranean.

Sphyrna zygaena Rafinesque, *Indice Ittiol. Siciliana*, p. 46, 1810; Sicily. Müller and Henle, *Plagiostomen*, p. 51, 1841; Mediterranean Sea; France; Brazil; Indies. Richardson, *Ichth. China Japan*, p. 194, 1846; China Seas; Canton, China. Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1383, 1850; Pinang; Singapore; Malay Peninsula. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 3, p. 60, 1851; Singapore. Bleeker, *Verh. Bat. Gen.*, vol. 24, 1852; Plagiostomen, p. 42, pl. 3, fig. 8; Batavia, Samarang and Surabaja, Java; Kammal, Madura. Bleeker, *ibid.*, vol. 25, 1853; Japan, p. 22; Nagasaki; China; East Indies; Malacca; India; Australia (?). Jordan and Snyder, *Annot. Zool. Japon.*, vol. 3, pp. 39, 127,

1901; Nagasaki. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 316, 1902; Formosa. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 618, 1903; Nagasaki, Misaki and Wakanoura. Japan. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 420, 1904; Honolulu. Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, p. 1, 1905; Hong Kong. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 183, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 3, 1907; Cavite, Cavite Province, Luzon, Philippines. Norman, Ann. Mag. Nat. Hist., ser. 9, vol. 9, p. 318, 1922; Natal, South Africa. Phillipps, New Zealand Jour. Sci. Tech., vol. 6, p. 262, figs. 6-6a, 1924; Paihia, Bay of Islands, New Zealand. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 101, 1925; Misaki, Shizuoka, and Osaka markets. Mori, Jour. Pan Pacific Research Inst., vol. 3, p. 3, 1928; Jensen and Mokpo, Korea. Fowler, Mem. Bishop Mus., vol. 10, p. 22, 1928; Honolulu, Hawaiian Islands; Fanning Island. Herre, Copeia, No. 4, p. 143, 1930; Manila; Cebu; Dumaguete; Davao, Davao Province, Mindanao; Jolo, Sulu Province; Palawan and Mindanao without specific localities. Fowler, Hong Kong Nat., vol. 1, p. 85, 1930; Hong Kong; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, Part 1, p. 64, fig. 17, 1936; Massachusetts; New Jersey; Guiana; Panama; Mediterranean Sea; Sumatra. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 217, 1941; Manila market; Iloilo market, Iloilo Province, Panay; Jolo market, Sulu Province, Philippines (Cavite). Herre, various collections; Tahtay, Palawan (in University of Philippines collection); breadth of head over 4 feet; length of specimen over 12 feet. Straits of Balabac, up to 15 feet; recorded by Alvin Seale. Zamboanga market; market at Tacloban, Leyte; Dapitan, Mindanao; Sitankai, Sulu Province, also museums of Santo Tomas University and of the Ateneo de Manila.

Squalus malleus Risso, Ichth. Nice, p. 34, 1810; Nice, France.

Zygaena malleus Valenciennes, Mem. Mus. Hist. Nat., Paris, vol. 9, p. 223, pl. 2, figs. 1, a-b, 1822; "our [French ?]coasts"; Brazil. Schlegel, Fauna Japonica, Pisces, p. 306, pl. 138, 1850; Nagasaki Bay. Günther, Cat. Fishes British Mus., vol. 8, p. 381, 1870; Mediterranean Sea; Madeira; West Africa; British Guiana; Zanzibar; Seychelles; Pinang; Moluccas; Formosa; Amoy; Japan; South Australia (no doubt is *Sphyrna lewini*); Totoya Island, Fiji Islands. Day, Fishes India, p. 719, pl. 186, fig. 4, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 48, 1885; Makassar, Celebes; Manila Bay, Luzon.

Zgaena zygaena van Hasselt, Bull. Sci. Nat. Férussac, vol. 2, p. 90, 1824; Java. Günther, Fische der Südsee, vol. 3, p. 434, 1910; Samoa; Friendly Islands; Fiji; Hawaii.

Sphyrnas zygaena Gray, List Fishes British Mus., p. 48, 1851; Mediterranean Sea; Sumatra; Demarara.

Zygoena malleus Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891.

Cestracion zygoena Chevey, Inst. Oceanogr. Indo-Chine, 19° note, p. 6, 1932; Cochin China.

Order D. TECTOSPONDYLI

Suborder SQUALOIDEI. Sharks Without Anal Fin

Family 9. SQUALIDAE. Dogfishes

Small sharks, mostly of cool seas or deep water. A spine before each dorsal fin. Some species occur in schools.

Genus 25. DEANIA Jordan and Snyder.

Small deep-sea sharks of the Philippines, Japan, Australia, New Zealand, and the coast of Natal, South Africa.

Deania Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 80, 1902; orthotype, *Deania eglantina* Jordan and Snyder; Totomi Bay, Japan. *Nasisqualus* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 681, 1912; orthotype, *Nasisqualus profundorum* Smith and Radcliffe. *Deaniops* Whitley, Records Australian Mus., vol. 18, p. 326, 1932; orthotype, *Acanthidium quadrispinosum* McCulloch.

47. *Deania profundorum* (Smith and Radcliffe).

Nasisqualus profundorum Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 4, p. 681, text fig. 3, pl. 53, 1912; between Leyte and Mindanao, in 736 to 976 fathoms; between Marinduque and Luzon, 736 fathoms; off Camp Overton Light, Lanao Province, Mindanao, 410 fathoms; between Siquijor and Bohol Islands, 392 fathoms.

Acanthidium profundorum Garman, Mem. Comp. Zool., vol. 36, p. 219, 1913; between Leyte and Mindanao, and between Marinduque and Luzon, at 392 to 976 fathoms.

Deania profundorum Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 241, 1941; between Marinduque and Luzon; between Leyte and Mindanao; off Camp Overton Light, Lanao Province, Mindanao; between Siquijor and Bohol.

Genus 26. **ETMOPTERUS** Rafinesque.

Mostly small deep-sea luminous sharks of the eastern Pacific, Hawaiian Islands, Mediterranean, and Atlantic.

Etmopterus Rafinesque, Caratteri animali piante Sicilia, p. 14, 1810; type, *Etmopterus aculeatus* Rafinesque. Replaces *Spinax* Cuvier.

48. *Etmopterus lucifer* Jordan and Snyder.

Japan, the Philippines, East Indies, and Atlantic Ocean off South Africa. *Etmopterus lucifer* Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 79, 1902; Misaki, Japan. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 634, fig. 5, 1903. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 679, 1912; Mindanao Sea, off northern coast of Mindanao; between Negros and Siquijor; Balayan Bay, Batangas Province, Luzon; Verde Island Passage, between Luzon and Mindoro; off east coast of Mindoro; near Malavatuan Island, between Lubang and Luzon; off west coast of Jolo and between Jolo and Tawitawi, Sulu Province. Tanaka, Fishes Japan, vol. 8, p. 133, pl. 36, figs. 137-141, 1912; Mochiyama, in Sagami Sea, 300 fathoms. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 226, 1913; Odawara, Japan. Izuka and Matsuura, Cat. Zool. Spec. Tokyo Mus., Vertebrates, p. 189, 1920; Tateyama, Boshu. Gilchrist, Marine Biol. Survey South Africa, Special Report No. 2, Part 3, p. 49, 1922; coast of Natal in 150-250 fathoms. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 496, 1930; Philippines and Japan. Tanaka, Japanese Fishes Life Colors, No. 14, 1933. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 246, 1941; off Malabrigo Light, off Matoco Point, and off Santiago Light, Batangas Province, Luzon; off Malavatuan Island, north of Ambil Island, Lubang group; Sombbrero Island, west of Burias. Macabalan Point Light, Misamis Oriental Province, Mindanao; off Jolo, Sulu Province.

Spinax lucifer Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 2, p. 45, 1908; Japan. Weber, *Siboga*-Exped., vol. 57, Fische, p. 597, 1913; Flores Sea. Norman, *Discovery* Reports, vol. 12, p. 37, 1935; off Cape Town, South Africa.

49. *Etmopterus brachyurus* Smith and Radcliffe.

A Philippine species.

Etmopterus brachyurus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 679, text fig. 2, pl. 52, 1912; off Jolo Light, Jolo Island, Sulu Province, at 263 fathoms. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 227, 1913; near Jolo. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 496, 1930; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 248, 1941; off Jolo Light, Jolo; type.

Genus 27. **LEPIDORHINUS** Bonaparte.

Small sharks from Japan, Philippines, the Indian and Atlantic Oceans. *Lepidorhinus* Bonaparte, Nuovi An. Sci. Nat. Bologna, vol. 2, p. 207, 1838; orthotype, *Squalus squamosus* Bonnaterre. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 211, 1913.

Macheophilus Johnson, Proc. Zool. Soc. London, p. 713, 1876; orthotype, *Macheophilus dumerili* Johnson=*Squalus squamosus* Bonnaterre.

50. *Lepidorhynchus foliaceus* (Günther).

Japan and the Philippines.

Centrophorus foliaceus Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 20, p. 433, 1877; *Inosima*, Japan. Günther, Report Voy. *Challenger*, Zoology, vol. 22, Deep Sea Fishes, p. 5, pl. 2, fig. A, 1887. Jordan and Snyder, Annot. Zool. Japan., vol. 3, pp. 41, 129, 1901; Enoshima, Japan. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 2, p. 53, 1908, Japan. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 496, 1930; Philippines and Japan. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 235, 1941; after Jordan and Fowler.

Lepidorhynchus foliaceus Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 631, 1903; near Misaki, Japan. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 679, 1912; between Leyte and Mindanao, at 960 fathoms.

Genus 28. *SQUALUS* Linnaeus. Dogfishes.

Atlantic, Pacific and Indian Oceans. Small ravenous fishes, often in great schools, and very destructive to fisheries.

Squalus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 233, 1758; type, *Squalus acanthias* L., selected by later writers, Gill, and others, following Rafinesque, 1810. German, Mem. Mus. Comp. Zool., vol. 36, p. 191, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 255, 1941; excluding part of synonymy.

Squalus Scopoli, Introd. Hist. Nat., p. 464, 1777; type, *Squalus acanthias* L.

Acanthorhynchus Blainville, Bull. Soc. Philom. Paris, p. 121, 1816; type, *Squalus acanthias* Lacépède, designated by Jordan, Genera Fishes, Part 1, p. 95, 1917.

Acanthias Risso, Hist. Nat. Europe Mérid., Poissons, vol. 3, p. 131, 1826; type, *Squalus acanthias* L.

Carcharias Gistel, Naturges. Thierreichs, Part 8, 1848; type, *Squalus acanthias* L.

51. *Squalus fernandinus* Molina.

All over the Pacific and Indian Oceans, from Chile to Japan, Philippines, Australia, New Zealand, and South Africa.

Whitley separates the dogfishes of the Antipodes into three species, one each for Australia, Tasmania, and New Zealand.

Squalus fernandinus Molina, Saggio, Stor. Nat. Chili, p. 229, 1782; Chile. Bonnaterre, Tableau Encyclop. Ichth., p. 13, 1788. Gmelin, in Linnaeus, Syst. Nat., vol. 1, p. 1501, 1789. Molina, Essai Hist. Nat. Chile, p. 208, 1789. Molina, Geogr. Nat. Civil Hist. Chile, vol. 1, p. 160, 1808. Molina, Saggio Stor. Nat. Chile, ed. 2, p. 194, 1810. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 2, p. 46, 1908; Tasmania; New Zealand. Waite, Records Canterbury Mus., vol. 1, p. 12, pl. 16, fig. 1, 1909; New Zealand, 9 to 105 fathoms. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 195, 1913; Juan Fernandez Island. Waite and McCulloch, Trans. Roy. Soc. Australia, vol. 39, p. 460, 1915; Great Australian Bight. Waite, Rec. South Australian Mus., vol. 2, p. 23, fig. 30, 1921. Gilchrist, Marine Biol. Survey South Africa, Special Report No. 2, Part 3, p. 48, 1922; off Natal in deep water. Herre, Philippine Jour. Sci., vol. 23, p. 73, 1923; from fish corrals, Dumaguete, Oriental Negros Province. Fowler, Proc. Acad. Nat. Sci. Phila., p. 191, 1925; Natal, South Africa. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 495, 1930; Chile and Indian Ocean. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 12, 1934; Dumaguete market. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 260, 1941; near Sombbrero Islet, Verde Island Passage, off Batangas Province, Luzon; in 236 fathoms; type, *Squalus philippinus* Smith and Radcliffe.

Squalus acanthias fernandinus Walbaum, Artedi Piscium, p. 505, 1792. *Acanthorhynchus fernandinus* Blainville, Bull. Soc. Philom. Paris, p. 121, 1816.

Acanthias Blainvilli Risso, Hist. Nat. Europe Merid., vol. 3, Poissons, p. 133, pl. 3, fig. 6, 1826. Müller and Henle, Plagiostomen, p. 84, 1841. Duméril, Hist. Nat. Elasmobr., p. 438, 1865, p. 419, 1870; Cape of

- Good Hope; New Holland; in part. Ogilby, Proc. Linn. Soc. New South Wales, ser. 2, vol. 3, p. 1096, 1888; deep water of Port Jackson.
- Acanthias vulgaris* Gray, List Fishes British Mus., p. 7, 1851; New Holland; not of Risso. Hector, Colonial Mus. Survey Fishes New Zealand, p. 76, 1872. Klunzinger, Archiv Naturges., vol. 38, p. 47, 1872; Hobson's Bay, Australia.
- Spinax fernandezianus* Gay, Hist. Chile, vol. 2, p. 365, 1854.
- Acanthias blainvillei* Bleeker, Nat. Tijds. Ned.-Ind., vol. 21, pp. 50, 58, 80, 1860; Cape of Good Hope.
- Acanthias megalops* Macleay, Proc. Linn. Soc. New South Wales, vol. 6, p. 367, 1881; Port Jackson, Australia.
- Acanthias fernandezianus* Philippi, Ann. Univ. Chile, vol. 71, p. 559, 1887; extr., p. 27, pl. 4, fig. 3.
- Squalus fernandezianus* Delfin, Cat. pesces Chile, p. 21, 1901. Norman, Discovery Reports, vol. 16, p. 10, 1937; Juan Fernandez Island.
- Squalus megalops* Waite, Records Australian Mus., vol. 4, p. 33, fig. 2, 1901. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 2, p. 47, 1908; south Australia; Tasmania. McCulloch, Biol. Results *Endeavour*, vol. 1, p. 9, 1911; off Babel and Flinders Islands, Bass Straits. McCulloch, Fishes New South Wales, ed. 2, p. 9, pl. 2, fig. 25a, 1927. Whitley, Mem. Queensland Mus., vol. 10, p. 194, pl. 27, fig. c, 1934; Victoria.
- Squalus acutipinnis* Regan, Ann. Natal Gov. Mus., vol. 1, p. 248, pl. 37, 1908; Table Bay, Cape of Good Hope; Natal; Mauritius. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 2, p. 47, 1908; South Africa; Mauritius. Clark, Report Sci. Res. *Scotia*, Scot. Nat. Antarctic Exped., vol. 4, p. 495, 1915; Houtjes Bay and off Salamander Point; entrance to Saldanha Bay. Norman, Discovery Reports, vol. 12, p. 37, 1935; in Atlantic off Cape Colony, South Africa.
- Squalus philippinus* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 677, fig. 1, pl. 51, 1912; off Sombrero Islet, near Maricaban Island, Verde Island Passage, Batangas Province, Luzon, in 236 fathoms.
- Squalus montalbani* Whitley, Australian Zool., vol. 6, p. 310, 1931; on *Squalus philippinus* Smith and Radcliffe.

Family 10. SCYMNORHINIDÆ

Dalatiidae. Includes sharks in all seas, some of large size and wide distribution. Only one genus in the Philippines, with one very small species.

Genus 29. EUPROTOMICRUS Gill.

Three species from the Pacific and Indian Oceans.

Euprotomicrus Gill, Proc. Acad. Nat. Sci. Phila., p. 264, 1864; orthotype, *Scymnus labordii* Müller and Henle. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 234, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 264, 1941.

Squaliolus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 683, 1912; orthotype, *Squaliolus laticaudus* Smith and Radcliffe.

52. *Euprotomicrus laticaudus* (Smith and Radcliffe).

One of the smallest sharks; only known from the Philippines.

Squaliolus laticaudus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 684, text fig. 4, pl. 54, 1912; Batangas Bay, Batangas Province, Luzon, in 170 fathoms.

Euprotomicrus laticaudus Garman, Mem. Mus. Comp. Zool., vol. 36, p. 235, 1913; Batangas Bay, Luzon. Fowler, Proc. Fourth Pacific Sci. Congress Java, p. 497, 1930; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 266, 1941; Batangas Bay, Batangas Province, Luzon.

Family 11. PRISTIOPHORIDÆ. Sawfishes

A small group of Indo-Pacific sharks, resembling sawfishes but very much smaller in size.

Genus 30. PRISTIOPHORUS Müller and Henle.

Three species known. Ranges from South Africa to the Philippines, south to Australia and Tasmania, north to Japan and Korea.

Pristiophorus Müller and Henle, Sitzungsber. Akad. Wiss. Berlin, p. 116, 1837; orthotype, *Pristis cirratus* Latham. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 245, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, pp. 279-80, 1941.

53. *Pristiophorus cirratus* (Latham).

Found from the Philippines to South Africa, Australia, and Tasmania. *Pristis cirratus* Latham, Trans. Linn. Soc. London, vol. 2, p. 281, pl. 26, fig. 5, pl. 27, 1794; New Holland. *Pristis cirrhata* Bloch and Schneider, Syst. Ichth., p. 351, pl. 70, fig. 2, 1801; on Latham. *Squalus anisodon* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 679, 680, 1802; New Holland. *Squalus tentaculatus* Shaw, General Zoology, vol. 5, p. 359, 1804; New Holland. Shaw and Nodder, Natur. Miscellany, vol. 15, pl. 630, 1804; southern Seas. *Pristis cirrhatus* Cuvier, Règne Animal, vol. 2, p. 132, 1817. Gunn, Ann. Mag. Nat. Hist., vol. 1, p. 108, 1838; Western Port, Tasmania. Bennett, Gatherings Nat. Austral., p. 35, 1860; Port Jackson. *Pristiophorus cirratus* Müller and Henle, Plagiostomen, p. 98, 1841; Port Jackson; New Holland. Günther, Cat. Fishes British Mus., vol. 8, p. 432, 1870; Tasmania; New Holland. Castelnau, Proc. Zool. Acclimat. Soc. Victoria, vol. 1, p. 220, 1872; Hobart Town, Tasmania. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 2, p. 56, 1908; New South Wales; Victoria; Tasmania. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 245, 1913; eastern Australia; New South Wales; Tasmania. Barnard, Ann. South African Mus., vol. 21, p. 53, 1925; False Bay, specimen identified by Dr. Boulenger. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 280, 1941; Apo Island, off Zamboanguita, Oriental Negros Province, Negros. *Pristiophorus cirrhatus* Stead, Fishes Australia, p. 233, 1908; Port Jackson.

Order E. BATOIDEI. Sawfishes, Guitarfishes, Rays, Skates, Torpedos

Family 12. PRISTIDÆ. Sawfishes

One genus of large fishes of all warm seas; entering fresh-water rivers and lakes.

Genus 31. PRISTIS Linck.

Pristis Linck, Magazin Neuestes Phys. Naturges., Gotha, ser. 3, vol. 6, p. 31, 1790; type, *Squalus pristis* L. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 260, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 291, 1941. *Pristobatus* Blainville, Bull. Soc. Philom., Paris, vol. 8, p. 121, 1816; type, *Pristis antiquorus* Latham=*Squalus pristis* L. *Pristobatys* Blainville, Nouv. Diet. Sci. Nat., ed. 2, vol. 27, p. 385, 1818; type, *Pristis antiquorus* Latham. *Pristibatis* Blainville, Faune Française, Poissons, Livr. 49, 1825; type, *Pristis antiquorum* Latham. *Pristiopsis* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 55, p. 459, 1905; orthotype, *Pristis perrotteti* Müller and Henle.

54. *Pristis microdon* Latham. Sawfish; Tagan.

From Madagascar and Zanzibar to the East Indies and Indo-China, south to Queensland, Australia; common in the Philippines. *Pristis microdon* Latham, Trans. Linn. Soc. London, vol. 2, p. 280, pl. 26, fig. 4, 1794. Müller and Henle, Plagiostomen, p. 107, 1841. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 54, Batavia, Gresik, and Surakarta, Java; Banjarmassin, Borneo. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 265, pl. 55, fig. 3; pl. 64, figs. 2-3, 1913; tropical seas entering rivers; Amazon River and tributaries. Herre, Philippine Jour. Sci., vol. 34, p. 303, 1927; fresh water Lake Naujan, Mindoro. Herre, Bureau Science Collections 1922-27, all in fresh water; Laguna de Bay, Laguna Province, and Bikol River, Camarines Sur Province, Luzon; Rio Grande and Liguasan Swamp, Cotabato Province, Agusan River at Moncayo, Davao Province, Mindanao.

Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 295, 1941; after Day and Garman.

Pristis perotteti Müller and Henle, Plagiostomen, p. 108, 1841; fresh water, Senegal. Günther, Cat. Fishes British Mus., vol. 8, p. 436, 1870; Atlantic Ocean; West Indies; Chiapam, Central America; Bandiermassin, Borneo; Zambezi River, Africa. Sauvage, in Granddier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891; Madagascar. Weber, Zool. Ergebnisse Reise Ned. Ost-Ind., p. 458, 1894; Borneo and Sumatra, in fresh water. Volz, Zool. Jahrb., Abth. in Decken's Syst., vol. 19, p. 413, 1904; Palembang and Bantung, Sumatra. Herre, Fishes 1931 Philippine Exped., p. 12, 1934; Laguna de Bay, Laguna Province, Luzon; fresh water.

Pristis antiquorum Blyth, Jour. Asiatic Soc. Bengal, vol. 36, 1860; Calcutta, India; not Latham.

Pristis perrotetti Martens, in Decken's Reise Ost-Africa, vol. 3, p. 144, 1869; Ebenda. Suvatti, Index Fishes Siam, p. 15, 1937; Nonthaburi; Tha-cin; Rayong.

Pristis perrotetti Day, Fishes India, p. 729, pl. 191, fig. 1, 1878; Mahuddee River, Orissa, India. Meyer, Nature, vol. 13, p. 167, 1875; fresh water, Santa Cruz, Laguna de Bay, Luzon. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 49, 1885; Laguna de Bay, Luzon. Tirant, Service Océanogr. Pêches Indo-Chine, 6° note, pp. 71, 175, 1929; Cochin China.

Pristis perotteti Annandale, Mem. Indian Mus., vol. 2, p. 6, 1909; off Arakan and Orissa.

Pristis perrottetii Pillay, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 352, 1929; Travancore.

55. *Pristis cuspidatus* Latham.

The East Indies, Philippines, and Cochin China west to the Red Sea.

Pristis cuspidatus Latham, Trans. Linn. Soc. London, vol. 2, p. 279, pl. 26, fig. 3, 1794. Müller and Henle, Plagiostomen, p. 107, 1841; Sumatra. Günther, Cat. Fishes., vol. 8, p. 439, 1870; Pinang, Malaya; India; East Indies; Tenasserim, Bengal. Day, Fishes India, p. 728, pl. 191, fig. 3, 1878; Calicut and Madras. Annandale, Mem. Indian Mus., vol. 2, p. 5, 1909; off Orissa, and mouth of the Ganges, India. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 261, 1913; India; Red Sea; East Indies. Pearson, Ceylon Administr. Report, p. E 23, 1914; Trincomalee. Herre, specimen seen at Cebu, Cebu Province, 1924; length 18 feet, with saw. Fowler, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 101, 1928; Bombay. Pillay, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 352, 1929; Travancore. Tirant, Service Océanogr. Pêches Indo-Chine, 6° note, p. 71, 1929; Cochin China. Fowler, Hong Kong Nat., vol. 1, p. 131, fig. 14, 1930; Indian Ocean. Giltay, Mem. Mus. Roy. Nat. Hist. Belg., ser. 5, vol. 3, p. 12, 1933; Tandjong Priok, Java. Suvatti, Index Fishes Siam, p. 3, 1937; Gulf of Siam. Fowler, Bull. 100 U. S. Nat. Mus. vol. 13, p. 296, 1941; Bombay, India.

Squalus semisagittatus Shaw, General Zoology, vol. 5, p. 361, 1804; Indian Seas.

Pristis cuspidata van Hasselt, Bull. Sci. Nat. Ferrussac, vol. 2, p. 90, 1824; Java. Lloyd, Records Indian Mus., vol. 1, p. 220, 1907; Akyab.

Pristis semisagittatus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 319, 1839. Müller and Henle, Plagiostomen, p. 108, pl. 40, 1841; Coromandel; India; Mediterranean Sea. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1389, 1850; Pinang; Singapore; Malay Peninsula. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 53; Batavia and Samarang, Java.

Pristis semi-sagittatus Duméril, Hist. Nat. Elasmobr., vol. 1, p. 477, pl. 9, figs. 6-6a, 1865; "Mer des Indes."

Family 13. RHINOBATIDÆ

Large rays of warm seas; more or less elongate.

Genus 32. RHINA Bloch and Schneider. Angelfish.

Tropical and temperate seas.

Rhina Bloch and Schneider, Syst. Ichth., p. 352, 1801; type, *Rhina ancylostomus* Bloch and Schneider.

Rhampobatis Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, p. 407, 1861; type, *Rhina ancylostoma* Bloch and Schneider. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 267, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 298, 1941.

56. *Rhina ancylostoma* Bloch and Schneider.

Indian Ocean, Philippines, China, Japan, and Queensland.

Rhina ancylostomus Bloch and Schneider, Syst. Ichth., p. 352, pl. 72, 1801; Coromandel; Indian Sea. Gray, Illustrations Indian Zoology, vol. 2, pl. 102, fig. 2, 1832-34; India. Agassiz, Poissons fossiles, vol. 3, p. 82, pl. 4, figs. 3-4, 1835. Müller and Henle, Plagiostomen, p. 110, 1841. Richardson, Ichth. China Japan, p. 195, 1846; Seas of China. Gray, List Fishes British Mus., p. 92, 1851; Madras; Pinang; China. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 56; Batavia. Java. Whitley, Fishes Australia, Part 1, Sharks, p. 179, figs. 205-206, 1940; Queensland and Broome, western Australia.

Rhina ancylostoma van Hasselt, Allgemeine Konst en Letterbode, 1823; Java. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 643, 1903; Kinkwazan, off Matsushima Bay, Japan. Norman, Proc. Zool. Soc. London, p. 943, fig. 1A, 1926; east Africa; Red Sea; Indian Ocean; Indian Archipelago; Australia; Japan. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 299, 1941; the Philippines and 12 other Indo-Pacific localities; after Day. Herre, motorship *Theodore N. Gill*, China Sea, southwest of entrance to Manila Bay, at 35 fathoms; October, 1947.

Rhampobatis ancylostomus Duméril, Hist. Nat. Elasmobr., vol. 1, p. 482, 1865. Annandale, Mem. Indian Mus., vol. 2, p. 10, pl. 5, fig. 5, 1909; off Orissa; off mouth River Hugli. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 267, 1913; Africa; China; East Indies. Chevey, Inst. Océanogr. Indo-Chine, 19^e note, p. 7, 1932; Cochin China.

Rhynchobatus ancylostomus Günther, Cat. Fishes British Mus., vol. 8, p. 440, 1870; Madras; China; Seychelles; Pinang. Day, Fishes, India, p. 730, pl. 193, fig. 3, 1878; Madras. Kent, Great Barrier Reef, p. 305, 1893; Queensland. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 72, 1929; Cochin China.

Rhynchobatus anchylostomus Pearson, Ceylon Administr. Report, 1915-18, pp. F9, F14, F18.

Genus 33. RHYNCHOBATUS Müller and Henle. Guitarfishes.

Large rays of the western Pacific and Indian oceans, and west coast of Africa.

Rhynchobatus Müller and Henle, Monatsber. Akad. Wiss. Berlin, p. 116, 1837; orthotype, *Rhinobatus laevis* Bloch and Schneider. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 268, 1913. Fowler, Bull. 100, U. S. Nat. Mus. vol. 13, p. 300, 1941.

Rhynchobatus Müller and Henle, Plagiostomen, p. 111, 1841; orthotype, *Rhinobatus laevis* Bloch and Schneider.

57. *Rhynchobatus djiddensis* (Forskål). Spotted guitarfish; Arado; Barewan; Immaradu; Pating sodsod.

Philippines and East Indies, north to Japan, east and south to the Louisiades and Australia, west through the Indian Ocean to India, Ceylon, the Red Sea, Zanzibar, Madagascar, and Natal. A food fish; the fins are highly prized for sharkfin soup.

Raja djiddensis Forskål, Descript. Animal., p. 18, 1775; Djedda and Lohaja, Red Sea.

Raja djiddensis Bonnaterre, Tableau Encyclop. Ichth., p. 5, 1788; Red Sea.

Rhinobatus djiddensis Bloch and Schneider, Syst. Ichth., p. 356, 1801; Red Sea.

Rhinobatus laevis Bloch and Schneider, Syst. Ichth., p. 354, pl. 71, 1801; Tranquebar. Schlegel, Fauna Japonica, p. 306, pl. 139, 1850; Japan.

Rhinobatus djeddensis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 54, pl. 14, fig. 1, 1828; Red Sea. Bennett, Life Raffles, p. 693, 1830; Sumatra. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 42, 1930; the Philippines.

Rhinobatus djiddensis Bennett, Life Raffles, p. 694, 1830; Sumatra.

Rhinobates rüppellii Swainson, Nat. Hist., Animals, vol. 1, Fishes, p. 185, fig. 24, 1838.

- Rhinobates laevis* Swainson, Nat. Hist., Animals, vol. 2, Fishes, p. 322, 1839. on *Walaiah tenke* Russell, Fishes Coromandel, vol. 1, p. 6, pl. 10, 1803; Vizagapatam.
- Rhynchobatus laevis* Müller and Henle, Plagiostomen, p. 111, 1841; India; Red Sea; Malabar. Bleeker, Jour. Indian Archipelago, vol. 3, p. 68, 1849; Celebes. Bleeker, Verh. Bat. Gen., vol. 23, p. 13, 1850; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 60, 1852; Singapore. Bleeker, Verh. Bat. Gen., vol. 25, p. 22, 1853; Japan; East Indies; Malacca; India; Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 271, 1865; Amboina. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 483, 1865; Malabar; Pondicherry; "mer des Indes"; Red Sea.
- Rhynchobatus djeddensis* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1394, 1850; Pinaug; Malay Peninsula; Singapore. Günther, Cat. Fishes British Mus., vol. 8, p. 44, 1870; Red Sea; Zanzibar; Seychelles; India; Sumatra; East Indian Archipelago. Day, Proc. Zool. Soc. London, p. 704, 1870; Andaman Islands. Day, Fishes India, p. 730, pl. 192, fig. 1, 1878; Coromandel coast. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 49, 1885; Makassar, Celebes. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 41, 1901; Nagasaki. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 72, 1929; Cochin China. Pillay, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 352, 1929; Travancore, India. Fowler, Hong Kong Nat., vol. 1, p. 498, 1930; Philippines.
- Rhinobatus jaram* Montrouzier, Ann. Soc. Agric. Hist. Nat., Lyon, p. 220, 1856; Woodlark Island, Louisiades.
- Rhynchobatus djeddensis* Day, Fishes Malabar, p. 273, 1865.
- Rhynchobatus djiddensis* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 674, 1871; Koseir, Red Sea. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 644, 1903; Tsuruga, Japan. Fowler, Proc. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 499, 1904; Padang, Sumatra. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 4, 1907; Cavite, Cavite Province, Luzon. Ogilby, Ann. Queensland Mus., No. 9, p. 5, 1908; Queensland coast. Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 588, 1912; Batavia, Java. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 268, pl. 65, fig. 1, 1913; Red Sea to East Indies; Africa to India. Weber, *Siboga*-Exped., vol. 57, Fische, p. 597, 1913; Makassar, Celebes. Norman, Proc. Zool. Soc. London, p. 944, 1926; east Africa and Red Sea to the Pacific. McCulloch, Biol. Results *Endeavor*, vol. 5, Part 4, p. 157, 1926; Queensland. McCulloch, Fishes of New South Wales, ed. 2, p. 10, pl. 2, fig. 29, 1927. McCulloch, Mem. Australia Mus., vol. 5, p. 23, 1929; Queensland; New South Wales. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 12, 1934; Manila markets. Umali, Fisheries Samar, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes, Manila, p. 40, fig. 8, 1936; Manila Bay. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Herre, Collections 1921-1941; Lingayen Gulf, Pangasinan Province, Aloneros, Ragay Gulf, Tayabas Province, Luzon; Culion; Iloilo, Iloilo Province, Panay; Cebu market; Tacloban market, Leyte; Dapitan and Zamboanga, Zamboanga Province, Mindanao; Jolo, Siasi, Bongao, and Sitankai, Sulu Province.
- Rhynchobatus djeddensis* Ogilby, Proc. Linn. Soc. New South Wales, vol. 10, p. 465, 1885; Port Jackson. Günther, Fische der Südsee, vol. 3, p. 491, 1910; Woodlark Island.
- Rhinobatis djeddensis* Annandale, Mem. Indian Mus., vol. 2, p. 12, 1909; Bengal Bay.
- Rhynchobatis djiddensis* Fowler, Copeia, No. 58, p. 62, 1918; Philippines.
- Rhinobatus columnae* Robinson, Natal Fisheries Report, p. 50, 1919; Natal; not of Bonaparte.
- Rhynchobatus djiddensis australiae* Whitley, Fishes Australia, Part 1, Sharks, p. 173, fig. 197, 1940; Queensland and New South Wales. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 300, 1941; Manila market.

Genus 34. RHINOBATOS Linck. Guitarfishes.

- Twenty-seven species are recognized by Norman; found in all warm seas. *Rhinobatos* Linck, Magazin Neuestes Phys. Naturges., Gotha, ser. 3, vol. 6, p. 32, 1790; type, *Raja rhinobatos* L. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 304, 1941.

Rhinobatus Bloch and Schneider, Syst. Ichth., p. 353, 1801. Müller and Henle, Plagiostomen, p. 113, 1841; in part. Günther, Cat. Fishes British Mus., vol. 8, p. 441, 1870; in part. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 269, 1913. Norman, Proc. Zool. Soc. London, p. 944, 1926.

Leiobatus Rafinesque, Caratteri animali piante Sicilia, p. 16, 1810; type, *Leiobatus panduratus* Rafinesque.

Squatinatoraja Nardo, Osserv. Agg. Adriaticae Ittiol., 1824; type, *Squatinatoraja colonna*=*Rhinobatus columnae* Müller and Henle.

Leiobatis Blainville, Faune Française Poissons, p. 43, 1825; type, *Leiobatus panduratus* Rafinesque.

Rhinobatis Blainville, Faune Française, Poissons, p. 47, 1825.

Rhinobates Swainson, Nat. Hist., Animals, vol. 2, Fishes, p. 193, 1839.

Syrrhina Müller and Henle, Plagiostomen, p. 113, 1841; in part.

Glaucostegus Bonaparte, Cat. metodico pesci Europei, p. 14, 1845; orthotype, *Glaucostegus cemiculus* Bonaparte=*Rhinobatus cemiculus* Geoffroy St. Hilaire.

58. *Rhinobatos armatus* Gray.

India, Malaya, The East Indies, Philippines, and Australia.

? *Rhinobatus typus* Bennett, Life Raffles, p. 694, 1830; Sumatra.

Rhinobatus armatus Gray, Illustrations Indian Zoology, vol. 2, pl. 99, 1834. Peters, Monatsber. Wiss. Akad. Berlin, p. 853, 1877; Bougainville Island, Solomon Islands. Ogilby, Mem. Queensland Mus., vol. 3, p. 132, 1915. Ogilby, Mem. Queensland Mus., vol. 5, p. 85, fig. 1, 1916.

Norman, Proc. Zool. Soc. London, p. 952, text fig. 6, 1926; India; Singapore, Makassar; Sumatra; Cape York, north Australia; Grootte Eylandt, North West Territory, and western Australia. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 2, Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 12, 1934; Sitankai, Sulu Province.

Rhinobatus (Rhinobatus) armatus Müller and Henle, Plagiostomen, p. 119, 1841; India. Bleeker, Verh. Bat. Gen., vol. 23, p. 13, 1850; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 85, 1852; Singapore. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 60. Bleeker, *ibid.*, vol. 25, p. 82, 1853; Bengal. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 10, 1856; Makassar, Celebes. Bleeker, *ibid.*, vol. 6, p. 3, 1859; Doreh, New Guinea. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 494, pl. 10, fig. 4 (scutes), 1865.

Rhinobatus granulatus Günther, Cat. Fishes, vol. 8, p. 443, 1870; not of Cuvier; in part. Day, Fishes India, p. 732, 1878.

Rhinobatus halavi Garman, Mem. Mus. Comp. Zool., vol. 36, p. 275, 1913; Singapore and southern Celebes; not of Forskål. Chevey, Inst. Océanogr. Indo-chine, 19^e note, p. 7, 1932; Indo-China.

Rhinobatos armatus Herre, 1936-37 Exped.; Sandakan, British North Borneo.

Rhinobatos typus Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 319, 1941; after Norman.

59. *Rhinobatos formosensis* Norman.

Formosa and the Philippines.

Rhinobatus schlegelii Günther, Cat. Fishes, vol. 8, p. 445, 1870; Formosa; in part.

Rhinobatus formosensis Norman, Proc. Zool. Soc. London, p. 958, fig. 11, 1926; Formosa.

Rhinobatos formosensis Fowler, Bull. 100, U. S. Nat. Museum, vol. 13, p. 307, 1941; Formosa; after Norman. Umali, motorship *Theodore N. Gill*, China Sea off mouth of Manila Bay, 9.5 miles south of Bataan Peninsula, Luzon, in 65 fathoms.

60. *Rhinobatos granulatus* Cuvier.

The Philippines, East Indies, north to China, south to Australia, west to India, Ceylon, and the Red Sea.

Rhinobatus granulatus Cuvier, Règne Animal, ed. 2, vol. 2, p. 396, 1829.

Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 36, 1860; Calcutta, India. Günther, Cat. Fishes, vol. 8, p. 443, 1870; in part. Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 409, 1876; Bangkok, Siam, and Singapore. Day, Fishes India, p. 732, pl. 192, fig. 2, 1878; Malabar; in part. Volz, Revue Suisse Zool., vol. 12, p. 484, 1904; Padang and Kwala, Sumatra.

- Garman, Mem. Mus. Comp. Zool., vol. 36, p. 272, 1913; India. Norman, Proc. Zool. Soc. London, p. 949, text fig. 3, 1926; Madras; India; type of *Rhinobatos spinosus*; Shanghai; coasts of India, Ceylon, China. Pillay, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 352, 1929; Travancore, India. Chevey, Inst., Océanogr. Indo-Chine, 19^e note, p. 7, 1932; Indo-China. Hora and Mukerji, Records Indian Mus., vol. 38, pp. 18 and 21, pl. 2, fig. 1, 1936; Maungmagan, Burma.
- Rhinobatus (Rhinobatus) granulatus* Müller and Henle, Plagiostomen, p. 117, pl. 38, 1841; Tranquebar and Pondicherry, India. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Bengal, p. 82. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 493, 1865; Malabar, Ganges River, and Pondicherry, India.
- Rhinobatus tuberculatus* (Cuvier) Bleeker, Verh. Bat. Gen., vol. 25, 1853; Bengal, p. 82.
- Rhinobatus spinosus* Günther, Cat. Fishes British Mus., vol. 8, p. 518, 1870; the type locality, "Mexico," is an error.
- Rhinobatus thouini* Day, Fishes India, p. 732, pl. 190, fig. 4, 1878; Andaman Islands; not of Shaw.
- Rhinobatis granulatus* Annandale, Mem. Indian Mus., vol. 2, p. 14, 1909; off Orissa, Bay of Bengal.
- Rhinobatus acutus* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 273, pl. 17b, figs. 1-2, 1913; Ceylon.
- Rhinobatos granulatus* Fowler, Mem. Bishop Mus., vol. 10, p. 24, 1928; Port Moresby, New Guinea. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 316, 1941; Cebu market, Cebu Province; mouth of Malampaya River and vicinity, Malampaya Sound, west coast of Palawan; Sandakan, British North Borneo; Port Moresby, New Guinea. Herre, motorship *Theodore N. Gill*, off Bataan Peninsula, Bataan Province, Luzon, at 65 fathoms, October, 1947.

Family 14. RAJIDAE. Rays; Skates; Pagi

Medium sized to large bottom-fishes, in all cool seas or in deep water; often sexually dimorphic.

Genus 35. RAJA Linnaeus.

- About 80 living species, some of them very large; scantily represented in Philippine waters.
- Raja* Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 231, 1758; type, *Raja batis* L.
- Leiobatus* Klein, Neuer Schauplatz, vol. 1, p. 316, 1775; type, *Raja oxyrhynchus* L.
- Dipturus* Rafinesque, Caratteri animali piante Sicilia, p. 16, 1810; type, *Raja batis* L.
- Cephalotherus* Rafinesque, Indice Ittiol. Siciliana, pp. 48, 61; 1810; *Cephalotherus maculatus* Rafinesque; monstrosity.
- Platopterus* Rafinesque, Analyse Nature, p. 93, 1815; type, *Raja batis* L.
- Dasybatus* Blainville, Bull. Soc. Philom. Paris, vol. 8, p. 121, 1816; type, *Raja batis* L.; not of Klein.
- Propterygia* Otto, Nov. Act. Acad. Leop. Nat. Curios. Bon., vol. 10, p. 112, 1821; type, *Propterygia hyposticta* Otto; monstrosity.
- Dasybatis* Blainville, Faune Française, Poissons, p. 12, 1825; type, *Raja batis* L.
- Laeviraja* Bonaparte, Iconografia fauna italica, Pesci, vol. 3, fasc. 6, 1834; type, *Raja oxyrhynchus* L.
- Batis* Bonaparte, Mem. Soc. Sci. Nat. Neuchâtel, vol. 2, p. 7, 1839; type *Raja radula* Delaroche.
- Hieroptera* Fleming, Edinburgh New Philos. Jour., vol. 31, p. 236, 1841; type, *Hieroptera abredonensis* Fleming; monstrosity.
- Eleutherocephalus* Agassiz, Nomenclatoris zoologici index universalis, pp. 71, 136, 1846; type, *Cephalotherus maculatus* Rafinesque.
- Amblyraja* Malm, Göteborgs Bohusläns fauna, p. 607, 1877; type, *Raja circularis* Malm=*Raja radiata* Donovan.
- Leucoraja* Malm, ibid., p. 609, 1877; orthotype, *Raja fullonica* L.
- Alpharaja* Leigh-Sharp, Jour. Morphology, vol. 39, pp. 567, 568, 1924; type, *Raja circularis* Couch; additional synonyms are *Beta raia*, *Gamma raia*, *Deltaraja*, *Epsilonraia*, *Zetaraja*, *Etaraja*, *Thetaraja*, and *Iotaraja*.

61. *Raja fusca* Garman.

The Philippines, China, Korea, and Japan.

Raja fusca Garman, Proc. U. S. Nat. Mus., vol. 8, p. 42, 1885; Japan. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 649, 1903; copied. Pietschmann, Sitzungsber. Akad. Wiss. Wien, vol. 117, p. 645, 1908; Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 110, 1925; Toyama; Misaki; Yokohama market. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., p. 11, figs. 2, 3, 1931; Misaki. Fowler, Bull. 100, U. S. Nat. Mus., p. 366, 1941; off Bagatao Island, Sorsogon Province, Luzon.

Raja kenoei Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 26, p. 652, 1903; Misaki; Tokyo; Wakanoura; Kobe; Tsuruga; Nagasaki (not of Müller and Henle). Schmidt, Fishes Eastern Seas Russia, p. 189, 1904; Gensan. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 515, 1906; Port Arthur, Manchuria. Pietschmann, Sitzungsber. Akad. Wiss. Wien, vol. 117, p. 646, 1908; Japan. Berg, Faune Russie, Poissons, vol. 1, p. 92, 1911; Gensan. Jordan and Thompson, Mem. Carnegie Mus., vol. 6, p. 208, 1914; Schinabara; Misaki. Mori, Jour. Pan Pacific Research Inst., vol. 3, p. 3, 1928; Mokpo and Jinsen, Korea. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, 1929; p. 590, Tokyo; p. 597, Hong Kong.

Raja fusca Garman, Mem. Mus. Comp. Zool., vol. 36, p. 349, pl. 24, figs. 4-5, 1913; Bay of Yedo, Japan. Lin, Sci. Rep. Nat. Tsing Hua Univ., ser. B, vol. 1, p. 163, figs. 11-11a, 1932; Tsingtao, China.

62. *Raja kenoei* Müller and Henle.

The Philippines, China, and Japan.

Raja kenoei Müller and Henle, Plagiostomen, p. 149, pl. 47, 1841; southwest coast of Japan; Nagasaki market. Richardson, Ichth. China, Japan, p. 197, 1846; seas of China and Japan; Canton. Schlegel, Fauna Japonica, Poissons, p. 308, 1850; Nagasaki. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Japan, p. 22; Nagasaki; China. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 3, 1858; Kiushiu. Bleeker, *ibid.*, vol. 8, p. 65, 1860; Nagasaki. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 556, 1865. Günther, Cat. Fishes British Mus., vol. 8, p. 461, 1870; Japan. Peters, Monatsb. Akad. Wiss. Berlin, p. 926, 1880; Ningpo, Fukien Province, China. Nyström, Svenska Vet. Akad. Handlingar, vol. 13, p. 51, 1887; Nagasaki. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 113, 1925; Misaki, Toyama, and Miyazu, Japan. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 501, 1930; Japan. Fowler, Hong Kong Nat., vol. 1, p. 136, fig. 18, 1930; Japan. Soldatov and Lindberg, Bull. Pacific Sci. Fisheries Inst., vol. 5, p. 19, 1930; Far East seas. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 11, p. 11, 1931; Nagasaki; Kagoshima; Misaki; Fusan. Tanaka, Japanese Fishes Life Colors, No. 31, 1933. Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 9, p. 105, fig. 7, 1933; Chusan, China. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 372, 1941; off Bagatao Island, Sorsogon Province, between Luzon and Burias; off Dos Hermanos Island, northeast corner Luzon, Cagayan Province; Kowloon, China, and China Sea near Hong Kong, and numerous specimens from Japan. Herre, Lingnan Sci. Jour., vol. 21, p. 109, 1945; Tinghai, Chusan Island, Fukien Province, China.

Raja kenoei Garman, Mem. Mus. Comp. Zool., vol. 36, p. 351, pl. 24, figs. 1-2, 1913; Idzu Sea, Japan.

Family 15. TORPEDINIDÆ Electric Rays; Torpedoes

Genus 36. NARCINE Henle.

Tropical Indo-Pacific and Atlantic Oceans.

Narcine Henle, Ueber *Narcine*, p. 31, 1834; orthotype, *Torpedo brasiliensis* Ölfers.

Syrraxis Bonaparte, Iconografia fauna italica, Pesci, vol. 3, Part 2, fasc. 13, 1835; type, *Narcine indica* Henle.

Cyclonarce Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, p. 387, 1861; orthotype, *Raja timlei* Bloch and Schneider.

Goninarce Gill, Ann. Lyceum Nat. Hist. New York, vol. 7, p. 387, 1861; orthotype, *Narcine indica* Henle.

63. *Narcine timlei* (Bloch and Schneider).

The Philippines, East Indies, China, Indo-China, Malaya, and India. *Raja timlei* Bloch and Schneider, Syst. Ichth., p. 359, 1801; Tranquebar, India.

Torpedo timlei van Hasselt, Bull. Sci. Nat. Férussac, vol. 2, p. 90, 1824; Java. Olfers, *Torpedo*, p. 22, 1831.

Narcine timlei Henle, Ueber *Narcine*, p. 34, pl. 2, figs. 1-1a, 1834; Tranquebar. Müller and Henle, *Plagiostomen*, p. 130, 1841; India; Japan. Richardson, Ichth. China Japan, p. 196, 1846; Indian Ocean; Sea of Japan. Gray, List Fishes British Mus., p. 102, 1851; China Seas. Duméril, *Revue Mag. Zool.*, ser. 2, vol. 4, p. 275, 1852; Bengal. Bleeker, *Verh. Bat. Gen.*, vol. 24, 1852; *Plagiostomen*, p. 50; Java; Celebes. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 4, p. 512, 1853; Batavia, Java. Bleeker, *ibid.*, vol. 20, pp. 217 and 447, 1859-60; Singapore. Duméril, *Hist. Nat. Elasmobr.*, vol. 1, p. 519, 1865; Bengal, India. Kner, *Reise Novara*, Fishes, p. 417, 1865; Ceylon; Madras. Günther, *Cat. Fishes*, vol. 8, p. 452, 1870; Pinang. Day, *Fishes*, India, p. 733, 1878. Duncker, *Mitt. Naturh. Mus. Hamburg*, vol. 21, p. 193, (1903) 1904, Singapore. Jordan and Seale, *Proc. Davenport Acad. Sci.*, vol. 10, p. 2, 1905; Hong Kong. Annandale, *Mem. Indian Mus.*, vol. 2, p. 44, pl. 3a, figs. 1-1A, 1909; Puro, Orissa coast, India. Pearson, *Ceylon Administr. Report*, p. E 5, 1912-13. Garman, *Mem. Mus. Comp. Zool.*, v. 36, p. 300, pl. 16, fig. 6, 1913; China; East Indies; Japan. Southwell, *Ceylon Administr. Report*, p. E 49, 1912-13. Pearson, *ibid.*, pp. F 10 and F 12, 1915-18. Chabanaud, *Service Océanogr. Pêches Indo-Chine*, 1^e note, p. 6, 1926; Tonkin. Pillay, *Jour. Nat. Hist. Soc. Bombay*, vol. 33, p. 353, 1929; Travancore, India. Tirant, *Service Océanogr. Pêches Indo-Chine*, 6^e note, p. 74, 1929; Cochin China. Herre, *Bureau Science Collections, 1920-1934*; Gulf of Lingayen; Manila Bay; Mangarin, Mindoro; Malampaya Sound, Palawan; Sulu Sea. Hardenberg, *Treubia*, vol. 15, p. 131, 1935; Bagan Si Api Api, Sumatra; Batavia, Java. Herre, *Bull. Raffles Mus.*, No. 13, p. 11, 1937; Ketam Island, Selangor, Federated Malay States. Herre, 1936-37 and 1940-41 Expeds.; Singapore, Malay Peninsula; Madras and Ennur Fishery Station, near Madras; Gopalpur, Ganjam District, Orissa, India. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 334, 1941; after Jordan and Seale and Garman.

Narcine microphthalmia Duméril, *Revue Mag. Zool.*, ser. 2, vol. 4, p. 275, 1852; Malabar coast and Pondicherry Bay, India.

Narcine macrura Duméril, *Revue Mag. Zool.*, ser. 2, vol. 4, p. 277, 1852; Sea of the Indies.

Narcine indica Bleeker, *Verh. Bat. Gen.*, vol. 25, 1852; Bengal, p. 82. Vizagapatam; (not of Henle). Bleeker, *Versl. Akad. Amsterdam*, vol. 12, p. 67, 1861; Pinang.

Genus 37. **TORPEDO** Houttuyn.

Western Pacific, Indian, and Atlantic Oceans. Some attain a large size.

Torpedo Houttuyn, *Nat. Hist. volgens Heer Linnaeus*, p. 453, 1764; type (not named), *Raja torpedo* L. Günther, *Cat. Fishes*, vol. 8, p. 448, 1870. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 13, p. 341, 1941.

Narcacion Klein, *Neuer Schauplatz*, Part 2, p. 237, 1776; Part 4, p. 726, 1777; type, *Raja torpedo* L., non-binomial. Garman, *Mem. Mus. Comp. Zool.*, vol. 36, p. 304, 1913.

Narcobatus Blainville, *Bull. Soc. Philom. Paris*, vol. 8, p. 121, 1816; type, *Raja torpedo* L.

Narcobatis Blainville, *Faune Française, Poissons*, p. 43, 1825; type, *Raja torpedo* L.

Tetranarce Gill, *Ann.*, Lyceum Nat. Hist. New York, vol. 7, p. 387, 1862; misprinted *Tetronarce*; orthotype, *Torpedo occidentalis* Storer.

Gymnotorpedo Fritsch, *Arch. Anat. Physiol. Leipzig*, p. 365, 1886; logotype, *Torpedo occidentalis* Storer.

Fimbriotorpedo Fritsch, *Arch. Anat. Physiol. Leipzig*, p. 365, 1886; logotype, *Torpedo marmorata* Risso=*Raja torpedo* L.

Tetronarcline Tanaka, *Jour. Coll. Sci.*, Tokyo, vol. 23, p. 2, 1908; type, *Tetronarcline tokionis* Tanaka.

Eunarce Fowler, *Proc. Acad. Nat. Sci. Phila.*, p. 472, 1910; orthotype, *Torpedo narke* Risso.

Notastrape Whitley, Records Australian Mus., vol. 18, p. 327, 1932; orthotype, *Notastrape macneilli* Whitley.

64. *Torpedo marmorata* Risso.

The Philippines, Indian and Atlantic Oceans, and Mediterranean Sea.

This may be *Torpedo panthera* Rüppell.

Raja torpedo Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 231, 1758; in part.

Raja maculata Shaw, General Zoology, vol. 5, p. 316, 1804; Vizagapatam, India.

Raja bicolor Shaw, *ibid.*; Vizagapatam.

Torpedo galvani Risso, Ichth. Nice, p. 21, pl. 111, fig. 5, 1810; Nice; after Rondelet. Bonaparte, Iconografia fauna italica, Pesci, vol. 3, Part 2, fasc. 3-5, 1833; Italy. Bonaparte, Cat. Metodico Pesci Europei, p. 14, 1846; Mediterranean Sea and Atlantic Ocean.

Torpedo marmorata Risso, Ichth. Nice, p. 20, pl. 111, fig. 4, 1810; Nice, France. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 12, p. 20, 1866; Madagascar. Günther, Cat. Fishes British Mus., vol. 8, p. 450, 1870; Nice; Propontis; Port Natal. Boulenger, Proc. Zool. Soc. London, p. 243, 1889; Muscat. Arabia. Sauvage, in Granddier Hist. Phys. Nat. Madagascar, Poissons, p. 2, 1891; Madagascar. Regan, Ann. Natal Mus. p. 242, 1908; Bird Island, Congella, Algoa Bay. Annandale, Mem. Indian Mus., vol. 2, p. 42, pl. 3a, fig. 4; pl. 5, fig. 3, 1909; Puri; Quilon; India. Zugmayer, Abh. Bayerisch. Akad. Wiss., vol. 26, p. 8, 1913; Mekran. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 342, 1941; San Andres Island (San Andreas ?) off west side of Marinduque Island, Philippines, in 50 fathoms; synonymy in part.

Torpedo diversicolor Davy, Trans. Roy. Philos. Soc. London, vol. 2, p. 542, pls. 22-24, 1834; Malta.

Torpedo picta Lowe, Proc. Zool. Soc. London, p. 93, 1843; Madeira.

Torpedo trepidans Valenciennes, Hist. Nat. Canaries, vol. 2, p. 101, 1843; Canaries.

Torpedo hebetans Valenciennes, *ibid.*, vol. 2, pl. 23, fig. 2, 1843.

Narcobatus torpedo Fowler, Proc. Acad. Nat. Sci. Phila., p. 472, 1910.

Narcocion marmoratus Garman, Mem. Mus. Comp. Zool., vol. 36, p. 305, pl. 61, figs. 1-3; pl. 67, figs. 1-2, 1913; Mediterranean Sea and eastern Atlantic Ocean.

Narcobatus marmoratus Barnard, Ann. South African Mus., vol. 21, p. 90, pl. 5, fig. 4, 1925.

Family 16. DASYATIDÆ. Sting Rays; Pagi

A large family in tropical and subtropical seas and rivers. Some species become large, or gigantic.

Genus 38. DASYATIS Rafinesque.

In shallow sandy and muddy bays, lagoons, and estuaries, all over the tropical Indo-Pacific, north to Japan, south to Australia and New Zealand, and in the tropical Atlantic.

Dasybatus (Klein), in Walbaum, Artedi Piscium, vol. 3, p. 581, 1792; type, *Raja pastinaca* L. Inadmissible. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 375, 1913.

Dasyatis Rafinesque, Caratteri animali piante Sicila, p. 16, 1810; type, *Dasyatis ujo* Rafinesque. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 410, 1941.

Uroæis Rafinesque, Indice Ittiol. Siciliana, p. 48, 1810; type, *Dasyatis ujo* Rafinesque.

Trygonobatus Blainville, Bull. Soc. Philom. Paris, vol. 8, p. 112, 1816; type, *Raja pastinaca* L. as *Trygonobatis* in Faune Française, Poissons, p. 35, 1825; type, *Raja pastinaca* L.

Trygon (Adanson) Cuvier, Règne Animal, vol. 2, p. 136, 1817; type, *Raja pastinaca* L. Günther, Cat. Fishes British Mus., vol. 8, p. 472, 1870.

Pastinachus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 82, 1828; type, *Raja sephen* Forskål.

Himantura Müller and Henle, Archiv Naturges., p. 400, 1837; orthotype, *Raja uarnak* Forskål.

- Hypolophus* Müller and Henle, Archiv Naturges., p. 400, 1837; orthotype, *Raja sephen* Forskål.
- Pastinaca* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 172, 1838; type, *Raja sephen* Forskål.
- Hemitrygion* Müller and Henle, Mag. Nat. Hist. Charlesworth, vol. 2, p. 90, 1838; orthotype, *Trygion bennetti* Müller and Henle.
- Brachioptera* Gratzianow, Zool. Anzeiger, p. 400, 1906; orthotype, *Brachioptera rhinoceros* Gratzianow.
- Pteroplatytrygion* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 62, p. 474, 1910; orthotype, *Trygion violaceum* Bonaparte.
- Toshia* Whitley, Records Australian Mus., vol. 19, p. 60, 1933; orthotype, *Dasyatis fluxiorum* Ogilby.
- Bathytoshia* Whitley, ibid, p. 61; orthotype, *Dasyatis thctidis* Whitley.
65. *Dasyatis bleekeri* (Blyth).
Burma, Orissa and Bengal, India, Singapore, Borneo, and the Philippines.
Trygion bleekeri Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 41, 1860; Bengal. Günther, Cat. Fishes British Mus., vol. 8, p. 475, 1870; after Blyth. Day, Fishes India, p. 738, pl. 195, fig. 3, 1878. Annandale, Mem. Indian Mus., vol. 2, p. 26, pl. 3, fig. 9, 1909; off Burma and Orissa. Hora, Mem. Roy. Asiatic Soc. Bengal, vol. 6, p. 464, 1924; Tale Sap, Siam.
Dasybatus bleekeri Garman, Mem. Mus. Comp. Zool., vol. 36, p. 379, 1913; Burma; Orissa; Bengal. Suvatti, Index Fishes Siam, p. 6, 1937; Ko Yai; Kivae Yai.
Dasybatus (Himanturus) bleekeri Chevey, Inst. Océanogr. Indo-Chine, 19^e note, p. 7, 1932; Cochin China.
Dasyatis bleekeri Fowler, Bull. 100. U. S. Nat. Mus., vol. 13, p. 410, 1941; after Day and Annandale; India; Ceylon; Cochin China. Herre, Fishes 1940-41 Exped.; Raffles Museum, Singapore; Megna River, Chandpur, Bengal, India. Herre, motorship *Spencer F. Baird*; Malampaya Sound, Palawan, October, 1947.
66. *Dasyatis imbricatus* (Bloch and Schneider).
Tropical Indian Ocean and western Pacific to East Indies, Philippines, and China.
Raja imbricata Bloch and Schneider, Syst. Ichth., p. 366, 1801; Coromandel, India.
Trygonobatus imbricatus Blainville, Bull. Soc. Philom. Paris, vol. 8, p. 112, 1816.
Trygon imbricata Cuvier, Règne Animal, vol. 2, p. 136, 1817. Müller and Henle, Plagiostomen, p. 164, 1841; Coromandel; Java. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1407, 1850; Pinang Sea; Singapore; Malay Peninsula. Bleeker, Verh. Bat. Gen., vol. 22; 1849; Ichth. fauna Madura, p. 6; Bangcallang and Kammal. Annandale, Mem. Indian Mus., vol. 2, p. 32, pl. 3, fig. 5, text fig. 6, 1909; Puri, coast of Orissa, India.
Pastinaca brevicauda Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 319, 1839.
Pastinaca dorsalis Swainson, ibid., p. 319, 1839.
Trygion walga Müller and Henle, Plagiostomen, p. 159, pl. 51, fig. 1, 1841; India; Red Sea. Bleeker, Verh. Bat. Gen., vol. 23, p. 13, 1850; Java. Günther, Cat. Fishes, British Mus., vol. 8, p. 475, 1870; Bay of Bengal; Pinang; East Indian Archipelago; Java. Day, Fishes India, p. 738, pl. 194, fig. 3, 1878. Peters, Monatsber. Akad. Wiss. Berlin, p. 926, 1880; Ningpo, China. Bartlett, Sarawak Gazette, vol. 26, No. 366, p. 134, 1896; Buntal, Borneo. Herre, in Ateneo de Manila Museum; an old specimen, stuffed; from Manila Bay, Luzon; Det. 1922.
Trygion heterurus Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 67, Batavia, Java.
Trygion polycephalus Bleeker, Verh. Bat. Gen., vol. 24, Plagiostomen, 1852; p. 73, Batavia, Java. Günther, Cat. Fishes British Mus., vol. 8, p. 475, 1870; Ceylon.
Trygion dadong Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 355, 1856; Bintang.
Trygion (Trygion) imbricatus Duméril, Nat. Hist. Elasmobr., vol. 1, p. 606, 1865; Coromandel; Pondicherry.

- Trygon (Himantura) walga* Duméril, Hist. Nat. Elasmobr., vol. 1, p. 589, 1865; Sea of the Indies; mouth of Ganges; Java.
- Trygon (Himantura) heterurus* Duméril, Hist. Nat. Elasmobr., vol. 1, p. 591, 1865; after Bleeker.
- Trygon (Himantura) dadong* Duméril, Hist. Nat. Elasmobr., vol. 1, p. 591, 1865; Bintang.
- Leiobatus dadong* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 290, 1868; Rio, Bintang.
- Trygon nuda* Günther, Cat. Fishes British Mus., vol. 8, p. 476, 1870; Singapore; India.
- Trygon nudus* Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 408, 1876; Singapore.
- Leiobatis (Trygon) nuda* Bleeker, Verh. Akad. Amsterdam, vol. 18, Enumeratio Poissons Japon, p. 33, 1879; Japan.
- Dasyatis walga* Rutter, Proc. Acad. Nat. Sci. Phila., p. 57, 1897.
- Dasybatus brevicauda* Fowler, Proc. Acad. Nat. Sci. Phila., p. 460, 1905; Baram, Sarawak, Borneo.
- Dasybatus imbricatus* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 379, 1913; East Indies. Suvatti, Index Fishes Siam, p. 6, 1937; Laem Sing; Sriracha; Chonburi; Trat.
- Dasybatus (Himanturus) imbricatus* Chabanaud, Service Océanogr. Pêches Indo-Chine, 1^o note, p. 6, 1926; Gulf of Siam.
- Dasyatis imbricatus* Fowler, Jour. Bombay Nat. Hist. Sci., vol. 33, p. 102, 1928; Bombay. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 87, p. 89, fig. 6, 1935. Bangkok; Sriracha; Paknam. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 434, 1941; Bombay, India. Herre, motorship *Theodore N. Gill*, November, 1947; Manila Bay, Luzon, at 31 fathoms.
- Dasyatis nudus* Fowler, List Fishes Malaya, p. 16, 1938.
- 67. *Dasyatis kuhlii* (Müller and Henle).** Kuhl's stingray Dahonan; Doragon; Kiampao; Perisan.
- Sandy or muddy coasts, bays and inlets throughout the Philippines; enters river mouths. Ranges all over the tropical Indo-Pacific; north to Japan, south to New South Wales, Australia.
- Trygon kuhlii* Müller and Henle, Plagiostomen, p. 164, pl. 50, 1841; Vanicoro; New Guinea; India. Schlegel, Fauna Japonica, Poiss., p. 308, 1850; Japan. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 73, Batavia and Samarang, Java; Japan. Bleeker, Verh. Bat. Gen., vol. 25, 1853, p. 22; Japan; East Indies; New Guinea; Vanicoro; India. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 228, 1854; Makassar, Celebes. Günther, Cat. Fishes British Mus., vol. 8, p. 479, 1870; Zanzibar; East Indies. Peters, Monatsber. Akad. Wiss. Berlin, p. 853, 1876; New Ireland. Day, Fishes India, p. 739, pl. 193, fig. 2, 1878; Madras. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 49, 1885; North Celebes. Ogilby, Cat. Fishes Australian Mus., p. 19, 1888; Paramatta River, New South Wales; Malay Archipelago; Tonga; Port Essington; Ugi, Solomon Islands; southeast New Guinea. Annandale, Mem. Indian Mus., vol. 2, p. 34, 1909; off Gopalpur, Orissa Province, India. Günther, Fische der Südsee, vol. 3, p. 494, 1910; New Caledonia; New Mecklenburg; Tongatabu; Samoa. Weber, *Siboga*-Exped., vol. 57, Fische, p. 603, 1913; Sulu, Philippines; Makassar and Manado, Celebes; Salayer.
- Trygon kuhli* Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, pp. 238, and 447, 1859-60; Singapore. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 741, 1901; Yokohama, Japan.
- Trygon (Trygon) kuhlii* Duméril, Hist. Nat. Elasmobr., vol. 1, p. 603, 1865; Sea of the Indies; Amboina; Java; Vanicoro; New Guinea.
- Leiobatus kuhli* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 290, 1868; Rio, Bintang, Riou Islands.
- Raya trigonoides* Castelnau, Proc. Zool. Acclimat. Soc. Victoria, vol. 2, p. 121, 1873; New Caledonia.
- Dasybatus varidens* Garman, Proc. U. S. Nat. Mus., vol. 8, p. 40, 1885; Hong Kong.
- Trigon kuhlii* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891.
- Dasyatis kuhlii* Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 338, 1900; Tokyo. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 42, 1901; Nagasaki; Yokohama. Tosh, Marine Biol. Report Queensland,

- pl. 5, fig. 1, 1903. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 659, 1903; Hakodate; Tokyo; Misaki; Wakanoura; Onomichi; Hiroshima. McCulloch, Proc. Linn. Soc. New South Wales, vol. 46, p. 46, pl. 39, figs. 1-2, 1921; off Bustard Head, Queensland; Parametta River estuary. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 1, 1922; Cebu, Cebu Province, Philippines. Fowler, Proc. Fourth Pacific Sci. Congress, p. 505, 1930; Solomons; Japan; Indian Ocean. Fang and Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 8, p. 270, fig. 24, 1932; Chefoo. Wang, *ibid.*, vol. 9, p. 111, 1933; Chusan. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 87, p. 90, 1935; Bangkok, Siam. Umali, Edible Fishes Manila, p. 42, fig. 9, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 424, 1941; Manila; Cebu market, Cebu; Zamboanga, Zamboanga Province, Mindanao; also "Philippines"; Sandakan Bay, British North Borneo; Hong Kong; New Guinea; and Ugi, Solomon Islands.
- Dasyatis kuhli* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 4, 1907; Philippines. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao. Seale, Philippine Jour. Sci., vol. 5-D, p. 264, 1910; Sandakan, British North Borneo; Philippines. Herre, Philippine Bureau Science Collections, 1920-30; Gulf of Lingayen; Divisoria and Quiapo markets, Manila; Cavite market; Manila Bay; Batangas market, Batangas Province, San Miguel Bay, Luzon; Siquijor Island; Butuan Bay, Agusan Province, Panguil Bay, Lanao Province, and Zamboanga, Zamboanga Province, Mindanao; Estancia, Iloilo Province, Panay.
- Dasybatus kuhlii* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 395, 1913; Japan; India; southern Celebes; East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 2, Sandakan, British North Borneo; p. 6, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 12, 1934; Capiz, Capiz Province, Dumaguete; Sitankai, Sulu Province. Umali, Philippine Jour. Sci. vol. 54, p. 371, 1934; southwestern Samar.
- Dasybatus (Amphotistius) kuhlii* Chevey, Inst. Océanogr. Indo-Chine, 19^e note, p. 7, 1932; Cochinchina; Cambodia.
- Dasybatus kuhli* Suvatti, Index Fishes Siam, p. 6, 1937; Siracha.
68. *Dasyatis sephen* (Forskål). Frill-tailed pagli.
Throughout the Philippines, and East Indies, west to the Red Sea, east to the Pelew Islands. Attains a breadth of one and three-fourths meters or more, and is a dangerous fish.
- Raja sephen* Forskål, Descript. Animal., p. 17, 1775; Djedda and Lohaja, Red Sea. Lacépède, Hist. Nat. Poissons, vol. 1, p. 122, 1798; Red Sea.
- Raja sephen* Bonnaterre, Tableau Encyclop. Ichth., p. 4, 1788; Red Sea.
- Raja sancur* Hamilton [né Buchanau], Fishes of Ganges, p. 2, 1882; Ganges River.
- Trigon forskali* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 53, pl. 13, fig. 2, 1828; Red Sea.
- Trigon (Pastinachus) sephen* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 52, 1828.
- Trygon wogla-tenkee* Cuvier, Règne Animal, ed. 2, vol. 2, p. 399, 1829; on *Wogla-tenkee* Russell.
- Hypolophus sephen* Müller and Henle, Plagiostomen, p. 170, 1841; India; Red Sea. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 429, 1850; Sea of Pinang; Malay Peninsula; Singapore. Bleeker, Verh. Bat. Gen., vol. 22; 1849; Madura, p. 6; Kammal, Madura. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 77; Batavia, Samarang, Gresik, Surabaya, Surakarta, Java; Kammal, Madura. Blyth, Jour. Asiatic Soc. Bengal, p. 37, vol. 29, 1860; Calcutta, India. Fowler, Proc. Acad. Nat. Sci. Phila., p. 461, 1905; Baram, Borneo. Weber, *Siboga*—Exped., vol. 57, Fische, 664, 1913; Dobo, Aru Island. Hora, Mem. Asiatic Soc. Bengal, vol. 6, p. 465, 1924; Tale Sap, Outer Lake, Singota, Siam.
- Trygon sephen* Günther, Cat. Fishes British Mus., vol. 8, p. 482, 1870; Indian Ocean; Seychelles; Pinang, Malay Peninsula; East Indies. Peters, Monatsb. Akad. Wiss., Berlin, p. 853, 1876; New Britain. Day, Fishes India, p. 740, pl. 195, fig. 2, 1878. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 212, 1883; Lower Burdekin River.

Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891. Weber, Zool. Ergebnisse Reise Ned. Ost-Ind., p. 458, 1894; Java, in fresh water. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 194, 1904; Kuala Lumpur, Selangor, Federated Malay States. Volz, Nat. Tijds. Ned.-Ind., vol. 66, p. 240, 1907; Palembang, Sumatra. Annandale, Mem. Indian Mus., vol. 2, p. 35, 1909; off Burma. Günther, Fische der Südsee, vol. 3, p. 384, 1910; New Pomerania; Pelew Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 604, 1913; Aru Islands. Zugmayer, Abh. Bayerisch. Akad. Wiss., vol. 26, p. 8, 1913; Mekran and Oman, Arabia. Pillay, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 353, 1929; Travancore, India. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 77, 1929; Cochin China.

Trygon (Hypolophus) sephen Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 680, 1871; Red Sea.

Taeniura atra Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 598, 1883; New Guinea.

Taeniura mortoni Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 212, 1883; Lower Burdekin River, Queensland.

Taeniura lymma Ogilby, Cat. Fishes Australian Mus., p. 20, 1888; type of *Taeniura mortoni*; Cape York, Queensland (not of Forskål).

Dasyatis sephen Stead, Fishes Australia, p. 233, 1908; New South Wales. Fowler, Proc., Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Orion, Bataan Province, Luzon. Fowler, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 102, 1928; Bombay; Philippines. Fowler, Proc. Fourth Pacific Sci. Congress, p. 505, 1930; East Indies; Philippines. Herre, Philippine Bureau Science Collections 1920-30; Manila Bay; Puerto Princesa, Palawan; Mangarin, Mindoro; Catbalogan, Samar; Surigao, Surigao Province; Dapitan and Zamboanga, Zamboanga Province, Mindanao; Jolo and Sitankai, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 415, 1941; Sorsogon market, Sorsogon Province, Luzon; Catbalogan, Samar; Bolalo Bay, Malampaya Sound, Palawan. Herre and Kaufman, motor ship *Theodore N. Gill*, February 1948; Guimaras Strait, between Guimaras Island and Negros, in 12 fathoms; weight 80 kilos; breadth 1400 mm.

Dasybatus sephen Garman, Mem. Mus. Comp. Zool., vol. 36, p. 384, 1913; Indian Ocean; India; Red Sea; East Indies; southern Celebes.

Pastinachus sephen McCulloch and Whitley, Mem. Queensland Mus. vol. 8, p. 130, 1925. McCulloch, Fishes New South Wales, ed. 2, p. 12, pl. 3, fig. 37a; 1927.

Pastinachus sephen *ater* Whitley, Records Australian Mus., vol. 18, p. 99, 1931; Burdekin River; type of *Taeniura atra* Macleay.

Dasyatis (Pastinachus) sephen Tortonese, Boll. Mus. Zool. Anat. Comp. Torino, ser. 3, vol. 45, p. 12, 1935-36; Mar Rosso; Massaua.

Hypolophus sepheni Suvatti, Index Fishes Siam, p. 5, 1937; on Hora.

69. *Dasyatis uarnak* (Forskål). Marbled stingray; Ring-tailed ray; Whip-tailed ray or Whip ray; Paging bulik; Paging sulatan.

Common in Philippine waters; ranges south through the East Indies to Australia, north to China, and all over the tropical Indian Ocean. Sometimes entering fresh water. Reaching a large size, a meter and a half broad and very bulky.

Raja uarnak Forskål, Descript. Animal., pp. VIII and 18, 1775; Arabia.

Raja arnak Forskål, Descript. Animal., pp. IX, 1775; Lohaja, Red Sea.

Raja uarnac Cuvier, Règne Animal, vol. 2, p. 136, 1817.

Trygonobatus russellii Gray, Illustrations Indian Zoology, vol. 2, pl. 100, 1832-34; India.

Pastinachus narnak Rüppell, Neue Wirbelt., Fische Rothen Meers, p. 69, pl. 19, fig. 2, 1835.

Trygon uarnak Müller and Henle, Plagiostomen, p. 158, 1841; Indian Ocean and Red Sea. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1405, 1849; Pinang, Malay Peninsula, Singapore. Gray, List Fishes British Mus., p. 116, 1851; Red Sea; Madras. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 69; Batavia. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 393, 1855; Amboina. Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 44, 1860; Calcutta. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 276, 1868; Batjan. Günther, Cat. Fishes British Mus., vol. 8, p. 473, 1870; Red Sea; Zanzibar; Seychelles; Madras; India; Pinang; East Indian Archipelago. Klunzinger, Verh. Zool.-Bot. Gesell.

- Wien, vol. 21, p. 679, 1871; Red Sea. Peters, Monatsber. Akad. Wiss. Berlin, p. 853, 1876; New Ireland. Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 407, 1876; Bangkok, Siam. Day, Fishes India, p. 737, pl. 194, fig. 1, 1878. Macleay, Proc. Linn. Soc. New South Wales, vol. 2, p. 366, 1878; Port Darwin, North Australia. Boulenger, Proc. Zool. Soc. London, p. 667, 1887; Muscat, Arabia. Annandale, Mem. Indian Mus., vol. 2, p. 22, fig. 2, pl. 1, figs. 1-2; pl. 2, figs. 1-1a; pl. 3, fig. 2, 1909; Bay of Bengal, India. Weber, *Siboga*-Exped., vol. 57, Fische, p. 602, 1913; Tamal Djampealh, Makassar; Saleyer. Tirant, Service Oceanogr. Pêches Indo-Chine, 6° note, pp. 77 and 175, 1929; Cochin China.
- Trygon variegatus* McClelland, Calcutta Jour. Nat. Hist., vol. 1, p. 60, pl. 2, fig. 2, 1841; Salt Lake near Calcutta.
- Trygon uarnack* Richardson, Ichth. China Japan, p. 197, 1846; Sea of China; Indian Ocean; Red Sea; Cape of Good Hope.
- Trygon uarnacoides* Bleeker, Verh. Bat. Gen., vol. 23, p. 13, 1850; Batavia and Samarang, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 738, 1852; Banka; Java. Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 588, 1912; Batavia, Java.
- Trygon pastinacoides* Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 75; Batavia, Java. Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 588, 1912; Batavia, Java.
- Trygon undulata* Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 70; Batavia and Samarang, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 167, 1855; Bandjermassin, Borneo; Batavia and Samarang, Java.
- Trygon parch* Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 71; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 461, 1853; Pengaron, Borneo; Batavia, Java.
- Trygon russellii* Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 42, 1860; Calcutta.
- Trygon ellioti* Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 41, 1860; lower Bengal.
- Leiobatus (Himantura) uarnak* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 264, 1863; Atapupu, Timor.
- Trygon (Himantura) uarnak* Duméril, Hist. Nat. Elasmobranch, vol. 1, p. 585, 1865; Red Sea; Malabar; Seychelles; Tourane; Cochin China; Dorey, New Guinea.
- Trygon (Himantura) variegatus* Duméril, Hist. Nat. Elasmobr., vol. 1, p. 587, 1865.
- Trygon (Himantura) undulatus* Duméril, Hist. Nat. Elasmobr., vol. 1, p. 586, 1865; Malabar, India.
- Trygon punctata* Günther, Cat. Fishes British Mus., vol. 8, p. 474, 1870; (?) East Indian Archipelago. Bartlett, Sarawak Gazette, vol. 26, No. 366, p. 134, 1896; Buntal, Sarawak, Borneo.
- Trygon (Himantura) oxyrhynchus* Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 2, p. 94, 1878; Saigon, Cochin China.
- Himantura uarnak* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891; Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 235, 1908; Manila. Ogilby, Mem. Queensland Mus., vol. 5, p. 88, 1916; Moreton Bay; Platypus Bay; Pine Peak; Burdekin River; Goode Island. McCulloch, Fishes New South Wales, ed. 2, p. 12, fig. 38-a, 1927.
- Trygon narnak* (misprint) Weber, Zool. Ergebnisse Reise Ned. Ost-Ind., p. 458, 1894; Borneo; Banka; Java; Ternate in fresh water.
- Himantura gerrardi* (not of Gray) Tosh, Marine Biol. Rep. Queensland, p. 4, pl. 5, fig. 2, 1903; Goode Island.
- Dasyatis russellii* Fowler, Jour. Acad. Nat. Sci. Philadelphia, ser. 2, vol. 12, p. 499, 1904; Padang, Sumatra.
- Dasyatis uarnak* Stead, Additions fish fauna New South Wales, vol. 1, p. 2, 1907; Queensland. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Orani and Orion, Bataan Province, Luzon. Fowler, Proc. Fourth Pacific Sci. Congress, p. 504, 1930; East Indies; Philippines. Fowler, Hong Kong Nat., vol. 1, p. 177, fig. 20, 1930; East Indies; Philippines. Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 9, p. 109, fig. 9, 1933; Yenting. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 43,

fig. 10, 1936; Manila Bay. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 405, 1941; Sorsogon market, Sorsogon Province; Port San Vicente, Cagayan Province; Manila, Luzon; Abuyog, Leyte; mouth of Malayampaya River, Malampaya Sound, Palawan. Also Sandakan, British North Borneo; Batavia, Java; Padang, Sumatra; Queensland, Australia. Herre, Philippine Bureau Science Collections, Ateneo de Manila Museum, and University of Santo Tomas Museum. Gulf of Lingayen; Manila Bay; Cavite, Cavite Province, Batangas Bay, Luzon; Cebu, Cebu Province; Cotabato Province, and Lianga Bay, Surigao Province, Mindanao; Siquijor Island; Basey, Samar; Jolo and Sitankai, Sulu Province.

Dasybatis uarnak Regan, Ann. Natal Mus., vol. 1, p. 242, 1908; Durban Bay, Natal.

Dasybatus uarnak Garman, Mem. Mus. Comp. Zool., vol. 36, p. 376, 1913; Indian Ocean; Red Sea; East Indies. Suvatti, Index Fishes Siam, p. 17, 1937; Maenam Canthaburi; Gulf of Siam; Songkhla; Maenam Thacin; Packnam Wen.

Dasybatus (Himanturus) uarnak Chabanaud, Service Océanogr. Pêches Indo-Chine, 1^o note, p. 6, 1926; Gulf of Siam.

Dasyatis uarnak Fowler, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 101, 1928; Bombay; Philippines; Sumatra; error.

Himantura arnak McCulloch, Mem. Australian Mus., vol. 5, p. 29, 1929; North Australia; Queensland; New South Wales; Philippines.

70. *Dasyatis zugei* (Müller and Henle).

Japan, China, The Philippines, East Indies, Malaya, Indo-China, Burma, and India.

Trygon zugei Müller and Henle, Plagiostomen, p. 165, pl. 53, 1841; Japan; China; Pondicherry, India. Richardson, Ichth. China Japan, p. 197, 1846; Macao, China. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1408, 1850; Pinang; Malay Peninsula; Singapore. Schlegel, Fauna Japonica, Poiss., p. 309, 1850; Nagasaki Bay. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Plagiostomen, p. 68; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 446, 1852; Banka. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Bengal, p. 82; Bengal. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 38, 1861; Singapore. Bleeker, *ibid.*, p. 67, 1861; Pinang Island. Günther, Cat. Fishes British Mus., vol. 8, p. 481; Japan; China; Pinang; Madras; East Indies. Day, Fishes India, p. 739, pl. 190, fig. 3, 1878; Madras. Annandale, Mem. Indian Mus., vol. 2, p. 33, pl. 4, fig. 2, 1909; off Burma and Orissa, India. Pellegrin, Ann. Mus. Zool. Univ. Napoli, new series, vol. 3, p. 4, 1912; Hong Kong. Weber, *Siboga*-Exped., vol. 57, Fische, p. 603, 1913; Java. Pearson, Ceylon Administr. Report, pp. F12-F14, 1915-18. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 77, 1929; Cochin China.

Trygon crozieri Blyth, Jour. Asiatic Soc. Bengal, p. 45, 1860; Lower Bengal.

Trygon (Trygon) zugei Duméril, Hist. Nat. Elasmobr., vol. 1, p. 606, 1865; Sea of the Indies; Pondicherry; Macao.

Dasyatis zugei Jordan and Snyder, Annot. Zool. Japan., vol. 3, p. 42, 1901; Nagasaki. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 660, 1903; Kobe; Tokyo; Wakanoura; Onomichi; Hiroshima. Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, p. 2, 1905; Hong Kong. Evermann and Shaw, Proc. Calif. Acad. Sci., ser. 4, vol. 16, p. 99, 1927; Chefoo, China. Fowler, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 102, 1928; Bombay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 429, 1941; Onomichi, Bingo, and Kobe, Japan. Herre, Lingnan Sci. Jour., vol. 21, p. 108, 1945; Tinghai, Chusan Island, Chekiang Province, China. Herre, Bureau Science Collections and Ateneo de Manila Museum; Gulf of Lingayen and Balayan Bay, Batangas Province, Luzon; Malampaya Sound, Palawan; South Ubian and Sitankai, Sulu Province.

Dasybatus zugei Garman, Mem. Mus. Comp. Zool., vol. 36, p. 398, 1913; Pinang; China; India; Japan; East Indies. Wu, Contrib. Biol. Lab. Sci. Soc. China, vol. 5, p. 13, fig. 10, 1929; Amoy. Hora and Mukerji, Records Indian Mus., vol. 38, p. 18, 1936; Maungmagan, Burma.

Genus 39. TAENIURA Müller and Henle.

Small stingrays of the tropical Indo-Pacific; species few.

Trygon St. Hilaire, Hist. Nat. Poissons Mer Rouge, p. 120, 1826; type, *Trygon grabatus* St. Hilaire; not of Cuvier.

Taeniura Müller and Henle, Sitzungsber. Akad. Wiss. Berlin, p. 117, 1837; type, *Trygon ornatum* Gray. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 398, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 397, 1941.

Discotrygon Fowler, Proc. Acad. Nat. Sci. Phila., vol. 62, p. 468, 1910; orthotype, *Discobatis marginipinnis* Macleay and Macleay=*Raja lymma* Forskål=*Taeniura lymma* (Forskål).

71. *Taeniura lymma* (Forskål). Blue-spotted stingray; Blue-spotted pagli. Common in the southern Philippines; ranges from the Red Sea to Fiji. *Raja lymma* Forskål, Descript. Animal., p. 17, 1775; Lohaja, Red Sea. Lacépède, Hist. Nat. Poissons, vol. 1, p. 119, pl. 4, figs. 2-3, 1798; "isles de Praslin; Cayenne; Asie; Afrique; Amerique."
Raja lymna Bounaterre, Tableau Encyclop. Ichth., p. 5, 1788; Red Sea. *Raja lymna* Bloch and Schneider, Syst. Ichth., p. 365, 1801; Red Sea. *Trygon lymma* St. Hilaire, Descript. Egypte, Poissons, pl. 27, fig. 1, 1818; Red Sea.
Trygon lymna Cloquet, Dict. Sci. Nat., vol. 38, p. 62, 1825.
Trygon lymna Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 51, pl. 13, fig. 1, 1828; Red Sea. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 69, pl. 19, fig. 4, 1835.
Trygon halgani Lesson, Voy. Coquille, Zool., vol. 2, p. 100, pl. 3, 1830; Offack Bay, Waigiu; Port Praslin, New Ireland. Guerin, Iconografia Poissons, pl. 69, fig. 3, 1838.
Trygon ornatum Gray, Illustrations Indian Zoology, vol. 1, pl. 99, 1832; Singapore.
Taeniura lymma Müller and Henle, Plagiostomen, p. 171, pl. 55, fig. 3, 1841; Red Sea; India; Timor; New Ireland. Bleeker, Jour. Indian Arch., vol. 3, p. 68, 1849; Celebes. Gray, List Fishes British Mus. p. 124, 1851; Red Sea; Singapore. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 78; Singapore; Batavia, Java. Bleeker, Verh. Bat. Gen., 1853; vol. 25, p. 82; Bengal. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, 1860; Visschen van Sumatra, p. 67; Sumatra. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 67, 1861; Pinang. Also other records by Bleeker from Morotai, Ternate, Timor, Ceram, Amboina, Waigiu, Halmahera, and New Guinea. Günther, in Playfair and Günther, Fishes Zanzibar, p. 143, 1866; Aden; Zanzibar; Mozambique. Günther, Cat. Fishes British Mus., vol. 8, p. 483, 1870; Red Sea; Zanzibar; Singapore; East Indian Archipelago; Ceram. Günther, in Brenchley's Cruise of *Curaçoa*, p. 409, 1873; Solomon Islands. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 598, 1883; New Guinea. Ogilby, Proc. Linn. Soc. New South Wales, vol. 10, p. 465, 1885; Cape York. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao. Günther, Fische der Südsee, vol. 3, p. 495, 1910; New Mecklenburg; Solomon Islands; Admiralty Islands. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 399, pl. 53, fig. 4; pl. 55, fig. 7; pl. 71, figs. 4-5, 1913; Red Sea; Singapore; Mauritius; Fiji Islands. McCulloch, Records Australian Mus., vol. 13, p. 41, pl. 10, 1920; Port Darwin, North Australia; Murray Island, Torres Strait; and St. Crispin Reef, Queensland. Whitley, Australian Zool., vol. 4, p. 228, 1926; North West Islet, Cape York, and Sir Edward Pellew Islands, Queensland. Fowler, Proc. Fourth Pacific Sci. Congress, Java, p. 504, 1930; Philippines; Singapore; Siam; East Indies; Indian Ocean. Herre, Jour. Pan Pacific Research Inst., p. 2, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 13, 1934; Jolo and Sitankai, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 398, 1941; Cebu market, Cebu Province; Jolo market, Sulu Province; Tampotana Island; Ulu-gan Bay, Palawan; Zamboanga, Zamboanga Province, Mindanao; Massaua, Red Sea; Padang, Sumatra; Port Moresby, New Guinea. Herre, Bureau Science Collections and Ateneo de Manila Museum; Cebu, Cebu Province; Dapitan and Zamboanga, Zamboanga Province;

- Tubigan Island, Siasi market, Tandubas Island, Sibutu, and Sitankai Islands, Sulu Province; Balabac.
- Taeniura lymna* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 412, 1850; Pinang, Malay Peninsula, Singapore. Giltay, Mem. Mus. Nat. Hist. Belgique, ser. 5, vol. 3, p. 16, 1933; Pulu Endu, Aru Islands.
- Taeniura lymna* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 740, 1852; Makassar.
- Trygon halganii* Schmeltz, Cat. Mus. Godeffroy, No. 4, p. 29, 1869; Kandavu.
- Discobatis marginipinnis* Macleay and Macleay, Proc. Linn. Soc. New South Wales, vol. 10, p. 676, pl. 46, figs. 7-15, 1886; Pacific Ocean near Admiralty Islands.
- Discotrygon marginipinnis* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 62, p. 462, 1910; on Macleay and Macleay.
- Taeniura lymna halgani* Whitley, Records Australian Mus., vol. 18, p. 97, pl. 11, 1931; numerous Queensland localities.

Genus 40. UROGYMNUS Müller and Henle.

- One species, widely distributed in the tropical Indo-Pacific.
- Anacanthus* (Ehrenberg) Hoeven, Handb. Dierk., vol. 2, p. 179, 1833; type, *Raja africana* Bloch and Schneider; preoccupied.
- Urogymnus* Müller and Henle, Archiv Naturges., p. 434, 1837; logotype. *Raja asperrima* Bloch and Schneider. Günther, Cat. Fishes British Mus., vol. 8, p. 471, 1870. Fowler, Bull. 100, U. S. Nat. Mus. vol. 13, p. 437, 1941.
- Gymnura* Müller and Henle, Sitzungsber. Akad. Wiss. Berlin, p. 117, 1837; orthotype, *Raja asperrima* Bloch and Schneider; preoccupied.
- Rhachinotus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 422, 1849; orthotype, *Raja africana* Bloch and Schneider; synonymy of *Urogymnus* Müller and Henle.

72. Urogymnus africanus (Bloch and Schneider). Thorny ray.

- From the Red Sea and east Africa to the Philippines and Gilbert Islands south to Queensland, Australia. Reaches a breadth of more than 1½ meters, the disk even longer.
- Raja africana* Bloch and Schneider, Syst. Ichth., p. 367, 1801.
- Raja asperrima* Bloch and Schneider, Syst. Ichth., p. 367, 1801; Indian Ocean; Bombay, India.
- Raja asperrimus* Müller and Henle, Ann. Mag. Nat. Hist. Charlesworth, vol. 2, p. 90, 1838.
- Anacanthus asperrimus* Müller and Henle, Plagiostomen, p. 157, pl. 60, figs. 5-7, 1841; India.
- Anacanthus africanus* Müller and Henle, Plagiostomen, p. 157, 1841.
- Rhachinotus africanus* Cantor, Jour. Asiatic Soc. Bengal., vol. 18, p. 1404, 1849; Pinang. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 65; Red Sea; New Guinea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 514, 1853; Batavia, Java.
- Urogymnus africanus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 438, 1941; after Day and Garman. Herre, Philippine Collections 1924-40; Manila market; Cavite market, Cavite Province, and Manila Bay, Luzon; Malampaya Sound and Brooke's Point, Palawan; Balabac Island; Bantayan Island; Dapitan, Zamboanga Province, Mindanao; Jolo, Pearl Bank, Cagayan Sulu Island and Sitankai, Sulu Province.
- Urogymnus asperrimus* Gray, List Fish. British Mus., p. 115, 1851. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 580, 1865; Seychelles. Günther, Cat. Fishes British Mus., vol. 8, p. 471, 1870; India; Pinang; African coast; Seychelles. Day, Fishes India, p. 736, pl. 195, fig. 1, 1878; Madras Museum. Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 312, 1880; Cape York. Ogilby, Cat. Fishes Australian Mus., p. 18, 1888; Kingsmill Islands. Boulenger, Proc. Zool. Soc. London, p. 243, 1889; Muscat, Arabia. Annandale, Mem. Indian Mus., vol. 2, p. 37, pl. 3, fig. 8; pl. 5, figs. 2-2a, 1909; off Chittagong Island. Southwell, Ceylon Administrative Report 1912-13, pp. E47 and E49. Weber, Siboga-Exped., vol. 57, Fische, 602, fig. 123, 1913; Lumu-Lumu; Borneo Bank. Tirant, Service Océanogr. Pêches Indo-Chine, 6^e note, p. 76, 1929; Cholon. Suvatti, Index Fishes Siam, p. 5, 1937; Ko-Chang, Siam.

- Genus 41. PTEROPLATEA** Müller and Henle. Butterfly rays.
Tropical and warm temperate Indo-Pacific and Atlantic Oceans.
Pteroplatea Müller and Henle, Sitzungsber. Akad. Wiss. Berlin, p. 117, 1837; type, *Raja altavela* L. Günther, Cat. Fishes, vol. 8, p. 486, 1870. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 412, 1913.
Aëtoplatea Müller and Henle, Plagiostomen, p. 175, 1841; orthotype.
Aetoplatea tentaculata Müller and Henle.
Aëtoplatia Agassiz, Nomenclatoris Zoologici, Index, p. 10, 1846; type, *Aetoplatea tentaculata* Müller and Henle.
Planerocephalus Gratzianow, Zool. Anzeiger, vol. 30, p. 403; 1906; orthotype, *Planerocephalus elliotti* Gratzianow=*Raja micrura* Bloch and Schneider; on a monstrosity.
Gymnura Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 449, 1941; on Kuhl, Allgemeine Konst en Letterbode, p. 316, 1823; validity doubtful.
- 73. Pteroplatea poecilura** (Shaw). Butterfly ray.
The Philippines and East Indies, north to China, and west to the Red Sea.
Raja poecilura Shaw, General Zoology, vol. 5, p. 291, 1804; on *Tenkee kunsal* Russell, Fishes Coromandel, vol. 1, p. 4, pl. 6, 1803; Vizagapatam, India.
Pastinaca kunsal Cuvier, Règne Animal, ed. 2, vol. 2, p. 400, 1829; on *Tenkee kunsal* Russell.
Trygon poecilurus Bennett, Life Raffles, p. 694, 1830; Sumatra.
Pteroplatea annulata Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 319, 1939; on *Tenkee kunsal* Russell.
Pteroplatea micrura Müller and Henle, Plagiostomen, p. 169, 1841; India. Richardson, Ichth. China Japan, p. 197, 1846; China and Java Seas; Indian Ocean; Red Sea. Bleeker, Verh. Bat. Gen., vol. 23, 1850; Java, p. 13. Batavia and Samarang. Bleeker, Nat. Tijds. Ned. Ind., vol. 2, p. 60, 1851; Borneo. Bleeker, *ibid.*, vol. 3, p. 60, 1852; Singapore. Bleeker, Verh. Bat. Gen. vol. 25, 1853, Bengal, p. 9. Bleeker, Nat. Tijds. Ned.-Ind., vol. 21, p. 139, 1860; Banka. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, 1860; Sumatra, p. 68; Sumatra. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 67, 1861; Pinang. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 120, 1873; China. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 613, 1865; Sea of Indies; mouth of the Ganges. Günther, Cat. Fishes, vol. 8, p. 487, 1870; Calcutta; Pinang; Singapore; East Indian Archipelago; India. Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 410, 1876; Bangkok, Siam. Day, Fishes India, p. 741, pl. 194, fig. 2, 1878. Annandale, Mem. Indian Mus., vol. 2, p. 39, 1909; Puri, Orissa.
Dasyatis micrura Gray, List Fishes British Mus., p. 122, 1851; Calcutta, India; Singapore.
Dasyatis microura Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 37, 1860; Calcutta.
Pteroplatea poecilura Garman, Mem. Mus. Comp. Zool., vol. 36, p. 412, 1913; Red Sea; India; Calcutta; Pinang; Java. Chabanaud, Service Océanogr. Pêches Indo-Chine, 1^e note, p. 6, 1926; Gulf of Siam. Herre, 1940-41 Exped., Capiz, Capiz Province. Panay.
Gymnura poecilura Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 452, 1941; Bombay, India.

Family 17. MYLIOBATIDÆ. Eagle Rays; Pagi Manok

Very large stingrays; species very few.

Genus 42. AETOBATUS Blainville.

In all tropical seas.

- Aetobatus* Blainville, Bull. Soc. Philom., vol. 8, p. 112, 1816; type, *Raja narinari* Euphrasen. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 440, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 470, 1941.
Aetobatis Blainville, Faune Française, Poissons, p. 38, 1825. Günther, Cat. Fishes British Mus., vol. 8, p. 492, 1870.
Aetobates Richardson, Ichth. China Japan, p. 198, 1846; type, *Raja narinari* Euphrasen.
Stoasodon Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1416, 1849; type, *Raja narinari* Euphrasen.

Aetobatus Duméril, Mem. Acad. Sci. France, vol. 27, p. 145, 1856; type *Raja narinari* Euphrasen.

Goniobatis Agassiz, Proc. Boston Soc. Nat. Hist., vol. 6, p. 385, 1859; type, *Raja flagellum* Bloch and Schneider.

74. *Aetobatus narinari* (Euphrasen). Eagle Ray; Pagi Manok; Paol; Bano-gan; Taligmanok.

Tropical Indo-Pacific and Atlantic Oceans.

Raja narinari Euphrasen, Svenska Vetens.—Akad. Nya Handlingar Stockholm, vol. 11, p. 217, pl. 10, 1790; St. Bartholomieu, West Indies; on *Narinari brasiliensis*. Marcgrave, Hist. Nat. Brasil, p. 175, figure, 1648, Brazil.

Raja narinari Bloch and Schneider, Syst. Ichth., p. 361, 1801; Tahiti.

Aetobatus narinari Blainville, Jour. Phys. Chem. et. Hist. Nat., vol. 83, p. 261, 1816. Poey, Fauna Puerto-Riqueña, p. 349, 1881; Porto Rico. Jordan, Proc. California Acad. Sci., ser. 2, vol. 5, p. 381, 1895; west coast of Mexico. Seale, Occas. Papers Bishop Mus., vol. 1, pp. 20 and 22, 1902; Honolulu. Evermann and Marsh, Bull. U. S. Fish Comm., vol. 20, p. 67, figs. 4-5, 1902; Porto Rico. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 441, pl. 49, figs. 1-3; pl. 54, fig. 4; pl. 55, fig. 9; pl. 57, fig. 4; pl. 73, fig. 4, 1913; "tropical and temperate Atlantic and eastern Pacific." Gudger, Carnegie Inst. Washington, Pub. No. 183, pp. 241-323, with 10 plates, synonymy and bibliography, 1914. Fowler, Proc. Acad. Nat. Sci. Phila., p. 194, 1925; Durban Bay, Natal. Fowler and Ball, Bull. Bishop Mus., vol. 26, p. 5, 1925; Johnston Island. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 11, p. 115, 1931; Kagoshima, Japan. Wang, Contrib. Biol. Lab. Sci. Soc. China, vol. 9, p. 115, fig. 12, 1933; Yenting, China. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 2, Sandakan, British North Borneo; p. 6, Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 13, 1934; Taytay Bay, Palawan; Sulu Islands. Herre, Field Mus. Nat. Hist., Zool. ser., vol. 21, p. 24, 1936; Tahiti; New Hebrides; Solomon Islands; Dutch New Guinea; Lembeh Strait, Celebes; Sandakan, British North Borneo; Jolo Island, Sulu Province, Philippines. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 137, fig. 57, 1936; tropical Atlantic and eastern Pacific. Suvatti, Index Fishes Siam, p. 7, 1937; Gulf of Siam. Umali, Edible Fishes Manila, p. 45, fig. 11, 1936; Manila Bay, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 471, 1941; Manila Harbor; Sorsogon market, Sorsogon Province, Luzon; Abuyog, Leyte Province; Okinawa, Riukiu Islands; synonymy in part. Herre, various collections, including Philippine Bureau of Science, and Ateneo de Manila Museum; Calabanga, Camarines Sur Prov., Luzon. Catbalogan, Samar; Zamboanga, Mindanao; Maimbung and Parang, Jolo Island; Siasi, Tandu Banak, Sibutu Island, and Sitankal, Sulu Province.

Myliobatis narinari Bennett, Life Raffles, p. 694, 1830; Sumatra.

Aetobatis narinari Müller and Henle, Plagiostomen, p. 179, 1841; India; Red Sea; Brazil; Surinam. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Plagiostomen, p. 87; Batavia, Samarang, Surabaya, Java; Kammal, Madura. Bleeker, Acta Soc. Sci. Ind.-Neerl., vol. 1, p. 10, 1856; Makassar, Celebes. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 641, 1865; Brazil, Red Sea; India. Günther, Cat. Fishes British Mus., vol. 8, p. 492, 1870; Jamaica; Bahia, Brazil; Bay of Panama; Pinang; Sumatra; India; Seychelles. Klunzinger, Verh. Zool.-Bot. Gesell. Wien., vol. 21, p. 686, 1871; Red Sea. Day, Fishes, India, p. 743, pl. 194, fig. 4, 1878. Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 317, 1880; Cape York. Ogilby, Proc. Linn. Soc. New South Wales, vol. 10, p. 466, 1885; Cape Hawke, New South Wales. Bartlett, Sarawak Gazette, vol. 26, No. 366, p. 134, 1896; Buntal and Santubong, Sarawak, Borneo. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 88, 1896; vol. 4, pls. 15-16, figs. 37 and 37a, 1900. Günther, Fische der Südsee, vol. 3, p. 496, 1910; Hawaiian Islands; Samoa; Solomon Islands. Barnard, Ann. South African Mus., vol. 21, p. 83, pl. 5, fig. 1, 1925. McCulloch, Fishes New South Wales, ed. 2, p. 13, pl. 3, fig. 42a, 1927. Tirant, Service Océanogr. Pêches Indo-

Chine, 6^e note, p. 79; Mekong River, Saigon; p. 175, 1929; Cochin China.

Family 18. RHINOPTERIDÆ. Cow-Nosed Rays

Large stingrays of tropical and temperate seas; species few.

Genus 43. RHINOPTERA Kuhl.

Species 10 or 12, only 1 in the Philippines.

Rhinoptera Kuhl, in Cuvier, Règne Animal, ed. 2, vol. 2, p. 401, 1829; type, *Myliobatis marginatus* Geoffroy. Günther, Cat. Fishes British Mus., vol. 8, p. 493, 1870. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 443, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 475, 1941.

Zygobatis Agassiz, Poissons fossiles, vol. 3, p. 79, 1838; type, *Myliobatis jussieui* Cuvier.

Zygobates Agassiz, ibid., vol. 3, p. 328, 1843.

Trikeras Harless, Abh. Nat. Phys., vol. 5, p. 841, 1850; type, *Myliobatis marginata* St. Hilaire.

Mylorhina Gill, Ann. Lyceum Nat. Hist. New York, p. 139, 1865; type.

Rhinoptera lalandii Müller and Henle.

Micromesus Gill, Ann. Lyceum Nat. Hist. New York, p. 139, 1865; type.

Rhinoptera adspersa Müller and Henle.

75. *Rhinoptera javanica* Müller and Henle. Cow-nosed ray; Palimanok; Ogaog; Banogan.

The Philippines and East Indies, west to India and Ceylon, and north to China.

Rhinoptera javanica Müller and Henle, Plagiostomen, p. 182, pl. 58, 1841; Java. Bleeker, Verh. Bat. Gen., vol. 22, 1849; Ichth. Madura, p. 6, Kammal. Bleeker, ibid., vol. 23, 1850; Java, p. 13; Batavia, Samarang, and Surabaya. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, 1858; p. 6, Amboina. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 647, 1865; Malabar, India. Günther, Cat. Fishes British Mus., vol. 8, p. 494, 1870; East Indies; Java. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 120, 1873; China. Day, Fishes India, p. 744, pl. 195, fig. 4, 1878; Kurrachee; Seas of India to Malay Archipelago. Bartlett, Sarawak Gazette, vol. 26, No. 366, p. 134, 1896; Moratabas, Sarawak, Borneo. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 446, 1913; Java; India. Hora, Mem. Asiatic Soc. Bengal, vol. 6, p. 645, 1924; Tale Sap, Singora, Siam. Chabanaud, Service Océanogr. Pêches Indo-Chine, 1^e note, p. 6, 1926; Gulf of Siam. Pillay, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 354, 1929; Travancore, India. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 71, p. 597, 1929; Hong Kong. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 46, fig. 12, 1936; Manila Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 476, 1941; Manila market.

Family 19. MOBULIDÆ

Gigantic rays in all tropical seas, straying north to Japan and New Jersey; some reach a breadth of 7 meters, and a weight of 2 tons and more; species imperfectly known.

Genus 44. MOBULA Rafinesque. Manta; Devil rays; Salanga; Sañga; Sarañgan.

Species few: two species occurring in the Philippines. Three specimens of an undescribed species were seen near Alice Channel. They had just been harpooned by fishermen and sold to a Chinese fish dryer. Their size (each 12 feet in diameter) made it impossible to put them in any container and their high market price, about \$45 each in United States money, prevented any attempt to stuff or dry a specimen.

Mobula Rafinesque, Indice Ittiol. Siciliana, pp. 48, 61, 1810; type, *Mobula auriculata* Rafinesque. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 650, 1865. Garman, Mem. Mus. Comp. Zool., vol. 36, p. 449, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 479, 1941.

- Apterurus Rafinesque*, Indice Ittiol. Siciliana, pp. 48, 62, 1810; type *Apterurus fabroni* Rafinesque.
- Cephaloterus* Risso, Ichth. Nice, p. 14, 1810; type, *Raja giorna* Lacepède=*Raja cephaloptera* Bloch and Schneider.
- Dicerobatus* Blainville, Bull. Soc. Philom. Paris, vol. 8, p. 116, 1816; type, *Raja mobulae* Bonnaterre.
- Pterocephala* Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 319, 1839; type, *Raja giorna* Lacepède.
- 76. *Mobula eregoodoo-tenkee* (Cuvier).**
- Cephaloptera tatraniensis* van Hasselt, Allgemeine Konst en Letterbode, vol. 1, p. 316, 1823.
- Raja eregoodoo-tenkee* Cuvier, Règne Animal, vol. 2, p. 402, 1829; on *Eregoodoo tenke* Russell, Fishes of Coromandel, vol. 1, p. 5, pl. 9, 1803; Vizagapatam, India.
- Cephaloptera kuhlii* Müller and Henle, Plagiostomen, p. 185, pl. 59, fig. 1, 1841; India. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 6, 1858; Amboina. Duméril, Hist. Nat. Elasmobr., vol. 1, p. 654, pl. 6, figs. 9-9a, 1865.
- Dicerobatis eregoodoo* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1420, 1849; Pinang, Malaya. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Bengal, p. 9, on *Eregoodoo tenke* Russell. Günther, Cat. Fishes British Mus., vol. 8, p. 497, 1870; Indian Seas. Day, Fishes India, p. 744, pl. 193, fig. 1, 1878; Seas of India to Malay Archipelago. Lloyd, Records Indian Mus., vol. 2, p. 179, text fig. 2, pl. 4, fig. 1, 1908; Madras.
- Dicerobatis kuhlii* Günther, Cat. Fishes British Mus., vol. 8, p. 497, 1870; Zanzibar. Day, Fishes India, p. 745, 1878. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 510, 1891. Weber, in Semon, Zool. Forschungsreisen Australia, vol. 5, p. 276, 1895; Amboina.
- Dicerobatis monstrum* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 687, 1871; Red Sea.
- Dicerobatis draco* Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 422, 1872; Misol, East Indies.
- Mobula kuhli* Millar, Zoologist, No. 694, p. 145, pl. 1, 1899; Durban, Natal.
- Dicerobatis thurstoni* Lloyd, Records Indian Mus., vol. 2, p. 179, fig. 3, pl. 4, fig. 2, 1908; Mekran and Oman.
- Dicerobatus eregoodoo* Wood-Jones, Proc. Zool. Soc. London, p. 144, 1909; Cocos Keeling Atoll.
- Mobula eregoodoo-tenke* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 451, 1913; Seas of India; Malay Archipelago; Red Sea. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 2, 1918; Philippines; vol. 79, p. 256, 1927; Philippines. Fowler, Proc. Fourth Pacific Sci. Congress, p. 507, 1930; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Umali, Edible Fishes Manila, p. 47, fig. 13, 1936; Manila Bay. Herre, 1922-40, specimens observed; Manila Bay; in museum, University of Santo Tomas, Manila; Mariveles Bay, Bataan Province; Calabanga, Camarines Sur Province (San Miguel Bay); Luzon. Maqueda Bay, Samar; Cebu market, Cebu; Dumaguete; Siquijor; Zamboanga, Zamboanga Province, Mindanao; Tawitawi, Sibu, and Sitankai, Sulu Province.
- Mobula kuhlii* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 452, 1913; Indian Ocean; East Indies; Japan.
- Mobula draco* Garman, Mem. Mus. Comp. Zool., vol. 36, p. 451, 1913; Mysol Island.
- Mobula eregoodoo* Ogilby, Mem. Queensland Mus., vol. 5, p. 90, 1916; Moreton Bay; Queensland, Australia. McCulloch, Mem. Australian Mus., vol. 5, p. 31, 1929; Queensland; Philippines. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province, Mindanao.
- Mobula eregoodoo-tenke* Fowler, Copeia, No. 58, p. 62, 1918; Philippines.
- Dicerobatis eregoodoo* Pillay, Jour. Nat. Hist. Soc. Bombay, vol. 33, p. 354, 1929; Travancore.
- Mobula diabolus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 480, 1941; Manila market; Philippines.

Subclass HOLOCEPHALI. Chimaeras

Order F. CHIMAEROIDEI. Chimaeras

Family 20. CHIMAERIDÆ. Chimaeras

Genus 45. CHIMAERA Linnaeus. Elephantfishes; chimaeras.

Atlantic and Pacific Oceans. In all seas, usually abyssal.

Chimaera Linnaeus, Syst. Nat., ed. 10, p. 236, 1758; type, *Chimaera monstrosa* L. Günther, Cat. Fishes British Mus., vol. 8, p. 349, 1870.

Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 95, 1896. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 487, 1941.

77. *Chimaera phantasma* Jordan and Snyder.

Japan and the Philippines.

Chimaera phantasma Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 338, 1900; Tokyo. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 43, 1901; Nagasaki; Goto Island; Yeso; Yokohama. Dean, Jour. College Sci. Tokyo, vol. 19, p. 3, pl. 1, figs. 3-4, 1904; Misaki, Japan. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 27, p. 223, fig. 1, 1904. Garman, Mem. Mus. Comp. Zool., vol. 40, p. 87, 1911; Sagami Bay, Japan. Smith, Proc. U. S. Nat. Mus., vol. 42, p. 231, 1912; Verde Island Passage; off northern Mindanao. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 116, 1925; Osaka market; Sagami Bay; Japan. Mori, Jour. Pan Pacific Research Inst., vol. 3, p. 3, 1928; Mokpo, Korea. Lin. Sci. Rep. Nat. Tsing Hua Univ., ser. B., vol. 1, p. 173, figs. 15-15a, 1932; Tsingtao, China. Tanaka, Japanese Fish Life Colors, No. 37, 1933. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 491, 1941; off Matoco Point, Batangas Province, Luzon; off Point Tagolo Light, Zamboanga Province, Mindanao; off Jolo Light, Jolo, Sulu Province.

78. *Chimaera deani* Smith and Radcliffe.

Chimaera deani Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 232, pl. 29, 1912; off Sombrero Islet, Verde Island Passage, Batangas Province, type and sole specimen. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 500, 1941; same specimen.

Class III. PISCES. True fishes

Super Order. TELEOSTEI. Bony fishes

Order G. ISOSPONDYLI. Soft-rayed fishes

Family 21. ELOPIDAE. Ten-pounders

Genus 46. ELOPS Linnaeus. Bid-bid.

Species few. In all warm seas.

Elops Linnaeus, Syst. Nat., 12th ed., p. 518, 1766; type, *Elops saurus* L. *Mugilomorus* Lacépède, Hist. Nat. Poissons, vol. 5, p. 398, 1803; type,

M. anna-carolina Lacépède.

Trichonotus Rafinesque, Analyse Nature, p. 88, 1815; substitute for *Mugilomorus* Lacépède.

Elops Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 524, 1941.

79. *Elops hawaiiensis* Regan.

Ten-pounder; Bid-bid; Awa; Ua; Sampangaray; Alho.

The Philippines, East Indies, Malaya, Formosa, and Hawaii; marine.

Elops saurus Bleeker, Atlas Ichth., vol. 6, p. 84, pl. 218, 1866-72; Java; Madura; Pinang; Singapore; Celebes; not of Linnaeus. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 53, fig. 8, 1905; Honolulu. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 53, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 235, 1908; Manila. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 524, 1941; Dampalit, near Malabon, Rizal Province, Luzon; Iloilo market; not synonymy.

Elops hawaiiensis Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 3, p. 39, 1909; Hawaiian Islands. Günther, Fische der Südsee, vol. 3, p. 386, 1910; Hawaii. Fowler, Proc. Acad. Nat. Sci. Phila., p. 204, 1911; Honolulu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 3, fig. 2, 1913; Batavia, Java; Makassar, Celebes. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Orani, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 26, 1928; Honolulu; Hilo. Roxas, Philippine Jour. Sci., vol. 55, p. 238, pl. 1, fig. 11, 1934; Manila. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; south-western Samar. Umali, Edible Fishes Manila, p. 49, fig. 14, 1936; Manila Bay. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, 1940 Exped., Malabon, Rizal Province, Luzon.

Elops hawaiiensis Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 165, pl. 66, upper figure, 1909; Suwata and Takao, Formosa. Fowler, Copeia, No. 112, p. 62, 1918; Philippines. Fowler, Bull. 22, Bishop Mus., p. 23, 1925; Honolulu. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 13, 1934; Manila; Capiz, Capiz Province, Panay; Dumaguete. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937; Balayan Bay, Batangas Province, Luzon.

Genus 47. MEGALOPS Lacépède.

A single species, all over the tropical Indo-Pacific.

Marine, entering fresh water.

Megalops Lacépède, Hist. Nat. Poissons, vol. 5, p. 289, 1803; type, *Megalops filamentosus* Lacépède=*Clupea cyprinoides* Broussonet.

Brisbania Castelnau, Proc. Linn. Soc. New South Wales, vol. 2, p. 241, 1878; type, *Brisbania stajgeri* Castelnau.

80. *Megalops cyprinoides* (Broussonet). Small tarpon; Broussonet's tarpon; Buan-buan; Bulan-bulan; Mulan-bulan; Abulong.

From Africa to Australia and Tahiti, north to China and the Riukiu Islands.

Clupea cyprinoides Broussonet, Ichthyologia, pl. 9, 1782; no pagination; Tanna Islands, New Hebrides. Bonnaterre, Tableau Encyclop. Ichth., p. 187, pl. 75, fig. 314, 1788; Pacific Ocean. Bloch, Naturges. Ansländ. Fische, vol. 9, p. 32, pl. 403, 1795; Pacific Ocean, Tanna. Lacépède, Hist. Nat. Poissons, vol. 5, pp. 424, 458, pl. 13, fig. 3, 1803; Pacific Ocean.

Megalops filamentosus Lacépède, Hist. Nat. Poissons, vol. 5, pp. 289, 290, pl. 13, fig. 3, 1803; Fort Dauphin, Madagascar. Bleeker, Atlas Ichth., vol. 6, p. 86, pl. 273, fig. 1, 1866-72; Java; Madura; Bali; Timor; Ceram.

Cyprinodon cundinga Hamilton [né Buchanan], Fishes Ganges, pp. 254, 283, 1822; saltwater estuaries, Ganges River.

Megalops cyprinoides Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 292, 1838; on Bloch. Günther, Cat. Fishes British Mus., vol. 7, p. 471, 1858; Zanzibar; Shire River, Madras; Bengal; Pinang; Java; Sumatra; Amboina; East Indies; Formosa; Aneitum; Cape York; Port Essington. Bleeker, Atlas Ichth., vol. 6, p. 85, pl. 270, fig. 4, 1866-72; Java and Celebes. Day, Fauna British India, Fishes, vol. 1, p. 402, fig. 126, 1889. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 770, 1905; Bais, Negros. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 53, 1907; Tarlac Province, and Bulan, Sorsogon Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 5, figs. 3-4, 1913; many East Indian localities; Philippines. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Philippines; Vigan, Ilokos Sur Province, and Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 27, 1928; Guam; Tubuai, Austral Islands; Apia, Samoa. Herre, Philippine Jour. Sci., vol. 38, p. 494, 1929; bangos ponds, Rizal, Bulacan, and Pampanga Provinces, Luzon. Herre, Philippine Jour. Sci., vol. 34, p. 296, 1933; Lake Bombon, Batangas Province, p. 303, Lake Naujan, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo; p. 6, Dumaguete, Oriental Negros Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 13, 1934; Bauang Sur, La Union Province,

- Bulacan, Bulacan Province, and Manila, Luzon; Dumaguete, Oriental Negros Province. Roxas, Philippine Jour. Sci., vol. 55, pp. 239-40, pl. 1, fig. 4 (scale), 1934; Buguey, Cagayan Province; Guagua and Macabebe, Pampanga Province; Tarlac, Tarlac Province; Iba, Zambales Province; Sitio Pagogo, Obando, and Paombong, Bulacan Province; Pasay, Rizal Province; Manila—preceding all on Luzon; Mangarin Bay and Puerto Galera, Mindoro; Guimaras Island; Dumaguete, Oriental Negros Province, Negros; Taytay, Palawan; Balabac Island; Camaguin Island, off northern Mindanao. Herre, 1936-37 and 1940 Expeds.; Malabon and Dagat-Dagatan Fisheries Exp. Station, Rizal Province; Nasugbu, Batangas Province; Luzon. Misamis, Misamis Occidental Province, Mindanao. Kinabutan River, Tawau, British North Borneo. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 50, fig. 15, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 183, 1938; Ragay Gulf, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 519, 1941; Dampalit and Malabon markets, Rizal Province; Manila market; Cavite market, Cavite Province, Santiago River, Pagapas Bay, and Dumaca River, Luzon; Port Dupon, and Malaya River, Hinunangan Bay, Leyte; Iloilo market, Panay; Panguran River, Port Caltom, Busuanga; Malinao River, Iwahig River, and creek near Pancol, Malampaya Sound, Palawan; Bais, Negros; Bacon, Sorsogon Province, Luzon; Philippines.
- Megalops setipinnis* Richardson, Ann. Mag. Nat. Hist., vol. 11, p. 493, 1843; Port Essington and Coburg Peninsula.
- Megalops curtifilis* Richardson, Ichth. China, Japan, p. 310, 1846; Chinese seas.
- Megalops indicus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 388, pl. 542, 1846; Fort Dauphin, Madagascar; Mauritius; Buru; Coromandel; Pondicherry; Malabar; Alipey; Canaror; Panimbang; Java; Tahiti; Tanna.
- Elops cundinga* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1271, 1849; sea and fresh water, Pinang, Malaya.
- Megalops macrophthalmus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 421, 1850; Batavia; Java.
- Megalops kundinga* Jerdon, Madras Jour. Lit. Sci., vol. 17, p. 146, 1851. Bleeker, Atlas Ichth., vol. 6, p. 87, pl. 274, fig. 1, 1866-72; Java.
- Elops apalike* Day, Fishes Malabar, p. 228, 1865; Malabar; not of Lacépède.
- Megalops macropterus* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 284, 1866; Java; Sumatra; Singapore; Bintang; Celebes; Amboina. Bleeker, Atlas Ichth., vol. 6, p. 85, pl. 273, fig. 2, 1866-72.
- Megalops oligolepis* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 292, 1866.
- Elops cyprinoides* Peters, Monatsber. Akad. Wiss. Berlin, p. 272, 1868; Bicol River, Camarines Sur Province, Luzon.
- Brisbania staigeri* Castelnau, Proc. Linn. Soc. New South Wales, vol. 2, p. 241, pl. 3, 1878; Brisbane River, Queensland.

Family 22. ALBULIDÆ

Two genera, one in the West Indies, the other pantropical. Marine.

Genus 48. **ALBULA** Scopoli. Ladyfish; Bonefish; Bid-bid.

A single species, in all warm shallow seas.

Albula Scopoli, Introd. Nat. Hist. p. 454, 1777; on Gronow; type, *Esox vulpes* L.

Butyrinus Lacépède, Hist. Nat. Poissons, vol. 5, p. 45, 1803; type,

Butyrinus banana Lacépède=*Esox vulpes* L.

Glossodus Cuvier, in Agassiz, Spix Pisc. Brasil., p. 48, 1829; type, *Argentina glossodonta* Forskål=*Esox vulpes* L.

Conorhynchus (Nozeman) Gill, Cat. Fishes Eastern Coast North America, p. 55, 1861; orthotype, *Butyrinus vulpes* Storer.

81. *Albula vulpes* (Linnaeus).

No attempt is made to give the extensive synonymy.

Esox vulpes Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 313, 1758; Bahama Islands; on bonefish, Catesby, Nat. Hist. Carolina, pl. 2, fig. 1, 1737; Bahamas.

Argentina glossodonta Forskål, Descript. Animal., p. 68, 1775; Djedda and Lohaja, Red Sea.

Esox argenteus Bloch and Schneider, Syst. Ichth., p. 395, 1801; Australia; New Zealand.

Synodus argenteus Bloch and Schneider, *ibid.*, p. 398, 1801.

Clupea brasiliensis Bloch and Schneider, *ibid.*, p. 427, 1801; Brazil.

Albula conorhynchus Bloch and Schneider, *ibid.*, p. 432, 1801; Antilles; called *Albula plumieri* on pl. 86; after Gronow and Plumier.

Albula immaculata Bloch and Schneider, Syst. Ichth., p. 451, 1801; Central America.

Synodus vulpes Lacépède, Hist. Nat. Poissons, vol. 5, p. 321, pl. 8, fig. 2, 1803.

Butyrinus bananus Lacépède, Hist. Nat. Poissons, vol. 5, p. 46, 1803.

Argentina donuk Lacépède, Hist. Nat. Poissons, vol. 5, pp. 365, 366, 1803; Arabian Sea.

Clupea macrocephala Lacépède, *ibid.*, pp. 426, 460, pl. 14, fig. 1, 1803; Martinique.

Glossodus forskåli Agassiz, in Spix Pisc. Brasil, p. 49, 1829; Bahia, Brazil; called *Engraulis sericus* on pl. 23, fig. 2, and *Engraulis bahtensis* on pl. 24, fig. 2.

Bitirinus glossodontus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 80, pl. 20, fig. 3, 1835; Djedda. Schlegel, Fauna Japonica, Poiss., p. 242, pl. 109, fig. 3, 1846; Japan; Korea.

Butirinus glossodonta Lay and Bennett, Zoology Capt. Beechey's Voyage, Fishes, p. 46, 1839; Oahu.

Elops glossodontus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 292, 1839; on Rüppell.

Albula conorhynchus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 356, 1846; compiled. Günther, Cat. Fishes British Mus., vol. 7, p. 468, 1868; many localities; Atlantic, Pacific, and Indian Oceans.

Albula banana Cuvier and Valenciennes, Hist. Nat. Poissons; vol. 19, p. 345, 1846; Mauritius.

Albula parrae Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 339, 1846; Martinique; Bahia; Rio de Janeiro.

Albula goreensis, Cuvier and Valenciennes, *ibid.*, p. 342; Goree, West Africa.

Albula neoguinaica Cuvier and Valenciennes, *ibid.*, p. 350; New Guinea.

Albula seminuda Cuvier and Valenciennes, *ibid.*, p. 351; New Guinea.

Albula erythrocheilos Cuvier and Valenciennes, *ibid.*, p. 352; Friendly Islands.

Albula forsteri Cuvier and Valenciennes, *ibid.*, p. 354; Tahiti.

Albula rostrata Gray, Cat. Fishes described by Gronow, p. 189, 1854; American Ocean; Indian Ocean; Mediterranean Sea.

Conorhynchus glossodon Bleeker, Atlas Ichth., vol. 6, p. 83, pl. 270, fig. 1, 1866-72; many East Indian localities.

Albula glossodonta Klunzinger, Verh. Zool.-bot. Gesell. Wien, vol. 21, p. 602, 1871; Red Sea.

Albula glossodon Günther, Fische der Südsee, vol. 3, p. 385, 1910; Society and Hawaiian Islands.

Albula vulpes Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 7, fig. 5, 1913; numerous East Indian localities.

Fowler, Mem. Bishop Mus., vol. 10, p. 27, 1928; Honolulu; Guam; Lisiansky; Tahiti; Funafuti; Society Islands. Herre, Fishes 1931

Philippine Exped., p. 13, 1934; Jolo, Sulu Province. Herre, 1936-37

Exped., Manila Bay. Roxas, Philippine Jour. Sci., vol. 55, p. 242, pl. 1, fig. 12, (scale), 1934; Cadiz Nuevo, Negros Occidental.

Albula virgata Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 6, pl. 1, fig. 1, 1922; Honolulu and Hilo.

A single genus with one species.

Genus 49. CHANOS Lacépède.

Chanos Lacépède, Hist. Nat. Poissons, vol. 5, p. 395, 1803; type, *Chanos arabicus* Lacépède.

Lutodeira van Hasselt, Allgemeine Konst en Letterbode, p. 333, 1823; type, *Lutodeira indica* van Hasselt.

Scolioctonus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 17, 1828; type, *Lutodeira indica* van Hasselt.

Ptycholepis Richardson, Ann. Mag. Nat. Hist., ser. 1, vol. 11, p. 489, 1843; not Agassiz 1832. The usual reference of this name to Gray in Dieffenbach's Travels in New Zealand, vol. 2, p. 218, 1843, is an error. See Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 58, 1844-48.

Lutodiera Agassiz, Nomenclatoris Zoologici Index, Univers., p. 217, 1846; type, *Lutodeira indica* van Hasselt.

82. *Chanos chanos* (Forskål). Bangos; Banglos; Banglis; Bangris; Bangros; Banglot; Banglus; Lumulokso; Awa; Betel; Laon; Bangilis; Bandeng (Java); Fry; Kawag-kawag; Hatirin; Garongin; Bansut; Bugi; Kawag; Awa-awa.

In the sea and entering rivers and lakes. Occurring throughout the warmer parts of the Indo-Pacific, from the east coast of Africa to the coast of Mexico, north to Hawaii and southern Japan, south to New South Wales and New Zealand. Only a small part of the extensive synonymy is here given. For further details see Herre, Philippine Jour. Sci., vol. 38, p. 498, 1929; and Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 537, 1941.

Mugil chanos Forskål, Descript. Animal., p. 74, 1775; Djedda, Red Sea. *Lutodeira chanos* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 18, pl. 5, figs. 1a and 1b; 1828; Red Sea.

Chanos chanos Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 605, 1871; Red Sea. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 56, fig. 10, 1905; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 4, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 505, 1907; Manila. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao. Seale, Philippine Jour. Sci., vol. 3A, p. 519, pl. 10, 1908; Philippines. Carpenter, Bull. 28, Bur. Education, 1908; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 15, fig. 8, 1913; Java; Madura; Pinang; Borneo; Celebes; Buru; New Guinea. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Philippines; Vigan, Ilokos Norte Province; San Fernando, La Union Province, Orani, Bataan Province, Luzon. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 296, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 28, pl. 1, 1928; Honolulu, Oahu; Fiji; Niau; Makemo; New Guinea; Tuamotus. Herre, Philippine Jour. Sci., vol. 38, pp. 452 and 499, colored pl. 1, 1929; Bataan Province; Batangas and Balayan Bays, Batangas Province; Bulacan, Cavite, Rizal, Pampanga, Zambales; Pangasinan, Ilokos Sur, La Union and Tayabas Provinces, and Lake Bato, Camarines Sur Province; all on Luzon. Mindoro Province; Marinduque; Sibuyan; Tablas; Mactan Island, Cebu Province; Samar; Leyte; Dumaguete and Tanjay, Oriental Negros Province, Negros. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 2, Sandakan, British North Borneo; p. 6, Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 13, 1934; Bulacan, Bulacan Province; Malabon, Rizal Province; Cavite, Cavite Province, Luzon; Capiz Province, and La Paz, Iloilo Province, Panay; Dumaguete, Negros. Sea between Leyte and Sancar; Illana Bay, Mindanao. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Roxas, Philippine Jour. Sci., vol. 55, p. 245, pl. 1, fig. 3 (scale), 1934; Luzon; Macabebe, Paupanga Province, Malabon, Rizal Province; Manila market; Cavite, Cavite Province, Panay; Dumangas and Jaro, Iloilo Province; Bantayan Island and Mactan Island, Cebu Province. Umali, Edible

Fishes Manila, p. 52, fig. 16, 1936; Manila Bay; fish ponds, Rizal, Bulacan, Pampanga, and Bataan Provinces, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, pp. 192-215, 1937; Lake Bombon (Taal), Pansipit River, and coastal waters from Nasugbu to Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao; Kagtong, Bohol, Panacan, Palawan, Bungau, Sulu Province. Herre, 1940-41 Exped.; Estancia, Iloilo Province, Panay; Pearl Bank and Sitankai, Sulu Province; near Capiz, Capiz Province, Panay; Cagayan, Oriental Misamis Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 537, 1941; Caloccan, Navotas, and Malabon, Rizal Province, Palatikin; Port Matalvi; Manila market; Cavite, Cavite Province, all on Luzon.

Family 24. CHIROCENTRIDÆ

One genus of the tropical Indo-Pacific.

Genus 50. CHIROCENTRUS Cuvier.

Two species; marine, entering brackish waters.

Chirocentrus Cuvier, Règne Animal, vol. 2, p. 178, 1817; type, *Esox chirocentrus* L.=*Clupea dorab* Forskål. Hardenberg, Treubia, vol. 12, pp. 51-64, 1930; separates the two species.

Neosudis Castelnau, Proc. Acclimat. Soc. Victoria, vol. 2, p. 118, 1873; type, *Neosudis vorax* Castelnau.

83. *Chirocentrus dorab* (Forskål). Wolf herring; Parang; Parang-parang; Balbaliga; Balira; Bariga; Dahon tubio.

The East Indies and Philippines north to China and Japan, east to New Britain and Fiji, south to Queensland, west to the east coast of Africa.

Most of the extensive synonymy is omitted; in many cases it is impossible to determine the species under discussion.

Clupea dorab Forskål, Descript. Animal., p. 72, 1775; Djedda and Mocha, Red Sea.

Chirocentrus dorab Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 81, 1835; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 150, pl. 565, 1846; Coromandel; Malabar; Mauritius; Buru; New Guinea; Zanzibar; Muscat; Red Sea; Java. Bleeker, Atlas Ichth., vol. 6, p. 92, pl. 271, fig. 3, 1866-72; Java; Madura; Sumatra; Singapore; Bintang; Banka; Borneo; Celebes; Amboina; Buru; New Guinea. Günther, Cat. Fishes British Mus., vol. 7, p. 475, 1868; Zanzibar; Port Natal; Bengal; Pinang; Amboina; East Indies; China; Japan. Day, Fishes India, p. 652, pl. 166, fig. 3, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 43, 1885; Manila Bay. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 73, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 4, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 53, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Manila. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 18, fig. 11, 1913; not synonymy; many East Indian localities. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 2, 1922; Cebu, Cebu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Vigan, Ilokos Sur Province, Luzon. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 42, 1930; Manila; as *Chirocentrus darab*. Fowler, Hong Kong Nat., vol. 2, p. 52, fig. 4, 1931; Hong Kong; East Indies; Philippine Islands. Chevey, Poissons campagnes "de Lanessan," p. 17, colored pl. 1, 1932; coasts of Indo-China. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 2, Sandakan, British North Borneo; p. 6, Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 13, 1934; Unisan, Tayabas Province, Luzon; Capiz, Capiz Province, Panay; Cebu; Dumaguete, Negros; common in all markets. Roxas, Philippine Jour. Sci., vol. 55, p. 247, pl. 1, fig. 9 (scale), 1934; Luzon: Rosario, La Union Prov-

ince; San Fabian, Pangasinan Province; Manila market; San Miguel Bay, Calabanga, and San Miguel, Camarines Sur Province. Tablas Island; Buguey, Samar. Dumangas and Estancia, Iloilo Province; Culasi, Antique Province; Guimaras Island; Tacloban, and Carigara, Leyte Province; Bantayan, Cebu Province; Davao, Davao Province; Basilan Island. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 54, fig. 17, 1936; Manila Bay. Blanco, Phil. Jour. Sci., vol. 66, p. 507, 1938; Cagayan Prov., Luzon. Domantay, *ibid.*, vol. 71, p. 99, 1940; Zamboanga Prov., Mindanao. Herre, 1940-41 Collection; Iloilo, Iloilo Province, Panay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 724, 1941; Manila; Cebu market, Cebu Province; Mindanao; Philippines.

Family 25. DUSSUMIERIIDÆ. Round Herrings

Marine. Abundant in the central and southern Philippines and East Indies.

Genus 51. **DUSSUMIERIA** Cuvier and Valenciennes. Dwarf round herring; Tulis; Balantiong; Tamban helos.

Dussumieria Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 467, 1847; haplotype, *Dussumieria acuta* Cuvier and Valenciennes. Roxas, Philippine Jour. Sci., vol. 55, p. 250, 1934.

84. *Dussumieria acuta* Cuvier and Valenciennes.

Philippines, China, through East Indies to Red Sea.

Dussumieria acuta Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 467, pl. 606, 1847; Bombay; Coromandel. Kner, Reise *Novara*, Fische, p. 330, 1865; Java; Manila, Luzon. Bleeker, Atlas Ichth., vol. 6, p. 94, pl. 271, fig. 1, 1866-72; many East Indian localities; Philippines. Günther, Cat. Fishes British Mus., vol. 7, p. 466, 1868; Sarawak, Borneo, and Pinang, Malaya. Day, Fishes India, p. 647, pl. 166, fig. 4, 1878; Sind and Malabar. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 21, fig. 13, 1913; many East Indian localities; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 2, 1923; Cebu. Fowler, Hong Kong Nat., vol. 2, p. 113, 1931; Hong Kong; Philippines. Roxas, Philippine Jour. Sci., vol. 55, p. 251, pl. 1, fig. 5 (scale), 1934; Orani, Bataan Province, and Manila market, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 570, 1941; Varadero Bay and harbor, Mindoro; Jolo, Sulu Province, Philippines; Sebatik Island, British North Borneo.

Dussumieria clopsoides Bleeker, Verh. Bat. Gen., vol. 22, 1849, Ichth. Madura, p. 12; Madura Straits near Kammal and Surabaya, Java.

85. *Dussumieria hasseltii* Bleeker.

India to the East Indies, Philippines, China, Formosa, and south to Queensland, Australia.

Dussumieria hasseltii Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 422, 1850; Batavia, Cheribon, Sumarang, Surabaya, Java. Bleeker, Atlas Ichth., vol. 6, p. 95, pl. 271, fig. 2, 1866-72; Java; Madura; Singapore; Sumatra; Celebes; Batjan; Obi Major; Amboina. Day, Fishes India, p. 647, pl. 166, fig. 5, 1878; Canara; Coromandel.

Dussumieria elopsoides Günther, Cat. Fishes British Mus., vol. 7, p. 466, 1866; in part; Amboina; Amoy; not of Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 42, 1885; Manila Bay. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 5, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Iloilo, Panay.

Dussumieria hasseltii Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Manila. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 23, 1913; numerous East Indian localities; Philippines. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; San Fernando, La Union Province; Orani and Orion, Bataan Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Gulf of Lingayen, La Union Province, and Unisan, Tayabas Province, Luzon. La Paz, Iloilo Province, Panay; Cebu.

Roxas, Philippine Jour. Sci., vol. 55, p. 252, pl. 1, fig. 2 (scale), 1934; Rosario, La Union Province; Unisan, Tayabas Province; San Miguel Bay and Barrio Sibubu, Camarines Sur Province, Luzon; San Pedro Bay, near Basey, Samar; Culasi, Antique Province, Panay; Guimaras Island. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay; Limay, Bataan Province, Luzon; Iloilo market, Iloilo, Panay; Sandakan and Si Amil Island, British North Borneo. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 574; 1941; determination doubtful; San Vicente Harbor, Cagayan Province, Luzon; Busin Harbor, Burias Island; Balamban, Cebu.

Genus 52. ETRUMEUS Bleeker.

Two Pacific species, one all over the Indo-Pacific, from South Africa to Japan and California, the other known from the Philippines and Celebes. Marine.

Etrumeus Bleeker, Verh. Bat. Gen., vol. 25, 1853; Ichth. Japan, p. 48; Japan; type, *Clupea micropus* Schlegel.

Perkinsia Rosa Smith Eigenmann, American Naturalist, vol. 25, p. 153, 1891; type, *Perkinsia othonops* Rosa Smith Eigenmann; San Diego, California.

Montalbania Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 244, 1934; type, *Etrumeus albulina* Fowler.

86. Etrumeus albulina Fowler.

Etrumeus albulina Fowler, Proc. Acad. Nat. Sci., vol. 85, p. 244, fig. 7, 1934; Iloilo, Iloilo Province, Panay, Philippines; East Indies. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 574, fig. 14, 1941; Manila market; Cavite market; and Sorsogon market, Sorsogon Province, Luzon. Market, Iloilo, Panay; market, Tacloban, Leyte; market, Cebu, Cebu. Caiholo River, Ulugan Bay, Palawan. Buka Buka Island, Gulf of Tomini, Celebes.

Genus 53. SPRATELLOIDES Bleeker.

Two widely distributed species are abundant in the Philippines. Marine.

Spratelloides Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht viss., p. 29; Celebes; type, *Spratelloides argyrotaenia* Bleeker. Roxas, Philippine Jour. Sci., vol. 55, p. 249, 1934.

87. Spratelloides delicatulus (Bennett).

East Indies, China, Hawaii, Samoa, Tuamotus, Australia, Mauritius, Natal. Abundant in the Philippines.

Clupea delicatula Bennett, Proc. Comm. Zool. Soc. London, vol. 1, p. 168, 1831; Mauritius.

Spratelloides delicatulus Günther, Cat. Fishes British Mus., vol. 7, p. 464, 1868; East Indies and Australia. Bleeker, Atlas Ichth., vol. 6, p. 96, pl. 264, fig. 3, 1866-72; Singapore; Banka; Celebes; Halmahera; Ternate; Amboina; Saparua; Banda. Weber, *Siboga*-Exped., vol. 57, Fische, p. 4, 1913. Many East Indian localities. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 20, 1913; many East Indian localities; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Calapan, Mindoro; Culion, Dumaguete, Oriental Negros Province, Sitankai, Sulu Province. Roxas, Philippine Jour. Sci., vol. 55, p. 250, 1934; Bacon, Sorsogon Province, Luzon. Herre, 1936-37 Exped.; Sandakan and Si Amil Island, British North Borneo. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Puerto Galera, Mindoro; Bungau, Sulu Province.

Stolephorus delicatulus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 186, 1906; Apia and Pago Pago, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 53, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 243, 1911; Gilbert Islands; Marshall Islands; Tuamotu Archipelago (Paumotu). Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 256, 1927; Bacon, Sorsogon Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 29, 1928; many Polynesian localities. Fowler, Hong Kong Nat., vol. 2, p. 112, 1931; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 562, 1941; 50 localities listed from the Phil-

ippines, extending from Batan Island, Bantanes Province in the extreme north, to Cagayan Sulu Island, in the southwest, and Tumin-dao Island, one of the Sibutu group, at the extreme southern end of the Sulu Islands, off the coast of Borneo.

88. *Spratelloides gracilis* (Schlegel).

The Philippines, Japan, East Indies, Red Sea, and Tahiti.

Clupea gracilis Schlegel, Fauna Japonica, Poiss., p. 238, pl. 108, fig. 2, 1846; southeast coast of Nagasaki.

Clupea argyrotaenia Bleeker, Jour. Indian Archipelago, vol. 3, p. 72, 1849; Makassar, Celebes.

Spratelloides argyrotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 214, 1851; Makassar, Celebes. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht viss., p. 29.

Spratelloides gracilis Bleeker, Verh. Bat. Gen., vol. 25, 1853; Ichth. Japan, p. 18. Günther, Cat. Fishes British Mus., vol. 6, p. 465; 1868; Japan. • Bleeker, Atlas Ichth., vol. 6, p. 96, pl. 266, fig. 2, 1866-72; Celebes and Ternate. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 20, fig. 12, 1913; Celebes; Kangang Islands; Obi Major; Nusa-laut; Banda; Batjan; Ternate; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Negros Oriental Province, Negros.

Stolephorus japonicus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 770, 1905; Bais, Negros. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 567, 1941; Lucena Anchorage, Tayabas Province, Bacon, Sorsogon Province, and Port Matalvi, Luzon; Varadero Bay, Mindoro; Busin Harbor, Burias; Santa Cruz Island, Marinduque; San Miguel Harbor, Ticao; Occidental Negros; Murcielagos Bay, Occidental Misamis Province; Isabela, Basilan; Jolo, Tataan Island, Bungau, and Tumin-dao Island Anchorage, Sulu Province; Bulan Island, Sanalco Group; Matnog Bay; Grande Island Reef; 204 other examples labeled "Philippines"; not all synonymy.

Stolephorus gracilis Evermann and Seale, Proc. U. S. Nat. Mus., vol. 26, p. 53, 1907; Bacon, Sorsogon Province, Luzon.

Family 26. DOROSOMATIDÆ. Gizzard shads; Kabasi

Marine, frequenting estuaries and tidal streams.

Genus 54. ANODONTOSTOMA Bleeker.

Coasts of and tidal rivers of India and Indo-Australian Archipelago.

Anodontostoma Bleeker, Verh. Bat. Gen., vol. 22, 1849, Ichth. Fauna Madura, p. 15; type, *Anodontostoma hasseltii* Bleeker=*Clupanodon chacunda* Hamilton [né Buchanan].

89. *Anodontostoma chacunda* (Hamilton [né Buchanan]). Short-finned gizzard shad; kabasi; mararapad.

The Philippines, East Indies, Hainan, New Guinea, and west to India and Mauritius. Enters rivers.

Clupanodon chacunda Hamilton [né Buchanan], Fishes Ganges, pp. 246, 283, 1822; Gangetic estuaries.

Chatoessus chacunda Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 111, 1848; Molucca Sea; Malacca. Günther, Cat. Fishes British Mus., vol. 7, p. 411, 1868; Cochin; Ganges; Siam; Pinang; Borneo; Sumatra; East Indies. Day, Fishes India, p. 632, pl. 160, fig. 3, 1878; India; Burma; Andaman Islands.

Dorosoma chacunda Bleeker, Atlas Ichth., vol. 6, p. 143, pl. 261; figs. 5-6, 1866-72; numerous East Indian localities. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 25, fig. 14, 1913; many East Indian localities; Philippines.

Anodontostoma chacunda Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 771, 1905; Bais, Negros. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 74, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 5, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Manila; Iloilo, Iloilo Province, Panay. Fowler, Copeia, No. 58,

p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 285, 1927; San Fernando, La Union Province; Santa Maria, Ilokos Sur Province; Orani and Orion, Bataan Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo; p. 6, Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Bauang Sur, La Union Province, and Manila, Luzon. Roxas, Philippine Jour. Sci., vol. 55, p. 256, 1934; Luzon: Barrio Damortis and Barrio Rabon, Rosario, La Union Province; Orani, Bataan Province; Malabon, Rizal Province, Manila market; San Miguel Bay and Calabanga, Camarines Sur Province. Mangarin, Mindoro; Guinobatan, Masbate; Tacloban and Carigara, Leyte Province; Basey, Samar; Panay, Estancia, Molo, Dumangas, and La Paz, Iloilo Province; Capiz, Capiz Prov., Culasi, Antique Prov., Panay, west coast of Guimaras, Balabac; Agusan River, Agusan Province, and Davao, Davao Province, Mindanao. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 59, fig. 23, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937; Balayan Bay, Batangas Province, Luzon. Herre, 1936-37 Exped.; Manila Bay; Kabili River and Sandakan Bay, British North Borneo. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Gulf of Ragay, Luzon; Iloilo, Panay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 549, 1941; Gulf of Lingayen, and Cavite and Manila markets, Luzon; Iloilo, Iloilo Province, Panay; Malampaya River, Palawan; Port Ciego, Balabac; Sandakan Bay and Sebatik Island, British North Borneo, Negros, Mindanao, Luzon, Cavite, Iloilo, Philippines.

Genus 55. NEMATALOSA Regan. Thread-finned gizzard shad; Long-finned gizzard shad.

Coasts and rivers of southeastern Asia, the Philippines, East Indies, Japan, Australia, India, south Arabia, and Sokotra.

Nematolosa Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 313, 1917; type, *Clupea nasus* Bloch, designated by Jordan, Genera Fishes, Part 4, p. 560, 1920.

90. *Nematolosa nasus* (Bloch). Suagan; Kabasi.

The Philippines, East Indies, Formosa, Australia, India, south Arabia, and Sokotra.

Clupea thrissa Bonnaterre, Tableau Encyclop. Ichth., p. 188, pl. 76, 1788; Sea of the Indies; not of Linaeus.

Clupea nasus Bloch, Naturges. Ausländ. Fische, vol. 9, p. 116, pl. 429, fig. 1, 1795; Malabar.

Chatoessus altus Gray, Illustrations Indian Zoology, vol. 2, p. 91, fig. 2, 1832-34; India.

Chatoessus nasus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 104, 1848; Pondicherry; Bombay. Günther, Cat. Fishes British Mus., vol. 7, p. 407, 1868; Philippines. Day, Fishes India, p. 634, pl. 160, fig. 4, 1878; India.

Chatoessus selangkat Kner, Reise Novara, Fische, p. 337, 1865; Java. Not of Bleeker.

Dorosoma nasus Bleeker, Atlas Ichth., vol. 6 p. 142, pl. 260, fig. 4, 1866-72; Java; Singapore; Banka; Batjan; Celebes; Obi Major; Amboina; Ceram; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 24, 1913; Java; Singapore; Banka; Obi Major; Amboina; Batjan; Celebes; Ceram; New Guinea; Philippines. Chevey, Poiss. campagnes de Lanessan, p. 19, colored pl. 2, 1932; South Annam; China Sea; Philippines.

Chatoessus chanpole Günther, Cat. Fishes British Mus., vol. 7, p. 410, 1868.

Clupanodon nasus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 238, 1902; Formosa; Giran; Kotosho.

Konosirus nasus Jordan and Herre, Proc. U. S. Nat. Mus., vol. 31, p. 625, 1906; East Indies, north to southern Japan. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Zamboanga Province, Mindanao.

Nematalosa nasus Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 313, 1917; Sind; Bombay; Canara; Madras; Calicut; Burma. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Culion; 1940 Exped.; Malabon, Rizal Province, Luzon. Roxas, Philippine Jour. Sci., vol. 55, p. 254, 1934; Macabebe, Pampanga Province; Iba, Zambales Province; Manila Bay and Manila market; Malabon, Rizal Province; Bacon, Sorsogon Province; Legaspi market, Albay Province; Luzon. San Jose, Antique Province; Dumangas, La Paz, and Molo, Iloilo Province, Panay. Panacan, and Barrio Guinlo, Malampayan Sound, Palawan Province; Zamboanga, Zamboanga Province, Mindanao. Also Amoy, China. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 58, fig. 22, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 235, San Miguel Bay, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, 1937, p. 216; Balayan Bay, Batangas Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. *Anodontostomus nasus* Suvatti, Index Fishes Siam, p. 14, 1937; several Siamese localities.

Genus 56. CLUPANODON Lacépède.

Coasts and tidal rivers of the Philippines to China and Japan.

Clupanodon Lacépède, Hist. Nat. Poissons, vol. 10, p. 247, 1803; type, *Clupea thrissa* L., designated by Bleeker, Atlas Ichth. vol. 6, p. 112, 1866-72.

Thrissa Rafinesque, Analyse Nature, p. 88, 1815; proposed to replace *Clupanodon* Lacépède.

91. Clupanodon thrissa Linnaeus.

Clupanodon thrissa Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 318, 1758; Indian Ocean. Bloch, Naturges. Ausländ. Fische, vol. 9, pl. 404, 1795.

Clupanodon thrissa Lacépède, Hist. Nat. Poissons, vol. 5, pp. 468, 470, 1803; China. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 309, 1917; Formosa; China. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 557, 1941; Sorsogon market, Sorsogon Province, Luzon; Panabutan Bay and Zamboanga, Zamboanga Province, Mindanao, Philippines. Sandakan Bay, British North Borneo.

Konosirus thrissa Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, p. 2, 1905; Hong Kong. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; Philippines. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Sitankai, Sulu Province.

Family 27. CLUPEIDÆ

Genus 57. ILISHA Richardson. Herring; Tuabak; Silag-habato; Dilat. Marine.

Ilisha (Gray) Richardson, Ichth. China Japan, p. 306, 1845; haplotype, *Ilisha abnormis* Gray.

92. Ilisha ditchoa (Cuvier and Valenciennes).

The Philippines, East Indies, and west to the east coast of Africa; marine.

Platygaster indicus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 294, 1839; name only.

Pellona ditchoa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 313, 1847; type locality, Vizagapatam, India. Günther, Cat. Fishes, British Mus., vol. 7, p. 455, 1868; Java; Zanzibar; east Africa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 88, 1913; Batavia, Kendal, and Palabuan Batu, Java; Bagan Apiapi, Sumatra. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; La Paz, Antique Province, Panay.

Pellona indica Jerdon, Madras Jour. Lit. Sci., vol. 17, p. 145, 1851. Day, Fishes India, p. 644, pl. 164, fig. 4, 1878.

Ilisha indica Bleeker, Atlas Ichth., vol. 6, p. 118, pl. (1) 259, fig. 4, 1866-72; Java; Sumatra; Singapore; Banka. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 652, 1941; Java; Calicut, India.

93. *Ilisha hoeveni* Bleeker. Big-eyed herring; Tuabak; Dilat; Kundilat; Silag-habato.

From the Philippines and East Indies to India; south to Australia. Marine.

Pellona holevenii Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht viss., p. 21, type locality, Batavia, Java.

Ilisha hoevenii Bleeker, Atlas Ichth., vol. 6, p. 117, pl. (11) 269, fig. 2, 1866-72; Java; Sumatra; Singapore; Celebes; Halmahera; Obi Major; Amboina; Ceram.

Pellona hoevenii Günther, Cat. Fishes British Mus., vol. 7, p. 455, 1868; type locality, Amboina.

Pellona hoevenii Day, Fishes India, p. 644, pl. 165, fig. 6, 1878; Coromandel.

Ilisha hoevenii Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 5, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1907; Manila. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 258, 1927; Orion, Bataan Province, Luzon. Roxas, Philippine Jour. Sci., vol. 55, p. 283, pl. 2, fig. 9 (scale), 1934; Manila markets; Calapan, Mindoro; Masbate; Carigara, Leyte Province; Culasi, Antique Province, Panay; west coast of Gulmaras Island, Iloilo Province. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 57, fig. 21, 1936; Manila Bay.

Pellona hoevenii Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 86, fig. 29 (maxillary), 1913; Batavia, Java; Makassar and ParePare, Celebes.

Ilisha hoeveni McCulloch, Mem. Queensland Mus., vol. 7, p. 241, 1922; between Cairns and Rockhampton. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Manila. Herre 1936-37 and 1940-41 Expeds.; Manila Bay; Masbate.

Ilisha hoevenii McCulloch and Whitley, Mem. Queensland Mus. vol. 8, p. 132, 1925; reference.

Pellona ditchela Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 648, 1941; Manila market; Dagupan, Pangasinan Province, Luzon; Busin Harbor, Burias Island; Catbalogan, Samar; Tacloban market, Leyte; Iloilo market; Baganga Bay, Davao Province, Mindanao; Sandakan market, British North Borneo.

Genus 58. SARDINELLA Cuvier and Valenciennes. Sardines.

Sardinella Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 261, 1847; type, *Sardinella aurita* Cuvier and Valenciennes, designated by Gill, Proc. Acad. Nat. Sci. Phila., 1861, p. 35. Regan, Ann. Mag. Nat. Hist. ser. 8, vol. 19, p. 370, 1917.

Amblygaster Bleeker, Jour. Indian Archipelago, vol. 3, p. 70, 1849; orthotype, *Amblygaster clupeioides* Bleeker.

94. *Sardinella aurita* Cuvier and Valenciennes. Smooth sardine.

Tropical Atlantic, north to Massachusetts; also Indian Ocean, East Indies, north to China and Japan; marine.

Sardinella aurita Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 261, pl. 594, 1847; coast of France. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 378, 1917; Cape Cod to Rio de Janeiro; Black Sea; Mediterranean; Indo-Australian Archipelago; China; Japan. Herre, Copeia, 1945, No. 3, p. 146, Oct. 15; Manila Bay at Limay, Bataan Province, Luzon; Iloilo market; Estancia, Iloilo Province, Panay.

Sardinella anchovia Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 269, 1847; Rio de Janeiro; Martinique.

Meletta mediterranea Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 369, 1847.

Sardinella lemuru Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 500, 1853; Batavia, Java.

Clupea (*Sardinella*) *lemuru* Bleeker, Atlas Ichth., vol. 6, pl. (9) 267, fig. 1, 1866-72.

Clupea (*Harengula*) *lemuru* Bleeker, Atlas Ichth., vol. 6, p. 108, 1866-72; Java.

- Clupea aurita* Günther, Cat. Fishes British Mus., vol. 7, p. 420, 1868.
Clupea anchovia Günther, Cat. Fishes British Mus., vol. 7, p. 421, 1868.
Clupea temuru Günther, Cat. Fishes, British Mus., vol. 7, p. 430, 1868.
Clupea longiceps Day, Fishes India, p. 637, 1878; in part; not of Cuvier and Valenciennes.
Sardinella euaina Antipa, Denks. Akad. Wiss. Wien, vol. 78, p. 46, pl. 3, fig. 12, 1906.
Clupea immaculata Kishinouye, Jour. Imperial Fisheries Bureau, vol. 14, p. 96, pl. 19, fig. 1, 1907.
Clupea (Harengula) longiceps Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 82, 1913; not of Cuvier and Valenciennes; Banjiwangi, Java; Bali straits.

95. *Sardinella brachysoma* Bleeker.

- East Indies and Philippines, north to China, south to Australia, west to India and Zanzibar. Marine; entering river mouths.
Sardinella brachysoma Bleeker, Verh. Bat. Gen., vol. 24, 1852; Harin-gacht viss., p. 19; Batavia, Java. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 381, 1917; Madras; Java; Amboina. Herre, 1940 Exped.; Manila Bay.
Harengula hypselosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 427, 1855; Amboina.
Clupea (Harengula) hypselosoma Bleeker, Atlas Ichth., vol. 6, p. 104, pl. (9), p. 267, fig. 2, 1866-72; Amboina.
Clupea (Sardinella) brachysoma Bleeker, Atlas Ichth., vol. 6, pl. (9) 279, fig. 4, 1866-72.
Clupea (Harengula) brachysoma Bleeker, Atlas Ichth., vol. 6, p. 104, 1866-72; Java; Sumatra; Banka. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 70, fig. 25, 1913; Batavia.
Clupea brachysoma Günther, Cat. Fishes British Mus., vol. 7, p. 423, 1868; Java. Day, Fishes India, p. 635, pl. 163, 1878; Indo-China.
Clupea hypselosoma Günther, Cat. Fishes British Mus., vol. 7, p. 431, 1868.
Clupea hypselosoma Macleay, Proc. Linn. Soc. New South Wales, vol. 4, p. 375, 1880; Port Jackson; typographical error.
Sardinella albella Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 605, 1941; Basud River and Port Jamelo, Luzon; Santa Cruz, Marinduque; Panabutan Bay, Zamboanga Province, Mindanao.

96. *Sardinella clupeoides* (Bleeker).

- East Indies and Philippines, north to Japan, west to the Red Sea. Marine.
Amblygaster clupeoides Bleeker, Jour. Indian Archipelago, vol. 3, p. 73, 1849; Makassar.
Clupea clupeoides Günther, Cat. Fishes British Mus., vol. 7, p. 425, 1868; Java.
Clupea (Sardinella) clupeoides Bleeker, Atlas Ichth., vol. 6, pl. (14) 272, fig. 1, 1866-72.
Clupea (Amblygaster) clupeoides Bleeker, Atlas Ichth., vol. 6, p. 103, 1866-72; Java; Sumatra; Bintang; Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 63, fig. 23, 1913; Batavia.
Sardinella clupeoides Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 770, 1905; Bais, Oriental Negros Province. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; Bulan, Sorsogon Province, Luzon. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 385, 1917. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Prov. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Cullion. Herre, 1936-37 Exped.; Si Amil Island, British North Borneo. Herre, 1940-41 Exped.; Estancia, Iloilo Province, Panay. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 619, 1941; Bulan, Sorsogon Province, Luzon.
Clupea okinawensis Kishinouye, Jour. Imperial Fish. Bur., vol. 14, p. 96, pl. 19, fig. 2, 1907; Okinawa, Riukiu Islands.

97. *Sardinella fimbriata* (Cuvier and Valenciennes). Round-bodied sardine; Tunsoy; Lao-lao; Tamban; Tamban lao-lao; Tamban lirayan; Kasig; young Siliniasi.

- Marine and entering river mouths. Abundant in the central and southern Philippines; India, east to the East Indies, north to China.

- Spratella fimbriata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 359, pl. 600, 1847; Malabar.
- Kowala lauta* Cantor, Jour. Asiatic Soc. Bengal, vol. 8, p. 1279, 1850.
- Clupea (Sardinella) fimbriata* Bleeker, Atlas Ichth., vol. 6, pl. (13) 271, fig. 5, 1866-72.
- Clupea fimbriata* Günther, Cat. Fishes British Mus., vol. 7, p. 427, 1868; Madras. Day, Fishes India, p. 637, pl. 161, fig. 3, 1878; India; Malabar; Vizagapatam. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 42, 1885; Manila Bay.
- Clupea (Harengula) fimbriata* Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 3, 1879; China. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 75, fig. 26, 1913; numerous East Indian localities.
- Harengula sundaica* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Aparri, Cagayan Province, and Manila, Luzon; not of Bleeker, and not the Iloilo specimens.
- Sardinella fimbriata* Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 382, 1917; Akyab; Orissa; Malabar; Madras. Fowler, Copeia, No. 58, p. 62, 1918; Philippines 1927, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 257; Bacon, Sorsogon Prov., Luzon. 1941, U. S. Nat. Mus. Bull. 100, vol. 13, p. 609; Aparri, Cagayan Province; Manila; Bacon, Sorsogon Province—all on Luzon. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Bauang Sur, La Union Province; Manila; Nasugbu, Batangas Prov.; preceding in Luzon; Alabat Island. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay; Estancia, Iloilo Prov., Panay. Roxas, Philippine Jour. Sci., vol. 55, p. 276, pl. 2, fig. 5 (scale), 1934; Manila markets, Malolos, Bulacan Province, Malabon, Rizal Province, and Cavite, Cavite Province, Luzon; Calapan, Mindoro; Estancia, Iloilo Province, Panay. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 56, fig. 19, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.
- Clupea (Harengus) fimbriata* Deraniyagala, Spoilia Zeylanica, vol. 15, p. 41, 1929; Ceylon.

98. *Sardinella gibbosa* (Bleeker).

- East Indies, north to China and the Bonin Islands, south and east to Australia and Polynesia, west to the east coast of Africa and Madagascar; common throughout the Philippines. Marine.
- Clupea gibbosa* Bleeker, Jour. Indian Archipelago, vol. 3, p. 72, 1849; Makassar. Günther, Fische der Südsee, vol. 3, p. 381, 1909; Ponapé; Samoa; Tonga, Society, and Fiji Islands.
- Spratella tembang* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 214, 1851; Celebes. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht viss., p. 28.
- Clupea tembang* Günther, Cat. Fishes British Mus., vol. 7, p. 426, 1868; in part.
- Clupea (Spratella) gibbosa* Bleeker, Atlas Ichth., vol. 6, pl. (8) 266, fig. 6, 1866-72.
- Clupea (Harengula) gibbosa* Bleeker, Atlas Ichth., vol. 6, p. 106, 1866-72; Java; Sumatra; Nias; Singapore; Banka; Bali; Celebes.
- Harengula gibbosa* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 4, 1907; Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Manila. Seale, Philippine Jour. Sci., vol. 3A, p. 514, 1908; Manila Bay.
- Sardinella gibbosa* Regan, Ann. Durban Mus., vol. 1, p. 458, 1917; Durban, Natal. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 383, 1917; Durban; Mombasa; Ganjam; Madras; Siam; Celebes; Java; Amboina. Herre, Jour. Pan Pac. Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros, Panay. Herre, 1940-41 Exped.; Manila Bay at Limay, Bataan Province, Luzon; Iloilo market and Estancia, Iloilo Province, Panay; Ragay Gulf, Luzon.
- Sardinella jussieui* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 257, 1927; Vigan, Ilokos Sur Province; Orani and Orion, Bataan Province, Luzon.

Sardinella jussieu Roxas, Philippine Jour. Sci., vol. 55, p. 273, pl. 2, fig. 2, 1934; Santa Maria, Ilokos Sur Province, Luzon. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 611, 1941; Nasugbu, Batangas Prov., Bacoor, Cavite, and San Roque markets, Cavite Province; San Vicente Harbor, Cagayan Province; Alibijaban Island, Ragay Gulf, and Lucena Anchorage, Tayabas Province; Atulayan Bay, Matnog Bay, and Nato, Luzon; Varadero Bay and Paluan Bay, Mindoro; Cataingan Bay, Masbate; Nogas Point, Antique Province, Panay; Cebu market; Balam-ban, Cebu Province; Hinunangan Beach and Port Dupon, Leyte; Port San Pio Quinto, Camaguin Island, Babuyan Islands. Santa Maria, Siquijor Island; Mati, Pujada Bay and Baganga Bay, Davao Province, and Panabutan Bay, Zamboanga Province, Mindanao; Mantaguin Bay, Palawan; Gomono Island and Port Binanga.

99. *Sardinella longiceps* Cuvier and Valenciennes. Oil sardine; Tamban; Tamban lison; Kasig; Turay; Toloy; Tambon tondo; Tamban sia.

From the Philippines through the East Indies to India and the east coast of Africa; abundant on coasts of India and common in the Philippines. Marine and entering river mouths.

Sardinella longiceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 273, 1847; Pondicherry, India. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 379, 1917; Mombasa; Muscat; India. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 257, 1927; Orion, Bataan Province, Luzon. Montalban, Philippine Jour. Sci., vol. 42, p. 309, 1930; Estancia, Iloilo Province, Panay. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Manila; Estancia, Iloilo Province, Panay; Culion. Roxas, Philippine Jour. Sci., vol. 55, p. 278, pl. 2, fig. 1 (scale), 1934; in part *Sardinella aurita*; Santa Maria, Ilokos Sur Province; Manila market and Nasugbu, Batangas Province, Luzon; Polillo Island; Bulalacao Bay, Calapan, and Pinamalayan, Mindoro; Cabalian and Carigara, Leyte; Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province, Negros; Catarman, Camaguin Island, Misamis Oriental Province; Dipolog and Zamboanga, Zamboanga Province, Mindanao. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; south-western Samar. Umali, Edible Fishes Manila, p. 55, fig. 18, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Blanco, Phil. Jour. Sci., vol. 66, 1938, p. 507, Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga. Herre, 1940-41 Exped.; Iloilo market; Panay. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 603, 1941; Bacon, Sorsogon Province, Luzon; Maricaban Island, Verde Island Passage; Iloilo River markets, Panay; Zamboanga, Mindanao.

Sardinella neohovii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 274, 1847; Cannanor, Malabar.

Alausa scombrina Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 442, 1847; Cannanor, Malabar; Mahe, Seychelles.

Clupea longiceps Günther, Cat. Fishes British Mus., vol. 7, p. 428, 1868. Day, Fishes India, p. 637, pl. 161, fig. 2, 1878; Sind; West India; East Indies; Ceylon; Andaman Islands.

Clupea neohovii Günther, Cat. Fishes British Mus., vol. 7, p. 448, 1868; Cochin, India.

Clupea scombrina Günther, Cat. Fishes British Mus., vol. 7, p. 448, 1868.

Harengula longiceps Seale, Philippine Jour. Sci., vol. 3A, p. 514, 1908; Manila Bay.

Harengula moluccensis Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 53, 1907; Bacon, Sorsogon Province, Luzon; not of Bleeker.

100. *Sardinella melanura* (Cuvier).

Micronesia, Polynesia, Bonin Islands, China, Philippines, and the East Indies, west to the east coast of Africa; marine.

Clupanodon sinensis var. Lacépède, Hist. Nat. Poissons, vol. 5, pp. 468 and 471, pl. 11, fig. 2, 1803; Asia; in part; on "Le Clupanodon Chinois" by Lacépède.

Clupea melanura Cuvier, Règne Animal, ed. 2, vol. 2, p. 318, 1829. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga.

Clupeonia commersoni Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 350, 1847; Mauritius; Bombay.

Harengula melanurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 245, 1853; Ceram.

Clupeonia commersonii Guichenot, Notes Ile Réunion, vol. 2, p. 29, 1863.

Clupea atricauda Günther, Cat. Fishes British Mus., vol. 7, p. 426; 1868; Ceram; Amboina; Port Blair, Andaman Islands. Day, Fishes India, p. 636, pl. 164, fig. 5, 1878; Andaman Islands.

Clupea (Harengula) atricauda Bleeker, Atlas Ichth., vol. 6, p. 106, pl. (10) 268, fig. 5, 1866-72; Nias; Bali; Celebes; Saparua. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 80, 1913; Batavia; Puger; Manado; Sawa; Kairatu.

Clupea sundaica Bleeker, Atlas Ichth., vol. 6, p. 105, 1866-72.

Clupea commersonii Schmeltz, Cat. Mus. Godeffroy, No. 4, p. 25, 1869; Upolu, Samoa.

Harengula commersoni Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 186, 1906; Apia, Samoa.

Clupea ogura Kishinouye, Jour. College Agric., Tokyo, vol. 2, p. 384, pl. 30, fig. 2, 1911; Futani Harbor, Chichijima, Bonin Islands.

Sardinella melanura Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 384, 1917; Indian Ocean and Indian Archipelago. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 257, 1927; Santa Maria and Vigan, Ilokos Sur Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 14, 1934, Cape Bolinao, Pangasinan Province; 1940 Exped.; Catabalogan, Samar (specimens up to 190 mm.); Cagayan, Misamis Oriental Province, Mindanao. Roxas, Philippine Jour. Sci., vol. 55, p. 274, 1934; Batan Island, Batanes Province; Carigara, Leyte. Domantay, Philippine Jour. Sci., vol. 71, 1940; p. 100. Zamboanga; p. 379, Margosatubig, Zamboanga Province, Mindanao. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 614; 1941; Mantaquin Bay, Palawan; Baganga Bay, Davao Prov., and Zamboanga, Mindanao.

101. *Sardinella perforata* (Cantor). Deep-bodied sardine; Halobaybay; Alobaybay; Lapad; Tambang lapad; Tamban yapad; young, Bagasbas. East Indies and Philippines, north to China, east to Samoa, west to the Persian Gulf. Marine.

Clupeonia perforata Cantor, Jour. Asiatic Soc. Bengal, vol. 18, Part 2, p. 1276, 1849; type localities, Pinang Sea; Malay Peninsula, Singapore, and Sumatra.

Spratella kowala Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 492, 1851; Rio; Batavia; not *Clupea kowal* Rüppell.

Clupea perforata Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 356, 1864; Siam.

Clupea (Spratella) perforata Bleeker, Atlas Ichth., vol. 6, pl. (10) 268, fig. 2, 1866-72.

Clupea (Harengula) perforata Bleeker, Atlas Ichth., vol. 6, p. 110, 1866-72; Java; Sumatra; Pinang; Singapore; Bintang; Banka; Amboina. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2, p. 74, 1913; Batavia and Puger, Java; Balikpapan, Borneo; Makassar, Celebes.

Clupea (Clupalosa) kowal Bleeker, Atlas Ichth., vol. 6, pl. (8) 206, fig. 5, 1866-72.

Clupea kowal Günther, Cat. Fishes British Mus., vol. 7, p. 450, 1868; *pro parte*.

Harengula (Spratella) kowala Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 294, 1868; Rio Bintang.

Clupea zunasi Schmeltz, Cat. Mus. Godeffroy, No. 4, p. 25, 1869; Savaii, Samoa; not of Bleeker.

Clupea zeunasi Pöhl, Cat. Mus. Godeffroy, No. 9, p. 39, 1884; Savaii, Samoa.

Harengula sundaica Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 770, 1905; Bais, Oriental Negros Province, Negros; not of Bleeker. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Iloilo, Panay; not of Bleeker.

Sardinella perforata Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; Bacon, Sorsogon Province, Luzon. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 382, 1917; Persian Gulf; Malay Archipelago. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Manila; Herre, 1936-37 Exped.; Si Amil Island, British North Borneo. Roxas,

- Philippine Jour. Sci., vol. 55, p. 277, pl. 2, fig. 10 (scale), 1934; Manila market; Pasay, Rizal Province; Cavite and Salinas, Cavite Province, Cabusao, Camarines Sur Province; Bacon, Sorsogon Province, all on Luzon; Estancia, Iloilo Province, Panay. Umali, Philippine Jour. Sci., vol. 54, p. 311, 1934, southwestern Samar. Umali, Edible Fishes Manila, p. 56, fig. 20, 1936; Manila Bay. Villadolid, Philippine Jour. Sci. vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga; p. 379; Margosatubig, Zamboanga Province, Mindanao. Fowler, Hong Kong Nat., vol. 2, p. 117, 1931; Phil. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 607, 1941; Bacoor and Cavite market, Cavite Prov.; Manila market; near mouth of Tayabas River, Tayabas Province, Luzon; Catbalogan, Samar; Iloilo market; Port Langcan, Palawan; Jolo market; Sandakan Bay, British North Borneo.
102. *Sardinella samarensis* Roxas. Tamban; Lirayan.
Known only from Samar. Marine.
Sardinella samarensis Roxas, Philippine Jour. Sci., vol. 55, p. 275, pl. 2, fig. 11 (scale), 1934; Barrio Cinco, Catbalogan, Samar. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 609, 1941; copied from Roxas.
103. *Sardinella sindensis* (Day).
India, west to Zauzibar, east to East Indies, north through the Philippines to Formosa. Marine.
Clupea sindensis Day, Fishes India, p. 638, pl. 163, fig. 2, 1878; type locality, Kurachee, India.
Sardinella sindensis Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 383, 1917; Sind; Bombay; Amboina; Formosa. Herre, Copeia, 1945, No. 3, p. 146; Cagayan de Misamis, Misamis Oriental Province, Mindanao; as *Sardinella sinensis*, typographical error.
104. *Sardinella sirm* (Walbaum).
From the Red Sea and east coast of Africa eastward to Samoa and the Gilbert Islands, north through the Philippines to Hong Kong. Marine.
Clupea sirm Walbaum, Artedi Piscium, vol. 3, p. 38, 1792; on Forskål, Descript., Animal, p. 17, 1775; type locality, Arabia. Rüppell, Neue Wirbelt., Fische Bothen Meeres, p. 77, pl. 21, fig. 1, 1835; Red Sea; Massaua.
Sardinella leiogaster Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 20, p. 270, 1847; Indian Ocean; Ceylon. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Jolo, Sulu Province.
Sardinella leiogastroides Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 255, 1854; Manado, Celebes.
Clupea (Amblygaster) leiogaster Bleeker, Atlas Ichth., vol. 6, p. 102, 1866-72; Java; Sumatra; Singapore; Celebes; Batjan; Obi Major; Ceram. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 61, 1913; Batavia, Java; Onrust Island.
Clupea (Sardinella) leiogaster Bleeker, Atlas Ichth., vol. 6, pl. (4) 262, fig. 6, 1872.
Clupea (Alosa) leiogastroides Bleeker, Atlas Ichth., vol. 6, p. 102, 1866-72; Celebes; Ternate; Amboina.
Clupea (Sardinella) leiogastroides Bleeker, Atlas Ichth., vol. 6, pl. (14) 272, fig. 2, 1866-72.
Clupea pinguis Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 425, 1872; Misol.
Clupea leiogaster Day, Fishes India, p. 636, 1878; Ceylon.
Sardinella sirm Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 770, 1905; Bais, Negros Oriental Province. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 284, 1917; Zanzibar; Batavia; Celebes; Misol. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 16, 1933; Dumaguete, Oriental Negros Province, Negros. Herre, Fishes Philippine Exped. 1931, p. 16, 1934; Dumaguete, Oriental Negros Province, Negros. Roxas, Philippine Jour. Sci., vol. 55, p. 272, pl. 2, fig. 4 (scale), 1934; Nasubgu, Batangas Province; Legaspi market, Albay Province; Butauanan

Island and Pasacao, Carmarines Sur Province; Atalayan Bay and Port Uson, west of Pinas Island; preceding all on Luzon; Polillo Island; Calapan, Pinamalayan, and Bulalacao Bay, Mindoro; Bantayan Island; Dumaguete, Oriental Negros Province, Negros; Catarman, Camaguin Island, Cagayan, and Barrio Odiongan, Gingoog, Misamis Oriental Province; Butuan Bay, Agusan Province; Davao and Samal, Davao Province, and Zamboanga, Mindanao; Jolo, Bungau, and Sulade Island, Sulu Province. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 616, 1941 (includes *Sardinella letogaster*); Atalayan Bay, Albay Province, Luzon; Port Uson, west of Pinas Island, Busuanga Island; Alimango Bay and Busin harbor, Burias Island; Cebu market; Guijulugan, Negros; Hinanungan Beach, Leyte; Jolo market, Jolo, Sulu Province; Candaraman Island; Balabac.

Amblygaster letogaster Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 590, 1912; Batavia, Java.

Clupea (Amblygaster) sirm Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 62, 1913; Tandjong Priok, Java.

Clupea (Harengula) pinguis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 83, 1913; Misol.

Genus 59. ALOSA Cuvier.

Alosa Cuvier, Règne Animal, ed. 2, vol. 2, p. 319, 1929; type, *Clupea alosa* L.

105. *Alosa platygaster* (Günther).

The East Indies, Philippines, and Indo-China. Marine.

Alosa brachysoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 527, 1853; Padang, Sumatra.

Clupea platygaster Günther, Cat. Fishes, British Mus., vol. 7, p. 448, 1868; on Bleeker.

Alosa brachysoma Bleeker, Atlas Ichth., vol. 6, p. 115, pl. (4) 262, fig. 5, 1872; Sumatra.

Clupea (Alosa) platygaster Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 66, fig. 24, 1913; Tjilatjap and Dirk de Vries Bay, Java.

Hilsa brachysoma Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 305, 1917; Sumatra.

Alosa platygaster Herre, Philippine Jour. Sci., vol. 59, p. 365, 1936; southwestern coast of Tayabas Province, Luzon. Herre, 1949, Manila Bay.

Genus 60. HARENGULA Cuvier and Valenciennes. Sardines.

Harengula Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 277, 1847; type, *Harengula latulus* Cuvier and Valenciennes, same as *Clupea macrophthalma* Ranzani, designated by Gill, Proc. Acad. Nat. Sci. Phila., p. 36, 1861. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 386, 1917.

106. *Harengula bulan* (Bleeker).

East Indies, north through the Philippines to Amoy, and west to the Red Sea and Zanzibar. Marine.

Clupalosa bulan Bleeker, Verh. Bat. Gen., vol. 22 (Madura) p. 12, 1849; type locality, Madura Strait near Bangcallang, Kammal; and Surabaya, Java.

Sardinella brachysoma Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 257, 1927; Santa Maria, Ilokos Sur Province; Orani and Orion, Bataan Province, Luzon. Herre, 1940 Exped.; Manila Bay.

Harengula bulan Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 588, 1941; Santa Maria, Ilokos Sur Province; Orani and Orion, Bataan Province, Luzon.

107. *Harengula dispilonotus* Bleeker.

The Philippines, East Indies, and Malaya. Marine, and entering fresh water.

Harengula dispilonotus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 456, 1852; type locality, Banka. Herre, Fishes Philippine Exped. 1931, p. 15, 1934; Cebu. Herre, 1936-37 Exped.; Calatagan, Batangas Province, Luzon. Herre, 1940-41 Exped.; Estancia, Iloilo Province, Panay. Roxas, Philippine Jour. Sci., vol. 55, p. 280, pl. 2, fig. 12 (scale), 1934;

- Mangarin, Mindoro Province; Iloilo Province; Balabac. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 585, 1941; Catbalogan, Samar; Tacloban market, Leyte; Sandakan Bay, British North Borneo.
- Clupea dispilonotus* Günther, Cat. Fishes British Mus., vol. 7, p. 429, 1868.
- Clupea (Harengula) dispilonotus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 69, 1913; Kota Baru and Kangean, Borneo.

108. *Harengula punctata* (Rüppell). Tunsoy.

- From Red Sea and east coast of Africa to the Philippines, north to Japan, east through Micronesia and Polynesia, south to New South Wales. Marine.
- Clupea punctata* Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 78, pl. 21, fig. 2, 1835; type locality, Red Sea.
- Clupea quadrimaculata* Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 78, pl. 21, fig. 3, 1835; Massaua.
- Harengula punctata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 297, 1847; Mussauah, Red Sea. Regan, Ann. Mag. Nat. Hist., ser. 8, vol. 19, p. 390, 1917; Indo-Pacific; east Africa; Paumotus. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Unisan, Tayabas Province; Dumaguete; Culion; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Si Amil Island, British North Borneo. Herre, 1940-41 Exped.; Dipolog, Zamboanga Province, and Murcileagos Bay, Misamis Occidental Province, Mindanao.
- Harengula bipunctata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 298, 1847; Massaua.
- Sardinella lincolata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 272, 1847; Trinquemale; Ceylon; Buru.
- Meletta obtusirostris* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 375, 1847; Seychelles.
- Meletta venenosa* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 377, 1847; Seychelles.
- Harengula moluccensis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 609, 1853; Ternate; Amboina; Ceram. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 770, 1905; Bais, Oriental Negros Province. Jordan and Herre, Proc. U. S. Nat. Mus., vol. 31, p. 635, 1906; Manila. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 4, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 53, 1907; Bulan Sorsogan Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao. Seale, Philippine Jour. Sci., vol. 3A, p. 514, colored pl. 2, 1908; Manila Bay. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Manila. Herre, Fish. Resources Philippine Islands, colored pl. 9, 1927. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Jolo, Sulu Province; Dumaguete, Oriental Negros Province. Roxas, Philippine Jour. Sci., vol. 55, p. 281, pl. 2, fig. 3 (scale) 1934; Bangui, Ilokos Norte Province; Olongapo, Zambales Province; Balayan Bay, Batangas Province; Cavite, Cavite Province, Luzon; Cebu; Estancia, Iloilo Province, Panay; Puerto Princesa, Palawan; Balabac; Camiguin Island, Misamis Oriental Province, and Surigao, Surigao Province; Mindanao; Bungau and Sibutu, Sulu Province.
- Harengula kunzei* Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 209, 1856-57; Ternate.
- Harengula spilurus* Guichenot, in Maillard, Ile de Réunion Poissons, p. 16, 1865; Bourbon.
- Clupea (Harengula) kunzei* Bleeker, Atlas Ichth., vol. 6, p. 107, pl. (5) 263, fig. 1, 1866-72; Amboina.
- Clupea (Harengula) dubia* Bleeker, Atlas Ichth., vol. 6, p. 108, 1866-72.
- Clupea venenosa* Günther, Cat. Fishes British Mus., vol. 7, p. 449, 1868; Zanzibar.
- Clupea moluccensis* Günther, Cat. Fishes British Mus., vol. 7, p. 427, 1868; Ceylon.
- Clupea (Harengula) moluccensis* Bleeker, Atlas Ichth., vol. 6, p. 107, pl. (5) 263, figs. 1 and 2, 1868-72; many East Indian localities.

Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 81, fig. 28 (scale), 1913; Nias; Pulu Weh; Ceram; Ambon; Waigiu; Kei Islands.

Clupea kunzei Day, Fishes India, p. 636, pl. 163, fig. 1, 1878; Ceylon; Andaman and Nicobar Islands.

Harengula stereolepis Ogilby, Proc. Linn. Soc. New South Wales, vol. 22, p. 759, 1897; Torres Straits; Darnley Island; southeast New Guinea.

Sardinella kunzei Seale, Occas. Papers Bishop Mus., vol. 4, p. 5, 1906. Faté Island, New Hebrides; (Shortland Island).

Clupea mizun Kishinouye, Jour. Imperial Fisheries Bur., vol. 14, p. 98, pl. 20, fig. 3, 1907; RiuKiu Islands.

Clupea kunzii Günther, Fische der Südsee, vol. 3, p. 382, 1910; compiled.

Clupea (Harengula) venenosa Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 77, 1913; compiled.

Sardinella stereolepis Giltay, Mem. Mus. Roy. Nat. Hist. Belgique, ser. 5, vol. 3, p. 16, fig. 7 (scale), 1933; Pisang Island, East Indies.

Harengula ovalis Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 589, 1941; Manila Bay; Batangas market and Nasugbu, Batangas Province; Sorsogon market, Sorsogon Province; Port Jamelo, Luzon; Varadero Bay and Harbor, Mindoro; Alimango Bay and Busin Harbor, Burias; San Miguel Harbor, Ticao; Catbalogan, Samar; Hinunangan Bay, Leyte; east side of Tagbilaran Strait, Bohol; Cebu market; Guijulugan Beach, Negros; Cuyo Island; Verde del Sur Island, Palawan; back water ponds, Putoc River, Mindanao; Putauanan Island; Gomono Island; Los Amigos, TawiTawi Island, Sulu Province.

109. *Harengula schrammi* (Bleeker).

East Indies and Philippines. Marine.

Alosa schrammi Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth. Bali, p. 11, 1849; type locality, Boleling, Bali.

Meletta schrammi Günther, Cat. Fishes British Mus., vol. 7, p. 412, 1868; after Bleeker.

Clupea (Meletta) schrammi Bleeker, Atlas Ichth., vol. 6, pl. (14) 272, fig. 3, 1866-72.

Clupea (Harengula) schrammi Bleeker, Atlas Ichth., vol. 6, p. 109, 1866-72; Bali.

Clupea venenosa Steindachner, Abh. Senckenberg, Naturf. Gesell., vol. 25, p. 456, 1901; Batjan; not *Clupea venenosa* of Cuvier and Valenciennes.

Clupea (Harengula) schrammi Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 83, 1913; Ambon; Batjan.

Harengula schrammi Regan, An. Mag. Nat. Hist., ser. 8, vol. 19, p. 391, 1917; Misol; Goram, Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 257, 1927; Santa Maria and Vigan, Ilokos Sur Province, and San Fernando, La Union Province, Luzon. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 593, 1941; same specimens as preceding. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province.

Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Dumaguete. Herre, Fishes 1936-37 Exped.; Balayan Bay, Batangas Province, Luzon.

110. *Harengula tawilis* Herre. Bombon sardine; Tawilis.

Confined to the fresh water of Lake Bombon, Batangas Province, Philippines.

Harengula tawilis Herre, Philippine Jour. Sci., vol. 34, pp. 273 and 296, colored pl. I, 1927; Lake Bombon, Batangas Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 15; Lake Bombon, Batangas Prov., 1934. Roxas, Philippine Jour. Sci., vol. 55, p. 282, pl. 2, fig. 15 (scale) 1934, Lake Bombon, Batangas Province, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, p. 206, 1937; Lake Taal (Bombon). Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 596, 1941; copied; Lake Taal.

Genus 61. CLUPEOIDES Bleeker.

Clupeoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 274, 1851; type, *Clupeoides borneensis* Bleeker.

111. *Clupeoides lile* (Cuvier and Valenciennes). Silag.

From the East Indies and Philippines to China and India. Marine.

Meletta lile Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 20, p. 378, 1847; type locality, Malabar, Coromandel, Pondicherry.

- Alausa champil* Cantor, Jour. Asiatic Soc. Bengal, vol. 13, p. 1284, 1849; Pinang; not of Gray.
- Rogenia argyrotaenia* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 457, 1852; Muntok and Batavia. Kner, Reise *Novara*, Fische, p. 328, 1865; Java; Ceylon; Tahiti.
- Clupea* (*Clupeoides*) *argyrotaenia* Bleeker, Atlas Ichth., vol. 6, p. 101, 1866-72; Java; Pinang; Singapore; Banka.
- Clupea* (*Leiogaster*) *argyrotaenia* Bleeker, Atlas Ichth., vol. 6, pl. (6) 262, fig. 5, 1866-72.
- Clupea lile* Günther, Cat. Fishes, vol. 7, p. 450, 1868. Day, Fishes India, p. 638, pl. 162, fig. 1, 1878; India; Burma.
- Clupea argyrotaenia* Günther, Cat. Fishes British Mus., vol. 7, p. 423, 1868; Java.
- Harengula chrysoaenia* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 187, 1906; compiled; error for *Rogenia argyrotaenia* Kner.
- Clupeoides lile* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, fig. 22, p. 57, 1913; Batavia and Samarang, Java. Herre, Fishes 1931 Philippine Exped., p. 14, 1934; Unisan, Tayabas Province, Luzon; Dumaguete, Oriental Negros Province, Negros. Roxas, Philippine Jour. Science, vol. 55, p. 270, 1934; Barrio Sibubu, Camarines Sur Province, Luzon; Molo, Iloilo Province, Panay.

Family 28. ENGRAULIDAE. Anchovies; Dilis; Bolinao; Bombra; Dumpilas; Monamon; Piati; Taliqa; Tatic; Tegi; Tigi; Tuakang; Anakbat
Marine, and entering river mouths.

Genus 62. THRISSOCLES Jordan and Evermann.

Thrissocles Jordan and Evermann, Genera Fishes, p. 98, 1917; type, *Clupea setirostris* Broussonet.

112. *Thrissocles dussumieri* (Cuvier and Valenciennes). Dumpilas; Teggi.
The Philippines, north to China, Japan, and the Bonin Islands, south through the East Indies, west to India. Marine.
- Engraulis dussumieri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 69, 1848; no locality. Day, Fishes India, p. 627, pl. 158, fig. 4, 1878; Madras. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 41, 1913; Sarawak, Borneo. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Dumaguete, Negros.
- Engraulis hamiltoni* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 66, 1848; Bombay; Pondicherry; Malabar (not of Gray).
- Engraulis auratus* Day, Proc. Zool. Soc. London, p. 312, 1865; Cochín; Malabar.
- Engraulis mystax* Günther, Cat. Fishes British Mus., vol. 7, p. 397, 1868; Bombay; Madras; Java; not of Bloch and Schneider.
- Engraulis dussumierii* Bleeker, Atlas Ichth., vol. 6, p. 133, 1866-72; Java; Singapore.
- Stolephorus* (*Thrissa*) *dussumieri* Bleeker, Atlas Ichth., vol. 6, pl. (2) 260, fig. 2, 1866-72.
- Trichosoma adelae* Rutter, Proc. Acad. Nat. Sci. Phila., p. 65, 1897; Swatow, China.
- Anchovia dussumieri* Seale, Philippine Jour. Sci., vol. 3, Sec. A., p. 513, colored pl. 1, 1908; Luzon; Sulu Islands.
- Thrissocles dussumieri* McCulloch and Whitley, Mem. Queensland Mus., vol. 8, p. 133, 1925; reference. Jordan and Seale, Bull. Mus. Comp. Zool., vol. 67, p. 368, 1926; Pinang. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 681, 1941; Calicut; Bombay.
113. *Thrissocles kammalensis* (Bleeker).
East Indies, Philippines, China, Bay of Bengal, Ceylon, and India.
In the sea and entering rivers.
- Engraulis kammalensis* Bleeker, Verh. Bat. Gen., vol. 22, 1849; Bijdr. Ichth. Madura, p. 13; Madura Straits near Kammal and Surabaya. Bleeker, Atlas Ichth., vol. 6, p. 131, 1866-72; Java; Madura; Bali; Banka; Sumatra; Singapore; Borneo; Celebes. Day, Fishes India, p. 626, pl. 157, fig. 1, 1878; Orissa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 35, 1913.
- Engraulis rhinorhynchus* Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht, p. 40, Batavia, Surabaya and Kammal, Java.

Engraulis rhinorhynchus Kner, Reise Novara, Fische, p. 334, 1865; Java. Günther, Cat. Fishes British Mus., vol. 7, p. 394, 1868; Java; Sarawak. Meyer, An. Soc. España Hist. Nat., vol. 14, p. 42, 1885; Cebu.

Stolephorus (Thrissa) kammalensis Bleeker, Atlas Ichth., vol. 6, pl. (7) 265, fig. 2, 1866-72.

Engraulis rhinorhynchus Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 107, 1881; Swatow, China.

Stolephorus kammalensis Rutter, Proc. Acad. Nat. Sci. Phila., p. 64., 1897.

Scutengraulis kammalensis Fowler, Hong Kong Nat., vol. 2, p. 200, 1931; reference.

Thryssa kammalensis Hardenberg, Treubia, vol. 15, p. 228, 1936; Pontianak, and Peniti River, Borneo.

Thrissocles kammalensis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 89, p. 131, fig. 3, 1937; Paknam, Siam. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 672, 1941; description copied from Weber and de Beaufort.

Engraulis kammalensis Suvatti, Index Fishes Siam, p. 15, 1937; Gulf of Siam; Samut Prakan.

114. *Thrissocles setirostris* (Broussonet). Long-jawed anchovy.

East Indies, north to China, southeast to Queensland and the New Hebrides, west to the Red Sea and east coast of Africa. Marine, entering estuaries.

Clupea setirostris Broussonet, Ichthyologie, Dec. 1, no pagination, pl. 2, 1782; Pacific Ocean near Tanna, New Hebrides.

Engraulis setirostris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 69, 1848; India. Bleeker, Atlas Ichth., vol. 6, p. 134, 1866-72; Java; Madura; Bali; Sumatra; Nias; Banka; Celebes; Amboina. Günther, Cat. Fish. British Mus., vol. 7, p. 397, 1868; Indian Archipelago. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 40, fig. 18, 1913; Batavia and Puger, Java; Makassar, Celebes; Beira, Portuguese East Africa.

Thrissa macrogathos Bleeker, Verh. Bat. Gen., vol. 22, 1849; Bijdr. Ichth. Madura, p. 14; Madura, near Bangcallang, Kammal, and Surabaya.

Stolephorus setirostris Bleeker, Net. Tijds. Dierk., vol. 2, p. 291, 1865; reference.

Stolephorus (Thrissa) setirostris Bleeker, Atlas Ichth., vol. 6, pl. (3) 261, fig. 1, 1866-72.

Engraulis (Thrissa) setirostris Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 404, 1876; Bangkok.

Anchovia setirostris Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1908; Aparri, Cagayan Province, Luzon.

Thrissocles setirostris Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 679, 1941; Phil. Herre, Fishes 1931 Phil. Exped., p. 15, 1941; Baung Sur, La Union Province, Luzon; Capiz, Capiz Province, Panay. Roxas, Philippine Jour. Sci., vol. 55, p. 259, pl. 1, fig. 6 (scale), 1934; Aparri, Cagayan Province, Malabon, Rizal Province, and Manila, Luzon; Calapan and Mangarin, Mindoro.

Genus. 63. *THRISSINA* Jordan and Seale.

Thrissina Jordan and Seale, Copeia, No. 141, p. 30, 1925; type, *Clupea baelama* Forskål.

115. *Thrissina baelama* (Forskål). Dumpilas; Tigi.

The East Indies and Philippines, north to Guam and the Bonin Islands, southeast to Samoa, west to the Red Sea, Zanzibar, and Madagascar. Marine, and entering river mouths.

Clupea baelama Forskål, Descript. Animal., p. 72, 1775; Djedda, Red Sea. ? *Clupea boelama* Walbaum, Artedi Piscium, vol. 3, p. 42, 1792; copied.

Engraulis baelama Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 35, 1848; Seychelles; Mauritius; Red Sea; Massaua; Amboina.

Engraulis encrasicholoides Bleeker Nat. Tijds. Ned-Ind., vol. 2, p. 46, 1851; Celebes. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht, p. 37; Batavia, Surabaya; Kammal. Bleeker, Atlas Ichth., vol. 6, p. 130, 1866-72; Java; Madura; Bali; Sumatra; Celebes; Timor; Ternate; Batjan; Amboina; Sapparua; Ceram; Banda. Weber, Siboga-Exped., Fische, vol. 57, p. 6, 1913; Sulu Islands, Philippines.

- Stolephorus encrasicholoides* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; reference.
- Stolephorus boelama* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 291, 1865; reference.
- Engraulis boelama* Bleeker, Atlas Ichth., vol. 6, p. 130, 1866-72; Amboina; Ceylon. Günther, Cat. Fishes British Mus., vol. 7, p. 393, 1868; Zanzibar; Koseir. Day, Fishes India, p. 626, pl. 153, fig. 7, 1878; Port Blair, Andaman Islands.
- Stolephorus (Engraulis) boelama* Bleeker, Atlas Ichth., vol. 6, pl. (2) 260, fig. 1, 1866-72.
- Stolephorus (Engraulis) encrasicholoides* Bleeker, Atlas Ichth., vol. 6, pl. (5) 263, fig. 4, 1866-72.
- Engraulis baelama* Day, Fauna British India, Fishes, vol. 1, p. 391, 1889. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 33, 1913; Nias; Lombok; Aru Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 258, 1927; Santa Maria, Ilokos Sur Province, Luzon.
- Anchovia encrasicholoides* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 501, 1904; Padang, Sumatra.
- Anchovia baelama* Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 75, 1906; Rio Grande, Cotabato Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Cagayancillo, Cagayan Island, Palawan Province; Iloilo, Iloilo Province, Panay.
- Engraulis balaema* Chabanaud, Service Océanogr. Pêches Indo-chine, 1^o note, p. 8, 1926; Tonkin.
- Thrissina boelama* Jordan and Seale, Bull. Mus. Comp. Zool., vol. 67, p. 376, 1926; Red Sea; Mauritius; Colombo, Ceylon.
- Thrissocles baelama* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, p. 69, 1934; Den Pasar; Sanoer, Bali. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 683, 1941; Batangas, Batangas Province; Pucot River, Mariveles, Bataan Province; San Vicente Harbor, Cagayan Province; Santiago River, Pagapas Bay—preceding all on Luzon; Varadero Bay and Paluan River, Mindoro; Port Dupon, Leyte; Cebu market; Iloilo market: north end of Endeavor Strait, northwest coast of Palawan; Murcielagos Bay, Misamis Occidental Province, Zamboanga, Rio Grande, Cotabato, Cotabato Province; and back water ponds of Pucot River, Mindanao; Jolo market and Basun River, TawiTawi, Sulu Province; Si Amil, British North Borneo.
- Thrissina baelama* Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Capiz, Capiz Province, Panay; Cebu; Cotabato, Cotabato Province, Mindanao. Herre, 1940 Exped.; mouth of Pansipit River, Batangas Province, Luzon; Miagao, Iloilo Province, Panay; Murcielagos Bay, Misamis Occidental Province, and Zamboanga market, Mindanao. Roxas, Philippine Jour. Sci., vol. 55, p. 262, 1934; Barrio Mission, Buguey, Cagayan Province; Barrio Caunayan, Bangui, Ilokos Norte Province; Luna, La Union Province; Manila market; Pasay, Rizal Province; Batangas, Batangas Province; Legaspi market, Albay Province—preceding all on Luzon. Cabalian, Leyte; Estancia, Iloilo Province, Panay; Polo Plantation, Oriental Negros Province, Negros; Bantayan, Bantayan Island; Cagayan, Misamis Oriental Province, Surigao, Surigao Province, Zamboanga; Davao and Samal, Davao Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 71, 1940; p. 98, Zamboanga; p. 379, Margosatubig, Zamboanga Province, Mindanao.

Genus 64. SCUTENGRAULIS Jordan and Seale. Piliptin; Tegui.

Scutengraulis Jordan and Seale, Copeia, No. 141, p. 30, 1925; type, *Thrissa hamiltoni* Gray.

116. *Scutengraulis hamiltoni* (Gray). Deep-bodied anchovy; Dumpilas; Mamata; Tigi.
India, East Indies, Philippines, north to Formosa, China and Korea, south to Queensland. In the sea and estuaries.
Thrissa hamiltonii Gray, Illustrations Indian Zoology, vol. II, pl. 92, fig. 3, 1832-34; figure only; no locality.

- Trichosoma hamiltonii* Swainson, Nat. Hist. Animals, Fishes vol. 2, p. 292, 1839; reference.
- Thryssa sub-spinosa* Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 293, 1839; on *Poorawah* Russell, Fishes of Coromandel, vol. 2, p. 72, pl. 189, 1803; Vizagapatam.
- Engraulis hamiltoni* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 66, 1848; Bombay and Pondicherry, India. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 253, 1927; Philippines.
- Thryssa poorawah* Jerdon, Madras Jour. Lit. Sci., vol. 17, p. 145, 1851.
- Engraulis grayi* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 492, 1851; Rio; Batavia.
- Stolephorus hamiltoni* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 261, 1863; Wahal; Ceram.
- Engraulis hamiltoni* Day, Fishes Malabar, p. 239, 1865. Day, Fishes India, p. 625, pl. 177, fig. 4, 1878; Sind. Günther, Cat. Fish British Mus., vol. 7, p. 395, 1868; China; Moluccas; Sumatra; Pinang. Fowler, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 104, 1928; Bombay; Philippines.
- Stolephorus (Thryssa) hamiltoni* Bleeker, Atlas Ichth., vol. 6, pl. (1) 259, fig. 5, 1866-72.
- Engraulis poorawah* Bleeker, Atlas Ichth., vol. 6, p. 132, 1866-72; Java; Sumatra; Singapore; Bintang; Banka; Borneo; Celebes; Batjan; Ceram.
- Thryssa hamiltoni* Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 107, 1881; Swatow.
- Trichosoma hamiltoni* Rutter, Proc. Acad. Nat. Sci. Phila., ser. 2, p. 66, 1897; compiled.
- Anchovia hamiltonii* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 236, 1908; Manila; Iloilo, Panay.
- Engraulis grayi* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 37, fig. 17, 1913; Bagán Api Api, Sumatra.
- Thrissocles hamiltoni* Fowler, Copeia, No. 58, p. 62, 1918; Philippines.
- Thrissocles mystax* Fowler, Copeia, No. 58, p. 62, 1918; Philippines; not of Bloch and Schneider.
- Scutengraulis hamiltoni* Jordan and Seale, Bull. Mus. Comp. Zool., vol. 67, p. 371, 1926; Calcutta; Pinang; Colombo. Herre, 1940 Expedition, Dagat-Dagatan Fishery Station, Navotas, Rizal Province, Luzon; Zamboanga, Mindanao.
- Scutengraulis hamiltonii* McCulloch, Mem. Australian Mus., vol. 5, p. 43, 1929; reference.
- Setipinna hamiltoni* Fowler, Hong Kong Nat., vol. 2, p. 204, 1931; reference.
- Scutengraulis hamiltonii* Roxas, Philippine Jour. Sci., vol. 55, p. 261, 1934; Divisoria market, Manila; Calanga, Camarines Sur Province, Luzon; Tacloban, Leyte. Umali, Edible Fishes Manila, p. 62, fig. 26, 1936; Manila Bay. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga; p. 379, Margosatubig, Zamboanga Province, Mindanao. Blanco, Philippine Jour., Sci., vol. 66, p. 507, 1938, Cagayan Prov.
- Thrissocles hamiltonii* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 87, p. 94, 1935; Bangkok; Paknam, Siam. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 673; Manila market; off Daet, Camarines Norte Province, Luzon; Tacloban market, Leyte; Iloilo market, Panay; Malampaya River, Palawan; Sandakan market and Sebatik Island; British North Borneo.

117. *Scutengraulis mystax* (Bloch and Schneider).

- The East Indies and Philippines, north to China and the Bonin Islands, south to Queensland, west to India. Marine, and entering river mouths.
- Clupea mystax* Bloch and Schneider, Syst. Ichth., p. 426, pl. 83, 1801; Malabar.
- Thryssa mystax* Richardson, Ichth. China Japan, p. 309, 1846; seas of China and India.
- Engraulis mystax* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 67, 1848; India. Bleeker, Atlas Ichth., vol. 6, p. 132, 1866-72; Java; Madura; Sumatra; Singapore; Banka; Borneo. Day, Fishes India, p. 625, pl. 157, fig. 3, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 38, 1913; Batavia, Java.

- Thryssa porava* Bleeker, Verh. Bat. Gen., vol. 22, 1849; Bijdr. Ichth. Madura, p. 14. Madura Strait, near Kammal, Surabaya, and Sampang.
- Engraulis mystacoides* Bleeker, Verh. Bat. Gen., vol. 24, 1854; Haringacht; p. 42, 1852; Batavia, Surabaya, Samarang, Pasuruan, Tjilatjap, Bangcallang, Kammal, and Sumanap, Java.
- Stolephorus mystacoides* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 57, 1865; Amoy.
- Engraulis hamiltoni* Kner, Reise Novara, Fische, p. 334, 1865; Java; not of Gray.
- Stolephorus (Thryssa) mystax* Bleeker, Atlas Ichth., vol. 6, pl. (3) 261, fig. 2, 1866-72.
- Engraulis poorawah* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 148, 1874; on *Thryssa mystax* Richardson.
- Trichosoma porava* Rutter, Proc. Acad. Nat. Sci. Phila., 1897, p. 65; Swatow, China.
- Thrissoctes mystax* Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 675, 1941; Bonin Islands; Hong Kong; Java.
- Scutengraulis mystax* Jordan and Seale, Bull. Mus. Comp. Zool., vol. 67, p. 370, 1926; Java; Pinang. Roxas, Philippine Jour. Sci., vol. 55, p. 262, pl. 1, fig. 8 (scale), 1934; Cabusao and San Miguel Bay, Camarines Sur Province, Luzon; Basey, Samar; Barotoc, Iloilo Province, Panay; Cadiz, Occidental Negros Province, Negros; Sandakan, British North Borneo. Herre, 1940 Exped.; Ragay Gulf, Luzon.
- Thryssa mystacoides* Wu, Contrib. Biol. Lab. Sci. Soc. China, vol. 5, p. 24, fig. 18, 1929; Amoy.
- Setipinna mystax* Fowler, Hong Kong Nat., vol. 2, p. 203, 1931; reference.

118. *Scutengraulis valenciennesi* (Bleeker).

- East Indies and Philippines, west to India. Marine.
- Engraulis mystax* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1829, 1850; not of Bloch and Schneider. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Haringacht, p. 43; not of Bloch and Schneider.
- Stolephorus (Thryssa) valenciennesi* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 306, 1866; Java; Sumatra; Singapore; Borneo.
- Stolephorus (Thryssa) valenciennesi* Bleeker, Atlas Ichth., vol. 6, pl. (2) 260, fig. 6, 1866-72.
- Engraulis valenciennesi* Bleeker, Atlas Ichth., vol. 6, p. 133, 1866-72; Java, Sumatra, Pinang, Singapore, Borneo.
- Engraulis hamiltoni* Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 185, 1904; not of Gray.
- Anchovia valenciennesi* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 501, 1904; Sumatra.
- Thryssa valenciennesi* Fowler, Proc. Acad. Nat. Sci. Phila., p. 220, 1911; Sumatra.
- Engraulis valenciennesi* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 42, 1913; Palabuan Batu, Java. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 258, 1927; Orani, Bataan Province, Luzon.
- Scutengraulis valenciennesi* Jordan and Seale, Bull. Mus. Comp. Zool., vol. 67, p. 373, 1926; Sumatra.
- Engraulis valenciennes* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 2, 1927; Benkoelen, Sumatra.
- Thrissoctes valenciennesi* Fowler, List Fishes Malaya, p. 25, 1938; reference. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 682, 1941; Orani, Bataan Province, Luzon.

Genus 65. *STOLEPHORUS* Lacépède.

- Stolephorus* Lacépède, Hist. Nat. Poissons, vol. 5, p. 381, 1803; type *Atherina japonica* Houttuyn.

119. *Stolephorus commersoni* Lacépède. Long-jawed anchovy; Dilis.

- The Philippines, East Indies, China, and Korea, west to Zanzibar and Madagascar. Marine and entering rivers.
- Stolephorus commersonii* Lacépède, Hist. Nat. Poissons, vol. 5, p. 382, pl. 12, fig. 1, 1803; on Commerson. Weber and de Beaufort, Fishes

- Indo-Australian Archipelago, vol. 2, p. 45, fig. 19, 1913; Batavia and Semarang, Java; Nias; Balikpapan, Borneo; Kangeang; Salibabu. Roxas, Philippine Jour. Sci., vol. 55, p. 265, pl. 2, fig. 2 (scale), 1934; Manila; Catbalogan, Samar; Carigara, Leyte. Umali, Edible Fishes Manila, p. 61, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, 1940; p. 99, Zamboanga; p. 379, Margosatubig, Zamboanga Province, Mindanao.
- Clupea vittargentea* Lacépède, Hist. Nat. Poissons, vol. 5, p. 458, 1803; Mauritius; on Commerson.
- Commersonian atherine* Shaw, General Zoology, vol. 5, pl. 113, upper figure, 1804.
- Engraulis brownii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 21, p. 41, 1848; Bombay and Pondicherry at mouth of Arian-Coupang River, India; Batavia, Java; Mauritius.
- Stolephorus browni* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 57, 1865; Amoy.
- Stolephorus (Stolephorus) browni* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 294, 1868; Rio; Bintang.
- Engraulis commersonianus* Günther, Cat. Fishes British Mus., vol. 7, p. 388, 1868; Zanzibar; Bengal. Day, Fishes India, p. 629, pl. 158, fig. 1, 1878; India.
- Stolephorus commersonianus* Bleeker, Atlas Ichth., vol. 6, p. 128, pl. (1) 259, fig. 1, 1866-72; Java; Madura; Bali; Sumatra; Singapore; Bintang; Banka; Borneo; Celebes; Batjan; Amboina.
- Anchovia commersonii* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 501, 1904; Padang, Sumatra.
- Anchovia commersoniana* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 771, 1905; Bais, Oriental Negros Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 5, 1907; Manila. Seale, Philippine Jour. Sci., vol. 3, p. 513, colored pl. I. 1908; Philippines.
- Anchovia commersonii* Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 592, 1912; Batavia. Fowler, Copeia, No. 58, p. 62, 1918; Philippines.
- Stolephorus commersoni* Chabanaud, Service Océanogr. Pêches Indo-Chine, 1^o note, p. 8, 1926; Cochín China. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 15, 1934; Bauang Sur, La Union Province; Dumaguete, Negros Province.
- Engraulis commersonii* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 258, 1927; Santa Maria and Vigan, Ilokos Sur Province; Bangued, Abra Province; San Fernando, La Union Province, Luzon.
- Scutengraulis commersonii* Fowler, Hong Kong Nat., vol. 2, p. 200, 1931; reference.
- Anchoviella commersonii* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, p. 69, 1934; Benoa; Sanoer; Bali. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 703, 1941; Dagupan, Pangasinan Prov.; Bacoor, Cavite, and San Roque markets, Cavite Prov.; Manila market; Pucot River, Mariveles, Bataan Province; San Vicente Harbor, Cagayan Province; Batangas, Batangas Province; river at Pasacao, Camarines Sur Province; Santiago River, Pagapas Bay and Port Jamelo—above all on Luzon. Abuyog, Tacloban market, Hinunangan Beach, and Port Dupon, Leyte; Malampaya River, north end of Endeavor Strait, Mantaguin Bay, Nakoda Bay, Ulugan Bay, near mouth of Baheli River, and Verde del Sur Island, Palawan; Cotabato and Parang, Cotabato Province; Baganga Bay, Mati, Pujada Bay, Davao Province, Mindanao; Sandakan Bay, British North Borneo.
- Anchoviella commersonii* Fowler, List Fishes Malaya, p. 32, 1938; reference; error.

120. *Stolephorus heterolobus* (Rüppell).

- The East Indies and Philippines, south to Australia and Fiji, west to the Red Sea. Marine.
- Engraulis heterolobus* Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 79, pl. 21, fig. 4, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 7, p. 392, 1868; Red Sea; East Indies.
- Engraulis heteroloba* Martens, Verh. Zool.-Bot. Gesell. Wien, vol. 16, p. 379, 1866; Koseir, Red Sea.

- Stolephorus heterolobus* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 305, 1866. Bleeker, Atlas Ichth., vol. 6, p. 126, pl. (7) 265, fig. 1, 1866-72; Sumatra; Ternate; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 44, 1913; Java Sea; Lombok. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6; Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Dumaguete, Negros.
- Anchoviella heteroloba* Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 698, 1941; Olongapo and Masinloc Bay, Zambales Province, Cavite, Cavite Province; Port Jamelo and Port Matalvi, Luzon; Santa Cruz, Marinduque; Varadero Bay, Mindoro; Abuyog and Port Dupon, Leyte; Cebu market; Port Bais Anchorage, Oriental Negros Province, Negros; Nugas Point, Antique Province, Panay; Murcielagos Bay, Misamis Occidental Province; and Baganga Bay, Davao Province; Mindanao; Port Caltom, Busuanga.
121. *Stolephorus indicus* (van Hasselt). Tuakang; Dilis; Boris. East Indies, Philippines, North to Japan, southeast to Tahiti, west to India and the east coast of Africa. Marine, entering tidal rivers.
- Engraulis indicus* van Hasselt, Allgemeine Konst en Letterbode, p. 329, 1823; Java. Day, Fishes India, p. 629, pl. 158, fig. 3, 1878; India. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 259, 1927; Orion, Bataan Province, Luzon, Philippines.
- Engraulis albus* Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 293, 1839; on *Nattoo* Russell, Fishes Coromandel, vol. 2, p. 71, pl. 187, 1803; Vizagapatam.
- Engraulis browni* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1285, 1849; Malay Peninsula and islands; not of Gmelin.
- Engraulis balinensis* Bleeker, Verh. Bat. Gen., vol. 22, 1849; Bijdr. Ichth. Bali, p. 11; Boeling, Bali.
- Engraulis russellii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 472, 1851; Riouw.
- Engraulis samaminan* Thiollière, Fauna Woodlark, p. 208, 1857; Woodlark Island.
- Stolephorus russeli* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; Ternate; reference.
- Stolephorus indicus* Bleeker, Atlas Ichth., vol. 6, p. 127, pl. (1) 259, fig. 2, 1866-72; Java; Sumatra; Bali; Celebes; Bawean; Pinang; Singapore; Bintang; Banka; Batjan; Ternate; Amboina. Weber and de Beaufort, Fishes, Indo-Australian Archipelago, vol. 2, p. 46, 1913; Madura; Lombok; Nias; Makassar; Ternate. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Negros. Herre, Fishes 1931 Philippines Exped., p. 16, 1934; Atimonan, Tayabas Province; Cebu. Herre, 1936-37 Exped.: Balayan Bay, Batangas Province, Luzon. Umali, Edible Fishes Manila, p. 61, 1936; Manila Bay. Herre, 1940-41 Exped.; Manila Bay; Puerto Galera, Mindoro; Catbalogan, Samar.
- Engraulis encrasicholus* Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 13, p. 158, 1874; Chefoo; not of Linnaeus.
- Anchovia indica* Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 328, 1902; Formosa; Suwata. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 5, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; Bulan, Sorsogon Province, Luzon.
- Anchovia commersonii* Fowler, Copeia, No. 58, p. 62, 1918; Philippines. In part.
- Anchovia baliensis* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 2, 1922; Takao, Formosa.
- Scutengraulis indica* Fowler, Hong Kong Nat., vol. 2, p. 200, 1931; reference.
- Stolephorus indicus nanus* Hardenberg, Nat. Tijds. Ned.-Ind., vol. 93, p. 263, 1933.
- Anchoviella indica* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, p. 69, 1934; Sanoer; Den Pasar, Bali. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 706, 1941; Manila and Cavite markets; Olongapo, Zambales Province; Port San Vincent and San Vincent Harbor, Cagayan Province; Taal anchorage, Batangas Province; Nato and Port Jamelo—preceding all on Luzon; Busin Harbor, Burias Island; off Es-

carceo Light, Verde Island Passage; Santa Cruz, Marinduque; Hinanungan Beach, Leyte; Balamban, Cebu; Guijulugan, Oriental Negros Province, Negros; Iloilo market and Iloilo River, Panay; Panabutan Bay, Zamboanga Province, and Mati, Pujada Bay, Davao Province, Mindanao; Mataquin Bay, Palawan.

122. *Stolephorus tri* Bleeker.

Philippines, East Indies, westward to India. Marine and entering rivers.

Engraulis tri Bleeker, Verh. Bat. Gen., vol. 24, 1852; Haringacht, p. 40, Batavia, Java. Günther, Cat. Fishes British Mus., vol. 7, p. 389, 1868; type. Day, Fishes India, p. 630, pl. 158, fig. 6, 1878; Calcutta and Bombay, India. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 259, 1927; Santa Maria, Ilokos Sur Province; Orani and Orion, Bataan Province, Luzon.

Stolephorus tri Bleeker, Ned. Tijds. Dierk., vol. 2, p. 57, 1865; Amoy. Bleeker, Atlas Ichth., vol. 6, p. 128, 1866-72; Java; Banka; Borneo.

Stolephorus (Thrissa) tri Bleeker, Atlas Ichth., vol. 6, pl. (4) 262, 1866-72.

Anchovia commersonii Fowler, Copeia, No. 58, p. 62, 1918; not of Lacépède; in part; Philippine Islands.

Stolephorus rex Jordan and Seale, Bull. Mus. Comp. Zool., vol. 67, p. 380, 1926; Canara, India.

Scutengraulis tri Fowler, Hong Kong Nat., vol. 2, p. 201, 1931; reference.

Stolephorus tri Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Manila; Bauang Sur, La Union Province, Luzon; Cotabato, Cotabato Prov., Mindanao. Herre, 1940-41 Exped., Malabon, Rizal Province, Luzon; Dapitan Bay, Zamboanga Province, Mindanao. Roxas, Philippine Jour. Sci., vol. 55, p. 268, pl. 2, fig. 14 (scale), 1934; Manila market; Orani, Bataan Province, and the south coast of Luzon; Borongan, Samar; west coast of Guimaras Island, Iloilo Province.

Anchoviella tri Fowler, List Fishes Malaya, p. 33, 1938; reference. Fowler U. S. Nat. Mus. Bull. 100, vol. 13, p. 709, 1941; Abuyog, Leyte.

123. *Stolephorus zollingeri* (Bleeker).

East Indies, north to Formosa, south to Fiji. Marine.

Engraulis zollingeri Bleeker, Jour. Indian Archipelago, vol. 2, p. 73, 1849; Makassar, Celebes.

Stolephorus (Stolephorus) zollingeri Bleeker, Ned. Tijds. Dierk., vol. 3, p. 303, 1866; Batavia, Java; Padang, Sumatra; Bali; Celebes; Amboina.

Stolephorus zollingeri Bleeker, Atlas Ichth., vol. 6, p. 126, pl. (6) 266, fig. 2, 1866-72; Java; Sumatra; Bali; Celebes; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 44, 1913; Lombok; Nusa Laut. Herre, 1940-41 Exped.; Puerto Galera, Mindoro.

Anchovia zollingeri Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 2, 1922; Takao, Formosa.

Anchoviella zollingeri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, p. 69, fig. 4, 1934; Sanoer, Bali.

Anchoviella zollingeri Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 700, 1941; Nasugbu, Batangas Province; off Daet, Camarines Norte Province; Butaanan Island, Camarines Sur Province, and Port Jamelo, Luzon; Romblon Harbor, Romblon; Cebu market; Bais, Oriental Negros Province, and Nogas Point, Antique Province, Panay; Maribojoc, Bohol; Abuyog and Port Dupon, Leyte; Baganga Bay and Mati, Pujada Bay, Davao Province, Mindanao; Bumbum Island, Sulu Province; Port Binanga, Bataan Province, Luzon.

Genus 66. ENGRAULIS Cuvier. Anchovies.

Engraulis Cuvier, Règne Animal, ed. I, p. 174, 1817; type, *Clupea encrasicholus* L.

124. *Engraulis japonicus* Schlegel. Japanese anchovy.

Japan, Korea, China, and Formosa, Marine.

Engraulis japonicus Schlegel, Fauna Japonica, Pisces, p. 239, pl. 108, fig. 3, 1846; southwest Japan. Herre, 1940-41 Exped.; living specimens obtained from Japanese fishermen at Zamboanga in September 1940. Fish brought from Formosa in the well of a Japanese tuna

boat. These anchovies were used in chumming and as live bait. It is doubtful if they could survive, breed, and establish themselves in tropical waters. It is possible that they may already occur in the unexplored waters about the Batanes Islands. The record by Casto de Elera, from Cavite, is evidently an error.

Family 29. ALEPOCEPHALIDAE

Deep-sea clupeoid fishes of wide distribution.

Genus 67. ALEPOCEPHALUS Risso.

Alepocephalus Risso, Mem. Acad. Sci. Torino, vol. 25, p. 270, 1820;
Alepocephalus rostratus Risso.

125. *Alepocephalus andersoni* Fowler.

Alepocephalus andersoni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 246, fig. 8, January 20, 1934; between Siquijor and Bohol, in 392 fathoms.

Genus 68. ASQUAMICEPS Zugmayer.

Asquamiceps Zugmayer, Res. Camp. Sci. Monaco, fasc. 35, p. 10, 1911;
Asquamiceps velaris Zugmayer.

126. *Asquamiceps longmani* Fowler.

Asquamiceps longmani Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 248, fig. 9, January 20, 1934; Gulf of Boni, Celebes, in 608 fathoms.

Genus 69. BATHYTROCTES Günther.

Bathytroctes Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 2, p. 249, 1878;
Bathytroctes microlepis Günther.

127. *Bathytroctes harperi* Fowler.

Bathytroctes harperi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 250, fig. 12, January 20, 1934; Gulf of Boni, Celebes, in 608 fathoms.

128. *Bathytroctes hataii* Fowler.

Bathytroctes hataii Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 249, fig. 11, 1934, east coast of Luzon, in 300 fathoms; p. 250, fig. 13, 1934, Gulf of Boni, Celebes, in 805 fathoms.

129. *Bathytroctes welshi* Fowler.

Bathytroctes welshi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 249, 1934; Buton Strait, in 559 fathoms.

Genus 70. LEPTODERMA Vaillant.

Leptoderma Vaillant, Comptes Rendus, Acad. Sci. Paris, vol. 103, p. 1239, 1886; orthotype, *Leptoderma macrops* Vaillant.

130. *Leptoderma retropinna* Fowler.

Leptoderma retropinna Fowler, U. S. Nat. Mus. Bull. 100, vol. 14, Part 2, p. 55, 1943; off Diuata Point, on boundary between Agusan and Oriental Misamis Provinces, Mindanao, in 976 fathoms.

Genus 71. NARCETES Alcock.

Narcetes Alcock, Ann. Mag. Nat. Hist., vol. 6, 1890, p. 305; *Narcetes erimelas* Alcock.

131. *Narcetes garmani* Fowler.

Narcetes garmani Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 255, fig. 17, 1934; China Sea, off southern Luzon, in 248 fathoms.

132. *Narcetes lloydi* Fowler.

Narcetes lloydi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 253, fig. 16, 1934; east coast of Luzon, in 565 fathoms.

133. *Narcetes pappenheimi* Fowler.

Narcetes pappenheimi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 253, fig. 15, 1934; Gulf of Tomini, Celebes.

Genus 72. XENODERMICHTHYS Günther.

Xenodermichthys Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 2, p. 250, 1878; orthotype, *Xenodermichthys nodulosus* Günther.

134. *Xenodermichthys funebris* Fowler.

A Philippine species.

Xenodermichthys funebris Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 54, fig. 4, 1943; Point Tabonan, Palawan Passage, west coast of Palawan, in 375 fathoms.

Family 30. MICROSTOMIDAE

Genus 73. MICROSTOMA Cuvier.

Microstoma Cuvier, Règne Animal, ed. 1, vol. 2, p. 184, 1817; type, *Gasteropelecus microstomus* Risso.

135. *Microstoma schmitti* Fowler.

Microstoma schmitti Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 256, fig. 18, 1934; east coast of Luzon, in 383 fathoms; also "from the Philippines and Borneo."

Family 31. STOMIATIADAE

Genus 74. ELAPTEROSTOMIAS Fowler.

Elapterostomias Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 258, 1934; type, *Elapterostomias philippinus* Fowler; a new species.

136. *Elapterostomias philippinus* Fowler.

Elapterostomias philippinus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 259, fig. 20, 1934; China Sea, off southern Luzon, in 524 fathoms.

Genus 75. MELANOSTOMIAS Brauer.

Melanostomias Brauer, Zool. Anz., vol. 25, p. 285, 1902; orthotype, *Melanostomias valdiviae* Brauer.

137. *Melanostomias globulifer* Fowler.

Melanostomias globulifer Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 263, fig. 24, 1934; west coast of Luzon, in 297 fathoms.

138. *Melanostomias stewarti* Fowler.

Melanostomias stewarti Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 262, fig. 23, 1934; Dupon Bay, Leyte, and vicinity.

139. *Melanostomias vierecki* Fowler.

Melanostomias vierecki Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 265, fig. 25, 1934; east of Masbate, in 604 fathoms.

Genus 76. MICRODONTOSTOMIAS Fowler.

Microdontostomias Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 259, 1934; type, *Microdontostomias orientalis* Fowler; a new species.

140. *Microdontostomias orientalis* Fowler.

Microdontostomias orientalis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 261, fig. 21, 1934; Makyan Island, in 298 fathoms.

Genus 77. PSEUDOSTOMIAS Fowler.

Pseudostomias Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 261, 1934; type, *Pseudostomias myersi* Fowler.

141. *Pseudostomias myersi* Fowler.

Pseudostomias myersi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 262, fig. 22, 1934; Sulu Sea, near southern Panay, in 411 fathoms.

Family 32. GONOSTOMIDAE

Genus 78. NEOPHOS Myers.

Neophos Myers, Copeia, No. 2, pl. 61, July, 1932; type, *Neophos nexilis* Myers; a new species.

142. *Neophos nexilis* Myers.

Neophos nexilis Myers, Copeia, No. 2, p. 61, July, 1932; Philippines.

Genus 79. THOROPHOS Brunn.

Thorophos Brunn, Vidensk. Meddel. Dansk. Naturh. Forening, vol. 92, p. 288, 1931; orthotype, *Thorophos euryops* Brunn.

143. *Thorophos euryops* Brunn.
Thorophos euryops Brunn, Vidensk. Meddel. Dansk. Naturh. Forening,
vol. 92, p. 288, 1931; Mindanao Sea, north of Mindanao.

Family 33. MAUROLICIDAE

Deep-sea fishes of the Mediterranean, Atlantic, and Indo-Pacific Oceans.

Genus 80. DIPLOPHOS Günther.

Deep-sea fishes of the Indo-Pacific.

Diplophos Günther, Fische der Südsee, vol. 1, p. 101, 1873-75; type,
Diplophos taenia Günther. Günther, Reports Voy. *Challenger*, Zool-
ogy, vol. 31, p. 32, 1889. Goode and Bean, Oceanic Ichthyology, p. 104,
1895.

144. *Diplophos taenia* Günther.

Diplophos taenia Günther, Fische der Südsee, vol. 1, p. 104, 1873-75.
Günther, Reports Voy. *Challenger*, Zoology, vol. 31, p. 32, pl. 4, fig. C,
1889. Goode and Bean, Oceanic Ichthyology, p. 104, fig. 126, 1895;
after Günther; lat. 30° S., long. 24° W., and lat. 220° N., long. 30° W.
Barnard, Ann. South African Mus., vol. 21, p. 149, 1927; Natal Coast
Herre, Motorship *Spencer F. Baird*, Dec. 10, 1947; Sulu Sea, near
Cagayan Sulu Island, Sulu Province.

Genus 81. VALENCIENNELLUS Jordan and Evermann.

Valenciennellus Jordan and Evermann, Fishes North and Middle Amer-
ica, vol. 1, p. 577, 1896; on *Maurolicus tripunctulatus* Esmark.

145. *Valenciennellus tripunctulatus* (Esmark).

Maurolicus tripunctulatus Esmark, Vidensk. Selskaps Forhandl. Chris-
tiania, 1870, p. 488; Madagascar.

Valenciennellus tripunctulatus Jordan and Evermann, Fishes North
and Middle America, vol. 1, p. 278, 1896; Madagascar; Denmark
Straits between Greenland and Iceland. Weber and de Beaufort,
Fishes Indo-Australian Archipelago, vol. 2, p. 136, fig. 50, 1913; Timor
Sea, at 421 meters. Roxas, Philippine Jour. Sci., vol. 55, p. 290, 1934;
China Sea, about 60 miles off Lubang Island, at a depth of 1,000
meters.

Family 34. STERNOPTYCHIDAE

Deep-sea luminous fishes of wide distribution.

Genus 82. ARGYROPELECUS Cocco.

Argyropelecus Cocco, Archivo della R. Acad. Peloritano, p. 146, 1829;
Argyropelecus hemigymnus Cocco.

146. *Argyropelecus aculeatus* Cuvier and Valenciennes.

Atlantic Ocean, Grand Banks; off Cape Cod, New Jersey, and Virginia;
Gulf of Mexico; West Indies; North Sea; Indian Ocean.

Argyropelecus aculeatus Cuvier and Valenciennes, Hist. Nat. Poissons,
vol. 22, p. 406, 1849. Sauvage, in Grandidier, Hist. Phys. Nat. Mada-
gascar, vol. 16, Poissons, p. 483, pl. 48, fig. 5, 1891. Brauer, Exped.
Valdivia, Tiefsee Fische, vol. 15, p. 110, fig. 47, 1906. Norman, *Discovery*
Reports, vol. 2, p. 303, fig. 11, 1930. Parr, Bull. Bingham Oceanogr.
Collection, vol. 3, pp. 47, 50, and 53, fig. 18 (1a-1c) 1937. Schultz,
Proc. U. S. Nat. Mus., vol. 86, p. 151, 1938; Pacific, northeast of Cape
San Agustin, Davao Province, Mindanao.

Sternoptyx acanthurus Cuvier and Valenciennes, Hist. Nat. Poissons,
vol. 22, p. 408, 1849.

Argyropelecus olfersii Collett, Festschrift Oscar II Regjerings-jubilaet
1897, vol. 2, p. 14, 1897; not of Cuvier. Vladykov and McKenzie, Proc.
Nova Scotia Inst. Sci., vol. 19, p. 60, fig. 40, 1935; not of Cuvier.

Argyropelecus acanthurus Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70,
pp. 246 and 1207, 1936; not of Cocco.

147. *Argyropelecus hemigymnus**Cocco.

Pacific Ocean, Hawaiian Islands, Philippines, West Indies, Bermudas,
off South Carolina, central and south Atlantic, Mediterranean Sea,
Indian Ocean, and coast of India.

Argyropelecus hemigymnus Cocco, Archivio della R. Acad. Peloritano, p. 146, 1829; Sicily. Brauer, Exped. *Valdivia*, Tiefsee Fische, vol. 15, p. 106, fig. 45, 1906. Norman, *Discovery Reports*, vol. 2, p. 303, pl. 2, fig. 4, 1930. Schultz, Proc. U. S. Nat. Mus., vol. 86, p. 148, 1838; Panay Gulf, at 565 fathoms; Verde Island Passage near the Lubang Islands, at 565 fathoms.

148. *Argyropelecus sladeni* Regan.

The Pacific Ocean, off southern Japan, the Philippines, and off Panama. *Sternoptia mediterranea* Cocco, Giorn. Il. Faro, vol. 4, p. 7, figs. 2a-2b, opp. p. 16, 1838. Bonaparte, Iconografia fauna italia, vol. 3, fasc. 28, pl. 121, fig. 3, 1840.

Argyropelecus intermedius Clarke, Trans. Proc. New Zealand Inst., vol. 10, p. 244, pl. 6, (1877) 1878.

Argyropelecus heathi Gilbert, Bull. U. S. Fish Comm., vol. 23, (for 1903), Part 2, p. 601, pl. 72, fig. 1, 1905; Hawaiian Islands.

Argyropelecus lychnus Lendenfeld, Mem. Mus. Comp. Zool., vol. 30, p. 170, pl. 6, figs. 24-25, 1905; not of Garman.

Argyropelecus sladeni Regan, Trans. Linn. Soc. Zool., vol. 12, p. 218, 1908. Norman, *Discovery Reports*, vol. 2, p. 304, fig. 13, 1930. Parr, Bull.

Bingham Oceanogr. Collection, vol. 3, pp. 46, 47, and 50, figs. 18 (4) and 19, 1937. Schultz, Proc. U. S. Nat. Mus., vol. 86, p. 153, 1938; 47 specimens from the following Philippine localities: Verde Island Passage, near the Lubang Islands, depth 393 fathoms; Sulu Sea west of Negros and south of Panay, at 638 fathoms; west of Marinduque, at 181 fathoms; off Burias Island, at 209 fathoms; Gulf of Lagonoy, at 310 fathoms; Mindanao Sea off Camaguin Island, at 960 fathoms; Iligan Bay, north coast of Mindanao, at 267 fathoms; north and north-west of Siquijor, at 805 fathoms.

Genus 83. POLYIPNUS Günther.

Polyipnus Günther, Rept. Voy. *Challenger*, Deep-Sea Fishes, p. 170, 1887; *Polyipnus spinosus* Günther.

149. *Polyipnus fraseri* Fowler.

Polyipnus fraseri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 257, fig. 19, 1934; at 559 fathoms; locality given incorrectly as Buton Strait. Schultz, Proc. U. S. Nat. Mus., vol. 86, p. 145, 1938; same specimen; correct locality is off the Pacific coast of Sorsogon Province, Luzon; lat. 12°56'24" N.; long. 124°25'24" E.

150. *Polyipnus spinosus* Günther.

Polyipnus spinosus Günther, Report Voy. *Challenger*, Deep Sea Fishes, p. 170, pl. 51, 1887; type; between Philippine Islands and Borneo, at 250 fathoms. Brauer, *Valdivia* Exped., Tiefsee-Fische, vol. 15, p. 120, figs. 64-65, 1906; Gulf of Guinea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 130, fig. 47, 1913; Madura Sea; Bali Sea; Makassar Straits; Molucca Passage; Arafura Sea; Timor Sea. Roxas, Philippine Jour. Sci., vol. 55, p. 286, 1934; after Günther. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 240, fig. 112, 1936. Schultz, Proc. U. S. Nat. Mus., vol. 86, p. 143, 1938; 46 specimens as follows: Verde Island Passage, 159, 180, 193 and 170 fathoms; China Sea, between Lubang Islands and Manila Bay, at 193 fathoms; Sulu Sea west of TawiTawi, at 250 fathoms; Sibuyan Sea at 37 fathoms; Tablas Strait, at 56, 235, and 180 fathoms; off northwest of Lubang Island, in China Sea, at 201 fathoms; between Mindoro and Marinduque at 173 fathoms; China Sea northwest of Mindoro, at 180 fathoms; west of Masbate, at 226 fathoms; east of Cebu in Camotes Sea, at 385 fathoms; Bohol Strait at 175 fathoms; Lingayen Gulf at 45 fathoms; Iligan Bay, off north coast of Mindanao, at 226 fathoms; Mindanao Sea between Mindanao and Bohol, at 254 and 256 fathoms; Sulu Sea, south of Laparan Island, Sulu Province, at 224 and 303 fathoms; Sulu Sea, between Pearl Bank and Borneo, at 211 fathoms. Also Sibuko Bay, coast of Borneo, at 260, 310, and 305 fathoms.

Polyipnus stereope Jordan and Starks, Bull. U.S. Fish Comm., vol. 22, p. 581, pl. 2, fig. 3, 1904; Sagami Bay, Japan.

Polyipnus tridentifer McCulloch, Biol. Results *Endeavor*, 1909-1914, vol. 2, pp. 78, and 87, pl. 16, 1914.

151. *Polyipnus triphanos* Schultz.
Polyipnus triphanos Schultz, Proc. U.S. Nat. Mus., vol. 86, p. 140, fig. 45, 1938; Iligan Bay, north coast of Mindanao, at 267 fathoms.
152. *Polyipnus unispinus* Schultz.
Polyipnus unispinus Schultz, Proc. U.S. Nat. Mus., vol. 86, p. 137, fig. 43, 1938; Lagonoy Gulf, at 380 fathoms.
- Genus 84. **STERNOPTIX** Herrmann.
Sternoptix Herrmann, Der Naturforscher, 2 Stück, vol. 16, p. 8, 1781; type, *Sternoptix diaphana* Herrmann.
153. *Sternoptix diaphana* Herrmann.
 Pacific Ocean, Japan, Australia, east to Hawaiian Islands, Indian Ocean, and Atlantic Ocean from 46° 24' north latitude to Cape of Good Hope. *Sternoptix diaphana* Herrmann, Naturforscher, vol. 16, p. 8, 1781; Jamaica.
Sternoptix diaphana Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 132, fig. 48, 1913; Bali Sea; Flores Sea; Banda Sea; Manipa Straits; Ceram Sea; Molucca Passage; Celebes Sea. Roxas, Philippine Jour. Sci., vol. 55, p. 287, 1934; about 60 miles northwest of Lubang Island, at a depth of 1,000 meters.

Order H. LYOPOMI

Family 35. HALOSAURIDAE

Deep-sea fishes, occurring around the world between 40° N. Lat. and 46° S. Lat.

Genus 85. ALDROVANDIA Goode and Bean.

Aldrovandia Goode and Bean, Oceanic Ichthyology, p. 132, 1895; orthotype, *Halosaurus rostratus* Günther.

154. *Aldrovandia mediorostris* (Günther).

Indo-Pacific area.

Halosaurus mediorostris Günther, Report Voy, *Challenger*, Deep-Sea Fishes, p. 239, 1887; near the Philippines, at 1288 meters. Brauer, *Valdivia* Exped., vol. 15, Tiefsee-Fische, p. 387, 1906; Philippines. Weber, *Siboga*-Exped., vol. 57, Fische, p. 74, 1913; Philippines.

Halosauropsis mediorostris Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 4, 1922; Bali Sea; near Philippine Islands; Arabian Sea.

155. *Aldrovandia ridgwayi* (Fowler).

Halosauropsis ridgwayi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 265, fig. 26, 1933; between Siquijor and Bohol, in 392 fathoms.

Order I. HETEROMI

Family 36. NOTACANTHIDAE. Spiny Eels

Eel-like, deep-sea fishes of the Atlantic and Pacific Oceans.

Genus 86. NOTACANTHUS Bloch.

Notacanthus Bloch, Abhandl. Böhmischer Gesellschaft, vol. 1, p. 278, 1787; *Notacanthus chemnitzii* Bloch.

Acanthonotus Bloch, Ichthologia, vol. 12, p. 113, 1797; name of species changed to *Acanthonotus nasus* Bloch.

Campylodon Fabricius, Skrivt. Naturhist. Selskab. Kjöbenhavn, vol. 2, p. 12, 1798. Reinhardt, Vid. Selsk. Naturv. Math. Afhandl., p. 120, 1838; type, *Campylodon fabricii* Reinhardt.

156. *Notacanthus abbotti* Fowler.

Notacanthus abbotti Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 267, 1934; northern Mindanao, 423 fathoms.

Order J. APODES. Long-necked eels

Family 37. DERICHTHYIDAE

It is doubtful that these eel-shaped fishes belong near the true eels.

Genus 87. BENTHENCHELYS Fowler.

Benthenchelys Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 267, 1934; type, *Benthenchelys cartieri* Fowler; a new species.

157. *Benthenchelys cartieri* Fowler.

Benthenchelys cartieri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 269, 1934; between Panay and Negros, in 638 fathoms.

Family 38. ANGUILLIDAE. True eels

Genus 88. ANGUILLA Shaw. Eels; Igat; Kasili.

Catadromous fishes of the Atlantic, western Pacific, and Indian Oceans. *Anguilla* Shaw, General Zoology, vol. 4, p. 15, 1803; type, *Anguilla vulgaris* Shaw=*Muraena anguilla* L.

Muraena of Bleeker, Poey, Fowler, etc., taking *Muraena anguilla*, the first species mentioned by Ardeidi, as type.

Tribranchus (Peters) Miller, Abh. Akad. Wiss. Berlin 1844; orthotype. *Tribranchus anguillarum* Peters=*Anguilla australis* Richardson.

158. *Anguilla celebesensis* Kaup. Celebes eel.

The East Indies, Philippines, south to Australia, eastward into Polynesia.

Anguilla celebesensis Kaup, Cat. Apodal Fish British Mus., p. 42, fig. 31, 1856; Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 247, figs. 99 and 101, 1916; 14 East Indian localities; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 136, fig. 1, 1923; Lake Lanao, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete River, Dumaguete, Oriental Negros Prov. Herre, Fishes 1931 Phil. Exped., p. 16, 1934; Pasay, Rizal Province, Luzon; Lake Lanao, Mindanao. Herre, 1936-37 Exped.; Sibugan River, a tributary of Sandakan Bay, British North Borneo. Herre, 1940-41 Exped.; brook at Marata Bogan, 30 kilometers east of Kolambagan, Lanao Province, altitude 1000 feet; brook at San Ramon Penal Colony, Zamboanga Province, Mindanao; creek at Old Ayukitan, near Dumaguete, Oriental Negros Province. Ege, Dana Report No. 16, A Revision of the Genus *Anguilla*, p. 10, 1939; Iba, Zambales Province, Luzon; Zamboanga, Mindanao; also Celebes, Amboina, and 8 other East Indian localities from Nias to New Guinea.

Anguilla amboinensis Peters, Monatsber. Akad. Wiss. Berlin, p. 523, 1866. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 43, 1885; Laguna de Bay, Luzon.

159. *Anguilla marmorata* Quoy and Gaimard. Igat; Pabucang-binhi; Kiwit; Kasili; Quioet. Occurs from the islands north of Luzon to TawiTawi, Sulu Province, and at all altitudes up to nearly 5000 feet. Found elsewhere from the east coast of Africa to the Marquesas Islands, north to Formosa and south to South Australia.

Anguilla marmorata Quoy and Gaimard, Voy. Uranie et Physicienne, Zoologie, Poissons, p. 241, pl. 51, fig. 2, 1824; Waigi. Ege, Dana Report No. 16, A Revision of the Genus *Anguilla*, p. 36, 1939; many localities from Madagascar to Tahiti; Philippines; Laguna de Bay and Rivers; Zambales Prov., Luzon; Zamboanga, Mindanao.

Anguilla mauritiana Bennett, Proc. Comm. Zool. Soc. London, p. 128, 1831. Günther, Cat. Fishes, British Mus., vol. 8, p. 25, 1870; Philippines; not synonymy. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 43, 1885; Laguna de Bay, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 56, 1907; Tarlac, Tarlac Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1908; Calayan, Babuyan Islands, Philippines; Baco River, Mindoro. Weber and de Beaufort,

Fishes Indo-Australian Archipelago, vol. 3, p. 245, figs. 100 and 102, 1916; Philippines. Fowler, Copeia, June 18, 1918, p. 62; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 9, 1922; Zamboanga. Herre, Philippine Jour. Sci., vol. 23, p. 134, 1923; localities from Luzon; Pinacanauan River, Cagayan Province; Abra River, Ilokos Sur Province; Bontoc, Mountain Province; Laguna de Bay, Laguna Province; Bicol River, Camarines Sur Province; Cabalian, Leyte; Pulangi River, Cotabato Province, Mindanao; Sibuyan; Masbate; Polillo; Jolo Island, Sulu Province. Herre, Philippine Jour. Sci., vol. 34, 1927; pp. 294 and 296, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Herre, Expeditions of 1929, 1936-37, and 1940-41; Bigaa River, near Legaspi, Albay Province, Luzon; Hacienda Waterous, Mangarin, Mindoro; Pasonanca River, 6 miles northeast of Zamboanga, and San Ramon Penal Colony, Zamboanga Province, Mindanao; Malum River, TawiTawi, Sulu Province. Villadolid, Philippine Jour. Sci., vol. 63, p. 192, 1937; Lake Taal (Bombon) and Pansipit River; p. 216, Balayan Bay, all in Batangas Province, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon.

Muraena maculata Bleeker, Atlas Ichth., vol. 4, p. 9, 1864, pl. 1, fig. 2, Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.

Muraena manillensis Bleeker, Atlas Ichth., vol. 4, p. 10, 1864, pl. 44, fig. 2; Luzon.

Muraena mauritiana Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 259, 1927; Orani and Orion, Bataan Province, Luzon.

160. *Anguilla pacifica* Schmidt.

Widely distributed through the Philippines and East Indies, and eastward in the tropical Pacific. Represented in the Indian Ocean by *Anguilla bicolor* McClelland. Two or more species are confused in the synonymy as given by the author.

Anguilla australis Richardson, Proc. Zool. Soc. London, p. 22, 1842; in part. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 249, 1916; in part and excluding synonymy. Herre, Philippine Jour. Sci., vol. 23, p. 138, 1923; Cavite, Cavite Province, and Lake Bato, Camarines Sur Province, Luzon; excluding synonymy. Herre, 1936-37 Exped., Kabili River, a tributary of Sandakan Bay, British North Borneo; Kalapa River, Sarawak, Borneo.

Anguilla pacifica Schmidt, in letter, 1932. Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Rio Grande, Cotabato Province, Mindanao.

161. *Anguilla spengeli* Weber.

East Indies, Philippines and Australia.

Anguilla malgumora Schlegel, Museum Lugd.; Batavia; not Kaup.

Anguilla mowa Bleeker, Verh. Bat. Gen., vol. 25, 1853; Muraenoiden, p. 16; in part.

Muraena malgumora Bleeker, Atlas Ichth., vol. 4, p. 11, pl. 2, fig. 1, 1864; not of Kaup.

Anguilla (Muraena) malgumora Kner, Reise Novara, Fische, p. 367, 1865-67; Australia; not of Kaup.

Anguilla spengeli Weber, Zool. Jahrb., Suppl. XV, vol. 1, p. 591, 1912. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 249, 1916; Simalur; Nias; Balikpapan, Borneo. Herre, Philippine Jour. Sci., vol. 23, p. 139, pl. 1, fig. 1, 1923; Cotabato River, Cotabato Province, Mindanao. Herre, Philippine Jour. Sci., vol. 59, p. 365, 1936; San Ramon Penal Colony, Zamboanga Province, Mindanao.

Family 39. SYNAPHOBANCHIDAE

Deep-sea eels of the Atlantic, Pacific, and Indian Oceans.

Genus 89. SYNAPHOBANCHUS Johnson.

Synaphobranchus Johnson, Proc. Zool. Soc. London, 1862, p. 169;

Synaphobranchus kaupii Johnson=*Muraena pinnata* Gronow.

162. *Synaphobranchus pinnatus* (Gronow).

North Atlantic, Banks of Newfoundland, Madeira, Canary Islands and western Pacific.

Muraena pinnata Gronow, Cat. Fishes, p. 19, 1854.

Synaphobranchus kaupi Johnson, Proc. Zool. Soc. London, p. 169, 1862; Madeira.

Synaphobranchus pinnatus Günther, Report Voy. *Challenger*, Zoology, vol. 22, Deep Sea Fishes, p. 253, 1887; south of Philippines at 500 fathoms, also Philippines at 375 fathoms. Brauer, *Valdivia* Exped., vol. 15, Tiefsee Fische, p. 379, 1906; Philippines.

163. *Synaphobranchus* (*Leptocephalus*) *sului* Bruun.

Synaphobranchus sului Bruun, Dana Report No. 9, p. 13, fig. 14, 1937; Sulu and Mindanao Seas.

Family 40. MURAENESOCIDAE

Large marine eels of the Indian, Pacific, and Atlantic Oceans; entering estuaries and tidal rivers.

Genus 90. MURAENESOX McClelland. Pike eels; Ugdok; Pindanga; Obud; Ubud.

Eels of this genus are the object of important fisheries on the China coast.

Muraenesox McClelland, Calcutta Jour. Nat. Hist., vol. IV, p. 408, 1844; type, *Muraenesox tricuspudata* McClelland. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 252, 1916. Herre, Philippine Jour. Sci., vol. 23, p. 147, 1923.

164. *Muraenesox cinereus* (Forskål). Pike eel; Pindanga; Obud.

The most abundant and most valuable species. From the Red Sea and East coast of Africa to the East Indies, and north to Japan, south to Australia, and east into Polynesia. Common in the Philippines.

Muraena cinerea Forskål, Descript. Animal., pp. XX and 22, 1775; Red Sea.

Muraena arabica Bloch and Schneider, Syst. Ichth., p. 488, 1801.

Muraenesox bagio Kaup, Cat. Apodal Fish British Mus., p. 116, pl. 14, fig. 73, 1856. Bleeker, Atlas Ichth., vol. 4, p. 24, pl. 26, fig. 2, 1864.

Muraenesox singapurensis Bleeker, Atlas Ichth., vol. 4, p. 25, pl. 7, fig. 2, 1864.

Muraenesox cinereus Günther, Cat. Fish. British Mus., vol. 8, p. 46, 1870; Philippines. Day, Fishes India, p. 662, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 43, 1885; Manila Bay, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1908; Manila. Seale, Philippine Jour. Sci., vol. 5 D, p. 265; 1910; Sandakan, British North Borneo; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 253, fig. 104, 1916; Philippines; Sumatra; Borneo; Celebes; Flores; Aru Islands. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 148, pl. 10, fig. 1, 1923; Manila; Alaminos and Agno River, Pangasinan Province; Bancal River, near Iba, Zambales Province; Calabang, Camarines Sur Province, all on Luzon. Tacloban, Leyte; Sandakan, British North Borneo. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 259, 1927; Orani and Orion, Bataan Province, Luzon. Herre, Fishery Resources Philippine Islands, pl. 30, fig. 1, 1927. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo; p. 6, Dumaguete, Oriental Negros Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Currirmao, Ilokos Norte Province; Iba, Zambales Province; and Manila, Luzon. Herre, 1933-34 Exped.; Cebu, Cebu; Manila Bay. Umali, Edible Fishes Manila, p. 64, fig. 28, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon. Herre, 1940-41 Exped; Iloilo, Iloilo Province, Panay.

165. *Muraenesox talabon* (Cantor).

India, east to the East Indies, north to the Philippines and China. Valued for food.

Conger talabon Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1294, 1850.

Muraenesox pristiis Kaup, Cat. Apodal Fishes, British Mus., p. 116, 1856.

Muraenesox talabon Bleeker, Atlas Ichth., vol. 4, p. 22, pl. 8, fig. 2, 1864. Day, Fishes India, p. 661, pl. 168, fig. 5, 1878. Weber and de Beaufort,

Fishes Indo-Australian Archipelago, vol. 3, p. 255, figs. 103 and 105, 1916; Bagan Api Api, Sumatra; Balikpapan, Borneo. Herre, Philippine Jour. Sci., vol. 23, p. 149, 1923; Manila Bay. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 2, 1933; Sandakan, British North Borneo. Herre, 1933-34 Exped.; Tacloban, Leyte.

Family 41. CONGRIDÆ (LEPTOCEPHALIDÆ). Conger eels; Obud; Obod

A large group of eels occurring in all tropical to cold temperate seas, some of large size and economic importance. Coastal, some entering estuaries and rivers, and others bathy-pelagic. Some species are prized as food.

Genus 91. CONGER Cuvier.

Marine eels of warm and temperate parts of the Pacific, Indian, and Atlantic Oceans.

Conger Cuvier, in Règne Animal, Ed. I, p. 231, 1817 ("Les Congres" Cuvier) Oken, 1182; type, *Muraena conger* L.

Congrus Richardson, Voy. *Erebus* and *Terror*, p. 107, 1844; *Muraena conger* L.

Leptocephalus Scopoli, In. Hist. Nat., p. 453, 1777; *Leptocephalus morrisi* Gmelin; larval form.

166. *Conger cinereus* Rüppell. Black conger eel.

From the Red Sea and east coast of Africa through the East Indies and Philippine Islands to Hawaiian and Samoan Islands.

Conger cinereus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 115, pl. 29, fig. 1, 1828; Red Sea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 258, figs. 107-108, 1916; Pulu Serbete, Flores; Nusa Laut; Ternate; Humboldt Bay, New Guinea.

Leptocephalus riukiuanus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 852, fig. 4, 1901; Okinawa.

Leptocephalus cinereus Herre, Philippine Jour. Sci., vol. 23, p. 142, 1923; Dumaguete, Oriental Negros Province; Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Manila, Luzon; Culion; Jolo, Sulu Province.

167. *Conger conger* (Linnaeus). Conger eel; Obud; Ubud.

Common in the Atlantic and found in the western Pacific and Indian Oceans.

Muraena conger Linnaeus, Syst. Nat., ed. 10, p. 245, 1758; based on Artedi.

Muraena nigra Risso, Ichth. Nice, p. 93, 1810; Nice, France.

Anguilla oceanica Mitchill, Jour. Acad. Nat. Sci. Phila., p. 407, 1818; off New York.

Conger verus Risso, Europ. Mérid., vol. 3, p. 201, 1826; Nice.

Conger vulgaris Cuvier, Règne Animal, ed. 2, vol. 2, p. 350, 1829; France. Bleeker, Atlas Ichth., vol. 4, p. 26, pl. 149, fig. 2, 1864.

Conger rubescens Ranzani, De Novis Spec. Pisc. Diss. Prima, p. 19, pl. 5, 1839; Mediterranean Sea.

Ophisoma obtusa Swainson, Nat. Hist. Animal. Fishes, vol. 2, p. 395, 1839; Sicily.

Conger orbignyianus Valenciennes, D'Orbigny, Voy. Am. Merid., Poissons, p. 1, pl. 12, 1839; South America.

Conger marginatus Valenciennes, in Eydoux and Souleyet, Voy. Bonite, Poissons, p. 201, pl. 9, fig. 1, 1841. Günther, Cat. Fishes British Mus., vol. 8, p. 38, 1870.

Conger verreauxi Kaup. Cat. Apodal Fish, British Mus., p. 115, 1856.

Conger altipinnis Kaup, Archiv Naturges., vol. 22, p. 72, 1856.

Conger noordzieki Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 86, 1857. Bleeker, Atlas Ichth., vol. 4, p. 26, pl. 23, fig. 2, 1864.

Conger esculentus Poey, Memorias., vol. 2, p. 346, 1861; Cuba.

Conger japonicus Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 32, pl. 2, fig. 2, 1879; Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 194, 1925; Misaki, Japan

Leptocephalus japonicus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 851, 1901.

Leptocephalus erebennus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 849, fig. 3, 1901; Misaki, Sagami, Japan.

Leptocephalus kiusiuanus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 851, 1901; Hakata, Japan.

Leptocephalus marginatus Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, p. 76, 1905; Hawaiian Islands.

Conger conger Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 259, 1916; East Indies. Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Cebu, Cebu; Dumaguete, Oriental Negros Province. Manila; Cullion; Jolo, Sulu Province. Herre, 1936-37 Exped., and 1940 Exped.; Manila Bay; Nasugbu, Batangas Province, Luzon; Sitankai, Sulu Province.

168. *Conger* ? (*Leptocephalus*) *brevicaudus* (Peters).

Leptocephalus (*Diaphanichthys*) *brevicaudus* Peters, Monatsber. Akad. Wiss. Berlin, p. 399 (1864) 1865. Under this name were described larval eels taken in the open sea between Masbate and Luzon.

Leptocephalus brevicaudus Herre, Philippine Jour. Sci., vol. 23, p. 143, 1923; after Peters.

Genus 92. *ARIOSOMA* Swainson. Obud.

Tropical Atlantic, Indian, and Pacific Oceans; north to Japan. Littoral and deep-sea species.

Ariosoma Swainson, Nat. Hist. Fishes, vol. 1, p. 22, 1838; logotype as restricted by Bleeker and by Swainson. *Ophisoma acuta* Swainson = *Muraena balearica* Delaroche.

Ophisoma swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 195, 1839; substitute for *Ariosoma*; name preoccupied.

Congermuraena Kaup, Archiv. Naturge., vol. 22, p. 71, 1856; logotype. *Muraena balearica* Delaroche, as restricted by Bleeker; often spelled *Congromuraena* by authors. Ogilby, Proc. Linn. Soc. New South Wales, vol. 23, p. 284, 1898.

Gnathophis Kaup, Abh. Naturw. Verein Hamburg, vol. 4, Abt. 2, p. 7, 1860; orthotype, *Gnathophis heterognathus* Kaup.

Promyllantor Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 6, p. 310, 1890; orthotype, *Promyllantor purpureus* Alcock.

Congrellus Ogilby, Proc. Linn. Soc. New South Wales, vol. 23, p. 288, 1898; orthotype, *Muraena balearica* Delaroche. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 260, 1916.

Bathycongrus Ogilby, Proc. Linn. Soc. New South Wales, vol. 23, p. 292, 1898; orthotype, *Congromuraena nasica* Alcock.

Congrosoma Garman, Mem. Mus. Comp. Zool. Harvard, vol. 24, p. 308, 1899; orthotype, *Congrosoma evermanni* Garman.

Pseudophichthys Roule, Comptes Rendus Acad. Sci. Paris, vol. 160, p. 283, 1915; orthotype, *Pseudophichthys latidorsalis* Roule.

Alloconger Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, No. 2, pp. 192 and 195, 1925; type, *Leptocephalus flavirostris* Snyder.

Rhynchoconger Jordan and Hubbs, *ibid.*, pp. 192 and 196, 1925; type, *Leptocephalus ectenurus* Jordan and Richardson.

Rhynchocymba Jordan and Hubbs, *ibid.*, pp. 192 and 195, 1925; type, *Leptocephalus nystromi* Jordan and Snyder.

Anago Jordan and Hubbs, Mem. Carnegie Museum, vol. 10, p. 191, 1925; orthotype, *Conger anago* Schlegel.

Hildebrandia Jordan and Evermann, Proc. California Acad. Sci., ser. 6, vol. 16, p. 502, 1927; type, *Congermuraena flava* Goode and Bean.

Ariosoma Parr, Bull. Bingham Oceanogr. Collection, vol. 3, p. 30, 1927. Parr's analysis has been followed.

169. *Ariosoma anago* (Schlegel).

East Indies, north to Japan, west to India. Marine.

Conger anago Schlegel, Fauna Japonica, Pisces, p. 259, pl. 113, fig. 1, 1846; Nagasaki. Fowler and Bean, Proc. U. S. Nat. Museum, vol. 62, p. 9, 1922; Cebu.

Conger anagoides Bleeker, Verh. Bat. Gen., vol. 25, 1853, p. 76.

Ophisoma anagoides Bleeker, Atlas Ichth., vol. 4, p. 27, 1864.

Congromuraena anagoides Bleeker, Atlas Ichth., vol. 4, pl. 5, fig. 3, 1864.

- Congromuraena anago* Günther, Cat. Fishes British Mus., vol. 8, p. 42, 1870.
- Congrellus anago* Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 855, 1901. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 262, figs. 109 and 111, 1916; Pulu Weh, near western end of Sumatra; Moluccas.
- Anago anago* Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 193, 1925; Japan, common.
- Ariosoma (Anago) anago* Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Cebu; Iba, Zambales Province, Luzon.
170. *Ariosoma bleekeri* (Fowler).
Bathycongrus bleekeri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 272, 1934; in 13 fathoms, off the Island of Jolo.
171. *Ariosoma brachyrhynchus* Fowler.
Arisoma brachyrhynchus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 269, fig. 30, 1934; type taken off southern Mindanao, in 158 fathoms. Paratypes from "East Indies and Philippines."
172. *Ariosoma megalops* (Fowler).
Bathycongrus megalops Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 270, fig. 31, 1934; off northern Mindanao, in 392 fathoms.
173. *Ariosoma obud* Herre.
Ariosoma obud Herre, Philippine Jour. Sci. vol. 23, p. 144, pl. 1, fig. 2, 1923; Marinduque. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Dumaguete. Herre, 1940-41 Exped.; Puerto Galera, Mindoro.
174. *Ariosoma stimpsoni* (Fowler).
Bathycongrus stimpsoni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 270, fig. 32, 1934; between Leyte and Mindanao, in 678 fathoms.
- Genus 93. CONGRHYNCHUS** Fowler.
Congrhynchus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 272, 1934; type, *Congrhynchus talabonoides* Fowler. Only known from the Philippines.
175. *Congrhynchus talabonoides* Fowler.
Congrhynchus talabonoides Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 273, 1934; off northern Mindanao, in 214 fathoms.
- Genus 94. SILVESTERINA** Fowler.
Silvesterina Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 274, 1934; type, *Silvesterina parvibranchialis* Fowler.
176. *Silvesterina parvibranchialis* Fowler.
Silvesterina parvibranchialis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 275, fig. 35, 1934; Buton Strait, in 559 fathoms.
- Genus 95. UROCONGER** Kaup.
Found in the Indian, Pacific, and Atlantic Oceans.
Uroconger Kaup, Cat. Apodal Fish British Mus., p. 110, 1856.
177. *Uroconger lepturus* (Richardson).
From the Philippines and China through the East Indies to the coast of Arabia. In shallow water.
Congrus lepturus Richardson, Zool. Voy. Sulphur, p. 106, pl. 56, figs. 1-6, 1844-45; coast of China. Richardson, Voy. Erebus and Terror, Part 2, Fishes, p. 108, 1844.
Uroconger lepturus Kaup, Cat. Apodal Fish British Mus., p. 110, 1856. Bleeker, Atlas Ichth., vol. 4, p. 29, pl. 5, fig. 1, 1864. Day, Fishes India, p. 661, pl. 170, fig. 1, 1878. Meyer, An. Soc. Españ., Hist. Nat. Madrid, vol. 14, p. 43, 1885; Manila Bay. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 6, 1907; Manila. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 265, figs. 113 and 114, 1916; Celebes; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 146, pl. 1, fig. 3, 1923; Manila markets, common; Mindoro; La Paz, Iloilo Province, Panay. Herre, Fishes 1931 Philippine Exped., p. 16, 1934; Manila; Lemery, Batangas Province; Cullion; Iloilo, Iloilo Province,

Panay. Herre, 1933-34 Exped.; common at Vigan and on coast of Ilokos Sur Province, Luzon; Inabanga, Bohol. Herre, 1936-37 and 1940-41 Exped.; Manila Bay.

Family 42. NETTASTOMIDAE. Duck-Bill Eels

Genus 96. CHLOPSIS Rafinesque.

A genus of Pacific eels.

Chlopsis Rafinesque, Indice Ittiol. Siciliana, pp. 42 and 58, 1810; type, *Chlopsis bicolor* Rafinesque. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 860, 1901.

178. *Chlopsis fierasfer* Jordan and Snyder.

Japan to the Philippines.

Chlopsis fierasfer Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 860, fig. 10, 1901; Wakanoura, Province Kii, Japan. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 82, fig. 57, 1913; Wakanoura. Wade, Beam trawl collection by Herald and Umali, June 10, 1947; Manila Bay, Luzon, in 19-29 fathoms.

Family 43. HETEROCONGRIDAE

Marine. East Indies, Philippines, Canary Islands, Gulf of California, and Pacific coast of Mexico.

Genus 97. HETEROCONGER Bleeker.

Heteroconger Bleeker, Versl. Akad. Amsterdam, (2) vol. 2, p. 331, 1868; Amboina; type, *Heteroconger polyzona* Bleeker.

179. *Heteroconger polyzona* Bleeker.

In shallow water; Philippines and East Indies.

Heteroconger polyzona Bleeker, Versl. Akad. Amsterdam, (2) vol. 2, p. 332, fig. 1, 1868; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 272, fig. 120, 1916; Ambon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Dumaguete, Oriental Negros Province.

Genus 98. TAENIOCONGER Herre.

Ribbon-like eels from the Philippines and west coast of Mexico.

Taenioconger Herre, Philippine Jour. Sci., vol. 23, p. 152, 1923; orthotype, *Taenioconger chapmani* Herre.

180. *Taenioconger chapmani* Herre.

A Philippine species.

Taenioconger chapmani Herre, Philippine Jour. Sci., vol. 23, p. 152, pl. 3, 1923; Dumaguete, Oriental Negros Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete.

Family 44. ECHELIDAE (MYRIDAE)

Small plain eels of shallow tropical seas.

Genus 99. MURAEINICHTHYS Bleeker.

The East Indies, north to Japan, east to the Carolines and Polynesia, south to Australia, and Tasmania, west to the Red Sea.

Muraenichthys Bleeker, Verh. Bat. Gen., vol. 25, p. 71, 1853.

181. *Muraenichthys elerae* Fowler.

Muraenichthys elerae Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 278, fig. 37, 1934; Sulu Sea, in 27 fathoms.

182. *Muraenichthys gymnopterus* Bleeker.

The East Indies, Philippines, China, and Fiji Islands.

Muraena gymnopterus Bleeker, Verh. Bat. Gen., vol. 25, p. 52, 1853.

Muraenichthys gymnopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 506, 1853. Bleeker, Verh. Bat. Gen., vol. 25, Muraena, p. 71, 1853. Bleeker, Atlas Ichth., vol. 4, p. 32, pl. 6, fig. 1, 1864. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 6, 1907; Cavite, Cavite Province,

- Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 276, figure (p. 418), 1916; Philippines; Makassar; Celebes. Herre, Philippine Jour. Sci., vol. 23, p. 155, fig. 2, 1923; Dagupan, Pangasinan Province, and Malabon, Rizal Province, Luzon; Mindoro; off Daram Island, Samar Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Iba, Zambales Province, Luzon; Dumaguete, Oriental Negros Province. Herre, 1936-37 Exped.; Dumangas, Iloilo Province, Panay. Herre, 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro; Dumaguete. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 259, 1927; San Fernando, La Union Province, and Orani, Bataan Province, Luzon.
- Muraenichthys microstomus* Bleeker, Atlas Ichth., vol. 4, p. 32, pl. 6, fig. 2, 1864.
183. *Muraenichthys macropterus* Bleeker.
East Indies, Philippines, east to Pelew and Marshall Islands; south to New Caledonia; Australia (?). Marine.
Muraenichthys macropterus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 91, 1857; Amboina. Bleeker, Atlas Ichth., vol. 4, p. 31, pl. 7, fig. 3, 1864. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Negros. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 275, 1916; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 154, 1923; Lingayen, Pangasinan Province, Luzon; Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes, 1931 Philippine Exped., p. 17, 1934; Dumaguete, Oriental Negros Province.
184. *Muraenichthys macrostomus* Bleeker.
The East Indies and Philippines.
Muraenichthys macrostomus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 38, 1864-65. Bleeker, Atlas Ichth., vol. 4, p. 33, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 278, fig. 125, 1916; Ambon; south coast of Timor. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Dumaguete, Oriental Negros Province. Herre, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. Herre, 1940 Exped.; Dumaguete, Oriental Negros.
185. *Muraenichthys malabonensis* Herre.
Muraenichthys malabonensis Herre, Philippine Jour. Sci., vol. 23, p. 157, pl. 2, fig. 1, 1923; from fish ponds, Malabon, Rizal Province, Luzon. Besides the 4 specimens listed, several more specimens were obtained from Manila Bay at various times. All were in the Bureau of Science collections destroyed by the Japanese during World War II.
186. *Muraenichthys retropinnis* Fowler.
Muraenichthys retropinnis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 277, fig. 37, 1934; off western Samar in 26 fathoms.
187. *Muraenichthys schultzei* Bleeker.
The East Indies, west to the Red Sea, east to Polynesia.
Muraenichthys schultzei Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 366, 1857; Java. Bleeker, Atlas Ichth., vol. 4, p. 33, 1864.
Muraenichthys schultzei Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 277, figs. 123-124, 1916; Ambon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Dumaguete, Oriental Negros Province.
188. *Muraenichthys sibogae* Weber and de Beaufort.
The East Indies and Philippines.
Muraenichthys gymnotus Weber, *Siboga*-Exped., vol. 57, Fische, p. 46, 1913; not of Bleeker.
Muraenichthys sibogae Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 276, 1916; Obi Major; south coast of Timor. Herre, Philippine Jour. Sci., vol. 59, p. 365, 1936; Dumaguete, Oriental Negros Province, Negros.

189. *Muraenichthys thompsoni* Jordan and Richardson.

Muraenichthys thompsoni Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, fig. 1, 1908; Manila Bay. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 6, 1933; Dumaguete, Oriental Negros. Herre, Fishes 1931 Philippines Exped., p. 17, 1934; Dumaguete.

Family 45. OPHICHTHYIDAE. Snake eel; Palos; Pindanga; Ogdok; Ukdok
Tagibolos; Tagibus

Eels of tropical and temperate seas; some species enter fresh water streams.

Genus 100. ACHIROPHICHTHYS Bleeker.

The East Indies, Philippines, New Guinea, and Tahiti.
Marine and in fresh water.

Achirophichthys Bleeker, Ned. Tijds. Dierk., vol. 2, p. 41, 1864; type, *Achirophichthys typus* Bleeker; Celebes.

190. *Achirophichthys kampeni* (Weber and de Beaufort).

New Guinea; Luzon; Tahiti; in fresh water.

Brachysomophis (*Achirophichthys*) *kampeni* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 316, figs. 150-151, 1916; near mouth of the Mbai River, Humboldt Bay, New Guinea.

Achirophichthys kampeni Herre, Philippine Jour. Sci., vol. 24, p. 108, 1924; Pinacanauan River at Barrio Lamug, Penablanca, Cagayan Province, Luzon. Herre, Philippine Jour. Sci., vol. 78, No. 2, p. 152 [June 1949] 1950; Mantugil River, Villar, Zambales Province, Luzon.

Genus 101. CAECULA Vahl.

Tropical and temperate seas, some entering fresh water.

Caecula Vahl, Skrivt. Naturh. Selsk. Kjobenhavn, vol. 3, pp. 2 and 149, 1794; type, *Caecula pterygera* Vahl.

191. *Caecula kaupi* (Bleeker).

Sphagebranchus kaupi Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 5, Twaalfde Bijdr. Celebes, p. 3, 1858-59; Celebes, in a river. Bleeker, Atlas Ichth., vol. 4, p. 70, pl. 157, fig. 1, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 325, 1916; on Bleeker's specimen.

Caecula kaupi Herre, Philippine Jour. Sci., vol. 24, p. 107, 1924; Craan River, Cotabato Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; near Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 18, 1934; Tanjay River, Oriental Negros Province, 30 kilometers north of Dumaguete.

192. *Caecula mindora* Jordan and Richardson.

The Philippines and Waigiu; in rivers near the sea.

Caecula mindora Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 239, fig. 4, 1908; Baco River, Mindoro. Herre, 1929 Philippine Exped., Abra River, near Vigan, Ilokos Sur Province.

Sphagebranchus mindora de Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 99, 1913; River Waiho, Waigiu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 322, 1916; River Waiho, Waigiu.

193. *Caecula philippinensis* Herre.

Caecula philippinensis Herre, Philippine Jour. Sci., vol. 59, p. 358, 1936; Dumaguete, Oriental Negros Province, Negros; in the sea.

194. *Caecula taylori* Herre.

Luzon; in rivers near the sea.

Caecula taylori Herre, Philippine Jour. Sci., vol. 23, p. 183, fig. 7, 1923; Cabatoan River, near Iba, Zambales Province, Luzon. Herre, 1929 Exped.; Bangar, La Union Province, Luzon.

Genus 102. CALLECHELYS Kaup.

Eels of the tropical Pacific and Indian Oceans and the Gulf of Mexico; some entering fresh water.

Callechelys Kaup, Cat. Apodal Fish, British Mus., p. 28, 1856; orthotype, *Callechelys guichenoti* Kaup.

195. *Callechelys myersi* Herre.
Callechelys myersi Herre, Copeia, No. 3, p. 139, Oct. 7, 1932; Dumaguete, Oriental Negros Province.

Genus 103. **CHLEVASTES** Jordan and Snyder.

Warm waters of the Indo-Pacific area. Marine.

Chlevastes Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 867, 1901; orthotype, *Ophichthys colubrinus* Boddaert.

196. *Chlevastes colubrinus* (Boddaert).
Occurs from the Red Sea to Tahiti, and the Riu Kiu Islands to New Zealand.
Muraena colubrina Boddaert, in Pallas, Neue Nord. Beytr., vol. 2, p. 56, pl. 2, fig. 3, 1781.
Muraena annulata Ahl, De Muraena et Ophichtho, p. 6, 1789.
Muraena fasciata Ahl, De Muraena et Ophichtho, p. 7, 1789.
Ophisurus alternans Quoy and Gaimard, Voy. Uranie, vol. 1, p. 243, 1824.
Ophisurus fasciatus Richardson, Zool. Voy. Erebus and Terror, p. 100, 1844. Bleeker, Atlas Ichth., vol. 4, p. 65, pl. 21, fig. 1, 1864.
Ophisurus colubrinus Richardson, Zool. Voy. Erebus and Terror, p. 100, 1844.
Pisoodonophis fasciatus Kaup, Cat. Apodal Fishes, British Mus., p. 23, 1856.
Ophichthys colubrinus Günther, Cat. Fishes, vol. 8, p. 81, 1870. Meyer, An. Soc. España Hist. Nat. Madrid, p. 44, 1885; Cebu, Cebu Province.
Ophichthys maja De Vis, Proc. Linn. Soc. New South Wales, p. 455, 1884.
Chlevastes colubrinus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 867, 1901. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 195, 1906. Herre, Philippine Jour. Sci. vol. 23, p. 161, pl. 4, 1923; Iba, Zambales Province, Luzon; Puerto Galera, Mindoro; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Dumaguete, Oriental Negros Province.
Ophichthys colubrinus Seale, Occas. Papers Bishop Mus., vol. 1, p. 62, 1901.
Chlevastes fasciatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 195, fig. 5, 1906.
Chlevastes elaps Fowler, Proc. Acad. Nat. Sci. Phila., vol. 64, p. 13, fig. 3, 1912.
Myrichthys (Chlevastes) colubrinus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 285, figs. 130-131, 1916; Nias; Savu; Nusa Laut; Gisser; Humboldt Bay and West New Guinea; Philippine Islands.
Myrichthys colubrinus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 259, 1927.

Genus 104. **CIRRHIMURAENA** Kaup.

Small marine eels widely distributed in the tropical Pacific and Indian Oceans.

Cirrhimuraena Kaup, Cat. Apodal Fishes, British Mus., p. 27, 1856; orthotype *Cirrhimuraena chinensis* Kaup.

197. *Cirrhimuraena chinensis* Kaup.
Cirrhimuraena chinensis Kaup, Cat. Apodal Fishes, British Mus., p. 27, 1856; China. Weber, Siboga Exped., vol. 57, Fische, p. 50, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 292, figs. 134-135, 1916; Makassar, Celebes; Philippine Islands. Herre, Philippine Jour. Sci., vol. 23, p. 167, 1923; Cavite, Cavite Province, and Manila Bay, Luzon. Later additions to Bureau of Science collections from Damortis, La Union Province, and Manila Bay, Luzon. Herre, Fishes 1931 Philippine Exped., p. 17, 1934; Manila.
Ophisurus polyodon Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 86, 1860.
Cirrhimuraena polyodon Bleeker, Atlas Ichth., vol. 4, p. 41, pl. 8, fig. 1, 1864.
Ophichthys chinensis Günther, Cat. Fishes British Mus., vol. 8, p. 75, 1870. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 44, 1885; Manila Bay.

198. *Cirrhimuraena oliveri* (Seale).

Known only from the Philippines.

Jenkinstiella oliveri Seale, Philippine Jour. Sci., vol. 4A, p. 493, 1909; Zamboanga, Zamboanga Province, Mindanao.

Cirrhimuraena oliveri Herre, Philippine Jour. Sci., vol. 23, p. 165, pl. 2, fig. 2, 1923; on Seale's type. Herre, Philippine Jour. Sci. vol. 24, p. 109, 1924; Despujol, Tablas. Herre, Philippine Jour. Sci. vol. 59, p. 365, 1936; Pasay Beach, Manila Bay.

199. *Cirrhimuraena tapeinopterus* Bleeker.

The Philippines and East Indies; marine.

Cirrhimuraena tapeinopterus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 183, 1863. Bleeker, Atlas Ichth., vol. 4, p. 41, pl. 8, fig. 3, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 291, fig. 136, 1916; Java; Makassar, Celebes; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 165, 1923; Manila Bay; Mindoro. Herre, 1940 Exped.; near Capiz, Panay.

Ophichthys tapeinopterus Günther, Cat. Fishes British Mus., vol. 8, p. 75, 1870.

Ophichthys tapeinopterus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 6, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 238, 1908; Manila.

Jenkinstiella nectura Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 6, fig. 1, 1907; Cavite, Cavite Province, Luzon.

Genus 105. **LAMNOSTOMA** Kaup.

Small eels of Asiatic and adjacent island waters. Marine and entering river mouths.

Lamnostoma Kaup, Archive Naturges., p. 49, 1856; logotype, *Lamnostoma pictum* Kaup.

200. *Lamnostoma orientalis* (McClelland).

India, Ceylon, Madagascar, New Guinea, and the Philippines.

Dalophis orientalis McClelland, Calcutta Jour. Nat. Hist., vol. 5, p. 213, 1845; Madras.

Lamnostoma pictum Kaup, Cat. Apodal Fish British Mus., p. 23, fig. 11, 1856.

Sphagebranchus orientalis Kner, Reise Novara, Fische, p. 380, 1865-67. Weber and de Beaufort, Fishes Indo-Austr. Arch., vol. 3, p. 321, 1916.

Ophichthys orientalis Günther, Cat. Fishes British Mus., vol. 8, p. 87, 1870. Day, Fishes India, p. 665, pl. 171, fig. 1, 1878.

Lamnostoma orientalis Herre, Philippine Jour. Sci., vol. 23, p. 180, pl. 6, fig. 1, 1923; Manila Bay.

201. *Lamnostoma polyophthalmus* (Bleeker).

The East Indies, Philippines, Fiji, Samoa, and Tahiti. Marine, entering river mouths.

Dalophis polyophthalmus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 299, 1853.

Sphagebranchus polyophthalmus Kaup, Cat. Apodal Fish British Mus., p. 24, 1856. Bleeker, Atlas Ichth., vol. 4, p. 70, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 320, figs. 153 and 154, 1916; Nias; Island Iako; Madura Strait.

Anguissurus punctulatus Kaup, Cat. Apodal Fish British Mus., p. 24, 1856.

Ophichthys polyophthalmus Günther, Cat. Fishes British Mus., vol. 8, p. 85, 1870.

Ophichthys punctulatus Günther, Fische der Südsee, vol. 3, p. 403, 1910.

Lamnostoma polyophthalmus Herre, 1925 Collections; 10 specimens from mouth of Abra River, Barrio Pandan, Cauayan, Ilokos Sur Province, Luzon; lengths 220 mm. to 350 mm.

Genus 106. **LEIURANUS** Bleeker.

East Indies and Philippines, north to Japan, east to Hawaii and Samoa, south of Australia. Marine.

Leiuranus Bleeker, Verh. Bat. Gen., vol. 25, p. 36, 1852; type, *Leiuranus semicinctus* Bennett.

202. *Leiuranus semicinctus* (Lay and Bennett).
Ophisurus semicinctus Lay and Bennett, Fishes, Zoology Capt. Beechey's Voyage, p. 66, pl. 20, fig. 4, 1839.
Leiuranus semicinctus Günther, Cat. Fishes, vol. 8, p. 54, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 866, 1901. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 81, 1905. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 294, fig. 137, 1916; Nusa Laut; Saonek Island. Herre, Philippine Jour. Sci., vol. 23, p. 163, 1923; Dumaguete; Sitankai; Sulu Province. Herre, 1936-37 Exped.; Sitankai, Sulu Province.

Genus 107. **MYRICHTHYS** Girard.

Slender reef-dwelling eels of tropical seas.

Myrichthys Girard, Proc. Acad. Nat. Sci. Phila., p. 58, 1859; orthotype, *Myrichthys tigrinus* Girard.

203. *Myrichthys maculosus* (Cuvier).
 From the Red Sea to Madagascar and east to the Hawaiian Islands.
Muraena maculosa Cuvier, Règne Animal, vol. 2, p. 232, note 3, 1817.
Muraena tigrina Rüppell, Atlas, Fische, p. 118, 1826; Red Sea.
Ophisurus maculosus Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 102, 1844. Bleeker, Nat. Tijds. Ned. Ind., vol. 2, p. 258, 1851; Banda.
Pisoodonophis maculosus Kaup, Cat. Apodal Fishes Brit. Mus., p. 21, 1856.
Pisoodonophis magnifica Abbott, Proc. Acad. Nat. Sci. Phila., p. 476, 1860; Hawaiian Islands.
Ophisurus ophis Bleeker, Atlas Ichth., vol. 4, p. 65, Plate (16), 160, 1864; Banda.
Ophichthys maculosus Günther, Cat. Fishes Brit. Mus., vol. 8, p. 81, 1870; Madagascar; Banda. Klunzinger, Abhandl. zool.-bot. Gesell. Wien, vol. 21, p. 611, 1871; Red Sea. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 58, 1880; Tongatabu. Günther, Fische der Südsee, vol. 3, p. 40, 1910; Ponapé; Tongatabu; Tahiti; Hawaiian Islands.
Ophichthys stypurus Smith and Swain, Proc. U. S. Nat. Mus., vol. 5, p. 120, 1882; Johnston Island.
Myrichthys magnifica Fowler, Proc. Acad. Nat. Sci. Phila., p. 494, plate 18, fig. 3, 1900; on Abbott's type. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 84, 1905; on the type.
Ophichthys colubrinus Seale (not of Boddaert), Occas. Papers Bishop Mus., vol. 1, p. 62, 1901; Guam.
Myrichthys stypurus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 84, fig. 19, 1905; on the type.
Myrichthys (Myrichthys) maculosus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 284, fig. 129, 1916; Java; Buru; Ceram; Banda; New Guinea.
Myrichthys maculosus Herre, Phil. Jour. Sci., vol. 23, p. 160, pl. 10, fig. 2, 1923; Iba, Zambales Province, Luzon; Cabalian, Leyte; Surigao, Surigao Province, Mindanao. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 43, 1928; Hawaii; Honolulu; Guam; Johnston Island; Apiang, Gilbert Islands; Fiji.

Genus 108. **OPHICHTHUS** Ahl.

A large genus with many species, occurring in all tropical seas. In salt and brackish water.

Ophichthys Ahl, De *Muraena* et *Ophichtho*, p. 3, 1789; type, *Muraena ophis* L.

204. *Ophichthys apicalis* (Bennett).
 East Indies, Philippines, and China to India.
Ophisurus apicalis Bennett, Cat. Zool. Spec. in Memoir, Life Raffles, p. 692, 1830; Java.
Ophisurus compar Richardson, Zool. Voy. *Erebus* and *Terror*, p. 105, 1844.
Ophisurus spadiceus Richardson, Ichth. China Japan, p. 313, 1846.
Ophisurus bangko Bleeker, Verh. Bat. Gen., vol. 25, Muraenidae, p. 67, 1852.

Centrurophis spadiceus Kaup, Cat. Apodal Fish British Mus., p. 2, 1856.

Centrurophis bangko Kaup, Cat. Apodal Fish British Mus., p. 6, 1856.

Centrurophis compar Kaup, Cat. Apodal Fish British Mus., p. 6, 1856.

Ophisurus Diepenhorsti Bleeker, Acta Soc. Indo-Neerl., vol. 8, Achtste Bijdr. Sumatra, p. 85, 1860.

Ophichthys bangko Bleeker, Atlas Ichth., vol. 4, p. 51, pl. 14, fig. 1, 1864.

Ophichthys diepenhorsti Bleeker, Atlas Ichth., vol. 4, p. 52, pl. 15, fig. 14, 1864.

Ophichthys apicalis Günther, Cat. Fishes British Mus., vol. 8, p. 70, 1870. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 44, 1885; Manila Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 305, fig. 145, 1916; Nias; Batavia and Surabaya, Java; Madura; Philippines.

Ophichthys apicalis Herre, Philippine Jour. Sci., vol. 23, p. 174, 1923; Manila market; Malabon, Rizal Province, Luzon; Mindoro; Dumaguete; Cagayan, Oriental Misamis Province, and Davao, Davao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 18, 1934; Malabon, Rizal Province, and Manila, Luzon. Herre, 1940-41 Oriental Exped.; mouth of the Hugli River, Gopalpur, Vizagapatam, and Madras, India.

205. *Ophichthys celebicus* Bleeker.

Celebes, Amboina, Nias, and Luzon.

Ophisurus celebicus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Visschen Menado, p. 70, 1856; Menado, Celebes.

Ophisurus broekmeyeri Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Visschen Menado, p. 71, 1856.

Ophichthys amboinensis Bleeker, Ned. Tijds. Dierk., vol. 2, p. 45, 1864-65. Bleeker, Atlas Ichth., vol. 4, p. 54, pl. 45, fig. 1, 1864.

Ophichthys broekmeyeri Bleeker, Atlas Ichth., vol. 4, p. 53, pl. 15, fig. 1, 1864.

Ophichthys celebicus Bleeker, Atlas Ichth., vol. 4, p. 54, pl. 15, fig. 3, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 311, 1916; Makassar and Menado, Celebes; Ambon; Nias.

Ophichthys celebicus Herre, Philippine Jour. Sci., vol. 23, p. 179, fig. 6, 1923; Malabon, Rizal Province, Luzon. Herre, 1940 Exped.; Brooke's Point, Palawan.

206. *Ophichthys cephalozona* Bleeker.

The East Indies and Philippines, north to Japan, south to Australia, east to the Pelew and Tonga Islands. Marine.

Centrurophis spadiceus Kaup, Cat. Apodal Fish, British Mus., p. 2, 1856; in part, and not of Richardson.

Muraenopsis marginatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 179, 1863; not *Ophichthys marginatus* of Peters.

Ophichthys cephalozona Bleeker, Atlas Ichth., vol. 4, p. 49, pl. 12, fig. 2, 1864. Günther, Cat. Fishes British Mus., vol. 8, p. 69, 1870; Cebu, Cebu Province. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 43, 1885; Cebu, Cebu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 303, figs. 143-144, 1916; Kei Islands; western New Guinea; Ambon; Ceram; Philippines.

Ophichthys cephalozona Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 872, 1901. Herre, Philippine Jour. Sci., vol. 23, p. 172, fig. 4, 1923; Cavite, Cavite Province, Luzon. Herre, 1927 Collections; Bulalacao Bay, Mindoro. Herre, Fishes 1931 Philippine Exped., p. 18, 1934; Culion; Cebu.

207. *Ophichthys evermanni* Jordan and Richardson.

Ophichthys cephalozona var. Günther, Cat. Fishes British Mus., vol. 8, p. 70, 1870; (Zebu) Cebu, Philippines; Japan; Cape York, Australia.

Ophichthys evermanni Jordan and Richardson, Mem. Carnegie Museum, vol. 4, p. 172, pl. 67, upper figure, 1909; Takao, Formosa. Herre, Philippine Jour. Sci., vol. 24, p. 111, 1924; Alaminos, Pangasinan Province, Luzon. Herre, 1927 Collections; Estancia, Iloilo Province, Panay. Herre, Fishes 1931 Philippine Exped., p. 18, 1934; Manila; Cebu.

208. *Ophichthus grandoculis* (Cantor).
Malaya and the Philippines. Marine.
Ophisurus grandoculis Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 324,
pl. 5, fig. 3 (teeth), 1849; Pinang.
Ophichthys grandoculis Bleeker, Atlas Ichth., vol. 4, p. 48, pl. 47, fig. 5,
1864.
Ophichthus grandoculis Jordan and Richardson, Bull. U. S. Bur. Fish-
eries, vol. 27, p. 238, 1908; Manila. Herre, Philippine Jour. Sci., vol.
23, p. 173, fig. 5, 1923; Guimaras Island. Herre, Fishes 1931 Philip-
pine Exped., p. 18, 1934; Manila. Herre, 1940-41 Exped.; fish ponds
north of Manila, Rizal Province, Luzon.
209. *Ophichthus macrochir* Bleeker.
East Indies and Philippines, in salt and brackish water.
Ophisurus macrochir Bleeker, Verh. Bat. Gen., vol. 25, 1852, Murae-
noiden, p. 26; Java.
Centrurrophis macrochir Kaup, Cat. Apodal Fish British Mus., p. 5,
1856.
Ophichthys macrochir Bleeker, Atlas Ichth., vol. 4, p. 54, pl. 20, fig. 1,
1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago,
vol. 3, p. 306, 1916; Deli and Bagan ApiApi, Sumatra; Batavia and
Surabaya, Java.
Ophichthus macrochir Herre, Philippine Jour. Sci., vol. 23, p. 175, 1923;
Cavite, Cavite Province, Luzon.
210. *Ophichthus manilensis* Herre.
Ophichthus manilensis Herre, Philippine Jour. Sci., vol. 23, p. 176, pl. 5,
1923; Cavite, Cavite Province; bangos fish ponds in Bulacan Province,
Luzon; Mindoro.
211. *Ophichthus melanochir* Bleeker.
Ambon, Maldives, and the Philippines. Marine.
Ophichthys melanochir Bleeker, Ned. Tijds. Dierk., vol. 2, p. 44, 1865;
Ambolna. Bleeker, Atlas Ichth., vol. 4, p. 51, 1864.
Ophichthys altipinnis Günther, Cat. Fishes, vol. 8, p. 74, 1870; Maldives;
not of Kaup.
Ophichthus melanochir Herre, Fishes 1931 Philippine Exped., p. 18, 1934;
Culion.
212. *Ophichthus rutidodermatoïdes* (Bleeker).
Java, Pinang, Ceylon (?), and the Philippines. Marine.
Ophiurus breviceps Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1308,
1850; Pinang; not of Richardson.
Ophisurus rutidodermatoïdes Bleeker, Verh. Bat. Gen., vol. 25, 1852;
Muraenidae, p. 31.
Pisoodonophis rutidodermatoïdes Kaup, Cat. Apodal Fish British Mus.,
p. 18, 1856.
Ophichthys rutidodermatoïdes Bleeker, Atlas Ichth., vol. 4, p. 55, pl. 16,
fig. 1, 1864.
Ophichthys rhytidodermatoïdes Günther, Cat. Fishes British Mus., vol. 8,
p. 62, 1870; in part. Weber and de Beaufort, Fishes Indo-Australian
Archipelago, vol. 3, p. 309, fig. 147, 1916; Batavia, Java.
Ophichthus rutidodermatoïdes Herre, Philippine Jour. Sci., vol. 23, p. 178,
1923; Davao, Davao Province, Mindanao.
- Genus 109. PISODONOPHIS Kaup.
From the coast of Arabia and Madagascar to Japan, Australia, and
Samoa. Marine; some species ascending rivers.
Pisodonophis Kaup, Archiv Naturges., vol. 22, p. 47, 1856; logotype, *Piso-*
donophis cancrivorus Kaup, as restricted by Bleeker. Later written
as *Pisoodonophis* by Kaup.
213. *Pisodonophis boro* (Hamilton [né Buchanan]).
India, East Indies, Philippines, to China and Formosa. Marine, but
entering fresh water rivers.
Ophisurus boro Hamilton [né Buchanan], Fishes Ganges, p. 20 and p. 363,
1822; Ganges River, Bengal.
Ophisurus haranacha Hamilton [né Buchanan], Fishes Ganges, p. 21 and
p. 363, 1822; Ganges River.

- Ophisurus caudatus* McClelland, *Calcutta Jour. Nat. Hist.*, vol. 5, p. 211, 1844.
- Ophisurus potamophilus* Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 5, p. 458, 1853.
- Pisodonophis boro* Kaup, *Cat. Apodal Fish British Mus.*, p. 17, 1856.
- Pisodonophis potamophilus* Kaup, *Cat. Apodal Fish, British Mus.*, p. 20, 1856.
- Pisoodonophis boro* Bleeker, *Atlas Ichth.*, vol. 4, p. 62, pl. 20, fig. 3, 1864.
- Pisoodonophis potamophilus* Bleeker, *Atlas Ichth.*, vol. 4, p. 63, 1864.
- Ophichthys boro* Günther, *Cat. Fishes British Mus.*, vol. 8, p. 77, 1870; (Zebu) Cebu.
- Pisoodonophis boro* Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, p. 297, figs. 138, 140, and 141, 1916; Makassar, Celebes; Flores. Fowler, Copeia, 1918, p. 62; Philippines. Fowler, *Proc. Acad. Nat. Sci. Phila.*, p. 3, 1918; Philippines. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 259, 1927; Phila.; Orani, Bataan Province, Luzon.
- Pisodonophis boro* Herre, *Philippine Jour. Sci.*, vol. 23, p. 168, fig. 3, 1923; Alaminos, Pangasinan Province; San Fernando, Pampanga Province; Vigan, Ilokos Sur Province; Manila Bay, Luzon. Herre, collections of 1925-27; common in Bangos fish ponds of Bulacan and Pampanga Province; Agno River, Dagupan, Pangasinan Province; Luzon. Abundant in fish ponds, Tinarian, Iloilo Province, Panay; fish pond, Polo Plantation, near Dumaguete, Oriental Negros Province. Herre, *Fishes 1931 Philippine Exped.*, p. 18, 1934; Dumaguete, Oriental Negros Province. Herre, 1936-37 Exped.; Sim Sim Laut, Sandakan, British North Borneo.

214. *Pisodonophis cancrivorus* (Richardson).

- East Indies north to Japan and China, south to Australia and Samoa, west to Arabia and Madagascar. In salt and brackish water.
- Ophisurus cancrivorus* Richardson, *Voy. Erebus and Terror, Fishes*, p. 97, pl. 50, figs. 6-9, 1844.
- Ophisurus sinensis* Richardson, *ibid.*, p. 98.
- Ophisurus baccidens* Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1302, 1850.
- Ophisurus Schaapi* Bleeker, *Nat. Tijds. Ned. Ind.*, vol. 3, p. 735, 1852.
- Ophisurus brachysoma* Bleeker, *ibid.*, p. 776, 1852.
- Pisodonophis cancrivorus* Kaup, *Cat. Apodal Fish, British Mus.*, p. 15, 1856.
- Pisodonophis brachysoma* Kaup, *ibid.*, p. 19, 1856.
- Pisodonophis Schaapi* Kaup, *ibid.*, p. 19, 1856.
- Pisoodonophis brachysoma* Bleeker, *Atlas Ichth.*, vol. 14, p. 60, 1864; Manila.
- Pisoodonophis Schaapi* Bleeker, *ibid.*, p. 61, 1864.
- Pisoodonophis moluccensis* Bleeker, *ibid.*, p. 72, 1864.
- Pisoodonophis cancrivorus* Kner, *Reise Novara, Fische*, p. 379, 1865-67. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 238, 1908; Manila; Cuyo, Cuyo Islands; Sulu Sea. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 3, p. 300, 1916; Makassar, Celebes; Philippines. Fowler, Copeia, 1918, p. 62; Philippines. Fowler, *Proc. Acad. Nat. Sci. Phila.*, p. 2, 1918; Philippines.
- Pisodonophis cancrivorus* Herre, *Philippine Jour. Sci.*, vol. 23, p. 169, 1923; Manila Bay; Dumaguete; Mindanao. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 260, 1927; Philippines.
- Ophichthys cancrivorus* Günther, *Cat. Fishes, British Mus.*, vol. 8, p. 78, 1870; Philippines.
- Pisoodonophis zophistius* Jordan and Snyder, *Proc. U. S. Nat. Mus.*, vol. 23, p. 868, fig. 15, 1901; near Misaki, Sagami, Japan.
- Pisoodonophis macgregori* Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 238, fig. 2, 1908; Manila.

Family 46. MORINGUIDAE

Worm-like eels, usually burrowing in habit, inhabiting tropical seas of both hemispheres. Marine, but entering brackish and fresh water; often living in the mud at the mouths of streams.

Genus 110. **APHTHALMICHTHYS** Kaup.

Found in the Indo-Pacific area from the East Indies, north to Japan, eastward to Hawaii and Polynesia, south to Australia, west to India; also occurring in the West Indies.

Aphthalmichthys Kaup, Archiv Naturges., vol. 22, p. 68, 1856; orthotype, *Aphthalmichthys javanicus* Kaup.

215. **Aphthalmichthys abbreviatus** Bleeker.

Aphthalmichthys abbreviatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 163, 1863. Bleeker, Atlas Ichth., vol. 4, p. 17, pl. 1, fig. 1, 1864. Herre, Philippine Jour. Sci., vol. 23, p. 190, 1923; Dumaguete, Oriental Negros Province, Negros. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Dumaguete; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete, Oriental Negros Province. Herre, 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro; Dumaguete; Kolambugan, Lanao Province, Mindanao; Brooke's Point, Palawan.

Moringua abbreviata Günther, Cat. Fishes, British Mus., vol. 8, p. 92, 1870. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 44, 1885; Cebu, Cebu Province. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 773, 1905; Bais, Negros. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 241, 1908; Ticao Island. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 341, 1916; Philippines; many localities in East Indies.

216. **Aphthalmichthys javanicus** Kaup.

East Indies and Philippines, north to Japan, east and south through Polynesia. Burrows in sand and mud, especially about mouths of fresh-water streams.

Aphthalmichthys javanicus Kaup, Archiv Naturges., vol. 22, p. 68, 1856; Java. Kaup, Cat. Apodal Fish, British Mus., p. 105, pl. 14, fig. 71, 1856. Bleeker, Atlas Ichth., vol. 4, p. 16, pl. 2, fig. 2, 1864. Herre, Philippine Jour. Sci., vol. 23, p. 191, 1923; Philippines; Dumaguete. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete. Herre, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete; Sitankai, Sulu Province. Herre, 1940 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete, Oriental Negros Province.

Moringua javanica Günther, Cat. Fishes, British Mus., vol. 8, p. 92, 1870. Günther, Fische der Südsee, vol. 3, p. 405, 1910. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 342, fig. 164, 1916; Many East Indian localities; Philippines.

Moringua hawaiiensis Snyder, Bull. U. S. Fish Comm., vol. 22, p. 517, 1904.

217. **Aphthalmichthys lumbricoideus** (Richardson).

Moringua lumbricoidea Richardson, Voy. Sulphur, Fishes, p. 113, pl. 56, figs. 7-11, 1844. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 773, 1905; Bais, Oriental Negros Province, Negros. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 7, 1907; Cavite, Cavite Province.

Aphthalmichthys lumbricoideus Herre, Philippine Jour. Sci., vol. 23, p. 189, 1923; after Richardson and Jordan and Seale. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Bais, Oriental Negros Province, Negros.

218. **Aphthalmichthys macrocephalus** Bleeker.

Indo-Pacific, from India to Samoa; burrowing in mud.

Aphthalmichthys macrocephalus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 165, 1863. Bleeker, Atlas Ichth., vol. 4, p. 17, pl. 3, fig. 2, 1864. Peters, Monatsber. Akad. Wiss. Berlin, p. 275, 1869; Legaspi, Albay Province, Luzon. Herre, Philippine Jour. Sci., vol. 23, p. 188, fig. 9, pl. 9, fig. 2, 1923; Alaminos, Pangasinan Province; Iba, Zambales Province; Luzon. La Paz, Iloilo Province, Panay.

Moringua macrocephala Günther, Cat. Fishes British Mus., vol. 8, p. 92, 1870. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 341, 1916; Philippines; Simalur; Nusa Laut; Sumatra; Java; Timor; New Guinea.

Genus 111. **MORINGUA** Gray.

Worm-like eels, bulkier than *Aphthalmichthys*. Found in the East Indies, Philippines, and Caribbean Sea.

Moringua Gray, Zoological Miscellany, p. 9, 1831; type, *Moringua lateralis* Gray.

Rataboura Gray, Illustrations Indian Zoology, p. 95, 1831; *Muraena ratabouri* Hamilton=*Rataboura hardwicki* Gray.

Pachyurus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 335, 1839; haplotype, *Moringua linearis* Gray; preoccupied.

Pseudomoringua Bleeker, Ned. Tijds. Dierk., vol. 2, p. 114, 1865; type, *Moringua lumbricoidea* Richardson.

219. **Moringua bicolor** Kaup.

East Indies and Philippines to the Bismarck Archipelago and Fiji Islands.

Moringua bicolor Kaup, Cat. Apodal Fish British Mus., p. 107, 1856;

Timor. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 272, 1863; Timor.

Bleeker, Atlas Ichth., vol. 4, p. 15, 1864. Günther, Fische der

Südsee, vol. 3, p. 405, 1910; Kandavu Island, Fiji Islands; New Britain,

Bismarck Archipelago. Weber and de Beaufort, Fishes Indo-Australian

Archipelago, vol. 3, p. 338, fig. 165, 1916; East Flores; Timor;

Kandavu; New Britain. Fowler, Mem. Bishop Mus., vol. 10, p. 47,

1928; after Kaup and Günther. Herre and Herald, Philippine Fish

Collections, 1947-48; at surface near Zamboanga, Zamboanga Province,

Mindanao.

220. **Moringua cagayana** Seale.

Moringua cagayana Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 493,

1909; in sea near Cagayan, Misamis Oriental Province, Mindanao.

Herre, Philippine Jour. Sci., vol. 23, p. 186, fig. 8 and pl. 8, 1923; on

Seale's specimen. Herre, 1940 Exped.: 2 specimens from Dumaguete,

Oriental Negros Province. Herre, 1948 Coll.; Caldera Bay, Zamboanga

Province, Mindanao.

221. **Moringua macrochir** Bleeker.

East Indies and the Philippines.

Moringua macrochir Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 71, 1855;

Batu Island. Weber and de Beaufort, Fishes Indo-Australian Archi-

pelago, vol. 3, p. 339, fig. 166, 1916; Java; Kei Islands. Herre, Fishes

1931 Philippine Exped., 1934; Dumaguete. Herre, Copeia, 1945, No.

3, p. 146; Dumaguete.

Moringua raitabora Günther, Cat. Fishes British Mus., vol. 8, p. 90,

1870; in part. Weber, Siboga-Exped., vol. 57, Fische, p. 52, 1913;

not of Hamilton [né Buchanan].

222. **Moringua microchir** Bleeker.

East Indies, Philippine, Fiji, and Marquesas Islands.

Moringua microchir Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 124, 1853;

Amboina. Bleeker, Atlas Ichth., vol. 4, p. 16, 1864. Günther, Fische

der Südsee, vol. 3, p. 405, 1910. Marquesas Islands; Ovalau, Fiji.

Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3,

p. 338, 1916; Ambon; Sumatra. Herre, 1933-34 Exped.; Dumaguete,

Oriental Negros Province.

223. **Moringua robusta** Herre.

Known only from the Philippines.

Moringua robusta Herre, Philippine Jour. Sci., vol. 23, p. 185, pl. 7, 1923;

Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete.

Herre, Fishes, 1931 Philippine Exped., p. 19, 1934; Dumaguete.

Herre, 1940-41, Exped.; Dagat-Dagatan Fishery Station, Navotas,

Rizal Province, Luzon.

Order K. **COLOCEPHALI**

Family 47. **MURAENIDAE**. Morays: Malabanos; Payangitan; Tagibos; Borirawan; Hagmanṅ; Haṅgit; Ogdok; Tagibolos; Haoig; Indong; Indang; Panaṅṅlitan

A large family with many genera and species, often very large and powerful; found in all tropical and subtropical seas. Abundant on Philippine reefs.

Genus 112. ECHIDNA Forster.

Found along all tropical coasts.

Echidna Forster, Bibliotheca Banksiae, p. 181, 177; type, *Echidna variegata* Forster.

Gymnomuraena Lacépède, Hist. Nat. Poissons, vol. 5, p. 648, 1803.

Gymnopsis Rafinesque, Analyse Nature, p. 93, 1815; substitute for *Gymnomuraena* Lacépède.

Megaderia Rafinesque, Analyse Nature, p. 93, 1815; substitute for *Echidna* Forster.

Molariii Richardson, Voy. *Erebus* and *Terror*, p. 79, 1844; type, *Muraena ophis* = *Echidna nebulosa*.

Poecilophis Kaup, Cat. Apodal Fish British Mus., p. 98, 1856; type, *Gymnothorax catenatus* Bloch.

224. *Echidna amblyodon* (Bleeker).

East Indies and Philippines, east to Samoa and the Marquesas.

Muraena amblyodon Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Visschen van Menado, p. 72, 1856; Menado, Celebes.

Echidna amblyodon Bleeker, Atlas Ichth., vol. 4, p. 79, pl. 22, fig. 1, 1864. Seale, Occas. Papers Bishop Mus., vol. 4, p. 12, 1906; Nukahiva, Marquesas Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago vol. 3, p. 351, 1916. Herre, Philippine Jour. Sci., vol. 23, p. 200, fig. 11, 1923; Puerto Galera, Mindoro. Ablan, Coll. 1948; Manat R., Binmaley, Pangasinan Province, Luzon.

Muraena amblyodon Günther, Cat. Fishes British Mus., vol. 8, p. 132, 1870; in part. Günther, Fische der Südsee, vol. 3, p. 424, 1910; Samoa; in part.

225. *Echidna delicatula* (Kaup).

East Indies and Philippines, north to the RiuKiu Islands and eastward to Samoa.

Poecilophis delicatulus Kaup, Cat. Apodal Fish British Mus., p. 102, 1856.

Echidna delicatula Bleeker, Atlas Ichth., vol. 4, p. 78, pl. 23, fig. 3, 1864. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Negros. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 204, 1906. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 350, 1916; Ambon; Buru; Timor; Saonek Island; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 199, 1923; Puerto Galera, Mindoro; Dumaguete, Oriental Negros Province.

Echidna kishinouyei Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 885, fig. 21, 1901; Okinawa, RiuKiu Islands.

Echidna trossula Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 203, fig. 8, 1906; Samoa.

Muraena amblyodon Günther, Fische der Südsee, vol. 3, p. 424, 1910; in part.

226. *Echidna nebulosa* (Ahl).

Found from the east coast of Africa and Red Sea to China, Guam, Hawaii, Australia, and throughout Polynesia.

Muraena nebulosa Ahl, De *Muraena* et *Ophichtho*, p. 5, pl. 1, fig. 2, 1789; East Indies. Günther, Cat. Fishes, British Mus., vol. 8, p. 130, 1870. Day, Fishes India, p. 673, pl. 172, fig. 2, 1878. Günther, Report Voy. *Challenger*, Zool., vol. 1, Shore Fishes, p. 58, 1880; reefs near Cebu, Cebu Province; also Tahiti. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 44, 1885; Cebu, Cebu Province.

Gymnothorax echidna Bloch and Schneider, Syst. Ichth., p. 526, 1801.

Muraena ophis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 116, pl. 29, fig. 2, 1828; Red Sea.

Muraena variegata Richardson, Zool., Voy. *Erebus* and *Terror*, Fishes, p. 94, pl. 47, figs. 1-5 and 11-16, 1844.

Echidna variegata Forster, Descript. Animal., Lichtenstein ed., p. 181, 1844. Bleeker, Atlas Ichth., vol. 4, p. 80, pl. 24, fig. 2, 1864.

Thaerodontis ophis McClelland, Calcutta Jour. Nat. Hist., vol. 5, p. 217, 1844.

Poecilophis variegata Kaup, Cat. Apodal Fish British Mus., p. 98, 1856.

Echidna nebulosa Fowler, Proc. Acad. Nat. Sci. Phila., p. 524, 1900. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 429, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 110, pl. 1, 1905. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Negros. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 241, 1908; Calayan Island. Weber, *Siboga*-Exped., vol. 57, Fische, p. 61, 1913; Sanguisiapo, Sulu Province; also Karakelang Islands and Muaras Reef, Celebes Sea; Samba and Sula Besi, Dutch East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 348, fig. 170, 1916; many localities in the East Indies; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 10, 1922; Zamboanga. Herre, Philippine Jour. Sci., vol. 23, p. 197, pl. 10, fig. 3, 1923; Iba, Zambales Province, Luzon; Mindoro; Caballan, Leyte; Guam. Chevey, Poissons campagnes de Lanessan, p. 46, colored pl. 15, 1932. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Expedition, p. 19, 1934; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, 1936-37 Exped., Nasugbu, Batangas Province, Luzon; Dumaguete. Herre, 1940 Exped., Dumaguete, Oriental Negros Province.

227. *Echidna polyzona* (Richardson).

From the Red Sea to Formosa, Hawaii, and the Tuamoto Archipelago. *Muraena polyzona* Richardson, Voy. *Sulphur*, Fishes, vol. 3, p. 112, pl. 55, figs. 11-14, 1844; no locality.

Poecilophis polyzona Kaup, Cat. Apodal Fish British Mus., p. 101, 1856.

Muraena dizona Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, p. 260, 1860; Timor.

Echidna polyzona Bleeker, Atlas Ichth., vol. 4, p. 81, pl. 24, fig. 3, 1864. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 241, 1908; Calayan Island, Babuyan Islands, north of Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 346, fig. 169, 1916; Ambon; Waigiu; Rotti. Herre, Philippine Jour. Sci., vol. 23, p. 196, 1923; Nasugbu, Batangas Province, Luzon; Calapan, Mindoro. Herre, Collection of 1927; Odiongan, Tablas. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Cebu, Cebu Province. Herre, 1940-41 Exped., Nasugbu, Batangas Province, Luzon.

Echidna tritor Vaillant and Sauvage, Revue et Mag. Zool., vol. 3, p. 287, 1875; Hawaii.

Echidna zonata Fowler, Proc. Acad. Nat. Sci. Phila., 1900, p. 495, pl. 18, fig. 2.

Echidna zonophaea Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 167, 1904. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 109, pl. 21, 1905; Honolulu.

Echidna leihata Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 428, fig. 9, 1904; Honolulu.

Echidna vineta Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 429, fig. 10, 1904; Hawaii.

Echidna obscura Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 430, fig. 11, 1904; Honolulu.

Echidna psalion Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 431, fig. 12, 1904; Honolulu.

228. *Echidna rhodochilus* Bleeker.

A rare species of the East Indies and Philippines. Marine, but entering rivers.

Echidna rhodochilus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 247, 1863; Rotti Island. Bleeker, Atlas Ichth., vol. 4, p. 79, pl. 23, fig. 4, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 350, 1916; Simalur Island; Karakelang Island. Herre, Philippine Jour. Sci., vol. 23, p. 198, pl. 10, fig. 4, 1923; river mouth near Iba, Zambales Province; Palanas, Lemery, Batangas Province, Luzon; Masbate. Herre, 1927 Collection; Agno River, Dagupan, Pangasinan Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Atimonan, Tayabas Province, Luzon. Herre, 1936-37 Exped.; Dumaguete, Oriental Negros Province. Herre, 1940-41 Exped.; Cagayan, Misamis Oriental Province, Mindanao.

Muraena rhodochilus Günther, Cat. Fishes British Mus., vol. 8, p. 132, 1870.

229. *Echidna zebra* (Shaw).

East Indies and Philippines, eastward to the Hawaiian Islands, south to Samoa and Australia, west to the Red Sea and east coast of Africa. *Gymnothorax zebra* Shaw, Naturalist's Miscellany, vol. 9, pl. 322, 1797; Sumatra.

Gymnomuraena doliata Lacépède, Hist. Nat. Poissons, vol. 5, pp. 648-649, 1803.

Muraena molendinaris Bennett, Proc. Zool. Soc. London, vol. 1, p. 32, 1833.

Gymnomuraena zebra Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 95, 1844. Kaup, Cat. Apodal Fish British Mus., p. 104, 1856.

Muraena zebra Bleeker, Verh. Bat. Gen., vol. 25, p. 5, 1853. Günther, Cat. Fishes, British Mus., vol. 8, p. 128, 1870. Klunzinger, Verh. Zool. bot. Gesell. Wien, vol. 21, p. 620, 1871; Red Sea.

Gymnomuraena fasciata Kaup, Cat. Apodal Fish British Mus., p. 103, 1856.

Echidna zebra Bleeker, Atlas Ichth., vol. 4, p. 81, pl. 27, fig. 1, 1864. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Pt. 1, p. 106, pl. 20, 1905. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 345, fig. 168, 1916; Banda; Flores; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 194, 1923; Nasugbu, Batangas Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Dumaguete; Jolo, Sulu Province. Herre, 1936-37 Exped.; Manila Bay.

Genus 113. **EVENCHELYS** Jordan and Evermann.

Contains but one species; found in the East Indies, Philippines, China, Formosa, Pelews, Queensland, Australia, India, Ceylon, and Natal, South Africa.

Evenchelys Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 327, 1902; orthotype, *Gymnothorax macrurus* Bloch. Replaces *Thyrsoidea* Kaup, as restricted by Bleeker.

Thyrsoidea Bleeker, Atlas Ichth., vol. 4, p. 110, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 354, 1916.

230. *Evenchelys macrurus* (Bleeker).

Probably the longest of the marine eels. Distribution that of the genus; common in the Philippines. It frequents shallow seas and river mouths, sometimes ascending rivers some distance.

Muraena macrurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 324, 1854; Java.

Thyrsoidea longissima Kaup, Cat. Apodal Fish British Mus., p. 82, 1856.

Thyrsoidea macrurus Bleeker, Atlas Ichth., vol. 4, p. 111, pl. 22, fig. 2, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 355, fig. 174, 1916; Flores; mouth of Merauke River, New Guinea.

Muraena macrurus Günther, Cat. Fishes British Mus., vol. 8, p. 127, 1870.

Muraena macrura Day, Fishes India, p. 672, 1878.

Evenchelys macrurus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 327, 1903. Fowler, Copeia, No. 58, p. 62, 1918; Phil. Herre, Philippine Jour. Sci., vol. 23, p. 202, 1923; Lingayen Gulf, Alaminos, Pangasinan Province, and Manila Bay, Luzon. Iloilo, Panay; Agusan River, Agusan Province, Mindanao. Sandakan, British North Borneo. Herre, 1927 Collection; Barrio Dangaio, Luna, La Union Province, Luzon; Cebu, Cebu Province; Barotac Nuevo, Iloilo Province, Panay; Bohol; Cagayan, Misamis Oriental Province, Mindanao. Amoy, China. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Manila; Cebu; Jolo, Sulu Province. Herre, 1940-41 Exped.; Dagupan, Pangasinan Province, Luzon.

Rhabdura macrura Ogilby, Proc. Royal Soc. Queensland, vol. 20, p. 13, 1906.

Genus 114. **PSEUDECHIDNA** Bleeker.

East Indies, Philippines, north to Japan, in the Pacific to Samoa, and across the Indian Ocean to Madagascar. Marine, one species known.

Pseudechidna Bleeker, Ned. Tijds. Dierk., vol. 1, p. 272, 1863; Timor; orthotype, *Muraena brummeri* Bleeker. Herre, Philippine Jour. Sci., vol. 23, p. 204, 1923.

231. *Pseudechidna brummeri* Bleeker.

Distribution that of the genus.

Muraena brummeri Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 137, 1858-59; Atapupu, Timor.

Pseudechidna brummeri Bleeker, Ned. Tijds. Dierk., vol. 1, p. 272, 1863; Timor. Bleeker, Atlas Ichth., vol. 4, pl. 18, fig. 1, 1864.

Strophidon brummeri Bleeker, Atlas Ichth., vol. 4, p. 109, pl. 18, fig. 1, 1864.

Strophidon polyodon Bleeker, Ned. Tijds. Dierk., vol. 2, p. 47, 1865. Bleeker, Atlas Ichth., vol. 4, p. 109, pl. 19, fig. 3, 1864.

Muraena brummeri Günther, Cat. Fishes British Mus., vol. 8, p. 128, 1870. Günther, Fische der Südsee, vol. 3, p. 420, 1910; Samoa; Huahine.

Muraena polyodon Günther, Cat. Fishes British Mus., vol. 8, p. 128, 1870.

Muraena taenioides Günther, Proc. Zool. Soc. London, p. 674, 1871. Savay, Samoa.

Strophidon brummeri Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 855, 1901. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 9, 1922; Cebu, Cebu Province.

Gymnothorax megalopterus Weber, Siboga-Exped., vol. 57, Fische, p. 57, 1913.

Muraena (Strophidon) brummeri Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 359, fig. 179, 1916; Nias; Bawean; Savu; Amboina; Ceram; Timor, New Guinea.

Pseudechidna brummeri Herre, Philippine Jour. Sci., vol. 23, p. 204, 1923; Puerto Galera, Mindoro; Cagayan, Misamis Oriental Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. ser., vol. 21, p. 42, 1936; Fiji.

Genus 115. GYMNOTHORAX Bloch. Morays.

Marine eels, often very large and beautifully colored; common in the warmer parts of the Indo-Pacific and Atlantic Oceans. Some species very abundant about rocks and coral reefs. A few species sometimes enter fresh water.

Gymnothorax Bloch, Naturges, Ausländ. Fische, vol. 9, p. 83, 1795; type, *Gymnothorax muraena* Bloch=*Muraena helena* L.

Lycodontis McClelland, Calcutta Jour. Nat. Hist., vol. 5, p. 173, 1844; type, *Lycodontis literata* McClelland=*Muraena tile* Bleeker.

Thaerodontis McClelland, *ibid.*, vol. 5, p. 174, 1844; type, *Thaerodontis reticulata* McClelland=*Muraena tessellata* Richardson.

Eurymyctera Kaup, Archiv Naturges., vol. 22, Part 1, p. 59, 1856; orthotype, *Eurymyctera crudelis* Kaup.

Siderea Kaup, Archiv Naturges., vol. 22, Part 1, p. 59, 1856; orthotype, *Siderea pfeifferi* Kaup.

Thyrsoidea Kaup, Archiv Naturges., vol. 22, Part 1, p. 60, 1856; tautotype, *Muraena thyrsoidea* Richardson.

Polyuranodon Kaup, *ibid.*, p. 65; orthotype, *Muraena polyuranodon* Bleeker.

Taeniophis Kaup, Aalen. Fische Hamburg Mus., Nachträge, p. 10, 1859; type, *Taeniophis westphali* Kaup.

Priodontophis Kaup, *ibid.*, p. 22, 1859; type, *Gymnothorax ocellatus* Agassiz.

Neomuraena Girard, U. S. Mex. Bound. Survey, Fishes, p. 76, 1859; type, *Neomuraena nigromarginata* Girard=*Gymnothorax ocellatus* Agassiz.

Pseudomuraena Johnson, Proc. Zool. Soc. London, p. 167, 1860; type, *Pseudomuraena madeirensis* Johnson.

232. *Gymnothorax boschi* (Bleeker).

East Indies, Malaya, and Philippines. Common in Philippine markets. *Muraena boschi* Bleeker, Verh. Bat. Gen., vol. 25, p. 52, 1853.

Muraena monochrous Bleeker, Nat. Tijds. Ned. Ind., vol. 10, p. 384, 1856.

Gymnothorax boschi Bleeker, Atlas Ichth., vol. 4, p. 105, pl. 46, fig. 3, 1864.

- Gymnothorax monochrous* Bleeker, Atlas Ichth., vol. 4, p. 106, pl. 47, fig. 2, 1864.
- Muraena afra* Günther, Cat. Fishes, British Mus., vol. 8, p. 123, 1870; in part.
- Gymnothorax afer* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 56, 1907; Bacon, Sorsogon Province, Luzon; not *Gymnothorax afer* of Bloch.
- Muraena (Gymnothorax) boschi* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 386, 1916; Simalur; Roti.
- Gymnothorax boschi* Herre, Philippine Jour. Sci., vol. 23, p. 218, 1923; Manila; Calapan, Mindoro; Zamboanga, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Dumaguete; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Coron, Busuanga. Kolambugan, Lanao Province, Mindanao.
233. *Gymnothorax brunneus* Herre.
Gymnothorax brunneus Herre, Philippine Jour. Sci., vol. 23, p. 212, fig. 13, 1923; Puerto Galera, Mindoro. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Culion.
234. *Gymnothorax chilospilus* Bleeker.
 East Indies, Philippines, and southeast to Samoa and Tahiti.
Gymnothorax chilospilus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 52, 1864 (1865); Benkulen. Bleeker, Atlas Ichth., vol. 4, p. 103, pl. 45, fig. 2, 1864. Herre, Philippine Jour. Sci., vol. 23, p. 223, pl. 11, fig. 1, 1923; Barrio Anajawan, Cabalian, Leyte; Samal Island, Gulf of Davao, Mindanao; Philippines. Herre, 1927 Collection; Barrio Nalvo, Luna, La Union Province, Luzon; Despujol, Tablas Island. Herre, 1940 Exped.; Cagayan, Misamis Oriental Province, Mindanao.
- Gymnothorax sagenodeta* Bleeker, Atlas Ichth., vol. 4, p. 100, pl. 40, fig. 4, 1864; not of Richardson.
- Muraena nubila* Günther, Cat. Fishes, British Mus., vol. 8, p. 117, 1870; in part.
- Muraena nubila* von Martens, Preuss. Exped. Ost-Asien, Zool., vol. 1, p. 406, 1876; not of Richardson.
- Gymnothorax detactus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 201, 1906; not of Bryan and Herre.
- Gymnothorax samalensis* Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 492, 1909; Samal Island, Gulf of Davao, Mindanao.
- Muraena chilospilus* Günther, Fische der Südsee, vol. 3, p. 415, 1910.
- Gymnothorax richardsoni* Weber, Siboga-Exped., vol. 57, Fische, p. 60, 1913; in part; Sanguisiapo, Sulu Islands, Sulu Province, Philippines.
- Gymnothorax richardsonii* de Beaufort, Bijdr. Dierk., Af. 19, p. 100, 1913; in part.
- Muraena (Gymnothorax) chilospilus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 379, fig. 188, 1916; Sanguisiapo, Sulu Province; also many East Indian localities.
235. *Gymnothorax favagineus* Bloch and Schneider.
 A wide-spread species, ranging from the east coast of Africa to the Tuamotus, and north to China.
- Gymnothorax favagineus* Bloch and Schneider, Syst. Ichth., p. 525, 1801; Tranquebar, India.
- Muraena isingteena* Richardson, Voy. Sulphur, Fishes, p. 108, 1843-45.
- Muraena isingleena* Richardson, Zool. Voy. Erebus and Terror, Fishes, p. 86, 1844.
- Muraena tessellata* Richardson, Voy. Sulphur, Fishes, p. 109, 1843-45. Richardson; Zool. Voy. Erebus and Terror, Fishes, p. 88, 1844. Günther, Cat. Fishes, British Mus., vol. 8, p. 106, 1870.
- Muraena python* Kaup, Cat. Apodal Fishes British Mus., p. 68, 1856.
- Muraena favaginea* Kaup, ibid., p. 68, 1856.
- Thrysoidea isingleena* Kaup, ibid., p. 75, 1856.
- Thrysoidea tessellata* Kaup, ibid., p. 76, 1856.
- Gymnothorax isingteena* Bleeker, Atlas Ichth., vol. 4, p. 92, pl. 37, fig. 1, 1864.
- Gymnothorax tessellatus* Bleeker, Atlas Ichth., vol. 4, p. 93, pl. 27, fig. 3, and pl. 28, fig. 1, 1864.

Gymnothorax favagineus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 199, 1906.

Muraena (Gymnothorax) favaginea Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 378, fig. 187, 1916.

Gymnothorax favagineus Herre, Philippine Jour. Sci., vol. 23, p. 222, pl. 11, fig. 2, 1923; Manila Bay. Herre, 1927 Collection; Hundred Islands, Gulf of Lingayen, Pangasinan Province, Luzon. Herre, 1936-37 Exped.; Calatagan, Batangas Province, Luzon; Dumaguete, Oriental Negros Province; Sitankai, Sulu Province. Herre, 1940 Exped.; Manila Bay.

Lycodontis favaginea Fowler, Mem. Bishop Mus., vol. 10, p. 57, 1928.

236. *Gymnothorax flavimarginatus* (Rüppell).

A large species found throughout the tropical Indian and Pacific Oceans. Common on Philippine reefs.

Muraena flavimarginata Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 119, pl. 30, fig. 3, 1828; Red Sea.

Muraena pratbernon Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 84, 1844; not of Quoy and Gaimard.

Muraena batuensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 241, 1856-57; Batu Island.

Muraena javanica Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 347, 1859; Java.

Gymnothorax rhodocephalus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 50, 1865. Bleeker, Atlas Ichth., vol. 4, p. 93, 1864.

Gymnothorax formosus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 50, (1864) 1865. Bleeker, Atlas Ichth., vol. 4, p. 94, pl. 30, fig. 1, 1864.

Gymnothorax javanicus Bleeker, Atlas Ichth., vol. 4, p. 95, pl. 35, fig. 2, 1864.

Gymnothorax flavimarginatus Bleeker, Atlas Ichth., vol. 4, p. 95, pl. 32, fig. 2; pl. 34, fig. 3, 1864. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 99, pl. 17, 1905. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 64, p. 22, 1912. Herre, Phil. Jour. Sci., vol. 23, p. 216, 1923; Monja Island, mouth of Manila Bay; near Bondoc, Tayabas Province, Luzon; Zamboanga, Mindanao; Balabac Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Cullion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Province, Luzon.

Gymnothorax thalassopterus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 427, 1904.

Gymnothorax flavomarginatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 9, 1906. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 200, 1906. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 240, 1908; Calayan Island, Babuyan Islands, north of Luzon.

Gymnothorax batuensis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 64, p. 22, 1912.

Muraena (Gymnothorax) flavimarginata Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 374, 1916; Prigi and Patjitan, Java; Ambon; Ceram; Humboldt Bay, New Guinea; Philippines.

237. *Gymnothorax kidako* (Schlegel).

Muraena kidako Schlegel, Fauna Japonica, p. 266, Poissons, pl. 117, 1846; Nagasaki, Japan.

Muraena similis Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 83, 1844-48.

Muraena nubila Günther, Cat. Fishes, vol. 8, p. 117, 1870; pro parte.

Gymnothorax kidako Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 881, 1901. Herre, Philippine Jour. Sci., vol. 23, p. 228, 1923; taken from the stomach of a seasnake, *Laticauda colubrina*, at Santo Domingo de Basco, Batan Island, Batanes Province.

238. *Gymnothorax margaritophorus* Bleeker.

Known from Amboina, Jolo, Samoa, and Queensland, Australia.

Gymnothorax margaritophorus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 53, (1864) 1865; Amboina. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Jolo, Sulu Province.

Gymnothorax talofa Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 201, 1906; Samoa.

Lycodontis margaritophorus Ogilby, Mem. Queensland Mus., vol. 1, p. 34, 1912.

Muraena (Gymnothorax) margaritophora Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 382, 1916; Amboina.

239. *Gymnothorax meleagris* (Shaw).

Widely distributed in tropical Indo-Pacific waters, north to Japan.

Muraena meleagris Shaw, Naturalist's Miscellany, pl. 220, 1809; Pacific Ocean. Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 93, 1844-48. Günther, Cat. Fishes British Mus., vol. 8, p. 100, 1870; Zanzibar; Mauritius; Java; Seychelles; Fiji. Günther, Fische der Südsee, vol. 3, p. 410, 1910.

Muraena griseo-badia Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 325, 1855; Batu Islands; not of Richardson.

Thyrsoidea meleagris Kaup, Apodal Fish British Mus., p. 91, 1856.

Muraena duivenbodei Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 385, 1856; Ternate.

Thyrsoidea chlorostigma Kaup, Cat. Apodal Fishes, British Mus., p. 89, 1856; Seychelles. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 160, 1858; Java.

Muraena buroensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 79, 1857; Buru.

Muraena chlorostigma Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 160, 1858; Java.

Gymnothorax chlorostigma Bleeker, Atlas Ichth., vol. 4, p. 97, pl. 24, fig. 2, 1864.

Gymnothorax griseo-badius Bleeker, Atlas Ichth., vol. 4, p. 105, 1864; not of Richardson.

Gymnothorax duivenbodei Bleeker, Atlas Ichth., vol. 4, p. 89, pl. 25, fig. 1, 1864; Ternate.

Gymnothorax buroensis Bleeker, Atlas Ichth., vol. 4, p. 90, pl. 46, fig. 1, 1864; Buru.

Muraena buroensis Günther, Cat. Fishes British Mus., vol. 8, p. 114, 1870; East Indian Archipelago.

Muraena duivenbodei Günther, Cat. Fishes British Mus., vol. 8, p. 114, 1870; Ternate.

Gymnothorax meleagris Bleeker, Rech. faune, Poiss., Madagascar, p. 73, 1875; Mauritius; Seychelles. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 94, 1905; Honolulu. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 10, 1922; Zamboanga, Mindanao. Herre, Philippine Jour. Sci., vol. 23, p. 213, 1923; Cabalian, Leyte. Herre, 1927 Collection; Tambo river, Ambil Island; Despufol, Tablas.

Muraena afra Weber, in Semon, Zool. Forschungsreisen, vol. 5, p. 275, 1895; not of Bloch or Günther.

Gymnothorax monochrous Weber, Siboga-Exped., Fische, vol. 57, p. 59, 1913; not of Bleeker.

Muraena (Gymnothorax) meleagris Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 367, 1916; 20 East Indian localities.

240. *Gymnothorax petelli* Bleeker.

From Mauritius in the Indian Ocean, through the East Indies and Philippines, to the Hawaiian Islands and Samoa.

Muraena petelli Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 84, 1856; Java; Mauritius.

Muraena interrupta Kaup, Cat. Apodal Fish British Mus., p. 67, 1856; Red Sea.

Gymnothorax petelli Bleeker, Atlas Ichth., vol. 4, p. 99, pl. 32, fig. 1, 1864.

Muraena petelli Günther, Cat. Fishes British Mus., vol. 8, p. 105, 1870.

Gymnothorax leucacme Jenkins, Bull. U. S. Fish Comm., vol. 21, p. 427, fig. 2, 1902; Honolulu.

Gymnothorax waialueae Snyder, Bull. U. S. Fish Comm., vol. 22, p. 520, pl. 6, 1902; near Honolulu.

Gymnothorax petelli Jordan and Seale, Bull. Bur. Fisheries, vol. 25, p. 197, 1906; Apia and PagoPago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 240, 1908; Calayan Island, Babuyan Islands, north of Luzon.

Muraena (Gymnothorax) petelli Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 372, 1916.

241. *Gymnothorax pictus* (Ahl). Painted moray; Bercacam; Usud; Hagmang; Pabukang benhe.
Ranges from the east coast of Africa to the RiuKlu Islands, Australia, and across the Pacific to the islands off the coast of Costa Rica and Mexico. Marine.
- Muraena picta* Ahl, De Muraena et Ophichtho, Thunberg Dissert., vol. 3, p. 6, pl. 2, fig. 2, 1789; East Indies. Günther, in Playfair and Günther, Fishes Zanzibar, p. 126, 1866. Günther, Cat. Fishes British Mus., p. 116, 1870. Day, Fishes India, p. 672, pl. 172, fig. 4, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 44, 1885; Cebu, Cebu Prov. Günther, Fische der Südsee, vol. 3, p. 419, 1910.
- Muraenopsis pantherina* Lacépède, Hist. Nat. Poissons, vol. 5, pp. 628, 641, 643, 1803.
- Muraena variegata* Quoy and Gaimard, Voy. Uranie, Zoologie, p. 246, 1824.
- Muraena lita* Richardson, Zool., Voy. Erebus and Terror, Fishes, p. 84, 1846; Moluccas.
- Muraena siderea* Richardson, *ibid.*, p. 85, 1846; west and north Australia.
- Muraena pfeifferi* Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 173, 1853; Celebes.
- Sidera pfeifferi* Kaup, Cat. Apodal Fish British Mus., p. 70, 1856.
- Sidera pantherina* Kaup, *ibid.*, p. 71, 1856.
- Muraena polyophtalmus*, Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, 1858; Tiende Bijdr: Celebes, p. 15; Celebes.
- Gymnothorax pantherinus* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 152, 1863.
- Gymnothorax pictus* Bleeker, Atlas Ichth., vol. 4, p. 87, pl. 170, figs. 3-4; pl. 172, fig. 3; pl. 173, fig. 1; and pl. 189, fig. 3, 1864; New Guinea. Kner, Reise Novara, Fische, vol. 1, p. 384, 1865-67. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 103, pl. 19, 1905; Kailua; Honolulu. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Negros. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 198, 1906; Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 239, 1908; Cagayancillo, Cagayan Islands, Sulu Sea; Ticao Island. Kendall and Goldsborough, Mem. Mus. Comp. Zool. Harvard Coll., vol. 26, p. 246, 1911. Weber, Siboga-Exped., vol. 57, Fische, p. 59, 1913; Sanguisiapo Reef, Sulu Islands, Sulu Province, Philippines, and 5 East Indian localities. Herre, Philippine Jour. Sci., vol. 23, p. 208, fig. 12, 1923; Calapan, Mindoro; Samar; southern Negros; Ticao, Cuyo, and Cagayancillo Islands. Herre, 1927 Collection; Despujol, Tablas Island; south coast of Cotabato Province, Mindanao. Herre, Jour. Pan Pacific Res. Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 19, 1934; Cullion. Umali, Edible Fishes Manila, p. 66, fig. 29, 1936; Manila Bay. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 44, 1936; Cocos Island, off Costa Rica, Central America; Atuona, Hiva-oa Island, Marquesas; Makatea Island, Tuamotu Archipelago; Maraa, Tahiti; Nukulau Island, Fiji; Malo Island, New Hebrides. Herre, 1936-37 Exped.; Dumaguete. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Herre, 1940-41 Exped., Nasugbu, Batangas Province.
- Echidna (Muraena) picta* Peters, Monatsber. Akad. Wiss. Berlin, p. 275, 1868; Layang, Samar.
- Gymnothorax litus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 198, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 239, 1908; Cuyo, Cuyo Islands; Cagayancillo, Cagayan Islands, Sulu Sea.
- Gymnothorax polyophtalmus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 199, 1906; Apia, Samoa; Kusaie, Caroline Islands. Weber, Siboga-Exped., vol. 57, Fische, p. 59, 1913.
- Muraena (Gymnothorax) picta* Weber and de Beaufort, Fishes Indo-Austr. Arch., vol. 3, p. 363, figs. 175, 180, 182, and 183, 1916; Sanguisiapo, Sulu Province, and many East Indian localities.
- Lycodontis picta* Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 51, 1928.

242. *Gymnothorax polyuranodon* (Bleeker).
 In creeks and rivers and in river mouths. East Indies, Philippines, New Guinea, and Fiji.
Muraena polyuranodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 248, 1853; Ceram.
Polyuranodon kuhlii Kaup, Cat. Apodal Fish, British Museum p. 96, 1856.
Muraenoblenna tigrina Kaup, Cat. Apodal Fish, British Mus., p. 98, 1856; in part.
Gymnothorax polyuranodon Bleeker, Atlas Ichth., vol. 4, p. 89, pl. 174, fig. 2, 1864. Herre, Philippine Jour. Sci., vol. 24, p. 110, 1924; Craan and Saub Rivers, Cotabato Province, Mindanao. Herre, 1927 Collection; Canigaran, Palawan. Herre, 1940 Exped.; from a brook at San Ramon Penal Colony, Zamboanga, Mindanao.
Muraena polyuranodon Günther, Cat. Fishes British Mus., vol. 8, p. 114, 1870. Günther, Fische der Südsee, vol. 3, p. 421, 1910; Ovalau, Fiji Islands; in fresh water.
Muraena (Gymnothorax) polyuranodon Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 369, fig. 185, 1916; Ambon; rivers running into Humboldt Bay, New Guinea.
Lycodontis polyuranodon Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 54, 1928; Ebon Island.
243. *Gymnothorax pseudothyrsoides* Bleeker.
 Ranges from Arabia and Zanzibar to China and Formosa, southward to the islands of Queensland, Australia. Marine.
Muraena pseudothyrsoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 778, 1852; Celebes. Günther, Cat. Fishes, British Mus., vol. 8, p. 112, 1870.
Gymnothorax makassariensis Bleeker, Nat. Tijds. Dierk., vol. 1, p. 168, 1863; Makassar, Celebes. Bleeker, Atlas Ichth., vol. 4, p. 104, pl. 46, fig. 2, 1864.
Gymnothorax pseudothyrsoides Bleeker, Atlas Ichth., vol. 4, p. 104, pl. 37, fig. 3, 1864. Jordan and Richardson, Mem. Carnegie Mus., vol. 14, p. 173, 1909; Formosa. Herre, Philippine Jour. Sci., vol. 23, p. 229, 1923; Manila Bay. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Dumaguete, Oriental Negros Province.
Muraena macassariensis Günther, Cat. Fishes, British Mus., vol. 8, p. 111, 1870; not synonymy.
Muraena (Gymnothorax) pseudothyrsoides Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 384, 1916; Makassar, Celebes.
244. *Gymnothorax punctatofasciatus* Bleeker.
 From the Philippines and East Indies to Zanzibar. Marine.
Muraena catenata Bleeker, Acta Soc. Sci., Indo-Neerl., vol. 1, Vischsoorten Amboina, p. 66, 1856; not of Richardson.
Gymnothorax punctatofasciatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 167, 1863. Bleeker, Atlas Ichth., vol. 4, p. 99, pl. 31, fig. 4, 1864. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Negros. Herre, Philippine Jour. Sci., vol. 23, p. 215, 1923; Cagayan, Misamis Oriental Province, Mindanao; Cebu; Philippines. Herre, 1926 Collection; Bohol; Barrio Paraair, Balaoan, La Union Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Cullion; Cebu.
Muraena punctatofasciata Günther, Cat. Fishes, British Mus., vol. 8, p. 106, 1870. Day, Fishes India, p. 669, pl. 169, fig. 4, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 44, 1885; Manila Bay; Cebu.
Muraena (Gymnothorax) punctatofasciata Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 371, 1916; Buru; Amboina; Ceram; Philippines; India; Zanzibar.
245. *Gymnothorax richardsoni* Bleeker.
 The commonest moray on the reefs of the Sulu and Celebes Seas, swarming in the coral sands. Ranges from the East Indies to Zanzibar, and in the Pacific to the Hawaiian Islands and Tahiti.
Muraena richardsoni Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 296, 1852; Ceram; Sumatra. Kner, Reise Novara, Fische, vol. 1, p. 385, 1865;

Tahiti. Günther, Cat. Fishes, British Mus., vol. 8, p. 118, 1870; Zanzibar; Amboina; Sumatra; Houtman's Abrolhos; East Indian Archipelago. Steindachner, Akad. Wiss. Wien, Sitzungsber., vol. 115, p. 423, 1906; Savaii, Samoa. Günther, Fische der Südsee, vol. 3, p. 414, 1910; Duke of York Island; Samoa; Society Islands; Friendly Islands; Fiji. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 246, 1911; BoraBora, Society Islands.

Muraena ceramensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 297, 1852; Ceram.

Muraena scoliodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 297, 1852.

Muraena troschelii Bleeker, Verh. Bat. Gen., vol. 25, 1853; Bijdr. Muraenoiden, p. 45.

Muraena floresiana Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 334, 1854; Flores.

Muraena vermicularis Peters, Monatsber. Akad. Wiss. Berlin, p. 459, 1855.

Muraena diplodon Peters, *ibid.*, p. 460, 1855.

Muraena venosa Kaup, Cat. Apodal Fish British Mus., p. 68, 1856.

Thyrsoidea ceramensis Kaup, *ibid.*, p. 87.

Thyrsoidea multifasciata Kaup, *ibid.*, p. 87.

Gymnothorax floresianus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 252, 1863; Ternate; Flores.

Gymnothorax venosus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 272, 1863; Timor.

Gymnothorax scoliodon Bleeker, Atlas Ichth., vol. 4, p. 101, pl. 40, fig. 2, 1863.

Gymnothorax ceramensis Bleeker, *ibid.*, p. 101, pl. 177, fig. 3, 1863.

Gymnothorax richardsoni Bleeker, Atlas Ichth., vol. 4, p. 100, pl. 42, fig. 2, 1864.

Muraena richardsoni Schmeltz, Mus. Godeffroy, Cat. 5, p. 38, 1874; Tonga; Rarotonga. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 58, 1880; reefs near Cebu, Cebu Province.

Gymnothorax lineatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 202, 1906; Apia, Samoa.

Gymnothorax richardsoni Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 56, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 240, 1908; Sibuyan Island. Weber, *Siboga*-Exped., vol. 57, Fische, p. 60, 1913; Sanguisapo, Sulu Province, Philippines; many East Indian localities; New Guinea. Herre, Philippine Jour. Sci., vol. 23, p. 226, pl. 11, fig. 4, 1923; very abundant in the Sulu Islands; Puerto Galera, Mindoro; Cabalian, Leyte; Dumaguete, Oriental Negros Province; Caldera Bay, Zamboanga Province, Davao, and Samal Island, Gulf of Davao, Davao Province, Mindanao; Sitankai, Sulu Province. Herre, 1927 Collection; Laminosa and Sitankai Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Manila Bay; Culion; Cebu; Dumaguete; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, 1940-41 Exped.; Dumaguete; Kolambugan, Lanao Province, Mindanao.

Muraena (Gymnothorax) richardsoni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 383, fig. 189, 1916; Sanguisapo, Sulu Province; Philippines; numerous localities in the East Indies.

Lycodontis richardsoni Fowler, Fishes Oceania Mem. Bishop Mus., vol. 10, p. 58, 1928; Honolulu; Society Islands; Samoa; BoraBora.

246. *Gymnothorax rüppelli* (McClelland).

Ranging from the Red Sea across the Indo-Pacific to the Gilbert, Samoan, and Tuamotu Islands. Marine.

Muraena colubrina Lacépède, Hist. Nat. Poissons, vol. 5, pp. 627, and 641-642, 1803; not of Boddaert. Richardson, Zool., Voy. *Erebus* and *Terror*, Fishes, p. 88, 1844; not of Boddaert. Bleeker, Verh. Bat. Gen., vol. 25, Muraenoiden, p. 5, 1853; not of Boddaert.

Muraena reticulata Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 117, 1828; not of Bloch.

- Dalophis rupelliae* McClelland, Calcutta Jour. Nat. Hist., vol. 5, p. 213, 1845.
- Thyrsoidea colubrina* Kaup, Cat. Apodal Fish, British Mus., p. 84, 1856.
- Gymnothorax reticularis* Bleeker, Atlas Ichth., vol. 4, p. 98, 1864; not of Bloch.
- Muraena rüppellii* Günther, Cat. Fishes, vol. 8, p. 104, 1870. Günther, Fische der Südsee, vol. 3, p. 412, 1910; Ponapé; Samoa; Kandavu, Fiji.
- Muraena rüppellii* Klunzinger, Abh. zool.-bot. Gesell. Wien, p. 615, 1871; Red Sea. Day, Fishes India, p. 669, 1878.
- Muraena (Gymnothorax) rüppellii* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 372, 1916; Sangir Islands and 15 other East Indian localities.
- Gymnothorax rüppellii* Herre, 1927 Collection; Cebu; Sibutu, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Jolo, Sulu Province. Herre, 1940-1941 Exped.; Nasugbu, Batangas Province.
- 247. *Gymnothorax thyrsoideus* (Richardson).**
Indo-Pacific from the coast of Arabia and the Seychelles through the East Indies and the Philippines to China, the Caroline Islands, Australia, Samoa, and the Austral Islands. Marine.
- Muraena thyrsoidea* Richardson, Voy. *Sulphur*, Fishes, p. 111, 1844; not pl. 49, fig. 1; China Seas; Canton. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1312, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 8, p. 113, 1870; China; Pinang. Day, Fishes India, p. 672, pl. 142, fig. 3, 1878. Günther, Fische der Südsee, vol. 3, p. 419, 1910; Ponapé; Guam; Efate; Tubuai; Samoa; Tonga; Fiji.
- Muraena griseo-badia* Richardson, Zool., Voy. *Erebus and Terror*, Fishes, p. 89, 1844; Tonga Islands.
- Muraena prosopeion* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 300, 1853; East Indies.
- Muraena griseo-badia* Kaup, Cat. Apodal Fish British Mus., p. 74, 1856.
- Thyrsoidea arenata* Kaup, Cat. Apodal Fish British Mus., p. 85, 1856. Schmeltz, Mus. Godeffroy, Cat. 4, p. 26, 1869; Samoa.
- Gymnothorax prosopeion* Bleeker, Atlas Ichth., vol. 4, p. 88, pl. 39, fig. 3, 1864.
- Gymnothorax thyrsoideus* Bleeker, Atlas, Ichth., vol. 4, p. 103, 1864; after Cantor. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 198., 1906; Pago Pago, Samoa. Herre, Philippine Jour. Sci., vol. 23, p. 209, 1923; Cabalian, Leyte; Jordan, Guimaras Island; Sitankai, Sulu Province. Herre, 1927 Collection; Calapan, Mindoro; Despujol, Tablas Island. Herre, 1936-37 Exped.; Sitankai, Sulu Province.
- Muraena tile* Seale, Occas. Papers Bishop Mus., vol. 1, No. 3, p. 62, 1901; not of Hamilton [né Buchanan]. Guam.
- Muraena (Gymnothorax) thyrsoidea* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 365, 1916; numerous East Indian localities. Chevey, Poissons campagnes de Lanessan, p. 48, colored pl. 16, 1932; Poulo Condore, China Sea.
- Lycodontis thyrsoidea* Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 52, 1928; Faté; Tubuai; Samoa; Society Islands; Gilbert (Kingsmill) Islands.
- 248. *Gymnothorax tile* (Hamilton [né Buchanan]).**
Indian Ocean, estuaries and river mouths of India, the East Indies, and Philippines, east to Honolulu.
- Muraenopsis tile* Hamilton [né Buchanan], Fishes Ganges, pp. 18 and 363, 1822; Ganges estuaries near Calcutta.
- Muraena vermiculata* Richardson, Zool., Voy. *Erebus and Terror*, Fishes, p. 92, 1844.
- Muraena gracilis* Richardson, *ibid.*, p. 92, 1844.
- Lycodontis literata* McClelland, Calcutta Jour. Nat. Hist., vol. 5, p. 186, 1845.
- Lycodontis punctata* McClelland, *ibid.*, p. 187, 1845.
- Strophidon literata* McClelland, *ibid.*, pp. 203 and 215, 1845.
- Strophidon punctata* McClelland, *ibid.*, pp. 203 and 215, 1845.
- Strophidon maculata* McClelland, *ibid.*, pp. 203, 1845.
- Muraena punctata* Bleeker, Verh. Bat. Gen., vol. 25, Muraenoiden, p. 42, 1853.
- Muraena literata* Bleeker, *ibid.*, p. 42, 1853.

- Muraena tile* Bleeker, Verh. Bat. Gen., vol. 25, Ichth. Bengalen, p. 159, 1853. Günther, Cat. Fishes British Mus., vol. 8, p. 112, 1870. Day, Fishes India, p. 668, pl. 170, fig. 4, 1878.
- Thyrsoidea tile* Kaup, Cat. Apodal Fish British Mus., p. 93, 1856.
- Gymnothorax tile*, Bleeker, Atlas Ichth., vol. 4, p. 97, pl. 178, fig. 1, 1864. Kner, Reise Novara, Fische, vol. 1, p. 385, 1865-67. Herre, Philippine Jour. Sci., vol. 23, p. 211, 1923; Lauang, Samar; after Peters. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Dumaguete.
- Echidna (Muraena) tile* Peters, Monatsber. Akad. Wiss. Berlin, p. 275, 1868; coral reef east of Lauang, Samar.
- Muraena (Gymnothorax) tile* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 370, fig. 176, 1916; Philippines; Sumatra; Singapore; Banka; Borneo; Ceram.
- Lycodontis tile* Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 54, pl. 2, fig. 5, 1928; Honolulu market.

249. Gymnothorax undulatus (Lacépède).

- Occurs from the Red Sea and east coast of Africa through the East Indies and Philippines to the Riu Kiu Islands, Hawaii, south to Australia, east to Tahiti and the Marquesas. Marine; very common on Philippine reefs. A variable species, given many names.
- Muraenophis undulata* Lacépède, Hist. Nat. Poissons, vol. 5, pp. 629 and 644, pl. 64, fig. 2, 1803; on Commerson.
- Muraena fimbriata* Bennett, Proc. Comm. Zool. Soc., vol. 1, p. 168, 1831. Günther, Cat. Fishes British Mus., vol. 8, p. 108, 1870. Günther, in Brenchley, Cruise Curaçao, p. 410, 1874; Solomon Islands. Day, Fishes India, p. 670, pl. 172, fig. 1, 1878. Steindachner, Denks, Akad. Wiss. Wien, vol. 70, p. 514, 1901; Samoa.
- Muraena valenciennii* Eydoux and Souleyet, Voy. Bonite, Zool., p. 207, pl. 8, fig. 1, 1841; Hawaiian Islands.
- Muraena bullata* Richardson, Zool. Voy. Erebus and Terror, Fishes, p. 86, 1844.
- Muraena cancellata* Richardson, Zool. Voy. Erebus and Terror, Fishes, p. 87, pl. 46, figs. 1-5, 1844. Macleay, Linn. Soc. New South Wales, Proc., vol. 8, p. 278, 1883; Hood Bay, New Guinea.
- Muraena isingleenoides* Bleeker, Verh. Bat. Gen., vol. 25, Muraenoiden, p. 48, 1853.
- Muraena agassizi* Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 458, 1855; Cocos Island.
- Muraena isingteena* Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 277, 1855; Sumatra; not of Richardson.
- Thyrsoidea bullata* Kaup, Cat. Apodal Fish British Mus., p. 81, 1856.
- Thyrsoidea cancellata* Kaup, Cat. Apodal Fish British Mus., p. 76, 1856.
- Thyrsoidea isingleenoides* Kaup, Cat. Apodal Fish British Mus., p. 74, 1856.
- Thyrsoidea kaupii* Abbott, Proc. Acad. Nat. Sci. Phila., vol. 12, ser. 2, p. 477, 1860; Hawaiian Islands.
- Gymnothorax bullatus* Bleeker, Atlas Ichth., vol. 4, p. 91, pl. 27, fig. 2, pl. 43, fig. 3, 1864.
- Gymnothorax cancellatus* Bleeker, Atlas Ichth., vol. 4, p. 93, pl. 32, fig. 3; pl. 33, fig. 2; pl. 39, fig. 1; 1864. Kner, Reise Novara, Fische, p. 384, 1865-67; Manila, Luzon.
- Gymnothorax isingleenoides* Bleeker, Atlas Ichth., vol. 4, p. 91, pl. 35, fig. 1; pl. 36, fig. 1, 1864. Schmeltz, Mus. Godeffroy, Cat. 4, p. 26, 1869; Pelew Islands; Kandavu, Fiji.
- Gymnothorax agassizi* Bleeker, Atlas Ichth., vol. 4, p. 95, pl. 41, fig. 2, 1864.
- Muraena microspila* Günther, Cat. Fishes British Mus., vol. 8, p. 108, 1870.
- Muraena undulata* Günther, Cat. Fishes British Mus., vol. 8, p. 110, 1870. Klunzinger, Verh. zool.-bot. Gesell. Wien, vol. 21, p. 615, 1871; Red Sea. Day, Fishes India, p. 671, 1878. Günther, Fische der Südsee, vol. 3, p. 413, pls. 164, 165, 1910; Hawaiian Islands; Society Islands.
- Gymnothorax fimbriatus* Bleeker, Versl. Akad. Amsterdam, (2) vol. 7, p. 37, 1873; Aru Islands. Steindachner, Akad. Wiss. Wien, Sitzungsber., vol. 115, p. 1423, 1906; Upolu, Samoa. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao.

Lycodontis kaupi Fowler, Proc. Acad. Nat. Sci. Phila., p. 494, pl. 18, fig. 6, 1900; on Abbott's type.

Gymnothorax undulatus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 4, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 98, pl. 16, 1905; Honolulu; Samoa. Seale, Occas. Pap. Bishop Mus., vol. 4, p. 9, 1906; Austral and Society Islands. Herre, Philippine Jour. Sci., vol. 23, p. 220, pl. 9, fig. 1, 1923; Calapan, and Puerto Galera, Mindoro; Dumaguete, Oriental Negros Province; Tandag, Surigao Province, and Samal Island. Gulf of Davao, Mindanao. Herre, 1925 Collection; Despujol, Tablas Island; Iligan, Lanao Province; Sibutu, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Cullion; Cebu, Cebu Province; Dumaguete; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete; Jolo, Jolo Island, Sulu Province; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete; San Ramon Penal Colony, Zamboanga Province, Mindanao; Jolo, Sulu Province.

Gymnothorax philippinus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 7, fig. 2, 1907; Philippines. Herre, Philippine Jour. Sci., vol. 23, p. 225, 1923; compiled.

Gymnothorax kaupi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 64, p. 21, 1912; on Abbott's type.

Gymnothorax stellatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 64, p. 21, 1912. Snyder, Proc. U. S. Nat. Mus. vol. 42, p. 492, 1912.

Gymnothorax favagineus Weber, Siboga-Exped., vol. 57, Fische, p. 56, 1913; not of Bloch and Schneider.

Gymnothorax macassarensis Weber, Siboga-Exped., vol. 57, Fische, p. 61, 1913; not of Bleeker.

Gymnothorax sagenodeta Weber, Siboga-Exped., vol. 57, Fische, p. 61, 1913; not of Richardson.

Muraena (Gymnothorax) undulata Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 376, fig. 186, 1916; Philippines; many East Indian localities.

250. *Gymnothorax zonipectis* Seale.

From Tahiti to the Philippines and East Indies. Marine.

Gymnothorax zonipectis Seale, Occas. Papers Bishop Mus., vol. 4, p. 7, fig. 1, 1906; Tahiti. Herre, Philippine Jour. Sci., vol. 23, p. 224, pl. 11, fig. 3, 1923; Zamboanga, Zamboanga Province, Mindanao; on the type of *Gymnothorax indong* Seale.

Gymnothorax indong Seale, Philippine Jour. Sci., vol. 4A, p. 491, 1909; Zamboanga, Zamboanga Province, Mindanao.

Muraena zonipectis Günther, Fische der Südsee, vol. 3, p. 415, fig., 1910; Rotuma, one of the Ellice Islands, Micronesia.

Muraena (Gymnothorax) zonipectis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 381, fig. 181, 1916; Philippines; south coast of Java.

Genus 116. ANARCHIAS Jordan and Seale.

Small morays with a dorsal but no anal fin. Philippines to Samoa. Marine.

Anarchias Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 204, 1906; Samoa; type, *Anarchias allardicei* Jordan and Seale. Herre, Philippine Jour. Sci., vol. 23, p. 230, 1923; Sitankai, Sulu Province.

251. *Anarchias reticulatus* Herre.

Known only from the Philippines.

Anarchias reticulatus Herre, Philippine Jour. Sci., vol. 23, p. 230, pl. 9, fig. 3, 1923; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Dumaguete, Oriental Negros Province.

Genus 117. SCUTICARIA Jordan and Snyder.

Marine morays of the tropical Indian and Pacific Oceans.

Scuticaria Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 886, 1901; orthotype, *Ichthophis tigrinus* Lesson; Hawaii.

252. *Scuticaria tigrina* (Lesson).

All over the tropical Indo-Pacific area.

Ichthyophis tigrinus Lesson, Mem. Soc. Hist. Nat. Paris, vol. 4, p. 399, 1828; BoraBora, Society Islands. Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 96, 1844.

Muraenoblenna tigrina Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 93, 1857; Amboina.

Gymnomuraena tigrina Bleeker, Atlas Ichth., vol. 4, p. 113, pl. 165, fig. 3, 1864; Prigi, Java; Nova Selma; Cocos Island; Celebes; Timor. Günther, Cat. Fishes, vol. 8, p. 133, 1870. Günther, Fische der Südsee, vol. 3, p. 424, 1910. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 393, 1916; Java; Comos Island; Celebes; Amboina; Timor.

Scuticaria tigrina Jordan and Evermann, Bull. U. S. Fish Comm., v. 23, pt. 1, p. 112, pl. 22, 1905; Honolulu; Kailua. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 206, 1906; Apia and Pago Pago, Samoa. Herre, 1925 Collection; Ambil Island, Lubang Islands; Canigara, near Puerto Princesa, Palawan.

Genus 118. UROPTERYGIUS Rüppell.

Eels of the tropical Indo-Pacific reefs and coasts. Marine.

Uropterygius Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 83, 1835; Red Sea; type, *Uropterygius concolor* Rüppell.

253. *Uropterygius concolor* Rüppell.

Red Sea and Mauritius to the East Indies, Philippines, Hawaii, Australia, and east to the Marquesas Islands.

Uropterygius concolor Rüppell, Neue Wirbelt., Fische, Rothen Meeres, p. 83, 1835; Massaua, Red Sea. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Negros. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 206, 1906; Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 10, 1906; Nukahiva, Marquesas Islands. Herre, Philippine Jour. Sci., vol. 23, p. 231, 1923; Iba, Zambales Province, Luzon; Calapan, Mindoro; Zamboanga, Zamboanga Province, Mindanao. Herre, 1925 Collection; Puerto Galera, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Alabat Island, Tayabas Province; Culion; Cebu. Fowler, Fishes Oceania, Mem. Bishop Mus., v. 10, p. 60, 1928; synonymy in part.

Gymnomuraena fusca Peters, Monatsber. Akad. Wiss. Berlin, p. 524, 1867. Günther, Cat. Fishes, British Mus., vol. 8, p. 134, 1870.

Gymnomuraena concolor Günther, *ibid.*, p. 134, 1870. Günther, Fische Südsee, vol. 3, p. 426, 1910; Rotuma; Cape York; Hawaii. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 395, 1916; Philippines; Nias; Amboina; Nusa Laut; Kur Island; Savu Island; Solor; Humboldt Bay, New Guinea; Kabala Dua near east Borneo; synonymy in part.

Muraena tile Seale, Occas. Papers Bishop Mus., vol. 1, p. 62, 1901; Guam; not of Hamilton [né Buchanan].

254. *Uropterygius marmoratus* (Lacépède).

All over the tropical Indo-Pacific, from the islands on the coast of Africa to Hawaii and the Maruesas. Marine.

Gymnomuraena marmorata Lacépède, Hist. Nat. Poissons, vol. 5, p. 648, 1803; New Britain. Günther, Cat. Fishes, vol. 8, p. 133, 1870; in part. Day, Fishes India, p. 675, 1878. Günther, Fische der Südsee, vol. 3, p. 425, 1910; Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 397, figs. 193 and 194, 1916; many East Indian localities; Philippines.

Ichthyophis pantherinus Lesson, Voy. *Coquille*, Zool., vol. 2, p. 131, 1830. Bleeker, Versl. Akad. Amsterdam, vol. 15, p. 464, 1863.

Muraena micropterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 298, 1852; Amboina.

Muraenoblenna tigrina Kaup, Cat. Apodal Fist British Mus., p. 98, 1856; in part.

Uropterygius xanthopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 350, 1859; south coast of Java.

Uropterygius micropterus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 160, 1863; Morotai.

Ichthyophis micropterus Bleeker, *ibid.*, p. 252, 1863; Flores.

Gymnomuraena pantherina Bleeker, Atlas Ichth., vol. 4, p. 113, pl. 31, fig. 3, 1864.

Gymnomuraena micropterus Bleeker, Atlas Ichth., vol. 4, p. 114, pl. 20, fig. 2, 1864.

Gymnomuraena xanthopterus Bleeker, Atlas Ichth., vol. 4, p. 114, pl. 20, fig. 4, 1864.

Uropterygius marmoratus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 111, fig. 33, 1905; Kailua. Herre, Philippine Jour. Sci., vol. 23, p. 233, 1923; Sitankai, Sulu Province; Philippines. Herre, 1927-1940 Collections; Barrio Nalvo, Luna, La Union Province; Nasugbu, Batangas Province, Luzon; south coast of Cotabato Province, Mindanao. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 61, 1928.

Europterygius xanthopterus Seale, Occas. Papers Bishop Mus., vol. 4, p. 11, 1906; Nukahiva, Marquesas Islands.

255. *Uropterygius supraforatus* (Regan).

Known only from the Philippines, Samoa, and Tahiti.

Gymnomuraena supraforatus Regan, Ann. Mag. Nat. Hist. ser. 8, vol. 4, p. 439, 1909; type locality, Savay, Samoa; Tahiti. Günther, Fische der Südsee, vol. 3, p. 426, text figure, 1910; on same specimens. Herre, Philippine Jour. Sci., vol. 23, p. 234, fig. 14, 1923; one specimen from stomach of a sea snake, Cresta de Gallo, near Sibuyan Island, Romblon Province.

Order L. EVANTOGNATHI. Carp

Family 48. CYPRINIDAE. Carps

Largest family of fishes; poorly represented in the Philippines. All carp are strictly fresh-water fishes. Native species confined to Balabac, Palawan, the Calamianes, Mindoro, Mindanao, Basilian, and TawiTawi. Introduced carps now occur in Luzon and Mindanao in fresh water.

Genus 119. NEMATABRAMIS Boulenger.

The Philippines and Borneo.

Nematabramis Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 13, p. 249, 1894; orthotype, *Nematabramis everetti* Boulenger. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 45, 1916. Herre, Philippine Jour. Sci., vol. 24, p. 258, 1924. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 817, 1941.

Mearnsella Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 231, 1907; orthotype, *Mearnsella alestes* Seale and Bean.

256. *Nematabramis alestes* (Seale and Bean).

Mearnsella alestes Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 231, fig. 2, 1907; near Zamboanga, Zamboanga Province, Mindanao.

Nematabramis alestes Herre, Philippine Jour. Sci., p. 260, vol. 24, p. 705, 1924; Zamboanga, Mindanao; the Balactasan, Burakan, Busay, and Lamitan Rivers, Basilan Island; Puerto Princesa, and Taytay, Palawan; Concepcion, Busuanga. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; same localities as preceding citation. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Karig Malan River and a stream flowing into Halsey Harbor, Culion. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 819, 1941; Palawan, Caiholo River, Ulugan Bay; creek near Pancol, Malampaya Sound; Iwahig River, near Puerto Princesa; Malatgao and Camino Rivers, near Puerto Princesa; Maliano River, Mantaquin Bay, Palawan (synonymy in part); Busuanga, Malbato River, Port Uson, and Pangauron River, Port Caltom; Isabela River, Basilan Island; Zamboanga River, Zamboanga, Mindanao.

257. *Nematabramis everetti* Boulenger.

Nematabramis everetti Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 13, p. 250, 1894; type locality, Palawan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 46, 1916; Borneo. Herre,

Philippine Jour. Sci., vol. 24, p. 262 and p. 705, 1924; Balabac or Palawan; on Boulenger. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; reference. Herre, Exped. of 1936-37; Sibugal River, British North Borneo. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 817, fig. 30, 1941; Silimponon River, Sibuko Bay, and Tawao River, British North Borneo.

258. *Nematabramis verecundus* Herre.

Nematabramis verecundus Herre, Philippine Jour. Sci., vol. 24, pp. 259 and 705, 1924; Titunod River, near Kolambungan, Lanao Province, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1933, vol. 2, p. 1568, 1924; Titunod River, near Kolambungan, Lanao Province, Mindanao.

Genus 120. RASBORA Bleeker.

A large genus found in fresh water from the southern Philippines and Borneo westward to eastern and southern Asia, with one species in Africa.

Rasbora Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 435, 1859-60; tautotype, *Cyprinus rasbora* Hamilton [né Buchanan].

259. *Rasbora argyrotaenia* (Bleeker).

Ranges from Indo-China, Siam, and the Malay Peninsula to Borneo and Palawan.

Leuciscus argyrotaenia Bleeker, Verh. Bat. Gen., vol. 23, 1850; Ichth. fauna Midden-en Oost-Java, p. 21; Java.

Leuciscus cyanotaenia Bleeker, *ibid.* p. 21; Batavia, Java.

Leuciscus dusonensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 14, 1851; Dusan River, Borneo.

Leuciscus schwenki Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, Bijdr. vischfauna Sumatra, p. 47, 1858; Sumatra.

Opsarius argyrotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 16, p. 358, 1858-59.

Rasbora dusonensis Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 445, 1860. Bleeker, Atlas Ichth., vol. 3, p. 122, 1863.

Rasbora argyrotaenia Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 448, 1860. Bleeker, Atlas Ichth., vol. 3, p. 123, pl. 132, fig. 3, 1863. Günther, Cat. Fishes British Mus., vol. 7, p. 195, 1868. Vaillant, Nouv. Arch. Mus. Hist. Nat., ser. 3, vol. 5, p. 88, 1893. Steindachner, Abh. Senckenb. Gesell., vol. 25, p. 455, 1900; East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 61, 1916; many localities in Java, Sumatra, and Borneo. Herre, Philippine Jour. Sci., vol. 24, p. 267, and p. 705, 1924; Langbuan, Busuanga; Lake Manguao, near Taytay, and streams near Puerto Princesa, Palawan. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; Busuanga; Lake Manguao and Puerto Princesa, Palawan. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Concepcion, Busuanga; Culion. Herre, 1940-41 Exped., Singai, San Nicholas, and Wayan Creek, Busuanga. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 815, 1941.

Rasbora borneensis Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 450, 1860; rivers, Bandjermassin, Borneo. Bleeker, Atlas Ichth., vol. 3, p. 124, 1863.

Rasbora everetti Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 187, 1895; Palawan.

Rasbora leptosoma Vaillant, Notes Leyden Mus., vol. 24, p. 30, 1902; not of Bleeker.

Rasbora buchanani Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 181, 1904. Weber, *Siboga*-Exped., vol. 57, p. 25, Fische, 1913.

Rasbora lateristriata Jordan and Seale, Proc. U. S. Nat. Mus., vol. 33, p. 539, 1908; not of Bleeker.

Rasbora buchanani Weber and de Beaufort, Maas, Durch Zentral-Sumatra, vol. 2, Fische, p. 529, 1912.

260. *Rasbora lateristriata* Bleeker.

Sumatra to Borneo and southern Philippines.

Leuciscus lateristriatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 94, 1854; Lake Meningu, Sumatra; Java.

Rasbora lateristriata Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 441, 1860; Sumatra; Java. Bleeker, Atlas Ichth., vol. 3, p. 121, pl. 118, fig. 2, 1863; Java; Sumatra. Günther, Cat. Fishes British Mus., vol. 7, p. 195, 1868; Labuan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 76, 1916; many localities in Java, Sumatra, and Borneo; Banguran Island; Lombok; Sumbawa. Herre, Philippine Jour. Sci., vol. 24, pp. 265 and 705, 1924; Malum River, Tawi Tawi, Sulu Province. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 813, 1941; after Herre.

Rasbora macrocephalus Günther, Cat. Fishes British Mus., vol. 7, p. 197, 1868.

Rasbora hosii Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 247, 1895.

Rasbora elberti Popta, Notes Leyden Mus., vol. 34, p. 10, 1911. Weber, Siboga-Exped., vol. 57, Fische, p. 25, 1913.

261. *Rasbora philippina* Günther.

A Philippine species.

Rasbora philippina Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 58, 1880; Pasonanca River, near Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Jour. Sci., vol. 24, p. 268, 1924; Titunod River near Kolambugan, Lanao Province, and near Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Jour. Sci., vol. 24, p. 705, 1924; Zamboanga and Cagayan de Misamis, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; Zamboanga and Cagayan de Misamis, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; creek at Kolambugan, Lanao Province, Mindanao. Herre, 1940 Exped.; Marata Bogon, 30 kilometers east of Kolambugan, Lanao Province, Mindanao, at about 1,000 feet altitude; river 6 miles northeast of Zamboanga, Zamboanga Province; Cagayan River, Misamis Oriental Province, Mindanao; streams of Tawi Tawi Island, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 815, 1941; after Herre.

262. *Rasbora punctulata* Seale and Bean.

Rasbora punctulatus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 232, fig. 3, 1907; Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Jour. Sci., vol. 24, pp. 266 and 705, 1924; Zamboanga, Mindanao; Balactasan River and Burakan River, Basilan. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924.

Rasbora punctulata Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 813, 1941; Malbato River, Port Uson, and Pangauron River, Port Caltom, Busuanga, Iwahig River and tributaries, Malatgao and Canino Rivers near Puerto Princesa; Malinao River, Mantaquin Bay; River at Nakoda Bay, Palawan. Zamboanga River, Zamboanga, Mindanao. Isabela River, Basilan.

263. *Rasbora taytayensis* Herre.

Rasbora taytayensis Herre, Philippine Jour. Sci., vol. 24, pp. 264 and 705, 1924; pool between Taytay and Malampaya Sound, Palawan; creek near Taytay, Palawan. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; Taytay, Palawan. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 816, 1941; after Herre.

Genus 121. **CYPRINUS** Linnaeus.

Cyprinus Linnaeus, Syst. Nat. ed. 10, vol. 1, p. 320, 1758; after Artedi; type, *Cyprinus carpio* L.

264. *Cyprinus carpio* Linnaeus.

Common carp, native of China, now cultivated and wild in nearly all countries. An important food fish in Asia, Europe, and the United States. Introduced into the Philippines several times and now well established; important locally for food. No attempt is made to give the synonymy.

Cyprinus carpio Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 320, 1758. Günther, Cat. Fishes British Mus., vol. 7, p. 25, 1868. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 102, fig. 44, 1916. Herre, Philippine Jour. Sci., vol. 24, p. 271, 1924; Pulangi, or Rio Grande de Mindanao, Cotabato Province; Lake Nunungan, Lanao Province,

Mindanao. Herre, Philippine Jour. Sci., vol. 24, p. 705, 1924; naturalized in rivers of Cotabato Province, and Lake Nunungan, Lanao Province, Mindanao. Herre, Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; same localities as preceding entry. Herre, Lingnan Sci. Jour., vol. 5, p. 269, 1927; Lake Paoay, Ilokos Norte Province; Magat River, Nueva Viscaya Province; Rio Grande de Pampanga, Pampanga Province; Lake Bato and Lake Buhi, Camarines Sur Province; Laguna de Bay, Luzon; also observed in the Cagayan River, Isabela Province, Luzon, June, 1940. Roxas and Umali, Philippine Jour. Sci., vol. 63, pp. 434-435, 1937; established in Laguna and "Bicol" Provinces, Luzon, and in Lanao Province, Mindanao. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 777, 1941.

Genus 122. CARASSIUS Nilsson.

Native of China; domesticated varieties cultivated for food, as pets, and for ornament all over the world.

Carassius Nilsson, Prodr. Ichth. Scandinaviae, vol. 4, p. 290, 1832; orthotype, *Cyprinus carassius* L.

265. Carassius auratus (Linnaeus).

Planted in Trinidad River between Baguio and the Trinidad Farm School by a Japanese gardener, and has become naturalized. The synonymy is too extensive to cite.

Cyprinus auratus Linnaeus, Syst. Nat., ed. 10, p. 322, 1758.

Carassius auratus Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 255, 1860. Bleeker, Atlas Ichth., vol. 3, p. 74, 1864. Günther, Cat. Fishes British Mus., vol. 7, p. 32, 1868. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 103, fig. 45, 1916; cultivated in ponds in Java. Fowler, Copeia, No. 53, p. 62, 1918; Philippines. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Trinidad River, near Trinidad Farm School, Mountain Province. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 778, 1941.

Genus 123. HAMPALA van Hasselt.

Large cyprinids of southeastern Asia and adjacent islands, extending into the Palawan geographical area. Species few.

Hampala van Hasselt, Allgemeine Konst en Letterbode, vol. 2, p. 132, 1823: type, *Hampala macrolepidota* van Hasselt: Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 430, 1859-60.

266. Hampala lopezi Herre.

Only known from Busuanga but probably occurring in Palawan and Balabac. Adults become very bulky, with a length of more than two-thirds of a meter.

Hampala lopezi Herre, Philippine Jour. Sci., vol. 24, pp. 275, and 705, 1924; creek at Langbuan, Busuanga. Herre, Proc. Pan Pacific Sci. Congress 1923, p. 1568, 1924. Herre, 1940-41 Exped.; Wayan Creek, Busuanga. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 779, fig. 18, 1941; Pangauron River, Port Caltom, Busuanga.

Genus 124. MANDIBULARCA Herre.

Known only from the Lanao Plateau, Mindanao.

Mandibularca Herre, Philippine Jour. Sci., vol. 24, pp. 272 and 705, 1924; orthotype, *Mandibularca resinus* Herre. Herre, Proc. Pan Pacific Sci. Congress, 1923, vol. 2, p. 1658, 1924. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 780, 1941.

267. Mandibularca resinus Herre. Bagangan sa Erungan (Marinao name).

A large cyprinid only known definitely from the outlet of Lake Lanao, Mindanao.

Mandibularca resinus Herre, Philippine Jour. Sci., vol. 24, p. 273, colored pl. 1, 1924; rapids of the Agus, outlet of Lake Lanao; also Lake Lanao (?). Herre, Philippine Jour. Sci., vol. 24, p. 705, 1924; Agus River, Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924; Agus River, Lake Lanao, Mindanao. Herre, 1926 Collection, Agus Rapids below the bridge to Dansalan, Lanao Province, Mindanao. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 780, 1941; after Herre.

Genus 125. CEPHALAKOMPSUS Herre.

Cephalakompsus Herre, Philippine Jour. Sci., vol. 24, pp. 276 and 705, 1924; orthotype, *Cephalakompsus pachycheilus* Herre, Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1568, 1924.

268. *Cephalakompsus pachycheilus* Herre.

Cephalakompsus pachycheilus Herre, Philippine Jour. Sci., vol. 24, p. 276, pl. 2, fig. 2, 1924; Lake Lanao at Dansalan, Lanao Province, Mindanao. Herre, Phil. Jour. Sci., vol. 24, p. 705, 1924; Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 781, 1941; after Herre.

Genus 126. OSPATULUS Herre.

A genus with two species, known only from Lake Lanao, Mindanao. *Ospatulus* Herre, Philippine Jour. Sci., vol. 24, pp. 277 and 706, 1924; Lake Lanao, Mindanao; orthotype, *Ospatulus truncatulus* Herre.

269. *Ospatulus palaemophagus* Herre.

Ospatulus palaemophagus Herre, Philippine Jour. Sci., vol. 24, pp. 279 and 706, 1924; Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Lake Lanao, Mindanao. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 783, 1941; after Herre.

270. *Ospatulus truncatulus* Herre.

Ospatulus truncatulus Herre, Philippine Jour. Sci., vol. 24, p. 278, pl. 2, fig. 1, and p. 706, 1924; Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 2569, 1924; Lake Lanao, Mindanao. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 782, 1941; after Herre.

Genus 127. PUNTIUS Hamilton [né Buchanan].

A very large genus of many species, extending from the Philippine Islands through Borneo and Lombok to tropical and temperate Asia and Africa.

Puntius Hamilton [né Buchanan], Fishes Ganges, p. 388, 1822; type, *Cyprinus puntio* Hamilton [né Buchanan], by tautonymy. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 170, 1916. *Barbodes* Bleeker, Nat. Tijds. Ned. Ind., Vol. 20, p. 431, 1859-60; orthotype, *Systomus belinka* McClelland; designated by Bleeker, Nat. Tijds. Dierk., vol. 1, p. 200, 1863.

271. *Puntius amarus* (Herre). Pait.

Barbodes amara Herre, Philippine Jour. Sci., vol. 24, pp. 295 and 706, 1924; Lake Lanao, at Dansalan, Lanao Province, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1924; Lake Lanao, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 20, 1934; Lake Lanao.

Puntius amarus Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 798, 1941; after Herre.

272. *Puntius bantolensis* (Day).

Known only from Lake Manguao, Palawan.

Barbus bantolensis Day, Philippine Jour. Sci., vol. 9D, p. 188, pl. 1, figs. 1-2, 1914; Lake Manguao, near Taytay, Palawan.

Barbodes bantolensis Herre, Philippine Jour. Sci., vol. 24, p. 298 and p. 706, 1924; Day's specimens redescribed. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Lake Manguao, Palawan.

Puntius bantolensis Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 801, 1941; after Herre.

273. *Puntius baoulan* Herre. Baoulan (Marinao name).

The most highly prized of Lanao cyprinids, living at considerable depths. *Barbodes baoulan* Herre, Philippine Jour. Sci., vol. 29, p. 499, colored pl. 1, 1925; Lake Lanao, at Camp Keithley, Lanao Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Lake Lanao, Mindanao.

Puntius baoulan Herre, 1936-37 Exped.; Ganassi, Lake Lanao, Mindanao.

Puntius baoulan Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 802, 1941; after Herre.

274. *Puntius binotatus* (Cuvier and Valenciennes).

- A variable species, ranging from India to the southern Philippines. Occurs from sea level to 1000 meters in Mindanao. It is the parent stock of all the Lanao Plateau cyprinids.
- Barbus binotatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 16, p. 168, 1842; Java. Günther, Cat. Fishes British Mus., vol. 7, p. 123, 1868; Amboina. Vaillant, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 3, vol. 5, p. 79, 1893; Kapuas river, Borneo.
- Barbus maculatus* Curvier and Valenciennes, Hist. Nat. Poissons, vol. 16, p. 195, 1842.
- Barbus oresigines* Bleeker, Verh. Bat. Gen., vol. 23, Bijdr. Ichth. Java, p. 17, 1850; Java.
- Barbus blitonensis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 96, 1852; Blitong, Borneo.
- Barbus kusanensis* Bleeker, *ibid.*, p. 429, 1852; River Kusan, Borneo.
- Barbus polyaspilos* Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 351, 1857; Java.
- Systomus (Barbodes) maculatus* Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 347, 1860.
- Systomus (Barbodes) goniosoma* Bleeker, Ichth. Arch. Ind. Prodr., vol. 2, Cyprini, p. 349, 1860.
- Puntius (Barbodes) goniosoma* Bleeker, Atlas Ichth., vol. 3, p. 105, 1863.
- Puntius (Barbodes) maculatus* Bleeker, Atlas Ichth., vol. 3, p. 104, pl. 134, fig. 1; pl. 141, fig. 1; pl. 144, fig. 6, 1863. Java; Sumatra; Borneo; Billiton; Banka; Singapore; Bali; Nias. Kner, Reise Novara, Fische, p. 346, 1865-67.
- Barbus maculatus* Günther, Cat. Fishes, British Mus., vol. 7, p. 123, 1868. Popta, Notes Leyden Mus., vol. 27, p. 138, 1906.
- Barbus goniosoma* Günther, Cat. Fishes, British Mus., vol. 7, p. 124, 1868. Vaillant, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 3, vol. 5, p. 81, 1893.
- Barbodes maculatus* Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 593, 1912.
- Puntius binotatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 3, p. 186, fig. 74, 1916; all over Sumatra, Nias, Java, Bali, Lombok; Borneo; Banka; Billiton; Singapore; Malacca; Philippines. Herre and Myers, Bull. Raffles Mus., No. 13, p. 63, 1937; Malay Peninsula. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 790, figs. 20-23, 1941; 4 miles from mouth of Bagaong River, Sablayan Bay, Mindoro; Malbato River, Port Uson, and Paugauron River, Port Caltom, Busuanga Island; Pancol and creek near Pancol, Malamaya Sound, Iwahig River, and tributaries, Malatgao River and Camino River, near Puerto Princesa, Malinao River, Mantaquin Bay, Palawan; Mahinog, Camiguin Island, Misamis Oriental Province; Nonucan, Camp Overton, Lanao Province, and Zamboanga River and canal at Zamboanga, Mindanao; Isabela River, Basilan Island. Specimens listed from Vicar Landing, Lake Lanao, must be considered doubtful. There is no Vicar Landing any more and nothing resembling these specimens had been taken from the lake in many years of collecting by various people. They probably came from some stream flowing into Illana Bay, on the south coast of Mindanao, and the labels became mixed. Herre, 1940-41 Exped.; Marata Bogan, 30 kilometers east of Kolambugan, Lanao Province, Mindanao, at an altitude of 1000 feet. Brooke's Point, Palawan. Cagayan River, Misamis Oriental Province, Mindanao.
- Barbus snyderi* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 7, 1922; fresh waters of Zamboanga, Mindanao; not of Oshima.
- Barbodes binotatus* Herre, Philippine Jour. Sci., vol. 24, p. 290, 1924; Balongkott Creek, near Linabo, Malapuli River at Mailag, and Tagualmay Creek near Santa Fe, Bukidnon Province; Titunod River, near Kolambugan, Lanao Province; Agusan River at Talacogon, Agusan Province; creek on the Allen ranch near Cagayan, and from the Cagayan River, Misamis Oriental Province; Lake Buluan, the Pulangi River near Reina Regente, and from a creek at Kidapauan, Cotabato Province; Kamansa, Davao Province; Mindanao. Balactasan River and Busay River, Basilan; Malum River, TawiTawi, Sulu Province. Herre, Philippine Jour. Sci., vol. 24, p. 706, 1924; all of Mindanao except Lanao Plateau. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; all Mindanao except Lanao Plateau. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Parang near Cotabato, and

- Upi, Cotabato Province; Baldat, Culion; TawiTawi, Sulu Province.
275. *Puntius binotatus* var. *palawanensis* (Boulenger).
A variety which may well be a distinct species; confined to Palawan and its dependencies.
Barbus palawanensis Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 186, 1895; Palawan.
Barbodes binotatus var. *palawanensis* Herre, Philippine Jour. Sci., vol. 24, pp. 292 and 706, 1924; Puerto Princesa, and Taytay, Palawan. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Concepcion, Busuanga; Culion.
276. *Puntius cataractae* (Fowler).
Barbus cataractae Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 280, fig. 40, 1934; Cascade River, Murcielagos Bay, Misamis Occidental Province, Mindanao.
Puntius cataractae Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 796, fig. 24; same specimens as above.
277. *Puntius clemensi* (Herre). Bagangan.
One of the largest of the Lanao carps.
Barbodes clemensi Herre, Philippine Jour. Sci., vol. 24, pp. 293 and 706, 1924; Lake Lanao, at Camp Keithley, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1933, vol. 2, p. 1569, 1924; same locality. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Lake Lanao, at Dansalan, Lanao Province, Mindanao.
Puntius clemensi Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 796, 1941; after Herre.
278. *Puntius disa* (Herre).
Barbodes disa Herre, Copeia, No. 3, p. 140, 1932; Lake Lanao at Dansalan, Lanao Province, Mindanao. Herre, Fishes 1931 Philippines Exped., p. 21, 1934; same specimens.
Puntius disa Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 804, 1941; after Herre.
279. *Puntius flavifuscus* (Herre). Katapa-tapa (Marinao name).
Barbodes flavifuscus Herre, Philippine Jour. Sci., vol. 24, pp. 296 and 706, 1924; Lake Lanao at Lumbatan, Lanao Province, Mindanao. Herre, Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Lake Lanao, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Lake Lanao, Lumbatan, Mindanao.
Pontius flavifuscus Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 798, 1941; after Herre.
280. *Puntius hemictenus* (Jordan and Richardson).
Known only from Mindoro.
Barbodes hemictenus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 241, fig. 5, 1908; Baco River, Mindoro. Herre, Philippine Jour. Sci., vol. 24, pp. 282 and 706, 1924; Mamboc and Sabaan Rivers, tributary to Lake Naujan, Mindoro. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; reference. Herre, Philippine Jour. Sci., vol. 34, p. 303, 1927; Lake Naujan, Mindoro.
Puntius hemictenus Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 787, 1941; after Herre; localities wrong. Herre, Fishes 1940-41 Exped.; streams flowing into Mangarin Bay, Mindoro.
281. *Puntius herrei* (Fowler).
Barbus herrei Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 280, fig. 41, 1933; Vicar market, Lake Lanao, Mindanao.
Puntius herrei Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 806, fig. 27, 1941; Vicar market, Lake Lanao, Mindanao; type and paratypes.
282. *Puntius ivis* (Seale).
Barbus ivis Seale, Philippine Jour. Sci., vol. 4A, p. 494, pl. 1, 1909; Balabac Island.
Barbodes ivis Herre, Philippine Jour. Sci., vol. 24, pp. 283, and 706, 1924; Balabac, Malampaya Sound and Paracan, Palawan; Concepcion and Langbuan, Busuanga. Herre, Proc. Pan Pacific Sci. Congress

- 1923, vol. 2, p. 2569, 1924; same localities. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Concepcion, Busuanga; Karig Malan River, Cullion.
- Puntius ivis* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, pp. 787-88, 1941; after Herre; localities transposed with those of *Puntius hemictenus*.
- 283. *Puntius katolo* (Herre).** Katolo (Marinao name).
Known only from Lake Lanao, Lanao Province, Mindanao.
Barbodes katolo Herre, Philippine Jour. Sci., vol. 24, pp. 301 and 706, 1924; Dansalan market, from Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; same locality. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Lake Lanao, Lanao Province, Mindanao.
Puntius katolo Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 805, 1941; after Herre.
- 284. *Puntius lanaoensis* (Herre).** Kandar.
Confined to Lake Lanao, Lanao Province, Mindanao.
Barbodes lanaoensis Herre, Philippine Jour. Sci., vol. 24, p. 300, 1924; Dansalan market, from Lake Lanao, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Lumbatan, Lake Lanao, Mindanao.
Puntius lanaoensis Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 802, 1941; Vicar market, Lake Lanao, Mindanao.
- 285. *Puntius lindog* (Herre).** Lindog (Marinao name).
The chief food fish of Lake Lanao, Lanao Province, Mindanao.
Barbodes lindog Herre, Philippine Jour. Sci., vol. 24, pp. 304, and 706, 1924; Dansalan and many other places on shores of Lake Lanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Lake Lanao, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Dansalan and Lumbatan markets, Lanao Province, Mindanao.
Puntius lindog Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 808, 1941; after Herre.
- 286. *Puntius manalak* (Herre).** Manalak (Marinao name).
Longest and bulkiest carp of Lake Lanao; little esteemed for food.
Barbodes manalak Herre, Philippine Jour. Sci., vol. 24, pp. 302 and 706, 1924; Lake Lanao at Dansalan, Lanao Province, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Lake Lanao, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Dansalan market, Lanao Province, Mindanao.
Puntius manalak Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 805, 1941; after Herre.
- 287. *Puntius manguaoensis* (Day).**
Barbus manguaoensis Day, Philippine Jour. Sci., vol. 9, p. 189, pl. 1, fig. 3, 1914; Lake Manguao, near Taytay, northern Palawan.
Barbodes manguaoensis Herre, Philippine Jour. Sci., vol. 24, pp. 297 and 706, 1924; from Day's types. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Lake Manguao, Palawan.
Puntius manguaoensis Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 799, 1941; after Herre.
- 288. *Puntius montanoi* Sauvage.**
A doubtful species; only the type known.
Puntius montanoi Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 103, 1881; Simulao River, a tributary of the Agusan River, Agusan Province, Mindanao.
Barbodes montanoi Herre, Philippine Jour. Sci., vol. 24, pp. 292 and 706, 1924; Simulao River, Agusan Province, Mindanao; after Sauvage. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; same locality.
Puntius montanoi Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 795, 1941; after Sauvage.
- 289. *Puntius quinque maculatus* (Seale and Bean).**
Close to *Puntius binotatus* (Cuvier and Valenciennes), of which it may be but a variety.
Barbus maculatus variety Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 53, 1880; Pasonanca, near Zamboanga.

Barbus quinquemaculatus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 229, fig. 1, 1907; near Zamboanga, Zamboanga Province, Mindanao; Mt. Malindang, Misamis Occidental Province, Mindanao.

Barbodes quinquemaculatus Herre, Philippine Jour. Sci., vol. 24, pp. 288 and 706, 1924; Zamboanga; Caldera Bay, Zamboanga Province, Mindanao; Basilan Island. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 1569, 1924; Zamboanga. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; San Ramon Penal Colony, Zamboanga Province, Mindanao.

Puntius quinquemaculatus Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 789, 1941; Malbato River, Port Uson, Busuanga Island. Herre, 1940-41 Exped.; San Nicolas, Singai, Busuanga Island; 6 miles northeast of Zamboanga, and San Ramon Penal Colony, Zamboanga Province, Mindanao.

290. *Puntius sirang* (Herre). Sirang (Marinao name).

Only known from Lake Lanao, Lanao Province, Mindanao.

Barbodes sirang Herre, Copeia, No. 3, p. 140, 1932; Lake Lanao at Lumbatan, and at Dansalan, Lanao Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 21, 1934; Lumbatan, south coast of Lake Lanao.

Puntius sirang Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 785, 1941; after Herre.

291. *Puntius tras* (Herre). Tras (Marinao name).

Barbodes tras Herre, Philippine Jour. Sci., vol. 29, p. 501, pl. 2, 1926; Lake Lanao at Camp Keithley, Lanao Province, Mindanao.

Puntius tras Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 807, 1941; Vicar Landing, Lake Lanao, Mindanao.

292. *Puntius tumba* (Herre). Tumba (Marinao name).

Generally distributed over the Lanao Plateau.

Barbodes tumba Herre, Philippine Jour. Sci., vol. 24, p. 285, 1924; outlet of Lake Dapao; Lake Nunungan; Lake Uyaan; Siwagat River, 10 or 11 miles east of Tamparan, Lanao Province, Mindanao. Herre, Philippine Jour. Sci., vol. 24, p. 706, 1924; Lanao Plateau, Mindanao. Herre, 1926 Collection; abundant in Lake Butig, Lanao Province. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Dansalan market, Lake Lanao; outlet of Lake Dapao; Lake Lanao, Lanao Province, Mindanao.

Puntius tumba Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 789, fig. 19, 1941; Vicar Landing, Lake Lanao, Mindanao.

Genus 128. *SPRATTELLICYPRIS* Herre and Myers.

Spratellicypris Herre and Myers, Lingnan Sci. Jour., vol. 10, p. 239, 1931; genotype, *Barbodes palata* Herre.

293. *Spratellicypris palata* Herre.

Barbodes palata Herre, Philippine Jour. Sci., vol. 24, pp. 305 and 706, 1924; Dansalan, Lake Lanao, Mindanao. Herre, Proc. Pan Pacific Sci. Congress 1923, vol. 2, p. 2569, 1924; Lake Lanao, Mindanao.

Spratellicypris palata Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Lake Lanao.

Puntius palata Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 808, fig. 28, 1941; Vicar market, Lake Lanao, Mindanao.

Family 49. COBITIDÆ. Loaches

An Asiatic and European family, also occurring in the western part of the Indo-Australian Archipelago and in Abyssinia; usually in mountain streams.

Genus 129. *MISGURNUS* Lacépède.

Misgurnus Lacépède, Hist. Nat. Poissons, vol. 5, p. 16, 1803; type, *Cobitis fossilis* Lacépède.

294. *Misgurnus anguillicaudatus* (Cantor).

An introduced species.

Cobitis anguillicaudata Cantor, Ann. Mag. Nat. Hist., vol. 9, p. 485, 1842.

Cobitis rubripinnis Schlegel, Fauna Japonica, Pisces, p. 220, pl. 103, fig. 1, 1846; near Nagasaki.

Cobitis maculata Schlegel, Fauna Japonica, Pisces, p. 221, pl. 103, fig. 2, 1846; near Nagasaki.

Cobitichthys enalios Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8; Zesde Bijdr. vischfauna Japan, p. 88, pl. 2, fig. 4, 1860; Japan.

Cobitichthys dichachrous Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Zesde Bijdr. vischfauna Japan, p. 89, pl. 2, fig. 2, 1810; Yeddo (Tokyo).

Misgurnus anguillicaudatus Herre, Fishes 1931 Philippine Exped., p. 22, 1934; brought from Japan by a Japanese and placed in the Trinidad River, Mountain Province; now naturalized there.

Order M. NEMATOGNATHI. Catfishes

Family 50. ARIIDÆ. Sea catfishes; Kanduli

A large group of marine and some fresh water catfishes; common in shallow sandy or muddy bays of the tropical Pacific, Indian, and Atlantic oceans, but not on coral reefs.

Genus 130. ARIUS Cuvier and Valenciennes.

Sea catfish; Kanduli; Kanduling arahan; Araham; Kanduling bongoan; Bongoan; Bunguan; Gagu'k; Ponikon; Tabangongo; Tambangongo; Kurilas; Tabanko; Aranan; Patakia; Gagok; Cague.

Abundant in the Philippines in both salt and fresh water. Found in the Pacific, Indian, and Atlantic Oceans.

Tachysurus Lacépède, Hist. Nat. Poissons, vol. 5, p. 151, 1803; type, *Tachysurus chinensis* Lacépède, from a Chinese drawing, not identifiable as to species.

Arius Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 53, 1840; type, *Arius arius* Cuvier and Valenciennes; type by autonymy; on *Pimelodus arius* Hamilton [né Buchanan].

Ariodes Müller and Troschel, Horae Ichth., vol. 3, p. 9, 1849; type, *Ariodes arenarius* Müller and Troschel.

Hewanematchthys Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, pp. 61, 126, 1858; type, *Bagrus sondaicus* Bleeker.

Cephalocassis Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, p. 62, and p. 92, 1858; type, *Arius melanochir* Bleeker, Atlas Ichth., vol. 2, p. 7, 1862.

Netuma Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, p. 62, and 93, 1858; type, *Netuma thalassinus* Bleeker.

Guiritinga Bleeker, *ibid.*, pp. 62 and 67, 1858; orthotype, *Guiritinga comersoni* Bleeker.

Hemiaris Bleeker, Atlas Ichth., vol. 2, p. 7, 1862; orthotype, *Cephalocassis stormi* Bleeker.

Pseudarius Bleeker, Ned. Tijds. Dierk., vol. 1, p. 91, 1862; type, *Arius arius* Cuvier and Valenciennes.

Leptarius Gill, Proc. Acad. Nat. Sci. Phila., p. 170, 1863; orthotype, *Leptarius dowii* Gill.

Arius Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 279, 1913. Herre, Philippine Jour. Sci., vol. 31, p. 394, 1926.

Tachysurus Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 754, 1941.

295. *Arius argyropleuron* Cuvier and Valenciennes.

In the sea, estuaries, and rivers; Java, Sumatra, Borneo; Siam. Not yet recorded from the Philippines, but to be expected in Palawan, Balabac, and Cagayan Sulu.

Arius argyropleuron Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 104, 1840; Java. Günther, Cat. Fishes British Mus., vol. 5, p. 164, 1864; Batavia, Java. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 278, figs. 108 and 109, 1913. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo.

- Arius acutus* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, p. 167, 1846; Batavia, Java.
- Arius Hamiltonis* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, p. 291, 1846; Batavia, Java.
- Ariodes argyroleuron* Bleeker, Atlas Ichth., vol. 2, p. 40, pl. 59, 1862; Java; Sumatra.
- Tachysurus argyroleuron* Fowler, Proc. Acad. Nat. Sci. Phila., p. 462; 1905; Baram River, Borneo. Suvatti, Index Fish Siam, p. 67, 1937. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 769, 1941; after Weber and de Beaufort.
- 296. *Arius crossocheilus* Bleeker.**
Marine, and entering rivers. From the Philippines and Celebes to Sumatra.
- Arius crossocheilus* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, p. 137, 1846; Batavia, Java. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 276, fig. 107, 1913; Philippines; Java; Sumatra; Bintang; Banka; Celebes. Herre, Philippine Jour. Sci., vol. 31, p. 398, pl. 1, fig. 1, 1926; after Weber and de Beaufort.
- Arius tonggol* Bleeker, Nat. Geneesk. Arch. Ned. Ind., vol. 3, p. 292, 1846; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 5, p. 164, text fig., 1864. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 41, 1885; Laguna de Bay, Luzon; probably a slip for Manila Bay.
- Ariodes tonggol* Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 370, 1859; Banka. Bleeker, Atlas Ichth., vol. 2, p. 39, pl. 57, 1862; Java; Sumatra; Bintang; Banka.
- Tachysurus tonggol* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 768, 1941; River at Catabolagan, Samar; river at Makassar, Celebes.
- 297. *Arius dispar* Herre.** Thick-lipped kanduli.
A fish of fresh and brackish water; entering esteros of Manila Bay during the rainy season. Apparently confined to Luzon and Mindoro.
- Arius dispar* Herre, Philippine Jour. Sci., vol. 31, p. 405, pl. 1, fig. 6, 1931; Manila markets, brought alive from: (a) the Pasig river, Rizal Province, and (b) Laguna de Bay, Laguna Province; Los Baños, Laguna Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; San Fabian, Pangasinan Province; Angat River, Bulacan Province; Manila; Laguna de Bay and Pasig River. Herre, 1940-41 Exped.; Dagat-Dagatan Fisheries Station, Navotas; Malabon; Manila Bay; Puerto Galera, Mindoro.
- Arius manillensis* Umali, Edible Fishes Manila, p. 70, fig. 31, 1936; figure only is *Arius dispar* Herre; not of Cuvier and Valenciennes.
- Tachysurus dispar* Fowler, Bull. 100, U. S. Nat. Mus. vol. 13, p. 756, 1941; after Herre.
- 298. *Arius goniaspis* Bleeker.**
Only known from Sumatra, Borneo, and Luzon.
- Arius goniaspis* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 44, 1858; Trussan, Sumatra. Günther, Cat. Fishes British Mus., vol. 5, p. 166, 1864. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 182, 1896; Moratabas, Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 283, 1913; after Bleeker and Günther. Herre, Philippine Jour. Sci., vol. 31, p. 401, pl. 1, fig. 4, 1926; Manila market; Laguna de Bay (?), Luzon.
- Tachysurus goniaspis* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 770, 1941; after Herre.
- 299. *Arius leiotocephalus* Bleeker.** Kanduling bongoan; Bongoan; Tabang-gôngô; Gaggok.
A marine and estuarine species; ranges from Luzon to Celebes, Singapore, and Pinang.
- Arius leiotocephalus* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, p. 292, 1846; Batavia, Java. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 282, fig. 112, 1913; Java; north of Rio Straits; Singapore; Celebes; Malacca. Herre, Philippine Jour. Sci., vol. 31, p. 399, pl. 1, fig. 3, 1931; San Miguel Bay, Camarines Sur Province; Manila market, Luzon; Tacloban, Leyte Province. Umali, Edible Fishes Manila, p. 71, fig. 33, 1936; Manila Bay, Luzon. Umali,

Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga, Mindanao. Herre, 1940-41 Exped.; Manila Bay; San Miguel Bay, Camarines Sur Province, Luzon.

Ariodes meyenii Müller and Troschel, Horae Ichth., vol. 3, p. 9, 1849.

Ariodes leiocephalus Bleeker, Ichth. Arch. Ind. Prodr., p. 88, 1858.

Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 64, 1861; Pinang.

Bleeker Atlas Ichth., vol. 2, p. 40, pl. 60, fig. 2, 1862; Java; Singapore; Celebes.

Arius liocephalus Günther, Cat. Fishes British Mus., vol. 5, p. 165, 1864.

Tachysurus leiotocephalus Suvatti, Index Fishes Siam, p. 62, 1937;

Gulf of Siam; Bang Plasoi; Sriracha. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 770, 1941; after Herre.

800. *Arius leptaspis* (Bleeker).

A fresh-water species known from New Guinea and the Aru Islands; now recorded from Borneo. To be looked for in the rivers of Mindanao.

Hexanematichthys leptaspis Bleeker, Atlas Ichth., vol. 2, p. 27, pl. 65, fig. 2, 1862; New Guinea.

Arius leptaspis Weber, Nova Guinea, vol. 5, p. 227, 1908. Weber, *ibid.*, vol. 9, p. 544, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 303, figs. 128 and 129, 1913; New Guinea; Aru Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 436, fig. 42, 1936; numerous localities on the Sepik River, New Guinea. Herre, 1936-37 Exped.; Tawao River, Tawao, British North Borneo.

301. *Arius leptotacanthus* Bleeker. Marine; only known from Madura and the coast of Java, Sumatra, and the north coast of Borneo.

Arius leptotacanthus Bleeker, Verh. Bat. Gen., vol. 22, 1849; Bijdr. Ichth. Madura, p. 11; Madura Sea near Surabaya.

Cephalocassis leptotacanthus Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, p. 105, 1858.

Arius leptotacanthus Bleeker, Atlas Ichth., vol. 2, p. 32, 1862. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 306, 1913; after Bleeker and Günther. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Hardenburg, Treubia, vol. 15, p. 133, 1935; mouth of Djambi River, Sumatra.

302. *Arius maculatus* (Thunberg).

Occurring in the sea and in rivers. East Indies, and no doubt in the southern Philippines.

Silurus maculatus Thunberg, Kongl. Vet. Akad. Nya Handlingar Stockholm, vol. 13, p. 31, pl. 1, fig. 2, 1792; Japan. Locality doubtful, real locality probably China.

Arius gagoroides Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, p. 168, 1846; Batavia, Java.

Arius heckelii Bleeker, *ibid.*, p. 169; Batavia, Java.

Arius pidada Bleeker, *ibid.*, p. 169; Batavia, Java.

Arius angulatus Bleeker, *ibid.*, p. 170, Batavia, Java.

Arius chondropterygioides Bleeker, *ibid.*, p. 170; Batavia, Java.

Arius viviparus Bleeker, *ibid.*, p. 171; Batavia, Java.

Arius borneensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 67, 1851; Borneo.

Arius arius Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, p. 73, 1858.

Arius pidada Bleeker, *ibid.*, p. 74.

Pseudarius arius Bleeker, Atlas Ichth., vol. 2, p. 36, 1862.

Arius maculatus Günther, Cat. Fishes British Mus., vol. 5, p. 166, 1864.

Kner, Reise Novara, Fische, p. 311, 1865-67. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 284, fig. 113, 1913; Java; Sumatra; Borneo. Hardenburg, Treubia, vol. 12, p. 116, 1931; Bagan Si Api Api, Sumatra. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo.

303. *Arius magatensis* Herre. Magat catfish; Magat kanduli.

Known only from the upper Cagayan River and its large tributaries; Luzon.

Arius magatensis Herre, Philippine Jour. Sci., vol. 31, p. 396, pl. 1, fig. 1, 1926; Magat River at Bagabag, Neuva Viscaya Province; Cagayan River, upper Cagayan valley, Luzon. Herre, Fishes 1931 Philippine

Exped., p. 22, 1934; Magat River at Bayombong, Nueva Viscaya Province, Luzon. Herre, Exped. 1933-34; Aparri, Cagayan Province, Luzon. Herre, 1940-41 Exped.; Magat River, Nueva Viscaya Province, Luzon.

Tachysurus magatensis Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 676, 1941; after Herre.

304. *Arius manillensis* Cuvier and Valenciennes. Manila catfish; Manila kanduli.

Only known from the vicinity of Manila.

Arius manillensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 69, 1840; Manila. Herre, Philippine Jour. Sci., vol. 31, p. 402, pl. 1, fig. 5, 1926; Pasig River, Rizal Province; Laguna de Bay; Santa Cruz, Laguna Province; Orani, Bataan Province; Cavite, Cavite Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Manila markets; Laguna de Bay at Mayondon, Laguna Province, Luzon. Herre, 1940-41 Exped.; Pasig River at Tagig, near the outlet of Laguna de Bay, and at Dagat-Dagatan Experiment Station near Navotas, Rizal Province, Luzon.

Rita manillensis Günther, Cat. Fishes British Mus., vol. 5, p. 94, 1864.

Pseudarius philippinus Sauvage, Bull. Soc. Philom., ser. 7, vol. 4, p. 226, 1880; Lake Laglaize, Luzon.

Arius falcarius Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 41, 1885; Laguna de Bay at Santa Cruz, Laguna Province, Luzon.

Tachysurus manillensis Fowler, U. S. Nat. Mus. Bul. 100, vol. 13, p. 766, 1941; after Herre.

305 *Arius sagor* (Hamilton[né Buchanan]).

Extending from India to British North Borneo, and no doubt into the southern Philippines. Marine, but entering estuaries and rivers. *Pimelodus sagor* Hamilton [né Buchanan], Fishes Ganges, pp. 169, 376, 1822; Ganges River.

Bagrus sagor Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 444, 1839; after Hamilton [né Buchanan].

Bagrus sondaicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 444, 1839; Straits of Sunda. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1237, 1849; Sea of Pinang; Malayan Peninsula.

Bagrus javensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 445, 1839; Java.

Bagrus doroides Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 418, 1839; Pondicherry, India. Günther, Cat. Fishes, British Mus., vol. 5, p. 142, 1864.

Arius doroides Bleeker, Verh. Bat. Gen., vol. 25, p. 56, 1853; Bengal.

Arius sagor Bleeker, Verh. Bat. Gen., vol. 25, icht. fauna van Bengal, p. 56, 1853; Bengal. Günther, Cat. Fishes British Mus., vol. 5, p. 141, fig., 1864; Bengal Bay and Pinang. Kner, Reise Novara, Fische, p. 310, 1865; Java. Day, Fishes India, p. 461, pl. 105, fig. 1, 1878.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

Vinciguerra, Ann. Mus. Civ. Stor., Nat. Gen., vol. 16, p. 172, 1880; Borneo. Bartlett, Sarawak Gazette, vol. 26, No. 368, p. 181, 1896; Buntal and Moratabas, Sarawak, Borneo. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 173, 1904; Klang, Malaya. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 2., p. 289, fig. 115, 1913; numerous localities in Java; Sumatra; Borneo; Banka; Singapore.

306. *Arius thalassinus* (Rüppell).

A marine fish of very wide distribution. Red Sea to the Philippines, Australia, and New Caledonia. The commonest Philippine ariid catfish.

Bagrus thalassinus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 75, pl. 20, fig. 2, 1835; Massaua, Red Sea.

Bagrus netuma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 438, pl. 417, 1839; Pondicherry, India.

Arius nasutus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 60, 1840; Malabar; Red Sea.

Catostoma nasutum (Kuhl and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 60, 1840; Java; name in text. Bleeker, Atlas Ichth., vol. 2, p. 28, 1862; name in synonymy.

Bagrus rhodonotus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, p. 157, 1846; Batavia, Java.

Bagrus carchariorhynchus Bleeker, Nat. Geneesk. Arch. Ned.-Ind. vol. 3, p. 291, 1846; Batavia, Java.

Netuma thalassina Bleeker, Atlas Ichth., vol. 2, p. 28, pl. 61, 1862; Java; Sumatra; Nias; Bintang; Celebes. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 500, 1904; Padang, Sumatra. Ogilby, Commercial Fish Fisheries Queensland, p. 47, 1915. Fowler, Copeia, No. 58, 1918, p. 62; Philippines. McCulloch, Fishes New South Wales, ed. 2, p. 22, pl. 7, fig. 74a, 1927.

Netuma nasuta Bleeker, Atlas Ichth., vol. 2, pl. 61, 1862. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 8, 1907; Cavite, Cavite Province, Luzon.

Sarcogenys rostratus Kuhl and van Hasselt, in Bleeker, Atlas Ichth., vol. 2, p. 28, 1862; name in synonymy.

Arius thalassinus Günther, Cat. Fishes British Mus., vol. 5, p. 139, text figure, 1864; East Indies; Singapore; Red Sea; Java. Kner, Reise Novara, Fische, p. 310, 1865. Playfair and Günther, Fishes Zanzibar, p. 114, 1866; Aden; Zanzibar. Klunzinger, Verh. zool.-bot. Gesell. Wien, vol. 21, p. 589, 1871; Red Sea. Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 348, 1876; New Guinea. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 348, 1877; Torres Straits; New Guinea. Day, Fishes India, p. 463, pl. 104, fig. 4, and pl. 106, fig. 1, 1878; Andaman Islands. Macleay, Proc. Linn. Soc. New South Wales, vol. 2, p. 363, 1878; Port Darwin, Australia. Schmeltz, Cat. Mus. Godeffroy, No. 7, p. 59, 1879; Tonga Islands. Klunzinger, Sitz. Akad. Wiss. Wien, Math.-Natur. Klasse, vol. 80, p. 409, 1880; Queensland. Macleay, Proc. Linn. Soc. New South Wales., vol. 6, p. 212, 1881; Torres Straits and Port Darwin. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 41, 1885; Celebes; Kordo, Schouten Islands. Boulenger, Proc. Zool. Soc. London, p. 665, 1887; Muscat. Day, Fauna British India, vol. 1, p. 181, 1889. Kent, Great Barrier Reef, p. 298, 1893; Moreton Bay. Steindachner, Denks. Akad. Wiss. Wien, math.-natur. Klasse, vol. 71, p. 156, 1907; Aden. Weber, Nova Guinea, vol. 9, p. 536, 1913; Ostbai. Zugmayer, Abh. Bayerisch Akad. Wiss., Math.-Phys. Klasse, vol. 26, p. 9, 1913; Mekran, Oman, Arabia. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 286, fig. 114, 1913; Java; Sumatra; Singapore; Bintang; Borneo; Celebes; Nias; Sumba; Timor; Rotti; New Guinea. Herre, Philippine Jour. Sci., vol. 31, p. 407, pl. 1, fig. 7, 1926; Manila Bay; Bulan, Sorsogon Province; Laguna de Bay, Laguna Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Manila Bay; Unisan, Tayabas Province, Luzon; Culion. Herre, 1940 Philippine Exped., Dagat-Dagatan Fishery Station, Rizal Province, Luzon; Iloilo and Miagao, Iloilo Province, Panay.

Netuma netuma Day, Fishes Malabar, p. 175, fig., 1865.

Arius andamanensis Day, Proc. Zool. Soc. London, p. 699, 1870; Andaman Islands.

Netuma thalassinus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 56, 1907; San Fabian, Pangasinan Province; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 242, 1908; Philippines.

Tachysurus thalassinus Suvatti, Index Fishes Siam, p. 64, 1937; Gulf of Siam; Phuket. Fowler, U. S. Nat. Mus. Bull. 100, v. 13, p. 764, 1941; Malabon market, Rizal Province; Manila market; San Roque Market, Cavite, Cavite Prov.; Orani and Orion, Bataan Prov.; San Fernando, La Union Province; Santa Maria, Ilokos Sur Province; Luzon; Ali-mango Bay, Burias Island, Philippines; Sandakan Bay, British North Borneo.

307. *Arius utik* Bleeker.

Marine; only known from Borneo and Java; to be expected in Balabac, Palawan, Cagayan Sulu, and Mindanao.

Arius oetik Bleeker, Nat. Geneesk. Arch. Ned-Ind., vol. 3, p. 166, 1846; Batavia, Java.

Cephalocassis utik Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, p. 115, 1858.

Arius utik Bleeker, Atlas Ichth., vol. 2, p. 34, 1862. Günther, Cat. Fishes, British Mus., vol. 5, p. 160, 1864. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 312, figs. 135-136, 1913; Batavia, Java; mouth of Kapuas River, Borneo. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo.

308. *Arius venosus* Cuvier and Valenciennes.

From Manila and the East Indies to the Andaman Islands, Ceylon, and Madagascar.

Arius venosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 69, 1840; Manila. Bleeker, Atlas Ichth., vol. 2, p. 33, pl. 54, fig. 1,

1862; Java; Madura; Bintang; Banka; Singapore; Manila, Luzon. Günther, Cat. Fishes, British Mus., vol. 5, p. 159, 1864; East Indies. Day, Fishes India, p. 460, pl. 106, fig. 2, 1878; Nicobars. Day, Fauna Brit. India, vol. 1, p. 176, 1889. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 174, 1904; Kuala Selangor, Malay Peninsula. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 314, fig. 137, 1913; Java; Borneo; Madura; Bintang; Banka; Singapore. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo.

Genus 131. **HEMIPIMELODUS** Bleeker.

A small genus of fresh-water catfishes, from the Philippines and the East Indies.

Hemipimelodus Bleeker, Ichth. Arch. Ind. Prodr., vol. 1, p. 236, 1858; orthotype, *Hemipimelodus borneensis* Bleeker.

Pachyula Ogilby, Proc. Linn. Soc. New South Wales, vol. 23, p. 33, 1898.

309. *Hemipimelodus manillensis* (Cuvier and Valenciennes).

Pimelodus manillensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 142, 1840; Manila.

Hemipimelodus manillensis Jordan and Richardson, Check List Philippine Fishes, p. 13, 1910. Herre, Philippine Jour. Sci., vol. 31, p. 410, 1926; Manila; Laguna de Bay, Luzon. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Laguna de Bay, Laguna Province, Luzon.

Family 51. **PLOTOSIDÆ**

Marine stinging catfishes, sometimes entering estuaries and rivers, living in the tropical Indo-Pacific seas.

Genus 132. **PARAPLOTOSUS** Bleeker.

Distribution that of the single species.

Paraplotosus Bleeker, Atlas Ichth., vol. 2, p. 100, 1862; name only; orthotype, *Plotosus albilabris* Cuvier and Valenciennes. De Beaufort, Bijdr. Dierk., Afl. 19, p. 97, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 234, 1913. Herre, Philippine Jour. Sci., vol. 31, p. 387, 1926.

310. *Paraplotosus albilabris* (Cuvier and Valenciennes).

Malay Peninsula, East Indies to New Guinea, and Philippine Islands. *Plotosus albilabris* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 316, 1840; Batavia, Java. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1247, 1849; Pinang, Malay Peninsula. Bleeker, Atlas Ichth.,

vol. 2, p. 99, pl. 96, fig. 1, 1862; Java; Bintang; Billiton; Singapore; Celebes.

Copidoglanis albilabris Günther, Cat. Fishes, British Mus., vol. 5, p. 26, 1864; Pinang.

Plotosus macrophthalmus Bleeker, Verh. Bat. Gen., Silur. Batav. Consp. p. 179, 1867; Batavia, Java.

Paraplotosus albilabris Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 225, figs. 88-90, 1913; Singapore; Aru Islands; Sorong, New Guinea. Herre, Phil. Jour. Sci., vol. 31, p. 388, 1926; Culion; Bantayan Island; Jolo and Sitankai, Sulu Prov. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Culion; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Sibutu, Sulu Province. Fowler, U. S. Nat. Mus., Bull. 100, vol. 13, p. 752, 1941; after Herre.

Genus 133. PLOTOSUS Lacépède. Stinging catfish; Iito, Nito, Tauti; Bak'c; Parigas; Sumbilang.

From the Red Sea to Japan, Australia, and Tahiti.

Plotosus Lacépède, Hist. Nat. Poissons, vol. 5, p. 128, 1803; type, *Platystacus anguillaris* Bloch. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 226, 1913. Herre, Philippine Jour. Sci., vol. 31, p. 389, 1926. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 744, 1941.

311. *Plotosus anguillaris* (Bloch).

A good food fish; very abundant about Philippine coral reefs; occurs almost everywhere in tropical Pacific waters, north to China and Japan. Marine but entering rivers.

Platystacus anguillaris Bloch, Syst. Ichth., vol. 11, p. 49, pl. 373, figs. 1 and 2, 1797.

Plotosus anguillaris Lacépède, Hist. Nat. Poissons, vol. 5, pp. 128, 130, pl. 3, fig. 2, 1803; "the Great Indies." Günther, Cat. Fishes British Mus., vol. 5, p. 24, 1864; Pinang; Borneo; East Indies; Amoy; Philippines; Fiji; Moreton Bay. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 41, 1885; Manila Bay; north Celebes. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 8, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 56, 1907; Bacon, Sorsogon Province; Jolo, Sulu Province. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 239, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 242, 1908; Cuyo, Cuyo Islands, Palawan Province. Günther, Fische der Südsee, vol. 3, p. 372, 1910; Solomon Islands; Fiji; Tonga; Samoa; Tahiti; Gilbert Islands (Kingsmill Islands). Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 266, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 229, 1913; many East Indian localities; Philippines; many localities from Africa to Japan and the Society Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 3, 1922; Cebu. Herre, Philippine Jour. Sci., vol. 31, p. 391, 1926; Manila; San Miguel Bay, Camarines Sur Province, and Bacon, Sorsogon Province, Luzon; Puerto Galera, Mindoro; Busuanga; Culion; Iloilo and Estancia, Iloilo Province, Panay; Bantayan Island; Siquijor; Cabalian, Leyte; Camaguin Island, Misamis Oriental Province; Dinagat, Surigao Province; Caldera Bay and Zamboanga, Zamboanga Province; Davao, Davao Province; and Samal Island, Gulf of Davao, Mindanao; Jolo, Pearl Bank, Sibutu, and Sitankai, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Culion; Dumaguete; Sitankai, Sulu Province. Herre, 1936-37 and 1940 Expeds.; Nasugbu, Batangas Province; Coron, Busuanga; Estancia and Miagao, Iloilo Province, Panay; Jolo and Sitankai, Sulu Province. Umali, Philippine Jour. Sci., vol. 65, p. 181, 1938; Ragay Gulf, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 747, 1941; Philippine Islands; Batan Island, Batanes Province; Manila Harbor and Manila market; Bacon, Sorsogon Province, and Port Matalvi, Luzon. Abuyog, Leyte; Catbalogan, Samar; Cebu

market, Cebu Province; Romblon Harbor; San Miguel Harbor, Ticao Island; Buena Vista, Guimaras Island; Pandanon Island, Palawan Province; Candaraman Island, Balabac; Jolo, Sulu Province; Davao, Davao Province, Mindanao; Grande Island Reef; Malanipa Island; Teomabal Island; Papatag Island, TawiTawi group, Sulu Province; Sandakan, British North Borneo.

Plotosus ikapor Lesson, in St. Vincent, Dict. Classique Hist. Nat., vol. 15, p. 435, 1829; Offack Bay, Waigiu. Lesson, Voy, *Coquille*, Zool., Poissons, vol. 2, p. 132, pl. 31, fig. 3, 1830.

Plotosus marginatus Bennett, in Life Raffles, Cat. Zool., p. 691, 1830; Sumatra.

Plotosus vittatus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 307, 1839; on Bloch.

Plotosus lineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 412, 1840; Red Sea; Seychelles; Malabar; Mauritius; Trinquemale; Pondicherry; Amboina; Celebes; Friendly Islands; Tahiti; Macao; Philippines. Schlegel, Fauna Japonica, Pisces, p. 228, pl. 104, fig. 3, 1846; Nagasaki Bay, Japan. Richardson, Ichth. China Japan, p. 286, 1846; Seas of China; Macao.

Plotosus castaneus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 421, 1840; Mahé.

Plotosus castaneoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 490, 1851; Riouw.

Plotosus arab Bleeker, Atlas Ichth., vol. 2, p. 98, pl. 95, fig. 2, 1862; numerous East Indian localities. Day, Fishes India, p. 483, pl. 112, fig. 4, 1878. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 340, 1900; Tokyo. Steindachner, Sitz. Akad. Wiss. Wien, Math.-Nat. Klasse, vol. 115, p. 1420, 1906; Apia, Samoa.

312. *Plotosus canius* Hamilton [né Buchanan].

Ranges from Bengal to East Indies, the Philippines, and Fiji.

Plotosus canius Hamilton [né Buchanan], Fishes Ganges, p. 142, pl. 26, fig. 45, 1822; rivers of southern Bengal. Bleeker, Atlas Ichth., vol. 2, p. 99, pl. 96, fig. 2, 1862; Java, Madura; Singapore; Banka; Sumatra; Borneo; Celebes. Günther, Cat. Fishes British Mus., vol. 5, p. 25, 1864; Ganges Calcutta; Pinang. Day, Fishes India, p. 482, pl. 112, fig. 3, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 41, 1885; north Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 227, 1913; Batavia, Java; Deli and Bagan Api Api, Sumatra; Kota Baru, Borneo; Makassar and Pare Pare, Celebes; Aru Islands. Herre, Philippine Jour. Sci., vol. 31, p. 390, 1926; La Paz, Iloilo; Tacloban, Leyte. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, 1936-37 Exped.; Sitankai, Sulu Province; Pinang, Malay Peninsula. Suvatti, Index Fishes Siam, p. 67, 1937; 8 localities in Siam.

Plotosus unicolor Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 315, 1840; Java.

Plotosus viviparus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, Part 2, p. 182, 1846; Java.

Plotosus horridus Bleeker, *ibid.*, p. 183, 1846; Java.

Plotosus multiradiatus Bleeker, *ibid.* p. 183, 1846; Java.

Family 52. SILURIDÆ, Sheathfishes

A large family of fresh-water catfishes, occurring in Asia and the large islands adjacent, and in Europe.

Genus 134. HITO Herre.

Hito Herre, Philippine Jour. Sci., vol. 24, pp. 702, and 707, 1824; orthotype, *Hito taytayensis* Herre.

313. *Hito taytayensis* Herre.

Hito taytayensis Herre, Philippine Jour. Sci., vol. 24, pp. 703 and 707, 1824; creek near Taytay, Palawan. Herre, Fishes 1931 Philippine Exped., p. 22, 1934; Culion Island. Herre, 1940-41 Oriental Exped.; creek at San Nicolas; Singai, at manganese mine; and Wayan Creek, Busuanga Island.

Genus 135. PENESILURUS Herre.

Penesilurus Herre, Philippine Jour. Sci., vol. 24, pp. 703 and 707, 1924; orthotype, *Penesilurus palavanensis* Herre.

314. *Penesilurus palavanensis* Herre.

Penesilurus palavanensis Herre, Philippine Jour. Sci., vol. 24, pp. 704 and 707, 1924; Lake Manguao, Palawan.

Family 53. CLARIIDÆ

Elongate fresh-water catfishes of lowlands in the Philippines, East Indies, southern Asia, and Africa.

Genus 136. CLARIAS Scopoli.

Clarias Gronow, Zoophylaceum, p. 100, 1763; species non-binomial; type, *Clarias marpus* Cuvier and Valenciennes=*Silurus batrachus* L.; type, designated by Bleeker, Ned. Tijds. Dierk., vol. 1, p. 120, 1863.

Clarias Scopoli, Introd. Hist. Nat., p. 455, 1777; type, *Silurus batrachus* L. *Macropteronotus* Lacépède, Hist. Nat. Poissons, vol. 5, p. 84, 1803; *Macropteronotus charmuth* Lacépède=*Silurus anguillarum* L. Herre, Philippine Jour. Sci., vol. 24, p. 698, 1924. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 734, 1941.

Clarias Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 4, p. 28, 1858; *Silurus batrachus* L.

315. *Clarias batrachus* (Linnaeus). Catfish; Hito; Paltat; Pantant; Pa'tat; Hitong batukan.

Occurs from Luzon through the Philippines and Borneo south and west to India and Ceylon.

Silurus batrachus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 305, 1758; in Asia and Africa. Bloch, Naturges. Ausländ. Fische, vol. 8, p. 44, pl. 370, figure, 1794; Tranquebar.

Macropteronotus magur Hamilton [né Buchanan], Fishes Ganges, p. 146, pl. 26, fig. 45, 1822; Ganges River.

Clarias magur Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 381, 1840. Günther, Cat. Fishes British Mus., vol. 5, p. 17, 1864; Calcutta; Pinang; Khaysa; East Indies; India. Day, Fishes India, p. 485, pl. 112, figs. 5-5a, 1878. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 8, 1907; Philippines. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 45, 1930; Philippines.

Clarias batrachus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 385, 1840; on Bloch. Bleeker, Atlas Ichth., vol. 2, p. 103, pl. 98, fig. 2, 1862; numerous East Indian localities. Peters, Monatsber. Akad. Wiss. Berlin, p. 271, 1868; Calumpit, Quingoa River, Bulacan Province, Luzon; Catbalogan, Samar. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 190, fig. 74, 1913; the Philippines; many localities in the East Indies. Fowler, Copeia, No. 58, p. 62, 1918; the Philippines. Herre, Philippine Jour. Sci., vol. 24, p. 699, 1924; Tuao and Aparri, Cagayan Province; Vigan and Santa Maria, Ilokos Sur Province; Pampanga, Tarlac and Bulacan Provinces; Manila; Cavite, Cavite Province, Luzon; Jaro, Leyte. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 296, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; San Fabian, Pangasinan Province; Laguna de Bay, Laguna Province, Luzon, Dumaguete, Oriental Negros Province. Umali, Edible Fishes Manila, p. 68, fig. 30, 1936; Rizal, Laguna, Bulacan, Pampanga, and Camarines Sur Provinces; Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro.

316. *Clarias fuscus* (Lacépède).

Found in China, Formosa, and northern Luzon.

Macropteronotus fuscus Lacépède, Hist. Nat. Poissons, vol. 5, pp. 84, 88, pl. 2, fig. 2, 1803; on a Chinese painting.

- Clarias fuscus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 15, p. 383, 1840; not the Sumatra specimen. Günther, Cat. Fishes British Mus., vol. 5, p. 18, 1864; China; Hong Kong. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 168, fig. 5, 1909; Takao, Formosa. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 260, 1927; Vigan, Ilokos Sur Province, and San Fernando, La Union Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 741, 1941; San Fernando, La Union Province, and Vigan, Ilokos Sur Province, Luzon.
- Clarias pulicaris* Richardson, Voy. Sulphur, Ichth., p. 135, pl. 62, figs. 5-6, 1844; China.
317. *Clarias gilli* Smith and Seale.
An eel-like catfish of the Philippines.
Clarias nieuhofii Günther, Cat. Fishes British Mus., vol. 5, p. 20, 1864; Philippine specimen only. Peters, Monatsber. Akad. Wiss. Berlin, p. 271, 1868; Bato Lake, Camarines Sur Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 189, 1913; Philippines.
Clarias gilli Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 74, figs. a-b, 1906; Rio Grande, Cotabato, Mindanao. Herre, Philippine Jour. Sci., vol. 24, p. 700, 1924; Tituan, on the Rio Grande, Cotabato Province; Malupali River, Mailag, and brook near Santa Fe, Bukidnon Province, Mindanao. Lake Bato, Camarines Sur Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Fort Pikit, Cotabato Province, Mindanao. Herre, 1940-41 Exped.; Manila market, shipped from Camarines Sur Province, Luzon.
318. *Clarias leiakanthus* Bleeker.
An East Indian species; its presence in Philippine waters doubtful.
Clarias leiakanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 430, 1851; in rivers, Sambas, Borneo. Bleeker, Atlas Ichth., vol. 2, p. 104, pl. 98, fig. 1, 1862; Sumatra; Banka; Nias; Borneo. Vinciguerra, Ann. Mus. Civ. Stor. Nat. Genova, ser. 3, vol. 10, p. 611, 1926; Sarawak, Borneo. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, p. 87, 1934; Bangkok, Siam. Herre and Myers, Bull. Raffles Mus., vol. 13, p. 65, 1937; Mawai District, Johore. Fowler, U. S. Nat. Mus. Bull. 100, vol. 13, p. 739, 1941; Baram River, Borneo.
Clarias leiakanthus Günther, Cat. Fishes Brit. Mus., vol. 5, p. 20, 1864, Vinciguerra, Ann. Mus. Civ. Stor. Nat. Genova, vol. 16, p. 166, 1880; Borneo. Steindachner, Abh. Senckenberg. Gesell., vol. 25, p. 443, 1900; Baram River, Borneo. Popta, Notes Leiden Mus., vol. 27, p. 18, 1906; central Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 192, 1913; Sumatra; Banka; Nias; Borneo.
Clarias macrocephalus Günther, Cat. Fishes British Mus., vol. 5, p. 18, 1864; Siam. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 7, p. 154, 1883; Menam, Indo-China. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Laguna de Bay, Luzon. Suvatti, Index Fishes Siam, p. 83, 1937; numerous localities in Siam.
Clarias leiakanthus Fowler, Proc. Acad. Nat. Sci. Phila., p. 461, 1905; Baram River, Borneo.
319. *Clarias melanoderma* Bleeker.
East Indies, Siam, China, and doubtfully in the Philippines.
Clarias melanoderma Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 3, Part 2, pp. 178 and 288, 1846; Java. Bleeker, Atlas Ichth., vol. 2, p. 102, pl. 97, fig. 2, 1862; Java; Banka; Borneo. Günther, Cat. Fishes, vol. 5, p. 19, 1864. Vinciguerra, Ann. Mus. Civ. Storia Nat. Genova, vol. 14, p. 386, 1879; Kajutanam, Sumatra. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Laguna de Bay, Luzon. Volz, Zool. Jahrb., vol. 19, p. 381, 1904; Palembang, Sumatra. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 188, 1913; Java; Sumatra; Borneo; Philippines; Siam; China.
Clarias melasoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 427, 1852; Borneo; Sumatra.
Clarias melanosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 427, 1852; Borneo; Sumatra.

Order N. INIOMI

The members of this order are mostly deep sea fishes, but the first family considered lives in shallow sandy seas and bays.

Family 54. SYNODONTIDÆ. Lizardfishes; Kalaso; Daldalag; Kamang; Tabiling dagat; Tigbasbay

Genus 137. TRACHINOCEPHALUS Gill.

In all warm seas.

Trachinocephalus Gill, Proc. Acad. Nat. Sci. Phila., Supplement, p. 53, 1861; orthotype, *Saurus myops* (Cuvier and Valenciennes).

320. Trachinocephalus myops (Forster). Short-nosed lizardfish; Kalaso; Daldalag.

A pantropical species.

Synodus foetens Bloch, Naturges. Ausländ. Fische, vol. 8, p. 18, pl. 384, fig. 2, 1794; not of Linnaeus. Bloch and Schneider, Syst. Ichth., p. 404, 1801.

Salmo myops Bloch and Schneider, Syst. Ichth., p. 421, 1801; St. Helena; after ms. of Forster.

Osmerus lemniscatus Lacépède, Hist. Nat. Poissons, vol. 5, p. 236, pl. 6, fig. 1, 1803; Martinique; after Plumier.

Saurus truncatus Agassiz, Spix Piscium Brasil., p. 82, pl. 45, 1828; Brazil.

Saurus myops Cuvier, Règne Animal, ed. 2, p. 268, 1829; after Forster. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 22, p. 485, 1849. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 292, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 5, p. 398, 1864; Cuba; Jamaica; Japan; Amboina; Pinang; Mauritius; Port Jackson. Playfair and Günther, Fishes Zanzibar, p. 116, 1866; Zanzibar. Day, Fishes India, p. 504, pl. 117, fig. 5, 1878; Madras. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 264, 1909. Günther, Fische der Südsee, vol. 3, p. 375, 1910; Fiji. Cunningham, Proc. Zool. Soc. London, p. 95, 1910. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 145, 1913; Nias; Lombok; Ceram; Gêbé; Sumatra; Banka; Bali; Celebes; Batjan; Amboina; Ternate; Philippines.

Laurida foetens Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 288, 1839.

Saurus limbatus Eydoux and Souleyet, Voy. *Bonite*, Poissons, vol. 1, p. 199, pl. 7, fig. 3, 1841.

Saurus lemniscatus Richardson, Ichth. China Japan, p. 301, 1846.

Saurus trachinus Schlegel, Fauna Japonica, Pisces, p. 231, pl. 106, fig. 2, 1846; Nagasaki. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1253, 1850; Pinang. Bleeker, Verh. Bat. Gen., vol. 24, Chirocentr., etc., p. 29, 1852.

Trachinocephalus myops Gill, Proc. Acad. Nat. Sci. Phila., Supplement, p. 53, 1861. Jordan, Proc. U.S. Nat. Mus., vol. 13, p. 314, 1890. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 533, pl. 88, fig. 235, 1896. Evermann and Marsh, Bull. U.S. Fish Comm., vol. 20, p. 91, Pt. 1, 1902; Porto Rico. Jenkins, Bull. U.S. Fish Comm., vol. 22, p. 433, 1904; Honolulu. Waite, Records Australian Mus., vol. 5, p. 232, pl. 25, fig. 1, 1904. Jordan and Evermann, Bull. U.S. Fish Comm., vol. 23, p. 62, fig. 13, 1905; Hilo; Honolulu. Jordan and Herre, Proc. U.S. Nat. Mus., vol. 32, p. 514, 1907. Evermann and Seale, Bull. U.S. Bur. Fisheries, vol. 26, p. 55, 1907; Bulan, Sorsogon Province, Luzon. Gilchrist and Thompson, Ann. Durban Mus., vol. 1, p. 307, 1917. Meek and Hildebrand, Field Mus. Nat. Hist., Zool. Ser., vol. 15, p. 222, 1923. Barnard, Ann. South African Mus., vol. 21, p. 227, 1925. Whitley, Records Australian Museum, vol. 15, p. 290, 1927. Fowler, Mem. Bishop Mus., vol. 10, p. 64, pl. 3, fig. C, 1928; Hawaiian Islands. Beebe and Tee Van, Zoologica, vol. 10, p. 62, fig., 1928. Fowler, Hong Kong Nat., vol. 3, p. 254, 1932; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Currimao, Ilokos Norte Province, and Nasugbu, Batangas Province, Luzon. Atimonan Island; Cebu, Cebu Province; Dumaguete, Negros; Jolo, Sulu Province. Norman, Proc. Zool. Soc. London, p. 122, 1935; many localities in the Atlantic, Indian,

and Pacific Oceans; Nasugbu, Batangas Province; Luzon. Umali, Edible Fishes Manila, p. 73, fig. 35, 1936; Manila Bay. Herre 1936-37 Exped.; Pansipit River and Balayan Bay, Batangas Province, Luzon. Herre, 1940-41 Exped.; Murcielagos Bay, Misamis Occidental Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.

Synodus myops Bleeker, Atlas Ichth., vol. 6, p. 153, pl. 278, fig. 3, 1866-72; Sumatra; Pinang; Banka; Bali; Celebes; Batjan; Ceram, Amboina. Jordan and Gilbert, Bull. U.S. Nat. Mus., vol. 16, p. 281, 1883.

Goodella hypozona Ogilby, Proc. Linn. Soc. New South Wales, vol. 22, p. 250, 1897; New South Wales; juvenile form.

Trachinocephalus limbatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 17, 1902; Honolulu. McCulloch, Mem. Australian Mus., vol. 5, p. 79, 1929.

Saurus (*Trachinocephalus*) *myops* Metzelaar, Trop. Atlantic Visschen, p. 23, 1919.

Genus 138. SAURIDA Cuvier and Valenciennes.

Saurida Cuvier and Valenciennes, Hist. Nat. Poiss. vol. 22, p. 499, 1849; logotype, *Salmo tumbil* Bloch.

321. *Saurida gracilis* (Quoy and Gaimard).

From the coast of Africa through the East Indies and the Philippines to the RiuKiu Islands, Hawaii, the Society Islands, and New South Wales.

Saurus gracilis Quoy and Gaimard, Voy. Uranie, Zoologie, p. 224, 1824; Hawaiian Islands; Mauritius.

Saurus forax Eydoux and Souleyet, Voy. Bonite, Zool., vol. 1, p. 197, 1842.

Saurida nebulosa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 22, p. 504, pl. 648, 1849; Mauritius; New Guinea; Timor; Tahiti. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 292, 1852; Amboina. Bleeker, Verh. Bat. Gen., vol. 24, Chirocentr., p. 30, 1852. Günther, Cat. Fish, vol. 5, p. 399, 1864. Playfair and Günther, Fishes Zanzibar, p. 116, 1866. Kner, Reise Novara, Zool., vol. 1, Fische, p. 316, 1869. Klunzinger, Verh. zool.-bot. Gesell. Wien, vol. 21, p. 591, 1871. Bleeker, Atlas Ichth., vol. 6, p. 156, pl. 277, fig. 1, 1866-72. Streets, Bull. U.S. Nat. Mus., vol. 7, p. 76, 1877; Honolulu Day, Fishes India, p. 505, 1878. M. Weber, Siboga-Exped., vol. 57, Fische, p. 81, 1913; Kapul Island, Sulu Province, Philippines; and 10 East Indian localities.

Saurida tumbil Fowler, Proc. Acad. Nat. Sci., Phila., p. 498, 1900; Hawaiian Islands.

Synodus sharpi Fowler, Proc. Acad. Nat. Sci. Phila., p. 497, pl. 19, fig. 2, 1901; Hawaiian Islands.

Saurida gracilis Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 433, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 65, 1905; Hilo; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 189, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 6, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1908; Cuyo, Cuyo Islands. Günther, Fische der Südsee, vol. 3, p. 376, 1910; Solomon Islands; Fiji; Society Islands; Hawaii. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 142, 1913; Philippines; many East Indian localities. McCulloch, Check-list Fishes New South Wales, p. 20, pl. 6, 1912-22. Vinciguerra, Ann. Mus. Civ. Stor. Nat. Genova, ser. 3, vol. 10, p. 605, 1926. Fowler, Mem. Bishop Mus., vol. 10, p. 66, 1928; numerous Polynesian localities. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Cape Bolinao, Pangasinan Province, and Manila, Luzon; Culion; Dumaguete, Oriental Negros Province; Cebu, Cebu Province. Norman, Proc. Zool. Soc. London, p. 127, 1935; Natal; Madagascar; Zanzibar; Mombasa; Maldives; Andaman Islands; Amboina; north Celebes; Goram; Hawaiian Islands; Vavau Island, Tonga; Micronesia; Indian Seas; New Guinea; New South Wales; New Hebrides. Herre, 1936-37 Exped.; Balayan Bay, Batangas Province, Luzon.

322. *Saurida tumbil* (Bloch). Kalaso.

Red Sea, east coast of Africa, Philippines, China, south to northeastern Australia.

- Salmo tumbil* Bloch, Naturges. Ausländ. Fische, vol. 9, p. 112, pl. 430, 1795. Bloch and Schneider, Syst. Ichth., p. 405, 1801.
- Osmerus tumbil* Lacépède, Hist. Nat. Poissons, vol. 5, pp. 230, 236, 1803.
- Saurus tumbil* Cuvier, Règne Animal, vol. 2, p. 169, 1817.
- Saurus badi* Cuvier, Règne Animal, ed. 2, vol. 2, p. 314, 1829. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1252, 1850.
- Laurida tumbel* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 288, 1839.
- Saurus argyrophanes* Richardson, Ichth. China Japan, p. 302, 1846.
- Saurida tumbil* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 22, p. 500, 1849; Vanicolo; Waigiü. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, 214, 1851; Celebes. Bleeker, Verh. Bat. Gen., vol. 24, Chirocentr., p. 20, 1852.
- Saurida tumbil* Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 356, 1859; Ba-wean. Günther, Cat. Fishes British Mus., vol. 5, p. 399, 1864. Kner, Reise Novara, Zool., vol. 1, Fische, p. 315, 1865. Klünzinger, Verh. zool.-bot. Gesell. Wien, vol. 21, p. 591, 1871. Bleeker, Atlas Ichth., vol. 6, p. 155, pl. 277, fig. 4, 1866-72. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 348, 1876; New Guinea. Günther, Fische der Südsee, vol. 3, p. 376, 1910. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 142, 1913; many East Indian localities; Philippines. McCulloch, Check-list Fishes New South Wales, p. 20, pl. 6, 1919-22. Vinciguerra, Ann. Mus. Civ. Stor. Nat. Genova, ser. 3, vol. 10, p. 605, 1926. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Philippines; Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 66, 1928. McCulloch, Mem. Australian Mus., vol. 5, p. 77, 1929. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Norman, Proc. Zool. Soc. London, p. 129, 1935; Manila, Luzon; Zanzibar; Massaua; Red Sea; Muscat, Arabia; Karachi and Madras, India; Singapore; Pinang; Borneo; China, China Sea, and Hong Kong; North Queensland; Indian Seas; New Hebrides. Umali, Edible Fishes Manila, p. 72, fig. 34, 1936; Manila Bay. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Herre, 1940-41 Exped.; Ragay Gulf, Luzon.
- Saurida tumbil* Playfair and Günther, Fishes Zanzibar, p. 116, 1866; in part. Day, Fishes India, p. 504, pl. 117, fig. 6, 1878.
- Saurida australis* Castelnau, Proc. Linn. Soc. New South Wales, vol. 3, p. 393, 1879.
- Saurida trunculenta* Macleay, Proc. Linn. Soc. New South Wales, vol. 6, p. 219, 1881.
- Saurida argyrophanes* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 41, 1885; Manila Bay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 54, 1907; San Fabian, Pangasinan Province, Luzon; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1908; Manila. Fowler, Copeia, p. 62, 1918; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes, 1931 Philippine Exped., p. 23, 1934; Bauang Sur, La Union Province; Bulacan, Bulacan Province; Manila; Atimonan, Tayabas Province; Luzon. Capiz, Capiz Province, Panay; Cebu, Cebu Province; Jolo, Sulu Province.
- Saurida badi* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 772, 1905; Bais, Oriental Negros Province, Negros.

323. *Saurida undosquamis* (Richardson).

From east Africa and the Red Sea to Japan and Australia.

Saurus undosquamis Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 138, pl. 51, figs. 1-6, 1848.

Saurida undosquamis Günther, Cat. Fishes British Mus., vol. 5, p. 400, 1864; northwest Australia. Regan, Ann. Durban Mus., vol. 2, p. 76, 1918; Natal coast. Gilchrist, Marine Biol. Survey, South Africa, Fish., vol. 2, Special Rept. 3, p. 55, 1922. Norman, Proc. Zool. Soc. London, p. 131, text fig. 17, 1935; many places in the Indian Ocean and from Japan to New South Wales, Australia. Herre, 1936-37 Exped., Balayan Bay, Batangas Prov., Luzon. Herre, 1948 Manila Bay, Luzon.

Saurida grandisquamis Günther, Cat. Fishes British Mus., vol. 5, p. 400, 1864; Louisiade Islands. Günther, Report Voy. *Challenger*, Shore Fishes, p. 50, 1880; Arafura Sea. Weber, Abh. Senckenb. Naturf. Gesell., vol. 34, p. 22, 1911. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 141, 1913; Aru Islands; Arafura Sea. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 3, 1922; Takao, Formosa. Fowler, Mem. Bishop Mus., vol. 10, p. 66, 1928. McCulloch, Mem. Australian Mus., vol. 5., p. 71 1929. Fowler, Ann. Natal. Mus., vol. 6, p. 249, 1929. Hardenberg, Treubia, vol. 14, p. 220, 1933; north coast of Java. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Cullion.

Saurida tumbil Playfair and Günther, Fishes Zanzibar, p. 116, 1866; in part. Regan, Trans. Linn. Soc. London, Zool., vol. 12, p. 219, 1908. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 265, 1909. Barnard, Ann. South African Mus., vol. 21, p. 225, 1925.

Saurida argyrophanes Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 239, 1902. Jordan and Herre, Proc. U. S. Nat. Mus., vol. 32, p. 519, 1907. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 155, 1925.

Genus 139. SYNODUS Gronow. Lizardfishes.

Synodus Gronow, in Scopoli, Introd. Hist. Nat., p. 449, 1777; type, *S. synodus* L.

Tirus Rafinesque, Caratteri Alcuni Nuovi Generi Sicilia, p. 56. 1810; *T. marmoratus*=*Esœa synodus* L.

Saurus Cuvier, Règne Animal, ed. 1, p. 169, 1817; type, *Salmo saurus* L.

Alpismaris Risso, Hist. Nat. Europe Merid, vol. 3, p. 458, 1826; type, *A. risso* Risso (very young).

324. Synodus similis McCulloch.

Arafura Sea, Queensland, Australia, southern Japan, and the Philippines.

Saurus intermedius Günther, Report Voy. *Challenger*, Shore Fishes, vol. 1, p. 50, 1880; Arafura Sea; not of Spix.

Synodus similis McCulloch, Mem. Queensland Mus., vol. 7, p. 167, pl. 8, fig. 2, 1921; near the Capricorn Islands, Queensland.

Synodus intermedius Fowler, Mem. Bishop Mus., vol. 10, p. 64, 1928; Arafura Sea. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Cullion, Philippines.

325. Synodus variegatus (Lacépède).

From the Red Sea and east coast of Africa to the East Indies and the Philippines, north to Japan; in the Pacific to the Hawaiian and Society Islands.

Salmo variegatus Lacépède, Hist. Nat. Poissons, vol. 5, p. 157, pl. 3, fig. 3, 1803; Ile de France.

Salmo varius Lacépède, Hist. Nat. Poissons, vol. 5, p. 224, pl. 3, fig. 3, 1803; Île de France.

Saurus variegatus Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 223, pl. 48, fig. 3, 1824; Maui, Hawaiian Islands; Mauritius. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 147, fig. 54, 1913; Java; Sumatra; Batu; Nias; Singapore; Celebes; Sangi; Sulu Archip.; Ternate; Halmahera; Gébè; Batjan; Amboina; Binonka; Nusa laut; Banda; Goram; Tjur; New Guinea; Bali; Flores Strait; Philippines.

Saurus lucius Schlegel, Fauna Japonica, Pisces, p. 232, pl. 106, fig. 1, 1846; Shimabara, near Nagasaki.

Saurus synodus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 22, p. 354, 1849; New Guinea; not of Linnaeus.

Saurus synodus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 257, 1851; Banda. Bleeker, Verh. Bat. Gen., vol. 24, Chirocentr., p. 28, 1852.

Synodus synodus Bleeker, Atlas Ichth., vol. 6, p. 154, pl. 278, fig. 5, 1866-72. Weber, *Siboga*-Exped., Fische, p. 82, fig. 28, 1913; larvae.

Saurus varius Günther, Cat. Fishes British Mus., vol. 5, p. 395, 1865. Schmeltz, Mus. Godeffroy, Cat. 4, p. 24, 1869; Samoa; Viti Islands; Cat. 5, p. 35, 1874; Tahiti. Klunzinger, Verh. zool-bot. Gesell. Wien, vol. 21, p. 149, 1871. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 592, 1883; New Guinea. Ishikawa, Prelim. Cat., p. 22, 1897; Nagasaki; Riu Kiu Islands. Günther, Fische der Südsee, vol. 3, p. 375,

- 1910; Hawaii; Pelew Islands; Fiji; Society Islands; Paumotu; Samoa; Tahiti.
- Synodus varius* Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 36, 1880; Ovalau, Fiji.
- Synodus varius* Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 513, 1901; Honolulu; Laysan Island. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 433, 1904; Honolulu. Snyder, *ibid.*, p. 521, 1904; Honolulu. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 28, p. 125, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 63, pl. 2, text fig. 14, 1905; Hilo; Honolulu. Gilbert, *ibid.*, part 2, p. 588, 1905; off Molokai; Avau Channel; Bird Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 189, 1906; Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 55, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Regan, Ann. Durban Mus., vol. 2, p. 76, 1918; Durban, Natal.
- Synodus variegatus* Seale, Occas. Papers Bishop Mus., vol. 1, p. 63, 1901; Guam. Seale, *ibid.*, vol. 1, pp. 15, 16, 20, 1902; Hilo; Honolulu. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 101, 1913; Saonek. Barnard, Ann. South African Mus., vol. 21, p. 226, 1925; Durban. Norman, Proc. Zool. Soc. London, p. 106, 1935; Dumaguete, Oriental Negros Province, Negros; many localities in the Indian and Pacific Oceans.
- Saurida japonica* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 5, 1907; Cavite, Cavite Province.
- Synodus japonicus* Jordan and Herre, Proc. U. S. Nat. Mus., vol. 32, p. 516, 1907. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1907; Cuyo, Cuyo Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 64, fig. 12, 1928; numerous tropical Pacific localities. Fowler, Hong Kong Nat., vol. 2, p. 255, 1932; Philippines; Hong Kong. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Cullion; Dumaguete; Cebu, Cebu Province. Herre, Mid-Pacific Magazine, p. 163, 1935; Pelew Islands. Herre 1940-41 Exped.; Manila Bay; Iloilo, Iloilo Province. Panay; Kolambugan, Lanao Province, and Murcielagos Bay, Zamboanga Province, Mindanao.
- Synodus dermatogenys* Fowler, Proc. Acad. Nat. Sci. Phila., p. 566, fig. 3, 1912; Hawaiian Islands.

Family 55. PARALEPIDAE (Sudidae)

Genus 140. LESTIDIUM Gilbert.

Pelagic, deep-sea fishes of wide distribution.

Lestidium Gilbert, Bull. U. S. Fish Comm., vol. 23, Part 3, p. 607, 1905; type, *Lestidium nudum* Gilbert; taken between Molokai and Maui, Hawaiian Islands.

326. *Lestidium philippinum* (Fowler).

A Philippine species.

Paralepis philippinus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 281, fig. 42, 1934; Varadero Harbor, Puerto Galera, Mindoro. Herald, Philippine Fishery Program, Batangas market, Batangas Province, Luzon, April 1948.

Family 56. MYCTOPHIDAE. Lanternfishes

Deep-sea fishes; in all oceans.

Genus 141. DIAPHUS Eigenmann and Eigenmann.

Diaphus Eigenmann and Eigenmann, Proc. California Acad. Sci., 2nd ser., vol. 3, p. 3, 1890; type, *Scopelus engraulis* Gunther.

327. *Diaphus ashmeadi* Fowler.

Diaphus ashmeadi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 311, 1934; China Sea, near southern Luzon, in 173 fathoms; very near *Diaphus burtoni* Fowler and *Diaphus bryani* Fowler.

328. *Diaphus aliciae* Fowler.
Diaphus aliciae Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 295, fig. 53, 1934; between Bohol and Leyte.
329. *Diaphus atkinsoni* Fowler.
Diaphus atkinsoni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 321, fig. 75, 1934; Verde Island Passage and Batangas Bay, Batangas Province, Luzon, in 179 fathoms.
330. *Diaphus bryani* Fowler.
Diaphus bryani Fowler, Acad. Nat. Sci. Phila., vol. 85, p. 319, fig. 73, 1934; China Sea, near southern Luzon. Too near *Diaphus ashmeadi* Fowler and *Diaphus burtoni* Fowler.
331. *Diaphus burtoni* Fowler.
Diaphus burtoni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 315, fig. 70, 1934; China Sea, vicinity of southern Luzon, in 173 fathoms; exceedingly close to *Diaphus bryani* Fowler and *Diaphus ashmeadi* Fowler.
332. *Diaphus carlsoni* Fowler.
Diaphus carlsoni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 312, fig. 67, 1934; off eastern Mindoro.
333. *Diaphus dahlgreni* Fowler.
Diaphus dahlgreni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 229, fig. 56, 1934; near Darvel Bay, British North Borneo; this locality is on the Philippine boundary line.
334. *Diaphus dehaveni* Fowler.
Diaphus dehaveni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 320, fig. 74, 1934; between Samar and Masbate, in 135 fathoms.
335. *Diaphus ehrhorni* Fowler.
Diaphus ehrhorni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 304, fig. 60, 1934; between Burias and Luzon, in 209 fathoms.
336. *Diaphus faustinoi* Fowler.
Diaphus faustinoi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 300, fig. 57, 1934; Tanon Strait, east coast of Negros, in 295 fathoms.
337. *Diaphus gudgeri* Fowler.
Diaphus gudgeri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 302, fig. 59, 1934; northern Mindanao, in 759 fathoms.
338. *Diaphus handi* Fowler.
Diaphus handi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 290, fig. 49, 1934; between Cebu and Siquijor, in 432 fathoms.
339. *Diaphus harveyi* Fowler.
Diaphus harveyi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 294, fig. 52, 1934; Manila Bay, Luzon, in 260 fathoms.
340. *Diaphus kendalli* Fowler.
Diaphus kendalli Fowler Proc. Acad. Nat. Sci. Phila., vol. 85, p. 297, fig. 55, 1934; between Leyte and Mindanao, in 585 fathoms.
341. *Diaphus kylei* (Tåning).
Diaphus kylei Tåning, Vidensk. Meddel. fra Dansk. Naturh. Forening, Kopenhagen, vol. 94, p. 133, 1932; Sulu Sea.
342. *Diaphus layi* Fowler.
Diaphus layi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 292, fig. 51, 1934; off northern Mindanao, in 267 fathoms.
343. *Diaphus longleyi* Fowler.
Diaphus longleyi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 296, fig. 54, 1934; between Cebu and Leyte, in 290 fathoms.
344. *Diaphus lucifrons* Fowler.
Diaphus lucifrons Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 307, fig. 63, 1934; east coast of Luzon, in 308 fathoms.
345. *Diaphus malayanus* Weber.
Diaphus malayanus Weber, Siboga-Exped., Fische, p. 89, fig. 30, 1913; Halmahera and Banda Seas. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Batangas Bay, Batangas Province, Luzon; Verde Island Passage, between Luzon and Mindoro; near Burias Island.

Myctophum malayanum Weber, in Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 171, fig. 65, 1913; Halmahera and Banda Seas.

346. *Diaphus meyeri* Fowler.

Diaphus meyeri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 314, fig. 68, 1934; west coast of Luzon.

347. *Diaphus monodi* Fowler.

Diaphus monodi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 306, fig. 62, 1934; Tanon Strait, east coast of Negros in 295 fathoms.

348. *Diaphus phillipsi* Fowler.

Diaphus phillipsi Fowler, Proc. Acad. Nat. Sci., Phila., vol. 85, p. 287, fig. 47, 1934; between Panay and Negros, in 565 fathoms.

349. *Diaphus reidi* Fowler.

Diaphus reidi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 309, fig. 64, 1934; vicinity of Marinduque Islands.

350. *Diaphus streetsi* Fowler.

Diaphus streetsi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 291, fig. 50, 1934; China Sea near Sombrero Island, Batangas Province, Luzon, in 236 fathoms.

351. *Diaphus thiollieri* Fowler.

Diaphus thiollieri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 289, fig. 48, 1934; near western Bohol.

352. *Diaphus umbroculus* Fowler.

Diaphus umbroculus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 317, fig. 72, 1934; Verde Island Passage and Batangas Bay, Batangas Province, Luzon; in 170 fathoms.

353. *Diaphus whitleyi* Fowler.

Diaphus whitleyi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 305, fig. 61, 1934; Verde Island Passage, and Batangas Bay, Batangas Province, Luzon; in 170 fathoms.

354. *Diaphus weberi* Tåning.

Diaphus weberi Tåning, Vidensk. Meddel. fra Dansk. Naturh. Forening, København, vol. 94, p. 138, 1932; Sulu Sea.

Genus 142. MYCTOPHUM Rafinesque.

Myctophum Rafinesque, Indice d'Ittiologia Siciliana, p. 56, 1810; type,

Myctophum punctatum Rafinesque.

Scopelus Cuvier, Règne Animal, ed. 1, p. 169, 1817; type, *Gasteropelecus humboldti* Risso.

Nyctophus Cocco, Giorni Sci. Lett. Sicilia, vol. 26, p. 44, 1829; type, *Nyctophus rafinesquei* Cocco; substitute for *Myctophum*.

355. *Myctophum caeruleum* (Klunzinger).

Scopelus caeruleus Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 21, p. 592, 1871; Red Sea.

Scopelus engraulis Günther, Report Voy. Challenger, Zool., vol. 22, Deep Sea Fishes, p. 197, 1887; Philippines at 250 fathoms. Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 129, 1891; Andaman Sea.

Scopelus (*Nyctophus*) *caeruleus* Lütken, Spoilia Atlantica, Scopelini, p. 260, 1892.

Myctophum (*Diaphus*) *caeruleum* Brauer, Valdivia-Exped., Tiefsee-Fische, p. 217, 1906.

Diaphus caeruleus Weber, Siboga-Exped., vol. 57, Fische, p. 88, 1913; Celebes Sea off Mindanao, at 457 meters.

Myctophum caeruleum Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 168, fig. 65b, 1913; Celebes Sea off Mindanao; Molucco Passage; west coast of Sumatra.

356. *Myctophum fibulatum* Gilbert and Cramer.

Myctophum fibulatum Gilbert and Cramer, Proc. U. S. Nat. Mus., vol. 19, p. 411, pl. 38, fig. 2 (not fig. 3 as incorrectly indicated on plate and in description), 1897. Gilbert, Bull. U. S. Fish Comm., vol. 23, Part 2, p. 596, 1905; Pailolo Channel, Hawaiian Islands. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; Verde Island Passage, coast of Batangas, Batangas Province, Luzon; Sulu Islands.

357. *Myctophum margaritatum* Gilbert.
Of widespread occurrence in the tropical Pacific.
Myctophum margaritatum Gilbert, Bull. U. S. Fish Commission, vol. 23, part 2, p. 596, plate 68, fig. 2, 1905; off Molokai, Lanai, Oahu, and Niihau, Hawaiian Islands; French Frigate Shoal; between Honolulu and San Francisco. Philippine Fishery Program, 1948; specimens determined by Dr. Rolf Bolin; Gulf of Davao and Zamboanga, Mindanao; Sulu Sea off west coast of Mindanao; near Tubataha Reef, and northwest of the Cagayan Islands, Sulu Sea; off the east coast of Palawan; Gutob Anchorage, north coast of Busuanga.
358. *Myctophum gilberti* Evermann and Seale.
Myctophum gilberti Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 55, fig. 1, 1907; Bulan, Sorsogon Province, Luzon.
259. *Myctophum nigrum* Günther.
Nannobranchium nigrum Günther, Rept. Voy. Challenger, Zool., v. 22, pt. 57, Deep-Sea Fishes, p. 199, pl. 52, fig. 5, 1887; south of the Philippines, at 500 fathoms. Gilbert, Bull. U. S. Fish. Comm., vol. 23, Part 2, 591, 1905; Hawaiian Islands.
Myctophum (Lampanyctus) nigrum Brauer, Valdivia-Exped., Tiefsee-Fische, p. 242, text fig. 159, 1906. Barnard, Ann. South African Mus., vol. 21, p. 239, 1925; off Cape Point.
Lampanyctus niger Gilbert, Mem. Carnegie Mus., vol. 6, p. 100, 1913. Fowler, Mem. Bishop Mus., vol. 10, p. 68, 1928.
360. *Myctophum pterotum* (Alcock).
Scopelus (Myctophum) pterotus Alcock, Ann. Mag. Nat. Hist., p. 217, 1890.
Scopelus pterotus Alcock, Descript. Cat. Indian Deep-Sea Fishes, p. 267, 1899.
Myctophum (Myctophum) pterotum Brauer, Valdivia-Exped., p. 182, 1906.
Myctophum pterotum Weber, Siboga-Exped., Fische, p. 86, 1913; Macassar Straits. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 157, 1913. Herre, Fishes 1931 Philippine Exped., p. 23, 1934; near Romblon Island.
361. *Myctophum suborbitale* (Weber).
Diaphus suborbitale Weber, Siboga-Exped., vol. 57, Fische, p. 90, 1913.
Myctophum suborbitale Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 2, p. 90, 1913; Bali, Banda, and Arafura Seas. Herre, Fishes, 1931 Philippine Exped., p. 24, 1934; China Sea, near coast of Batangas Province, Luzon.
- Genus 143. **NANNOBRACHIUM** Günther.
Nannobranchium Günther, Report Voy. Challenger, Zool., v. 22, Pt. 57, Deep-Sea Fishes, p. 199; 1887; orthotype, *Nannobranchium nigrum* Günther.
362. *Nannobranchium nigrum* (Günther).
Nannobranchium nigrum Günther, Report Voy. Challenger, Zool., v. 22, Pt. 57, p. 199, 1887; Philippines, at 500 fathoms.
- Genus 144. **LAMPANYCTUS** Bonaparte.
Lampanyctus Bonaparte, Iconografia fauna Italica, fasc. 138, 1840; genotype, *Nyctophus bonapartii* Cocco = *Gasteropelecus crocodilus* Risso. Bolin, Stanford Ichth., Bull., vol. 1, p. 127, 1939.
Serpe Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 22, p. 430, 1849.
Ceratoscopelus Günther, Cat. Fishes, British Mus., vol. 5, p. 405, 1864; subgenus; genotype, *Scopelus maderensis* Lowe.
Stenobranchius Eigenmann and Eigenmann, Proc. California Acad. Sci., ser. 2, vol. 3, p. 5, 1890; subgenus; genotype, *Myctophum leucopsarum* Eigenmann and Eigenmann.
Nycimaster Jordan, Proc. U. S. Nat. Mus., vol. 59, p. 645, 1921; genotype, *Lampanyctus jordani* Gilbert.
Serpa Whitley, Records Australian Mus., vol. 19, p. 64, 1933; genotype, *Gasteropelecus crocodilus* Risso; found in all deep seas.
363. *Lampanyctus blacki* (Fowler).
Serpa blacki Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 284, fig. 44, 1934; Iligan Bay, off north coast of Mindanao, in 425 fathoms.

364. *Lampanyctus turneri* (Fowler).

Serpa turneri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 285, fig. 45, 1934; between Leyte and Mindanao, in 960 fathoms.

Genus 145. SOLIVOMER Miller.

A Philippine species.

Solivomer Miller, Proc. U. S. Nat. Mus., vol. 97, p. 81, 1947; type, *Solivomer arenidens* Miller.

365. *Solivomer arenidens* Miller.

Solivomer arenidens Miller, Proc. U. S. Nat. Mus., vol. 97, p. 84, fig. 2, 1947; off Panaon Island, south end of Leyte; Sogud Bay, Leyte, 55 miles from Limasawa Island. Off Diuata Point, Agusan Bay, Agusan Province; off Camp Overton Light, Lanao Province, Mindanao. Off Balicasag Island, between Bohol and Siquijor Islands. Near Thirtieth of June Island, eastern coast of Palawan.

Family 57. OMOSUDIDÆ

Genus 146. OMOSUDIS Günther.

One species; occurs in the Atlantic and Pacific Oceans.

Omosudis Günther, Report Voy. *Challenger*, zool., vol. 22, Pt. 57, p. 201, 1887; orthotype, *Omosudis lowi* Günther.

366. *Omosudis lowi* Günther.

Omosudis lowi Günther, Report Voy. *Challenger*, vol. 22, Pt. 57, p. 201, pl. 52, figs. C and C', 1887; P. I. Brauer, *Valdivia-Exped.*, Tiefsee Fische, vol. 15, p. 380, 1906, Philippines.

Family 58. MALACOSTEIDÆ

A small group of deep-sea fishes in the Pacific and Atlantic Oceans.

Genus 147. MALACOSTEUS Ayres.

Malacosteus Ayres, Jour. Boston Soc. Nat. Hist., p. 53, 1849; type, *Malacosteus niger* Ayres.

367. *Malacosteus indicus* Günther.

In the western Pacific, Indian, and Atlantic Oceans.

Malacosteus indicus Günther, Ann. Mag. Nat. Hist., 5th ser., vol. 2, p. 181, 1878; Pacific Ocean, in 500 fathoms. Günther, Report voy. *Challenger*, vol. 22, Part 57, Deep-Sea Fishes, p. 214, fig. 5, 1887; south of the Philippines at 914 meters. Brauer, *Valdivia-Exped.* Tiefsee Fische, vol. 15, p. 65, pl. 4, fig. 1, text figs. 23-25, 1906. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 2, p. 118, fig. 43, 1913; Celebes Sea, south of the Philippines; north of Cocos Islands; Andaman Islands; near Chagos Islands; west coast of South Africa.

Family 59. ATELEOPODIDÆ. Deep-sea fishes

Genus 148. ATELEOPUS Schlegel.

Found from Japan to the Indian Ocean.

Ateleopus Schlegel, Fauna Japonica, Pisces, p. 255, 1842; type, *Ateleopus japonicus* Bleeker; not *Ateleopus* Dumeril and Bibron, 1841. Norman, Scientific Reports, Murray Exped., vol. 7, p. 31, 1939.

368. *Ateleopus indicus* Wood-Mason and Alcock.

Indian Ocean and the Philippines.

Ateleopus indicus Wood-Mason and Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 123, fig. 3, 1891. Alcock, Illustrations Zool. Investigator, pl. 2, fig. 2, 1892. Alcock, Cat. Indian Deep-Sea Fishes, p. 123, 1899. Norman, Scientific Reports Murray Exped., vol. 7, p. 32, 1939; Maldive area and Arabian Sea, Indian Ocean; Philippines.

Order 0. CYPRINODONTES (Microcyprini)

A group of fresh-water fishes with many species; found in the warmer parts of Asia, Africa, and North and South America; barely represented in the Philippines.

Family 60. CYPRINODONTES. Killifish

Genus 149. **ORYZIAS** Jordan and Snyder.

Very small fishes of small streams, swamps, and rice paddies in south-eastern Asia, East Indies, China, Japan, and the Philippines.

Oryzias Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 31, p. 289, 1906; orthotype, *Poecilia latipes* Schlegel.

369. *Oryzias luzonensis* (Herre and Ablan).

Aplocheilus luzonensis Herre and Ablan, Philippine Jour. Sci., vol. 54, p. 275, 1934; creek at Solsona, Ilokos Norte Province, Luzon.

Family 61. POECILIIDÆ. Top minnows

Genus 150. **GAMBUSIA** Poey. Top minnows.

Very small fresh-water fishes of the West Indies, the southern United States, and the Atlantic and Pacific slopes of Mexico and Central America.

Gambusia Poey, Memorias, vol. 1, p. 382, 1854; type, *Gambusia punctata* Poey.

Hemiaciphophorus Bleeker, Nat. Tijds. Ned-Ind., vol. 20, p. 440, 1854.

Paragambusia Meek, Field Mus. Nat. Hist., Zool. Ser., vol. 5, p. 133, 1904; type, *Gambusia nicaraguensis* Günther.

Heterophallina Hubbs, subgenus, Misc. Pub. Univ. Michigan Zool. Mus., No. 16, 1926; type, *Gambusia regani* Hubbs.

Arthrohallus Hubbs, subgenus, *ibid.*, p. 38, 1926; type, *Heterandria patruelis* Baird and Girard.

Schizophallus Hubbs, subgenus, *ibid.*, p. 40, 1926; type, *Gambusia holbrookii* Girard.

370. *Gambusia patruelis* (Baird and Girard). Top minnow; mosquitofish.

Native to the southern United States, northward to southern Illinois.

Introduced into the Hawaiian Islands, the Philippines, Italy, Malaya, and Formosa, and almost all warm temperate and tropical regions.

No attempt is made to give the very extensive synonymy of this efficient devourer of mosquito larvae.

Heterandria patruelis Baird and Girard, Proc. Acad. Nat. Sci. Phila., vol. 6, p. 390, 1853; Rio Sabinal, Rio Nueces, and Elm Creek, Texas.

Heterandria affinis Baird and Girard, *ibid.*, p. 390, 1853; Rio Medina and Rio Salado, Texas.

Gambusia humilis Günther, Cat. Fishes, British Mus., vol. 6, p. 334, 1866.

Haplochilus melanops Cope, Proc. Amer. Philos. Soc., p. 457, 1870; Neuse River, North Carolina.

Zygonectes (Micristius) brachypterus Cope, Bull. U. S. Nat. Mus., vol. 20, p. 34, 1880; Trinity River, Fort Worth, Texas.

Zygonectes inurus Jordan, Proc. U. S. Nat. Mus., p. 143, 1882; Cache Creek, southern Illinois.

Gambusia affinis Seale, Philippine Jour. Sci., vol. 12, sec. D, p. 177, 1917; Manila and vicinity, Luzon. Herre, 1920-28, plantings for Bureau of Science: Laguna de Bay, and private ponds in Camarines Sur Province; Luzon; Zamboanga, Zamboanga Province, and Davao, Davao Province, Mindanao; Jolo, Sulu Province.

Gambusia modesta Ahl, Blätter für Aquarium-und Terrarienkunde, vol. 36, p. 220, 1923.

Gambusia myersi Ahl, *ibid.*, p. 36, 1925, with figure; substitute for *G. modesta* preoccupied.

Genus 151. **MOLLIENESIA** Le Sueur.

A genus of southern United States, Mexican, and Central American fishes; mostly fresh water, but living more or less in brackish and salt water.

Mollienesia Le Sueur, Jour. Acad. Nat. Sci. Phila., vol. 2, p. 2, 1821; type, *Mollienesia latipinna* Le Sueur.

371. *Mollienesia latipinna* Le Sueur. Mudfish; Bubuntis (Tagalog name).

Introduced accidentally and now naturalized; a great pest in bangos fish ponds about Manila Bay, where it is excessively abundant; thrives in saline water as well as fresh.

Mollienesia latipinna Le Sueur, Jour. Acad. Nat. Sci. Phila., vol. 2, p. 3, 1821; New Orleans. Günther, Cat. Fishes British Mus., vol. 6, p. 348, 1866. Garman, Mem. Mus. Comp. Zool., vol. 19, p. 50; pl. 5,

fig. 1, pl. 8, fig. 12, pl. 12, 1895. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 699, 1896. Herre, Philippine Jour. Sci., vol. 38, p. 123, colored pl. 1, 1929; fish ponds, salt ponds, and salt water creeks at Malolos, and Obando, Bulacan Province; Malabon, Rizal Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Obando, Bulacan Province, Luzon.

Order P. SYNENTOGNATHI

Family 62. BELONIDÆ. Gars; Needlefishes; Houndfishes; Bal'o; Dugso; Siriu; Pingka; Batalay; Tambalauang; Layalay; Selo; Tambuauang; Gong-gong; Tambilauan; Kambabalo

Surface fishes of tropical and temperate seas.

Genus 152. ABLENNES Jordan and Fordice. Kambabalo; Layalay; Dugso; Salasa.

One species; in the Pacific, Indian, and Atlantic Oceans.

Athlennes Jordan and Fordice, Proc. U. S. Nat. Mus., vol. 9, p. 342, 1887; error for *Ablennes*; correct name approved by Intnatl. Comm. of Zoological Nomenclature; orthotype, *Belone hians* Cuvier and Valenciennes. Herre, Philippine Jour. Sci., vol. 36, p. 217, 1928.

372. Ablennes hians (Cuvier and Valenciennes). Kambabalo.

In all tropical seas.

Belone crocodila Bleeker, Nat. Geneesk. Arch. Ned. Ind., vol. 2, p. 512, 1845; Batavia, Java; not of Le Sueur.

Belone hians Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 18, p. 321, pl. 548, 1846; Havana, Cuba; Bahia, Brazil. Günther, Cat. Fishes, British Mus., vol. 6, p. 248, 1866. Günther, Fische der Südsee, vol. 3, p. 353, text fig. 1910; Hawaiian Islands.

Belone melanostigma Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 18, p. 334, 1846; Massowah, Red Sea. Günther, Cat. Fishes British Mus., vol. 6, p. 241, 1866. Klunzinger, Synopsis Fische Rothen Meeres, p. 581, 1871. Day, Fishes India, p. 509, 1878.

Belone gracilis Schlegel, Fauna Japonica, Pisces, p. 246, 1846; not of Lowe. Bleeker, Verh. Bat. Gen., vol. 26, Ichth. Japan, p. 116, 1854-57; not of Lowe.

Belone schismatorhynchus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 95, 1850; Java. Kner, Reise Novara, Fische, p. 322, 1865. Günther, Cat. Fishes British Mus., vol. 6, p. 239, 1866. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Manila Bay.

Mastacembelus schismatorhynchus Bleeker, Atlas Ichth., vol. 6, p. 49, pl. 258, fig. 2, 1867.

Athlennes hians Jordan and Fordice, Proc. U. S. Nat. Mus., vol. 9, p. 342, 1887. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 718, 1896. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 433, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 125, fig. 40, 1905; Honolulu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 131, fig. 149, 1922; Pulu Weh; Semarang, Java; Aru Islands.

Tylosurus melanostigma Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 329, 1902.

Tylosurus schismatorhynchus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26, p. 528, 1903.

Tylosurus caeruleofasciatus Stead, New Fishes New South Wales, No. 1, p. 3, 1908; Port Stephens, New South Wales.

Athlennes caeruleofasciatus Ogilby, Mem. Queensland Mus., vol. 5, p. 130, 1916. McCulloch, Check List Fishes, New South Wales, Part 2, p. 36, 1919.

Ablennes hians Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 18, 1922; Honolulu. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Orion, Bataan Province, Luzon. Herre, Philippine Jour. Sci., vol. 36, p. 217, pl. 1, fig. 1, 1928; Manila Bay. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Culion; Cebu, Cebu Province. Umali, Edible Fishes Manila, p. 75, fig. 36, 1936; Manila Bay; Tayabas Province. Umali, Philippine Jour. Sci., vol. 65, p. 181, 1938; Ragay Gulf, Tayabas Province, Luzon. Blanco, Phila. Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.

Genus 153. BUSUANGA Herre.

A singular needlefish of the Philippines, Borneo, and the South China Sea.

Busuanga Herre, Science, vol. 71, p. 132, 1930; orthotype, *Busuanga philippina* Herre.

373. Busuanga philippina Herre.

Tylosurus philippinus Herre, Philippine Jour. Sci., vol. 35, p. 31, pl. 2, figs. 1-2, 1928; Coron, Busuanga; Tandubas Island and Sitankai, Sulu Province. Herre, Philippine Jour. Sci., vol. 36, p. 228, pl. 3, 1928; Coron, Busuanga; BatoBato, TawiTawi, and Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Culion; Taytay, Palawan; Jolo, and Sitankai, Sulu Province. Herre, Bull. Raffles Mus., No. 16, p. 37, 1940; Singapore.

Genus 154. RHAPHIOBELONE Fowler.

This doubtful genus and species may be considered "incertae sedis." The types must be re-examined in order to place the specimens properly.

Rhaphiobelone Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 322, 1934; orthotype, *Rhaphiobelone dammermani* Fowler.

374. Rhaphiobelone dammermani Fowler.

Rhaphiobelone dammermani Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 323, 1934; Taal Anchorage, Batangas Province, Luzon.

Genus 155. TYLOSURUS Cocco.

Occurs in the Pacific, Indian, and western Atlantic Oceans, and in the Mediterranean Sea.

Tylosurus Cocco, Giorni Sci. Lett. Sicilia, vol. 42, p. 18, 1833; orthotype, *Tylosurus cantraini* Cocco=*Esox imperialis* Rafinesque.

375. Tylosurus crocodilus (Le Sueur).

Ranges from the Red Sea and east coast of Africa to southeast of Tahiti and north to Formosa.

Esox belone Forskål, Descript. Animal., p. 67, 1775; Red Sea; not of Linnaeus.

Belone crocodilus Le Sueur, Jour. Acad. Nat. Sci. Phila., vol. 2, p. 129, 1821; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 18, p. 327, pl. 549, 1846.

Belone choram Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 72, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 6, p. 239, 1866. Klunzinger, Synopsis Fische Rothen Meeres, p. 578, 1871; Red Sea. Day, Fishes India, p. 510, 1878; not figure. Günther, Fische der Südsee, vol. 3, p. 351, 1910.

Tylosurus crocodilus Fowler, Jour. Acad. Nat. Sci. Phila., vol. 12, p. 501, pl. 9, upper fig., 1904. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 128, 1922. Herre, Philippine Jour. Sci., vol. 36, p. 229, pl. 4, fig. 2, 1928; Manila Bay; Tacloban, Leyte; Zamboanga, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Herre, Jour. Pan. Pacific Research Inst., vol. 8, p. 3, Sandakan, British North Borneo; p. 7, 1933; Dumaguete, Oriental Negros Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Culion; Dumaguete and Polo Plantation, Oriental Negros Province; Sitankai, Sulu Province.

Strongylura crocodila Fowler, Proc. Acad. Nat. Sci. Phila., vol. 71, p. 5, 1919. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 74, 1928.

Tylosurus choram Seale, Occas. Papers Bishop Mus., vol. 4, p. 12, 1906; Tahiti.

376. Tylosurus giganteus (Schlegel). Common gar; Barasot; Batalay; Kambal 'O.

All over the tropical Indo-Pacific, north to Japan.

Mastacembelus giganteus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1866; Ternate.

Belone gigantea Schlegel, Fauna Japonica, Pisces, p. 245, 1846; Nagasaki. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 21, 1858; Japan. Günther, Fische der Sudsee, vol. 3, p. 350, 1910; tropical Pacific.

Belone annulata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 18, p. 332, pl. 550, 1846; Celebes; Tongatabu; Seychelles; Pondicherry. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1226, 1850; Pinang.

Günther, Cat. Fishes British Mus., vol. 6, p. 240, 1866. Day, Fishes India, p. 510, pl. 120, fig. 1, 1878.

Belone melanurus Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth. Madura, p. 11, 1849; Madura.

Belone timucoides Bleeker, Jour. Ind. Arch., vol. 3, pp. 67-68, 1849; Celebes.

Belone cylindrica Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 472, 1851; Riouw. Kner, Reise Novara, Fische, p. 321, 1865.

Mastacembelus choram Bleeker, Ned. Tijds. Dierk., vol. 3, p. 227, 1866; not of Rüppell.

Mastacembelus annulatus Bleeker, Ned. Tijds. Dierk., vol. 3, p. 229, 1866. Bleeker, Atlas Ichth., vol. 6, p. 48, pl. 258, fig. 3, 1866-72.

Tylosurus giganteus Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 433, 1902; Honolulu. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26, p. 529, 1903. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 773, 1905; Bais, Negros. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Pt. 1, p. 124, fig. 39, 1905; Honolulu; Hilo. Seale, Occas. Papers, Bishop Mus., vol. 4, p. 12, 1906; Tubuai, Austral Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 207, 1906; Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 8, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 58, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 242, 1907; Manila; Iloilo, Panay. Herre, Philippine Jour. Sci., vol. 36, p. 226, pl. 4, fig. 1, 1928; Manila; Calapan and Mangarin, Mindoro; Bacon, Sorsogon Province, Luzon; Culion; Estancia, Iloilo Province, Panay; Bantayan Island; Dumaguete, Oriental Negros Province, Negros; Panacan, Palawan; Zamboanga, Mindanao; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes, 1931 Philippine Exped., p. 24, 1934; Manila; Culion; Jolo and Sitankai, Sulu Province. Umali, Edible Fishes Manila, p. 75, fig. 37, 1936; Manila Bay; Tayabas Province. Herre, 1936-37 Exped.; Si Amil Island, British North Borneo. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937; Balayan Bay, Batangas Province, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Herre, 1940 Exped.; Puerto Galera, Mindoro.

Tylosurus annulatus Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 267, 1910; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 126, 1922; many East Indian localities; Philippines.

Tylosurus indicus Fowler, Hong Kong Naturalist, vol. 3, p. 263, 1932; Philippines.

377. *Tylosurus incisus* (Cuvier and Valenciennes). Doal.

East Indies, Philippines, eastward to Ponape and Samoa. Common in the markets.

Belone incisa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 18, p. 335, 1846; Grand Ocean. Duncker and Mohr, Mitt. Zool. Mus., Hamburg, vol. 42, p. 126, 1926; New Mecklenburg.

Belone leiuroides Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 479, 1851; Billiton. Günther, Cat. Fishes British Mus., vol. 6, p. 243, 1866.

Mastacembelus leiuroides Bleeker, Atlas Ichth., vol. 6, p. 50, pl. 255, fig. 1, 1866-72.

Tylosurus leiuroides Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 206, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 58, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Zamboanga Province, Mindanao.

Belone leiuroides Günther, Fische der Südsee, vol. 3, p. 352, 1910; Admiralty Islands; Pelew Islands; Ponape; Ruk.

Tylosurus incisus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 125, 1922; Java; Celebes; the Philippines. Herre, Philippine Jour. Sci., vol. 36, p. 223, pl. 2, 1928 (plate mislabeled *Tylosurus leiurus*); Iba, Zambales Province, Luzon; Polillo Island; Bato Bato on Tawi Tawi, Tandubas Island, and Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Culion; Cebu, Cebu Province; Jolo, Sulu Province.

378. *Tylosurus leiurus* (Bleeker). Batalay.

India, Ceylon, East Indies, the Philippines, Formosa, and east to the Marshall Islands.

Belone leiurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 94, 1850; Java. Kner, Reise Novara, Fische, p. 321, 1865. Day, Fishes India, p. 511, 1878.

Mastacembelus anastomella Bleeker, Ned. Tijds. Dierk., vol. 3, p. 244, 1866; not of Cuvier and Valenciennes.

Mastacembelus leiurus Bleeker, Atlas Ichth., vol. 6, p. 46, pl. 257, fig. 2, 1866-72.

Tylosurus leiurus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 329, 1903. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 8, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; Aparri, Cagayan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 124, 1922; numerous East Indian localities; the Philippines, Formosa. Herre, Philippine Jour. Sci., vol. 36, p. 225, (not pl. 2), 1928; Santa Maria, Ilokos Sur Province, and Manila, Luzon; also one from Hoihow, Hainan. One collected later at Dumaguete, Oriental Negros Province, Negros.

Strongylura leiuroides Fowler, Proc. Acad. Nat. Sci. Phila., vol. 71, p. 5, 1919; the Philippines.

Strongylura leiura Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Philippines; correction of preceding item.

Strongylura leiura Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 72, 1928; Guam; Ebon Island.

379. *Tylosurus macrolepis* (Bleeker).

The Philippines and East Indies; a rare species.

Belone macrolepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 225, 1856; Nias.

Belone macrolepis Günther, Cat. Fishes British Mus., vol. 6, p. 246, 1866. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Menado, Celebes.

Mastacembelus macrolepis Bleeker, Ned. Tijds. Dierk., vol. 3, p. 221, 1866. Bleeker, Atlas Ichth., vol. 6, p. 45, pl. 258, fig. 1, 1866-72.

Tylosurus macrolepis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 122, 1922; Nias; Celebes, Manado; Sangir Islands. Herre, Philippine Jour. Sci., vol. 36, p. 222, 1928; mouth of Agusan River, Agusan Province; Gingoog, Misamis Oriental Province; Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Culion.

380. *Tylosurus melanotus* (Bleeker).

East Indies, north to Japan, east and south to New Britain, New Caledonia, and north Australia.

Belone coromandelica van Hasselt, Allgemeine Konst-en Letterbode, vol. 1, p. 130, 1823; nomen nudum.

Belone timucoides van Hasselt, Bul. de Ferussac, vol. 2, Zool. p. 374, 1824; no description.

Belone melanotus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 94, 1850; Java. Günther, Cat. Fishes British Mus., vol. 6, p. 238, 1866. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Cebu. Günther, Fische der Südsee, vol. 3, p. 352, 1910.

Mastacembelus melanotus Bleeker, Atlas Ichth., vol. 6, p. 47, 1866-72.

Mastacembelus choram Bleeker, Atlas Ichth., vol. 6, pl. 256, fig. 1, 1866-72.

Tylosurus coromandelicus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26, p. 530, 1903; Yokohama.

Tylosurus melanotus Fowler, Jour. Acad. Nat. Sci. Phila., vol. 12, p. 501, 1904. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 127, fig. 47, 1922; Makassar, Celebes; Moluccas; Salibabu Island; Sumbawa. Herre, Philippine Jour. Sci., vol. 36, p. 231, 1928; Vigan, Ilokos Sur Province, Luzon; Gingoog, Misamis Oriental Province, Mindanao; Stitankai, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Cebu, Cebu Province.

Strongylura coromandelica Fowler, Proc. Acad. Nat. Sci. Phila., vol. 71, p. 5, 1919.

Strongylurus melanotus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Santa Maria and Vigan, Ilokos Sur Province, Luzon.

381. *Tylosurus strongylurus* (Van Hasselt). Batalay.

From India through the East Indies and Philippines to China and Formosa, and on to New Guinea and north Australia. Common market fish during winter.

Belone strongylura van Hasselt, Allgemeine Konsten Letterbode, Deel 1, p. 130, 1823; Batavia, Java.

Belone caudimaculata Cuvier, Règne Animal, Disciples ed., vol. 7, p. 234, footnote, 1836. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 512, 1845; Batavia, Java. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 18, p. 336, 1846. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1228, 1850; Pinang.

Mastacembelus caudimaculata Bleeker, Ned. Tijds. Dierk., vol. 2, pp. 176 and 194, 1865; Siam.

Belone caudimaculata Günther, Cat. Fishes, British Mus., vol. 6, p. 245, 1866. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Manila Bay; Cebu.

Belone strongylurus Günther, Cat. Fishes British Mus., vol. 6, p. 246, 1866. Day, Fishes India, p. 512, pl. 118, fig. 6, 1878.

Tylosurus caudimaculatus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 242, 1908; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 9D, p. 6, 1914. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 46, 1930; Manila, Luzon.

Tylosurus strongylurus Seale, Philippine Jour. Sci., vol. 5D, p. 267, 1910; the Philippines; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago., vol. 4, p. 121, 1922; many East Indian localities; Philippines. Herre, Philippine Jour. Sci., vol. 36, p. 220, pl. 1, fig. 2, 1928; Bulacan, Bulacan Province, Calabanga, Camarines Sur Province, and Manila, Luzon. Tacloban, Leyte; Cagayan, Misamis Oriental Province, and Davao, Davao Province, Mindanao; Sandakan, British North Borneo; also Amoy, China. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Dumaguete; Cotabato, Cotabato Province, Mindanao. Umali, Edible Fishes Manila, p. 76, fig. 38, 1936. Herre, 1940-41 Exped.; Manila Bay, and mouth of Pansipit River, Batangas Province, Luzon. Cagayan, Misamis Oriental Province, Mindanao.

Strongylura strongylura Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Philippines; San Fernando, La Union Province; Orani, Bataan Province, Luzon. Fowler, Hong Kong Nat., vol. 3, p. 263, 1932; Philippines.

Family 63. HEMIRAMPHIDÆ. Halfbeaks

In all warm temperate and tropical seas. Species mostly marine; some enter brackish water and rivers near the sea. A few live exclusively in fresh-water lakes and rivers.

Genus 156. MELAPEDALION Fowler.

One species known. Southern Philippines and adjacent coast of Borneo, south China Sea, Riouw Archipelago, and Singapore.

Arrhamphus Günther, Cat. Fishes, British Mus., vol. 6, p. 276, 1866; orthotype, *Arrhamphus scleroplepis* Günther. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 171, fig. 59, 1922. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 7, 1944.

Melapedalion Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 236, 1934; orthotype, *Melapedalion brevis* (Seale).

382. *Melapedalion brevis* (Seale).

Ocyporhamphus brevis Seale, Philippine Jour. Sci., vol. 4A, p. 495, pl. 2, 1909; Sulu Sea, east coast of Palawan.

Arrhamphus brevis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 172, fig. 59, 1922; Indo-Australian Archipelago. Herre, 1923 Collection; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 25, 1934; Sitankai, Sulu Province. Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 45, 1944; Sitankai, Sulu Islands; Sandakan, British North Borneo; Subang Kechil, off Bintang Island, Riouw Archipelago.

Genus 157. **HEMIRAMPHUS** Cuvier. Halfbeaks; Bugging; Bugiu; Patlay; Siliu; Bamban; Barasot; Sigwil; Bangdao; Balanban; Bayambang; Malamban; Salasa; Sigued; Sugi; Susay; Obudobud; Pellangan.

In all tropical or warm seas. Marine, a few species entering fresh water rivers and lakes.

Hemiramphus Cuvier, Règne Animal, ed. 1, vol. 2, p. 186, 1817; type, *Esox brasiliensis* L. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 8, 1944.

383. *Hemiramphus balinensis* Bleeker.

East Indies, Philippines, and Ellice Islands.

Hemiramphus balinensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 170, 1858-59; Bali. Bleeker, Atlas Ichth., vol. 6, p. 58, pl. 252, fig. 4, 1866-72; Bali. Waite, Mem. Australian Mus., p. 195, 1897; Funafuti, Ellice Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 152, 1922; Sumba; Flores; Kajoa; between Gébé and Fau; Ceram; Binongka; Tiur.

Hemiramphus intermedius Bleeker, Ned. Tijds. Dierk., vol. 3, p. 154, 1866; not of Cantor.

Hemiramphus balinensis Weber, *Siboga*-Exped., Fische, p. 130, 1913; between Gébé and Fau. Herre, Fishes 1931 Philippine Exped., p. 25, 1934; Jolo, Sulu Province. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 50, 1944; Catbalogan, Samar; Jolo, Sulu Province; also Taruna, Sangi Island, Sangir Islands; Moti, Molukkas; Manokwari, and Madang, New Guinea.

384. *Hemiramphus dussumieri* Cuvier and Valenciennes.

Found from the Red Sea and east coast of Africa across the Indo-Pacific to the Caroline and Society Islands, north to the RiuKiu Islands.

Hemiramphus Dussumieri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 33, pl. 520, 1846; Seychelles.

Hemiramphus Dussumieri, Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 160, 1851; Banka. Bleeker, Atlas Ichth., vol. 6, p. 56, pl. 253, fig. 3, 1866-72.

Hyporhamphus dussumieri Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 58, 1907; Bacon, and Bulan, Sorsogon Province, Luzon.

Hemiramphus dussumieri Günther, Fische der Südsee, vol. 3, p. 354, 1910; Funafuti; Jalut; Bonham Islands; Fiji; Society Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 155, 1922; numerous East Indian localities; Philippines.

Hemiramphus dussumieri Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 251, 1911; numerous Polynesian localities.

Hemiramphus dussumieri Herre, Fishes 1931 Philippine Exped., p. 25, 1934; Culion; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1934; Sandakan, British North Borneo. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 14, 1944; Coron, Busuanga Island; Culion; Sitankai, Sulu Province. Also Sandakan, British North Borneo; Moti, Molukkas; Waigiu; Tulagi, Ysabel Island, Solomon Islands; Nukulau, Fiji; Mbureta River, Ovalau Island, Fiji; Ponapé, Caroline Islands; Port Blair, Andaman Islands.

385. *Hemiramphus far* (Forskål). Spotted halfbeak; Buroy; Buguing; Buguing babae.

Red Sea to the East Indies and Philippines, north to the RiuKiu Islands, east through Micronesia and Polynesia to the Society Islands. At times common in markets.

Esox far Forskål Descript. Animal., p. 67, 1775; Lohaja, Red Sea.

Hemiramphus commersonii Cuvier, Règne Animal, ed. 2, vol. 2, p. 286, 1829.

Hemiramphus far Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 74, 1835. Klunzinger, Abh. zool.-bot. Gesell. Wien. vol. 21, p. 582, 1871. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 239, 1902. Weber, *Siboga*-Exped., vol. 57, Fische, p. 129, 1913; west coast of New Guinea. Fowler, Copeia, No. 58, p. 62, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 71, p. 7, 1920; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 262, 1927; Philippines. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 77, 1928; Shortland Island, Solomon Islands; Samoa; Fiji; New Guinea. Chevey, Poissons campagnes de Lanessan, p. 52, colored pl. 18, 1932; China Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 25, 1934;

Dumaguete; Jolo, Sulu Province. Umali, Edible Fishes Manila, p. 77, fig. 40, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 50, 1944; Manila Bay; Coron, Busuanga; Dumaguete, Oriental Negros Province; Tacloban, Leyte; Zamboanga, Zamboanga Province, Mindanao; Jolo and Sitankai, Sulu Province. Also from Moti, Molucca Islands; Ysabel Island, Solomon Islands; Okinawa, Riu Kiu Islands; Formosa; Selat Paoe, Riouw Archipelago; Padang, Sumatra.

Hemiramphus commersonii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 28, 1846. Bleeker, Verh. Bat. Gen., vol. 24, Snoekacht. viss., p. 17, 1852.

Hemiramphus Commersonii Bleeker, Verh. Bat. Gen., vol. 23, Snoekacht. viss., p. 11, 1850; Java.

Hemiramphus far Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 55, 1860; Sumatra. Bleeker, Ned. Tijds. Dierk., v. 3, p. 146, 1866. Bleeker, Atlas Ichth., v. 6, p. 54, 1866-72. Day, Fishes India, p. 516, pl. 120, fig. 3, 1878. Steindachner, Sitz. Akad. Wiss. Wien, vol. 115, p. 1417, 1906; Upolu, Samoa. Günther, Fische der Südsee, vol. 3, p. 357, 1910; Ponapé; Pelew Islands; Fiji; Society Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 156, fig. 55, 1922; many East Indian localities.

Hemiramphus commersonii Günther, Cat. Fishes British Mus., p. 271, 1866. Bleeker, Atlas Ichth., vol. 6, pl. 252, fig. 3, 1866-72. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Cebu, Cebu Province.

386. *Hemiramphus gaimardi* Cuvier and Valenciennes. Susay.

India to China, east to Guam, and south to Australia.

Hemiramphus gaimardi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 36, 1846; Moluccas; Amboina; New Guinea; Port Jackson.

Hemiramphus gaimardi Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 472, 1851; Riouw Island. Bleeker, Atlas Ichth., vol. 6, p. 60, pl. 253, fig. 5, 1866-72.

Hemiramphus gaimardi Kner, Reise Novara, Fische, p. 323, 1865-67. Fowler, Mem. Bishop Mus., vol. 10, p. 75, 1928; Guam. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippines Exped., p. 25, 1934; Manila Bay; abundant. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 53, 1944; Apogoganan River, Aparri; Cagayan River at Bisugu; Buguey River, Buguey—preceding all in Cagayan Province; Dagupan, Pangasinan Province, and Manila, Luzon. Barrio Kingking, Patukan, Davao Province, Mindanao. Examples from outside the Philippines: Sandakan, British North Borneo; Un Long, New Territory, Hong Kong; Singapore; Selat Paoe, Riouw Archipelago, near Singapore; Pinang; coast of Sumatra, 100 miles west of Singapore; Mergui Archipelago; Maungmagan, Burma; Madras; Ernakulam, Cochin, India.

Hemiramphus limbatus Day, Fishes India, p. 516, 1878.

Hemiramphus limbatus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; Cuyo, Cuyo Islands. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 3, 1918; Fowler, Proc. Acad. Nat. Sci. Phila., vol. 71, p. 8, 1920; Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927; Philippines.

Hemiramphus gaimardi Seale, Philippine Jour. Sci., vol. 5D, p. 267, 1910; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 150, 1922; many East Indian localities; Philippines.

Dermatogenys viviparus Fowler, Copeia, No. 58, p. 62, 1918; Philippines.

387. *Hemiramphus georgi* Cuvier and Valenciennes. Buging.

East Indies, Philippines, north to Amoy, China, and Formosa, east to Guam and the Gilbert Islands, and across the Indian Ocean to Mauritius.

Hemiramphus Georgii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 37, pl. 555, 1846; Mahe Bay, Coromandel, India. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1230, 1850; Pinang. Kner, Reise Novara, Fische, p. 323, 1865-67. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Manila Bay.

- Hemirhamphus georgii* Bleeker, Verh. Bat. Gen., vol. 24, Snoekacht. viss., p. 19, 1852. Day, Fishes India, pl. 120, fig. 2, 1878.
- Hemirhamphus cantoris* Günther, Cat. Fishes British Mus., vol. 6, p. 264, 1866.
- Hemirhamphus Cantori* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 145, 1886. Bleeker, Atlas Ichth., vol. 6, p. 53, pl. 252, fig. 2, 1866-72. Day, Fishes India, p. 514, pl. 119, fig. 1, 1878.
- Hemirhamphus cantoris* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 8, 1907; Cavite, Cavite Province, Luzon. Fowler, Copeia, No. 58, p. 62, 1918; Philippines.
- Hemirhamphus georgii* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 147, fig. 56, 1922; Pulu Weh; Sumatra; Java; Java Sea; the Philippines.
- Hemiramphus georgii* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 262, 1927; Orion, Bataan Province, Luzon. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 75, 1928; Gilbert Islands (Kingsmill). Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan; British North Borneo. Umali, Edible Fishes Manila, p. 77, fig. 39, 1936; Manila Bay. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 11 (49), 1944; Gulf of Lingayen, Dagupan, Pangasinan Province, and Manila Bay, Luzon; Borongan, Samar; Sandakan, British North Borneo; Madang, New Guinea; Hoihow, Hainan; Julia Islands, Mergui Archipelago.
388. *Hemiramphus marginatus* (Forskål). Soacid.
From the Red Sea through the East Indies and Philippines to the China coast, and in the Pacific to New Caledonia and Tongatabu.
Essox marginatus Forskål Descript. Animal., p. 67, 1775; Djedda, Red Sea.
- Hemiramphus lutkei* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 36, 1846; Manila, Luzon.
- Hemiramphus russelli* Bleeker, Verh. Bat. Gen., vol. 24, Snoekacht. viss., p. 17, 1852; not of Cuvier and Valenciennes. Kner, Reise Novara, Fische, p. 323, 1865-67.
- Hemiramphus fasciatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 89, 1853; Solor. Günther, Cat. Fishes British Mus., vol. 6, p. 271, 1866. Bleeker, Ned. Tijds. Dierk., vol. 3, p. 152, 1866. Bleeker, Atlas Ichth., vol. 6, p. 57, 1866-72.
- Hemirhamphus marginatus* Günther, Cat. Fishes British Mus., vol. 6, p. 270, 1866. Bleeker, Nat. Tijds. Dierk., vol. 3, p. 148, 1866. Bleeker, Atlas Ichth., vol. 6, p. 54, 1866-72. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 157, 1922; numerous East Indian localities; the Philippines.
- Hemiramphus marginatus* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 58, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; Manila. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 263, 1927; Orani, Bataan Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3; Sandakan, British North Borneo; p. 8, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 25, 1934; Dumaguete, Oriental Negros Province, Negros. Herre, Stanford Univ. Pub., Biol. Sci. vol. 9, p. 14, 1944; Barrio Paddaya, Aparri, Cagayan Province, and Dagupan, Pangasinan Province, Luzon. Dumaguete, Oriental Negros Province, Cebu, Cebu Province. Cagayan, Misamis, Oriental Province; Iligan, and Kolambugan, Lanao Province; Misamis, Misamis Occidental Province. Dipolog, Zamboanga Province, Mindanao; Sandakan, British North Borneo; Ternate, Moluccas; Manokwari, New Guinea; Pinang.
- Hemiramphus fuscatus* Weber, Siboga-Exped., vol. 57, Fische, p. 131, 1913.
389. *Hemiramphus melanurus* Cuvier and Valenciennes.
East Indies, Celebes Sea, coasts of Malaya and Siam. No doubt occurs along the south coast of Mindanao, among the Sulu Islands, and along the west coast of Palawan.
- Hemiramphus melanurus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 42, 1846; Celebes. Herre Stanford Univ. Pub. Biol. Sci., vol. 9, p. 16, 1944; Taruna, Sangi Island, Sangir Islands; near Mindanao, in Celebes Sea.

Hemirhamphus melanurus Bleeker, Jour. Indian Archipelago, vol. 3, p. 67, and p. 68, 1849; Celebes. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Snoekacht. viss., p. 19. Bleeker, Ned Tijds. Dierk., vol. 3, p. 156, 1866. Bleeker, Atlas Ichth., vol. 6, p. 58, pl. 253, fig. 6, 1866-72. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 151, 1922; Singapore; Atjeh, Sumatra; Riouw; Banka; Java Sea; Batavia and Semarang, Java; Menado; Celebes; Salibabu; Batjan.

390. Hemiramphus quoyi Cuvier and Valenciennes. Salasa.

East Indies, Philippines, New Guinea, Queensland, China Sea north to Hong Kong.

Hemiramphus Quoyi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 35, 1846; Port Dorey, New Guinea. Kner, Reise Novara, Fische, p. 323, 1865-67.

Hemirhamphus quoyi Bleeker. Nat. Tijds. Ned-Ind., vol. 2, p. 491, 1851; Riouw. Bleeker. Ned. Tijds. Dierk., vol. 3, p. 153, 1866. Bleeker, Atlas Ichth., vol. 6, p. 57, pl. 252, fig. 1, 1866-72. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 39, 1885: Cebu, Cebu Province.

Hemirhamphus quoyi Günther, Cat. Fishes British Mus., vol. 6, p. 267, 1866. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 154, 1922; many East Indian localities: the Philippines; Queensland.

Hyporhamphus quoyi Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 506, 1906; Manila. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 58, 1907; Bacon, Sorsogon Province, Luzon.

Hemiramphus Quoyi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 26, p. 8, 1907: Cavite, Cavite Province, Luzon. Fowler, Copeia, No. 58, p. 62, 1918: Proc. Acad. Nat. Sci. Phila., vol. 71, p. 8, 1920. Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 262, 1927; Vigan, Ilokos Sur Province; Orani, Bataan Province, Luzon, Philippines. Herre, Philippine Jour. Sci., vol. 34, p. 296, 1927; Lake Bombon, Taal. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 25, 1934: Lake Bombon, Batangas Province, Luzon; Culion; Cebu; Dumaguete, Negros; Cotabato, Cotabato Province, Mindanao; Sitankai, Sulu Province. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937: Balayan Bay, Batangas Province, Luzon. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 13, 1944: Casambalangan River, Gonzaga, Cagayan Province, and Lake Bombon, Batangas Province, Luzon; Culion: Estancia, Iloilo Province, Panay; Cebu: Tudeio, Poro Island, Camote Islands; Catbalogan, Samar; Dumaguete, Oriental Negros Province; Kolambugan, Lanao Province; Zamboanga, and Cotabato, Cotabato Province, Mindanao. Sitankai, Sulu Province; Sandakan, British North Borneo. Hong Kong; Singapore.

391. Hemiramphus unifasciatus Ranzani.

Common in Philippine markets. Pantropical in distribution. No attempt is made to quote the extensive references.

Hemiramphus unifasciatus Ranzani, Nov. Comm. Acad. Sci. Inst. Bonon, vol. 5, p. 326, 1842; Brazil. Günther, Cat. Fishes British Mus., vol. 6, p. 262, 1866. Bleeker, Atlas Ichth., vol. 6, p. 59, 1866-72. Day, Fishes India, p. 514, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 149, 1922; Java Sea; Sumatra: Java: Timor; Amboina; the Philippines.

Hemiramphus neglectus Bleeker, Atlas Ichth., vol. 6, pl. 254, fig. 5, 1868-72.

Hyporhamphus unifasciatus Jordan and Evermann. Fishes North and Middle America, vol. 1, p. 720, pl. 96, fig. 311, 1896. Meek and Hildebrand, Field Mus. Nat. Hist., Zool. Ser., vol. 15, p. 237, pl. 16, fig. 1, 1923; Panama. Herre, Field Mus. Nat. Hist. Zool. Ser. vol. 21, p. 51, 1936; Galapagos Islands.

Hemiramphus neglectus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; Aparri, Cagayan Province, Luzon.

Hemiramphus unifasciatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 261, 1927: Vigan, Ilokos Sur Province; San Fernando, La Union Province; Orani, Bataan Province, Luzon. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 75, 1928; New Guinea: the Philippines. Herre, Fishes 1931 Phil. Exped., p. 25, 1934; Manila; Cebu. Stanford Univ. Pub. Biol. Sci., vol. 9, p. 15, 1944; Barrio Paddaya, Aparri,

Cagayan Prov.; Manila Bay; Ambulong, Lake Bombon, Batangas Province; Luzon; Barrio Tinorian, Barotac Nuevo, Iloilo Province, Panay; Cebu; Murcielagos Bay, Misamis Occidental Province, Mindanao. Also Julia Island, Mergui Archipelago and Sumatra.

Genus 158. ZENARCHOPTERUS Gill.

Occurs from Madagascar and east coast of Africa, eastward to Kusaie, Caroline Islands, and Samoa, in Polynesia, north to Hong Kong. Rivers, mountain streams, estuaries; sometimes marine.

Zenarchopterus Gill, Proc. Acad. Nat. Sci. Phila., vol. 15, p. 273; 1863; orthotype, *Hemirhamphus dispar* Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 162, 1922. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 17, 1944.

392. *Zenarchopterus brevisrostris* (Günther).

Occurs throughout the Philippines in fresh, brackish, and salt water. Ranges from the Bismarck Archipelago, the Carolines and Fiji, to Siam, India, Madagascar, and the Mozambique coast.

Hemirhamphus dispar Kner, Sitz. Akad. Wiss. Wien, vol. 39, p. 537, fig. 3, 1860; East Indies; not of Cuvier and Valenciennes.

Hemirhamphus brevisrostris Günther, Cat. Fishes British Mus., vol. 6, p. 274, 1866; on Kner.

Zenarchopterus dispar Bleeker, Ned. Tijds. Dierk., vol. 3, p. 164, 1866.

Bleeker, Atlas Ichth., vol. 6, p. 63, pl. 253, fig. 4, 1866-72. (?) Ever-

mans and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 52, 1907; Bacon,

Sorsogon Province, Luzon. (?) Seale and Bean, Proc. U. S. Nat. Mus.,

vol. 33, p. 240, 1907; Zamboanga, Zamboanga Province, Mindanao.

Günther, Fische der Südsee, vol. 3, p. 358, 1910; Ponape; Guadalcanar;

Samoa; Fiji. Kendall and Goldsborough, Mem. Mus. Comp. Zool.,

vol. 26, p. 252, 1911; Kusaie, Caroline Islands; Suva, Fiji, Guam.

(?) Fowler, Copeia, p. 62, 1918; the Philippines. (?) Fowler, Proc.

Acad. Nat. Sci. Phila., vol. 71, p. 9, 1920; Philippines. Weber and

de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 169, fig. 58,

1922; many East Indian localities; the Philippines. Fowler, Proc.

Acad. Nat. Sci. Phila., vol. 79, p. 263, 1927; Bangued, Abra Province;

Santa Maria, and Vigan, Ilokos Sur Province; San Fernando, La

Union Province, all on Luzon; Philippines. Herre, Philippine Jour.

Sci., vol. 34, p. 296, 1927; Lake Bombon (Lake Taal), Batangas Province,

Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 78, 1928. Herre,

Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British

North Borneo. Herre, Fishes 1931 Philippine Exped., p. 25, 1934;

Lake Bombon, Batangas Province, and Tabaco, Albay Province, Luzon;

Cullion; Sitankai, Sulu Province.

Zenarchopterus brevisrostris Bleeker, Atlas Ichth., vol. 6, p. 64, 1872.

Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4,

p. 168, 1922; after Günther. Mohr, Zool. Jahrb., Band 52, p. 250, fig. 15,

1926; many localities in the Bismarck Archipelago, Admiralty Islands,

New Guinea, Borneo, Singapore, Madagascar, and Mozambique.

Fowler, Mem. Bishop Mus., vol. 10, p. 78, 1928. Herre, Stanford Univ.

Pub., Biol. Sci., vol. 9, p. 34, 1944; Buguey River, Buguey, and Barrio

Cabaritan, Buguey; Palawig River, Palawig Barrio, Gonzaga; Wangag

River, Minanga Barrio, Gonzaga—preceding all in Cagayan Province.

Balingkaging River, Agno, Pangasinan Province; Lake Bombon, Pan-

sipit River and Calatagan, Batangas Province—preceding all on Luzon,

Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga; Cullion;

Capiz, Capiz Prov., Panay; Cebu, Cebu Prov.; Dumaguete, Oriental

Negros Province; Zamboanga, Zamboanga Province, Mindanao; Jolo,

and Sitankai, Sulu Province. Also Sandakan, British North Borneo;

Siglap, Singapore; Gorrer Island and Bab-el-Thuap Island, Pelev

Islands.

Hemirhamphus dispar Day, Fishes India, p. 517, pl. 119, fig. 5, 1878.

393. *Zenarchopterus buffoni* (Cuvier and Valenciennes).

Hemirhamphus Buffonis Cuvier and Valenciennes, Hist. Nat. Poissons,

vol. 19, p. 48, 1846; Pulo Pinan. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3,

p. 711, 1852; Ceram.

Hemirhamphus striga Blyth, Jour. Asiatic Soc. Bengal, vol. 27, p. 288,

1859.

Zenarchopterus buffonis Bleeker, Ned. Tijds. Dierk., vol. 3, p. 162, 1866.

Zenarchopterus Buffoni Bleeker, Atlas Ichth., vol. 6, p. 62, pl. 254, fig. 3, 1866-72.

Hemiramphus buffonis Günther, Cat. Fishes British Mus., vol. 6, p. 273, 1866.

Hemiramphus buffonis Day, Fishes India, p. 516, pl. 119, fig. 4, 1878.

Zenarchopterus maculosus Garman, Bull. Mus. Comp. Zool., vol. 39, p. 239, pl. 5, fig. 4, 1903; Suva, Fiji.

Zenarchopterus buffonis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 57, p. 494, 1905. Seale, Philippine Jour. Sci., vol. 5D, p. 267, 1910; Sandakan, British North Borneo; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 79, 1928. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo.

Zenarchopterus buffoni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 170, 1922; many East Indian localities; Philippines. Herre, Fishes 1931 Philippine Exped., p. 25, 1934; Karig Malan Creek, Culion; Sitankai, Sulu Province. Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 31 (69), 1944; Bani Creek, Bani, and Balinkaging River, Agno, Pangasinan Province; Malabon, Rizal Province; mouth of Pansipit River, Batangas Province—all in Luzon. Capiz, Capiz Province, Panay; Sitankai, Sulu Province; Culion. Also from Kabili River, British North Borneo; Singapore; Pulau Ubin; Calcutta; Pulta, Bengal.

Zenarchopterus Buffoni Mohr, Zool. Jahrb., Band 52, p. 260, figs. 1-6, 1926; many localities in the Carolines, Bismarck Archipelago, Admiralty Islands, and New Guinea.

394. *Zenarchopterus cagayanensis* Herre.

Zenarchopterus cagayanensis Herre, Philippine Jour. Sci., vol. 31, p. 537, 1926; Pinacanauan and Tuguegarao Rivers, Cagayan Province, Luzon. Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 25, 1944; after original description.

395. *Zenarchopterus dispar* (Cuvier and Valenciennes).

Common in the Philippines in fresh water near the sea; East Indies to Ceylon and Samoa.

Hemiramphus dispar Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, pp. 58-62, fig. 558, 1846; Java.

Hemiramphus dispar Günther, Cat. Fishes, British Mus., vol. 6, p. 274, 1866; Ceylon; East Indies.

Zenarchopterus vaisiganis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 208, fig. 11, 1906; Vaisigano River, Apia, Samoa.

Zenarchopterus dispar Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 9, 1907; Cavite, Cavite Province, Luzon; specimen examined. Mohr, Zool. Jahrb., Band 52, p. 254, fig. 16, 1926; Admiralty Islands; Ponapé, Caroline Islands; Bismarck Archipelago. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 42, p. 127, 1926; Bismarck Archipelago. Fowler, Mem. Bishop Mus., vol. 10, p. 79, 1928; Kusaie and Strong's Island, Caroline Islands; Suva, Fiji. Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 36, 1944; from Cagayan Province, Apapayanan River, Aparri; Buguey River, Buguey; Casambalangan River, Gonzaga; Wangag River, Barrio Minanga, Gonzaga, Dagupan, Pangasinan Province—all on Luzon. Karig Malan Creek, Culion; Barotac Nuevo, Iloilo Province, Panay; Balabac Island. Also creek at Auki, Malaita Islands, Solomons; creek near Suva, Viti Levu Island, and Mbureta River, Ovalau Island, Fiji.

396. *Zenarchopterus dunckeri* Mohr.

New Guinea, the Admiralty Islands, Amboina, Philippines, and Solomon Islands. In the sea.

Hemiramphus dispar Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 498, 1854; Amboina; not of Cuvier and Valenciennes. Kner, Sitzungsber. Math. Natur. Klasse, Akad. Wiss. Wien, Band. 39, p. 537, figs. 3, and 3c, 1860; East Indies; not of Cuvier and Valenciennes.

Zenarchopterus dunckeri Mohr, Zool. Jahrb., Band 52, p. 255, fig. 17, and table facing p. 240, 1926; New Guinea; Bismarck Archipelago, Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 38, 1944; Cagayan, Misamis Oriental Province, Mindanao; Sitankai, Sulu Province, Herre, 1940-41 Exped.; Balayan Bay, Batangas Province, Luzon.

Zenarchopterus kneri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 325, fig. 78, 1934; after Kner.

Zenarchopterus kampeni Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 59, 1936; Hathorn Sound, New Georgia, Solomon Islands; not of Weber.

397. *Zenarchopterus kampeni* Weber.

Known range, New Guinea and the Philippines, in fresh water.

Hemiramphus (*Zenarchopterus*) *kampeni*. Weber, Nova Guinea, vol. 9, p. 554, 1913; Sepik River, New Guinea.

Hemiramphus buffonis Hase, Jena Zeitschr. Naturw., Band 51, p. 541, 1914; Sepik River, New Guinea; not of Cuvier and Valenciennes.

Zenarchopterus kampeni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 167, 1922; Sepik River, New Guinea. Mohr, Zool. Jahrb., Band 52, p. 248, figs. 13 and 14, 1926; Ramu and Sepik River, New Guinea. Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 26, 1944; paratypes of *Zenarchopterus basudensis* examined; Basut River, Camarines Norte Province, Luzon. Also from the mouth of a fresh-water creek, Waigiu.

Zenarchopterus basudensis Fowler, Proc. Acad. Nat. Sci., Phila., vol. 85, p. 326, fig. 79, 1934; Basut River, Camarines Norte Province.

398. *Zenarchopterus pappenheimi* Mohr.

Andaman Islands, Malay Peninsula, Siam, Sumatra, and British North Borneo. To be expected in Balabac, Cagayan Sulu, and the Sulu Islands.

Zenarchopterus pappenheimi Mohr, Zool. Jahrb., Band 52, p. 258, fig. 20, 1926; Bangkok, Siam. Mohr, Zool. Meded., Deel 17, p. 13, 1934; Belawin Deli, Sumatra. Mohr, Zool. Anzeiger, Band 116, p. 221, 1936; Pinang, Straits Settlements; Andaman Islands.

Zenarchopterus atrodorsalis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 323, fig. 77, 1934; Sandakan, British North Borneo.

399. *Zenarchopterus philippinus* Peters.

Known only from streams and lakes in Luzon and Samar.

Hemiramphus (*Zenarchopterus*) *philippinus* Peters, Monatsber. Akad. Wiss. Berlin, p. 273, 1868; Quingoa River, Bulacan Province, and the Bikol River, Camarines Sur Province, Luzon; Calbigan, Samar.

Zenarchopterus philippinus Bleeker, Atlas Ichth., vol. 6, p. 63, 1866-72; on Peters. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 59, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 9, 1919; Philippine Islands. Herre, Fishes 1931 Philippine Exped., p. 26, 1934; Molawin Creek, College of Agriculture, Laguna Province, and Lake Bombon, Batangas Province, Luzon. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 27, 1944; Olo Creek, Mangatarem, Pangasinan Province; Tarlac, Tarlac Province; Banay River, Banay, and Bay River, Laguna Province; Molawin Creek, College of Agriculture, and Laguna de Bay at the mouth of the Molawin, Laguna Province; Santa Maria River, Santa Maria, Laguna Province; Tanay, Rizal Province—all from Luzon.

400. *Zenarchopterus philippinus* var. *magatensis* Herre.

Nueva Viscaya Province, Luzon.

Zenarchopterus magatensis Herre, Fishes 1931 Philippine Exped., p. 26, 1934; Bagabag, Magat River, Nueva Viscaya Province, Luzon.

Zenarchopterus philippinus var. *magatensis* Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 29, 1944; Magat River at Bayombong and Bagabag, Nueva Viscaya Province, Luzon.

401. *Zenarchopterus rasori* (Popta).

Dutch East Indies and Philippines. Brackish water, streams and nipa swamps.

Hemiramphus rasori Popta, Notes Leyden Mus., vol. 34, p. 192, 1912; Muna, Dutch East Indies.

Zenarchopterus rasori Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 166, 1922; after Popta.

Species incertae: *Zenarchopterus rasori* Mohr, Zool. Jahrbuch, Band 52, p. 263, 1926; on Popta.

Zenarchopterus rasori Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 24, 1944; Nipa swamp near Capiz, Capiz Province, Panay; Segaliud and Kabili Rivers, British North Borneo.

402. *Zenarchopterus cotnog* (Smith). Kotnog.

A doubtful species.

Hemirhamphus cotnog Smith, U. S. Fish Comm. Bull., vol. 21, p. 170, 1902; Lake Buhí, Camarines Sur Province, Luzon.

Zenarchopterus cotnog Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 40, 1944; on Smith.

403. *Zenarchopterus dux* Seale.

A doubtful species.

Zenarchopterus dux Seale, Philippine Jour. Sci., vol. 5, p. 267, pl. 2, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 169, 1922; on Seale. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 33, 1944; on Seale.

Spécies incertae; Mohr. Zool. Jahrbuch, Band 52, p. 263, 1926.

Genus 159. *DERMOGENYS* van Hasselt.

The Philippines, East Indies, Siam, Burma, India. In fresh and slightly brackish water.

Dermogenys van Hasselt, Allgemeiner Kunst en Letterbode, vol. 2, p. 131, 1823; Java. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 136, 1922. Mohr, Mitt. Zool. Mus. Berlin, Band 21, p. 39, 1936. Herre, Stanford Univ. Pub., Biol. Sci., vol. 9, p. 42, 1944.

404. *Dermogenys pusillus* van Hasselt.

East Indies, Malaya, Burma, Siam, and southern Philippines.

Dermogenys pusillus van Hasselt, Allgemeine Kunst en Letterbode, vol. 2, p. 131, 1823; Java. Bleeker, Ned. Tijds. Dierk., vol. 3, p. 165, 1866. Bleeker, Atlas Ichth., Scombresoc., vol. 6, p. 64, pl. 7, fig. 1, 1866-72. Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 595, 1912. Weber and de Beaufort, Fishes Indo-Austr. Arch., vol. 4, p. 140, 1922; Singapore; Sumatra; 16 localities in Java; Borneo. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 14, 1922; Zambaonga, Philippine Islands; doubtful. Mohr, Mitt. Zool. Mus. Berlin, Band 21, p. 41, figs. 5, 6, 1936; numerous localities in Java, Sumatra, Borneo. Herre, Bull. Raffles Mus., No. 13, p. 17, 1937; Jurong, Singapore; Kuala Pilah, Negri Sembilan, Malay Peninsula; Rangoon, Burma. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 43, 1944; Sitankai, Sulu Province. Also numerous streams in British Borneo, Singapore, Malay Peninsula, and Rangoon, Burma.

Hemiramphus fluviatilis Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 95, 1850; Java.

Hemiramphus sumatranus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 526, 1853; Sumatra.

Dermogenys sumatranus Bleeker, Nat. Tijds. Dierk., vol. 3, p. 167, 1866. Bleeker, Atlas Ichth., vol. 6, p. 64, pl. 7, Scombresoc. fig. 2. 1866-72. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 139, 1922; Sumatra; Borneo; Singapore.

Hemirhamphus sumatranus Günther, Cat. Fishes British Mus., vol. 6, p. 275, 1866.

Hemiramphus fluviatilis Günther, Cat. Fishes British Mus., vol. 6, p. 275, 1866.

Hemiramphus orientalis Weber, Zool. Ergeb., Band 3, p. 427, 1894.

Hemirhamphus orientalis Boulenger, Proc. Zool. Soc. London, p. 429, 1897.

Dermatogenys fluviatilis Jordan and Seale, Proc. U. S. Nat. Mus., vol. 33, p. 540, 1907.

Dermogenys orientalis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 137, fig. 152, 1922; Borneo; Celebes. Herre, Fishes 1931 Philippine Exped., p. 25, 1934; Sitankai, Sulu Province. Herre, Bull. Raffles Mus., No. 13, p. 17, 1937; Kuala Pilah, Negri Sembilan, Malaya.

405. *Dermogenys viviparus* Peters.

The Philippines.

Hemiramphus viviparus Peters, Monatsber. Akad. Wiss. Berlin, 1865, p. 132, 1866; Basey River, Samar.

Hemirhamphus (Dermogenys) viviparus Peters, Monatsber. Akad. Wiss. Berlin, p. 273, 1869; Yassot Creek, Luzon; Basey River, Samar.

Dermogenys viviparus Bleeker, Atlas Ichth., vol. 6, p. 273, 1866-72. Herre, 1931 Philippine Exped., p. 25, 1934; Bagabag, and Santa Fe, Nueva Viscaya Province; Molawin Creek, College of Agriculture, La-

guna Province, Luzon; Concepcion, Busuanga; Culion. Mohr, Mitt. Zool. Mus. Berlin, Band 21, p. 51, fig. 9, 1936; Basey River, Samar; Yassot Brook, Luzon, Philippines. Mohr, Zool. Anzeiger, Band 116 p. 219, fig. 1, 1936. Herre, Stanford, Univ. Pub. Biol. Sci., vol. 9, p. 45, 1944; Solsona, Ilokos Norte Province; Oriwong Tollgate, Magat River at Bagabag, and the vicinity of Santa Fe, Nueva Viscaya Province; Talavera River, Nueva Ecija Province; Molawin Creek, College of Agriculture and Santa Maria, Santa Maria River, Laguna Province; Sala River, Jala Jala Barrio, Malaya, Rizal Province—all on Luzon. Coron, Wayan Creek, San Nicolas Creek, and a creek near Concepcion, Busuanga; Baldat, Culion; Haya River, Bilar, Bohol; creek near Indanan, Jolo, Sulu Province.

Rhamphodermogenys bakeri Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 15, fig. 3, 1922; Zamboanga, Philippines.

Dermogenys bakeri Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 263, 1927; Calapan, Mindoro.

Dermogenys pectoralis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 326, fig. 80, 1934; Bubucan, Philippines.

406. *Dermogenys viviparus* var. *mindanensis* Herre.

Dermogenys viviparus var. *mindanensis* Herre, Stanford Univ. Pub. Biol. Sci. vol. 9, p. 48, 1944; outlet of Lake Mainit, Jabonga, Agusan Province, Mindanao.

Family 64. EXOCOETIDÆ. Flying fish; Lawin-lawin; Isdang Lawin; Lawin; Balang; Tirogo; Bingki; Bangsi; Eliu; Iliu; Laniu; Sirikinia; Barongoy

Genus 160. CYPSELURUS Swainson.

Cypselurus Swainson, Natural History Animals, vol. 2, Fishes, p. 296, 1839; misprinted *Cypsilurus*, according to decision Internat. Comm. Zoological Nomenclature. Logotype, *Exocoetus nuttalli* Le Sueur = *Exocoetus furcatus* Mitchell. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 179, 1922.

407. *Cypselurus altipennis* (Cuvier and Valenciennes).

From the Red Sea and Cape of Good Hope to Australia, Samoa, and Hawaii.

Exocoetus altipennis Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 19, p. 80, pl. 560, 1846; East Indies; Cape of Good Hope.

Exocoetus katopron Bleeker, Ned. Tijds. Dierk., vol. 3, p. 115, 1866. Bleeker, Atlas Ichth., vol. 6, p. 72, 1866; Sumatra.

Exocoetus robustus Günther, Cat. Fish British Mus., p. 289, 1866.

Exocoetus altipinnis Bleeker, Atlas Ichth., vol. 6, pl. 247, fig. 1, 1866-72; 1860. Day, Fishes India, p. 807, 1878.

Exocoetus robustus Günther, Cat. Fishes British Mus., vol. 6, p. 289, 1866; west Australia.

Cypsilurus katopron Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 211, fig. 16, 1906; seas south of Samoa.

Cypsilurus altipinnis Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Philippines.

Cypsilurus altipennis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 184, 1922; Sumatra; Java Sea; the Philippines.

Cypselurus altipennis Fowler, Mem. Bishop Mus., vol. 10, p. 82, 1928; between Honolulu and San Francisco. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 54, 1936; Bushman's Bay, Malekula Island, New Hebrides.

408. *Cypselurus articeps* (Günther).

The Philippines, China, Japan, and New Guinea.

Exocoetus articeps Günther, Cat. Fishes, British Mus., vol. 6, p. 289, 1866; China. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 278, 1883; southeast New Guinea.

Cypsilurus articeps Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 211, 1906; reference. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 182, 1922; type examined.

Cypselurus articeps Fowler, Mem. Bishop Mus., vol. 10, p. 82, 1928; after Weber and de Beaufort. Herre, Copeia, No. 3, p. 147, 1945; Gingoog Bay, at Barrio Cabug, Talisayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao; Iloilo market, Iloilo Province, Panay.

409. *Cypselurus atrisignis* Jenkins.

From Hawaii to the Straits of Malacca.

Cypselurus atrisignis Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 436, pl. 3, 1903; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 136, pl. 25, 1905; on type. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 210, 1906; Kusaie Island, Carolines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 187, 1922; Malacca Straits.

Exocoetus atrisignis Günther, Fische der Südsee, vol. 3, p. 368, 1910; Hawaiian Islands; Ualan; Strong Island; Greenwich Island.

Cypselurus atrisignis Fowler, Mem. Bishop Mus., vol. 10, p. 83, 1928; Ebon Island; Honolulu. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete. Herre, Fishes 1931 Phil. Exped., p. 27, 1934; Dumaguete, Oriental Negros Province.

410. *Cypselurus bahiensis* (Ranzani). Sirikinia (Cebu name).

Indo-Pacific and Atlantic coast of tropical America.

Exocoetus bahiensis Ranzani, Novi Comm. Acad. Sci. Inst. Bonon., vol. 5, p. 362, pl. 38, 1842; Bahia, Brazil. Günther, Cat. Fishes British Mus., vol. 6, p. 293, 1866. Bleeker, Atlas Ichth., vol. 6, p. 71, 1866-72. Day, Fishes India, p. 518, pl. 121, fig. 10, 1878. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 512, 1900; Honolulu. Günther, Fische der Südsee, vol. 3, p. 369, 1910; Hawaiian Islands.

Exocoetus spilonotopterus Bleeker, Ned. Tijds. Dierk., vol. 3, p. 113, 1866.

Cypselurus quindecimradiatus Fowler, Proc. Acad. Nat. Sci. Phila., p. 482, pl. 17, 1899; Thornton Island.

Cypselurus spilonotopterus Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 176, 1902; Takao, Formosa. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 330, (1902) 1903; Formosa. Jordan and Dickerson, Proc. U. S. Nat. Mus., vol. 34, p. 606, fig. 2, 1908; Hawaii.

Cypselurus bahiensis Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 436, 1903; Honolulu. Jordan and Evermann, *ibid.*, 23, Pt. 2, p. 136, 1905; Hilo; Honolulu. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 253, 1911; Arhno, Marshall Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 190, 1922; Pulu Weh; Mouluca Straits; Sumatra; Misol; Philippines. Fowler and Ball, Bull. Bishop Mus., No. 26, p. 8, 1925; Lisiansky Island.

Cypselurus tahitensis Seale, Occas. Papers Bishop Mus., vol. 4, p. 13, fig. 3, 1906; Tahiti.

Cypselurus spilonotopterus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; west coast of Negros.

Exocoetus tahitensis Günther, Fische der Südsee, vol. 3, p. 371, 1910; Tahiti.

Cypselurus quindecimradiatus Fowler, Proc. Acad. Nat. Sci. Phila., p. 15, 1919; type.

Cypselurus spilonotopterus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 20, 1922; Hawaii.

Cypselurus bahiensis Fowler, Mem. Bishop Mus., vol. 10, p. 84, 1928; Honolulu; Tahiti; Lisiansky Island; Arhno. Fowler, Hongkong Nat., vol. 3, p. 277, 1932. Martin, Philippine Jour. Sci., vol. 67, p. 178, 1938; coasts of Cebu.

411. *Cypselurus caudimaculatus* Fowler.

A doubtful species; known only from 8 juvenile specimens 62 mm. in length. Probably the young of some previously described species.

Cypselurus caudimaculatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 328, fig. 82, 1934; vicinity of Jolo Island, Sulu Province.

412. *Cypselurus nigricans* (Bennett).

Indo-Pacific and Atlantic; not common.

Exocoetus nigricans Bennett, Narrative Whaling Voyage, vol. 2, p. 287, 1840; Atlantic and Pacific Oceans, lat. 5° N. Günther, Cat. Fishes British Mus., vol. 6, p. 290, 1866. Bleeker, Atlas Ichth., vol. 6, p. 73, 1866-72. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 737, 1896. Günther, Fische der Südsee, vol. 3, p. 367, 1910; Indo-Pacific.

Exocoetus bicolor Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 11, 1846. Bleeker, Ned. Tijds. Dierk., vol. 3, p. 132, 1866.

- Exocoetus spilopus* Cuvier and Valenciennes, *ibid.*, p. 118, 1846. Lutken, Vidensk. Meddel. fra Dansk. Naturh. Forening (København), p. 401, 1876.
- Cypselurus nigricans* Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 183, 1922; Malacca Straits; Java Sea; Bay of Batjan.
- Cypselurus nigricans* Fowler, *Mem. Bishop Mus.*, vol. 10, p. 82, 1928; after Weber and de Beaufort. Herre, 1933-34 Exped.; northwest coast of Mindoro. Herre, *Copeia*, No. 3, p. 147, 1945; Gingoog Bay, Barrio Cabug, Talisayan, Misamis Oriental Province; and Margosatubig, Zamboanga Province, Mindanao.
413. *Cypselurus nigripennis* (Cuvier and Valenciennes). East Indies, Philippines, Solomon Islands, China, to Zanzibar and Madagascar. Probably the young of another species.
- Exocoetus nigripennis* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 19, p. 78, 1846; China Seas. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 2, Achtste Bijdr. Vischfauna Amboina, p. 86, 1857; Amboina. Bleeker, *Nat. Tijds. Dierk.*, vol. 3, p. 120, 1866. Bleeker, *Atlas Ichth.*, vol. 6, p. 70, pl. 251, fig. 1, 1866-72; New Guinea.
- Cypselurus nigripennis* Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 192, 1922; Singapore; Amboina, Ternate; Gébè, New Guinea.
- Cypselurus nigripennis* Fowler, *Mem. Bishop Mus.*, vol. 10, p. 84, 1928; Shortland Island, Solomon Islands. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 3, 1933; Dumaguete, Oriental Negros Province. Herre, *Fishes 1931 Philippine Exped.*, p. 27, 1934; Dumaguete, Negros.
414. *Cypselurus oligolepis* (Bleeker). Barofigoy. Philippines, East Indies, to Tahiti, China, Zanzibar. Abundant in Philippine waters.
- Exocoetus oligolepis* Bleeker, *Ned. Tijds. Dierk.*, vol. 3, p. 109, 1866; Batavia; Bali; Sumatra; Singapore; Makassar; Batjan; Amboina; Banda. Bleeker, *Atlas Ichth.*, vol. 6, p. 70, 1866-72. Günther, *Cat. Fishes British Mus.*, vol. 6, p. 296, 1866. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 39, 1885; Manila Bay, Luzon. Günther, *Fische der Südsee*, vol. 3, p. 370, 1910; Tahiti.
- Exocoetus brachysoma* Bleeker, *Ned. Tijds. Dierk.*, vol. 3, p. 111, 1866. Bleeker, *Atlas Ichth.*, vol. 6, p. 70, 1866-72. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 125, 1913.
- Cypselurus brachysomus* Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 9, 1907; Cavite, Cavite Province, Luzon.
- Cypselurus brachysoma* Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 71, p. 13, 1920; Cebu, Cebu Province.
- Cypselurus oligolepis* Duncker and Mohr, *Mitt. Zool. Mus. Hamburg*, vol. 42, p. 129, 1926; near New Guinea.
- Cypselurus oligolepis* Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 263, 1927; Orani and Orion, Bataan Province, Luzon. Herre, *Proc. Pan Pacific Research Inst.*, vol. 8, p. 7, 1934; Dumaguete, Oriental Negros Province, Negros. Herre, *Fishes 1931 Philippine Exped.*, p. 27, 1934; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros. Umali, *Edible Fishes Manila*, p. 79, fig. 41, 1936; Manila Bay. Villadolid, *Philippine Jour. Sci.*, vol. 63, p. 216, 1937; Balayan Bay, Batangas Province, Luzon. Blanco, *Philippine Jour. Sci.*, vol. 66, p. 506, 1938; Cayagan Province, Luzon. Martin, *Philippine Jour. Sci.*, vol. 67, p. 178, 1938; coasts of Cebu. Domantay, *Philippine Jour. Sci.*, vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Gingoog Bay, Barrio Cabug, Talisayan, Misamis Oriental Province, Mindanao.
415. *Cypselurus opisthopus* (Bleeker). East Indies, Philippines, and Solomon Islands.
- Exocoetus opisthopus* Bleeker, *Ned. Tijds. Dierk.*, vol. 3, p. 121, 1866; Celebes. Bleeker, *Atlas Ichth.*, vol. 6, p. 76, pl. 248, fig. 2, 1866-72. Günther, *Cat. Fishes British Mus.*, vol. 6, p. 297, 1866; type. Günther, in Brenchley, *Cruise Curaçao*, p. 411, 1873.
- Cypselurus oligolepis* Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 15, 1906; Shortland Island, Solomons; not of Bleeker.
- Cypselurus opisthopus* Bean and Weed, *Proc. U. S. Nat. Mus.*, vol. 42, p. 595, 1912; Sumatra.

Cypselurus opisthopus Fowler, Mem. Bishop Mus., vol. 10, p. 84, 1928; Shortland Island, Solomon Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933. Herre, 1931 Philippine Exped., p. 27, 1934; Dumaguete, Oriental Negros Province, Negros. Herre, 1940-41 Exped.; Molugan, Cagayan, and Barrio Cabug, Talisayan, Misamis Oriental Province, Mindanao.

416. *Cypselurus poecilopterus* (Cuvier and Valenciennes). Barongoy; Bangse or Bangsi.

Exocoetus poecilopterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 112, pl. 561, 1846; New Britain. Günther, Cat. Fishes British Mus., vol. 6, p. 291, 1866; Caroline Islands. Günther, Fische der Südsee, vol. 3, p. 368, 1910; New Pomerania.

Cypsilurus poecilopterus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26, p. 542, 1903; Hakodate, Japan. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 210, fig. 14, 1906; off western end of Tutuila, Samoan Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 186, fig. 63, 1922; Flores; Banda.

Cypselurus poecilopterus Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 409, 1912; Okinawa, RiuKiu Islands. Fowler and Ball, Bull. 26, Bishop Mus., p. 8, 1925; Johnston Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933. Herre, 1931 Philippine Exped., p. 27, 1934; Dumaguete, Oriental Negros Province, Negros. Martin, Philippine Jour. Sci., vol. 67, p. 178, 1938; coasts of Cebu. Herre, 1940-41 Exped.; Gingoog Bay, Barrio Cabug, Talisayan, Misamis Oriental Province, Mindanao.

417. *Cypselurus simus* (Cuvier and Valenciennes).

Hawaii to the Tuamotus, Tahiti, and the Philippines.

Exocoetus simus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 77, 1846; Hawaiian Islands. Günther, Report Voy. Challenger, Zool., v. 31, Pt. 2, p. 37, 1889; Honolulu. Günther, Fische der Südsee, vol. 3, p. 369, 1910; Hawaiian Islands.

Cypselurus simus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 435, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 134, fig. 46, 1905; Honolulu; Waimea and Hanamaulu Bay, Kauai; Napili, Molokai, Hawaii. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 58, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Nichols, Novitat. Amer. Mus., No. 94, p. 3, 1923; Marutea, Taumotu Archipelago.

Cypselurus simus Fowler, Proc. Acad. Nat. Sci. Phila., 1919; p. 15; Honolulu. Fowler and Ball, Bull. 26, Bishop Mus., p. 9, 1925; Lahaina, Maui; Johnston Island. Fowler, Mem. Bishop Mus., vol. 10, p. 85, 1928; Honolulu; Tahiti; Lahaina, Maui; Johnston Island. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 46, 1930; Polloc Harbor, Cotabato Province, Mindanao.

Genus 161. OXYPORHAMPHUS Gill.

Oxyporhamphus Gill, Proc. Acad. Nat. Sci. Phila., vol. 15, p. 273, 1863; orthotype, *Hemiramphus cuspidatus* Cuvier and Valenciennes. Hubbs, Papers Michigan Acad. Sci., Arts, and Letters, vol. 17, p. 580, 1932. Bruun, Dana Report No. 6, 1938.

Evolantia Heller and Snodgrass, Proc. Washington Acad. Sci., vol. 5, p. 189, 1903; genotype, *Exocoetus micropterus* Cuvier and Valenciennes. Only one species known.

418. *Oxyporhamphus micropterus* (Cuvier and Valenciennes). Laniu.

The Philippines, East Indies, Australia, Fiji, Hawaii, and Galapagos.

Exocoetus micropterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 92, pl. 563; 1846; Port King George, Australia; Carteret, New Ireland; Buru; Malabar. Bleeker, Verh. Bat. Gen., vol. 25, icht. fauna Bengalen, p. 72, 1853; Bengal. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Besch. visschen Amboina, p. 63, 1856. Günther, Cat. Fishes British Mus., vol. 6, p. 279, 1866. Bleeker, Atlas Ichth., vol. 6, p. 77, 1866-72. Lutken, Vidensk. Meddel. fra Dansk Naturh. Forening, Kobenhaven, p. 396, 1876. Günther, Fische der Südsee, vol. 3, p. 361, 1909; New Mecklenburg; Savay, Samoa; Hawaiian Islands.

Cypsilurus micropterus Bleeker, Ned. Tijds. Dierk., vol. 3, p. 128, 1866.

Evolantia microptera Heller and Snodgrass, Proc. Washington Acad. Sci., vol. 5, p. 189, 1903; Galapagos Islands. Jenkins, Bull. U. S. Fish

Comm., vol. 22, p. 434, 1903; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 130, fig. 44, 1905; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 80, 1928; Gilbert (Kingsmill) Islands; Phoenix Islands. Herre, Copeia, No. 3, p. 147, 1945; Gingoog Bay, Barrio Cabug, Talisayan, Misamis Oriental Province, Mindanao.

Evolantia micropterus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 176, 1922; Amboina; Buru. Martin, Philippine Jour. Sci., vol. 67, p. 178, 1938; coasts of Cebu.

Hemiramphus convexus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 159, 1922; between Gèbè and Fau, west of Halmahera, and the harbor of Kupang, Timor, Dutch East Indies. Based on juvenile specimens. Herre, Stanford Univ. Pub. Biol. Sci., vol. 9, p. 49, 1944; Ternate; Lembah Strait, Celebes; juvenile.

Genus 162. PAREXOCOETUS Bleeker.

A single species in the Pacific, Indian, and Atlantic Oceans.

Parexocoetus Bleeker, Ned. Tijds. Dierk., vol. 3, pp. 107 and 126, 1866; orthotype, *Exocoetus mento* Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 173, 1922.

419. *Parexocoetus brachypterus* (Richardson).

All over the Indian Ocean; north in the Pacific Ocean to China and the Hawaiian Islands; western Atlantic, north to Rhode Island. Very common in the Philippines. Only a part of the many references are given here.

Exocoetus brachypterus Richardson, Ichth. China, Japan, p. 265, 1846; Tahiti; on Solander's ms. Günther, Cat. Fishes British Mus., vol. 6, p. 280, 1866. Günther, Fische der Südsee, vol. 3, p. 362, 1910; Pelew Islands; Port Mackay; Tahiti.

Exocoetus brachiopterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 95; 1846; Tahiti.

Exocoetus mento Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 19, p. 124, 1846. Bleeker, Verh. Bat., Gen., vol. 24, Snoekacht. viss., p. 21, 1852. Günther, Cat. Fishes British Mus., vol. 6, p. 281, 1866. Meyer, An. Soc. Española Hist. Nat. Madrid, vol. 14, p. 39, 1885; Manila Bay.

Parexocoetus mento Bleeker, Ned. Tijds. Ned.-Ind., vol. 3, p. 126, 1866. Bleeker, Atlas Ichth., vol. 6, p. 77. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 57, p. 494, 1905. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 9, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; Manila.

Exocoetus brachyopterus Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 512, 1900; Honolulu; Laysan.

Parexocoetus brachypterus Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 435, 1903; Honolulu. Snyder, *ibid.*, p. 522; off Molokai. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 131, pl. 3, 1905; Honolulu; Hilo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 174, fig. 60, 1922; many East Indian localities. Fowler, Mem. Bishop Mus., vol. 10, p. 79, 1928. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 46, 1930; Cebu Harbor, Cebu Province. Fowler, Hong Kong Nat., vol. 3, p. 272, 1932; Philippines. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Currimao, Ilokos Norte Province; Manila Bay; Nasugbu, Batangas Province; Atimonan, Tayabas Province; Magallanes, Sorsogon Province; Luzon. Martin, Philippine Jour. Sci., vol. 67, p. 178, coasts of Cebu. Herre, 1940-41 Exped.; Gingoog Bay, Barrio Cabug; Talisayan, Misamis Oriental Province, Mindanao.

Order Q. ANACANTHINI

Family 65. MACROUROIDIDAE

Deep-sea fishes of the Philippines and Japan.

Genus 163. MACROUROIDES Smith and Radcliffe.

One species known from the Philippines.

Macrouroides Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 139, pl. 31, fig. 2, 1912; orthotype, *Macrouroides infaticeps* Smith and Radcliffe.

420. *Macrouroides inflaticeps* Smith and Radcliffe.

Macrouroides inflaticeps Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 139, pl. 31, fig. 2, 1912; near Batan Island, Lagonoy Gulf, Albay Province, Luzon, in 408 fathoms. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, Part 7, p. 408, 1920; same specimen. Norman, Scientific Reports Murray Exped., vol. 7, p. 48, 1939; near Batan Island, Lagonoy Gulf, Luzon; near the Maldives, Indian Ocean.

Family 66. MACROURIDAE (CORYPHAENOIDIDAE). Grenadiers; Rat-tails

Deep-sea fishes of all oceans.

Genus 164. BATHYGADUS Günther.

In tropical and subtropical seas, between 32° N. and 32° S., at depths from 197 to 2,744 meters.

Bathygadus Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 2, p. 23, 1878; orthotype, *Bathygadus cottoides* Günther. Goode and Bean, Oceanic Ichthyology, p. 420, 1895. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 15, 1929.

Melanobranchus Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 459, 1903; orthotype, *Bathygadus melanobranchus* Vaillant.

421. *Bathygadus furvescens* Alcock.

Philippines and East Indies to the Andaman Islands and Arabian Sea. *Bathygadus furvescens* Alcock, Jour. Asiatic Soc. Bengal, vol. 43, p. 128, 1894. Alcock, Illustrations Zoology Investigator, Fishes, pl. 16, fig. 1, 1895. Alcock, Cat. Indian Deep-Sea Fishes, p. 121, 1899; Andaman Sea. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 388, 1920; east coast of Luzon; between Leyte and Mindanao; off northern Mindanao; between Siquijor and Bohol Islands, in 567 to 976 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 19, 1929; east coast of Luzon, 1,033 meters; between Leyte and Mindanao, 1,785 meters; between Siquijor and Bohol Islands, about 1,280 meters; northwest coast of Sumatra; Strait of Makassar, 1501 meters; Flores Sea, 694 meters; Ceram Sea, 567 meters; Gulf of Tomini, Celebes, 1,399 meters; Andaman Sea; Bay of Bengal; Gulf of Manar; Arabian Sea; East African coast.

Bathygadus melanobranchus Brauer, Valdivia-Exped., Tiefsee Fische, p. 272, 1906; not of Vaillant. Weber, Siboga-Exped., vol. 57, Fische, p. 172, 1913; not of Vaillant.

422. *Bathygadus spongiceps* Gilbert and Hubbs.

The Philippines and East Indies, at 480 to 890 fathoms.

Bathygadus spongiceps Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 381, fig. 1, 1920; off Sibutu Island, vicinity of Darvel Bay, Borneo; off north Borneo; off southern Luzon, in China Sea; off south-east coast of Luzon; Buton Strait, near Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 17, 1929; after Gilbert and Hubbs.

423. *Bathygadus sulcatus* (Smith and Radcliffe).

Known only from the Philippines.

Regania sulcata Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 108, text fig. 1 and pl. 22, fig. 3, 1912; near Cagayan Island, Sulu (Jolo in text) Sea, at 508 fathoms.

Bathygadus sulcatus Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 390, 1920; near Cagayan Island, Sulu (Jolo in text) Sea; between Marinduque and Luzon, at 530 fathoms; off northern Mindanao, at 392 to 441 fathoms.

Genus 165. COELORHYNCHUS Giorna.

Over 50 known species, nearly half of these occurring in the Philippines; the rest from Japan to New Zealand in the Pacific, and from Norway to 52° S. lat. in the Atlantic Ocean.

Coelorhynchus Giorna, Mem. l'Acad. Imper. Torino, vol. 16, p. 18, 1805; type, *Coelorhynchus la ville* Giorna. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 36, 1929.

424. *Coelorhynchus acutirostris* Smith and Radcliffe.
A Philippine species.
Coelorhynchus acutirostris Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 134, text fig. 10, pl. 30, fig. 2, 1912; between Cebu and Bohol, at 159 fathoms. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 512, 1920; between Cebu and Bohol, at 159 and 165 fathoms; vicinity of northern Mindanao, at 169 and 175 fathoms.
425. *Coelorhynchus argentatus* Smith and Radcliffe.
The Philippines, near the Kei Islands; Indian Ocean near Algoa Bay.
Coelorhynchus argentatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 137; pl. 31, fig. 1, 1912; vicinity of Jolo, at 318 fathoms.
Coelorhynchus acus Weber, *Siboga*-Exped., vol. 57, Fische, p. 160, 1913.
Coelorhynchus argentatus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 433, 1920; China Sea, off southern Luzon, at 117 and 173 fathoms; off northern Mindanao, in 169 to 200 fathoms; Gulf of Davao, Mindanao, in 100 fathoms; vicinity of Jolo, in 114 to 318 fathoms; between Jolo and TawiTawi, at 244 fathoms. Barnard, Ann. South African Mus., vol. 21, p. 339, 1925; east of Algoa Bay, at 85 meters. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 40, fig. 9, 1929; near Kei Islands, at 310 and 397 meters; between Jolo (Sulu in text) and TawiTawi; neighborhood of Jolo (Sulu in text); vicinity of Mindanao; off southern Luzon; east of Algoa Bay, South Africa.
426. *Coelorhynchus argus* Weber.
East Indies and Philippines.
Coelorhynchus argus Weber, *Siboga*-Exped., vol. 57, Fische, p. 161, pl. 4, figs. 4-4A, 1913; East Indies. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 472, 1920; between Burias and Luzon; China Sea off southern Luzon; between Panay and Guimaras Island; Gulf of Davao, Mindanao; near Jolo Island; at depths of 135 to 232 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 46, fig. 10, 1929; Bali Sea; Flores Sea; Macassar Strait; Molucco Passage; in depths of 397 to 538 meters; vicinity of Philippines in depths from 247 to 424 meters.
427. *Coelorhynchus carinifer* Gilbert and Hubbs.
Coelorhynchus platorhynchus form *alpha* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 134, 1912; Sipadan Island, Borneo, at 415 fathoms.
Coelorhynchus carinifer Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 490, fig. 19, 1920; China Sea, off southern Luzon at 236 fathoms.
428. *Coelorhynchus cingulatus* Gilbert and Hubbs.
Formosa and the Philippines.
Coelorhynchus cingulatus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 480, fig. 15, 1920; China Sea, off northern Luzon, at 224 fathoms; type from China Sea near Formosa, at 230 fathoms.
429. *Coelorhynchus commutabilis* Smith and Radcliffe.
The Philippines.
Coelorhynchus commutabilis typical form Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 128, text fig. 2, 1912; in part; Palawan Passage, in 375 fathoms.
Coelorhynchus commutabilis form *alpha* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 130, text fig. 3, 1912; near Mabul Island, Borneo, in 260 fathoms.
Coelorhynchus commutabilis form *delta* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 132, text fig. 6, 1912; vicinity of Jolo, Sulu Province, in 318 fathoms.
Coelorhynchus commutabilis form *eta* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 132, text fig. 7, 1912; off northern Luzon, at 224 fathoms.
Coelorhynchus commutabilis Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 507, text figs. 27, 28, 29, 1920; vicinity of Jolo Island; Palawan Passage; off eastern Luzon; near Sibuko Bay, Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 51, 1929; near Sibuko Bay, Borneo, in 475 and 567 meters; vicinity

of Jolo Island, in 582 meters; Palawan Passage, 685 meters; off eastern Luzon, in 563 and 700 meters.

430. *Coelorhynchus dorsalis* (Gilbert and Hubbs).

Coelorhynchus dorsalis Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 469, fig. 13, 1920; off northern Luzon, in 212 fathoms.

431. *Coelorhynchus macrolepis* Gilbert and Hubbs.

Coelorhynchus macrolepis Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, p. 477, fig. 14, 1920; China Sea off southwestern Luzon; Balayan Bay, Batangas Province, Luzon.

432. *Coelorhynchus macrorhynchus* Smith and Radcliffe.

The Philippines and adjacent coast of Borneo.

Coelorhynchus macrorhynchus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 127, pl. 29, fig. 1, 1912; Verde Island Passage, off Batangas Province, Luzon, in 180 fathoms; not *Coelorhynchus macrorhynchus* Weber, Siboga-Exped., vol. 57, Fische, pp. 162 and 671, pl. 4, figs. 2 and 2a, 1913. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 511, 1920; China Sea off southwestern Luzon, in 236 fathoms; Verde Island Passage, off Batangas Province, Luzon, in 180 fathoms; north of Tawi Tawi, Sulu Sea, in 315 and 340 fathoms; near Sibuko Bay, Borneo, in 415 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 52, 1929; vicinity of Sibuko Bay, Borneo; off southern Luzon; Verde Island Passage; north of Tawi Tawi.

433. *Coelorhynchus maculatus* Gilbert and Hubbs.

The Philippines and East Indies.

Coelorhynchus maculatus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 446, fig. 9, 1920; China Sea off southwestern Luzon, in 214 fathoms; Batangas Bay, Batangas Province, Luzon, in 240 fathoms; between Halmahera ("Gillolo") and Makyan Islands, at 272 and 298 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 41, 1929; between Halmahera and Makian, East Indies; off southern Luzon.

434. *Coelorhynchus notatus* Smith and Radcliffe.

A Philippine species.

Coelorhynchus notatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 136, pl. 30, fig. 3, 1912; Sulu Archipelago, in 230 fathoms. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 462, 1920; Alice Channel, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 43, 1929; after Radcliffe and Gilbert and Hubbs.

435. *Coelorhynchus parallelus* (Günther).

East Indies, Philippines, Japan; off the Kermadec Islands, off New Zealand, to Gulf of Manaar, India.

Macrurus parallelus Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 20, p. 439, 1877; Enoshima, Japan. Günther, Report Voy. *Challenger*, Zoology, vol. 22, p. 125, pl. 29, figs. A' and AA'', 1887; Japan; Kermadec Islands (?); New Zealand (?).

Coelorhynchus parallelus Jordan and Gilbert in Jordan and Starks; Bull. U. S. Fish Comm., vol. 24, p. 618, 1904; Enoshima, Japan. Franz Abh. Bayerisch. Akad. Wiss., vol. 4, Supplement, vol. 1, p. 26, 1910. Weber, Siboga-Exped., vol. 57, Fische, p. 163, pl. 4, fig. 13, 1913; East Indies, Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 181, 1916; Japan. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 515, 1920; off the east coast of Luzon, in 383 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 53, fig. 11, 1929; Flores Sea, at 694 meters; Ceram Sea at 567 meters; Halmahera Sea at 827 meters; seas of Japan at 430 to 1033 meters.

436. *Coelorhynchus platorhynchus* Smith and Radcliffe.

The Philippines and East Indies.

Coelorhynchus platorhynchus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 133, text fig. 8, pl. 30, fig. 1, 1912; Sipadan Islands, Borneo, in 476 fathoms. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, p. 484, fig. 16, 1920; east coast Luzon, in 565 fathoms; near Sibuko Bay, Borneo; Gulf of Boni, Celebes. Weber and de Beaufort, Fishes

Indo-Australian Archipelago, vol. 5, p. 47, 1929; after Radcliffe and Gilbert and Hubbs; east coast of Luzon; near Sibuko Bay, Borneo; Gulf of Boni, Celebes.

437. *Coelorhynchus quincunciatus* Gilbert and Hubbs.

Known only from the Philippines.

Coelorhynchus quincunciatus Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 438, fig. 7, 1920; off southeastern Luzon, at 153 fathoms; off the east coast of Mindoro, in 108 fathoms; between Samar and Masbate, in 135 to 137 fathoms; between Cebu and Bohol, in 162 fathoms.

438. *Coelorhynchus radcliffei* Gilbert and Hubbs.

The Philippines and East Indies.

Coelorhynchus commutabilis form *beta* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 131, text fig. 4, 1912; off northern Mindanao, in 226 fathoms.

Coelorhynchus commutabilis form *gamma* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 131, text fig. 5, 1912; off northern Mindanao, in 214 to 279 fathoms.

Coelorhynchus radcliffei Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 498, figs. 21, 22, 23, and 24, 1920; off eastern and southwestern Mindoro; between Marinduque and Luzon and near Marinduque; between Cebu and Siquijor; between Negros and Siquijor; off northern Mindanao, in 190 to 310 fathoms. Also between Halmahera (Gillolo) and Makyan and Kayoa Islands, in 265 and 288 fathoms.

439. *Coelorhynchus sexradiatus* Gilbert and Hubbs.

A Philippine species.

Coelorhynchus sexradiatus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 458, fig. 11, 1920; vicinity of Jolo, in 318 fathoms; between Jolo and TawiTawi, in 243 fathoms—both in Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 43, 1929; "vicinity of Sulu"; after Gilbert and Hubbs.

440. *Coelorhynchus smithi* Gilbert and Hubbs.

The Philippines and East Indies.

Coelorhynchus commutabilis Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 123, pl. 29, fig. 2, 1912; in part.

Coelorhynchus smithi Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 493, fig. 20, 1920; off east coast of Mindoro, in 220 to 283 fathoms; near western Bohol, in 220 fathoms; near Cagayan Sulu, Sulu Sea, in 340 fathoms; vicinity of northern Mindanao, in 220-226 fathoms; between Cebu and Siquijor, in 310 fathoms; between Negros and Siquijor, in 256-279 fathoms; near Sibuko Bay, Borneo, in 310 fathoms; between Halmahera (Gillolo) and Makyan Islands, in 298 fathoms.

441. *Coelorhynchus thompsoni* Gilbert and Hubbs.

A Philippine fish.

Coelorhynchus thompsoni Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 442, fig. 8, 1920; China Sea off southwestern Luzon, in 135 fathoms; Balayan Bay, Batangas Province, in 180 fathoms, and Verde Island Passage, off Batangas Province, Luzon, in 159 fathoms; off northern Mindanao in 200 fathoms.

442. *Coelorhynchus triocellatus* Gilbert and Hubbs.

A Philippine species.

Coelorhynchus triocellatus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 466, fig. 12, 1920; north of TawiTawi, in Sulu Sea, at 315 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 45, 1929; after Gilbert and Hubbs; north of TawiTawi, Sulu Archipelago, in 576 meters.

443. *Coelorhynchus velifer* Gilbert and Hubbs.

Only known from the Philippines.

Coelorhynchus velifer Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 452, fig. 10, 1920; off southwestern Luzon, in the China Sea and adjacent waters, in 135 to 244 fathoms; Mindanao Sea.

- 444. *Coelorhynchus weberi* Gilbert and Hubbs.**
 A Philippine species.
Coelorhynchus commutabilis form *eta* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 132, text fig. 7, 1912; type specimen only; off northern Luzon, in 224 fathoms.
Coelorhynchus weberi Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 503, figs. 25 and 26, 1920; same specimen.
- Genus 166. CORYPHAENOIDES Gunner.**
Coryphaenoides Gunner, Throindhjemse Selskab. Skrifter III, p. 50, 1761; type, *Coryphaenoides rupestris* Gunner. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 26, 1929.
Macrourus Bloch, Naturges. Auslând. Fische, vol. 2, p. 150, 1786.
Macrurus Bloch and Schneider, Syst. Ichth., p. 103, 1801.
- 445. *Coryphaenoides camurus* (Smith and Radcliffe).**
 A Philippine fish.
Macrourus camurus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 122, pl. 27, fig. 2, 1912; off eastern Palawan, in 1,105 fathoms.
Coryphaenoides camurus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 421, 1920; same specimen.
- 446. *Coryphaenoides dubius* (Smith and Radcliffe).**
Macrourus dubius Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 117, pl. 25, fig. 3, 1912; Iligan Bay, Misamis Province, Mindanao, in 410 fathoms; only type known.
Coryphaenoides dubius Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 409, 1920; same specimen.
- 447. *Coryphaenoides hyostomus* (Smith and Radcliffe).**
 The Philippines and East Indies.
Macrourus hyostomus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 121, pl. 27, fig. 1, 1912; Lagonoy Gulf, Camarines Sur Province, Luzon, in 560 fathoms.
Coryphaenoides hyostomus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 422, 1920; Lagonoy Gulf, Camarines Sur Province, Luzon; in 480 to 560 fathoms; near Sibuko Bay, Borneo, in 415 fathoms; Buton Strait, near Celebes, in 559 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 33, 1929; after Smith and Radcliffe, and Gilbert and Hubbs.
- 448. *Coryphaenoides paradoxus* (Smith and Radcliffe).**
 A Philippine species.
Macrourus paradoxus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 115, pl. 25, fig. 1, 1912; off eastern Palawan, in 1,105 fathoms.
Coryphaenoides paradoxus Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 409; 1920; only the type specimen known.
- 449. *Coryphaenoides semiscaber* Gilbert and Hubbs.**
 Known only from the Philippines.
Coryphaenoides semiscaber Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 410, fig. 6, 1920; east of Masbate Island, at 604 fathoms; off the east coast of Mindoro, at 218 fathoms; between Cebu and Siquijor, in 333 fathoms.
- 450. *Coryphaenoides microps* (Smith and Radcliffe).**
 A Philippine species.
Macrourus microps Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 116, pl. 25, fig. 2, 1912; near Atulayan Island, east coast of Luzon, in 560 fathoms. Also off northern Luzon.
Coryphaenoides microps Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 418, 1920; off northern Luzon, in 224 fathoms; Lagonoy Gulf, Albay Province, Luzon, in 560 fathoms.
- Genus 167. GADOMUS Regan.**
Gadomus Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 459, 1903; orthotype, *Bathygadus longifilis* Goode and Bean. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, pp. 139, 148, 1916. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 391, 1920.

451. *Gadomus denticulatus* Gilbert and Hubbs.
The Philippines and East Indies.
Bathygadus longifilis Weber, *Siboga-Exped.*, vol. 57, Fische, p. 171, 1913; not of Goode and Bean.
Gadomus denticulatus Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 393, fig. 3, 1920; east coast of Luzon; east coast of Mindoro; vicinity of western Bohol; vicinity of Leyte; between Cebu and Leyte; east coast of British North Borneo; at depths from 108 to 415 fathoms; also between Halmahera (Gillolo) and Makyan Islands; at 288 fathoms.
Bathygadus (Gadomus) denticulatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 21, 1929; additional localities, Savu Sea and Flores Sea.
452. *Gadomus introniger* Gilbert and Hubbs.
The Philippines and East Indies.
Gadomus multifilis Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 106, text fig. 1, 1920; in part; not *Bathygadus multifilis* Günther.
Gadomus introniger Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 401, fig. 5, 1920; China Sea off Batangas Province; Lagonoy Gulf, Camarines Sur Province, Luzon; east coast British North Borneo; in 300 to 525 fathoms. Also Buton Strait and the Gulf of Boni, Celebes, in 484 to 700 fathoms.
Bathygadus (Gadomus) introniger Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 21, 1929; China Sea, off southern Luzon; Lagonoy Gulf, eastern Luzon; east coast of North Borneo; Buton Strait; Gulf of Boni.
453. *Gadomus magnifilis* Gilbert and Hubbs.
A Philippine species.
Gadomus magnifilis Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 398, fig. 4, 1920; off northern Mindanao, in about 700 fathoms; Sogod Bay, southern Leyte, in 554 fathoms; near Cagayan Sulu Island, Sulu ("Jolo") Sea, in 508 fathoms.
454. *Gadomus multifilis* (Günther).
Indian Ocean, East Indies, Philippines, and Japan.
Bathygadus multifilis Günther, Report Voy., *Challenger*, Zoology, vol. 22, Deep-Sea Fishes, p. 155, pl. 42, fig. B, 1887; south of the Philippine Islands.
Bathygadus longifilis Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 6, p. 302, 1890; ser. 6, vol. 8, p. 123, 1891; Andaman Sea. Alcock, Descript. Cat. Indian Deep-Sea Fishes, p. 120, 1899; Bay of Bengal and Arabian Sea; not synonymy. Brauer, *Valdivia-Exped.*, Tiefsee Fische, p. 270, pl. 12, fig. 7, 1906; south of the Philippines; not synonymy.
Gadomus species Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 153, 1916; Japan.
Gadomus multifilis Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 406, 1920; Lagonoy Gulf, Camarines Sur Province, Luzon; in 480 fathoms; near Darvel Bay, British North Borneo, in 890 fathoms; Gulf of Tomini, Celebes, in 671 fathoms.
Bathygadus (Gadomus) multifilis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 23, 1929; near the Philippines; vicinity of Darvel Bay, British North Borneo; Gulf of Tomini, Celebes; west coast Sumatra; Andaman Islands; near the Laccadives, Arabian Sea; east coast of Africa.

Genus 168. HYMENOCEPHALUS Giglioli and Issel.

Hymenocephalus Giglioli and Issel, Pelagos, Saggi sulla vita e sui prodotti del mare, Genova, p. 228, 1884; orthotype, *Hymenocephalus italicus* Giglioli. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 137, 1916. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 519, 1920. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 55, 1929.

455. *Hymenocephalus barbatulus* Gilbert and Hubbs.
A Philippine species.
Hymenocephalus barbatulus Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 539, fig. 34, 1920; off eastern coast of Mindanao, in 380 fathoms.

456. *Hymenocephalus gracilis* Gilbert and Hubbs.

Known only from the Philippines.

Hymenocephalus gracilis Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 522, fig. 31, 1920; China Sea, off Batangas Province, Luzon, in 162 fathoms.

457. *Hymenocephalus lethonemus* Jordan and Gilbert.

Japan, the Philippines, and East Indies.

Hymenocephalus lethonemus Jordan and Gilbert, in Jordan and Starks, Bull. U. S. Fish. Comm., vol. 22, p. 615, text fig., 1904; Sagami Bay, Japan. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 188, 1916. Weber, *Siboga*-Exped., vol. 57, Fische, p. 167, 1913; vicinity of Sibuko Bay, British North Borneo; the Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 60, 1929; Philippines; China sea; vicinity of Sibuko Bay, British North Borneo; also in Dutch East Indies the following: Bali Sea; Flores Sea; Ceram Sea; Halmahera Sea; between Halmahera and Makyan Island.

Hymenocephalus nascens Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 535, fig. 33, 1920; China Sea and adjacent waters off south-western Luzon; vicinity of Marinduque Island; east coast of Luzon; vicinity of northern Mindanao; vicinity of Sibuko Bay, British North Borneo; in 200 to 423 fathoms. Also China Sea near Hong Kong, in 100 fathoms, and between Halmahera (Gillolo) and Makyan Island, Dutch East Indies.

458. *Hymenocephalus longiceps* Smith and Radcliffe.

The Philippines.

Hymenocephalus longiceps Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 111, pl. 23, fig. 3, 1912; off southeastern Luzon, at 201 fathoms. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 525, 1920; China Sea off western Luzon; China Sea and adjacent waters off Batangas Province, Luzon; vicinity of Marinduque Island; off east coast of Mindoro; vicinity of western Bohol; between Cebu and Bohol; off southeast coast of Luzon; between Jolo and TawiTawi, Sulu Province; vicinity of Darvel Bay, British North Borneo, in 107 to 270 fathoms. Also between Halmahera ("Gillolo") and Makyan Islands, in 298 fathoms; China Sea near Hong Kong, and near Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 57, 1929; the Philippines, vicinity of Darvel Bay, Borneo, and Sulu Archipelago. Also Flores Sea; between Halmahera and Makian Islands; near Formosa and Hong Kong in China Sea.

Hymenocephalus striatissimus Weber, *Siboga*-Exped., vol. 57, Fische, p. 168, 1913; specimen from *Siboga*, station 38.

459. *Hymenocephalus longipes* Smith and Radcliffe.

A Philippine species.

Hymenocephalus longipes, Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 109, pl. 23, fig. 1, 1912; between Panay and Guimaras, in 1,137 fathoms. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 527, 1920; off southwestern Luzon; between Burias and Luzon; between Marinduque and Luzon; vicinity of Marinduque; between Leyte and Cebu; between Bohol and Cebu; between Panay and Guimaras; off northern Mindanao; in 150 to 215 fathoms.

460. *Hymenocephalus striatissimus* Jordan and Gilbert.

Japan, Philippines, and East Indies.

Hymenocephalus striatissimus Jordan and Gilbert, in Jordan and Starks, Bull. U. S. Fish Comm., vol. 22, p. 612, text figure, 1904; Suruga Bay, Japan. Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 109, 1912; the Philippines. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, Jour. College Sci. Univ. Tokyo, vol. 33, p. 411, fig. 381, 1913; Suruga Bay. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 187, 1916. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 58, 1929; Sibuko Bay, British North Borneo; between Halmahera and Kajoa and Makian Islands; Macassar Straits; Timor Sea; Madura Sea.

Hymenocephalus torvus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 110, pl. 23, fig. 2, 1912; near Jolo, Sulu Province, in 232 fathoms.

- Hymenocephalus striatissimus striatissimus* Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 529, 1920; off southeastern Luzon; also from China Sea near Formosa and Hong Kong.
- Hymenocephalus striatissimus torvus* Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 531, 1920; China Sea and Balayan Bay, Batangas Province, Luzon; off southern Luzon; east coast of Mindoro; near Marinduque and between Marinduque and Luzon; off southwestern Mindoro; off northwestern Panay; between Cebu and Leyte and Cebu and Bohol; between Cebu and Siquijor; between Negros and Siquijor; northern Mindanao and vicinity; in 117 to 312 fathoms.
- Hymenocephalus striatissimus alger* Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 531, fig. 32; 1920; vicinity of Jolo Island; between Jolo and Tawi Tawi, and north of Tawi Tawi, all in Sulu Province; in 186 to 318 fathoms; vicinity of Sibuko Bay, British North Borneo in 260 to 310 fathoms. Also between Halmahera and Kayoa and Makyan Islands.

Genus 169. LIONURUS Günther.

In all oceans at depths from 110 to 4,846 meters.

Lionurus Günther, Report Voy. Challenger, Zoology, vol. 22, Part 57, Deep-Sea Fishes, p. 124, 1887; orthotype, *Coryphaenoides flicauda* Günther. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 192, 1916. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 553, 1920. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 70, 1929.

461. *Lionurus evides* Gilbert and Hubbs.

East Indies and the Philippines.

Lionurus evides Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 557, fig. 39, 1920; vicinity of Sibuko Bay, British North Borneo, in 260 fathoms; between Halmahera ("Gillolo") and Makyan Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 75, 1929; after Gilbert and Hubbs.

462. *Lionurus infranudis* Gilbert and Hubbs.

The Philippines and Borneo.

Lionurus infranudis Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 55, fig. 38, 1920; off Sibuko Bay, British North Borneo, in 347 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 74, 1929; after Gilbert and Hubbs.

463. *Lionurus proximus* (Smith and Radcliffe).

Known only from the Philippines.

Macrurus proximus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 119, plate 26, fig. 2, 1912; Sogod Bay, Leyte, in 502 fathoms.

Lionurus proximus Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 201, 1916. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 554, 1920; Sogod Bay, southern end of Leyte, in 502-554 fathoms; between Siquijor and Bohol Islands, in 392 fathoms.

464. *Lionurus pumiliceps* (Alcock).

The Philippines and East Indies, west to the east coast of Africa.

Macrurus pumiliceps Alcock, Jour. Asiatic Soc. Bengal, vol. 63, pp. 125 and 127, 1894. Alcock, Illustrations Zoology Investigator, Fishes, Part 3, pl. 16, fig. 3, 1902.

Macrurus (Macrurus) pumiliceps Alcock, Descript. Cat. Indian Deep-Sea Fishes, Indian Mus., p. 113, 1899. Brauer, *Valdivia-Exped.*, Tiefsee Fische, p. 262, 1906.

Lionurus pumiliceps Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 559, 1920; off western Luzon, in 900 fathoms; off eastern Luzon in 480-500 fathoms; vicinity of Sibuko Bay, British North Borneo. Also Gulf of Boni, Buton Strait, and Gulf of Tomini, Celebes; Flores Sea; and Macassar Strait. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 78, 1929; off eastern and western Luzon; Sibuko Bay, British North Borneo. Macassar Strait, Flores Sea, Gulf of Boni, Gulf of Tomini; and Buton Strait in East Indies; Arabian Sea between the Laccadive Islands and Travancore coast of India; east coast of Africa; Agulhas Bank.

465. *Lionurus spinosus* Gilbert and Hubbs.

The Philippines and Japan.

Lionurus spinosus Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 199, pl. 10, fig. 2, 1916; Japan. Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 554, 1920; off eastern coast of Luzon, in 300 to 560 fathoms.

Genus 170. MALACOCEPHALUS Günther.

Pacific, Indian, and Atlantic Oceans, at 78 to 1,606 meters depth.

Malacocephalus Günther, Cat. Fishes, British Mus., vol. 4; p. 396, 1862; orthotype, *Malacocephalus laevis* Günther. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, pp. 136, 141, 189, 1916. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 61, 1929.

466. Malacocephalus luzonensis Gilbert and Hubbs.

A Philippine species.

Malacocephalus luzonensis Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 541, fig. 35, 1920; off southern, eastern, and western Luzon, in depths of 172 to 270 fathoms.

Genus 171. MATAEOCEPHALUS Berg.

Deep-sea fishes from the Philippines, East Indies, Indian Ocean, Hawaiian Islands, and the coast of Peru.

Coelocephalus Gilbert and Cramer, Proc. U. S. Nat. Mus., vol. 19, p. 422, 1896; preoccupied.

Mataeocephalus Berg, Com. Mus. Nac. Buenos Aires, vol. 1, p. 43, 1899; orthotype, *Coelocephalus acipenserinus* Gilbert and Cramer. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 563, 1920. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 79, 1929.

467. Mataeocephalus adustus Smith and Radcliffe.

East Indies and the Philippines.

Mataeocephalus adustus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 126, pl. 28, fig. 3, 1912; Gulf of Boni, Celebes, at 805 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 81, 1929; the Philippines; also Gulf of Boni and Gulf of Tomini, Celebes; south of Patientie Strait.

468. Mataeocephalus nigrescens Smith and Radcliffe.

The Philippines and adjacent Borneo waters.

Mataeocephalus nigrescens Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 125, pl. 28, fig. 2, 1912; between Leyte and Mindanao, in 735 fathoms. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 563, 1920; between Marinduque and Luzon, in 530 fathoms; between Leyte and Mindanao in 735 fathoms; vicinity of northern Mindanao: "Jolo"—Sulu Sea, in 340 to 508 fathoms; Palawan Passage in 375 fathoms; Sibuko Bay, British North Borneo, in 347 fathoms. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 80, fig. 17, 1929; Sibuko Bay, British North Borneo; Philippine Islands.

Genus 172. TRACHONURUS Günther.

Japan, the Philippines, East Indies, Hawaiian Islands, and the tropical Atlantic Ocean.

Trachonurus Günther, Report Voy. Challenger, Zoology, vol. 22, Part 57, p. 124, 1887; orthotype, *Macrurus villosus* Günther. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 82, 1929.

469. Trachonurus villosus (Günther).

The Philippines, Japan, and East Indies.

Coryphaenoides villosus Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 20, p. 441, 1877; south of the Philippines; south of Tokyo. Günther, Report Voy. Challenger, Zool., vol. 22, Part 57, p. 142, 1877; south of the Philippines; south of Tokyo, Japan.

Macrurus (Trachonurus) villosus Brauer, *Valdivia-Exped.*, Tiefsee-Fische, p. 268, 1906.

Trachonurus villosus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 165, pl. 5, fig. 2, 1913. Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 205, 1916. Gilbert and Hubbs, Bull. 100, U. S. Nat. Mus., vol. 1, p. 564, 1920; east coast of Mindoro; vicinity of Marinduque Island; between Cebu and Leyte; vicinity of Dupon Bay, Leyte; between Cebu and Siquijor; between Siquijor and Bohol; between Leyte and Mindanao; vicinity of northern Mindanao; Sulu Sea; Palawan Passage; vicinity of Sibuko Bay, British North Borneo; in 281 to 735 fathoms. Also from Buton Strait near Celebes. Weber and de Beaufort, Fishes

Indo-Australian Archipelago, vol. 5, p. 83, fig. 18, 1929; Philippines; vicinity of Sibuko Bay, British North Borneo; Buton Strait; Ceram Sea; Timor Sea; northwest coast of Sumatra; south Japan.

Genus 173. *VENTRIFOSSA* Gilbert and Hubbs.

Tropical and subtropical oceans, particularly the Indo-Pacific, at depths of 200 to 1,020 meters.

Ventrifossa Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, p. 543, 1920; orthotype, *Coryphaenoides garmani* Jordan and Gilbert. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 64, 1929.

470. *Ventrifossa divergens* Gilbert and Hubbs.

China Sea, Philippines, and East Indies.

Ventrifossa divergens Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 549, fig. 37, 1920; off northern Luzon; off southwestern Luzon, Batangas Province; off northwestern Panay; off eastern Luzon; vicinity of Sibuko Bay, British North Borneo; in 172 to 422 fathoms; also off Hong Kong in China Sea at 100 fathoms; between Halmahera and Makyan Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 69, 1929; vicinity of Luzon and Panay; Sibuko Bay, British North Borneo. Also between Halmahera and Makian; vicinity of Hong Kong; off East London, South Africa.

471. *Ventrifossa lucifer* (Smith and Radcliffe).

A Philippine species.

Macrourus lucifer Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 113, pl. 24, fig. 1, 1912; near Point Tagolo, Zamboanga Province, Mindanao, in 175 fathoms. Gilbert and Hubbs, U. S. Nat. Mus., Bull. 100, vol. 1, p. 553, 1920; off southwestern Luzon, Batangas Prov.; off Point Tagolo and vicinity of northwest corner of Mindanao, Zamboanga Province.

472. *Ventrifossa macronema* (Smith and Radcliffe).

A Philippine species.

Macrourus macronemus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 115, pl. 24, fig. 3, 1912; near Cagayan Islands, Sulu Sea (Jolo Sea in text), at 340 fathoms.

Ventrifossa macronemus Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 545, 1920; off southwestern Luzon (Batangas Province), at 340 fathoms; Sulu (Jolo) Sea near Cagayan Islands; between Siquijor and Bohol, at 439 fathoms.

473. *Ventrifossa misakia* (Jordan and Gilbert).

Japan and the Philippines.

Coryphaenoides misakius Jordan and Gilbert, Bull. U. S. Fish. Comm., vol. 22, p. 611, text fig., 1904; Misaki, Sagami Bay, Japan.

Macrourus asper Jordan and Thompson, Mem. Carnegie Mus., vol. 6, p. 306, pl. 38, fig. 2, 1914; not *Coryphaenoides asper* Günther.

Lionurus misakius Gilbert and Hubbs, Proc. U. S. Nat. Mus., vol. 51, p. 194, 1916.

Ventrifossa misakia Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 545, 1920; southeastern coast of Luzon.

474. *Ventrifossa nigrodorsalis* Gilbert and Hubbs.

The Philippines, Formosa, and East Indies.

Ventrifossa nigrodorsalis Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 546, fig. 36, 1920; Balayan Bay, Batangas, and China Sea off southern Luzon (Batangas Province); east coast of Luzon; between Marinduque and Luzon and near Marinduque Island; between Burias and Luzon; east coast of Mindoro, off northwestern Panay; vicinity of Dupon Bay, Leyte and between Leyte and Cebu; vicinity of western Bohol; between Cebu and Siquijor, between Negros and Siquijor and vicinity of northern Mindanao; Palawan Passage; vicinity of Jolo; vicinity of Sibuko Bay, British North Borneo; in 159 to 415 fathoms. Also the China Sea near Formosa; between Halmahera (Gillolo) and Makyan and Kajoa Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 68, fig. 14, 1929; after Gilbert and Hubbs; the Philippines; China Sea, near Formosa; vicinity of Sibuko Bay, British North Borneo; between Halmahera and Makian, and between Halmahera and Kajoa Islands.

475. *Ventrifossa nigromarginata* (Smith and Radcliffe).

The Philippines and East Indies.

Macrourus nigromarginatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 114, pl. 24, fig. 2, 1912; near Simaluc Island, Sulu Province, at 303 fathoms.

Ventrifossa nigromarginata Gilbert and Hubbs, U. S. Nat. Mus. Bull. 100, vol. 1, p. 552, 1920; off southwestern Luzon; between Burias and Luzon; off southeastern Mindoro; between Cebu and Bohol; between Bohol and Siquijor; vicinity of northern Mindanao; vicinity of Jolo; between Jolo and Tawi Tawi; near Simaluc Island, north of Tawi Tawi, Sulu Province; vicinity of Darvel Bay, British North Borneo; in 135 to 392 fathoms. Also in Flores Sea, East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 66, 1920; after Smith and Radcliffe; Philippines; vicinity of Sulu and Tawi Tawi Islands; vicinity of Darvel Bay, British North Borneo; Flores Sea.

Family 67. GADIDÆ. Codfishes

Genus 174. PHYSICULUS Kaup.

Deep-water fishes of the tropical and temperate Pacific, Indian, and Atlantic Oceans.

Physiculus Kaup, Archiv Naturges., vol. 24, p. 88, 1858; orthotype, *Physiculus dalwigkii* Kaup. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 7, 1929.

Pseudophyscis Günther, Cat. Fishes British Mus., vol. 4, p. 359, 1862. Günther, Report Voy. *Challenger*, Zoology, vol. 22, p. 87, 1887.

Leptophyscis Garman, Mem. Mus. Comp. Zool., vol. 24, p. 182, 1899.

476. *Physiculus peregrinus* (Günther).

East Indian area and Indian Ocean.

This species is included on the authority of Norman, who states several specimens were "sent by Dr. A. B. Meyer from Menado." As Dr. Meyer collected in the Philippines before going to Menado, his specimens may have been collected in the Philippines.

Pseudophyscis peregrinus Günther, Proc. Zool. Soc. London, p. 669, 1871; Menado, Celebes (?).

Physiculus peregrinus Günther, Report Voy. *Challenger*, Zoology, Deep-Sea Fishes, p. 88, 1887. Norman, *Discovery* Reports, vol. 16, p. 57, 1937; near Zanzibar. Norman, Scientific Reports Murray Exped., vol. 7, p. 53, fig. 19, 1939; Station 105, Zanzibar area, Indian Ocean; Philippines.

477. *Physiculus nigrescens* Smith and Radcliffe.

One specimen known.

Physiculus nigrescens Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 43, p. 105, 1912; Verde Island Passage, in 210 fathoms.

Family 68. BREGMACEROTIDÆ

Genus 175. BREGMACEROS Thompson.

Small fishes of the tropical Pacific, Indian, and Atlantic Oceans.

Bregmaceros Thompson, in Charlesworth's Mag. Nat. Hist., vol. 4, p. 184, fig., 1840; orthotype, *Bregmaceros McClellandii* (Cantor) Thompson. Goode and Bean, Oceanic Ichth., p. 388, 1895. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 5, 1929.

Calloptilum Richardson, Voy. *Sulphur*. Ichth., p. 94, pl. 46, figs. 4-7, 1844; orthotype, *Calloptilum mirum* Richardson; coasts of China; the Philippines; mouths of the Ganges.

Asthenurus Tickell, Jour. Asiatic Soc. Bengal, vol. 34, p. 32, 1865; orthotype, *Asthenurus atripinnis* Tickell.

478. *Bregmaceros macclellandii* Thompson.

Widely distributed in the tropical Indo-Pacific.

Bregmaceros macclellandii Thompson, Ann. Mag. Nat. Hist., vol. 4, p. 184, fig., 1840; brackish water of Gangetic delta. Günther, Cat. Fishes British Mus., vol. 4, p. 368, 1862; Philippines. Day, Fishes India, p. 418, 1878. Günther, Report Voy. *Challenger*, Zoology, vol. 31, p. 25, 1889. Goode and Bean, Oceanic Ichth., pp. 388 and 531, 1895. Jordan and Evermann, Fishes North and Middle America, vol. 3,

p. 2527, 1898. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 174, 1913. Weber and de Beaufort, *Fishes Indo-Australian Arch.*, vol. 5, p. 6, fig. 2, 1929; the Philippines; many East Indian localities. Herald and Umali, Philippine Fisheries Program, 1948; Manila Bay; common in Batangas market, Batangas Province, Luzon.

Order R. HETEROSOMATA. Flounders; Flatfishes

Family 69. PSETTODIDÆ

Genus 176. PSETTODES Bennett.

Two species, one on the west coast of Africa and one in Indo-Pacific waters. Marine.

Psettodes Bennett, Proc. Zool. Soc. London, p. 147, 1831; orthotype, *Psettodes belcheri* Bennett. Norman, Monograph Flatfishes, vol. 1, p. 57, 1934.

479. *Psettodes erumei* (Bloch and Schneider). Big-mouthed flounder; Arrow-toothed flounder; Kalangkao; Dapa; Dadali.

From the Red Sea and east coast of Africa to Japan and Queensland, Australia.

Pleuronectes erumei Bloch and Schneider, Syst. Ichth., p. 150, 1801.

Hippoglossus erumei Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 121, 1828. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 84, 1835. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, pp. 1, 198 and 1,200, 1850. Bleeker, Verh. Bat. Gen. vol. 24, 1852, *Pleuronectes*, p. 13.

Psettodes erumei Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 424, 1862. Günther, Cat. Fishes British Mus., vol. 4, p. 402, 1862. Kner, Reise Novara, Fische, p. 282, 1865-67. Bleeker, Atlas Ichth., vol. 6, p. 4, pl. 232, fig. 3, 1866-72. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 570, 1871; Red Sea. Day, Fishes India, p. 422, pl. 91, fig. 4, 1878; seas of India. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 45, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 106, 1907; San Fabian, Pangasinan Province, Luzon. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Barnard, Ann. South African Mus., vol. 21, p. 383, pl. 17, fig. 1, 1925. Norman, Records Indian Mus., vol. 29, p. 8, fig. 1, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 97, fig. 24, 1929; many East Indian localities; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 5, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Manila Bay; Atimanan, Tayabas Province, Luzon; Cullion; Capiz, Capiz Province, Panay. Norman, Monograph Flatfishes, vol. 1, p. 57, fig. 30, 1934; many localities, Indian Ocean, China, Japan, Queensland. Herre, 1936-37 and 1940-41 Exped.; Manila Bay and Gulf of Ragay, Luzon; Iloilo, Iloilo Province, Panay. Umali, Edible Fishes Manila, p. 80, fig. 42, 1936; Manila Bay. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon.

Family 70. BOTHIDAE. Flounders; Bastard halibut; Brills

Subfamily PARALICHTHINAE

Genus 177. PSEUDORHOMBUS Bleeker.

An Indo-Pacific genus.

Pseudorhombus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 426, 1862; orthotype, *Rhombus polyaspilus* Bleeker. Day, Fishes India, p. 422, 1878. Regan, Ann. Durban Mus., vol. 2, p. 207, 1920. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 99, 1929. Norman, Ann. Mag. Nat. Hist., ser. 10, vol. 8, p. 597, 1931. Wu, Thesis Facult. Sci. Univ. Paris, A, 244, p. 79, 1932. Norman, Monograph Flatfishes, vol. 1, p. 89, 1934.

Teratorhombus Macleay, Proc. Linn. Soc. New South Wales, vol. 6, p. 126, 1882; type, *Teratorhombus excisiceps* Macleay.

Rhombiscus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 379, 1901; orthotype, *Rhombus cinnamomeus* Schlegel; Japan.

Spinirhombus Oshima, Jap. Jour. Zool., Trans. Abstr., vol. 5, p. 187, 1927; orthotype, *Spinirhombus ctenosquamis* Oshima.

Istiorhombus Whitley, Australian Zool., vol. 6, p. 322, 1931; orthotype, *Pseudorhombus spinosus* McCulloch.

480. *Pseudorhombus arsius* (Hamilton [né Buchanan]). Large-toothed flounder; Smooth scaled brill; Dapang bilog; Dapa.
The Philippines, East Indies, Australia, India, and east coast of Africa. In seas, bays, and estuaries.
- Pleuronectes arsius* Hamilton [né Buchanan], Fishes Ganges, p. 128, 1822; estuary below Calcutta. Hora, Mem. Ind. Mus., vol. 9, p. 86, pl. 17, figs. 1, 2, 1929.
- Platessa russelli* Gray, Illustrations Indian Zoology, vol. 2, pl. 94, fig. 2, 1834; India.
- Rhombus lentiginosus* Richardson, Ann. Mag. Nat. Hist., vol. 11, p. 495, 1843; Port Essington.
- Platessa balteata* Richardson, Ichth. China Japan, p. 278, 1846; Canton, China.
- Rhombus polyspilus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 503, 1853; Batavia, Java.
- Rhombus arsius* Bleeker, Verh. Bat. Gen., vol. 25, 1853, Bengal, p. 76; Hindostan.
- Pseudorhombus arsius* Günther, Cat. Fishes British Mus., vol. 4, p. 426, 1862. Day, Fishes India, p. 423, pl. 91, fig. 5, 1878; seas and estuaries of India; Andaman Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 45, 1907; Cavite, Cavite Province, Luzon. Norman, Biol. Results *Endeavour*, vol. 5, p. 231, 1926. Norman, Records Indian Mus., vol. 29, p. 13, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 105, 1929; many East Indian localities; Philippines. Fowler, Hong Kong Nat., vol. 5, p. 57, 1934; Philippines. Norman, Monograph Flatfishes, vol. 1, p. 101, fig. 62, 1934; very many localities in the Indian Ocean, East Indies, Malaya, China, and Australia; Zamboanga, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Currimao, Ilokos Norte Province, and Magallanes, Sorsogon Province, Luzon; Cebu. Herre, 1940-41 Exped.; Gulf of Ragay, Luzon.
- Pseudorhombus polyspilus* Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 103, 1862; Batjan. Bleeker, Atlas Ichth., vol. 6, p. 7, pl. 232, fig. 3, 1866-72. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908; Manila; Iloilo, Panay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 106, fig. 26, 1929; numerous East Indian localities; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 5, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippines Exped., p. 104, 1934; Culion.
- Pseudorhombus russelli* Day, Fishes Malabar, p. 172, 1865. Bleeker, Atlas Ichth., vol. 6, p. 6, pl. 232, fig. 2, 1866-72. Günther, Report Voy. Challenger, Zoology, vol. 1, Part 6, Shore Fishes, p. 53, 1880; Zamboanga, Philippines. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Manila Bay. Sauvage in Grandidier, Hist. Phys. Nat. Madagascar, vol. 16, Poissons, p. 473, 1891. Regan, Ann. Durban Mus., vol. 2, p. 208, fig. 1, 1920. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 291, 1927; Philippines; San Fernando, La Union Province and Orion, Bataan Province, Luzon.
- Pseudorhombus lentiginosus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 184, 1865.
- Teratorhombus excisiceps* Macleay, Proc. Linn. Soc. New South Wales, vol. 6, p. 126, 1882; Port Jackson.
- Pleuronectes mortoniensis* De Vis, Proc. Linn. Soc. New South Wales, vol. 7, p. 370, 1883; Moreton Bay, Queensland, Australia.
- Pseudorhombus multimaculatus* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885.
- Neorhombus ocellatus* De Vis, Ann. Report Queensland Mus., 1886; Caloundra, Queensland.
- Paralichthys arsius* Rutter, Proc. Acad. Nat. Sci. Phila., p. 87, 1897; Swatow, China. Waite, Mem. Australian Mus., vol. 4, p. 120, fig. 8, 1899.
- Paralichthys polyspilus* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 555, 1904, Padang, Sumatra.

- Pseudorhombus andersoni* Gilchrist, Marine Investigations South Africa, vol. 3, p. 9, pl. 26, 1905; South Africa.
- Platophrys russellii* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 105, 1907; Bulan, Sorsogon Province, Luzon.
481. *Pseudorhombus cinnamomeus* (Schlegel).
Coasts of Japan, China, and Formosa; once reported from the Philippines.
- Rhombus cinnamomeus* Schlegel, Fauna Japonica, Pisces, p. 180, pl. 93, 1846; Nagasaki. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 25, 1858; Japan. Richardson, Ichth., China Japan, p. 279, 1846; Japan.
- Pseudorhombus cinnamomeus* Günther, Cat. Fishes British Mus., vol. 4, p. 427, 1862. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 29, p. 17, 1905; Hong Kong. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 438, 1912. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 296, 1925; Tokyo; Choshi; Noo. Fowler, Hong Kong Nat., vol. 5, p. 56, 1934; the Philippines.
- Rhombiscus cinnamomeus* Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 379, 1901.
- Pseudorhombius misakius* Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 175, figs. 4-5, 1906; Kobe. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, Jour. College Sci., Tokyo Univ., vol. 33, p. 316, fig. 264, 1913; Misaki, Sagami, to Kobe; Tsuruga.
- Pseudorhombus formosanus* Oshima, Jap. Jour. Zool. Trans. Abstr., vol. 1, (5), p. 182, 1927.
- Spinirhombus taiwanus* Oshima, *ibid.*, p. 189, 1927.
- Pseudorhombus cinnamomeus* Norman, Monograph Flatfishes, vol. 1, p. 110, fig. 68, 1934; Amoy, Shanghai, and coast of Shantung, China; Inland Sea, Japan.
482. *Pseudorhombus dupliocellatus* Regan. Palad.
The Philippines, north to Japan, south to Australia, west to Nicobar Islands.
- Pseudorhombus dupliocellatus* Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 15, p. 25, 1905; Kobe, Inland Sea, Japan. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 177, 1906. Norman, Biol. Results *Endeavour*, vol. 5, p. 228, fig. 2, 1926; Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 102, 1929; Java Sea; Philippine Islands; Japan; Queensland. McCulloch, Check-list Fishes Australia, p. 278, 1929; east coast Australia, southward to northern New South Wales, Japan; Philippine Islands. Schmidt, Trans. Pacific Comm. Acad. Sci., U. S. S. R., vol. 2, p. 124, 1931. Norman, Monograph Flatfishes, vol. 1, p. 94, fig. 55, 1934; Nicobar Islands; Java Sea; Queensland; northern New South Wales; Inland Sea, Japan.
- Platophrys palad* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 105, fig. 21, 1907; Bulan, Sorsogon Province, Luzon.
- Pseudorhombus cartwrighti* Ogilby, Mem. Queensland Mus., vol. 1, p. 47, 1912; Moreton Bay, Queensland, Australia.
483. *Pseudorhombus javanicus* (Bleeker).
From India to the East Indies, and the Philippines, to Indo-China and Hong Kong.
- Rhombus javanicus* Bleeker, Nat. Tijds. Ned-Ind., vol. 4, p. 502, 1853; Batavia, Java.
- Pseudorhombus javanicus* Günther, Cat. Fishes British Mus., vol. 4, 427, 1862, Java. Bleeker, Atlas Ichth., vol. 6, p. 8, pl. 232, fig. 3, 1866-72. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908; Cavite, Cavite Province, Luzon. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Norman, Rec. Indian Mus., vol. 29, p. 16, 1927; Coromandel Coast, India. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 109, 1929; Batavia, Java; Java Sea; Sandakan, British North Borneo; Makassar, Celebes; Malacca Strait; Coromandel Coast, India; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 5, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Manila market. Norman, Monograph Flatfishes, vol. 1, p. 109, fig. 67, 1934; Singapore; East Indies; Siam; Indo-China; Hainan; Hong Kong.
- Platophrys javanicus* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 105, 1907; Bulan, Sorsogon Province, Luzon.

484. *Pseudorhombus malayanus* Bleeker. Rough-scaled brill; Dapang bilog. The Philippines, Indo-China, East Indies, Malaya, Burma, and India. *Pseudorhombus malayanus* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 43, 1866. Bleeker, Atlas Ichth., vol. 6, p. 7, pl. 234, fig. 2, 1866-72. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908; Cavite, Cavite Province, Luzon. Norman, Records Indian Mus., vol. 29, p. 12, 1927; East coast of India; Burma. Norman, Monograph Flatfishes, vol. 1, p. 98, fig. 59, 1934; Madras and Orissa coast, India; Singapore fish market; East Indian Archipelago; Java Sea; Ceram; Nhatrang Bay, Indo-China; Bay of Manila and Manila, Philippines. *Pseudorhombus russelli* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Manila Bay, Luzon. *Pseudorhombus oligodon* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 101, 1929; many East Indian localities; Philippines. Herre, Fishes 1931, Philippine Exped., p. 104, 1934; Manila. Umali, Edible Fishes Manila, p. 82, fig. 44, 1936; Manila Bay.

485. *Pseudorhombus neglectus* Bleeker.

The Philippines, South China Sea, and East Indies.

Pseudorhombus neglectus Bleeker, Ned. Tijds. Dierk., vol. 3, p. 44, 1866. Bleeker, Atlas Ichth., vol. 6, p. 8, pl. 234, fig. 1, 1866-72. Weber, *Siboga*-Eped., vol. 57, Fische, p. 424, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 111, 1929; South China Sea; Riouw Strait; Banka; Java; Java Sea; Madura Strait; Madura Sea; Macassar Strait; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Dumaguete. Norman, Monograph Flatfishes, vol. 1, p. 116, fig. 74, 1934; Singapore; South China Sea; Malacca Strait; French Indo-China.

Plathophrys neglectus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 105, 1907; San Fabian, Pangasinan Province, Luzon.

Genus 177b. **CROSSORHOMBUS** Regan.

486. *Crossorhombus valde-rostratus* (Alcock). Broad-forehead flounder.

Rhomboidichthys valde-rostratus Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 6, p. 435, 1890. Alcock, Illustr. Zoology Investigator, Fishes, plate 24, fig. 2, 1898.

Platophrys dimorphus Gilchrist, Marine Invest. South Africa, vol. 3, p. 10, plate 27, 1905.

Scaecops kobensis Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 170, fig. 2, 1906. Franz, Abhandl. Bayer. Akad. Wiss., Supplement 4, Abhandl. 1, p. 61, plate 7, fig. 53; plate 8, fig. 61, 1910.

Engyprosopon kobensis Hubbs, Proc. U. S. Nat. Mus., vol. 48, p. 458, 1915.

Crossorhombus dimorphus Regan, Ann. Durban Mus., vol. 2, p. 212, 1920.

Crossorhombus valde-rostratus Norman, Rec. Indian Mus., vol. 29, p. 28, fig. 6, 1927. Norman, Monogr. of the Flatfishes, vol. 1, p. 218, fig. 166, 1934. Herre, 1948 Collection; one specimen from the south entrance to Manila Bay, Luzon.

Engyprosopon valde-rostratus J. L. B. Smith, Sea Fishes Southern Africa, p. 159, fig. 313, 1949.

Subfamily **BOTHINÆ**

Genus 178. **ARNOGLOSSUS** Bleeker.

About 24 species in the Atlantic and Indo-Pacific Oceans.

Arnoglossus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 427, 1862; tautotype, *Pleuronectes arnoglossus* Bloch and Schneider=*Pleuronectes latera* Walbaum. Norman, Ann. Mag. Nat. Hist., ser. 10, vol. 8, p. 599, 1931. Norman, Monograph Flatfishes, vol. 1, p. 173, 1934.

Bascanius Schiödte, Naturhistorisk Tidsskrift, ser. 3, vol. 5, p. 275, 1868; orthotype, *Bascanius taedifer* Schiödte.

Anticitharus Günther, Report Voy. Challenger, Zoology, vol. 1, Part 6, Shore Fishes, p. 47, 1880; orthotype, *Anticitharus polyspilus* Günther.

Charybdia Facciola, Nat. Sicil., vol. 4, p. 265, 1885; orthotype, *Peloria rüppelli* Cocco.

Caulopsetta Gill, Mem. Nat. Acad. Sci. Washington, vol. 6, p. 124, 1893; orthotype, *Pleuronectes scaphus* (Forster) Bloch and Schneider.

Kyleia Chabanaud, Bull. Soc. Zool. France, vol. 56, p. 393, 1931; orthotype, *Arnoglossus thori* Kyle.

Dollfusina Chabanaud, Mem. Soc. Sci. Nat. Maroc., vol. 35, pp. 31, 44, 1933; orthotype, *Peloria rüppelli* Cocco.

487. *Arnoglossus intermedius* (Bleeker).

The Philippines, East Indies, south to the Solomon Islands and Queensland, Australia, west to the Red Sea.

Platophrys (Arnoglossus) intermedius Bleeker, Ned. Tijds. Dierk., vol. 3, p. 47, 1866; Menado, Celebes. Bleeker, Atlas Ichth., vol. 6, p. 14, pl. 232, fig. 1, 1866-72.

Rhomboidichthys intermedius Regan, Fauna Maldive-Laccadive Archipelago, vol. 1, p. 277, 1902.

Engyprosopon intermedius Regan, Trans. Linn. Soc. London, ser. 3, vol. 12, p. 235, 1908; Saleyer, East Indies.

Anticitharus annulatus Weber, Siboga-Exped., vol. 57, Fische, p. 433, 1913.

Arnoglossus intermedius Norman, Biol. Results *Endeavour*, vol. 5, p. 248, 1926. Norman, Records Indian Mus., vol. 29, p. 21, pl. 4, 1927; Seychelles and Maldives. Fowler, Mem. Bishop Mus., vol. 10, p. 90, 1928; Shortland Island, Solomon Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Dumaguete, Oriental Negros Province, Negros. Norman, Monograph Flatfishes, vol. 1, p. 197, fig. 146, 1934; Maldive Islands; Seychelles; Queensland, Australia.

Bothus (Arnoglossus) intermedius Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 130, 1929; Java Sea; Saleyer; Celebes; Timor Sea; Tanah Djampea; Indian Ocean.

Arnoglossus annulatus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Dumaguete.

488. *Arnoglossus maculipinnis* Fowler.

Arnoglossus maculipinnis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 329, fig. 84, 1934; vicinity of Jolo, Sulu Province, Philippines.

Genus 179. *BOTHUS* Rafinesque.

Warmer parts of the Indo-Pacific and Atlantic Oceans, and Mediterranean Sea.

Bothus Rafinesque, Caratteri Animali piante, Sicilia, p. 23, 1810; type, *Bothus rumolo* Rafinesque. Norman, Monograph Flatfishes, vol. 1, p. 220, 1934.

Solea Rafinesque, Indice d'Ittiol. Siciliana, pp. 14 and 52, 1810; not of Quensel; type, *Solea rhomboide* Rafinesque.

Platophrys Swainson, Nat. Hist. Animals, vol. 2, Fishes, pp. 187, 302, 1839; haplotype, *Pleuronectes ocellatus* Agassiz. Jordan and Evermann, Fishes North and Middle America, vol. 3, p. 2660, 1900.

Rhomboidichthys Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, viss. van Menado, p. 67, 1856; orthotype, *Rhomboidichthys myriaster* Bleeker.

Psettylis Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 6, p. 436, 1890; logotype, *Psettyles pellucida* Alcock.

Platotichthys Nichols, Bull. Amer. Mus. Nat. Hist., vol. 46, p. 21, 1921; type, *Platotichthys chartes* Nichols.

Symboulchthys Chabanaud, Bull. Soc. Zool. France, vol. 52, p. 76, 1927; type, *Platophrys maculifer* Jordan and Goss.

489. *Bothus brunneus* Fowler.

Bothus brunneus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 331, fig. 85, 1934; Batag Island, north coast of Samar, in 146 fathoms, Albatross Collection Station D, 5453.

490. *Bothus mancus* (Broussonet).

From the Indian Ocean to islands off the coast of Mexico and Easter Island.

Pleuronectes mancus Broussonet, Ichthyologia, Decas i, no pagination, plate, 1782; Tahiti.

Rhombus pavo Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 177, 1853; Cocos Island.

Rhomboidichthys pavo Günther, Cat. Fishes British Mus., vol. 4, p. 435, 1862; Aneiteum. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6, Shore Fishes, p. 53, 1880; Malanipa Island, near Zamboanga (Samboangan), Mindanao.

Platophrys (Platophrys) pavo Bleeker, Atlas Ichth., vol. 6, p. 11, pl. 235, fig. 2, 1866-72; Cocos Island.

Platophrys mancus Smith and Swain, Proc. U. S. Nat. Mus., vol. 5, p. 142, 1883; Johnston Island. Gilbert, Bull. U. S. Fish. Comm., vol. 23, Part 2, Deep-Sea Fishes, p. 684, 1905; Honolulu; Pailolo Channel, between Maui and Lanai; Laysan Island. Seale, Occas. Papers Bishop Mus., vol. 4, p. 86, 1906; Tubai, Austral Island. Fowler, Mem. Bishop Mus., vol. 10, pl. 4B, 1928; numerous Polynesian localities.

Platophrys pavo Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 510, 1901; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 1, p. 128, 1901; Guam.

Rhomboidichthys mancus Günther, Fische der Südsee, vol. 3, p. 342, 1910; Ulietea.

Bothus mancus Norman, Records Indian Mus., vol. 29, p. 34, 1927; Addu Atoll, Maldive Islands. Norman, Monograph Flatfishes, vol. 1, p. 230, fig. 174, 1934; Malanipa Island near Zamboanga (Samboangan), Mindanao; Maldives; Christmas Island; China; Lifu, Loyalty Island; Aneitum; Ponapé; Marshall Islands; Samoa; Tahiti; Clarion Island, off west coast of Mexico. Fowler, Hong Kong Nat., vol. 5, p. 65, 1934; Philippine Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 57, 1936; Takaroa, Tuamotu Islands.

Bothus (Platophrys) mancus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 122, 1929; Binongka Island; Philippine Islands.

Parabothus mancus Wu, Thesis Facult. Sci. Univ. Paris, A, 244 (268) p. 96, 1932.

491. *Bothus obliquiocularis* Fowler.

Bothus obliquiocularis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 332, fig. 87, 1934; the Philippines.

492. *Bothus pantherinus* Rüppell.

From the east coast of Africa and the Red Sea through the East Indies and the Philippines to Hawaii, Tahiti, and the Marquesas Islands.

Rhombus pantherinus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 121, pl. 3, fig. 1, 1828; Mohila, Red Sea.

(?) *Passer marchionessarum* Valenciennes, Ichth. Voy. Venus, Poissons, p. 344, 1855; pl. 9, 1846; Marquesas Islands.

Psetta pantherina Rüppell, Verzeich. Samml. Senckenb. Mus., vol. 4, Fische, p. 19, 1852.

Pleuronectes lunulatus Jouan, Mem. Soc. Cherbourg, vol. 8, p. 256, 1861; Port de France and Kanala, New Caledonia; not of Bonnaterra.

Rhomboidichthys pantherinus Günther, Cat. Fishes, British Mus., vol. 4, p. 436, 1862; Fiji; Amboina; Mauritius; Madagascar. Playfair and Günther, Fishes Zanzibar, p. 112, 1866.

Pseudorhombus pantherinus Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 103, 1862.

Platophrys (Platophrys) pantherinus Bleeker, Atlas Ichth., vol. 6, p. 11, pl. 233, fig. 3, 1866-72.

Platophrys pantherinus Day, Fishes India, p. 425, pl. 92, figs. 3-4, 1878; Port Blair, Andaman Islands. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 512, 1905; Honolulu; Hilo. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 105, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 280, 1908; Aparri, Cagayan Province, Luzon. Kendall and Goldsborough, Mem. Mus. Comp. Zool., p. 332, 1911; Fiji; Tuamotus; Guam; Truk group; Tonga Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 292, 1927; San Fernando, La Union Province, Luzon; Philippines. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 91, 1928; very many localities in Micronesia, Polynesia, and Melanesia. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Manila; Culion; Dumaguete.

Platophrys mancus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 27, p. 946, 1904; Honolulu; not of Broussonet. Seale, Occas. Papers Bishop Mus., vol. 4, p. 86, 1906; Tahiti; Rarotonga; Makatea; Shortland Island, Solomon Islands.

Bothus pantherinus Regan, Ann. Durban Mus., vol. 2, p. 212, fig. 3, 1920. Barnard, Ann. South African Mus., vol. 21, p. 385, 1925. Norman, Rec-

ords Indian Mus., vol. 29, p. 33, 1927. Norman, Monograph Flatfishes, vol. 1, p. 233, fig. 177, 1934; many localities in the Indo-Pacific; the reference to "Manado, Philippines" is an error and should be Manado, Celebes. Herre, 1936-37 and 1940-41 Exped.; Balayan Bay, Batangas Province, Luzon; Puerto Galera, Mindoro.

Bothus (Platophrys) pantherinus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 123, 1929; many East Indian localities; Philippines.

493. *Bothus tchangi* Fowler.

Bothus tchangi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 334, fig. 88, 1934; east coast of Luzon, in 195 fathoms, off San Bernardino Light.

494. *Bothus variegatus* Fowler.

Bothus variegatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 335, fig. 89, 1934; between Samar and Leyte, in 61 fathoms.

Genus 180. **ENGYPROSOPON** Günther.

About 15 species in the Indo-Pacific, of which two occur in the Philippines. *Engyprosopon* Günther, Cat. Fishes British Mus., vol. 4, p. 431, 1862; type *Rhombus Mogkii* Bleeker. Norman, Monograph Flatfishes, vol. 1, p. 203, 1934.

Scaeops Jordan and Starks, Bull. U. S. Fish. Comm., vol. 22, p. 627, 1904; orthotype, *Rhombus grandisquama* Schlegel.

495. *Engyprosopon grandisquama* (Schlegel).

From the east coast of Africa through the East Indies and the Philippines to Japan, New Guinea, and Australia.

Rhombus grandisquama Schlegel, Fauna Japonica, Pisces, p. 183, pl. 92, figs. 3-4, 1846; Nagasaki.

Rhombus poecilurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 293, 1852; Amboina.

Rhomboidichthys grandisquama Günther, Cat. Fishes British Mus., vol. 4, p. 437, 1862; part.

Pseudorhombus poecilurus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 274, 1865; Amboina.

Platophrys (Arnoglossus) poecilurus Bleeker, Atlas Ichth., vol. 6, p. 13, 1866-72.

Rhomboidichthys spilurus Günther, Report Voy. Challenger, Zool., vol. 1, Part 6, pp. 47, 53, pl. 21, fig. A, 1880; south of New Guinea, and "Straits of Zebu"=Cebu.

Rhomboidichthys spiniceps Macleay, Proc. Linn. Soc. New South Wales, vol. 6, p. 127, 1882; Port Jackson.

Rhomboidichthys poecilurus Regan, Fauna Maldive-Laccadive Archipelago, vol. 1, p. 277, 1902.

Scaeops grandisquama Jordan and Starks, Bull. U. S. Fish. Comm., vol. 22, p. 627, pl. 8, fig. 2, 1904. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 168, fig. 1, 1906. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 67, 1922; Takao, Formosa.

Arnoglossus spilurus Johnstone, Ceylon Pearl Oyster Fish., Suppl. Rep., vol. 15, p. 211, 1904.

Scaeops poecilurus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 28, p. 803, 1905. Fowler, Mem. Bishop Mus., vol. 10, p. 92, 1928; East Indies.

Scaeops poecilura Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 803, 1905; Bais, Negros.

Scaeops spilura Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 412, 1906; New Guinea; on Günther. Fowler, Mem. Bishop Mus., vol. 10, p. 92, 1928; New Guinea; on Günther.

Scaeops orbicularis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 45, 1907; Cavite, Cavite Province, Luzon.

Rhomboidichthys valderostratus Jenkins, Mem. Indian Mus., vol. 3, p. 26, 1910.

Platophrys grandisquama Gilchrist and Thompson, Ann. Durban Mus., vol. 1, p. 400, 1917.

Platophrys spiniceps McCulloch, Australian Zool., vol. 2, p. 46, 1921.

Engyprosopon (Scaeops) grandisquama McCulloch and Whitley, Records Australian Mus., vol. 14, p. 343, fig. 1, 1925.

Engyprosopon grandisquama Norman, Biological Results Endeavour, vol. 5, p. 250, 1926. Norman, Records Indian Mus., vol. 29, p. 25, fig. 5, 1927;

Mekran coast, India; Arakan coast, Burma; Nankauri Harbor, Nico-

bar Islands. McCulloch, Mem. Australian Mus., vol. 5, p. 276, 1929; Queensland and New South Wales, Australia. Norman, Monograph Flatfishes, vol. 1, p. 209, fig. 156, 1934; "Zebu"=Cebu, the Philippines; Natal; Muscat; Maldives; Ceylon; Burma coast; Java Sea; Bali Strait; south of New Guinea; Queensland; and northern New South Wales; China; Nagasaki, Japan. Herre, 1936-37; Exped.; Dumaguete, Oriental Negros Province, Negros.

Bothus (Arnoglossus) poccilurus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 131, fig. 31, 1929; Sumatra; Banka; Java Sea; Saleyer; Amboina; Sumbawa; west New Guinea; south of New Guinea; Philippines.

Arnoglossus poccilurus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Atimonan, Tayabas Province, Luzon; Cebu, Cebu Province.

Arnoglossus grandisquama Fowler, Hong Kong Nat., vol. 5, p. 63, 1934; Philippines.

496. *Engyprosopon Mogkii* (Bleeker).

East Indies, the Philippines, Malaya, and Indian Ocean.

Rhombus Mogkii Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 256, 1854; Celebes.

Achirus Mogkii Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, p. 101, 1860; Singapore.

Rhomboidichthys (Engyprosopon) mogkii Günther, Cat. Fishes British Mus., vol. 4, p. 438, 1862.

Pseudorhombus Mogkii Bleeker, Nat. Tijds. Dierk., vol. 1, p. 230, 1863; Ternate.

Platophrys (Arnoglossus) mogkii Bleeker, Atlas Ichth., vol. 6, p. 14, pl. 233, fig. 1, 1866-72.

Engyprosopon Mogkii Weber, Siboga-Exped., vol. 57, Fische, p. 429, 1913. Norman, Records Indian Mus., vol. 29, p. 27, pl. 5, 1927; Indian Ocean.

Bothus (Arnoglossus) mogkii Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 128, fig. 30, 1929; Pulu Weh; Singapore, Bali; Celebes; Ternate; Buru; Amboina; Ceram.

Arnoglossus mogkii Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 104, 1934; Dumaguete, Oriental Negros Province, Negros.

Engyprosopon mogkii Norman, Monograph Flatfishes, vol. 1, p. 207, fig. 154, 1934; East Indies; Indian Ocean.

Genus 181. **GRAMMATOBOTHUS** Norman.

Grammatobothus Norman, Biological Results *Endeavour*, vol. 5, p. 253, 1926; type, *Platophrys polyophthalmus* Bleeker. Norman, Monograph Flatfishes, vol. 1, p. 244, 1934.

497. *Grammatobothus polyophthalmus* (Bleeker).

Burma and Ceylon to the Philippines, East Indies, and Queensland, Australia.

Platophrys polyophthalmus Bleeker, Ned. Tijds. Dierk., vol. 3, p. 46, 1866. Bleeker, Atlas Ichth., vol. 6, p. 12, pl. 234, fig. 3, 1866-72. McCulloch, Mem. Queensland Mus., vol. 7, p. 244, 1922.

Rhomboidichthys angustifrons Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 46, pl. 21, fig. B, 1880. Arafura Sea.

Platophrys angustifrons Jenkins, Mem. Ind. Mus., vol. 3, p. 27, 1910.

Grammatobothus polyophthalmus Norman, Biological Results *Endeavour*, vol. 5, p. 253, 1926. Norman, Records Indian Mus., vol. 29, p. 34, fig. 8, 1927; off south coast Ceylon; off Burma coast. McCulloch, Mem.

5, Australian Mus., p. 276, 1929; Queensland. Norman, Monograph Flatfishes, vol. 1, p. 245, fig. 187, 1934; off coast of Burma; Java Sea; Malacca Strait; Arafura Sea; Queensland, Australia. Motorship *Theodore N.* Gill, October 1947; off entrance to Manila Bay, Luzon.

Bothus (Platophrys) polyophthalmus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 119, 1929; Sumatra; Java Sea; Arafura Sea; Malacca Strait.

Genus 182. **LAEOPS** Günther.

Fishes of Indo-Pacific seas.

Laeops Günther Report Voy. *Challenger*, Zoology, vol. 1, Part 6, p. 29, 1880; orthotype, *Laeops parviceps* Günther. Norman, Monograph Flatfishes, p. 252, 1934.

- Scianectes* Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 284, 1889; orthotype, *Scianectes macrophthalmus* Alcock.
- Lambdopsetta* Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 496, 1906; Kagoshima, Japan; orthotype, *Lambdopsetta kitaharae*, Smith and Pope.
- Laoptichthys* Hubbs, Proc. U. S. Nat. Mus., vol. 48, p. 460, 1915; orthotype, *Laoptichthys fragilis* Hubbs; Suruga Gulf, Japan.
498. *Laeops clarus* Fowler.
Laeops clarus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 337, fig. 90, 1934; between Cebu and Bohol, in 162 fathoms, off Mactan Island.
499. *Laeops cypho* Fowler.
Laeops cypho Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 337, fig. 91, 1934; off Point Tagolo, Zamboanga Province, Mindanao, in 182 fathoms.
500. *Laeops gracilis* Fowler.
Laeops gracilis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 338, fig. 92, 1934; east of Masbate, in 108 fathoms.
- Genus 183. NEMATOPS** Günther.
Species few; in deep water in the East Indies, Philippines and Admiralty Islands.
Nematops Günther, Report Voy. *Challenger*, Zoology, Shore Fishes, p. 57, 1880; type, *Nematops microstoma* Günther. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 134, 1929. Norman, Monograph Flatfishes, p. 394, 1934.
501. *Nematops chui* Fowler.
Nematops chui Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 338, fig. 93, 1934; China Sea, off Corregidor Light, near entrance to Manila Bay, Luzon, in 135 fathoms.

Family 71. PLEURONECTIDÆ

Fishes of arctic and cold temperate waters.

- Genus 184. POECILOPSETTA** Günther.
Deep-water fishes of the Indo-Pacific and Atlantic Oceans.
Poecilopsetta Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6, Shore Fishes; p. 48, 1880; orthotype, *Poecilopsetta colorata* Günther. Hubbs, Proc. Biol. Soc. Washington, vol. 32, p. 163, 1919. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 5, p. 136, 1929. Norman, Monograph Flatfishes, vol. 1, p. 387, 1936.
Boopsetta Alcock, Jour. Asiatic Soc. Bengal, vol. 65, p. 305, 1896; orthotype, *Boopsetta umbrarum* Alcock.
Alaeops Jordan and Starks, Bull. U. S. Fish Comm., vol. 22, p. 623, 1904; orthotype, *Alaeops plinthus* Jordan and Starks.
Paralimanda Breder, Bull. Bingham Oceanogr. Coll., vol. 1, p. 86, 1927; orthotype, *Paralimanda inermis* Breder.
502. *Poecilopsetta plinthus* (Jordan and Starks).
A Japanese species now recorded from the Philippines.
Alaeops plinthus Jordan and Starks, Bull. U. S. Fish Comm., vol. 22, p. 623, plate 5, fig. 2, 1904. Jordan and Starks, Proceedings U. S. Nat. Mus., vol. 31, p. 199, fig. 12, 1906. Jordan, Tanaka, and Snyder, Jour. Coll. Sci., Univ. Tokyo, vol. 33, p. 323, fig. 272, 1913.
Poecilopsetta plinthus Hubbs, Proc. U. S. Nat. Mus., vol. 48, p. 474, 1915. Norman, Monograph Flatfishes, vol. 1, p. 392, fig. 282, 1934. Herre, 1948 Collection; taken by trawl from Manila Bay.
503. *Poecilopsetta megalepis* Fowler.
Poecilopsetta megalepis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 340, fig. 94, 1934; Balayan Bay, Batangas Province, Luzon; Verde Island Passage; in 183 fathoms.

Family 72. SAMARIDÆ

- Genus 185. BRACHYPLEURA** Günther.
One species from the Indo-Pacific; in deep water.
Brachypleura Günther, Cat. Fishes British Mus., vol. 4, p. 419, 1862; orthotype, *Brachypleura novae-zeelandiae* Günther; New Zealand.

Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 144, 1929. Norman, Monograph Flatfishes, vol. 1, p. 400, 1936.
Laiopteryx Weber, *Siboga*-Exped., vol. 57, Fische, p. 422, 1913; orthotype, *Brachypleura xanthosticta* Alcock.

504. *Brachypleura novae-zeelandica* Günther.

Brachypleura novae-zeelandica Günther, Cat. Fishes British Mus., vol. 4, p. 419, 1862; New Zealand. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6, Shore Fishes, p. 49, 1880; Arafura Sea; off New Guinea. Phillips, New Zealand Marine Dept. Fish Bull., vol. 1, p. 27, 1927. Norman, Records Indian Mus., vol. 29, p. 43, fig. 12, 1927; Andaman Islands; Ganjam coast; Bay of Bengal. Fowler, Mem. Bishop Mus., vol. 10, p. 93, 1928. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 145, fig. 37, 1929; Java Sea; Java; Madura Strait; Saleyer; Timor Sea; Arafura Sea; coast of New Guinea. Norman, Monograph Flatfishes, vol. 1, p. 400, fig. 289, 1936; Maldive Islands; off Ganjam coast, India; Bay of Bengal; off Tenasserim coast, Burma; Andaman Islands; Java Sea; Arafura Sea; New Zealand. Herre, Mem. Indian Mus., vol. 13, p. 391, 1941; Andaman Islands. Herre, 1940-41 Exped.; Manila Bay, Luzon.

Brachypleura xanthosticta Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 281, pl. 17, fig. 3, 1889. Alcock, Illustrations Zoology Investigator, Fishes, pl. 22, fig. 2, 1898. Regan, Trans. Linn. Soc. London, Zool., vol. 12, p. 232, 1908. Jenkins, Mem. Ind. Mus., vol. 3, p. 27, 1910. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 46, 1930; Philippine Islands.

Laiopteryx xanthosticta Weber, *Siboga*-Exped., vol. 57, p. 423, Fische, 1913.

Genus 186. SAMARIS Gray.

Indo-Pacific waters.

Samaris Gray, Zoological Miscellany, p. 4, 1831; type, *Samaris cristatus* Gray. Günther, Cat. Fishes British Mus., vol. 4, p. 419, 1862. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 138, 1929. Norman, Monograph Flatfishes, vol. 1, p. 402, 1934.

505. *Samaris cristatus* Gray.

India, East Indies, the Philippines, and China.

Samaris cristatus Gray, Zoological Miscellany, p. 4, 1831; China. Günther, Cat. Fishes British Mus., vol. 4, p. 420, 1862; China. Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 291, pl. 17, fig. 4, 1889; Bay of Bengal. Alcock, Illustrations Zoology Investigator, Fishes, pl. 23, fig. 2, 1898. Norman, Records Ind. Mus., vol. 29, p. 44, 1927; off Colombo, and south of Ceylon; Andaman Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 138, fig. 34, 1929; Java Sea; Strait of Bali; Singapore. Norman Monograph Flatfishes, vol. 1, p. 403, fig. 291, 1934; south of Ceylon; Andaman Islands; Malay Peninsula; Java Sea; China. Umali, Philippine Fishery Program, June, 1947; near Corregidor, Manila Bay, Luzon.

Genus 187. SAMARISCUS Gilbert.

Several species from the Indo-Pacific, in moderately deep water.

Samariscus Gilbert, Bull. U. S. Fish. Comm., vol. 23, Part 2, Deep-Sea Fishes, p. 682, 1905; orthotype, *Samariscus corallinus* Gilbert; off coast of Molokai, Hawaiian Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 140, 1929. Norman, Monograph Flatfishes, vol. 1, p. 407, 1934.

506. *Samariscus luzonensis* Fowler.

Samariscus luzonensis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 343, fig. 96, 1934; west coast of Luzon, off San Fernando Light, La Union Province, in 45 fathoms.

507. *Samariscus macrognathus* Fowler.

Samariscus macrognathus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 343, fig. 97, 1934; west coast of Luzon off San Fernando Light, La Union Province, in 45 fathoms.

Genus 188. BRACHYPLEUROPS Fowler.

Brachypleuropops Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 341, 1934; orthotype, *Brachypleuropops axillaris* Fowler.

508. *Brachyleurops axillaris* Fowler.
Brachyleurops axillaris Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 341, fig. 95, 1934; Balayan Bay, Batangas Province, Luzon; Verde Island Passage in 188 fathoms.

Family 73. ACHIRIDÆ. Broad soles

Genus 189. ACHIRUS Lacépède.

Fishes of the Atlantic and Indo-Pacific Oceans.

Achirus Lacépède, Hist. Nat. Poissons, vol. 4, p. 658, 1803; type, *Pleuronectes archirus* L. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 5, p. 159, 1929.

509. *Achirus hartzfeldi* Bleeker.

An East Indian and Philippine fish, ranging west to British India.

Achirus hartzfeldii Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 123, 1853; Amboina. Bleeker, Atlas Ichth., vol. 6, p. 25, pl. 246, fig. 1, 1866-1872; Sumatra; Amboina; Flores; Timor; Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 106, 1906; the Philippines.

Aseraggodes hartzfeldi Kaup, Archiv Naturges., vol. 24, p. 103, 1858.

Solea hartzfeldii Günther, Cat. Fishes British Mus., vol. 4, p. 471, 1862; Amboina.

Archirus hartzfeldi Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 160, fig. 45, 1929; Malacca Straits; Sumatra; Bawean Island; Flores; Timor; Ceram; Amboina; Obi; Ternate; Doreh, New Guinea; the Philippines; British India. Herre, 1948 Philippine Collection; Manila Bay, Luzon.

Family 74. SOLEIDÆ. Soles

From the Arabian Sea to the Philippines and Japan, and southeast to New Guinea, the Solomon Islands, and Australia. One species in fresh water, the rest marine; mostly in deep water.

Genus 190. ASERAGGODES Kaup.

Aseraggodes Kaup, Archiv Naturges., p. 103, 1858; logotype, *Aseraggodes guttulatus* Kaup. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 229, 1907. Weber, *Siboga*-Exped., Fische, vol. 57, p. 415, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 151, 1929.

510. *Aseraggodes dubius* Weber.

East Indies and the Philippines.

Aseraggodes dubius Weber, *Siboga* Exped., Fische, p. 438, fig. 82, 1913; Java Sea. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 5, p. 156, fig. 39, 1929; Java Sea; St. Nicholas Bay, Bali. Herre, 1948 Coll., Manila Bay, Luzon.

511. *Aseraggodes filiger* Weber.

East Indies and the Philippines; marine.

Aseraggodes filiger Weber, *Siboga*-Exped., vol. 57, Fische, p. 436, 1913; Java Sea; Rotto Island. Umali, beam trawl, June, 1947; Manila Bay Luzon, 8 miles from Corregidor Island, at 15 to 25 fathoms.

Genus 191. SOLEICHTHYS Bleeker

Soleichthys Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Visschf. Celebes, p. 14, 1860; orthotype, *Soleichthys heterorhinos* Bleeker.

512. *Soleichthys heterorhinos* Bleeker.

Solea heterorhinos Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Visschen Amboina, p. 64, 1856; Amboina.

Soleichthys heterorhinos Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 14, 1860. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 107, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Mem. Bishop, Mus., vol. 10, p. 94, 1928. Norman, Records Indian Mus., vol. 30, p. 187, fig. 6, 1928; Andaman Islands. McCulloch, Mem. 5, Australian Mus., p. 283, 1929; Queensland; New South Wales. Herre, Mem. Indian Mus., vol. 13, p. 392, 1941; Andaman Islands.

Solea heterorhina Günther, Cat. Fishes British Mus., vol. 4, p. 466, 1862; Celebes; Amboyna. Bleeker, Atlas Ichth., vol. 6, p. 17, pl. 290, fig.

2, 1866-72. Day, Fishes India, p. 426, pl. 92, fig. 5, 1878. Day, Fauna, British India, vol. 2, p. 444, fig. 159, 1889. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 435, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 148, fig. 38, 1929; Celebes; Amboina; Timor; Kei Islands; Batjan; Waigiu; Schouten Islands; Philippine Islands. Herre, Jour. Pan Pacific Research Inst. vol. 8, 1933; p. 5, Sandakan, British North Borneo; p. 11, Dumaguete, Oriental Negros Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Dumaguete, Negros.

Solea nigrostriolata Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 61, p. 427, pl. 1, fig. 2, 1870; Viti Levu, Fiji.

Parophrys nigrostriolata Steindachner and Kner, Sitzungsber. Akad. Wiss. Wien, vol. 61, p. 427, 1870; name in text.

Soleichthys heterorhina Günther, Report Voy. Challenger, Zoology, vol. 1, Part 6, Shore Fishes p. 36, 1880; Ovalau, Fiji. Günther, Fische der Südsee, vol. 3, p. 345, 1910; Ponape, Caroline Islands; New Britain; Samoa; Tonga; Fiji.

Genus 192. MICROBUGLOSSUS Günther.

Microbuglossus Günther, Cat. Fishes British Mus., vol. 4, p. 462, 1862; orthotype, *Solea humilis* Cantor.

513. *Microbuglossus ovatus* (Richardson). Ovate sole; Tambike.

From the East Indies and Philippines to China and India.

Solea ovata Richardson, Ichth. China Japan, p. 279, 1846; China. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1202, 1850; Pinang. Day, Fishes India, p. 426, pl. 93, fig. 1, 1878; Madras, India. Günther, Report Voy. Challenger, Zoology, vol. 1, Part 6, Shore Fishes, p. 53, 1880; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 292, 1927; Orani and Orion, Bataan Province, Luzon.

Solea (Microbuglossus) ovata Bleeker, Ned. Tijds. Dierk., vol. 4, p. 130, 1872; Canton and Amoy, China.

Solea humilis Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1201, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 4, p. 471, 1862. Kner, Reise Novara, Fische, vol. 1, p. 288, 1865-67. Bleeker, Atlas Ichth., vol. 6, p. 16, pl. 237, fig. 1, 1872. Umali, Edible Fishes Manila, p. 84, fig. 46, 1936; Manila Bay. Weber and de Beaufort, Fishes Indo-Austr. Archipelago, vol. 5, p. 148, 1929; Bintang; Java Sea; Java; Sandakan, Borneo; Philippines. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Cape Bolinao, Pangasinan Province, and Manila; Luzon.

Microbuglossus humilis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 46, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908; Manila. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 287, Sandakan, British North Borneo. Herre, Jour. Pan. Pacific Research Inst., vol. 8, p. 5, 1933.

Genus 193. PARDACHIRUS Günther.

An Indo-Pacific genus with species ranging from the Red Sea and east coast of Africa to the Philippines, Australia, and Polynesia at least as far as Samoa.

Pardachirus Günther, Cat. Fishes British Mus., vol. 4, p. 478, 1862; logotype, *Achirus marmoratus* Lacépède. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 416, 1913; discussion. Barnard, Ann. South African Mus., vol. 21, Part 1, p. 405, 1925. Norman, Report on Flatfishes collected by the *Endeavour*, in Fisheries, vol. 5, Part 5, p. 287, 1926.

514. *Pardachirus pavoninus* (Lacépède).

The Philippines and East Indies, southeast to the Tonga Islands, south to Queensland, north to the RiuKiu Islands, and west to the Andaman Islands.

Achirus pavoninus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 658, 661, 1802. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1207, 1850; Pinang. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 402, 1951. Bleeker, Atlas Ichth., vol. 6, p. 24, pl. 241, fig. 1, 1866-72. Day, Fishes India, p. 427, pl. 93, fig. 2, 1878; Port Blair, Andaman Islands. Day, Fauna British India, vol. 2, p. 446, fig. 160, 1889.

Achirus maculatus (Kuhl and van Hasselt), Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 509, 1845; Batavia, Java.

Achirus marmoratus Rüppell, Verzeich. Samml. Senckenberg. Mus., Fische, vol. 4, p. 19, 1852; not of Lacépède.

Pardachirus pavoninus Günther, Cat. Fishes British Mus., vol. 4, p. 479, 1862; Pinang; Singapore; Moluccas. Macleay, Descript. Cat. Australian Fishes, vol. 2, p. 136, 1881. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Cebu. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 107, 1907; Bacon, Sorsogon Province, Luzon. Fowler, and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 67, 1922; Zamboanga, Mindanao. Norman, Biol. Results *Endeavour*, Fisheries Australia, vol. 5, p. 288, 1926. Norman, Records Indian Mus., vol. 30, p. 187, fig. 6, 1928. Fowler, Mem. Bishop Mus., vol. 10, p. 94, 1928; Fate, New Hebrides. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 165, fig. 46, 1929; Singapore; Sumatra; Nias; Banka; Java; Madura; Celebes; Roti; Salayer; Batjan; Ternate; Ceram; Aru Islands; south New Guinea; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Cullion; Dumaguete; Cotabato, Cotabato Province, Mindanao; Jolo, Sulu Province. Herre, 1940-41 Exped.; Puerto Galera, Mindoro; Dumaguete, Negros Oriental Province.

515. *Pardachirus poropterus* (Bleeker).

An East India species also occurring in the Philippines.

Achirus poropterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 410, 1851; Indian Archipelago. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Pleuronect., Sunda-Moluccan Arch., p. 19. Bleeker, Atlas Ichth., vol. 6, p. 24, pl. 246, fig. 2, 1866-1872; Java; Sumatra; Nias; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 162, fig. 44, 1929; 14 East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Cullion.

Achirus thepassii Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 500, 1854; Amboina. Bleeker, Atlas Ichth., vol. 6, p. 24, pl. 246, fig. 4, 1866-1872; Menado, Celebes; Amboina.

Solea Thepassii Günther, Cat. Fishes British Mus., vol. 4, p. 478, 1862; East Indian Archipelago.

Solea (Achirus) poropterus Klunzinger, Sitzungsber. Akad. Wiss. Wien, p. 408, 1880.

Pardachirus poropterus Norman, Records Indian Mus., vol. 30, p. 188, 1928; name used in a key to *Pardachirus* species.

Genus 194. **LIACHIRUS** Günther.

East Indies, Philippines, China, Formosa, Japan.

Liachirus Günther, Cat. Fishes British Mus., vol. 4, p. 479, 1862; orthotype, *Liachirus nitidus* Günther; China coast.

516. *Liachirus melanospilus* (Bleeker).

Achirus melanospilos Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 257, 1854; Celebes.

Liachirus nitidus Günther, Cat. Fishes British Mus., vol. 4, p. 479, 1862; coast of China. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 66, p. 588, 1867; China. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 366, 1902; Giran, Formosa. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 67, 1922; Takao, Formosa. Rendahl, Arkiv Zool., Band 16, 1924; Swatow, Kwantung Province, China. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 158, figs. 42 and 43, 1929; Singapore; Menado, Celebes; Batjan; Amboina; Bintang, Borneo. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Manila Bay, Luzon.

Achirus melanospilus Bleeker, Atlas Ichth., vol. 6, p. 23, pl. 244, fig. 1, 1866-1872.

Family 75. **SYNAPTURIDÆ**

Genus 195. **SYNAPTURA** Cantor.

Indian and western Pacific Oceans; mostly marine but some species occur in fresh water.

Synaptura Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1204, 1850; logotype, *Pleuronectes commersonianus* Lacépède, as restricted by Bleeker. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 166, 1929.

517. *Synaptura aspilus* Bleeker.

The East Indies, Philippines, Siam, and New Pomerania.

Synaptura aspilus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 74, 1852; Singapore. Bleeker, Verh. Bat. Gen., vol. 24, 1852, p. 29, Pleuronect.

Synaptura aspilus Günther, Cat. Fishes British Mus., vol. 4, p. 482, 1862.

Brachirus aspilus Ogilby, Proc. Roy. Soc. Queensland, vol. 23, p. 36, 1910.

Synaptura aspilus Weber, *Siboga*-Exped., vol. 57, Fische, p. 440, 1913.

Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 170, 1929; Singapore; Solor; Dammar; Batjan; Timor; Kei Island; Aru Islands; Ceram; Amboina. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Cullion; Dumaguete, Negros.

518. *Synaptura megalepidoura* (Fowler).

Brachirus megalepidoura Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 347, fig. 100, 1934; off east coast of Leyte, in 15 fathoms.

519. *Synaptura sorsogonensis* Evermann and Seale.

Synaptura sorsogonensis Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 106, fig. 22, 1907; Bacon, Sorsogon Province, Luzon.

Family 76. CYNOGLOSSIDÆ. Tonguefishes; Sole

Genus 196. CYNOGLOSSUS Hamilton [né Buchanan]. Dapang sinilas; Dapang kawayan; Dapang haba.

Western Pacific, Indian, and eastern Atlantic, in tropical and subtropical water; some kinds live in fresh water.

Cynoglossus Hamilton [né Buchanan], Fishes Ganges, p. 32, 1822; type, *Cynoglossus linqua* Hamilton [né Buchanan].

520. *Cynoglossus bilineatus* (Bloch). Palad.

Marine. Philippines and East Indies, west to the Red Sea and Zanzibar, north to Japan, southeast to Queensland, Australia.

Pleuronectes bilineatus Bloch, Naturges. Ausländ. vol. 3, Fische, p. 29, 1787. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Manila Bay, Luzon. Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 288, 1889. Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 154, 1902. Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 498, 1906. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 292, 1927; Philippines.

Cynoglossus bilineatus Weber, *Siboga*-Exped., Fische, vol. 57, p. 443, 1913. Norman, Biol. Results *Endeavour*, Fisheries Australia, vol. 5, p. 301, 1926. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 194, 1929; numerous East Indian localities; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 5, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Manila market.

521. *Cynoglossus interruptus* Günther.

China, Japan, and Philippines; marine.

Areliscus interruptus Bloch, Ichthyologie, vol. 6, p. 21, pl. 188, 1788; China and East Indies. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 31, p. 240, 1906; Tokyo, Nagasaki, Wakanoura, Matsushima, Onomichi, and Hiroshima, Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 302, 1925; Toba, Kobe, Misaki and Mikawa Bay, Japan.

Achirus bilineatus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 659 and 663, 1803; China and East Indies.

Plagusia bilineata Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 120, 1828; Red Sea.

Plagusia quadrilineata Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 412, 1851; Batavia, Java; Sumatra; Banka.

Arelia quadrilineata Kaup, Archiv Naturges., p. 107, 1858.

Cynoglossus quadrilineatus Günther, Cat. Fishes British Mus., vol. 4, p. 497, 1862. Kner, Reise *Novara*, Fische, vol. 1, p. 32, 1865-67. Bleeker, Atlas Ichth., vol. 6, p. 32, pl. 245, fig. 3, 1866-72. Kluzinger, Verh. zool.-bot. Gesell. Wien, vol. 21, p. 573, 1871. Day, Fishes India, p. 435; Sind, Seas of India.

Cynoglossus interruptus Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6, Shore Fishes, p. 70, pl. 30, fig. 5, 1880; Yokohama; Swatow. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Cebu, Cebu Province.

522. *Cynoglossus lida* (Bleeker).

The Philippines, East Indies, to India and Natal; marine.

Plagusia lida Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 509, 1845; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 413, 1851.

Arelia lida Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Enumeratio piscium Arch. Ind., p. 184, 1859.

Cynoglossus lida Günther, Cat. Fishes British Mus., vol. 4, p. 498, 1862; not synonymy. Bleeker, Atlas Ichth., vol. 6, p. 36, pl. 245, fig. 3. Day, Fishes India, p. 436, pl. 97, fig. 3, 1878; Burma. Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 288, 1889. Vinciguerra, Ann. Mus. Civ. Genova, p. 188, 1890. Regan, Ann. Durban Mus., vol. 2, p. 221, 1920. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 203, 1929; Singapore; Nias; Batavia, Java; Bulukumba and Menado, Celebes; Salibabu. Herre, 1940-41 Exped.; Sulu Sea at Miago. Iloilo Province, Panay; Sulu Sea at Dapitan, Zamboanga Province, Mindanao.

523. *Cynoglossus macrolepidotus* (Bleeker).

Philippines, China, Indo-China, East Indies, India, Ceylon and the Persian Gulf; marine.

Plagusia macrolepidota Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 415, 1851.

Arelia macrolepidota Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Enumeratio piscium Arch. Ind., p. 184, 1859.

Cynoglossus macrolepidotus Günther, Cat. Fishes British Mus., vol. 4, p. 496, 1862; coasts of Java, Sumatra, and Banka. Kner, Reise *Novara*, Fische, vol. 3, p. 294, 1867; Manila. Bleeker, Atlas Ichth., vol. 6, p. 34, pl. 245, fig. 3, 1866-72. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 131, 1873; Hong Kong. Day, Fishes India, p. 434, 1878. Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 288, 1889. Rutter, Proc. Acad. Nat. Sci. Phila., p. 89, 1897; Swatow. Seale, Philippine Jour. Sci., vol. 5 D, p. 288, 1910; Philippines. Norman, Records Indian Mus., vol. 30, p. 202, fig. 18, 1928. Weber and de Beaufort, Fishes, Indo-Australian Archipelago, vol. 5, p. 205, 1929; Sumatra; Simalur; Sandakan, British North Borneo; Banka; Java Sea; Batavia, Anjer, Japara, Palabuan, Tuban, and Pasaruan, Java; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 5, 1933; Sandakan, British North Borneo. Herre, Mem. Indian Mus., vol. 13, p. 392, 1941; Andaman Islands.

524. *Cynoglossus puncticeps* (Richardson). Speckled sole; Dapang sinilas; Dapang kawayan; Dapang haba.

In salt, brackish, and fresh water.

Plagusia puncticeps Richardson, Ichth. China Japan, p. 280, 1846; China.

Cynoglossus puncticeps Günther, Cat. Fishes British Mus., vol. 4, p. 500, 1862. Kner, Reise *Novara*, Fische, vol. 3, p. 297, 1865-67. Bleeker, Atlas Ichth., vol. 6, p. 37, pl. 256, fig. 7, 1866-72. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 131, 1872; Canton, China. Day, Fishes India, p. 437, pl. 97, fig. 1, 1878; from Sind through Seas of India; Madras, Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6, Shore Fishes, p. 53, 1880; Philippines. Meyer, An. Soc. España Hist. Nat. Madrid vol. 14, p. 40, 1885; Manila Bay, Luzon. Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 289, 1889. Jordan and Seale, Bull. U. S. Bur. Dierk., vol. 4, p. 131, 1872; Canton, China. Day, Fishes India, p. 437, pl. 97, fig. 1, 1878; from Sind through Seas of India; Madras. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6, Shore Fishes, p. 53, 1880; Philippines. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 40, 1885; Manila Bay, Luzon. Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 289, 1889. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 46, 1907; Manila. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 292, 1927; San Fernando, La Union Province; Orani and Orion, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 198, 1929; numerous East Indian localities; Philippine Islands. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Manila Bay, Luzon. Umali, Edible Fishes

Manila, p. 84, fig. 45, 1936; Manila Bay. Herre, 1940-41 Exped.; Puerto Galera, Mindoro.

Plagusia javanica Bleeker, Nat. Tijds. Ned-Ind., vol. 1, p. 414, 1851; Java.

Plagusia brachyrhynchus Bleeker, Nat. Tijds. Ned-Ind., vol. 1, p. 414, 1851.

Arelia javanica Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Enumeratio piscium Arch. Ind., p. 184, 1859.

Arelia brachyrhynchus Bleeker, *ibid.*

Cynoglossus brachyrhynchus Günther, Cat. Fishes, British Mus., vol. 4, p. 499, 1862. Bleeker, Atlas Ichth., vol. 6, p. 37, 1866-72. Day, Fishes India, p. 435, pl. 96, fig. 4, 1878; Calcutta and Moulmein; in brackish water.

525. *Cynoglossus sibogae* Weber.

One Philippine, and two East Indian stations. Marine.

Cynoglossus sibogae Weber, *Siboga* Exped., vol. 57, Fische, p. 442, fig. 30, 1913; Molo Strait; Lirung, Salibabu Island.

Cynoglossus sibogae Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 200, fig. 54, 1929; same specimens. Herre, Fishes 1931 Philippine Exped., p. 105, 1934; Bauang Sur, La Union Province, Luzon.

526. *Cynoglossus sindensis* Day. Dapa.

India, the Philippines, and North Australia.

Cynoglossus sindensis Day, Fishes India, p. 434, pl. 90, fig. 6, 1878; from Sind through Seas of India. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908, Manila. Ogilby, Proc. Royal Soc. Queensland, vol. 23, p. 37, 1911; Manila, Luzon. Norman, Biological Results *Endeavour*, vol. 5, Part 5, p. 302, 1926; Philippines. McCulloch, Mem. Australian Mus., vol. 5, p. 288, 1929; Philippines.

527. *Cynoglossus sumatranus* (Bleeker).

East Indies, Philippines, Malay Peninsula; marine.

Plagusia sumatrana Bleeker, Nat. Tijds. Ned. Ind., vol. 5, p. 529, 1853; Sumatra.

Arelia sumatrana Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 6, Enumeratio piscium Arch. Ind., p. 185, 1859.

Cynoglossus sumatrensis Günther, Cat. Fishes British Mus., p. 497, 1862. Bleeker, Atlas Ichth., vol. 6, p. 35, pl. 243, fig. 1. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908. Ticao Island. Fowler, Copeia, No. 58, p. 65, 1918; Philippines.

Cynoglossus sumatranus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, 1929; Siboga, Padang, and Benkulen, Sumatra; Singapore; Philippines. Herre, 1936-37 Exped.; Pinang.

528. *Cynoglossus suyeni* Fowler.

Cynoglossus suyeni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 437, fig. 101, 1934; Verde Island Passage, off Escarceo Light, Mindoro, in 173 fathoms.

Genus 197. *PARAPLAGUSIA* Bleeker.

Western Pacific and Indian Oceans; marine.

Paraplagusia Bleeker, Ned. Tijds. Dierk., vol. 2, p. 274, 1865; orthotype.

Paraplagusia bilineata Bleeker; Amboina. Bleeker, Atlas Ichth., vol. 6, p. 26, 1866-72. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 182, 1929.

Plagusia Cuvier, Swainson, Günther, preoccupied.

529. *Paraplagusia bilineata* Bloch.

Red Sea, east coast of Africa, Madagascar, India, East Indies, Philippines, and Japan; east in the Pacific to the Bismarck Archipelago. *Pleuronectes bilineata* Bloch, Naturges. Ausländ. Fische, vol. 3, p. 29, 1784.

Plagusia marmorata Bleeker, Nat. Tijds. Ned. Ind., vol. 1, p. 411, 1851. Günther, Cat. Fishes British Mus., vol. 4, p. 491, 1862. Kner, Reise Novara, Fische, vol. 1, p. 293, 1865-67. Day, Fishes India, p. 431, 1878. Günther, Fische der Südsee, p. 348, 1873-75.

Paraplagusia marmorata Bleeker, Atlas Ichth., vol. 6, p. 28, pl. 246, fig. 5, 1866-72. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 57, p. 517, 1905. Regan, Ann. Durban Mus., vol. 2, p. 219, 1920.

Plagusia bilineata Klunzinger, Verh. zool.-bot. Gesell. Wien, vol. 21, p. 573, 1871.

Paraplagusia bilineata Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 183, figs. 50-51, 1929; numerous East Indian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Provinces. Herre, Fishes 1931 Philippines Exped., p. 105, 1934; Dumaguete, Oriental Negros Province.

530. Paraplagusia blochi (Bleeker).

East Indies, Philippines, Formosa, west to India and Madagascar.

Plagusia bilineata Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1209, 1850; Pinang; not of Bloch. Günther, Cat. Fishes British Mus., vol. 4, p. 492, 1862; not of Bloch. Day, Fishes India, p. 431, 1878; not of Bloch.

Paraplagusia bilineata Bleeker, Atlas Ichth., p. 27, pl. 244, fig. 5, 1866-72. *Plagusia Blochii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 411, 1851; Indian Arch. Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 398, 1876.

Paraplagusia blochi Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 184, 1929; Nias; Singapore; Benkulen and Trussan, Sumatra; Simalur; Banka; Batavia, Cheribon, Prigi, Rembang, Samarang, Tegal, Tjilatjap, Surabaya, and Pasaruan, Java; Madura; Borneo; Amboina. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Expedition, p. 105, 1934; Dumaguete.

Genus 198. SYMPHURUS Rafinesque. Tonguefishes.

In the Mediterranean and warmer parts of the Indo-Pacific and western Atlantic. Marine.

Symphurus Rafinesque, Indice l'Ittiol. Siciliana, p. 52, 1810; type, *Symphurus nigrescens* Rafinesque.

Aphoristia Kaup, Archiv Naturges., vol. 24, part 1, p. 106, 1858; orthotype, *Achirus ornatus* Lacépède.

Ammopleurops Günther, Cat. Fishes, British Mus., vol. 4, p. 490, 1862; orthotype, *Plagusia lactea* Bonaparte.

531. Symphurus marmoratus Fowler.

The Philippines and Indian Ocean.

Symphurus marmoratus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 349, fig. 102, 1933; near Jolo Island, Sulu Province, Philippines, Regan, Scientific Reports Murray Exped., vol. 7, p. 106, 1938; near the Maldive Islands and Saya de Malha Bank, Indian Ocean; Philippines.

Order S. ZEODEI

Family 77. ZEIDÆ. John Dories

Deep sea fishes.

Genus 199. ZEN Jordan.

Japan to the Philippines.

Zen Jordan, Proc. U. S. Nat. Mus., vol. 26, p. 694, 1903; orthotype, *Cyttopsis itea* Jordan and Fowler; Suruga Bay, Japan.

532. Zen cypho Fowler.

Zen cypho Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 350, fig. 103, 1934; off northern Mindanao, in 169 fathoms.

Genus 200. MACRUROCYTTUS Fowler.

Macrurocyttus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 350, 1934; orthotype, *Macrurocyttus acanthopodus* Fowler.

533. Macrurocyttus acanthopodus Fowler.

Macrurocyttus acanthopodus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 351, fig. 104, 1934; Atulayan Island, Lagonoy Gulf, Albay Province; Luzon, in 480 fathoms.

Family 78. GRAMMICOLEPIDÆ

Genus 201. XENOLEPIDICHTHYS Gilchrist.

One species; a deep-sea fish known from South Africa, the Caribbean Sea, and the Philippines.

Xenolepidichthys Gilchrist, Union South Africa, Fisheries Marine Biol. Survey, Report 2, Part 3, p. 73, 1922; type, *Xenolepidichthys dalgleishi* Gilchrist.

534. *Xenolepidichthys dalgleishi* Gilchrist.

Xenolepidichthys dalgleishi Gilchrist, Fisheries Marine Biol. Survey, Special Reports, vol. 3, p. 73, pl. 12, fig. 1, 1922; *Pickle* Stations 104, 111, and 141. Barnard, Ann. South African Mus., p. 371, pl. 16, fig. 1, 1925; off Natal coast; Algoa Bay; off Saldanha Bay. Von Bonde, Fisheries Marine Biol. Survey, Report No. 5, p. 26, 1928, and Report No. 10, 1933. Smith, Records Albany Mus., vol. 4, p. 184, pl. 18, fig. A, 1935. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 87, p. 373, 1935; Durban. Myers, Proc. U. S. Nat. Mus., vol. 84, p. 153, pl. 7, and pl. 5, fig. B, 1937; Sombrero Islet, Verde Island Passage, between Luzon and Mindoro.

Order T. BERYCOIDEI

Family 79. MONOCENTRIDÆ. Pine-cone fishes

Indian and Pacific Oceans. One genus and two species known. Remarkable deep-sea fishes.

Genus 202. MONOCENTRIS Bloch and Schneider.

East Indies, Philippines, north to China and Japan, south to Australia, west to the Andaman Islands and east coast of Africa.

Monocentris Bloch and Schneider, Syst. Ichth., p. 100, 1801; type, *Gasterosteus japonicus* Houttuyn.

535. *Monocentris japonicus* (Houttuyn).

Gasterosteus japonicus Houttuyn, Verh. Holland. Maatsch. Wetensch. Haarlem, vol. 20, p. 329, pl. 2, 1782; Nagasaki, Japan.

Sciaena japonica (*cataphracta*) Thunberg, Nov. Act. Scient. Suec., vol. 11, p. 102, 1790.

Monocentris carinata Bloch and Schneider, Syst. Ichth., p. 100, 1801.

Lepisacanthus japonicus Lacépède, Hist. Nat. Poissons, vol. 3, p. 321, 1802.

Monocentris japonicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 461, 1829. Schlegel, Fauna Japonica, Pisces p. 50, 1843.

Brevoort, U. S. Jap. Exp., Nat. Hist., p. 262, 1856. Günther, Cat. Fishes British Mus., vol. 1, p. 9, 1859. Hilgendorf, Sitzber. Ges. Naturf. Freunde Berlin, p. 22, 1879. Macleay, Descript. Cat. Australian Fishes, vol. 1, p. 145, 1881; New South Wales. Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 217, 1883. Nyström, Bihang til Handlingar Svenska Vetenskapsakad., vol. 13, afd. 4, No. 4, p. 4, 1887. Alcock, Ann. Mag. Nat. Hist., ser. 7, vol. 2, p. 151, 1898.

Alcock, Cat. Indian Deep-Sea Fishes, p. 32, 1899; Andaman Sea. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 19, 1902. Franz, Abh. Bayerisch. Akad. Wiss., vol. 4, Suppl. vol. 1, abth., p. 32, 1910. Weber, Siboga-Exped., vol. 57, Fische, p. 188, 1913. Barnard, Ann. South African Mus., vol. 21, p. 360, 1925. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 223, figs. 63 and 64, 1929; Batjan; Timor Sea; Philippines. Herre, Mem. Indian Mus., vol. 13, p. 344, 1941; Andaman Sea. Kauffman and Umali, Motorship *Theodore N. Gill*; off entrance to Manila Bay, 9.5 miles south of Bataan Peninsula, Batan Province, Luzon, in 65 fathoms, October, 1947.

Monocentris cataphracta Bleeker, Verh. Akad. Amsterdam, vol. 1, Bijdr. Ichth. Fauna Japan, p. 5, 1854.

Family 80. OSTRACOBERYCIDÆ

A single genus with one species known.

Genus 203. OSTRACOBERYX Fowler.

Ostracoberyx Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 353, 1934; type, *Ostracoberyx dorygenys* Fowler.

536. *Ostracoberyx dorygenys* Fowler.

Ostracoberyx dorygenys Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 353, fig. 105, 1934; off coast of Misamis Oriental Province, near Cagayan, in 226 fathoms.

Family 81. TRACHICHTHYIDÆ

Genus 204. **GEPHROBERYX** Boulenger.

Atlantic, Pacific, and Indian Oceans; deep-sea fishes.

Gephroberyx Boulenger, Ann. Mag. Nat. Hist., ser. 7, vol. 9, p. 203, 1902; orthotype, *Trachichthys darwini* Johnston.

537. *Gephroberyx philippinus* Fowler.

The Philippines and East Indies.

Gephroberyx philippinus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 38, fig. 11, 1938; off Point Tagolo Light, Zamboanga Province, and "northern Mindanao and vicinity," in 175 fathoms.

Genus 205. **HOPLOSTETHUS** Cuvier and Valenciennes.

In the western Pacific, north to Japan, south to New Zealand; Indian and Atlantic Oceans and Mediterranean Sea. Deep-sea fishes.

Hoplostethus Cuvier and Valenciennes, Hist., Nat. Poissons, vol. 4, p. 469, 1829; type, *Hoplostethus mediterraneus* Cuvier and Valenciennes.

538. *Hoplostethus melanopterus* Fowler.

Hoplostethus melanopterus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 36, fig. 9, 1938; Tayabas Light, Tayabas Province, Luzon; Marinduque Island and vicinity, in 338 fathoms.

539. *Hoplostethus metallicus* Fowler.

Hoplostethus metallicus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 37, fig. 10, 1938; Pescador Island, Tanon Strait, east coast of Negros, Philippines, in 300 fathoms.

Genus 206. **PARATRACHICHTHYS** Waite.

The Philippines, Australia, Tasmania, and New Zealand.

Paratrachichthys Waite, Mem. Australian Mus., vol. 4, p. 64, 1899; orthotype, *Trachichthys trilli* Hutton; Stewart Island, New Zealand.

540. *Paratrachichthys latus* Fowler.

Paratrachichthys latus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 40, fig. 12, 1938; Philippines, at 90 to 395 fathoms.

Family 82. **HOLOCENTRIDÆ**. Soldierfishes

Genus 207. **HOLOCENTRUS** Bloch.

Soldierfish; Baga-baga; Lambi; Suga; Suga-suga; Sugo; Sugac; Tihik-tihik.

Reef fishes of all tropical seas.

Holocentrus Gronow, Zoophylaceum, p. 65, 1763; non-binomial. Bloch, Ichthyologie, vol. 7, p. 46, 1767; type, *Holocentrus sogo* Bloch. Oken, Lehrbuch Naturges., vol. 3, Part 2, p. 43, 1816. Montilla, Philippine Jour. Sci., vol. 67, p. 207, 1938.

Holocentrus seu perca Meuschen, in Gronow Zoophylaceum, Part 3, 1763; based on *Holocentrus* Gronow.

Holocenthrus Scopoli, Introd. Hist. Nat., p. 449, 1777.

Rhynchichthys Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 503, 1831; type, *Rhynchichthys pelamidis* Cuvier and Valenciennes; young of *Holocentrus*.

Holocentrum Agassiz, Poissons fossiles, vol. 4, p. 36, 1835; amended spelling. Günther, Cat. Fishes British Mus., vol. 1, p. 28, 1859. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 229, 1929.

Rhinoberyx Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 237, 1862; type *Rhynchichthys brachyrhynchus* Bleeker; larval form.

Sargocentron Fowler, Proc. Acad. Nat. Sci. Phila., vol. 56, p. 235, 1904; orthotype, *Holocentrum leo* Cuvier.

541. *Holocentrus bleekeri* Weber.

East Indies and the Philippines.

Holocentrum argenteum Bleeker, Verh. Bat. Gen., vol. 22, p. 4, 1849. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, Bijdr. vischf. Amboina, p. 1, 1858; Amboina; not of Cuvier and Valenciennes. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 208, 1873. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 48, 1878; New Guinea.

Holocentrum Bleekeri Weber; *Siboga*-Exped., vol. 57, Fische, p. 181, 1913.

Holocentrum bleekeri Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 237, 1929; Philippines; Karkaralong Islands; Amboina; Banda; Geelvink Bay, New Guinea.

Holocentrus bleekeri Montilla, Philippine Jour. Sci., vol. 67, p. 219, pl. 3, fig. 3, 1938; Manila.

542. *Holocentrus caudimaculatus* Rüppell.

Red Sea and Madagascar to the Philippines, east to the Caroline Islands, Gilbert Islands, and Tahiti.

Holocentrus spinifer Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 86, pl. 23, fig. 1, 1828; Red Sea; not of Forskål.

Holocentrum spiniferum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 206, 1829; vol. 7, p. 498, 1831.

Holocentrus caudimaculatum Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 97, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 1, p. 41, 1859; Red Sea. Steindachner, Verh. zool.-bot. Gesell. Wien, Ichth. Mitt. 1, p. 71, 1861. Kner, Reise Novara, Fische, vol. 1, p. 8, 1865-67. Playfair, Proc. Zool. Soc. London, p. 855, 1867. Klunzinger, Verh. zool.-bot. Gesell. Wien vol. 20, p. 724, 1870; Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 219, 1873. Günther, Fische der Südsee, vol. 1, p. 95, 1873-75; Pelew Islands; Gilbert Islands. Bleeker, Recherches faune Madagascar, Poissons, p. 86, 1875; Madagascar. Day, Fishes India, p. 172, 1878. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 48, 1878; New Guinea. Bleeker, Atlas Ichth., vol. 9, pl. 356, fig. 3, 1878. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1374, 1906; Savaii Island, Samoan Group. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 247, 1929; on one of Bleeker's specimens.

Holocentrus caudimaculatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 223, 1906; Apia, Samoa. Fowler, Bull. 22, Bishop Mus., p. 32, 1925; Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 98, 1928; Ponape, Caroline Islands; Apiang, Gilbert Islands; Apia, Samoa; Tahiti. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Cullion; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 67, 1936; Maraa, Tahiti; Tenebuli, Ysabel Island, Solomon Islands. Montilla, Philippine Jour. Sci., vol. 67, p. 217, pl. 3, fig. 1, 1938; Jolo, Lumbian Island, and North Ubian Island, Sulu Province.

Holocentrus caudimaculatum Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 265, 1927; Santa Cruz, Ilokos Sur Province, Luzon; not Santa Cruz, Mindanao, as given by Roxas and Martin in their Check List.

543. *Holocentrus cornutus* Bleeker.

The Philippines and East Indies.

Holocentrum cornutum Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 240, 1853; Ceram. Günther, Cat. Fishes, British Mus., vol. 1, p. 45, 1859; rivers of Ceram; Sea of Amboyna. Bleeker, Acta. Soc. Sci. Indo-Neerl., vol. 8, p. 21, 1860; Badjoa, Celebes. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 22, 1873. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 182, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 243, 1929; Celebes; Flores; Buru; Ceram; Amboina; Banda; Batjan; Philippines.

Holocentrum melanosphilos Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, 1858, p. 2; Amboina.

Holocentrus cornutus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 251, 1863; Flores. Bleeker, *ibid.*, vol. 2, p. 146, 1865; Buru. Bleeker, *ibid.*, p. 279, 1865; Amboina. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Mindanao. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 266, 1927; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Cullion; Dumaguete; Jolo, Sulu Province. Montilla, Philippine Jour. Sci., vol. 67, p. 214, pl. 2, fig. 2, 1938; Bulan, Sorsogon Province, Luzon; Calapan and Puerto Galera, Mindoro; Romblon Island; Siquijor Island; Bantayan Island; Cebu; mouth of Titunod River,

Lanao Province, Mindanao; Lumbian Island, Lapak Island, Bungau, Sibutu, and Sitankai, Sulu Province.

Holocentrum melanosphilus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 226, 1873.

544. *Holocentrus diadema* Lacépède.

The Philippines, East Indies, China coast, east to Hawaii and the Marquesas Islands, west to the Red Sea and Madagascar.

Holocentrus diadema Lacépède, Hist. Nat. Poissons, vol. 9, pp. 235, 290, and 292, 1799; "les manuscrits de Commerson"; pl. 97, fig. 3, 1833; fine colored figure. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 84, 1828. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 146, 1865; Buru. Bleeker, *ibid.*, p. 186, 1865; Ceram. Bleeker, *ibid.*, p. 279, 1865; Amboina. Seale, Occas. Papers Bishop Mus., vol. 1, p. 68, 1901; Guam. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, pt. 1, p. 159, pl. 10, 1905; Honolulu; Hilo. Fowler, Copeia, No. 53, p. 62, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 266, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 102, pl. 7A, 1928; Marcus Island; Guam; Honolulu, Hawaiian Islands; Faté, New Hebrides; French Frigates Shoal; Apia, Samoa; Mangareva and Fakarava, Tuamotus; Rikitea; Nukahiva, Marquesas Islands. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 70, 1936; Tenibull, Ysabel Island, Solomon Islands; Maraa, Tahiti, and Moorea, Society Islands; Takaroa, Tuamotu Islands. Montilla, Philippine Jour. Sci., vol. 67, p. 218, pl. 3, fig. 2, 1938; Sialot Point, Catanduanes Island, Albay Province, Luzon; Lumbian, Siasi, Bungau, Lubian, and TawiTawi Islands, Sulu Province.

Holocentrus diadema Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 213, 1829; Bora Bora, Society Islands. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 220, pl. 25, fig. 2, 1830; Bora Bora. Bleeker, Nat. Tijds. Ned-Ind., vol. 3, p. 259, 1852; Amboina; Ceram. Günther, Cat. Fishes, British Mus., vol. 1, p. 42, 1859; Borneo; China Seas; India; Madagascar; Ceylon; Tonga Islands; Fiji Islands. Klunzinger, Verh. zool.-bot. Gesell. Wien, vol. 20, p. 723, 1870; Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 210, 1873. Günther, Fische der Südsee, vol. 1, p. 97, 1875; Samoa; Tahiti; Tonga; Society Islands. Bleeker, Atlas Ichth., vol. 9, pl. 356, fig. 1, 1878. Weber, *Siboga*-Exped., vol. 57, Fische, p. 180, 1913. Barnard, Ann. South African Mus., vol. 21, p. 366, 1925. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 238, 1929; numerous East Indian localities.

545. *Holocentrus lacteo-guttatus* Cuvier and Valenciennes.

From the Red Sea through the East Indies and Philippines to Hawaii and Tahiti.

Holocentrus lacteo-guttatum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 214, 1829; Sea of the Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 240, 1929; Simalur; Sumatra; Java; Bawean; Menado, Celebes; Sangir Islands; Salibabu; Ternate; Amboina; Ceram; Goram; Letti; Roma; Timor; Torri; north coast of New Guinea; Philippines.

Holocentrus lacteoguttatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 225, 1906. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 247, 1908; Cagayan, Babuyan Island, Cagayan Province. Fowler, Mem. Bishop Mus., vol. 10, p. 100, fig. 19, 1928; many tropical Pacific localities. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 67, 1936; Tenibull, Ysabel Island, Solomons. Herre, 1936-37 Exped.; Dumaguete, Negros Oriental Province. Montilla, Philippine Jour. Sci., vol. 67, p. 211, pl. 1, fig. 3, 1938; Sialot Point, Catanduanes Island, Albay Province; also Guam.

546. *Holocentrus melanopterus* Bleeker.

East Indies and the Philippines, east to Guam.

Holocentrus melanopterus Bleeker, Nat. Tijds. Ned-Ind., vol. 9, p. 302, 1855; Menado, Celebes. Bleeker, *ibid.*, vol. 13, 370, 1857; Sangir Islands. Bleeker, *ibid.*, vol. 19, p. 330, 1859; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 43, 1859; Sea of Celebes; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 217, 1873. Bleeker, Atlas Ichth.,

vol. 9, pl. 357, fig. 2, 1877. Weber and de Beaufort. Fishes Indo-Australian Archipelago, vol. 5, p. 242, 1929; Java; Celebes; Sangir Islands; Flores; Buru; Ceram; Amboina; Savu.

Holocentrum melanopterus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 182, 1913.

Holocentrus melanopterus Fowler, Mem. Bishop Mus., vol. 10, p. 102, 1928; Guam.

Holocentrus melanopterus Herre, Fishes 1931 Philippine Exped., vol. 27, 1934; Sitankai, Sulu Province.

547. *Holocentrus opercularis* Cuvier and Valenciennes.

The Philippines, East Indies, eastward to the Tuamotus.

Holocentrum operculare Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 377, 1831; Carteret Harbor, New Ireland. Quoy and Gaimard, Voy. *Astrolabe*, Poissons, p. 676, pl. 14, fig. 1, 1834; New Ireland. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 233, 1851; Banda. Günther, Cat. Fishes British Mus., vol. 1, p. 47, 1859; Sea of New Ireland; Banda. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 15, 1860; Sumatra. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 211, 1873. Günther, Fische der Südsee, vol. 1, p. 100, pl. 55, fig. A, 1875; Pelew Islands; Samoa; Friendly Islands; Tuamotus. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 232, 1929; Sumatra; Flores; Banda; Sangir Islands.

Holocentrus opercularis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 227, 1906; Pago Pago, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 24, 1906; Tahiti. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 95, 1912; Mangareva. Fowler, Mem. Bishop Mus., vol. 10, p. 105, 1928; Tahiti and Mangareva, Society Islands; Samoa; Wake Island. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 62, 1936; Maraa, Tahiti. Montilla, Phil. Jour. Sci., vol. 67, p. 210, pl. 1, fig. 2, 1938; Puerto Galera, Mindoro.

548. *Holocentrus ruber* (Forskål). Sugac.

Common in the Philippines and East Indian waters; west to the Red Sea and Natal, south to Australia, east to Samoa, north to China and Japan.

Sciaena rubra Forskål, Descript. Animal., p. 48, 1775; Arabia.

Perca rubra Bloch and Schneider, Syst. Ichth., p. 90, 1801.

Perca prasin Lacépède, Hist. Nat. Poissons, vol. 4, pp. 397, 415, 1802; New Britain.

Holocentrum alborubrum Lacépède, Hist. Nat. Poissons, vol. 4, p. 372, 1802; China Seas from a Japanese print. Richardson, Ichth. China Japan, p. 223, 1846; coasts of China and Japan.

Holocentrus ruber Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 83, pl. 22, fig. 1, 1828; Red Sea. Jordan and Seale, Proc. Davenport, Acad. Sci., vol. 10, p. 5, pl. 2, 1905; Hong Kong. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 225, 1906; Louisiades; East Indies: China. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 12, 1907; Panay. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 248, 1908; Calayan Island, Babuyan Islands, Cagayan Province; Cuyo Islands, and Cagayancillo, Cagayan Islands, Palawan Province. Jordan, Tanaka, and Snyder, Cat. Fishes, Japan, p. 415, 1913; Kagoshima; Okinawa; Philippines; Amboina; Louisiades; China; India; Red Sea. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 18, 1922; Zamboanga, Philippine Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 97, 1928; New Guinea; Faté, New Hebrides; Ebon Island and Kusaie Island, Caroline Islands; Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 27, 1934; Calapan, Mindoro; Dumaguete; Jolo and Sitankai, Sulu Province. Montilla, Phil. Jour. Sci., vol. 67, p. 213, pl. 2, fig. 1, 1938; Alaminos, Pangasinan Province; Iba, Zambales Province; Monja Island at entrance to Manila Bay; Nasugbu, Batangas Province; Polillo Island, Tayabas Province—preceding from Luzon. Calapan, Mindoro; Culion Island; Guimaras Island; Cebu, Cebu Province; Cagayan, Misamis Oriental Province, and Zamboanga,

Zamboanga Province, Mindanao; Jolo market, Sulu Province; also Hong Kong. Herre, 1940-41 Exped.; Kolombangan, Lanao Province, Mindanao.

Holocentrum rubrum Günther, Cat. Fishes, British Mus., vol. 1, p. 35, 1859; the Philippines; Red Sea; Amboina; Louisiade Archipelago; Japan; China; India. Kner, Reise *Novara*, Fische, p. 7, 1865; Manila, Luzon. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 22, 1885; Cebu. Weber, *Siboga*-Exped., vol. 57, Fische, p. 184, 1913; Sanguisiapo, Sulu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 244, 1929; Sulu Islands, Philippines; Sangir Islands and Talaut Islands; many other East Indian localities from Singapore and Sumatra to New Guinea.

Holocentrus prasin Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 225, fig. 6, 1906; Apia and Pago Pago, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 20, 1906; Faté, New Hebrides. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 32, p. 494, 1907.

549. *Holocentrus sammara* (Forskål). Sugac.

Throughout the Indo-Pacific from the Red Sea, Zanzibar, and Madagascar to the East Indies, the Philippines, Japan, Hawaii, Tahiti, and the Marquesas Islands.

Sciaena sammara Forskål, Descript. Animal., p. 48, 1775; Djedda, Red Sea.

Holocentrus sammara Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 85, pl. 22, fig. 3, 1828; Red Sea.

Holocentrus sammara Bleeker, Verh. Bat. Gen., vol. 22, p. 54, 1849. Kittlitz, Denkw. Reise Micronesien, vol. 2, p. 22, fig., 1858; Ulea Island, Caroline Islands. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 241, 1863; Obi. Bleeker, *ibid.*, p. 251; Flores. Bleeker, *ibid.*, p. 268; Timor. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 146, 1865; Buru, Bleeker, *ibid.*, p. 186; Ceram. Bleeker, *ibid.*, p. 280; Amboina. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 227, 1906; Apia, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 24, 1906; Tahiti, Society Islands; Marquesas Islands; Solomon Islands; Cook Islands. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 248, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 266, 1927; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 104, 1928; many localities in Micronesia and Polynesia. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; Magallanes, Sorogon Province, Luzon; Cebu, Cebu Province. Montilla, Philippine Jour. Sci., vol. 67, p. 209, pl. 1, fig. 1, 1938; Tambo, Ambil Island; Puerto Galera, Mindoro; Carigara, Palawan; Zamboanga Province, Mindanao; Tubigan Island, Bungau, and Sitankai, Sulu Province; also Guam.

Holocentrum sammara Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 216, 1829. Bleeker, Jour. Indian Archipelago, vol. 2, p. 636, 1848; Sumbawa. Bleeker, Verh. Bat. Gen., vol. 22, p. 53, 1849. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, 555, 1852; Amboina. Bleeker, *ibid.*, vol. 13, p. 371, 1857; Sangir Islands. Günther, Cat. Fishes British Mus., vol. 1, p. 46, 1859; Red Sea; Cape of Good Hope; India; Amboina. Günther, Fische der Südsee, vol. 1, p. 100, 1875; Society Islands; Tuamotu Archipelago. Day, Fishes India, pp. 173 and 788, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 233, 1929; many East Indian localities, including the Sangir and Talaut Islands; Philippines.

Holocentrum christianum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 219, 1829; Red Sea.

Holocentrum tahiticum Kner, Sitzungsber. Akad. Wiss. Wien, vol. 29, p. 482, 1864; Tahiti. Kner, Reise *Novara*, Fische, vol. 1, p. 9, 1865-67.

Flammeo sammara Seale, Occas. Papers Bishop Mus., vol. 1, p. 18, 1902; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 155, fig. 56, 1905; Honolulu; Makemo; Samoa. Fowler, Copeia, No. 58, p. 62, 1918; Philippines.

Holocentrus fuscostriatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 69, 1901; Guam.

Holocentrus thorntonensis Fowler, Proc. Acad. Nat. Sci. Phila., p. 231, 1904; Thornton Islands.

550. *Holocentrus spinifer* (Forskål).

Indo-Pacific, from the Red Sea and Madagascar to the Philippines, Hawaiian Islands and the Tuamotus.

Sciaena spinifera Forskål, *Descript. Animal.*, p. 49, 1775; Djedda, Red Sea.

Perca spinifera Bloch and Schneider, *Syst. Ichth.*, p. 86, 1801.

Holocentrum leo Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 3, p. 152, 1829; Bora Bora, Society Islands, and New Guinea. Quoy and Gaimard, *Voy. Astrolabe. Zool.*, vol. 3, p. 678, pl. 14, fig. 3, 1834; Vanikoro. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 7, p. 355, 1854; Cocos Island. Bleeker, *ibid.*, vol. 12, p. 232, 1856-1857; Batu Island. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 8, p. 21, 1860; Celebes. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar, Poissons*, p. 28, 1891.

Holocentrus spinifer Rüppell, *Neue Wirbelt., Fische Rothen Meeres*, pp. 96 and 97, pl. 25, fig. 1, 1835. Fowler, *Proc. Acad. Nat. Sci. Phila.*, p. 483, 1899; Thornton Islands. Jordan and Evermann, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 161, pl. 8, 1905; Honolulu; Samoa; Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 20, 1906; Fate, New Hebrides; Shortland Island, Solomon Islands; Raiatea, Society Islands. Kendall and Goldsborough, *Mem. Mus. Comp. Zool.*, vol. 26, p. 265, 1911; Makemo, Tuamotu Islands. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 103, 1928; many localities from Polynesia and Melanesia. Herre, *Fishes 1931 Philippine Exped.*, p. 28, 1934; Jolo, Sulu Province. Montilla, *Philippine Jour. Sci.*, vol. 67, p. 220, pl. 4, fig. 1, 1938; Puerto Galera, Mindoro; Cuyo Island, Palawan Province; also Guam.

Holocentrum spiniferum Bleeker, *Vehr. Bat. Gen.*, vol. 25, *Ichth. Bengalen*, p. 34, 1853; Bengal. Günther, *Cat. Fishes*, vol. 1, p. 39, 1859; Red Sea; Ile de France; Louisiade Archipelago. Bleeker, *Versl. Akad. Amsterdam*, vol. 14, p. 105, 1862; Batjan. Bleeker, *Ned. Tijds. Dierk.*, vol. 4, p. 205, 1873. Günther, *Fische der Südsee*, vol. 1, p. 94, 1875; Vavau, Fiji; Louisiades; New Hebrides; Solomon Islands. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 5, p. 235, 1929; Simalur; Batu Islands; Menado, Celebes; Batjan; Amboina; Waigi; New Guinea; the Philippines.

Holocenthrus leo Fowler, *Proc. Acad. Nat. Sci. Phila.*, p. 483, 1899; Thornton Island.

551. *Holocentrus violaceus* Bleeker.

The Philippines, East Indies, New Guinea, south to Australia, Fiji, Samoa, and Tahiti.

Holocentrum violaceum Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 5, p. 335, 1853; Amboina. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 43, 1859. Kner, *Sitzungsber. Akad. Wiss. Wien*, vol. 57, p. 296, 1868; Kandavu, Fiji. Bleeker, *Ned. Tijds. Dierk.* vol. 4, p. 221, 1873. Bleeker, *Atlas Ichth.*, vol. 9, pl. 355, fig. 2, 1878. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 5, p. 246, 1929; Flores; Timor; Amboina; Waigi; New Guinea.

Holocentrus violaceus Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 268, 1863; Timor. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 223, 1906; Apia and PagoPago, Samoa. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 102, 1928; Tahiti; Samoa; Shortland Island. Herre, *Field Mus. Nat. Hist., Zool. Ser.*, vol. 21, p. 61, 1936; Hathorn Sound, New Georgia Island, and Ysabel Island, Solomon Islands. Montilla, *Philippine Jour. Sci.*, vol. 67, p. 216, pl. 2, fig. 3, 1938; Puerto Galera, Mindoro; Iloilo, Panay Province, Panay; Samal Island; Gulf of Davao, Mindanao.

Genus 208. MYRIPRISTIS Cuvier.

Myripristis Cuvier, *Règne Animal, Ed. 2*, vol. 2, p. 150, 1829; type *Myripristis jacobus* Cuvier and Valenciennes. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 19, 1859. Jordan and Evermann, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 149, 1905. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 5, p. 250, 1929. Montilla, *Philippine Jour. Sci.*, vol. 67, p. 221, 1938.

552. *Myripristis axillaris* Cuvier and Valenciennes.

Described from two localities in the Indian Ocean and said by Fowler to occur in the Philippines.

Myripristis axillaris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 491, 1831; Île de France. Bleeker, Recherches Faune Madagascar, Poissons, p. 86, 1875. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 16, 1879; Mauritius. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 19, 1891. Fowler, Proc. Acad. Nat. Sci. Phila. vol. 79, p. 267, 1927; the Philippines.

553. *Myripristis intermedius* Günther.

Polynesia and the Philippines.

Myripristis murdjan var. *intermedia* Günther, Fische der Südsee, vol. 1, p. 92, 1875; Samoa; Kingsmill Islands; Harvey Islands; Tahiti.

Myripristis intermedius Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 29, p. 353, 1906; Tahiti. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 220, 1906; Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 107, 1928; Apia, Samoa. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 73, 1936; Marquesas Islands; Society Islands; Solomon Islands.

554. *Myripristis melanostictus* Bleeker. Baga-baga.

The Philippines, East Indies, and north to Japan.

Myripristis melanostictus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 237, 1863; Ternate. Bleeker, *ibid.*, vol. 4, p. 187, 1873. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 258, 1929; Nias; Batavia and Patjitan, Java; Tandjong Pandan, Borneo; Makassar, Celebes; Flores; Buru; Amboina; Ternate; Philippines; Japan. Montilla, Philippine Jour. Sci., vol. 67, p. 221, pl. 4, fig. 2, 1938; Calapan, Mindoro; Cagayan, Misamis Oriental Province, Mindanao; Bungau, Sulu Province.

Myripristis melanostigma Bleeker, Atlas Ichth., vol. 9, pl. 355, fig. 3, 1877; error.

Myripristis macrolepis Bleeker, Ned. Tijds. Dierk., vol. 4, p. 195, 1873. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; Zamboanga, Zamboanga Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Zamboanga Province, Mindanao. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 495, 1912; Tanegashima, Japan. Weber, *Siboga*-Exped., vol. 57, Fische, p. 186, 1913.

555. *Myripristis microphthalmus* Bleeker.

East Indies, the Philippines, and east to Tahiti.

Myripristis microphthalmus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 261, 1852; Amboyna. Günther, Cat. Fishes British Mus., vol. 1, p. 24, 1859; Sea of Amboina; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 191, 1873. Bleeker, Atlas Ichth., vol. 9, pl. 358, fig. 2, 1873. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 265, 1883; Hood Bay, New Guinea. Seale, Occas. Papers Bishop Mus., vol. 4, p. 28, 1906; Fate, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 220, 1906; Apia and PagoPago, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 90, 1912; Mangareva, Tuamotu Islands; Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 107, 1928; Fatè, New Hebrides; Mangareva; Apia; Rikitea. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 75, 1936; Maraa, Tahiti; Moorea Island.

556. *Myripristis murdjan* (Forskål). Big-eyed soldierfish; Mangoc.

The tropical Indo-Pacific from Africa to Japan, Marcus Island, the Hawaiian and the Tuamotu Islands.

Sciaena murdjan Forskål, Descript. Animal., p. 48, 1775; Djedda, Red Sea.

Perca murdjan Bloch and Schneider, Syst. Ichth., p. 86, 1801. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 396 and 418, 1802.

Myripristis murdjan Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 86, pl. 23, fig. 2, 1828. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 109, 1853 Amboina. Bleeker *ibid.*, vol. 12, p. 232, 1856-57; Batu Islands. Bleeker, *ibid.*, vol. 15, p. 198, 1858; Goram Archipelago. Bleeker, *ibid.*, vol. 15, p. 458, 1858; Cocos Island. Günther, Cat. Fishes British Mus., vol. 1, p. 21, 1859; Red Sea; India;

Amboyna. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 22, 1860; Celebes. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 186, 1865; Ceram. Bleeker *ibid.*, p. 280; Amboina. Bleeker *ibid.*, vol. 4, p. 188, 1873. Günther, Fische der Südsee, vol. 2, p. 92, pl. 61, 1873-75; Gilbert Islands; Hervey Islands; Society Islands; Tuamotu Islands; Hawaiian Islands; not *intermedia* and *adusta*. Klunzinger, Fische Rothen Meeres, vol. 1, p. 77, 1884; Koseir, Red Sea. Day, Fishes India, p. 170, 1878. Vaillant, Bull. Soc. Philom. Paris, ser. 7, vol. 11, p. 59, 1887; Tahiti. Sauvage, in Granddier, Hist. Phys. Nat. Madagascar, Poissons, p. 20, 1891. Seale, Occas. Papers Bishop Mus., vol. 1, p. 67, 1901; Guam. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 152, pl. 5, 1905; Honolulu; Hilo; Kailua; Laysan; Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 220, 1906; Hawaii; Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 247, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Tanaka, Fishes Japan, vol. 4, p. 53, 1911. Weber, *Siboga* Exped., vol. 57, Fische, p. 186, 1913. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 447, 1917; Ceylon. Fowler, Copeia, No. 58, p. 62, 1918; Philippines. Barnard, Ann. South African Mus., vol. 21, p. 367, 1925. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 206, 1927; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 106, 1928; numerous localities in the Hawaiian Islands; Society Islands; Samoa; Caroline Islands; Guam; Marcus Island; Fate, New Hebrides. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 259, 1929; many East Indian localities, including islands south of and near Mindanao; in part; excluding *M. violaceus*, *M. microphthalmus*, and *M. adustus*. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; Culion; Dumaguete; Jolo and Sitankai, Sulu Province. Montilla, Philippine Jour. Sci., vol. 67, p. 222, pl. 4, fig. 3, 1938; Santo Domingo de Basco, Batan Islands, Batanes Province; Subic, Zambales Province; Manila; Bacon, Sorsogon Province, Luzon; Calapan and Puerto Galera, Mindoro; Bantayan, Cebu Province; Puerto Princesa, Palawan; Zamboanga, Zamboanga Province, and Samal Island, Gulf of Davao, Mindanao; Jolo market and Mabajoc Point, Jolo Island; Lubian Island, South Ubian Island, Lapak Island, Bungao Island, and Sibutu Island, Sulu Province, also Honolulu. Herre, 1940-41 Exped.; Coron, Busuanga Island.

557. *Myripristis pralinius* Cuvier and Valenciennes.

All over the tropical Indo-Pacific, from the Red Sea to the Tuamotu Archipelago.

Myripristis pralinius Cuvier and Valenciennes, vol. 3, p. 170, 1829; New Ireland. Günther, Cat. Fishes British Mus., vol. 1, p. 20, 1859; Celebes; Louisiade Archipelago; India. Sauvage, in Granddier, Hist. Phys. Nat. Madagascar, Poissons, p. 17, pl. 2, fig. 2, 1891. Seale, Occas. Papers Bishop Mus., vol. 1, pp. 17, 18, 20, 1902; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 222, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; Bacon, Sorsogon Province, Luzon. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 90, 1912; Easter Island. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 253, fig. 69, 1929; Simalur; Celebes; Binnongka; Ternate; Amboina; Ceram; Banda; Doreh, New Guinea; Sangir Islands; Philippines. Montilla, Philippine Jour. Sci., vol. 67, p. 226, pl. 5, fig. 2, 1938; Bacon, Sorsogon Province, Luzon; Mabohoc Point, south coast of Jolo Island, Sulu Province.

Myripristis seychellensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 172, 1829; Seychelles Islands. Sauvage, in Granddier, Hist. Phys. Nat. Madagascar, Poissons, p. 12, pl. 2, fig. 1 and pl. 3, fig. 2, 1891.

Myripristis prasinus Lesson, Voy. *Coquille*, Zool., vol. 2, p. 222, 1830; Port Praslin, New Ireland. Fowler, Mem. Bishop Mus., vol. 10, p. 108, 1928; Tahiti; Marquesas Islands; French Frigates Shoal; Hawaii; Apia, Samoa; Easter Island.

Myripristis borbonicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 489, 1831; Île de France.

Myripristis bleekeri Günther, Cat. Fishes British Mus., vol. 1, p. 20, 1859; Sea of Banda Neira.

Myripristis bleekeri Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, *ibid.*, vol. 2, p. 186, 1865; Ceram. Bleeker, *ibid.*, p. 280, 1865; Amboina. Bleeker, *ibid.*, vol. 4, p. 181, 1873. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 48, 1878; Doreh Bay, New Guinea.

Myripristis indicus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 183, 1873. Bleeker, Poissons Madagascar, p. 86, 1875. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 187, 1913.

Myripristis symmetricus Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, pl. 26, p. 151, 1905; Hilo and Honolulu, Hawaiian Islands.

Myripristis sanguineus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 221, fig. 24, 1906; Apia, Samoa; Tahiti, Society Islands. Seale, Occas. Papers Bishop Mus., vol. 4, p. 26, 1906; Tahiti, Society Islands; Apia, Samoa.

558. *Myripristis schultzei* Seale. Baga-baga.

Myripristis schultzei Seale, Philippine Jour. Sci., vol. A 4, p. 504, 1909; Samal Island, Gulf of Davao, Davao Province, Mindanao. Montilla, Philippine Jour. Sci., vol. 67, p. 225, pl. 5, fig. 1, 1938; on type specimen; Samal Island, Gulf of Davao.

Order U. THORACOSTEI

Suborder LOPHOBANCHII

Family 83. SOLENOSTOMIDAE

Marine fishes of the Indo-Pacific, included in a single genus; found from Africa to New Guinea, China, and Japan.

Genus 209. SOLENOSTOMUS Lacépède.

Solenostomus Lacépède, Hist. Nat. Poissons, vol. 5, p. 361, 1803; type, *Fistularia paradoxæ* Pallas. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 25, 1922.

559. *Solenostomus phantasticus* Herre.

Solenostomus phantasticus Herre, Copeia, No. 1, p. 17, 1933; Dumaguete, Oriental Negros Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; Dumaguete. Montilla, Philippine Jour. Sci., vol. 53, p. 391, 1934; Calapan, Mindoro.

Family 84. SYNGNATHIDÆ. Pipefishes and Seahorses

Small specialized fishes of salt, brackish, and fresh water in all tropical and temperate regions. Species often of very wide distribution. See Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 78, 1915. This family has been arranged by the leading specialist on pipe-fishes, Dr. E. S. Herald.

Genus 210. BELONICHTHYS Peters.

One species; East Indies and the Philippines, west to Mozambique, in fresh and brackish water.

Belonichthys Peters, Naturwissen. Reise nach Mossambique, Zoologie, vol. 4, Flussfische, p. 108, 1868; orthotype, *Belonichthys zambezensis* Peters. Duméril, Hist. Nat. Poissons, vol. 2, p. 587, 1870. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 57, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 59, 1922.

Parabelonichthys Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 57, 1943; orthotype, *Parabelonichthys kellersi* Fowler.

560. *Belonichthys fluviatilis* (Peters).

Distribution is that of the genus.

Syngnathus fluviatilis Peters, Verh. Akad. Wiss. Berlin, p. 685, 1852.

Syngnathus zambezensis Peters, Monatsber. Akad. Wiss. Berlin, p. 465, 1855.

Syngnathus mento Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, 1856, Vischsoorten Menado en Makassar, p. 75; Menado. Bleeker, *ibid.*, vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Celebes, p. 13. Duméril, Hist. Nat. Poissons, vol. 2, p. 571, 1870.

Belonichthys (Syngnathus) zambezensis Peters, Naturwissen. Reise nach Mossambique, Zoologie, vol. 4, Flussfische, p. 108, 1868; Tette, Zambesi.

Doryichthys mento Günther, Cat. Fishes British Mus., vol. 8, p. 181, 1870; fresh waters of Menado, Celebes; East Africa.

Belonichthys zambezensis Duméril, Hist. Nat. Poissons, vol. 2, p. 587, 1870.

Syngnathus (Belonichthys) zambezensis Peters, Sitzber. Gesell. Naturf. Freunde Berlin, p. 108, 1881.

Syngnathus (Belonichthys) mento Peters, Sitzber. Gesell. Naturf. Freunde Berlin, p. 108, 1881.

Doryhamphus mento de Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 102, 1913.

Belonichthys fluviatilis Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 58, 1915; east Africa; Madagascar; Celebes; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 59, fig. 25, 1922; Borneo; Celebes; Buru.

Parabelonichthys kellersi Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 58, fig. 7, 1943; type and three paratypes from the Jaro River, Iloilo, Panay Island, Philippines.

Genus 211. BHANOTIA Hora.

Andaman Islands, East Indies, and the Philippines.

Bhanotia Hora, Records Indian Mus., vol. 27, p. 463, text fig. 5, 1925; type, *Bhanotia sewelli* Hora=*Syngnathus corrugatus* Weber.

561. *Bhanotia corrugatus* (Weber).

Distribution as for genus; marine.

Syngnathus corrugatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 112, fig. 38, 1913; Beo, Karakelang Island.

Corythoichthys corrugatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 73, fig. 32, 1922; Karakelang Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 83, 1936; Bushman's Bay, Malekula Island, New Hebrides. Herre, Crane Pacific Exped., 1929; Majalibit Inlet, Waigiu Island. Herre, 1936-37 Exped.; in collection of Fisheries Station; Zamboanga, Zamboanga Province, Mindanao. Herre, Mem. Indian Mus., vol. 13, p. 344, 1941; Andaman Islands; the Philippines; New Hebrides.

? *Bhanotia corrugatus* Hora, Records Indian Mus., vol. 27; p. 464, pl. 11, fig. 2, and text figs. 5-6, 1925; Rutland Island, Andaman Islands.

Bhanotia corrugatus Herald, in personal communication; *Albatross* specimens from the Philippines, in U. S. Nat. Mus.; Mactan Island, Cebu Province; Mahinog, Camiguin Island, off north coast of Misamis Oriental Province; Nasipit, Agusan Province, Mindanao.

Bhanotia sewelli Hora, Records Indian Mus., vol. 27, p. 465, pl. 11, fig. 5, 1925; Outram Island, Andaman Islands.

Genus 212. BOMBONIA Herre.

Two species, in fresh, brackish, and salt water.

Bombonia Herre, Philippine Jour. Sci., vol. 34, p. 274, 1927; type, *Bombonia luzonica* Herre=*Syngnathus djarong* Bleeker.

562. *Bombonia djarong* (Bleeker).

East Indies and the Philippines, west to Ceylon, south from New Guinea to New South Wales, Australia. In fresh and brackish water.

Syngnathus djarong Bleeker, Verh. Bat. Gen., vol. 25, Bijdr. Trosk. Visschen, p. 22, 1853; Panimbang, western Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 325, 1854; Bantam, western Java. Bleeker, *ibid.*, vol. 9, p. 425, 1855; Borneo. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 545, 1870. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 80, 1915; Leyte and Samar, Philippines; Java; Borneo; Queensland; New South Wales. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 79, 1922; Singapore; Sumatra; Nias; Java; Borneo; Waigiu; New Guinea; Philippines; Ceylon; New South

Wales. Herre, Fishes 1931 Philippine Exped., p. 29, 1934; Lake Bombon, Batangas Province, Luzon; Cebu, Cebu Province. Herre, 1936-37 and 1940-41 Exped.; Mangso River, Albay Province, and Malabon, Rizal Province, Luzon; Dumaguete and Old Ayukitan, Oriental Negros Province, Negros.

Syngnathus helfrichii Bleeker, Nat. Tijds. Ned. Ind., vol. 9, p. 428, 1855; Borneo. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Bleeker, *ibid.*, vol. 8, Dertiende Bijdr. vischfauna Borneo, p. 8, 1860. Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 40, 1861; Singapore. Duméril, Hist. Nat. Poissons, vol. 2, p. 547, 1870.

Syngnathus spicifer var. *rivalis* Peters, Monatsber. Akad. Wiss. Berlin, p. 276, 1869; Leyte and Samar.

Syngnathus spicifer Günther, Cat. Fishes British Mus., vol. 8, p. 172, 1870; in part. Day, Fishes India, p. 678, 1878; in part.

Corythoichthys pullus Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 75, fig., 1906; Rio Grande, Cotabato Province, Mindanao.

Syngnathus spicifer var. *djarong* Duncker, Spolia Zeylanica, vol. 7, part 25, pp. 31 and 32, 1910; Ceylon.

Corythoichthys materni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 11, fig. 5, 1918; Philippines.

Syngnathus materni Fowler, *ibid.*, vol. 73, p. 442, 1922; the Philippines.

Bombonia luzonica Herre, Philippine Jour. Sci. vol. 34, p. 274, pl. 2, figs. 1 and 2, 1927; Ambulong, Lake Bombon, Batangas Province, Luzon.

Bombonia uxorius Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 28, p. 395, 1935; Waigiu Island.

Syngnathus djarong luzonica Aurich, Zool. Anzeiger, vol. 112, p. 98, 1935; Lake Bombon (Taal), Batangas Province, Luzon.

563. *Bombonia spicifer* (Rüppell).

Red Sea and Madagascar to the East Indies, Philippines, China, Caroline Islands, and Bismarck Archipelago. In fresh-water streams, brackish estuaries, and in the sea along shore.

Syngnathus spicifer Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 143, pl. 33, fig. 4, 1835; Tor, Red Sea. Kaup, Cat. Lophobranchiate Fish. p. 34, 1856; Red Sea; Makassar, Celebes; Pondicherry, India. Peters, Monatsber. Akad. Wiss., Berlin, p. 276, 1869; Paracale, Camarines Norte Province, and Legaspi, Albay Province, Luzon. Duméril, Hist. Nat. Poissons, vol. 2, p. 546, 1870. Günther, Cat. Fishes British Mus., vol. 8, p. 172, 1870; Zanzibar; Rovuma River; mouth of Zambezi River; Luzon, Philippines; Borneo; Ceram; China; in part. Klunzinger, Abh. zool-bot. Gesell. Wien, vol. 21, p. 650, 1870. Day, Fishes India, p. 678, pl. 174, fig. 1, 1878; India; Andaman Islands; (in part). Weber, Nova Guinea, vol. 5, Zool., Part 2, p. 228, 1908; Klipong River, northern New Guinea. Duncker, Spolia Zeylanica, vol. 7, p. 32, 1910; in part. Günther, Fische der Südsee, vol. 3, p. 429, 1910; in part; Pelew Island. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 107, 1913; Kajoa Island, East Indies. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 79, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 80, fig. 34, 1922; many East Indian localities; the Philippines. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 41, p. 17, pl. 2, fig. 4, 1925; New Pomerania and New Guinea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 29, 1934; Dumaguete. Aurich, Zool. Anzeiger, vol. 112, p. 100, 1935; brook on coast near Misamis, Misamis Occidental Province, Mindanao; Herre, 1936-37 and 1940-41 Expeds.; Manila Bay and Nasugbu, Batangas Province, Luzon; Coron, Busuanga; Estanica, Iloilo Province, Panay; Dumaguete; Cagayan Misamis, Oriental Province, and Zamboanga Province, Mindanao.

Syngnathus gastrotaenia Bleeker, Nat. Tijds. Ned-Ind., vol. 3, p. 713, 1852; Ceram, Bleeker, Verh. Bat. Gen., vol. 25, Bijdr. Trosk. viss., p. 22, 1853. Bleeker, Nat. Tijds Ned-Ind., vol. 9, p. 430, 1855; Borneo.

Syngnathus tapinosoma Bleeker, Nat. Tijds. Ned-Ind., vol. 6, p. 376, 1854; Anjer. Bleeker, *ibid.*, vol., 9, p. 429, 1855; Borneo. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 546, 1870. Günther, Cat. Fishes British Mus., vol. 8, p. 185, 1870; fresh waters of Luzon, Philippines.

Syngnathus Hunnii Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 70, 1860. Duméril, Hist. Nat. Poisson, vol. 2, p. 548, 1870.

Syngnathus argyrostrictus Day, Fishes Malabar, p. 264, 1865; not of Kaup. *Syngnathus hunnii* Günther, Cat. Fishes British Mus., vol. 8, p. 172, 1870; south Sumatra; after Bleeker.

Syngnathus gracilis Steindachner, Abh. Senckenb. Naturf. Gesell. vol. 25, p. 458, 1901.

Corythoichthys spicifer Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 9, 1907; Cavite, Cavite Province, and Manila, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 245, 1908; Aparri, Cagayan Province, Luzon. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 264, 1911; Kusaie, Caroline Islands.

Genus 213. CHOEROICHTHYS Kaup.

Marine, living on reefs along shore. From East Africa to the East Indies, the Philippines, Japan, Australia, Fiji, and the Society Islands.

Choeroichthys Kaup, Archiv. Naturges., p. 233, 1853; orthotype. Also in Cat. Lophobranchiate Fishes British Mus., p. 55, 1856. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 60, 1922.

564. *Choeroichthys sculptus* (Günther).

The Philippines, west to the African coast, north to Japan, southeast to the New Hebrides, Fiji, and Society Islands. On reefs among sponges and corals.

Doryichthys sculptus Günther, Cat. Fishes, vol. 8, p. 185, 1870; Fiji. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 374, 1897; Rotuma, Ellice Islands. Günther, Fische der Südsee, vol. 3, p. 433, pl. 167, figs. A and A', 1910; Rotuma, Ellice Islands.

Doryrhamphus macgregori Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 246, fig. 7, 1908; Calayan Island, Babuyan Islands.

Microphis ocellatus Snyder, Proc. U. S. Nat. Mus., vol. 36, p. 598, 1909; Okinawa Island and Tanegashima Island, RiuKiu Islands. Snyder, *ibid.*, vol. 42, p. 495, pl. 63, fig. 1, 1912; no description.

Choeroichthys sculptus Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 59, 1915; New Hebrides. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 61, fig. 26, 1922; Samau Island, East Indies; Philippine Archipelago. Fowler, Mem. Bishop Mus., vol. 10, p. 110, 1928; Society Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 80, 1936; Suva Harbor and Nukulau Island, Fiji; Malekula Island, New Hebrides. Herre, Philippine Bureau Science Collection; Sibutu and Sitankai, Sulu Province, Philippines. Herre, 1948 Phil. Coll.; Dumaguete, Negros Oriental Province.

Genus 214. COELONOTUS Peters.

Species few, occurring in the tropical Indo-Pacific, in fresh water; from Madagascar to the Marquesas Islands.

Coelonotus Peters, Monatsber. Akad. Wiss. Berlin, p. 465, 1855; orthotype, *Coelonotus argulus* Peters. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 55, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 56, 1922.

Hemithylacus Kaup, Cat. Lophobranchiate Fish. p. 61, 1856.

565. *Coelonotus leiaspis* (Bleeker).

East Indies and Philippines, east to New Guinea; in the Indian Ocean to Madagascar. In fresh and brackish water of streams.

Syngnathus leiaspis Bleeker, Verh. Bat. Gen., vol. 25, Bijdr. kennis Troskieuwige visschen, p. 20, 1853; Batavia, Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 572, 1870.

Syngnathus budi Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 1, Vischsoorten Menado en Makassar, p. 77, 1856. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 572, 1870. Günther, Cat. Fishes British Mus., vol. 8, p. 176, 1870; Celebes and Batavia, Java. Weber, Nova Guinea, vol. 5, p. 228, 1908; Klipong River, northern New Guinea.

Hemithylacus leiaspis Kaup, Cat. Lophobranchiate Fish, p. 61, 1856; Java and Madagascar. Duméril, Hist. Nat. Poissons, vol. 2, p. 599, 1870. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 507, 1891.

Coelonotus laspis Günther, Cat. Fishes British Mus., vol. 8, p. 188, 1870; Java. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 57, 1915; Madagascar; Java; Celebes; Buru; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 57, fig. 24, 1922; Java; Borneo; Celebes; Taliabu Island; Buru; Waigiu; north New Guinea; the Philippines; Japan; Madagascar.

Coelonotus vaillanti Juillerat, Bull. Soc. Philom. Paris, sér. 7, vol. 4, p. 176, 1880. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, vol. 16, p. 508, pl. 49B, fig. 6, 1891.

Coelonotus leiaspis Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 246, 1908; Mindoro Island; Sibuyan Island. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 103, fig. 3, 1913; Rabiai River, New Guinea. Herre, 1936-37 Exped.; Vigan, Ilokos Norte Province, Luzon. Herre and Herald, Oct. 1947, Motorship *Theodore N. Gill*; Port Salangin, Zambales Province, Luzon.

Genus 215. CORYTHOICHTHYS Kaup.

Marine, on coral reefs and along shore all over the tropical Indo-Pacific. From the east coast of Africa to Japan and Tahiti.

Corythoichthys Kaup, Archiv. Naturges., vol. 19, Part 1, p. 231, 1853; logotype, *Syngnathus fasciatus* Gray, by Whitley, 1948. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 72, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 68, 1922. Herald, Allan Hancock Pacific Exped., vol. 9, No. 3, p. 52, 1940.

Corythoichthys Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 761, 1896; typographical error, for *Corythoichthys*. Jordan, Copeia, No. 106, p. 34, 1922; emendation. Duncker, Fauna Südwest Australiens, Pisces, p. 237, 1909.

Bhanotichthys Parr, Bull. Bingham Oceanogr. Coll., vol. 3, No. 4, p. 27, 1927; orthotype, *Syngnathus fasciatus* Gray.

566. *Corythoichthys flavofasciatus* (Rüppell).

Widely distributed in the Indo-Pacific, from Africa to China and Japan, south to Australia and Fiji, east to Tahiti and the Marquesas Islands.

Syngnathus fasciatus Gray, Illustrations Indian Zoology, vol. 1, pl. 89, figs. 2-2A, 1832; preoccupied by *Syngnathus fasciatus* Risso 1810. Peters, Monatsber. Akad. Wiss. Berlin, p. 465, 1855. Duméril, Hist. Nat. Poissons, vol. 2, p. 543, 1870.

Syngnathus flavofasciatus Rüppell, Neue Wirbelt., Fische, Rothen Meeres, p. 144, 1835; Djedda, Red Sea. Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 21, p. 649, 1871; Red Sea. Weber, *Siboga*-Exped., vol. 57, Fische, p. 108, fig. 34, 1913; Sanguisiapo, Sulu Archipelago, Sulu Province, Philippines, and several East Indian localities. Fowler, Bishop Mus., Bull. 22, p. 7, 1925; Guam. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 267, 1927; Bacon, Sorsogon Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 113, 1928; Faté, New Hebrides; Samoa.

Syngnathus haematopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 258, 1851; Banda.

Corythoichthys fasciatus Kaup, Cat. Lophobranchiate Fish, p. 25, 1856; Nukahiva, Marquesas Islands. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860; Sumatra. Kner, Reise Novara, Fische, vol. 1, p. 391, 1865; Tahiti. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 72, 1915; Red Sea to Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 70, fig. 31, 1922; Sulu Archipelago and 21 East Indian localities; the Philippines. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 41, p. 108, 1925; New Mecklenburg; New Pomerania; New Guinea. Herre, Fishes 1931 Philippine Exped.; Tayug, Pangasinan Province, and Lemery, Batangas Province, Luzon; Culion; Cebu, Cebu Province; Dumaguete; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, 1936-37 and 1940-41 Exped. p. 29, 1934; Nasugbu, Batangas Prov., Luzon; Coron, Busuanga; Dumaguete; Kolambungan, Lanao Province, Mindanao; Bungau and Sitankai, Sulu Province; also Singapore.

Syngnathus conspicillatus Günther, Cat. Fishes British Mus., vol. 8, p. 174, 1870; in part; not of Jenyns. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 49, 1878; New Guinea. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 45, 1885; Manila Bay; Cebu, Cebu Province. Day, Fishes India, Supplement, p. 808, 1888; not of Jenyns.

Ichthyocampus papuensis Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 228, 1880; Dorey, New Guinea.

Syngnathus intestinalis Ramsay, Proc. Linn. Soc. New South Wales, vol. 5, p. 494, 1881; Solomon Islands.

Corythoichthys ishigakius Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 7, pl. 5, 1901; Ishigaki Island, Riu Kiu Islands; Nagasaki and Musashi, Japan.

Corythoichthys elerae Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 57, fig. 2, 1907; Bacon, Sorsogon Province, Luzon.

Corythoichthys conspicillatus Duncker, Spolia Zeylanica, vol. 7, p. 29, 1910; not of Jenyns.

Genus 216. DORYICHTHYS Kaup.

In fresh and brackish water of streams and estuaries from India to the Philippines and Samoa.

Doryichthys Kaup, Archiv Naturges., p. 233, 1853 and Cat. Lophobranchiate Fish, p. 56, 1856; logotype, *Doryichthys bilineatus* Heckel. Duncker, Spolia Zeylanica, vol. 7, Part 25, p. 27, 1910. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 29, p. 229, 1912. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 49, 1922.

Microphis Kaup, *ibid.*, p. 63; 1856; in part.

567. *Doryichthys pleurostictus* (Peters).

Microphis pleurostictus Peters, Monatsber. Akad. Wiss. Berlin, p. 278, 1868; Lake Bato, Camarines Province, and Yassot Creek, Albay Province, Luzon.

Doryichthys pleurostictus Günther, Cat. Fishes, British Mus., vol. 8, p. 185, 1870; fresh waters of Luzon. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 187, 1895; Palawan.

568. *Doryichthys retzii* (Bleeker).

The East Indies, Philippines, Bismarck Archipelago, and on to New Caledonia and Samoa. In fresh, rarely brackish water.

Syngnathus Retzii Bleeker, Acta Soc. Indo-Neerl., vol., 11856; Vischsoorten Menado en Makassar, p. 76; Menado, Celebes. Duméril, Hist. Nat. Poissons, vol. 2, p. 562, 1870. Günther, Cat. Fishes, British Mus., vol. 8, p. 175, 1870; Menado, Celebes. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 111, fig. 37, 1913; river near Waingapu, Sumba; brook, Seba, Savu Island; river at Kwandung Bay; Bay of Batjan; Laiwui, Obi Major, Dutch East Indies.

Microphis caudatus Peters, Monatsber. Akad. Wiss. Berlin, p. 276, 1869; Loquilocun River, Samar. Duméril, Hist. Nat. Poissons, vol. 2, p. 591, 1870. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 214, fig. 21, 1906; Gasegase River, near Apia, Samoa.

Doryichthys caudatus Günther, Cat. Fishes British Mus., vol. 8, p. 182, 1870. Günther, Fische der Südsee, vol. 3, p. 432, 1910.

Doryrhamphus caudatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 111, 1913; Samar, Philippines.

Syngnathus Retzii Weber, *Siboga-Exped.*, vol. 57, Fische p. 111, fig. 37, 1913; Batjan, Obi Major, Savu, and Sumba Islands.

Doryichthys retzii Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 50, 1915; Bismarck Archipelago.

Doryichthys retzii Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 52, fig. 23, 1922; more than 20 East Indian localities; Philippines; Bismarck Archipelago; New Caledonia. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; Lemery, Batangas Province, Luzon. Aurich, Zool. Anzeiger, vol. 112, p. 101, 1935; Leyte, Philippines. Herre, 1936-37 and 1940-41 Exped.; Manila Bay; Banay and Tanay rivers, Laguna Province, Luzon; Sibuyan Island; creek at San Ramon, Zamboanga Province, Mindanao.

Genus 217. DORYRHAMPHUS Kaup.

On reefs along shore; three known species. Range from the Red Sea and Madagascar to the Pacific American coasts.

Doryrhamphus Kaup, Archiv Nat., p. 233, 1853 and Cat. Lophobranchiate Fish., p. 54, 1856; orthotype, *Doryrhamphus excisus* Kaup. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 61, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 63, 1922.

569. *Doryrhamphus negrosensis* Herre.

The Philippines and Pelew Islands.

Doryrhamphus negrosensis Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; tidal pool near Dumaguete.

Doryrhamphus melanopleura Herre, 1933 Exped. to Micronesia; reef at Gorrer Island, Pelew Islands.

Genus 218. *DUNCKEROCAMPUS* Whitley.

Indo-Australian waters, from Mauritius to the Marshall Islands.

Corythoichthys Kaup, Cat. Lophobranchiate Fish, p. 25, 1856; in part.

Microphis Duméril, Hist. Nat. Poissons, vol. 2, p. 588, 1870; not of Kaup.

Doryichthys Günther, Cat. Fishes British Mus., vol. 8, p. 179, 1870; not of Kaup. Regan, Revue suisse Zool. Genève, p. 413, 1903.

Acanthognathus Duncker, Mitt. Naturh. Mus. Hamburg, vol. 29, p. 228, (1911), 1912; preoccupied; orthotype, *Syngnathus dactyliophorus*; preoccupied by *Acanthognathus* Mayr, 1887.

Dunckerocampus Whitley, Records Australian Mus., vol. 19, p. 67, 1933.

570. *Dunckerocampus dactyliophorus* (Bleeker).

The Philippines, East Indies, east to the Pelew and Marshall Islands, south to New Guinea and New Caledonia.

Syngnathus dactyliophorus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 506, 1853; Onrust Island, Batavia, Java.

Corythoichthys dactyliophorus Kaup, Cat. Lophobranchiate Fish, p. 28, 1856.

Microphis dactyliophorus Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860; Sumatra. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 273, 1865; Amboina. Duméril, Hist. Nat. Poissons, vol. 2, p. 592, 1870; New Caledonia.

Doryichthys dactyliophorus Günther, Cat. Fishes British Mus., vol. 8, p. 186, 1870. Günther, Fische der Südsee, vol. 3, p. 433, 1910; Pelew Islands.

Acanthognathus dactyliophorus Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 41, 1915; Marshall Islands; New Guinea.

Acanthognathus dactyliophorus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 42, fig. 20, 1922; Onrust Island near Java; Amboina; New Guinea. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 41, p. 12, pl. 2, fig. 1, 1925; Friedrich Wilhelm Harbor, New Guinea.

Acanthognathus caulleryi Chabanaud, Bull. Soc. Zool. France, vol. 54, p. 166, fig. 1, 1929; Amboina.

Dunckerocampus dactyliophorus Herre, Copeia, No. 3, p. 148, 1945; Jolo, Sulu Islands. Herald, *Albatross* Collections; Cebu market, Cebu; Pandanan Island, off the east coast of Tawi Tawi, and Tumindao Reef near Sibutu Island, Sulu Province. Herre, 1948 Coll.; common on coral reef at Dumaguete, Negros Oriental Province.

571. *Dunckerocampus pessuliferus* Fowler.

Dunckerocampus pessuliferus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 41, fig. 13, 1938; Sulade Island, in 24 fathoms, off Jolo Island, Sulu Province.

Genus 219. *HALICAMPUS* Kaup.

Two species, from Ceylon to the Philippines and Japan, south to New Guinea and Australia.

Halicampus Kaup, Cat. Lophobranchiate Fish, p. 22, 1856. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 110, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 102, 1922.

572. *Halicampus grayi* Kaup.

Halicampus Grayi Kaup, Cat. Lophobranchiate Fish, p. 22, 1856; India. (See Opinion 53, Internat. Rules Zool. Nomenclature.)

Syngnathus koilomatodon Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 5, p. 10, pl. 1, fig. 1, 1858-59; Nagasaki, Japan.

Halicampus koilomatodon Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 71; 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 537, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 10, 1901. Duncker, Mitt. Naturh. Mus. Hamburg, vol.

32, p. 111, 1915; Ceylon; Andamans; Nagasaki, Japan; the Philippines; south coast of New Guinea; Torres Straits and Australia. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 103, fig. 43, 1922; Japan; the Philippines; Ceylon; Andaman Islands; Thursday Island; Australia.

Halicampus Grayi Duméril, Hist. Nat. Poissons, vol. 2, p. 536, 1870.

Syngnathus Grayi Günther, Cat. Fishes British Mus., vol. 8, p. 169, 1870.

Syngnathus Grayi Macleay, Descript. Cat. Australian Fishes, vol. 2, p. 225, 1881; New Guinea.

Syngnathus trachypoma Günther, Report Zool. Voy. Alert, p. 30, 1884; Prince of Wales Island and Thursday Island, Torres Strait.

Trachyrhamphus caba Seale, Philippine Jour., Sci., vol. 4A, p. 503, 1910; Balayan Bay, Batangas Province, Luzon.

Halicampus koilomatodon Fowler, Mem. Bishop Mus., vol. 10, p. 114, 1928; Ceylon, East Indies, the Philippines; Australia; Japan.

Halicampus grayi McCulloch, Mem. 5, Australian Mus., p. 88, 1929; Queensland; India; Japan; Philippines. Herre and Herald, Collection, Motorship *Spencer F. Baird*; 31 specimens from stomachs of 5 specimens of *Euthynnus yaito*, taken near Zamboanga, Zamboanga Province, Mindanao.

Genus 220. ICHTHYOCAMPUS Kaup.

Living in the sea and in brackish and fresh water. Tropical Indo-Pacific, east to the Hawaiian Islands, south to Australia and New Zealand.

Ichthyocampus Kaup, Cat. Lophobranchiate Fish, p. 29, 1856; logotype, *Syngnathus carce* Hamilton [né Buchanan] designated by Duncker, 1912. Günther, Cat. Fishes British Mus., vol. 8, p. 176, 1870. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 29, p. 234, 1912. Duncker, *ibid.*, vol. 32, p. 92, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 90, 1922.

Festucalex Whitley, Australian Zoologist, vol. 6, Part 4, p. 312, 1931; orthotype, *Syngnathus cinctus* Ramsay 1882.

Campichthys Whitley, Australian Zoologist, vol. 6, Part 4, p. 313, 1931; orthotype, *Ichthyocampus tryoni* Ogilby 1890.

Stipeacampus Whitley, Records Australian Mus., vol. 22, p. 75, 1948; orthotype, *Ichthyocampus cristatus* McCulloch and Waite.

Larvicampus Whitley, Records Australian Mus., vol. 22, p. 75, 1948; orthotype, *Festucalex runa* Whitley=*Ichthyocampus filum* Günther.

Hippichthys Whitley, Australian Zoologist, vol. 11, Part 3, p. 268, 1949, haplotype, *H. heptagonus* (Bleeker)=*Syngnathus carce* Hamilton [né Buchanan].

573. *Ichthyocampus belcheri* Kaup.

East Indies, Japan, and Fiji Islands.

Ichthyocampus Belcheri Kaup, Cat. Lophobranchiate Fishes, p. 30, 1856; China and Borneo. Duméril, Hist. Nat. Poissons, p. 539, 1870.

Ichthyocampus belcheri Günther, Cat. Fishes British Mus., vol. 8, p. 177, 1870; China. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 95, 1915; in part. Herald, *Albatross* Philippine collection; Canino Island, near Daet and Maculabo Island, Camarines Norte Province, Luzon; Zamboanga, Mindanao. Also known from New Georgia Island, Solomon Islands; and Noumea, New Caledonia.

Ichthyocampus nox Snyder, Proc. U. S. Nat. Mus., vol. 36, p. 598, 1909; Nafa, Okinawa, Riu Kiu Islands. Snyder, *ibid.*, vol. 42, p. 495, pl. 62, fig. 3, 1912.

Ichthyocampus kampeni Weber, *Siboga*-Exped., vol. 57, Fische, p. 114, fig. 40, 1913; part only; all of the types mentioned except the New Guinea lectotype, are *I. belcheri*, i.e., Beo, Karakelang Island; Amboina; Lirung, Salibabu Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 29, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 82, 1936; Ovalau Island, Fiji.

574. *Ichthyocampus davaoensis* Herald.

Ichthyocampus davaoensis Herald, Davao Gulf, Davao Province, Mindanao, Philippines; surface plankton tow; Motorship *Spencer F. Baird*; lat. 6° 44' N.; long. 125° 46' E.; type; in Herald manuscript.

575. *Ichthyocampus kampeni* Weber.
The East Indies and Philippines.
Ichthyocampus Kampeni Weber, *Siboga-Exped.*, vol. 57, Fische, p. 114, fig. 40, 1913; Atjatuning, New Guinea, is the lectotype locality; (other types are *I. belcheri*).
Ichthyocampus kampeni Herre, collected Dec. 21, 1936; Dumaguete, Oriental Negros Province. Herald, collected 1949; Zamboanga, Zamboanga Province, Mindanao.
Ichthyocampus Belcheri Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 95, 1915; in part.

576. *Ichthyocampus philippinus* Fowler.
Ichthyocampus philippinus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 43, 1938; type specimen taken in 12 fathoms, off Tinakta (Tinagta) Island, off the north coast of TawiTawi, Sulu Province. Herald, *Albatross Exped.*; a second specimen from Varadero Bay, Mindoro.

Genus 221. MICROGNATHUS Duncker.

Coral-reef fishes of the Indo-Pacific, from Africa to the Philippines and Japan, south to Australia, east to the Hawaiian Islands and Samoa. Seven Indo-Pacific and 3 Atlantic American species.

Micrognathus Duncker, Mitt. Naturh. Mus. Hamburg, vol. 29, p. 235, 1912; orthotype, *Syngnathus brevisrostris* Rüppell. Duncker, *ibid.*, vol. 32, p. 74, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 74, 1922.

Anarchopterus Hubbs, Occas. Papers Mus. Zool. Univ. Mich. No. 320, 1935; type, *Siphostoma crinigerum* Bean and Dressel.

Simosyngnathus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 92, p. 12, 1940; type, *Siphostoma crinigerum* Bean and Dressel.

577. *Micrognathus brachyrhinus* Herald.
Hawaiian Islands and the Philippines.
Micrognathus brachyrhinus Herald, south coast of Oahu, Hawaiian Islands; type; from ms. Herald, *Albatross Collection*; San Miguel Harbor, Ticao Island, Philippines; determined by E. S. Herald.

578. *Micrognathus brevisrostris* (Rüppell).
From Africa to the Philippines, Japan, New Guinea, and Australia.
Syngnathus brevisrostris Rüppell, Neue Wirbelt., Fische, Rothen Meeres, p. 144, 1835; Massaua. Günther, Cat. Fishes British Mus., vol. 8, p. 167, 1870; Massaua, Red Sea. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 102, 1913; Saonek, Waigiu. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 106, 1913.

Micrognathus brevisrostris Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 75, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 75, 1922; Singapore; Java; Cocos Islands; Sangir Islands; Sula Besi Island; Gisser Island; Waigiu; New Guinea; Timor; Thursday Island. Fowler, Mem. Bishop Mus., vol. 10, p. 114, 1928. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 86, 1936; Tulagi, Solomon Islands; Suva Harbor, Fiji; also Waigiu. Herre, 1936-37 Exped.; Dumaguete, Oriental Negros Province. Herald, *Albatross Exped.*; Batan Island, Batanes Province; Canimo Island; near mouth of Daet River, Camarines Norte Province, Luzon; Varadero Harbor, Mindoro; San Miguel Harbor, Ticao Island; reef off Cebu, Cebu Province; Tomaho Island, Lianga Bay, Agusan Province, Mindanao; also Gulf of Boni, Celebes; Great Tobeia; Guam; and Tongatabu.

Syngnathus micronotopterus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 42, fig. 14, 1938; Canimo Island, near Daet Point, Camarines Norte Province, Luzon. "A series of paratypes from the Philippines and East Indies."

579. *Micrognathus dunckeri* Chabanaud.
The Philippines and East Indies.
Micrognathus dunckeri Chabanaud, Bull. Soc. Zool. France, vol. 54, p. 170, figs. 2-3, 1929; one female from Amboina.
Micrognathus magdamoi Herre, Crane Pacific Exped., 1929; Waigiu Island. Herre, Copeia, No. 3, p. 141, 1932; Dumaguete, Oriental Negros Province; 3 male and 2 female specimens. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete. Herre, Fishes 1931

Philippine Exped., p. 29, 1934; Dumaguete. Herald, *Albatross* Collection; off Zamboanga light, Zamboanga Province, Mindanao. Also specimen from Tulugi, Solomon Islands.

580. *Micrognathus nitidus* Günther.

The Philippines, East Indies, and Australia.

Micrognathus nitidus Günther, Jour. Mus. Godeffroy, vol. 1, p. 103, 1873; Bowen, Queensland. Herald, *Albatross* Collection; Simulac Island, Tataan Islands, off north coast of TawiTawi, Sulu Province.

Doryichthys elegans Steindachner, Abh. Senckenb. Naturf. Gesell. Frankfurt, vol. 25, p. 459, pl. 18, fig. 2, 1903; Ternate.

Halicampus elegans Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 104, 1922; after Steindachner.

Genus 222. OOSTETHUS Hubbs.

Microphis Kaup, Cat. Lophobranchiate Fish., p. 63, 1856; logotype, *Syngnathus deokhata* Hamilton [né Buchanan] in part. Duncker, Spolia Zeylanica, vol. 7, part 25, p. 26, 1910. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 29, p. 229, 1912. Duncker, *ibid.*, vol. 32, p. 43, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 43, 1922.

Doryichthys Kaup, Archiv. Naturges, p. 233, 1853, and Cat. Lophobranchiate Fish., p. 56, 1856; logotype, *Doryichthys bilineatus* Heckel; in part.

Oostethus Hubbs, Occas. Papers Mus. Zool., Univ. Mich., No. 199, p. 3, 1929; type, *Doryichthys lineatus* Kaup.

581. *Oostethus (brachyurus)* Bleeker.

Tropical Indo-Pacific, from east Africa to the East Indies, Philippines, Japan, and south east to the Society Islands. In fresh, brackish, and salt water of rivers and estuaries.

Syngnathus brachyurus Bleeker, Verh. Bat. Gen., vol. 25, Bijdr. kennis Troskieuwige Visschen, p. 16, 1853; Batavia; Panimbang, western Java; Priaman, western Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, 105, 1854; Sumatra. Bleeker, *ibid.*, vol. 13, p. 476, 1857; Java.

Syngnathus cunculus Bleeker, Verh. Bat. Gen., vol. 25, Ichth. fauna Bengalen, p. 162, 1853; not of Hamilton [né Buchanan].

Syngnathus polyacanthus Bleeker, Acta. Soc. Sci. Indo-Neerl., vol. 1, Visschen Menado, p. 77, 1856; Celebes.

Doryichthys Hasseltii Kaup, Cat. Lophobranchite Fish., p. 57, 1856; Java; Tahiti.

Doryichthys auronitens Kaup, *ibid.*, p. 59.

Doryichthys millepunctatus Kaup, *ibid.*, p. 60.

Microphis brachyurus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Bijdr. viss. Sumatra, p. 72, vol. 25, 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 595, 1870; Tahiti. Jordan and Seale, Bull. U. S. Bur. Fisheries, p. 214, fig. 20, 1906; Vaisigano River and other streams about Apia, Samoa. Duncker, Spolia Zeylanica, vol. 7, Part 25, p. 26, 1910. Kendall and Goldsborough, Mem. Mus. Comp. Zool. vol. 26, p. 264, 1911; Kusale, Caroline Islands. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 45, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 44, fig. 21, 1922; many East Indian localities; also the Philippines and many Pacific Island groups. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 41, p. 13, 1925; many localities in the Admiralty Islands, Bismarck Archipelago, and New Guinea, Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 81, 1936; Moorea Island, Society Islands.

Syngnathus Schlegelii Day, Proc. Zool. Soc. London, p. 316, 1865; not of Kaup.

Microphis bleekeri Day, Fishes Malabar, p. 265, 1865. Duméril, Hist. Nat. Poissons, vol. 2, p. 599, 1870.

Microphis Jouani Duméril; Hist. Nat. Poissons, vol. 2, p. 592, 1870; New Caledonia.

Microphis Jouani Duméril, *ibid.*, p. 597.

Doryichthys brachyurus Günther, Cat. Fishes British Mus., vol. 8, p. 184, 1870; Polynesia; Aneiteum. Bleeker, Recherches Faune Madagascar, Poissons, p. 75, 1875. Günther, Fische der Südsee, vol. 3, p. 433, 1910; Aneiteum; Ovalau; Huaheine; Vavau; Rarotonga; Samoa.

Doryichthys Bleekeri Day, Fishes India, p. 680, 1878.

- Corythoichthys Bleekeri* Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao.
- Doryrhamphus brachyurus* Weber, *Siboga*-Exped., Fische, vol. 57, p. 117, 1913; brook on Lombok; Batjan. Sundara Raj, Records Indian Mus., vol. 12, p. 269, 1916.
- Doryichthys philippinus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 13, fig. 6, 1918; the Philippines.
- Doryrhamphinarum brachyurum* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 73, p. 442, 1921; Tahiti. Fowler, *ibid.*, vol. 79, p. 267, 1927; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 11, fig. 22, 1928; Kusaie, Caroline Islands; Society Islands; Samoa; Tahiti.
- Oostethus brachyurus* Herre, 1936-37 and 1940-41 Exped.; Dumaguete and Old Ayukitan, Oriental Negros Province; Cagayan, Misamis Oriental Province, Mindanao, Tawau, British North Borneo.

582. *Oostethus (manadensis)* Bleeker.

- The East Indies and Philippines, south to Queensland, Australia; fresh and brackish water of streams and estuaries.
- Syngnathus manadensis* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischsoorten van Menado en Makassar, p. 78, 1856; Menado, Celebes.
- Doryichthys manadensis* Bleeker, *ibid.*, vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 72, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Celebes, p. 13, 1860. Günther, Cat. Fishes British Mus., vol. 8, p. 184, 1870.
- Doryichthus Bernsteini* Bleeker, Arch Neerl. Sci. Nat., vol. 2, p. 398, 1867; Halmahera. Günther, Cat. Fishes British Mus., vol. 8, p. 183, 1870.
- Microphis Jagorii* Peters, Monatsber. Wiss. Akad. Berlin, p. 280, 1868; Loquilocun, Samar. Duméril, Hist. Nat. Poissons, vol. 2, p. 594, 1870; on Peters.
- Microphis manadensis* Duméril, *ibid.*, p. 595. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 47, 1915; North Borneo and the Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 47, 1922; numerous localities in Borneo and Sumatra; Java; Makassar, Celebes. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 41, p. 14, 1925; Langermak Bay, New Guinea, Celebes, Halmahera, German New Guinea. Herre, Fishes 1931 Philippine Exped., p. 29, 1934; Laguna de Bay, Laguna Province, Luzon. Aurich, Zool. Anzeiger, vol. 112, p. 100, 1935; Lake Bombon (Taal), Batangas Province, Luzon; Lake Naujan, Mindoro.
- Microphis Bernsteini* Duméril, Hist. Nat. Poissons, vol. 2, p. 594, 1870.
- Doryichthus Bernsteini* Weber, Nova Guinea, vol. 5, Zool, Part 2, Fische, p. 229, 1908; Mamapiri, northern New Guinea.
- Doryichthys stictorhynchus* Ogilby, Mem. Queensland Mus., vol. 1, p. 34, 1912; Moreton Bay, Queensland.
- Doryrhamphinarum manadensis* Fowler, Mem. Bishop Mus., vol. 10, p. 112, 1928.
- Oostethus manadensis* Herre, 1940-41 Exped.; Molawin Creek, College of Agriculture, Banay River, and Bay River 3 kilometers from its mouth, Laguna Province; Angona, Rizal Province, and Barras, Morong, and Tanay Rivers, Rizal Province—all on Luzon; creek near Barrio San Nicolas, Busuanga.

Genus 223. *SIOKUNICHTHYS* Herald.

Siokunichthys Herald; type, *Siokunichthys herrei*, Herald manuscript.

583. *Siokunichthys elongatus* Herald.

Siokunichthys elongatus Herald; types from north end of Siokun Bay, Zamboanga Province, Mindanao, Philippines; Motorship *Spencer F. Baird*; in manuscript.

584. *Siokunichthys herrei* Herald.

A Philippine species.

Siokunichthys herrei Herald; types from north end of Siokun Bay, west coast of Zamboanga Province, Mindanao; southwest coast of Panay, Antique Province; from Herald manuscript.

Genus 224. *SYNGNATHOIDES* Bleeker.

Only one species known, ranging from East Africa to Samoa, north to the RiuKiu Islands and south to Australia.

Syngnathoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, pp. 231 and 259, 1851; Banda Islands; orthotype, *Syngnathoides Blochii* Bleeker. Bleeker, Verh. Bat. en. vol. 25, pp. 5, 9, and 12, 1953. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 39, 1922.

585. *Syngnathoides biaculeatus* (Bloch).

Syngnathus biaculeatus Bloch, Naturges. Ausländ. Fische, vol. 1, p. 10, pl. 12, figs. 1-2, 1785; East Indies. Bloch and Schneider, Syst. Ichth., p. 514, 1801. Richardson, Ichth. China, Japan, p. 202, 1846; the Philippines; China. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1369, 1850.

Gasterotokeus biaculeatus Peters, Archiv Naturges., vol. 1, p. 277, 1855; Mozambique, Kaup, Cat. Lophobranchiate Fish., p. 19, 1856. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 204, 1858; Goram Archipelago; also 22 other references in the East Indies, Japan, New Guinea, and Madagascar. Duméril, Hist. Nat. Poissons, vol. 2, p. 528, 1870. Günther, Cat. Fishes British Mus., vol. 8, p. 194, 1870; the Philippines; Celebes; Amboyna; Cape York; northwest Australia; China seas; Singapore; East Indian Archipelago; Seychelles; Zanzibar. Klunzinger, Abh. zool.-bot. Gesell. Wien, vol. 21, p. 653, 1871; Red Sea. Day, Fishes India, p. 681, pl. 174, fig. 5, 1878; Seas of India. Günther, Fische der Südsee, vol. 3, p. 434, 1910; Yap; Samoa. Duncker, Spolia Zeylanica, vol. 7, Part 25, p. 25, 1910. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 38, 1915; Indo-Pacific. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 41, p. 11, 1925; north coast of New Mecklenburg; Linden Harbor, south coast, Rein Bay and Hanam Harbor, New Pomerania; east of Long Island to New Guinea.

Gasterotokeus biaculeatus Castelnau, Proc. Acclimat. Soc. Victoria, vol. 2, p. 120, 1873; Noumea, New Caledonia. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 773, 1905; Bais, Oriental Negros Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 215, 1906; Apia and Pago Pago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 10, 1907; Cavite, Cavite Province, Luzon; Iloilo, Iloilo Province, Panay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 57, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 246, 1908; Cuyo, Cuyo Islands, Palawan Province. Weber, Siboga-Exped., vol. 57, Fische, p. 118, fig. 43, 1913; Makassar, Celebes; Biaru Island; Sawan, Siau Island; Ternate; west coast of New Guinea; Saleyer; Nusa Laut Island.

Syngnathoides biaculeatus McCulloch, Check List Fish New South Wales, p. 27, 1919. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 40, figs. 18-19, 1922; 38 East Indian localities listed; also the Philippines and many other localities. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 267, 1927; the Philippines; Bacon, Sorsogon Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 110, 1928; Marshall Islands; Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 28, 1934; Iba, Zambales Province, Luzon; Alabat Island; Culion; Cebu; Dumaguete; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Puerto Galera and Varadero Bay, Mindoro.

Genus 225. SYNGNATHUS Linnaeus.

In temperate and tropical seas; some live in brackish or fresh water.

Syngnathus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 336, 1758; type, *Syngnathus acus* L. Kaup, Cat. Lophobranchiate Fish., p. 32, 1856. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 78, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 77, 1922.

Siphostoma Rafinesque, Caratteri Alcuni Nuovi Generi Sicilia, p. 18, 1810; type, *Syngnathus pelagicus* L.

Siphonostoma Kaup, Cat. Lophobranchiate Fish, British Mus., p. 48, 1856; emendation.

Syrichtes Jordan and Evermann, Proc. California Acad. Sci., ser. 4, vol. 16, p. 504, 1927; orthotype, *Syngnathus-fuscus* Storer.

- From the African coast to the East Indies, the Philippines, and Formosa.
586. *Syngnathus cyanospilus* Bleeker.
Syngnathus cyanospilos Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 114, 1854; Banda Islands. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtst. Bijdr. vischfauna Sumatra, p. 72, 1860. Duméril, Hist. Nat. Poissons, vol. 2, p. 55, 1870. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 107, 1913. *Syngnathus Mossambicus* Peters, Monatsber. Akad. Wiss. Berlin, p. 465, 1855; Mozambique.
Syngnathus Kuhlii Kaup, Cat. Lophobranchiate Fishes, p. 34, 1856. Duméril, Hist. Nat. Poissons, vol. 2, p. 55, 1870.
Doryichthys spaniaspis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 10, fig. 3, 1907; Cavite, Cavite Province, Luzon.
Syngnathus mossambicus Günther, in Playfair and Günther, Fishes Zanzibar, p. 140, 1866. Duméril, Hist. Nat. Poissons, vol. 2, p. 565, 1870.
Syngnathus cyanospilus Günther, Cat. Fishes British Mus., vol. 8, p. 170, 1870; Zanzibar; East Indies. Day, Fishes India, p. 678, 1878; Seas of India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 45, 1885; Cebu, Cebu Province. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 81, 1915; East Africa; the Philippines; Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 83, 1922; Singapore; Nias; Java; Banda; Ternate; Siau Island; the Philippines. Herre, Fishes 1931 Philippine Exped., p. 29, 1934; creek on Cebu Island. Herre, 1940-41 Exped.; Dumaguete, Oriental Negros Province.
587. *Syngnathus martini* Herre.
Syngnathus martini Herre, Philippine Jour. Sci., vol. 59, p. 358, pl. 1, fig. 2, 1936; Manila Bay, Luzon. This species must be considered as questionable since the type cannot be distinguished from *Syngnathus fuscus* of the Atlantic American coast.
588. *Syngnathus schlegelii* Kaup.
 A dubious record of a Japanese species.
Syngnathus schlegelii Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao
- Genus 226. **YOZIA** Jordan and Snyder.
 Marine pipefishes of the tropical Indian Ocean, East Indies, the Philippines, China, Japan, and Australia.
Yoza Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 29, p. 4, 1901; type *Yoza wakanourae* Jordan and Snyder. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 29, p. 233, 1912. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 100, 1922.
589. *Yoza bicoarctata* (Bleeker).
 East coast of Africa to the Philippines, China, and Japan.
Syngnathus bicoarctatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 99, 1857. Duméril, Hist. Nat. Poissons, vol. 2, p. 569, 1870. Günther, Cat. Fishes British Mus., vol. 8, p. 176, 1870; Amboina; after Bleeker.
Syngnathus zanzibarensis Günther, in Playfair and Günther, Fishes Zanzibar, p. 140, pl. 20, fig. 5, 1866. Günther, Cat. Fishes British Mus., vol. 8, p. 168, 1870; Zanzibar; China.
Yoza wakanourae Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 8, pl. 6, 1910; Wakanoura, Japan. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, Jour. College Sci. Univ. Tokyo, vol. 33, p. 96, 1913; Wakanoura, Japan.
Yoza bicoarctata Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 107, 1915; Mombasa; Zanzibar; Mauritius; Cargados Carajos; Sumatra; Amboyna; China. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 101, fig. 42, 1922; Singapore; Sumatra; Amboina. Herr and Herald, Collection motorship *Theodore N. Gill*; Manila Bay, Luzon, November 1947. Herre, July 1948 Collection; Siaton, Negros Oriental Province; 2 specimens, 340 and 263 mm. long.
- Genus 227. **HIPPOCAMPUS** Rafinesque. Seahorses.
 All tropical and temperate seas.
Hippocampus Rafinesque, Caratteri, p. 18, 1810; type, *Syngnathus hippocampus* L. = *Hippocampus heptagonus* Rafinesque. Kaup, Cat. Lophobranchiate Fish., p. 6, 1856. Günther, Cat. Fishes British Mus., vol. 8,

p. 198, 1870. Day, Fishes India, p. 681, 1878. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 775, 1896. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 32, p. 115, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 106, 1922.

590. Hippocampus kuda Bleeker.

The East Indies and Philippines, east to the Hawaiian Islands, north to Japan.

Hippocampus kuda Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 82, 1852; Singapore. Bleeker, Verh. Bat. Gen., vol. 25, Bijdr. kennis Troskieuwige visschen, p. 26, 1853. Duméril, Hist. Nat. Poissons, vol. 2, p. 506, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 15, 1901. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 773, 1905; Bais, Oriental Negros Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 10, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. Biol. Soc. Washington; vol. 33, p. 240, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 246, 1908; Mindoro. Seale, Philippine Jour. Sci., vol. 5D, p. 269, 1910; Sandakan, British North Borneo, and numerous points in the Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 110, 1922; 36 East Indian localities. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 41, p. 18, 1925; New Mecklenburg; New Pomerania; New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 115, 1928; Hawaiian Islands; Necker Island; Suva, Fiji. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Negros Oriental Province, Herre, Fishes 1931 Philippine Exped., p. 29, 1934; Balayan Bay, Batangas Province; Dumaguete; Cebu, Cebu Province. Herre, Philippine Bureau Science Collection; Manila Bay, Luzon; Calapan and Puerto Galera, Mindoro; Romblon Island; Jolo, Tonkil, and Bongao Islands, Sulu Province.

Hippocampus moluccensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 305, 1852; Amboina.

Hippocampus taeniopterus Bleeker, ibid., p. 306; Amboina.

Hippocampus polytaenia Bleeker, ibid., vol. 6, p. 338, 1854; Flores. Duméril, Hist. Nat. Poissons, vol. 2, p. 522, 1870.

Hippocampus melanospilos Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 505, 1854; Amboina. Duméril, Hist. Nat. Poissons, vol. 2, p. 512, 1870.

Hippocampus comes Kner, Reise Novara, Fische, vol. 1, p. 390, 1865-67. Vaillant, Mission Pavie, Indo-China, vol. 3, p. 462, 1904.

Hippocampus rhynchomacer Duméril, Hist. Nat. Poissons, vol. 2, p. 519, 1870.

Hippocampus guttulatus Günther, Cat. Fishes British Mus., vol. 8, p. 202, 1870; in part. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 45, 1885; Manila Bay, Luzon; Cebu, Cebu Province. Reuven's, Notes Leyden Mus., vol. 16, p. 148, 1894. Günther, Fische der Südsee, vol. 3, p. 435, 1910; not of Cuvier.

Hippocampus kelloggi Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 14, pl. 8, 1901; Kagoshima, Japan. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 98, fig. 73, 1913.

Hippocampus aterrimus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 14, pl. 9, 1902; RiuKiu Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 10, 1907; Cavite, Cavite Province, Luzon.

Hippocampus hilonis Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 169, 1903; Hilo, Hawaiian Islands. Jordan and Evermann, ibid., vol. 23, Part 1, p. 119, pl. 23, 1905.

Hippocampus barboursi Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 247, fig. 8, 1908; Cuyo, Cuyo Islands.

591. Hippocampus spinosissimus Weber.

East Indies and the Philippines.

Hippocampus (erinaceus Günther?) Weber, in Semon, Zool. Forschungsreisen, vol. 5, p. 275, 1895; Thursday Island.

Hippocampus spinosissimus Weber, *Siboga*-Exped., vol. 57, Fische, p. 120, fig. 44, 1913; Sapeh Strait, at 70 meters. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 109, fig. 45, 1922; Sapeh Strait; Thursday Island. Herre, Fishes 1931 Philippine Exped., p. 30, 1934; Culion.

592. *Hippocampus longirostris* Cuvier.

Hippocampus longirostris Cuvier Règne Animal, vol. 2, p. 363, 1817; West Indies. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 126, 1873; China. Bleeker, Verh. Akad. Amsterdam, vol. 18, Enumeration poissons connues Japon, p. 13, 1879. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 11, fig. 2, 1922; Cebu, Cebu Province.

Order V. HYPOSTOMIDÆ

Family 85. PEGASIDÆ

Genus 228. PEGASUS Linnaeus. Sea moths; Sea dragons.

The East Indies, Philippines, China, southern Japan, Melanesia, Australia, and tropical Indian Ocean.

Pegasus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 338, 1758; type, *Pegasus volitans* L.; after Gronow. Rendahl, Arkiv Zoologi, vol. 21A, pp. 1-56, 1930.

Parapegasus Duméril, Hist. Nat. Poissons, vol. 2, p. 492, 1870; orthotype, *Pegasus natans* L.

Leptopegasus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 125, 1873; orthotype, *Pegasus natans* L.

Zalises Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 2, 1901; orthotype, *Zalises umitengu* Jordan and Snyder.

593. *Pegasus volitans* Linnaeus.

The Philippines, East Indies west of India, south from New Guinea to Australia.

Pegasus volitans Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 338, 1758; Amboina. Rendahl, Arkiv Zoologi, vol. 21A, p. 9, figs. 1-2, 1930; Makassar and Tello, Celebes; Banda-Neira; Amboina; New Guinea; Torres Strait; Freycinet's Harbor, West Australia; Swan River, Queensland. Herre, 1936-37 Exped.; Manila Bay; Calatagan, Batangas Province, Luzon; Sibuyan Island; Singapore

Pegasus volans Linnaeus, Syst. Nat., ed. 12, vol. 1, p. 418, 1766; after *Pegasus volitans* L.

Pegasus natans Linnaeus, Syst. Nat., ed. 12, p. 418, 1766; India. Bloch, Naturges. Ausländ. Fische, vol. 1, p. 53, pl. 121, figs. 2-3, 1875. Richardson, Voy. *Sulphur*, Fishes, p. 118, pl. 50, figs. 5-7, 1844. Günther, Cat. Fishes British Mus., vol. 8, p. 148, 1870; north China; China seas; New Guinea; Australia.

Parapegasus natans Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 10, 1907; Cavite, Cavite Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 30, 1934; Lemery, Batangas Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 116, pl. 8, fig. B, 1928.

594. *Pegasus draconis* Linnaeus.

The Philippines, East Indies, north to China and Japan, across Indian Ocean to Zanzibar and Madagascar.

Pegasus draconis Linnaeus, Syst. Nat., ed. 12, p. 418, 1766; India. Bloch, Naturges. Ausland. Fische, vol. 1, p. 52, pl. 109, figs. 1-2, 1785. Lacépède, Hist. Nat. Poissons, vol. 2, p. 78, pl. 2, fig. 3, 1803. Bleeker, Verh. Bat. Gen., vol. 25, Bijdr. kennis Troskieuwige visschen, p. 27, 1853. Günther, Cat. Fishes British Mus., vol. 8, p. 147, 1870; Ceram; Amboyna; East Indian Archipelago; Zanzibar. Peters, Monatsber. Akad. Wiss. Berlin, p. 839, 1877; New Britain. Day, Fishes India, p. 280, pl. 61, fig. 1, 1878; Port Blair, Andaman Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 121, 1913; North Ubian, Sulu Archipelago, Philippine Islands; Sapeh Strait, East Indies. Rendahl, Arkiv Zoologi, vol. 21A, p. 21, figs. 7 and 8, 1930; North Ubian, Sulu Archipelago. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 30, 1934; Dumaguete.

Zalises draconis Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao.

Order W. AULOSTOMI

Family 86. AULOSTOMIDÆ. Trumpetfishes

Tropical and subtropical seas.

Genus 229. AULOSTOMUS Lacépède.

Species few, 3 or 4, in the Indo-Pacific and Atlantic Oceans.

Aulostomus Lacépède, Hist. Nat. Poissons, vol. 5, p. 357, 1803; type,

Aulostomus chinensis Lacépède=*Fistularia chinensis* L.

Aulostoma Duméril, Zoologie Analytique, 1806; emended spelling.

Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 10, 1922.

Polypterichthys Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 608, 1853;

Ternate; orthotype, *Polypterichthys valentini* Bleeker.

595. *Aulostomus chinensis* (Linnaeus).

All over the tropical Indo-Pacific, including Australia.

Fistularia chinensis Linnaeus, Syst. Nat., ed. 12, p. 515, 1766; eastern India.

Aulostomus chinensis Lacépède, Hist. Nat. Poissons, vol. 10, p. 98, 1803;

Cavite, Philippine Islands; China. Jordan, Tanaka, and Snyder, Cat.

Fishes Japan, p. 103, 1913; Japan; Hawaii to India. Fowler, Proc.

Acad. Nat. Sci. Phila., p. 439, 1921; Honolulu; Oahu, Hawaiian

Islands; Pacific Ocean. Fowler, Mem. Bishop Mus., vol. 10, p. 116,

1928; many tropical Pacific localities. Herre, Philippine Bureau

Science and 1936-37 and 1940-41 Collections; Manila market;

Legaspi, Albay Province, Luzon; Calapan and Puerto Galera, Min-

doro; Cebu market and Bantayan Island, Cebu Province; Miagao,

Iloilo Province; Linapacan Island, Palawan Province; Jolo, Sulu

Province.

Aulostoma sinensis Schlegel, Fauna Japonica, Pisces, p. 520, 1846.

Aulostoma chinensis, Richardson, Ichth. China Japan, p. 247, 1846.

Polypterichthys Valentini Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 608,

1853; Ternate. Bleeker, *ibid.*, vol. 12, p. 234, 1856-57; Batu Islands.

Aulostoma chinense Günther, Cat. Fishes British Mus., vol. 3, p. 538, 1861;

Ambonia; Aneiteum. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1868;

Ternate. Bleeker, Recherches faune Madagascar, Poissons p. 74, 1875.

Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 50, 1878; New Guinea.

Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 14, 1879; Japan. Günther,

Fische der Südsee, vol. 2, p. 221, pl. 123, figs. B and C, 1881; Hawaiian

Islands; Tuamotus; Aneiteum, New Hebrides.

Aulostomus valentini Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26,

p. 64, 1903; Honolulu. Snyder, Bull. U. S. Fish Comm., vol. 22, p.

523, 1904; Honolulu; Laysan Island. Seale, Occas. Papers Bishop

Mus., vol. 4, p. 17, 1906; Tahiti. Weber, *Siboga*-Exped., vol. 57,

Fische, p. 100, 1913. Herre, Philippine Fish Tales, pp. 111 and 296,

1935; Calapan, Mindoro.

Aulostoma valentini Steindachner, Sitzungsber. Akad. Wiss. Wien, vol.

115, p. 148, 1906; Upolu, Samoa.

Family 87. FISTULARIIDÆ. Cornet Fishes

Genus 230. FISTULARIA Linnaeus. Droal; Sivi-sivi; Torotot.

Tropical Indo-Pacific and Atlantic Oceans.

Fistularia, Linnaeus, Syst. Nat. ed. 10, p. 312, 1758; type, *Fistularia tabacaria* L.

596. *Fistularia petimba* Lacépède. Droal; Torotot.

From the east coast of Africa to the west coast of tropical America,

north to Japan, south to Australia. Where no description is given in

a reference it usually is impossible to decide which species was under

consideration. For this reason most East Indian references and

all of Bleeker's are omitted in the following synonymy.

Fistularia petimba Lacépède, Hist. Nat. Poissons, vol. 5, p. 349, 1803;

pl. 18, fig. 3, in vol. 2, 1803; New Britain; Ile Réunion; equatorial

Pacific; not synonymy. Jenkins, Bull. U. S. Fish Comm., vol. 22, p.

437, 1903; Honolulu; Tahiti. Snyder, *ibid.*, vol. 22, p. 523, 1903; Honolulu; Hilo; Hanelei Bay, Kauai; Necker Island. Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 17, 1906; Mangareva; Faté, New Hebrides; Shortland Island, Solomons; Raiatea, Society Islands; Rarotonga, Cook Islands; Nukahiva, Marquesas Islands; Makatea, Tuamotus. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 9, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 56, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 245, 1908; Lubang Island; Cuyo, Cuyo Islands, Palawan Province. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 101, fig. 32, 1913; numerous East Indian localities. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 14, fig. 4, 1922; Pulu Weh; Nias; Makassar and Menado, Celebes; Sula Islands; Amboina; Ceram; Gisser; Obi Major; Waigiu; Joutefa Bay, North New Guinea. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 73, p. 439, 1922; the Philippines, Fowler, *ibid.*, vol. 79, p. 267, 1927; the Philippines. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 117, 1928; many localities in the tropical Pacific. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, *Fishes 1931 Philippine Exped.*, p. 30, 1934; Burias Island; Culion; Linapacan Island, Palawan Province; Cebu, Cebu Province. Herre, various expeditions to 1940-41; Romblon Island; Boac, Marinduque; Catbalogan, Samar; Puerto Galera, Mindoro; Balabac; Jolo, Sibu, and Sitankai, Sulu Province.

Fistularia serrata Günther, *Cat. Fishes British Mus.*, vol. 3, p. 533, 1861; in part; India; Singapore; Amboina; China; East Indies. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 57, 1907; Bacon, Sorsogon Province, Luzon.

Fistularia depressa Günther, *Rept. Voy. Challenger, Zool.*, vol. 7, Pt. 6, *Shore Fishes*, p. 69, pl. 3, fig. D, 1880; Natal, S. Africa; Zanzibar; Amboina; China; New Guinea; New South Wales, Australia; Fiji; California. Jordan and Evermann, *Fishes North and Middle America*, vol. 1, p. 757, 1896. Seale, *Occas. Papers Bishop Mus.*, vol. 1, p. 64, 1901; Guam. Waite, *Records Australian Mus.*, vol. 5, p. 3, 1903; Nauru Islands; Pleasant Island; Marshall Islands. Webber *Siboga-Exped.*, vol. 57, Fische, p. 101, 1913; Makassar and Menado, Celebes; Kawa Island; Salayer.

597. *Fistularia villosa* Klunzinger.

From the east coast of Africa to the Hawaiian Islands, New Guinea, and Samoa, north to China and Japan.

Fistularia serrata Cuvier, *Règne Animal*, vol. 2, p. 349, 1817; after Bloch, *Ichth.*, pl. 387, fig. 2, 1794; *pro parte*.

Fistularia serrata Günther, *Cat. Fishes British Mus.*, vol. 3, p. 533, 1861; *pro parte*. Günther, *Report Voy. Challenger, Zoology*, vol. 1, Part 6, *Shore Fishes*, p. 68, 1880. Jenkins, *Bull. U. S. Fish Comm.*, vol. 22, p. 437, 1903; Honolulu. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 9, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 57, 1907; Bacon, Sorsogon Province, Luzon. Fowler, *Copeia*, No. 58, p. 62, 1918; the Philippines.

Fistularia villosa Klunzinger, *Abh. Zool.-Bot. Gesell. Wien*, vol. 21, p. 516, 1871; Red Sea. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 12, fig. 5, 1922; Nias; Sumatra; Borneo; Java Sea; Madura; Sumbawa; Koepang; Timor; Salayer; Siau Island; Kajoa; Amboina; Ternate; Batjan; Ceram; Damar Island; Kur Island; Banda; Aru Islands. Duncker and Mohr, *Mitt. Zool. Mus. Hamburg*, vol. 41, p. 4, 1925; Hawaiian Islands; Jaluit, Marshall Islands; Pelew Islands; Apia; Samoa; New Pomerania; Friederich Wilhelm and Dörperspitz, New Guinea. Herre, *Fishes 1931 Philippine Exped.*, p. 30, 1934; Cebu, Cebu Province. Herre, *Philippine Bureau Science Collection*; Manila Bay; Quarantine Station, Cebu, Cebu Province; Zamboanga, Mindanao; Sitankai, Sulu Province.

Fistularia petimba Jordan and Evermann, *Fishes North and Middle America*, vol. 1, p. 758, 1896; not of Lacépède. Jordan and Snyder, *Proc. U. S. Nat. Mus.*, vol. 23, p. 350, 1900; not of Lacépède. Jordan and Starks, *ibid.*, vol. 26, p. 67, 1902; not of Lacépède.

Family 88. CENTRISCIDÆ

Marine fishes of the tropical Indo-Pacific. See Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 18, 1922.

Genus 231. *AEOLISCUS* Jordan and Starks.

From the Seychelles Islands to the RiuKiu Islands and Hawaii, south to Australia.

Amphisile Cuvier, Règne Animal, vol. 2, p. 350, 1817; in part.

Aeoliscus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26, p. 71, 1902; orthotype, *Amphisile strigata* Günther. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 20, 1922.

598. *Aeoliscus strigatus* (Günther).

Amphisile scutata Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 245, 1851; Banda Islands; not of Linnaeus. Steindachner, Verh. Zool.-Bot. Gesell. Wien, p. 765, 1860; not of Linnaeus.

Amphisile strigata Günther, Cat. Fishes British Mus., vol. 3, p. 528, 1861; Java. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 144, 1865; Singapore. Lütken, Vidensk. Meddel. Naturh. Foren., Kjöbenhavn, p. 216, 1866. Günther, Fische der Südsee, vol. 2, p. 222, pl. 125, fig. G, 1881; Pelew Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 33, 1885; Cebu, Cebu Province. Jungersen, Dansk. Vidensk. Selsk. Skrift Kobenhavn, 7R., vol. 6, Part 2, p. 44, 1908.

Amphisile komis Macleay, Proc. Linn. Soc. New South Wales, vol. 3, p. 166, pl. 19B, 1879; Komis, Maleggiok, Babeltuab Island, Pelew Islands.

Aeoliscus strigatus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 26, p. 71, 1902; Sagami Sea. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 57, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 245, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 20, figs. 9-10, 1922; the Philippines, Sangir Islands, and 22 other East Indian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 30, 1934; Nasugbu, Batangas Province, Luzon; Dumaguete; Jolo, Sulu Province.

Centriscus strigatus Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 41, p. 6, figs. 1-12, 1925; Admiralty Islands; New Guinea; Pelew Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 118, 1928; Honolulu; New Hebrides; Marshall and Pelew Islands. Mohr, Dana Report No. 18, Centriscidae, p. 25, fig. 15, 1937; Dumaguete, Oriental Negros Province, and Cebu, Cebu Province, Philippines; and 24 other localities from the Seychelles to the Carolines and Solomon Islands.

Genus 232. *CENTRISCUS* Linnaeus. Shrimpfish; Las-las; Isdang Sikuan.

The Philippines and East Indies to the Red Sea and Madagascar, north to China, southeast to New Britain, New Caledonia, and Queensland, Australia.

Centriscus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 336, 1758; after Gronow; type, *Centriscus scutatus* L. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 21, 1922. Mohr, Dana Report No. 18, 1937; pro parte.

Amphisile Cuvier, Règne Animal, vol. 2, p. 350, 1817; type, *Centriscus scutatus* L. Günther, Cat. Fishes British Mus., vol. 3 p. 524, 1861.

Acentrachme Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 234, 1862; orthotype, *Amphisile scutata* Cuvier=*Centriscus scutatus* L.

599. *Centriscus scutatus* Linnaeus.

Distribution given under the genus.

Centriscus scutatus Linnaeus, Syst. Nat., ed. 10, p. 336, 1758; eastern India. Bloch, Naturges. Ausl. Fische, vol. 1, p. 57, 1785. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 298, 1868; Waigiu. Bleeker, Recherches faune Madagascar, Poissons, p. 75, 1875. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 9, 1907; Manila. Weber *Siboga*-Exped., vol. 57, Fische, p. 99, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 22, figs. 8 and 11, 1922; Singapore; Nias; Lombok; Celebes; Buru; Amboina; Halmahera;

Ceram; Banda; Waigiu; Timor; Dobo, Aru Islands; the Philippines. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 47, 1930; Manila, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Phil. Exped., p. 30, 1934; Subic Bay, Zambales province; Atimonan and Alabat Island, Tayabas Province; Magallanes, Sorsogon Province, Luzon; Calapan, Mindoro; Cullion; Cebu, Cebu Province; Dumaguete; Sitankai, Sulu Province.

Order X. LABYRINTHICI

Family 89. OPHICEPHALIDÆ

Fresh-water fishes of eastern and southeastern Asia, the Philippines, East Indies from Halmahera to the mainland, India, Ceylon, and tropical Africa.

Genus 233. *OPHICEPHALUS* Bloch. Snake-head; Murrell; Dalag; Aruan; Haruan; Aluan; Haluan; Bakule; Bulik; Talasog; Terebog; Anak dalag; Amanu.

Distribution as above for the family.

Ophicephalus Bloch, Naturges. Ausland. Fische, vol. 7, p. 137, 1793; type, *Ophicephalus punctatus* Bloch. Herre, Philippine Jour. Sci., vol. 24, p. 685, 1924.

Ophiocephalus Günther, Cat. Fishes British Mus., vol. 3, p. 468, 1861. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 313, 1922.

600. *Ophicephalus melasoma* Bleeker. Manu.

Sumatra, Banka, Borneo, Tonkin, Siam, and Balabac.

Ophicephalus melasoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 424, 1851; Borneo. Herre, Philippine Jour. Sci., vol. 24, p. 686, 1924; compiled after Weber and de Beaufort and Boulenger on Balabac specimens.

Ophiocephalus melanosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 214, 1856-57; Nias. Bleeker, *ibid.*, vol. 18, p. 368, 1859; Banka. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 1, 1860; Sumatra. Günther, Cat. Fishes British Mus., vol. 3, p. 473, 1861; Borneo. Bleeker, Atlas Ichth., vol. 9, pl. 399, fig. 4. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 186, 1895; Balabac Island. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 319, 1922; various localities in Sumatra and Borneo; Banka; "Palawan Archipelago"=Balabac.

Ophiocephalus rhodotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 425, 1851; Borneo.

Ophiocephalus rhodotaenia Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 47, 1879.

Ophiocephalus mystax Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 188, 1853; Banka.

Ophiocephalus mystax Volz, Revue Suisse Zool., vol. 12, p. 459, 1904, Sumatra.

601. *Ophicephalus striatus* Bloch.

Occurs in almost every Philippine stream, swamp, and bit of fresh water throughout the islands and has been planted in lakes up to an elevation of more than 1,000 meters. From the Philippines south to Halmahera, west to Ceylon and India.

Ophicephalus striatus Bloch, Naturges. Ausland. Fische, vol. 7, p. 141, pl. 359, 1793; East Indies. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 313, pls. 202 and 206, 1831; Manila, Luzon. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 782, 1905; Bais Oriental Negros Prov. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 103, 1907; the Philippines. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 507, 1907; Siasi, Sulu Province. Herre, Philippine Jour. Sci., vol. 24, p. 687, pl. 2, fig. 2, 1924; lakes and lowland rivers throughout the islands from Siasi northward to Aparri; Liguasan swamp, Cotabato Province. In fish markets from Ilokos Norte Province to Jolo, Sulu Province, Lake Sebu in southern Cotabato Province, and Lake Balinasayao, Negros Oriental Province, both at more than

1,000 meters altitude. Herre, Fishery Resources Philippine Islands, p. 39, pl. 32, fig. 2, 1927. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 297, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 47, 1930; the Philippines. "Manila Bay" is an error. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental province. Herre, Fishes Philippine 1931 Exped., p. 30, 1934; Rosales, Pangasinan Province; Magat River, Nueva Viscaya Province, altitude, 400 meters; Laguna de Bay, Luzon. Calapan, Mindoro; Dumaguete; Culion; Dansalan and Butig Lake, Lanao Province; Jolo, Sulu Province. Aurich, Zool. Anzeiger, vol. 112, p. 105, 1935; Pandin Lake, Central Luzon; Balut Lake, "South-West Mindoro." Herre, 1940 Philippine Exped.; Oriwong Tollgate, Nueva Vizcaya Province, Luzon; Hacienda Waterous, Mangarin, Mindoro; Wayan Creek and Barrio San Nicolas, Busuanga; Titunod River, near Kolambugan, Lanao Province, and San Ramon, Zamboanga Province, Mindanao.

Opiocephalus planiceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 425, 1831. Bleeker, Nat. Geneesk. Arch. Ned-Ind., vol. 2, p. 519, 1845.

Opiocephalus striatus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1074, 1850. Günther, Cat. Fishes British Mus., vol. 3, p. 474, 1861; Philippines; Ganges; Bengal; Madras; Pinang. Kner, Reise Novara-Exped., Fische, p. 234, 1867. Bleeker, Atlas Ichth., vol. 9, pl. 399, fig. 1, 1877. Day, Fishes India, p. 366, 1878. Smith, Bull. U. S. Fish Comm., vol. 21, p. 171, 1901; Lake Buhi, Camarines Sur Province, Luzon. Seale, Philippine Jour. Sci., vol. 3A, p. 516, 1908; the Philippines. Day, Philippine Jour. Sci., vol. 9D, pp. 19-55, 7 text figures, 1914; osseus system; the Philippines. Fowler, Copeia, No. 58, p. 64, 1918; the Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 69, 1922; Santa Maria, Zamboanga Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 317, 1922; numerous East Indian localities from Halmahera and Amboina to Sumatra and Pulo Weh; the Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 27, 1927; Cavite, Cavite Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 263, 1927; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 653, 1929; the Philippines.

Opiocephalus sowarah Bleeker, loc. cit., p. 519, 1845. Bleeker, Verh. Bat. Gen., vol. 25, p. 42, 1853; Bengal.

Opiocephalus maculatus Kner, Reise Novara, Zool., vol. 1, Fische, p. 234, 1865-1867; Manila, Luzon.

Opiocephalus vagus Peters, Monatsber. Akad. Wiss. Berlin, p. 261, 1868; Lake Bato and Lake Buhi, Camarines Sur Province, Luzon; Samar. Günther, Report Voy. Challenger, Zool., vol. 1, Part 6, Shore Fishes, p. 53, 1880; Manila, Luzon. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 33, 1885; Laguna de Bay, Laguna Province, Luzon.

Opiocephalus melanopterus Smith and Seale, Proc. Biol. Soc. Washington, vol. 29, p. 79, 1906; Rio Grande, Cotabato Province, Mindanao.

Family 90. ANABANTIDAE. Climbing perch

The Philippines, western and central East Indies, southeastern Asia, Ceylon, tropical and south Africa; fresh-water fishes.

Genus 234. ANABAS Cuvier.

Distribution as above.

Anabas Cuvier, Règne Animal, ed. 1, p. 339, 1817; type *Perca scandens* Daldorff, Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 333; 1922.

602. *Anabas testudineus* (Bloch). Climbing perch; Liwaló; Tinikan; Ararao; Gutan; Puyo; Puyo-puyo; Püt.

Anthias testudineus Bloch, Naturges Ausländ. Fische, vol. 7, p. 121, pl. 322, 1795. Type locality "Japan", which is, of course, an error as the fish does not occur in Japan; probably Java was meant.

Perca scandens Daldorff, Trans. Linn. Soc., vol. 3, p. 62, 1799; India.

Amphiprion testudineus Bloch and Schneider, Syst. Ichth., p. 304, 1801.

Amphiprion scansor Bloch and Schneider, *ibid.*, p. 570, 1801.

Lutjanus scandens Lacépède, *ibid.*, p. 239, 1803.

Sparus testudineus Shaw, General Zoology, vol. 4, p. 471, 1803.

Sparus scandens Shaw, *ibid.*, p. 475.

Anabas testudineus Cuvier, *Règne Animal*, ed. 1, vol. 2, p. 310, 1817. Peters, *Monatsber. Akad. Wiss. Berlin*, p. 259, 1868; Calumpit, Bulacan Province, Luzon; Tacloban, Leyte. Bleeker, *Atlas Ichth.*, vol. 9, pl. 395, fig. 2, 1877. Bleeker, *Verh. Akad. Amsterdam*, vol. 19, p. 7, 1879. Jordan and Seale, *Proc. U. S. Nat. Mus.*, vol. 28, p. 782, 1905; Bais, Oriental Negros, Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 262, 1908; Sibuyan I. Fowler, *Copeia*, No. 58, p. 64, 1918; the Philippines. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 334, fig. 86, 1922; about 80 East Indian localities; also the Philippines. Herre, *Philippine Jour. Sci.*, vol. 24, p. 694, pl. 2, fig. 1, 1924; slow streams, ponds, ditches, swamps, and lakes throughout the Islands, but not in the mountains; Lake Buluan and rivers of Cotabato Province, Mindanao; Lake Buhí, Camarines Sur Province, and Manila markets, Luzon. Herre, *ibid.*, vol. 34, p. 303, 1927; Lake Naujan, Mindoro. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 263, 1927; Vigan, Ilokos Sur Province; San Fernando, La Union Province; Orion, Bataan Province, all on Luzon. Fowler, *ibid.*, vol. 81, p. 657, 1929. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, *Fishes 1931 Philippine Exped.*, p. 30, 1934; Rosales, Pangasinan Province, Magallanes, Sorsogon Province, and Laguna de Bay, Luzon, Fort Pikit, Cotabato Province, Mindanao. Herre 1940-41 Exped.; Santa Maria River, Santa Maria, Laguna Province, Luzon; Hacienda Waterous, Mangarin, Mindoro.

Anabas scandens Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7, p. 249, 1831. Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, vol. 2, p. 519, 1845; Batavia, Java. Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1964, 1850. Bleeker, *Verh. Bat. Gen.*, vol. 23, *Bijdr. kennis visschen*, p. 8, 1850. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 375, 1861; the Philippines. Day, *Fishes India*, p. 370, 1878. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 33, 1885; Laguna de Bay, Luzon; also in error, Manila Bay, which is salt water. Smith, *Bull. U. S. Fish Comm.*, vol. 21, p. 170, 1901; Lake Buhí, Camarines Sur Province, Luzon.

Anabas spinosus Gray, *Illustrations Indian Zoology*, vol. 2, pl. 89, fig. 1, 1834.

Anabas variegatus Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 2, p. 220, 1851; Celebes; after a drawing.

Anabas oligolepis Bleeker, *ibid.*, vol. 8, p. 161, 1851; Bandjermasin, Borneo. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 376, 1861. Bleeker, *Atlas Ichth.*, vol. 9, pl. 395, fig. 5, 1877.

Anabas macrocephalus Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 7, p. 430, 1854; Java. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 376, 1861; the Philippines.

Anabas microcephalus Bleeker, *Act. Soc. Sci. Indo-Neerl.*, vol. 2, *Achtste Bijdr. vischfauna Amboina*, p. 58, 1857.

Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 26, 1907; Cavite, Cavite Province, Luzon. Smith and Seale, *Proc. Biol. Soc. Washington*, vol. 19, p. 79, 1906; Rio Grande, Cotabato Province, Mindanao.

Genus 235. OSPHRONEMUS Lacépède.

A single species, native to lowlands, rivers, and lakes of Borneo, Sumatra, and Malaya, and perhaps Java and Siam.

Osphronemus Lacépède *Hist. Nat. Poissons*, vol. 3, p. 116, 1802; type, *Osphronemus goramy* Lacépède. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 343, 1922.

Osphromenus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7, p. 377, 1831.

603. *Osphronemus goramy* Lacépède. Gurami.

Introduced into the Philippines and many other regions. Now occurs in three-fourths of the Philippine Provinces and is naturalized in numerous places, especially in the Bikol Provinces.

Osphronemus goramy Lacépède, *Hist. Nat. Poissons*, vol. 3, pp. 116, 117, pl. 8, fig. 2, 1802; Mauritius. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 344, fig. 89, 1922; many places in Sumatra, Java, and Borneo; Madura; also Siam, Ceylon, Penang, and Malacca. Herre, introduced into the Philippines in 1927; only popular articles in newspapers and magazines printed. Roxas and Umali,

Philippine Jour. Sci., vol. 63, pp. 435-442, 1937; distributed in 25 provinces on Luzon, Negros, Panay, Palawan, and Mindanao.

- Osphromenus olfa* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 377, 1831. Bleeker, Verh. Bat. Gen., vol. 22, p. 4, 1849; Madura. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1070, 1850; Pinang; Malacca. Günther, Cat. Fishes, vol. 3, p. 382, 1861; Pinang; Malay Peninsula; East Indies; Mauritius. Day, Fishes India, p. 372, 1878. Bleeker, Atlas Ichth., vol. 9, pls. 395 (fig. 6) and 396 (fig. 6), 1878.
- Osphromenus gourami* Regan, Proc. Zool. Soc. London, p. 774, 1909; Pinang.

Genus 236. TRICHOASTER Bloch and Schneider.

Four species in fresh water in the Malay Peninsula, Siam, Indo-China. Sumatra, Java, Bali, Borneo, the Philippines, and Bengal.

Trichogaster Bloch and Schneider, Syst. Ichth., p. 164, 1801; type, *Trichogaster fasciatus* Bloch and Schneider. Herre, Philippine Jour. Sci., vol. 24, p. 692, 1924.

Trichopodus Lacépède, Hist. Nat. Poissons, vol. 3, p. 129, 1802; type, *Trichopodus mentum* Lacépède. Regan, Proc. Zool. Soc. London, p. 783, 1910. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 365, 1922.

Trichopus Shaw, Gen. Zoology, vol. 4, p. 392, 1803; type, *Trichopus pallasi* Shaw=*Labrus trichopterus* Pallas. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 388, 1831.

604. *Trichogaster trichopterus* (Pallas).

Trichopodus trichopterus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 125 and 129, 1802. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1070, 1851. Bleeker, Versl. Akad. Amsterdam, vol. 19, Mem. Poissons pharyng. labyrinth., p. 21, 1879; in part. Regan, Proc. Zool. Soc. London, p. 783, 1910. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 366, fig. 93, 1922; 51 localities in Sumatra, Banka, Java, Madura, Bali, Borneo, and Singapore.

Trichopus trichopterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 290, pl. 199, 1831. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java. Bleeker, Atlas Ichth., vol. 9, pl. 395, fig. 4, 1877.

Trichopus sepat Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java.

Osphromenus trichopterus Günther, Cat. Fishes British Mus., vol. 3, p. 384, 1861.

Osphromenus siamensis Günther, *ibid.*, p. 385.

Trichopus siamensis Sauvage, Nouv. Arch. Mus., ser. 2, vol. 4, p. 166, 1881.

Osphromenus insulatus Seale, Philippine Jour. Sci., vol. 4A, p. 530, 1909; crater lake, Cagayan Sulu Island, Sulu Province.

Distribution that of the genus; introduced into the Philippines.

Labrus trichopterus Pallas, Spicilegia Zoologica, vol. 8, p. 45, 1777. Block, Naturges. Aüsländ. Fische, vol. 6, p. 23, 1792.

Trichogaster trichopterus Bloch and Schneider, Syst. Ichth., p. 165, 1801. Herre and Myers, Bull. Raffles Mus., No. 13, p. 73, 1937; Singapore; Ayer Hitam, Johore; Pahang, Malay Peninsula.

Trichogaster trichopterus Herre, Philippine Jour. Sci., vol. 24, p. 632, pl. 1, 1924; crater lake on Cagayan Sulu Island, Sulu Sea. Introduced from Borneo by the natives (personal statement by Alvin Seale, April, 1947). Aurich, Zool. Anzeiger, vol. 112, p. 107, 1935; Cagayan Sulu Island. Herre, Manila, July 1948; introduced from Siam by Dr. Eduardo Quisumbing, in 1938.

605. *Trichogaster pectoralis* (Regan). Siamese Guramy; Guraming Siam; Pla salit; Sipat Siam.

Siam and Indo-China; introduced into the Malay Peninsula and the Philippines.

Trichopodus pectoralis Regan, Proc. Zool. Soc. London, p. 784, pl. 79, fig. 1, 1910. Fowler, List Fishes Known from Malaya, p. 123, 1938; introduced at Singapore and Krian District, Perak.

Trichogaster pectoralis Herre, Manila and generally over central Luzon. Introduced by Dr. Eduardo Quisumbing from Bangkok, Siam, in 1938.

Trichopodus trichopterus Chevey, Poissons Campagnes de Lanessan, p. 65, plate 23, 1932; Indo-China; not of Pallas.

Order Y. PERCOMORPHI

Family 91. ATHERINIDÆ. Hardheads; Silversides; Pescados del Rey; Peixe Rey; Guno; Ti-i

See Jordan and Hubbs, Studies in Ichthyology, pp. 1-87, with 12 plates, Stanford University, 1919.

Genus 237. ATHERINA Linnaeus. Friars.

Marine fishes in schools, on tropical and temperate sea coasts, or in brackish water or some in fresh water. The Philippine species imperfectly known.

Atherina Linnaeus, Syst. Nat., ed. 10, p. 315, 1758; type, *Atherina hepsetus*; after Artedi. Jordan and Hubbs, Studies in Ichthyology, p. 35, 1919. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 268, 1922. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, pp. 48-49, 1930; records *Atherina stipes* from Cebu and *Atherina insularum* from the Philippines. An examination of the specimens is necessary to verify the identifications; *Hepsetia stipes* (Müller and Troschel) occurs in the Atlantic from Brazil to the tip of Florida and *Hepsetia insularum* (Jordan and Evermann) is apparently confined to the Hawaiian Islands. At least for the present, Borodin's records cannot be accepted.

606. *Atherina endrachtensis* Quoy and Gaimard.

The East Indies, Philippines, and Australia.

Atherina endrachtensis Quoy and Gaimard, Voy. Uranie, Zoologie, p. 334, 1824; Shark's Bay, Eendracht's Land=West Australia. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 456, 1835; New Guinea. Günther, Cat. Fishes British Museum, vol. 3, p. 401, 1861; after Cuvier and Valenciennes. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, vol. 16, p. 406, 1891. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 106, 1913; Waigiu. Fowler, Mem. Bishop Mus., vol. 10, p. 119, 1928; New Guinea. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Laguna de Bay, Laguna Province, and Atimonan, Tayabas Province, Luzon; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Si Amil Island, off coast of British North Borneo.

Atherina endrachtensis Weber, Siboga-Exped., vol. 57, Fische, p. 136, 1913. Weber, Zool. Mededeelingen Mus. Leiden, vol. 6, p. 47, Révision *Atherina*, 1921. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 270, 1922; Nias; Paternoster Islands; Sumbawa; Menado; Celebes; Biaru Island; Ceram; Banda; Dobo; Aru Islands; Waigiu. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 42, p. 135, 1926; Admiralty Islands.

607. *Atherina forskali* (Rüppell). Guno.

All over the tropical Indian Ocean and Western Pacific to Indo-China, the Philippines, and New Guinea.

Atherina forskalii Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 132, pl. 33, fig. 1, 1835; Djedda, Red Sea. Klunzinger, Fische Rothen Meeres, p. 130, pl. 11, fig. 3, 1884.

Atherina forskalii Weber, Siboga-Exped., vol. 57, Fische, p. 134, 1913.

Atherina forskalii Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1085, 1850. Day, Fishes India, p. 345, pl. 71, fig. 4, 1878. Jordan and Hubbs, Ann. Carnegie Mus., vol. 11, p. 462, pl. 46, 1917. Weber, Zool. Mededeelingen Mus. Leiden, vol. 6, Revision *Atherina*, p. 47, 1921. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 274, 1922; 32 East Indian localities, from Sumatra to New Guinea; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Cavite, Cavite Province, Luzon; Dumaguete. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Puerto Galera, Mindoro; Tambagaan Island, Sulu Province.

Atherina forskalii (?) Günther, Cat. Fishes British Mus., vol. 3, p. 397, 1861. (?) Seale, Philippine Jour. Sci., vol. 5D, p. 268, 1910; Sandakan, British North Borneo and the Philippines.

Atherina lacunosa Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 504, 1853; Sumatra; not of Forster. Evermann and Seale, Bull. U. S. Bur. Fisheries,

vol. 26, p. 59, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga and Mindanao.

Atherina pinguis Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860, Achtste Bijdr. vischfauna Sumatra, p. 84.

608. *Atherina temmincki* Bleeker.

The East Indies and Philippines.

Atherina temminckii Bleeker, Nat. Tijds. Ned-Ind., vol. 5, p. 506, 1853; Sumatra. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 41, 1860; Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; Ternate. Bleeker, *ibid.*, p. 271; Timor. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 135, 1913.

Atherina temmincki Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 774, 1905; Bais, Oriental Negros Province. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 59, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Seale, Philippine Jour. Sci., vol. 3A, p. 514, 1908; the Philippines. Jordan and Hubbs, Studies in Ichthyology, Review of Atherinidae, p. 41, 1919; East Indies and the Philippines. Weber, Zool. Mededeelingen Mus. Leiden, Révision *Atherina*, vol. 6, p. 52, 1921. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 269, 1922; 20 East Indian localities; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3; Sandakan, British North Borneo; p. 7, Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Dumaguete, Oriental Negros Province; Jolo and Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga; Dumaguete; Cagayan, Misamis Oriental Province, and Sangali, Zamboanga Province; Mindanao; Tambagaan Island, Sulu Province.

608b. *Atherina panatela* Jordan and Richardson.

Bul. U. S. Bur. Fisheries, vol. 27, p. 243, fig. 6, 1908; Calayan Island, Babuyan Islands, north of Luzon. Jordan and Hubbs, Stanford Univ. Pub., Review Atherinidae, p. 42, pl. 2, fig. 8, 1919; Philippines; Herre, 1948; Palawan; Sitankai.

Genus 238. HEPSETIA Bonaparte.

All tropical and warm temperate seacoasts or entering fresh water.

Philippine species are little known.

Hepsetia Bonaparte, Iconografia fauna italica, Tone 3, Pesce, fascicle 91, 1837; orthotype, *Atherina boyeri* Risso. Jordan and Hubbs, Stanford Univ. Pub., Review Atherinidae, p. 31, 1919.

Atherinomorus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 40, p. 730, 1904; orthotype, *Atherina laticeps* Poey=*Atherina stipes* Müller and Troschel.

609. *Hepsetia balabacensis* (Seale). Guno; Ti-i.

In fresh and salt water.

Atherina forskalii Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 59, 1907; Bacon and Bulan, Sorsogon Province, Luzon.

Atherina lacunosa Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 243, 1908; Iloilo, Panay; not of Forster.

Atherina balabacensis Seale, Philippine Jour. Sci., vol. 4A, p. 498, pl. 3, fig. 2, 1909; near mouth of small stream, Balabac Island, the Philippines. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Lake Bombon, Batangas Province, Luzon.

Hepsetia balabacensis Jordan and Hubbs, Stanford Univ. Pub., Review of Atherinidae, p. 34, 1919; the Philippines. Herre, Philippine Jour. Sci., vol. 34, p. 296, 1927; Lake Bombon, Batangas Province, Luzon. Herre, 1940-41 Exped.; San Carlos, Negros Occidental Province.

610. *Hepsetia duodecimalis* (Cuvier and Valenciennes).

The East Indies and Philippines, west to Ceylon.

Atherina duodecimalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 458, 1835; Ceylon. Bleeker, Nat. Tijds. Ned-Ind., vol. 2, p. 485, 1851; Riouw Arch. Günther, Cat. Fishes British Mus., vol. 3, p. 400, 1861; after Bleeker. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 406, 1891. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 136, 1913. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 105, 1913. Weber, Zool., Mededeelingen Mus. Leiden, vol. 6, Révision *Atherina*, p. 47, 1921. Weber and de Beaufort, Fishes Indo-

Australian Archipelago, vol. 4, p. 275, 1922; 35 East Indian localities. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 263; 1927; Santa Maria, Ilokos Sur Province, Orion, Bataan Province, and Bacon, Sorsogon Province, Luzon.

611. *Hepsetia lineata* (Günther).

A Philippine species.

Atherina lineata Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 398, 1872; Cebu, Philippines. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 32, 1885; Cebu, Cebu Province.

Hepsetia lineata Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Caron, Busuanga; Estancia, Iloilo Province, Panay; Murcielagos Bay, Misamis Occidental Province; Zamboanga; Bongao, Sulu Province.

612. *Hepsetia regina* (Seale). Guno.

Atherina regina Seale, Philippine Jour. Sci., vol. 4A, pl. 3, fig. 1, 1909; Culion Island. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Cebu, Cebu Province; Sitankai, Sulu Province.

Hepsetia regina Jordan and Hubbs, Studies in Ichthyology, Review of Atherinidae, p. 34, 1919; Culion and Busuanga Islands. Herre, 1940-41 Exped.; Yabot's Camp, on north coast of Busuanga.

Family 92. MUGILIDÆ. Mullet; Aguas; Araran; Banak; Balanak; Guisao; Lapes; Lodong; Lumitog; Pasga, Pili; Purong; Saranaa; Sisiao; Ugapang

Along sea coasts in estuaries, and in rivers and lakes of tropical and temperate regions.

Genus 239. MUGIL Linnaeus. Striped mullets.

Important food fish, usually in schools. Species numerous, some very widely distributed.

Mugil Linnaeus, Syst. Nat., ed. 10, p. 316, 1758; type, *Mugil cephalus* L.; after Artedi.

613. *Mugil banksi* Seale.

A Philippine mullet.

Mugil banksi Seale, Philippine Jour. Sci., vol. 4A, p. 501, pl. 5, 1909; Siquijor, Siquijor Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 31, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Okoi River near Dumaguete, Oriental Negros Province. Roxas, Philippine Jour. Sci., vol. 54, p. 421, pl. 1, fig. 11, and pl. 2, fig. 2, 1934; Siquijor Island; Ilokos Sur Province, Luzon; River near Cagayan, and Abulog, Misamis Province; Titunod River, near Kolambugan, Lanao Province, Mindanao.

614. *Mugil cephalus* Linnaeus. Common mullet; Striped mullet; Céfalo; Macho; Machuto; Lisa cabezula.

Atlantic, Pacific, and Indian Oceans, but very rare in the Philippines and East Indies.

Mugil cephalus Linnaeus, Syst. Nat., ed. 10, p. 316, 1758; "European Ocean"; after Artedi. Hamilton [né Buchanan]. Fishes Ganges, p. 119, 1822. Kittlitz, Denkw. Reise Mikronesien, vol. 2, p. 20, 1858; Ualan, Caroline Islands. Evermann and Jenkins, Proc. U. S. Nat. Mus., vol. 16, p. 136, 1892. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 244, 1908; Calayan Island, Babuyan Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 253, 1922; Java, Borneo, and New Guinea, in the East Indian region; Philippines. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 207, 1925; Japan; excessively common in markets. Fowler, Mem. Bishop Mus., vol. 10, p. 125, 1928; Hawaiian Islands; Guam; Marshall Islands. Roxas, Philippine Jour. Sci., vol. 54, p. 407, pl. 1, fig. 5, 1934; Ilokos Sur Province, Luzon; Honolulu; Hong Kong.

Mugil albulus Linnaeus, Syst. Nat., ed. 12, p. 520, 1766; Charleston, South Carolina. Snyder, Bull. U. S. Fish. Comm., vol. 22, p. 523, 1904; rivers of Kauai and Honolulu; off Molokai, Hawaiian Islands.

Mugil our Forskål, Descript. Animal., p. 74, 1775; Red Sea. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 131, 1835.

Mugil cephalotus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 110, 1836; Pondicherry, India. Kner, Reise Novara, Fische, p. 224,

1815; Manila, Luzon; Java. Eydoux and Souleyet, *Voy. Bonite*, Zool., vol. 1, p. 175, pl. 4, fig. 4, 1841; Hawaiian Islands. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 8, *Dertiende Bijdr. vischfauna Borneo*, p. 51, 1860. Bleeker, *Ned. Tijds. Dierk.*, vol. 4, p. 100, 1873; Réunion. Bleeker, *Verh. Akad. Amsterdam*, vol. 18, p. 2, 1879, *Poissons de Chine*. Günther, *Report Voy. Challenger*, Zool., vol. 1, Part 6, *Shore Fishes*, p. 33, 1880.

Mugil japonicus Schlegel, *Fauna Japonica, Pisces*, p. 134, pl. 72 (bad) 1846; Nagasaki. Bleeker, *Ned. Tijds. Dierk.*, vol. 4, p. 143, 1873.

Mugil macrolepidotus Richardson, *Ichth. China and Japan*, p. 249, 1846.

Mugil dobula Günther, *Cat. Fishes British Mus.*, vol. 3, p. 420, with text fig. 1861; Perth, West Australia; fresh waters of Aneiteum. Günther, *Fische de Südsee*, vol. 2, pl. 120, fig. A, and text figure, 1877; Aneiteum; Hawaiian Islands.

Mugil ocur Klunzinger, *Abh. zool.-bot. Gesell. Wien*, vol. 20, p. 829, 1870. Day, *Fishes India*, p. 353, 1878. Rutter, *Proc. Acad. Nat. Sci. Phila.*, p. 70, 1897; Swatow, China.

Mugil our Jordan and Snyder, *Proc. U. S. Nat. Mus.*, vol. 23, p. 744, 1901.

? *Mugil cephalus* Seale, *Philippine Jour. Sci.*, vol. 3A, p. 517, 1908; the Philippines. The statement, "very common throughout the entire Archipelago," cannot apply to *M. cephalus*.

615. *Mugil cunnesius* Cuvier and Valenciennes.

From the Red Sea to the East Indies, Indo-China, the Philippines, and New Guinea, south to Queensland. In the sea and in rivers.

Mugil cunnesius Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 11, p. 114, 1836; Moluccas; Bombay and Vizagapatam, India. Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1082, 1850. Günther, *Cat. Fishes*, vol. 3, p. 434, 1861; Malayan Peninsula; Amboyna; not of Bleeker; Klunzinger, *Fische Rothen Meeres*, p. 132, 1884; not of Rüppell, nor of Klunzinger, *Abh. zool.-bot. Gesell. Wien*, vol. 20, p. 830, 1870. Ogilby, *Ann. Queensland Mus.*, No. 9, p. 26, 1908; Queensland, Australia. Regan, *Trans. Zool. Soc. London*, vol. 20, p. 276, 1914; Mimiki River, New Guinea. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 242, 1922; Singapore; Dutch South New Guinea. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 123, 1928; Mimiki River, New Guinea. Herre, 1936-37 *Exped.*: Pinang; 1940-41 *Exped.*: Agno River, Pangasinan Province, Luzon.

616. *Mugil dussumieri* Cuvier and Valenciennes. Thicklipped mullet; Aligasin; Aliso; Aguas; Banak; Balanak; Tallong.

The Philippines and East Indies, west to Ceylon and India, southward to Australia. The commonest Philippine mullet.

Mugil dussumieri Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 11, p. 109, 1836; Bombay and Coromandel, India. Bleeker, *Jour. Indian Archipelago*, vol. 2, no. 9, p. 637, 1848; Sumbawa. Weber, *Nova Guinea, Zool.*, vol. 5, p. 243, 1908.

Mugil dussumieri Day, *Fishes India*, p. 352, 1878. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 235, 1922; 31 East Indian localities; the Philippines. Herre, *Philippine Jour. Sci.*, vol. 34, p. 303, 1927; Lake Naujan, Mindoro. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 263, 1927; Orani, Bataan Province, Luzon, Philippines. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 122, 1928; New Guinea. Herre, *Philippine Jour. Sci.*, vol. 38, p. 495, 1929; bangos ponds in the Philippines, especially in Bataan, Bulacan, Pampanga, and Rizal Provinces. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, 1933; p. 3; Sandakan, British North Borneo; p. 7, Dumaguete, Negros Oriental Province. Herre, *Fishes*, 1931 *Philippine Exped.*, p. 31, 1934; Bauang Sur, La Union Province; Laguna de Bay; Lake Bombon, Batangas Province, and Capag, Tayabas Province, Luzon; Culion; Cebu, Cebu Province; Dumaguete; Cotabato, Cotabato Province, Mindanao. Roxas, *Philippine Jour. Sci.*, vol. 54, p. 401, pl. 1, fig. 2, 1934; Agno River, and Alaminos, Pangasinan Province; Guagua, Pampanga Province; Bulacan, Bulacan Province; Manila markets; Manila Bay; Montalban River and Pasig River, Rizal Province; Sitio Balat, Pilar, Bataan Province; Lake Bombon, Batangas Province; Bicol River near Lake Bato, Camarines Sur Province; Arimbay River, Albay and Sitio Puru, Legaspi, Albay Province; Bacon, Sorsogon Province—all preceding on Luzon. Lake Naujan and Butas, Naujan River, also

Puerto Galera Bay, Mindoro. Dumaguete River, Negros Oriental Province; Sibuyan Island; Guinlo, Palawan Province; Gulf of Davao, Mindanao. Fowler, Hong Kong Nat., vol. 6, p. 142, fig. 55, 1935; Hainan and Canton; the Philippines; India; Ceylon; Andaman Islands; Malaya; East Indies; Queensland; New South Wales. Umali, Edible Fishes Manila, p. 91, fig. 52, 1936; from fish ponds around Manila Bay. Herre, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Kinubutan and Kabili Rivers, British North Borneo. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937; Balayan Bay, Batangas Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Hacienda Waterous, Mangarin, Mindoro.

Mugil sundanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 265, 1853; Sumatra. Bleeker, *ibid.*, vol. 16, p. 276, 1858-59. Günther, Cat. Fishes British Mus., vol. 3, p. 425, 1861; after Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, pp. 7 and 32, 1885; Laguna de Bay, Luzon. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur., Fish., vol. 26, p. 59, 1907; Bacon, Sorsogon Province, Luzon. *Mugil Meyeri* Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 9, p. 439, 1872; Laguna de Bay, Luzon; Makassar, Celebes. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, pp. 7 and 32, 1885; Laguna de Bay, Luzon. *Mugil lepidopterus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 9, fig. 4, 1918; the Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 402, 1934; after Fowler.

617. *Mugil engeli* Bleeker.

An East Indian and Philippine species; marine.

Mugil Engeli Bleeker, Nat. Tijds. Ned.-Ind., vol. 16, p. 277, 1858-59; Batavia, Java. Bleeker, *ibid.*, vol. 17, p. 147, 1858-59; Bali. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 78, 1860; Sumatra. Günther, Cat. Fishes British Mus., vol. 3, p. 430, 1861; coasts of Sumatra, Java, Bali; after Bleeker.

Mugil Engeli Weber and de Beaufort, Fishes Indo-Australia Archipalego, vol. 4, p. 238, 1922; Pulu Weh; Sumatra; Simalur; Nias; Java; Bali. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 263, 1927; Philippines. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Nasugbu, Batangas Province, and Unisan, Tayabas Province, Luzon; Capiz, Capiz Province. Roxas, Philippine Jour. Sci., vol. 54, p. 404, pl. 1, fig. 1, 1934; Calapan, Mindoro; Bantayan, Cebu Province, Parañaque, Rizal Province, Luzon; not synonymy. Herre, 1936-37 and 1940-41 Exped.; Manila Bay; Dagat-Dagatan Fisheries Station, Rizal Province; Nasugbu, and the mouth of the Pansipit River, Batangas Province, Luzon.

Liza labiosa Fowler, Copeia, No. 58, p. 62, 1918; the Philippines.

618. *Mugil kelaarti* Günther.

Widely distributed in the tropical Indian and Pacific Oceans. In the sea and in river mouths.

Mugil kelaarti Günther, Cat. Fishes British Mus. vol. 3, p. 429, 1861. Day, Fishes India, p. 352, 1878. Günther, Fische der Südsee, vol. 2, p. 215, pl. 121, fig. A, 1881; Tahiti and Raiatea. Herre, Fishes 1931 Philippine Exped., p. 31, 1934; Cotabato market, Cotabato Province, Mindanao.

619. *Mugil longimanus* Günther. Tabilong.

The East Indies, Philippines, south to Australia, and west to India. Marine and entering rivers.

Mugil longimanus Günther, Cat. Fishes British Mus., vol. 3, p. 428, 1861; East Indies. Steindachner, Denks. Akad. Wien, vol. 41, p. 5, 1879; Queensland, Australia. Macleay, Proc. Linn. Soc. New South Wales, vol. 9, p. 41, 1884; Australia. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 10, 1907; Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 239, 1922; 21 East Indian localities; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 123, 1928; Christmas and Palmyra Islands. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Manila and Nasugbu, Batangas Province, Luzon; Alabat Island; La Paz, Iloilo Province, Panay. Roxas, Philippine Jour. Sci., vol. 54, p. 405, pl. 1, fig. 3, 1934;

Agno River, Pangasinan Province; Subic, Zambales Province; Guagua, Pampanga Province; Malabon and Parañaque, Rizal Province—all on Luzon; Mangarin, Mindoro; Bato and Carigara, Leyte; Iloilo, Iloilo Province, Panay; Guimaras Strait, between Panay and Guimaras Islands; Cagayan, Misamis Oriental Province; Agusan River, Agusan Province; Davao, Davao Province, Mindanao. Fowler, Hong Kong Naturalist, vol. 6, p. 140, 1935; Hong Kong; the Philippines; Portuguese East Africa; India; Malaya; East Indies; Queensland; Polynesia. Herre, 1936-37 and 1940-41 Expeds.: Manila Bay; Miagao, Iloilo Province, Panay; Kabili River, British North Borneo.

620. *Mugil strongylocephalus* Richardson.

China and the Philippines, Sumatra (?) ; in salt and brackish water. *Mugil strongylocephalus* Richardson, Ichth. China, Japan, p. 249, 1846; Sea of China; Hong Kong. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860; Achtste Bijdr. vischfauna Sumatra, p. 81, 1860; record dubious. Günther, Cat. Fishes British Mus., vol. 3, p. 425, text figures, 1861; Chinese Sea; Hong Kong. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 143, 1873; Hong Kong. Sauvage, Bull. Soc. Philom. Paris, ser. 5, vol. 7, p. 106, 1881; Swatow. Rutter, Proc. Acad. Nat. Sci. Phila., p. 70, 1897; Swatow; copied. Herre, Exped. 1933-34; Heung Chau, Kwangtung Province, China. Fowler, Hong Kong Naturalist, vol. 6, p. 139, 1935; Hong Kong. Herre, Philippine Jour. Sci., vol. 59, p. 365, 1936; coast of La Union Province, northern Luzon.

621. *Mugil subviridis* Cuvier and Valenciennes.

The East Indies and Philippines, west to India, south to Queensland, Australia. In the sea and in rivers.

Mugil subviridis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 115, 1836; Malabar, India. Günther, Cat. Fishes British Mus. vol. 3, p. 423, 1861. Day, Fishes Malabar, p. 138, 1865. Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 64, 1867. Day, Fishes India, p. 353, 1878. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 107, 1913. Weber, *Siboga*-Exped., vol. 57, Fische, p. 138, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 243, 1922; Lombok; Buru; Makassar, Celebes; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 264, 1927; Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 408, 1934; on Weber and de Beaufort. *Mugil ruthveni* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 3, fig. 1, 1918; the Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 409, 1934; on Fowler.

Mugil philippinus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 7, fig. 3, 1918; the Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 409, 1934; on Fowler.

622. *Mugil tade* (Forskål).

Tropical Indo-Pacific, from the Red Sea to the Philippines, China, Guam, and Australia. Marine, and entering rivers.

Mugil crenilabis tade Forskål, Descript. Animal., p. 74, 1775; Arabia.

Mugil planiceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 122, 1836; Calcutta, India. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Ichth. Fauna Bengalen, p. 101. Günther, Cat. Fishes British Mus., vol. 3, p. 428, 1861. Day, Fishes India, p. 350, 1878. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 59, 1907; Bulan, Sorsogon Province, Luzon.

Mugil bontah Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 336, 1857; Java. Bleeker, *ibid.*, vol. 16, p. 278, 1858-59.

Mugil belanak Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 337, 1857; Java. Günther, Cat. Fishes British Mus., vol. 3, p. 427, 1861; after Bleeker. Day, Fishes India, p. 351, 1878. Seale, Philippine Jour. Sci., vol. 5D, p. 268, 1910; Sandakan, British North Borneo. Weber, Nova Guinea, Zool., vol. 9, Part 4, p. 569, 1913; Moso, in Tami Basin, North New Guinea.

Mugil tade Klunzinger, Abh. zool.-bot. Gesell. Wien. vol. 20, p. 828, 1870. Macleay, Proc. Linn. Soc. New South Wales, vol. 9, p. 40, 1884. Day, Fishes British India, vol. 2, p. 344, 1889. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 236, 1922; 24 East Indian localities; also the Philippines and many other localities. Fowler, Mem. Bishop Mus., vol. 10, p. 122, fig. 26, 1928; Apiang, Gilbert Islands; Guam. Herre, Fishes 1931 Philippine Exped., p. 32, 1934, Bauang Sur,

La Union Province, Luzon. Roxas, Philippine Jour. Sci., vol. 54, p. 403, 1934; on Weber and de Beaufort. Fowler, Hong Kong Nat., vol. 6, p. 139, 1935; China; Amoy; Hong Kong; the Philippines; also localities from the Red Sea to Polynesia.

Genus 240. LIZA Jordan and Swain.

Liza Jordan and Swain, Proc. U. S. Nat. Mus., vol. 7, p. 261, 1884; orthotype, *Mugil capito* Cuvier.

623. Liza amarula (Cuvier and Valenciennes).

India and the Philippines; marine.

Mugil amarulus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 133, 1836. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Ichth. Fauna Bengalen, p. 48. Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 400, 1855; Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 80, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Borneo, p. 47. Day, Fishes India, p. 356, 1878. Roxas, Philippine Jour. Sci., vol. 54, p. 419, 1934; Cavite, Cavite Province, Luzon; Zamboanga, Mindanao.

Liza amarula Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao.

624. Liza caeruleo-maculata (Lacépède). Banak.

From Madagascar and Zanzibar to the Philippines and New Guinea; in the sea, rivers, and lakes.

Mugil caeruleo-maculatus Lacépède, Hist. Nat. Poissons, vol. 5, p. 385 and 389, 1803; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 11, p. 128, 1836. Günther, Cat. Fishes British Mus., vol. 3, p. 445, 1861; Mauritius; East Indian Archipelago. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 398, 1891. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 250, 1922; 29 East Indian localities; the Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 416, 1934; Paombong and Obando, Bulacan Province; Manila Bay and Manila market, Luzon; Mangarin, Mindoro; Culion; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay; Polo Plantation, Oriental Negros Province; Bario Buguey, Cagayan, Misamis Oriental Province, Mindanao. Villadolid, Philippine Jour. Sci., vol. 63, 1937; p. 203, Pansipit River; p. 216, Balayan Bay, Batangas Province, Luzon.

Mugil caeruleomaculatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 484, 1851; Riouw. Bleeker, *ibid.*, vol. 16, p. 279, 1858-59.

Liza caeruleomaculatus Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 268, 1910; Sandakan, British North Borneo; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, 1936-37 Exped.; Sandakan, British North Borneo; Singapore.

625. Liza ceramensis (Bleeker). Aligasin.

The East Indies and Philippines, north to China, west to Ceylon. In the sea and entering rivers and lakes.

Mugil ceramensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 699, 1852; Ceram. Bleeker, *ibid.*, vol. 12, p. 274, 1856-57; Tobali, Banka Island. Bleeker, *ibid.*, vol. 13, p. 372, 1857; Sangir Islands. Bleeker, *ibid.*, vol. 16, p. 277, 1858-59. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Borneo, p. 48, 1860. Günther, Cat. Fishes British Mus., vol. 3, p. 449, 1861; after Bleeker. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Cavite, Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 247, 1922; Sumatra; Banka; Java; Borneo; Celebes; Salayer; Timor; Amboina; Buru; Nusa Laut; Ceram; Jobia; Sangir Islands; Ceylon; China; the Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 411, pl. 11, fig. 3, 1934; Malampaya Sound, Palawan. Fowler, Hong Kong Nat., vol. 6, p. 141, 1935; China; Ceylon; East Indies; the Philippines. Villadolid, Philippine Jour. Sci., vol. 63, 1937; p. 203, Pansipit River, and pp. 216-217, Balayan Bay, Batangas Province, Luzon. Herre, 1940-41 Exped.; Coron, Busuanga Island.

626. Liza crenilabis (Forskål).

In the tropical Indo-Pacific, from the Red Sea to Japan, the Marshall Islands, and the Tuamotu Archipelago.

Mugil crenilabris Kner, *Novara* Exped., Fische, p. 228, 1865-67. Day, Fishes India, p. 355, 1878. Günther, Fische der Südsee, vol. 2, p. 219, pl. 122, fig. A, 1881; Gilbert Islands; Society Islands; Paumotus; Ponapé. Roxas, Philippine Jour. Sci., vol. 54, p. 419, pl. 1, fig. 4, 1934; Lumbucan, a small island in the Sulu Sea, east of Balabac Island.

Mugil crenilabris Forskål, *Descript. Animal.*, p. 73, 1775; Red Sea. Rüppell, *Neue Wirbelt.*, Fische Rothen Meeres, p. 132, 1835. Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 11, p. 129, 1836. Günther, *Cat. Fishes British Mus.* vol. 3, p. 458, 1861; Red Sea. Klunzinger, *Abh. zool.-bot. Gesell. Wien*, vol. 20, p. 826, 1870. De Beaufort, *Bijdr. Dierk. Amsterdam*, vol. 19, p. 108, 1913; Saonek, Waigiu. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 256, 1922; Saonek, Waigiu. Fowler and Bean, *Proc. U. S. Nat. Mus.*, vol. 71, p. 14, 1927; Tahiti. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 126, 1928; Raiatea and Tahiti, Society Islands; Faté, New Hebrides; Christmas Island; Jaluit; Guam; Apiang, Gilbert Islands; Makemo, Tuamotu Islands.

Querimana crenilabris Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 218, 1906.

Liza crenilabris Kendall and Goldsborough, *Mem. Mus. Comp. Zool.*, vol. 26, p. 258, 1911; Guam; Makemo (Paumotus), Tuamotus; Jaluit, Marshall Islands.

627. *Liza joloensis* (Seale).

A Philippine species.

Mugil joloensis Seale, *Philippine Jour. Sci.*, vol. 4A, p. 500, pl. 4, 1909; Jolo, Sulu Province. Roxas, *Philippine Jour. Sci.*, vol. 54, p. 421, 1934; after Seale.

628. *Liza labiosa* (Cuvier and Valenciennes). Lulung.

From the Red Sea to the East Indies and Philippines.

Mugil labiosus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 11, p. 125, 1836; Red Sea. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 6, p. 213, 1854; Timor. Bleeker, *ibid.*, vol. 16, p. 278, 1858-59. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 8; Achtste Bijdr. vischrauna Sumatra, p. 33, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Borneo, p. 55. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 454, 1861; Red Sea; coasts of Timor and Sumatra. Klunzinger, *Abh. zool.-bot. Gesell. Wien*, vol. 20, p. 830, 1870. Day, *Fishes India*, p. 357, 1878. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 140, 1913; Biaru Island; Lirung, Salibabu Island. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 4, p. 259, 1922; Simalur; Sumatra; Timor; Amboina; Biaru; Salibabu. Duncker and Mohr, *Mitt. Zool. Mus. Hamburg*, vol. 42, p. 130, 1926; New Pomerania. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 264, 1927; Philippines. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 126, 1928. Roxas, *Philippine Jour. Sci.*, vol. 54, p. 422, 1934; on Weber and de Beaufort, and Fowler.

Liza labiosa Fowler, *Copeia*, No. 58, p. 62, 1918; the Philippines.

629. *Liza macrolepis* (Smith). Aguas.

From East Africa and Madagascar to China, Japan, the Marshall and Tuamotu Islands; in the sea, and in rivers and lakes.

Mugil macrolepis Smith, *Illustrations Zoology South Africa*, vol. 4, pl. 28, fig. 2, 1849; no pagination; rivers and fresh-water lakes of South Africa. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 124, 1928; Kusaie; Vavau; Tonga; Ewa; Ponapé; Jaluit; Apia and PagoPago; Samoa; Suva; Fiji; Guam; Makemo; Aitutaki; BoraBora. Roxas, *Philippine Jour. Sci.*, vol. 54, p. 415, pl. 1, fig. 6, 1934; Bangued, Abra Province; Malabon, Rizal Province; Pansipit River, Batangas Province; Luzon. Puerto Galera and Mangarin, Mindoro; Guinobatan, Masbate; Lazi, Siquijor Island; Gingoog, Misamis Province, and Dapitan, Zamboanga Province, Mindanao; Bongao, Sulu Province. Fowler, *Hong Kong Nat.*, vol. 6, p. 144, 1935; Swatow; Hong Kong; Shanghai; the Philippines and 12 localities from South Africa to Japan, Micronesia, and Polynesia. Villadolid, *Philippine Jour. Sci.*, vol. 63, 1937; p. 203, Lake Bombon or Taal, and p. 216, Balayan Bay, Batangas Province, Luzon. *Mugil Troschelii* Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 16, p. 277, 1858-59; Java. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 8, Achtste Bijdr. visch-

- fauna Sumatra, p. 80, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Borneo, p. 15. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Celebes, p. 41.
- Mugil troschelii* Günther, Cat. Fishes British Mus., vol. 3, p. 448, 1861; Ceylon; Borneo. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 17, 1922; Cebu, Cebu Province.
- Mugil troschellii* Day, Fishes India, p. 358, 1878.
- Liza troscheli* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 217, 1906; Apia and PagoPago, Samoa. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 76, 1906; Rio Grande, Cotabato Province, Mindanao. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 506, fig. 1, 1906; Manila, Luzon. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 244, 1908; Aparri, Cagayan Province, Luzon; Lubang Island; Iloilo, Iloilo Province, Panay. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 296, Lake Bombon, Batangas, Province, Luzon, and p. 303, Lake Naujan, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Bauang Sur, La Union Province, and Batangas Bay, Luzon; Culion; Dumaguete; Jolo and Sitankai, Sulu Province.
- Mugil troscheli* Weber and de Beaufort, Fishes Ind.-Australian Arch., vol. 4, p. 248, 1922; numerous East Indian localities, also Philippines.
- Liza macrolepis* Herre, 1940-41 Exped.; Nasugbu, and mouth of the Pansipit River, Batangas Province, Luzon; Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay; Cebu, Cebu Province; Dumaguete, Oriental Negros Province; Kolambugan, Lanao Province, Mindanao.
630. *Liza melinoptera* (Cuvier and Valenciennes). Banak; Tallong. Occurring from the Philippines to the Samoan and Tonga Islands. In the sea and entering rivers and lakes.
- Mugil melinopterus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 146, pl. 313, 1836; Vanicolo. Günther, Cat. Fishes British Mus., vol. 3, p. 452, 1861. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 246, 1922; Sinabang Bay, Simalur Island, East Indies. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 42, p. 130, 1926; Hansa Bay, New Guinea. Roxas, Philippine Jour. Sci., vol. 54, p. 413, pl. 1, fig. 7, 1934; Bangui, Ilokos Norte Province, Luzon; Cagayan, Misamis Oriental Province, Davao and Samal, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Simunul Island (not Simonor), Sulu Province. Umali, Edible Fishes Manila, p. 91, fig. 51, 1936; from fish ponds about Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, 1937; p. 203, Lake Bombon or Taal and Pansipit River; p. 216, Balayan Bay, Batangas Province, Luzon.
- Mugil melanopterus* Günther, Fische der Südsee, vol. 2, p. 218, 1881; Tonga.
- Liza melinoptera* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 217, 1906; Apia and PagoPago, Samoa. Herre, Philippine Jour. Sci., vol. 34, p. 296, 1927; Lake Bombon, Batangas Province, Luzon. Herre, Jour. Pan. Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Polo Plantation, near Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province. Herre, 1940-41 Exped.; Magat River at Bayombong, Nueva Vizcaya Province, Luzon; Coron, Busuanga; Old Ayukitan, Oriental Negros Province; Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao.
631. *Liza oligolepis* (Bleeker). Western Pacific and Indian Oceans; in the sea in brackish water, and in rivers.
- Mugil oligolepis* Bleeker, Nat. Tijds.Ned.-Ind., vol. 16 p. 275, 1858-59. Bleeker, *ibid.*, vol. 19, p. 437, 1859; Sumbawa. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Borneo, p. 40, 1860. Günther, Cat. Fishes British Mus., vol. 3, p. 449, 1861, after Bleeker. Day, Fishes India, p. 358, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 245, 1922; south and west Borneo, in rivers; Sumbawa, in the sea; north Celebes, Malacca, and Muar

River, Malaya; the Philippines; Saigon, Indo-China; sea and estuaries of India; brackish water, Seychelles. Roxas, Philippine Jour. Sci., vol. 54, p. 413, 1934; compiled.

Liza oligolepis Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 244, 1908; Iloilo, Iloilo Province, Panay. Herre, 1933 Exped.; Dumaguete, Oriental Negros Province.

632. *Liza seheli* (Forskål). Lodong.

From the Red Sea and east coast of Africa and throughout the East Indies and Philippines to China, the Carolines, Fiji and Samoa. In salt, brackish, and fresh water.

Mugil crenilabis seheli Forskål, Descript. Animal., p. 73, 1775; Lohaja, Red Sea.

Mugil seheli Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 113, 1836. Klunzinger, Abh. zool.-bot. Gesell. Wien, vol. 20, p. 827, 1870. Day, Fishes India, p. 355, 1878. Weber, *Siboga*-Exped., vol. 57, Fische, p. 140, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 252, 1922; 27 East Indian localities. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 42, p. 131, 1926; Saha, Admiralty Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 264, 1927; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 125, 1928; Guam; Shortland Island, Solomon Islands; Kusaie; Apia, Samoa; Vavau, Tonga; Neven; Tongatabu, Tonga Islands; Suva, Fiji. Roxas, Philippine Jour. Sci., vol. 54, p. 417, pl. 1, fig. 10, 1934; Ilokos Sur Province, Luzon; Panacan, Palawan; San Juan, Siquijor Island; Davao Gulf, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Tubigan (not Tibingan as printed) Island, Sulu Province. Fowler, Hong Kong Nat., vol. 6, p. 143, 1935; Canton, Amoy, Pei Ho, Shanghai; the Philippines; also 15 localities from the Red Sea to Polynesia. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon.

Mugil cylindricus Bleeker, Verh. Bat. Gen., vol. 23, Bijdr. Ichth. Fauna Java, p. 9, 1850. Bleeker, Nat. Tijds Ned.-Ind., vol. 4, p. 266, 1853; Sumatra.

Mugil borbonicus Bleeker, *ibid.*, vol. 16, p. 279, 1858-59; not of Cuvier and Valenciennes and not of Cantor.

Mugil axillaris Bleeker, Nat. Tijds. Ned.-Ind., vol. 16, p. 280, 1858-59. Bleeker, *ibid.*, vol. 17, p. 147, 1858-59; Bali. Günther, Cat. Fishes British Mus. vol. 3, p. 444, 1861; after Bleeker; New Guinea; Mauritius. Seale, Occas. Papers Bishop Mus., vol. 1, p. 66, 1901; Guam.

Mugil bleekeri Günther, Cat. Fishes British Mus., vol. 3, p. 445, 1861; rivers of Banka; after Bleeker. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 107, 1913; Saonek, Waigiui.

Mugil decemradiatus Günther, Cat. Fishes British Mus., vol. 3, p. 452, 1861; on *M. parsia* Bleeker=*M. axillaris* Bleeker.

Liza seheli Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes, 1931 Philippine Exped., p. 32, 1934; Lemery and Nasugbu, Batangas Province, Luzon; Cullion; Cebu, Cebu Province; Dumaguete, Negros Oriental Province. Herre, 1940-41 Exped.; mouth of Pansipit River, Batangas Province, Luzon; Puerto Galera, Mindoro; Estancia, Iloilo Province, Panay; Dumaguete; Bongao, Sulu Province.

633. *Liza vaigiensis* (Quoy and Gaimard). Large-scaled mullet; Black-finned mullet; Aguas; Banak; Talilong; Ugapang.

Occurs in the sea and rivers from the east coast of Africa to the East Indies, China, throughout the Philippines, east to the Marshall and Tuamotu Islands, south to Australia.

Mugil vaigiensis Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 337, pl. 59, fig. 2, 1825; Waigiui. Bleeker, Nat. Tijds Ned.-Ind., vol. 16, p. 276, 1858-59. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Borneo, pp. 32-43, 1860. De Beaufort, Bijdr. Dierk. Amsterdam, p. 107, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 244, 1922; 30 East Indian localities; the Philippines and many other places. Duncker and Mohr, Mitt. Naturh. Mus. Hamburg, vol. 42, p. 131, figs. 4-5, 1926; Admiralty Islands; several places in New Pomerania; Friedrich Wilhelm Harbor, New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 124, fig. 27, 1928;

Guam; Marshall Islands; Gilbert Islands; Suva, Fiji; Faté, New Hebrides; Tonga Islands; Society Islands; Tuamotu Archipelago. Roxas, Philippine Jour. Sci., vol. 54, p. 410, 1934; Paombong, Bulacan Province, Luzon; Calapan and Puerto Galera, Mindoro; Cabalian, Leyte; Panay, Capiz Province, Panay; Busuanga, Busuanga Island; Guinlo and Puerto Princesa, Palawan; Balabac Island; Lumbucan Island, in the Sulu Sea east of Balabac; Zamboanga, Zamboanga Province, Mindanao; Tubigan and Sibutu Island, Sulu Province; also Sandakan, British North Borneo. Fowler, Hong Kong Nat., vol. 6, p. 145, 1935; China; the Philippines; Red Sea; Portuguese East Africa; Natal; India; Andaman Islands; Malaya; East Indies, Queensland; New South Wales; Melanesia; Micronesia; Polynesia. Umali, Edible Fishes Manila, p. 89, fig. 49, 1936; Manila Bay and fish ponds about it; Tayabas Province; Luzon. Villadolid, Philippine Jour. Sci., vol. 63, 1937; p. 203, Pansipit River, and Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.

Mugil macrolepidotus Rüppell, Atlas Reise, Nördl. Afrika, Fische Rothen Meeres, p. 140, 1828; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 134, 1836; Waigiü; BoraBora; Vanicolo. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 54, 1845; Java.

Mugil melanochir (Koch and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 143, 1836, Java; Guam. Bleeker, Verh. Bat. Gen., vol. 23, 1850; Bijdr. Ichth. Fauna Java, p. 9. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 423, 1852; Borneo. Bleeker, *ibid.*, p. 445; Banka.

Mugil Rossii Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 45, 1854; Cocos Island.

Mugil waigiensis Peters, Monatsber. Akad. Wiss. Berlin, p. 842, 1877; Bougainville Island, Solomon Islands. Günther, Fische der Südsee, vol. 2, p. 216, pl. 121, fig. B, 1876-81; Tahiti, Society Islands. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 401, 1891.

Liza waigiensis Seale, Occas. Papers Bishop Mus., vol. 4, p. 15, 1906; Mangareva Island, Tuamotu Islands; Faté, New Hebrides; Shortland Island, Solomon Islands; Raiatea, Society Islands; Rarotonga, Cook Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 240, 1907; Zamboanga, Mindanao.

Liza waigiensis Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 257, 1911; Suva, Fiji; Funafuti, Ellice Islands; Marshall Islands; Moen, Truk Group, Caroline Islands; Makemo and Rangiroa, Tuamotu Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 264, 1927; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Curimao, Ilokos Norte Province, Luzon; Sitankai, Sulu Province; common on every sandy beach throughout. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Panay; Sibutu, Sibutu Island, Sulu Province.

Mugil Rossi Weber, *Siboga*-Exped., vol. 57, Fische, p. 138, 1913.

Mugil ogilbyi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 5, fig. 2, 1918; Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 412, 1934; after Fowler.

Genus 241. *CESTRAEUS* Cuvier and Valenciennes.

In the sea and in rivers in the East Indies, the Philippines, New Hebrides, New Caledonia, and Fiji.

Cestraeus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 156, 1836; type, *Cestraeus plicatilis* Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, 260, 1922.

Agonostoma Günther, Cat. Fishes British Mus., vol. 3, p. 461, 1861; pro parte; not *Agonostomus* Bennett.

Aeschrithys Macleay, Proc. Linn. Soc. New South Wales, vol. 8, pp. 5 and 270, 1884; orthotype, *Aeschrithys goldiei* Macleay.

634. *Cestraeus goldiei* (Macleay).

The East Indies and Philippines, south to New Caledonia; in fresh water. *Aeschrithys Goldiei* Macleay, Proc. Linn. Soc. New South Wales, vol. 8, pp. 5 and 270, figs. 1-2, 1884; Goldie River, New Guinea.

Aeschrithys goldiei Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 244, 1907; Baco River, Mindoro, according to R. C. McGregor, collector.

Cestraeus goldiei Weber and de Beaufort, in Nova Caledonia, Zoologie, vol. 2, p. 26, fig. 2, 1915; Timor. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 262, figs. 68-69, 1922; Timor; New Guinea; the Philippines. Roxas, Philippine Jour. Sci., vol. 54, p. 424, 1934; Mindoro.

635. *Cestraeus oxyrhynchus* Cuvier and Valenciennes.

The East Indies and Philippines.

Cestraeus oxyrhynchus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 162, 1836. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 33, 1860.

Cestraeus oxyrhynchus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 263, 1922; Sumatra; Sumbawa; Celebes; Amboina; Ceram; Batjan. Roxas, Philippine Jour. Sci., vol. 54, p. 423, pl. 1, fig. 13, 1934; Ilokos Sur Province, Luzon.

Agonostoma oxyrhynchum Günther, Cat. Fishes British Mus., vol. 3, p. 461, 1861; fresh waters of Celebes, Batjan, and Sumatra.

Agonostoma oxyrhynchus Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 110, 1862; Batjan Island. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 191, 1865; Ceram Island. Bleeker, *ibid.*, p. 291, 1865; Amboina.

Ghaenomugil proboscideus (Günther) Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 49, 1930; Sindaungan, Zamboanga Province, Mindanao; evidently an error, as this species is known only from west coast of tropical America; *C. proboscideus* does not occur in the Philippines.

Genus 242. MYXUS Günther.

Polynesia, the Philippines, East Indies, and Australia; marine and in fresh water.

Myxus Günther, Cat. Fishes British Mus., vol. 3, p. 466, 1861; type, *Myxus elongatus* Günther. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 264, 1922. Roxas, Philippine Jour. Sci., vol. 54, p. 424, 1934.

636. *Myxus philippinus* Roxas.

Myxus philippinus Roxas, Philippine Jour. Sci., vol. 54, p. 424, pl. 1, fig. 9, and pl. 2, fig. 1, 1934; Lumbucan Island, Sulu Sea, east of Balabac Island.

Family 93. SPHYRÆNIDÆ. Barracudas; Asogo; Babayo; Bangasan; Torsillo

Apparently but one well-defined genus. Marine fishes of all tropical and subtropical seas.

Genus 243. SPHYRAENA Röse.

Sphyraena Röse, Artedi Piscium, p. 52, 1793; type, *Esox sphyraena* L. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 219, 1922.

Agriosphyraena Fowler, Proc. Acad. Nat. Sci. Phila., vol. 55, p. 749, 1903; type, *Esox barracuda* Walbaum.

637. *Sphyraena barracuda* (Walbaum). Great Barracuda; Short Barracuda; Picuda; Babayo; Babayote; Tonong-Tonong; Torsillo.

Occurs throughout the warmer parts of the Atlantic, Indian, and Pacific Oceans.

Umbra minor (the barracuda) Catesby, Fishes of Carolina, vol. 2, p. 1, pl. 1, 1743; Bahamas.

Esox barracuda Walbaum, Artedi Piscium, vol. 3, p. 94, 1792; after Catesby.

Sphyraena sphyraena var. *picuda* Bloch and Schneider, Syst. Ichth., p. 110, 1801; Havana.

Sphyraena barracuda Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 343, 1829. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 264, 1927; Vigan, Ilokos Sur Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 128, 1928; New Guinea; Honolulu, Hilo, and Waialua, Hawaiian Islands; Tahiti, Society Islands. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 399, 1934; Suva, Fiji. Herre, Proc. Pan Pacific Research Inst., vol. 8, p. 7, 1934; Dumaguete, Negros Oriental Province.

- Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Iba, Zambales Province, Luzon; Culion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Fishes 1936-37 Exped.; Manila Bay, and Balayan Bay, Batangas Province, Luzon.
- Sphyraena Commersonii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 352, 1829. Bleeker, Jour. Indian Archipelago, vol. 3, p. 66, 1849; Celebes.
- Sphyraena commersoni* Day, Fishes India, p. 343, 1878. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 245, 1908; Aparri, Cagayan Province, Luzon.
- Sphyraena picuda* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 224, 1922; 17 East Indian localities; the Philippines.
638. *Sphyraena brachygnathus* Bleeker.
The East Indies, Philippines, and Australia.
Sphyruena brachygnathus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 368, 1854; Batjan; Batavia.
Sphyraena brachygnathus Bleeker, Verh. Bat. Gen., vol. 26, Bijdr. Sphyraenoiden, p. 21, 1854-57.
Sphyraena brachygnathus Kner, Reise Novara, Fische, p. 139, 1865-67. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 229, 1922; Batavia, Java; Batjan; Moreton Bay, Queensland, Australia. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Culion. Herre, 1940-41 Exped.; Catbalogan, Samar.
639. *Sphyraena chrysotaenia* Klunzinger. Green-and-gold barracuda; Mangaiho; Sapa-sapa; Tinduk-tinduk. Seale's barracuda.
Central and southern Philippines, adjacent coast of Borneo, and the Red Sea.
Sphyraena chrysotaenia Klunzinger, Fische Rothen Meers, vol. 1, p. 128, pl. 9, fig. 3, 1884; Koseir, Red Sea. Boulenger, Proc. Zool. Soc. London, p. 664, 1887; Muscat, Arabia. Steindachner, Denks, Akad. Wiss. Wien, vol. 71, p. 145, 1902; Gischen, southern Arabia. Myers, Copeia, No. 2, p. 143, July 28, 1940.
Sphyraena aureoflammea Seale, Philippine Jour. Sci., vol. 4A, p. 502, 1909; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 17, 1922; Cebu, Cebu Province. Herre, Fishery Resources Philippine Islands, colored pl. 17, 1927. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Culion; Cebu, Cebu Province; Sitankai, Sulu Province.
640. *Sphyraena forsteri* Cuvier and Valenciennes.
The East Indies, Philippines, eastward to Tahiti and the Marquesas, north to Formosa, west to India.
Sphyraena forsteri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 261, 1829; Tahiti. Cuvier and Valenciennes, *ibid.*, vol. 7, p. 382, 1831; New Guinea; Tahiti. Günther, Cat. Fishes British Mus. vol. 2, p. 337, 1860.
Sphyraena Forsteri Steindachner, Sitzungsber, Akad. Wiss. Wien, vol. 78, p. 382, 1879.
Sphyraena forsteri Günther, Fische der Südsee, vol. 2, p. 211, pl. 119, fig. A, 1877; Tahiti. Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 33, 1881; south coast of New Guinea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 219, 1906; Apia, Samoa. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 262, 1911; Suva, Fiji. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 223, 1922; Sumatra: Java; Bali; Timor; Sandakan, British North Borneo; Makassar and Menado, Celebes; Sangir Islands; Amboina; New Guinea; Calcutta; Formosa; Fiji Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 129, 1928; Tahiti; Samoa; Suva; Nukahiva, Marquesas Islands. Herre, Jour. Pan. Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 32, 1934; Cebu, Cebu Province; Dumaguete; Jolo, Sulu Province.
Sphyraena toxseuma Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 502, 1904.
Sphyraena goodingi Seale, Occas. Papers Bishop Mus., vol. 4, p. 18, fig. 4, 1906; Nukahiva, Marquesas Islands.

- 641. *Sphyraena jello* Cuvier and Valenciennes.** Indian barracuda; Banded barracuda; Asogon; Torcillo.
From Natal and the Red Sea to the Philippines, East Indies, China, Formosa, Riu Kiu Islands, New Caledonia, and Fiji.
- Sphyraena jello* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 259, 1829; Vizagapatam, India: on *Jellow*, Russell, Fishes of Coromandel, vol. 2, p. 59, pl. 174, 1803; Vizagapatam. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, pp. 524 and 527, 1845; Batavia, Java. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1006, 1850. Bleeker, Verh. Bat. Gen., vol. 26, Sphyraenoiden, p. 12, 1854-57. Günther, Cat. Fishes British Mus., vol. 2, p. 337, 1860; Amboyna; China; Cape Seas; Calcutta; Malayan Peninsula. Klunzinger, Abh. zool.-bot. Gesell. Wien, vol. 20, p. 823, 1870. Day, Fishes India, p. 342, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 8, p. 32, 1885, Cebu, Cebu Prov. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 774, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Manila. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 59, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 245, 1908; Iloilo, Iloilo Province, Panay. Weber de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 220, fig. 66, 1922; 30 East Indian localities; also the Philippines and other places ranging from Natal to the Riu Kiu Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 265, 1927, excluding *S. putnamiae* Jordan and Seale; San Fernando, La Union Province, and Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 129, 1928. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Capiz, Capiz Province, Panay; Cebu Province. Umali, Edible Fishes Manila, p. 92, fig. 53, 1936; Manila Bay. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 101, 1936; Suva, Fiji. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay; Puerto Galera, Mindoro; Cagayan, Misamis Oriental Province, Mindanao. Also Singapore. Fowler, Hong Kong Nat., vol. 6, p. 277, fig. 58, 1935; China; Hong Kong; the Philippines; many other places from the Red Sea to Melanesia.
- 642. *Sphyraena langsar* Bleeker.** Langsar, or Langsar barracuda; Bangas; Domosot.
The East Indies and Philippines, Formosa, south to Fiji and north Australia, west to Ceylon.
- Sphyraena langsar* Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 367, 1854; Batjan. Bleeker, Verh. Bat. Gen., vol. 26, Sphyraenoiden, p. 19, 1854-57. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 37, 1860. Günther, Cat. Fishes, British Mus., vol. 2, p. 340, 1860; after Bleeker. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; San Fabian Pangasinan Province, and Bacon and Bulan, Sorsogon Province, Luzon. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 439, 1917; Ceylon. Fowler, Copeia, No. 58, p. 62, 1918; the Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 228, 1922; Nias; Pulu Weh; Batavia, Java; Flores; Makassar, and Badjoa, Celebes; Salayer; Amboina; Batjan; Ternate; Rotti; the Philippines; Ceylon; Formosa; Port Darwin, North Australia. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 265, 1927; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 130, 1928; New Guinea and Fiji. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippines Exped., p. 33, 1934; Alabat Island, off east coast of Tayabas Province; Culion; Dumaguete. Herre 1936-37 and 1940-41 Exped.; Manila Bay; Coron, Busuanga; Catbalogan, Samar; Iloilo market, Iloilo Province, Panay.
- 643. *Sphyraena obtusata* Cuvier and Valenciennes.** Blunt barracuda; Striped barracuda; Babayo; Dumbusan; Torsillo.
All over the tropical Indian ocean, and in the Pacific to the East Indies, Philippines, Siam, China, Riu Kiu Islands, and south to Australia and New Zealand.
- Sphyraena obtusata* Cuvier and Valenciennes, Hist., Nat. Poissons, vol. 3, p. 324, pl. 10, fig. 2, 1803; Pondicherry, and Malabar, India; Bourbon

Island; Port Jackson, Australia. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden Malayo-Molukkan Arch., p. 56, 1849. Bleeker, *ibid.*, Bijdr. Ichth. fauna Madura, p. 4. Bleeker, *ibid.*, vol. 23, Bijdr. Ichth. fauna Java, p. 7, 1850. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1006, 1850. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 364, 1854; Batjan. Bleeker, Verh. Bat. Gen., vol. 26, Sphyaenoiden, p. 17, 1854-57. Günther, Cat. Fishes British Mus., vol. 2, p. 339, 1860; Australia; Amboyna; Malayan Peninsula; India. Kner, Reise *Novara*, Fische, p. 140, 1865-67. Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 20, p. 820, 1870. Günther, Fische der Südsee, vol. 2, p. 212, pl. 119, fig. B, 1877; Fiji. Seale, Occas. Paper Bishop Mus., vol. 1, p. 66, 1901; Guam. Seale, *ibid.*, vol. 4, p. 18, 1906, Faté, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 218, 1906; Apia, Samoa. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 76, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 60, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Zamboanga Province, Mindanao. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 261, 1911; Moen, Truk Group; Carolines; Suva, Fiji. Weber and de Beaufort. Fishes Indo-Australian Archipelago, vol. 4, p. 226, 1922; 29 East Indian localities; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, pl. 265, 1927; Orion, Bataan Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Bauang Sur. La Union Province, Luzon; Alabat Island, off east coast of Tayabas Province, Luzon; Culion; Cebu, Cebu Province. Fowler, Hong Kong Nat., vol. 6, p. 278, 1935; Hong Kong, Canton, Shanghai, and Chefoo, China; Philippines; 15 other localities from Natal. and the Red Sea to Polynesia. Umali, Edible Fishes Manila, p. 93, fig. 54, 1936; Manila Bay.

Family 94. POLYNEMIDAE. Threadfins; Mamali

Medium-sized to large marine fishes, entering estuaries and rivers.

Genus 244. ELEUTHERONEMA Bleeker.

The Philippines, East Indies, west to India, south to Australia.

Eleutheronema Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 110, 1862; Batjan; orthotype, *Polynemus tetradactylus* Shaw. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 197, 1922.

644. Eleutheronema tetradactylum (Shaw). Mamali; Mamala; Bigao.

From the Philippines west to India, north to China and Formosa, and south to Australia.

Polynemus tetradactylus Shaw, General Zoology, vol. 5, p. 155, 1804. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 375, 1829. Cuvier and Valenciennes, *ibid.*, vol. 7, p. 245, 1831. Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. kennis Percoiden, p. 57, 1849. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1007, 1850. Günther, Cat. Fishes British Mus., vol. 2, p. 329, 1860. Kner, Reise *Novara*, Fische, p. 138, 1865-67. Klunzinger, Sitzungsber. Akad. Wiss. Wien., p. 373, 1880. Vinciguerra, Ann. Mus. Civ. Genova, ser. 2, vol. 9, p. 169, 1889-90. Rutter, Proc. Acad. Nat. Sci. Phila., p. 71, 1897; Swatow, China. Seale, Philippine Jour. Sci., vol. 5D, p. 269, 1910; Sandakan, British North Borneo; the Philippines.

Eleutheronema tetradactylus Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 110, 1862; Batjan.

Eleutheronema tetradactylum Bleeker, *ibid.*, p. 124, 1862. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 177, fig. 10, 1909; Takao, Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 199, fig. 64, 1922; 23 East Indian localities; the Philippines. Herre, Philippine Bureau Science Collection: Manila Bay; Manila markets; Balayan Bay, Batangas Province; San Miguel Bay, Camarines Sur Province; Luzon; Market at Cotabato, Cotabato Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 265, 1927; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Divisoria market, Manila.

Polydactylus tetradactylus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 245, 1908; Manila.

Polydactylus rhadinus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 351, 1902.

Polydactylus plebeius Fowler, Copeia, No. 58, p. 64, 1918; Philippines; not of Broussonet.

Genus 245. POLYNEMUS Linnaeus. Threadfin; Mamali; Kugao; Tatik; Bikao; Mapwao; Murang ilong; Murang ungos.

Coasts of the tropical Pacific, Indian, and Atlantic oceans; some species entering rivers.

Polynemus Linnaeus, Syst. Nat., ed. 10, p. 317, 1758, after Gronow and Arteni; type, *Polynemus paradiseus* L. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 200, 1922.

645. *Polynemus microstoma* Bleeker. Black-spot threadfin; Mamaling bato; Mamaling babae.

The Philippines, north to Formosa, the East Indies to New Guinea, and west to Pinang.

Polynemus plebeius Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1009, 1850; Penang; not of Broussonet.

Polynemus microstoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 217, 1851; Celebes. Bleeker, *ibid.*, vol. 17, p. 146, 1858-59, Bali. Bleeker, *ibid.*, vol. 19, p. 437, 1859, Sumbawa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 204, fig. 65, 1922; north of Riouw Strait; Sandakan, Borneo; Bali; Bima, Sumbawa; Salayer; Bulacomba, Celebes; Amboina; Ceram; New Guinea; the Philippines. Umali, Edible Fishes Manila, p. 95, fig. 56, 1936; Manila Bay. Herre, 1940-41 Exped.; market, Iloilo, Iloilo Province, Panay.

Polynemus plebeius Günther, Cat. Fishes, Vol. 2, p. 329, 1860; not of Broussonet.

Trichidion microstoma Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 64, 1878; New Guinea.

Polydactylus microstoma Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo.

Polynemus zophomus Jordan and McGregor, Proc. U. S. Nat. Mus., vol. 30, p. 814, 1906. Weber, *Siboga*-Exped., vol. 57, Fische, p. 142, pl. 3, figs. 3-5; 1913; Bima-Saley.

Polydactylus zophomus Jordan and McGregor, in Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 11, fig. 4, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 245, 1908; Manila, Luzon; Iloilo. Seale, Philippine Jour. Sci., vol. 5D, p. 269, 1910; Sandakan, British North Borneo.

Polydactylum microstoma Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Curimao, Ilokes Norte Province, Bauang Sur, La Union Province, and Manila, Luzon; Cotabato, Cotabato Province, Mindanao.

646. *Polynemus plebeius* Broussonet. Mamali.

Across the tropical Indo-Pacific from Natal and Madagascar to Formosa, Australia, Fiji, Tahiti, and the Marquesas Islands.

Polynemus plebeius Broussonet, Ichthyologia, p. 23, pl. 8, no pagination, 1782; Pacific Ocean, near Tahiti; near Tanna Island, New Hebrides. McCulloch, Mem. 5, Australian Mus., p. 120, 1929; New South Wales; the Indo-Pacific; Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 101, 1936; Wala and Malekula Islands, New Hebrides. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon.

Polynemus lineatus Lacépède, Hist. Nat. Poissons, vol. 5, pl. 13, fig. 2, p. 410, 1803; Ile de France. Günther, Cat. Fishes British Mus., vol. 2, p. 227, 1860; Samoa; Solomon Islands; Amboyna. Kner, Reise Novara, Fische, p. 137, 1865-67.

Polynemus plebeius Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, pp. 524 and 527, 1845; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 22, 1849, Percoiden, p. 58. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 160, 1852; Timor. Günther, Fische der Südsee, vol. 1, p. 103, pl. 77, fig. A, 1873-75; Guadalcanal, Solomon Islands; Samoa; Tahiti. Day, Fishes India, p. 179, 1878. Weber, *Siboga*-Exped., vol. 57, Fische, p. 144, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 4, p. 202, 1922; 16 East Indian localities and many others in the Indo-Pacific; the Philippines.

Polymemus taeniatus Günther, Cat. Fishes British Mus., vol. 2, p. 526, 1860; Amboina; Guadalcanal, Solomon Islands. Gilchrist and Thompson, Ann. South African Mus., vol. 6, Part 2, p. 179, 1908.

Polydactylus plebeius Seale, Occas. Papers Bishop Mus., vol. 4, p. 18, 1906; Tahiti, Society Islands; Nukahiva, Marquesas Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 219, 1906; Apia and Pago Pago, Samoa. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; omit reference to *Polydactylus zophomus*; Zamboanga, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 130, 1928; Tahiti; Nukahiva; New Guinea; Samoa. Herre, Jour. Pan. Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Manila; Jolo, Sulu Province.

Polydactylus plebejus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 265, 1927; Santa Maria, Ilokos Sur Province. Herre, Fishery Resources Philippine Islands, p. 26, 1927; Lingayen Gulf, Luzon; near Tacloban, Leyte Gulf, Leyte.

647. *Polynemus sealei* (Jordan and Richardson). Kugao.

A Philippine species; original name preoccupied.

Polydactylus opercularis Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 234, fig. 4, 1907; Zamboanga, Mindanao; not *Trichidion opercularis* Gill = *Polydactylus opercularis* (Gill) of the Pacific coast of tropical America.

Polydactylus sealei Jordan and Richardson, Check List of Philippine Fishes, p. 16, 1910. Herre, Fishery Resources Philippines, p. 6 and pl. 18, fig. 3, 1927. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, northeastern Luzon.

Suborder PHALLOSTETHOIDEA

Family 95. PHALLOSTETHIDÆ

A remarkable family of very small, often transparent fishes, living in salt, brackish, and fresh water. Found in the Philippines, Borneo, Pulo Weh, Singapore, Malay Peninsula, and Siam.

Genus 246. CERATOSTETHUS Myers.

One species of brackish water, found in Malaya, Singapore Island, and Palawan, Philippines.

Ceratostethus Myers, Proc. U. S. Nat. Mus., vol. 84, p. 138, 1937. Herre, Stanford Ichth. Bull., vol. 2, p. 145, 1942.

648. *Ceratostethus bicornis* (Regan).

Neostethus bicornis Regan, Proc. Zool. Soc. London, 1916, p. 14, fig. 11; Kuala Langat, Johore.

Ceratostethus bicornis Myers, Proc. U. S. Nat. Mus., vol. 84, p. 141, 1937; Singapore Island; Nakoda Bay and Malampaya River, Palawan, Philippines. Herre, Stanford Ichth. Bull., vol. 2, p. 145, 1942; Nakoda Bay and Malampaya River, west coast of Palawan; Singapore Island.

Genus 247. CTENOPHALLUS Herre.

A fresh-water genus with but one species known from Luzon.

Ctenophallus Herre, Proc. Biol. Soc. Washington, vol. 52, p. 144, 1939. Herre, Stanford Ichth. Bull., vol. 2, p. 154, 1942; genotype, *Solenophallus ctenophorus* Aurich.

649. *Ctenophallus ctenophorus* (Aurich).

Solenophallus ctenophorus Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 34, p. 272, fig. 1b, 1937; from a tributary of Laguna de Bay, Luzon.

Ctenophallus ctenophorus Herre, Proc. Biol. Soc. Washington, vol. 52, p. 144, 1939; on Aurich. Herre, Stanford Ichth. Bull., vol. 2, p. 154, 1942; on Aurich.

Genus 248. GULAPHALLUS Herre.

Two species from mountain streams of Luzon.

Gulaphallus Herre, Philippine Jour. Sci., vol. 27, p. 508, 1925; genotype, *Gulaphallus eximius* Herre, Stanford Ichth. Bull., vol. 2, p. 143, 1942.

- 650. *Gulaphallus eximius* Herre.** Sarsarming; Kuskusling.
Gulaphallus eximius Herre, Philippine Jour. Sci., vol. 27, p. 509, pls. 1-2, figs. 1-2, 1925; Magat River and its tributaries; Santa Fe; Dupax; between Santa Fe and Aritao, Nueva Vizcaya Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; brook near Santa Fe, Nueva Vizcaya Province, Luzon. Herre, Stanford Ichth. Bull., vol. 2, p. 144, 1942; Magat River, north of Santa Fe, Nueva Vizcaya Province, Luzon.
- 651. *Gulaphallus mirabilis* Herre.**
Gulaphallus mirabilis Herre, Philippine Jour. Sci., vol. 27, p. 511, pl. 2, figs. 3-5, 1925; Ibo Creek, tributary of Angat River, Bulacan Province. Villadolid and Manacop, Philippine Jour. Sci., vol. 55, p. 195, pls. 2-5, 1934; Molawin Creek, College of Agriculture, Laguna Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 24, 1934; Molawin Creek, Laguna Province, Luzon. Herre, Stanford, Ichth. Bull., vol. 2, p. 144, 1942; Ibo Creek, Bulacan Province; streams near Fort Stotsenberg, Pampanga Province; Olo Creek, Mangatarem, and Sison, Pangasinan Province; Molawin Creek, campus of College of Agriculture, and Santa Maria River at Santa Maria, Laguna Province, Luzon.
- Genus 249. MANACOPUS Herre.**
 One species known, from the brooks around Mt. Arayat, in Pampanga and Nueva Ecija Provinces, and in gurami ponds in the municipality of Mexico, Pampanga Province, Luzon.
Acanthostethus Herre, Proc. Biol. Soc. Washington, vol. 52, p. 142, 1939; preoccupied; genotype, *Acanthostethus falcifer* (Manacop).
Manacopus Herre, Copeia, No. 2, p. 141, July 28, 1940; genotype, *Manacopus falcifer* (Manacop). Herre, Stanford Ichth. Bull., vol. 2, p. 146, 1942.
- 652. *Manacopus falcifer* (Manacop).**
Gulaphallus falcifer Manacop, Philippine Jour. Sci., vol. 59, p. 375, 2 pls. 1936; from a gurami pond, Barrio Laput, Mexico, Pampanga Province, Luzon.
Manacopus falcifer Herre, Stanford Ichth. Bull., vol. 2, p. 146, 1942; a gurami pond near Mexico, Pampanga Province, Luzon.
- Genus 250. MIROPHALLUS Herre.**
 One species known; in Camarines Sur and Albay Provinces, Luzon.
Mirophallus Herre, Philippine Jour. Sci., vol. 31, p. 539, 1926; holotype, *Mirophallus bikolanus* Herre. Herre, Stanford Ichth. Bull., vol. 2, p. 141, 1942.
- 653. *Mirophallus bikolanus* Herre.**
Mirophallus bikolanus Herre, Philippine Jour. Sci., vol. 31, p. 540, pl. 3, 1926; Lake Bato, Camarines Sur Province; Lake Lanigay, Albay Province, Luzon. Herre, Stanford Ichth. Bull., vol. 2, p. 142, 1942; Lake Bato, Camarines Sur Province, Luzon.
- Genus 251. NEOSTETHUS Regan.**
 Species of salt and brackish water, some entering the mouth of fresh water streams. Found throughout the Philippines, and along the coasts of Borneo, Singapore, Malaya, and Siam.
Neostethus Regan, Proc. Zool. Soc. London, p. 2, 1916; genotype, *Neostethus lankesteri* Regan. Herre, Stanford Ichth. Bull., vol. 2, p. 147, 1942.
- 654. *Neostethus amaricola* (Villadolid and Manacop).**
 Common and widespread in Luzon, Mindoro, and Leyte.
Gulaphallus amaricola Villadolid and Manacop, Philippine Jour. Sci., vol. 55, p. 194, 1934; tidal creek, Pasay, Rizal Province, Luzon. Myers, Proc. U. S. Nat. Mus., vol. 84, p. 139, 1937; mouth of Palau, Port San Vicente, Palau Islands, Cagayan Province; fish pond at San Antonio, Cavite Province; Ragay River, Ragay Gulf, Camarines Sur Province, Luzon; Port Dupon, Leyte. Herre, Stanford Ichth. Bull., vol. 2, p. 149, 1942; Dagat-Dagatan Fisheries Experiment Station, Navotas, Rizal Province; common around Manila Bay, Luzon; Hacienda Waterons; Mangarin, Mindoro; Port Dupon, Leyte.
- 655. *Neostethus villadoloidi* Herre.**
 In salt water, mangrove, and nipa swamps.

Neostethus villadolidi Herre, Stanford Ichth. Bull., vol. 2, p. 150, 1942; Fishery Experiment Station, Cagayan de Misamis, Misamis Oriental Province, Mindanao; Dumaguete; Old Ayukitan, Oriental Negros Province.

Subgenus **SANDAKANUS** Herre.

Sandakanus Herre, Stanford Ichth. Bull., vol. 2, p. 151, 1942; genotype, *Neostethus borneensis* Herre.

656. *Neostethus* (*Sandakanus*) *coronensis* Herre.

Neostethus (*Sandakanus*) *coronensis* Herre, Stanford Ichth. Bull., vol. 2, p. 152, 1942; from salt, brackish and fresh water, Coron, Busuanga.

657. *Neostethus* (*Sandakanus*) *panayensis* Herre.

In salt water.

Neostethus (*Sandakanus*) *panayensis* Herre, Stanford Ichth. Bull., vol. 2, p. 153, 1942; nipa swamp, near Capiz., Capiz Province, and Estancia, Iloilo Province, Panay.

658. *Neostethus* (*Sandakanus*) *zamboangae* Herre.

In salt water.

Neostethus (*Sandakanus*) *zamboangae* Herre, Stanford Ichth. Bull., vol. 2, p. 153, 1942; near the Fishery Station, Zamboanga, Mindanao.

Genus 252. **PLECTROSTETHUS** Myers.

One species from Palawan.

Plectrostethus Myers, Proc. Biol. Soc. Washington, vol. 48, p. 5, 1935; type, *Plectrostethus palawanensis* Myers. Herre, Stanford Ichth. Bull., vol. 2, p. 155, 1942.

659. *Plectrostethus* *palawanensis* Myers.

Plectrostethus palawanensis Myers. Proc. Biol. Soc. Wash., vol. 48, p. 5, 1935; mouth of Caiholo River, Ulugan Bay, Palawan. Herre, Stanford Ichth. Bull., vol. 2, p. 155, 1942; after Myers.

Genus 253. **SOLENOPHALLUS** Aurich.

One fresh water species known.

Solenophallus Aurich, Internat. Revue Hydrobiol. and Hydrogr., vol. 34, p. 264, 1937; type, *Solenophallus thessa* Aurich. Herre, Stanford Ichth. Bull., vol. 2, p. 142, 1942.

660. *Solenophallus* *thessa* Aurich.

Solenophallus thessa Aurich, Internat. Revue Hydrobiol. and Hydrogr., vol. 34, p. 264, fig. 1a, 1937; Lake Mainit, Surigao Province, Mindanao. Herre, Stanford Ichth. Bull., vol. 2, p. 143, 1942; Lake Mainit, Surigao Province, Mindanao.

Suborder **RHEGNOPTERI**

Family 96. **SCOMBRIDÆ**. Mackerels; Aguma-a; Hasa-hasa

Very important food fishes.

Genus 254. **PNEUMATOPHORUS** Jordan and Gilbert.

Seven (?) species, distributed over the Pacific Ocean from Japan to Australia, Hawaii, and California to Peru, and in the Atlantic Ocean in both American and European waters.

Pneumatophorus Jordan and Gilbert, Proc. U. S. Nat. Mus., vol. 5, p. 593, 1883; as subgenus. Starks, Science, vol. 54, p. 222, 1921, elevated *Pneumatophorus* to generic rank; orthotype, *Scomber pneumatophorus* De la Roche=*Scomber colius* Gmelin. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 210, 1925.

661. *Pneumatophorus japonicus* (Houttuyn). Japan mackerel; Alumahan; Lumahan; Aguma-a; Hasa-hasa; Abobangon.

From Japan to the Philippines and an indefinite range in the Pacific.

Scomber japonicus Houttuyn, Verh. Holland. Maatsch. Wetenschappen Haarlem, vol. 20, p. 331, 1792; Nagasaki, Japan. Lacépède, Hist. Nat. Poissons, vol. 3, p. 45, 1802. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 54, 1831. Jordan and Evermann, American Food and Game Fishes, p. 276, fig. 1902; Atlantic and Pacific; San Francisco; Mediterranean; off southern California. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 169, fig. 62, 1905; Hilo and Honolulu, Hawaiian Islands. Evermann and Seale, Bull. U. S. Bur.

Fisheries, vol. 26, p. 61, 1907; Bulan, Sorsogon Province, Luzon. Seale, Philippine Jour. Sci., vol. 3A, p. 515, 1908, Philippines; Manila Bay. Kishinouye, Jour. College Agri., Univ. Tokyo, vol. 8, p. 403, figs. 1, 7, 16, 28, 29, 30, 1923; from Karafuto, Japan, to Korea and Formosa. Herre, Fishery Resources Philippine Islands, pp. 26 and 53, 1927; throughout the Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 132, pl. 7C, 1928; Honolulu and Hawaiian Islands; Mangsi Island.

Scomber pneumatophorus Schlegel, Fauna Japonica, p. 94, pl. 47, figs. 1-2, 1850.

Pneumatophorus japonicus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 31, 1922; Hawaii. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 212, 1925; many places in Japan. Herre, Philippine Bureau Science Collections; Gulf of Leyte; Basey and Catbalogan, Samar. Herald and Sabado, Philippine Fishery Program; Batangas market, Batangas Province, Luzon, May 1, 1948.

Genus 255. RASTRELLIGER Jordan and Starks. Chub mackerel; Hasa-hasa; Alumahan; Masangi; Lumahan; Aguma-a; Abobongan amang.

Widely distributed in the Indo-Pacific.

Rastrelliger Jordan and Starks, Proc. U. S. Nat. Mus., vol. 34, p. 607, 1908; orthotype, *Scomber brachysomus* Bleeker.

662. Rastrelliger brachysoma (Bleeker). Short-bodied mackerel; Hasa-hasa; Masangi; Limachay; Kabalyas; Tulay.

The Philippines and East Indies, and in the Pacific at least as far as Fiji. *Scomber brachysoma* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 356, 1850; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 24, Mackreel. visschen, p. 34, 1852. Günther, Cat. Fishes British Mus. vol. 2, p. 36, 1860. Day, Fishes India, p. 251, 1878.

Scomber brachysomus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 61, 1907; San Fabian, Pangasinan Province, Luzon.

Rastrelliger brachysomus Jordan and Dickerson, Proc. U. S. Nat. Mus., vol. 34, p. 609, fig. 3, 1907; Suva, Fiji. Seale, Philippine Jour. Sci., vol. 5 D, p. 270, 1910; Sandakan, British North Borneo; the Philippines. Umali, Philippine Jour. Sci. vol. 54, p. 369, 1934; Catbalogan, Tarangan, and Zumarraga, Samar. Umali, Edible Fishes Manila, p. 97, fig. 57, 1936; Manila Bay; Mindanao. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Zamboanga Province, Mindanao. Domantay, Philippine Jour. Sci. vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.

Rastrelliger brachysoma Fowler, Mem. Bishop Mus., vol. 10, p. 132, 1938; Shortland Island, Solomon Islands; Faté, New Hebrides. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Bauang Sur, La Union Province, and Manila, Luzon; Calapan, Mindoro; Capiz, Capiz Province, Panay Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 104, 1936; Suva, Viti Levu Island, Fiji.

663. Rastrelliger chrysozonus (Rüppell). Chub mackerel; Striped mackerel; Alumahan; Lumahan; Burao; Hasa-hasa; Mataan.

The Philippines and East Indies, Formosa, China, Japan, Caroline Islands, and New Hebrides, west to India and the Red Sea.

Scomber chrysozonus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 10, pl. 11, fig. 1, 1835; Massua.

Scomber microlepidotus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 33, pl. 11, fig. 2, 1835; Red Sea. Günther, Cat. Fishes, British Mus., vol. 2, p. 361, 1860. Day, Fishes India, p. 250, pl. 54, figs. 3-5, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 27, 1885; Manila Bay, Luzon. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 12, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 61, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 248, 1908; Manila, Luzon. Seale, Philippine Jour. Sci., vol. 3A, p. 515, 1908; Manila Bay, Philippines. Fowler, Copeia, No. 58, p. 62, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 267, 1927; Orion, Bataan

Province, Luzon, Philippines. Herre, Fishery Resources Philippine Islands, pp. 26 and 50, 1927; throughout the Islands. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, northeastern Luzon.

Rastrelliger chrysozonus Kishinouye, Suisan Gaku. Ho (Proc. Sci. Fisheries Assoc.), vol. 1, p. 8, 1915. Kishinouye, Jour. College Agri. Univ. of Tokyo, vol. 8, p. 406, fig. 63, and fig. W. 1923; Riukiu Islands; southern China; Formosa; Truk Island in the Carolines; synonymy in part. Umali, Philippine Jour. Sci., vol. 54, p. 369, 1934; Catbalogan and Tarangnan, Samar. Umali, Edible Fishes Manila, p. 98, fig. 58, 1936; Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon.

Rastrelliger microlepidotus Barnard, Ann. South African Mus., vol. 21, p. 796, 1927; the Philippines.

Rastrelliger chrysozona Herre, 1940-41 Exped.; Manila Bay, Luzon.

664. *Rastrelliger kanagurta* (Cuvier).

Red Sea to the Philippines, south to Fiji.

Scomber kanagurta Cuvier, Règne Animal, ed. 2, vol. 2, p. 197, footnote, 1829; based on Russell, Fishes of Vizagapatam, pl. 136, 1802; Vizagapatam, India. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 93, 1828; Gomfuda, Red Sea.

Scomber kanagurta Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 49, 1832; Sea of the Indies. Günther, Cat. Fishes British Mus., vol. 2, p. 360, 1860, Red Sea; Indian Seas. Günther, Fische der Südsee, vol. 2, p. 149, 1876; Pelew Islands; Fiji; Indian Ocean and Archipelago. Fowler, Mem. Bishop. Mus., vol. 10, p. 132, 1928; exclude synonymy.

Scomber kanagurta Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 515, 1845; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 445, 1852; Banka. Bleeker, *ibid.*, Makreel. visschen, p. 34. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 29, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Celebes, p. 38.

Rastrelliger kanagurta Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Unisan, Tayabas Province, Luzon. Herre, 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga; Dumaguete, Oriental Negros Province; Mahaba Island, east coast of Agusan Province, and Murcielagos Bay, Misamis Occidental Province, Mindanao. Also Singapore.

665. *Rastrelliger loo* (Lesson).

The Philippines, East Indies, and Polynesia.

Scomber loo Lesson, in St. Vincent, Dict. Classique Hist. Nat., vol. 15, p. 277, 1829; Port Praslin, New Ireland. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 166, pl. 33, 1830; New Ireland and Waigiu. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 38, 1831; Praslin; Waigiu; Dorey Harbor, New Guinea. Bleeker, Verh. Bat. Gen., vol. 24, p. 35, 1852; Makreel visschen. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 212, 1857; Celebes. Günther, Cat. Fishes British Mus., vol. 2, p. 360, 1860; Molucca Sea to Polynesia. Kner, Reise *Novara*, Fische, p. 142, 1865-67; Manila, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Dumaguete; Jolo, Sulu Province.

Genus 256. *ACANTHOCYBIUM* Gill. Petos.

Large predatory fishes of the tropical Atlantic and Pacific Oceans.

Acanthocybium Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 125, 1862; orthotype, *Cybium sara* Bennett.

666. *Acanthocybium forbesi* Seale. Forbes kingfish.

A Philippine fish apparently different from the species widespread in the tropical Pacific and Atlantic Oceans.

Acanthocybium forbesi Seale, Philippine Jour. Sci., vol. 7, sec. D, p. 283, pl. 1, 1912; coast of Leyte. Herre, 1936-40 Exped.; reported by various sport fishermen; Gulf of Leyte; Pacific coast of Albay and Tayabas Provinces, and about Polillo Island.

667. *Acanthocybium solandri* (Cuvier and Valenciennes). Wahoo; Peto; Guachu; Kingfish; Ono; Guarapucu.

Everywhere in the warmer parts of the Indo-Pacific, and apparently identical with the one in the West Indies and off Florida.

Cybium solandri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 141, 1831; open seas, exact locality unknown; after Solander. Günther, Fische der Südsee, vol. 2, p. 153, pl. 94, 1876; Paumotu Archipelago; Loo Choo Islands; 300 miles north of the Hervey Islands.

Acanthocybium solandri Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 441, 1903; Honolulu. Jordan and Jordan, Mem. Carnegie Mus., vol. 19, p. 34, 1922; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 135, 1928; Honolulu. Walford, Marine Game Fishes, p. 30, pl. 2, 1937; Lower California to Cocos Island; Panama; Cocos Island; Galapagos Islands; Philippine Archipelago. Martin, Philippine Jour. Sci., vol. 67, p. 190, 1938; Davao Gulf, Davao Province, Mindanao. Herre, 1940-41 Exped.; taken by several big-game fishermen off the southeast coast of Luzon and off the coasts of Mindoro and Palawan. Internat. Game Fish. Assoc., Year book 1943, p. 69, 1943; Port Lampon, Lamon Bay, Tayabas Province, Luzon.

Genus 257. SCOMBEROMORUS Lacépède.

Large pelagic fishes of tropical and warm temperate seas.

Scomberomorus Lacépède, Hist. Nat. Poissons, vol. 3, p. 292, 1802; type, *Scomberomorus plumieri* Lacépède=*Scomber regalis* Bloch.

668. *Scomberomorus commerson* (Lacépède). Spanish mackerel; Tangingi; Tangili; Tangili.

The Philippines, East Indies, north to China and Japan, south to Australia, and Fiji, west to India, the Red Sea and Cape of Good Hope. *Scomber commerson* Lacépède, Hist. Nat. Poissons, vol. 2, pp. 598 and 600, pl. 20, fig. 1, 1800.

Scomber commerson Bloch and Schneider, Syst. Ichth., p. 545, 1801; South Sea.

Cybium commersonii Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 94, pl. 25, fig. 1, 1828; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 165, 1831. Günther, Cat. Fishes British Mus., vol. 2, p. 370, 1860; Malayan Peninsula; Cape Seas. Day, Fishes India, p. 255, pl. 56, fig. 5, 1878.

Cybium commersoni Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon.

Scomberomorus commersoni Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon. Jordan and Dickerson, Proc. U. S. Nat. Mus., vol. 34, p. 610, 1908; Suva, Fiji. Seale, Philippine Jour. Sci., vol. 3A, p. 515, pl. 4, 1908; Zamboanga; east coast of Basilan; Manila. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 177; Takao, Formosa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province.

Scomberomorus commerson Fowler, Copeia, No. 58, p. 62, 1918; the Philippines. Fowler Proc. Acad. Nat. Sci. Phila., vol. 79, p. 267, 1927; Philippines. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; San Fabian, Pangasinan Province; Manila; Atimonan, Tayabas Province, Luzon; Capiz, Capiz Province, Panay; Cebu, Cebu Province. Herre, Bureau Science and other collections: Fortune Island, off Nasugbu, Batangas Province; Tailon Island, off Camarines Norte Province, Luzon; Baco Islands, Verde Passage; Gato and Carnasa Islands north of Cebu Island; between Leyte and Biliran Island; Manucan Island, Cagayan Islands, and Comiran Island, Sulu Sea; Jolo and Tawi Tawi, Sulu Province. Munro, Mem. Queensland Mus., vol. 12, p. 74, pl. VI, B, 1943; the Philippines and many other localities from the Red Sea and Cape of Good Hope to China, Japan, and Australia; an extensive synonymy.

Cybium commerson Kishinouye, Jour. College Agri., Univ. Tokyo, vol. 8, p. 416, fig. 36, 1923; Formosa; southern China; Yamaguchi-ken, Japan; Korea. Umali, Edible Fishes Manila, p. 98, fig. 59, 1936; Manila market. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay,

Philippine Jour. Sci., vol. 71, pp. 82 and 100, 1940; Zamboanga Province, Mindanao. Domantay, *ibid.*, vol. 72, p. 379, 1940; Igat Bay, Margosatubig, Zamboanga Province, Mindanao.

669. *Scomberomorus guttatus* (Bloch and Schneider). Spotted Spanish mackerel; Spotted seer; Spotted tañgingi.
Widely distributed in the tropical Indo-Pacific.
Scomber guttatus Bloch and Schneider, *Systema Ichthyologiae*, p. 23, plate 5, 1801; Tranquebar.
Cybiium guttatum Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 173, 1831; Tranquebar, Pondichéry and the coast of Malabar; Malaca. Richardson, *Ichthyology China Japan*, p. 268, 1845. Bleeker, *Nat. Gen. Archip. Nederl. Ind.*, vol. 2, p. 516, 1845; Batavia. Cantor, *Fishes Malaya*, *Jour. Asiatic Soc. Bengal*, p. 111, (1093), 1850; Sea of Pinang; Malayan Peninsula; Singapore; Java; Madura; Malabar; Coromandel. Bleeker, *Verhandl. Batav. Genootsch.*, vol. 24, *Makreel. viss. Soenda-Molukschen Archipel.*, p. 38, 1852. Day, *Fishes India*, p. 255, plate 55, fig. 1, and plate 56, fig. 4, 1878; Seas of India, Malay Peninsula, and China. Kishinouye, *Jour. College Agriculture, University of Tokyo*, vol. 8, p. 419, fig. 61, 1923; Taiwan; Indo-Pacific and Australian waters. McCulloch, *Memoir 5, Australian Museum*, p. 265, 1929; Queensland, New South Wales, New Zealand, East Indies, China.
Scomberomorus guttatus Herre, 1948 Collection; Guinlo, Malampaya Sound, Palawan.
670. *Scomberomorus konam* (Bleeker).
Cybiium konam Bleeker, *Nat. Tijds. Ned.-Ind.*, *Makreel. visschen*, vol. 1, p. 357, 1851. Bleeker, *ibid.*, vol. 3, p. 445, 1852; Banka. Bleeker, *Verh. Bat. Gen.*, vol. 24, 1852, *Makreel. visschen*, p. 39; Bleeker, *ibid.*, vol. 25, *Ichth. fauna Bengalen*, p. 42, 1853; Bengal, Hindustan. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 8, p. 345, 1855; Tiku, Sumatra. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 8, *Dertiende Bijdr. vischfauna Celebes*, p. 38, 1860. Bleeker, *Nat. Tijds. Dierk.*, vol. 2, p. 173, 1865; Siam. Kner, *Reise Novara Fische*, vol. 1, p. 144, 1865-67; Manila, Luzon.
Acanthocybiium konam Seale, *Philippine Jour. Sci.*, vol. 3, sec. A, p. 515, 1908; the Philippines.
671. *Scomberomorus kuhli* (Cuvier and Valenciennes).
Cybiium kuhli Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 178, 1831; Java. Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, vol. 2, p. 506, 1845; Batavia, Java. Day, *Fishes India*, p. 254, pl. 56, fig. 2, 1878; India; Indian Archipelago; Japan. Herre and Herald, market at Sandakan, British North Borneo, January 1948; fish taken off Borneo coast, along the Philippine boundary.
Cybiium guttatum Kishinouye, *Jour. College Agri.*, vol. 8, p. 419, fig. 61, 1923; Indo-Pacific region; Formosa.
Cybiium guttatus Deraniyagala, *Ceylon Jour. Sci.*, Sec. B, vol. 18, p. 43, fig. 3, 1933; Ceylon; India; Japan.

Family 97. THUNNIDÆ. Albacore; Bonito; Tuna; Tunnies; Tulingan; Turingan; Manko; Panit; Painit; Puyan; Sobad

Medium-sized to large and very large fishes of the open sea, traveling in schools, sometimes of great size; of great commercial importance.

Genus 258. AUXIS Cuvier. Frigate mackerels.

Fishes of moderate size; usually in large schools; widely distributed in tropical and temperate seas.

Auxis Cuvier, *Règne Animal*, ed. 2, vol. 2, p. 199, 1829; type, *Scomber rochei* Risso=*Scomber thazard* Lacépède. Kishinouye, *Jour. College Agric. Univ. Tokyo*, vol. 8, p. 460, 1923.

672. *Auxis tapeinosoma* Bleeker.

Provisionally named until such time as Bleeker's type is examined; Japan, the Philippines, and East Indies.

Auxis tapeinosoma Bleeker, *Nat. Tijds. Ned.-Ind.*, p. 408, 1854; Nagasaki, Japan. Bleeker, *Verh. Bat. Gen.*, vol. 26, *Ichth. Japan*, p. 98, pl. 7, fig. 1, 1854-57; Nagasaki. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 8, p. 302, 1855; Ternate, Dutch East Indies. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 369, 1860; Sea of Japan; after Bleeker. Jordan and Hubbs,

Mem. Carnegie Mus., vol. 10, p. 220, 1925; Tokyo, Kyoto, Misaki and Toyama, Japan. Herre and Herald, Philippine Fishery Program, March, 1948; Siokun Bay, and market at Zamboanga, Zamboanga Province, Mindanao; Batangas Bay, Batangas Province. Also from market at Menado, Celebes.

Auxis thazard Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Cullion,

673. *Auxis thazard* (Lacépède). Frigate mackerel.

In all tropical and warm seas.

Scomber thazard Lacépède, Hist. Nat. Poissons, vol. 3, p. 9, 1802; between 6° and 7° S. Lat., on the coast of New Guinea.

Auxis thazard Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 171, fig. 63, 1905; Hilo and Honolulu, Hawaiian Islands. Fowler, Mem. Bishop Mus., vol. 8, p. 132, 1928; Honolulu. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Jolo, Sulu Province. Walford, Marine Game Fishes, p. 29, pl. 1, fig. a, 1937; California; Cape Corrientes, Mexico; Sea of Japan; Oceania; Atlantic Ocean. Herre, 1940-41 Exped.; Nasugbu and Balayan Bay, Batangas Province, Luzon.

Genus 259. EUTHYNNUS Lütken.

Tropical and temperate parts of the Indo-Pacific and Atlantic Oceans.

Euthynnus Lütken, in Jordan and Gilbert, Bull. 16, U. S. Nat. Mus., p. 429, 1882; orthotype, *Thynnus pelamys* L. Kishinouye, Jour. College Agric., Univ. Tokyo, vol. 8, p. 456, 1923.

674. *Euthynnus yaito* Kishinouye. Yaito tuna; Bonito; Tulingan; Sobad; Suba; Pidlayan; Katchorita; Katchot; Kawakawa.

From Japan through the Philippines to the south China and Celebes Seas.

Thynnus thunnina Schlegel, Fauna Japonica, Pisces, p. 95, pl. 48, 1850; Nagasaki, Japan.

Euthynnus yaito Kishinouye, Suisan Gakkwai Ho (Proc. Sci. Fisheries Assoc., Tokyo), vol. 1, p. 22, pl. 1, fig. 15, 1915. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 457, figs. 26, 54, and 58, 1923; southern part of Japan; Keelung Harbor, Formosa; Dutch Indies. Chevey, Poissons, Campagnes de *Lanessan*, p. 113, pl. 46, 1932; Indo-China. Herre, Jour. Pan Pac. Research Inst., vol. 8, p. 7, 1933; Dumaguete, Oriental Negros Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 100, fig. 60, 1936; vicinity of Corregidor and Mariveles, Manila Bay, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, pp. 215, 218, 219, 1937; Balayan Bay, Batangas. Domantay, Philippine Jour. Sci., vol. 71, pp. 82, 99 and 100, 1940; Zamboanga Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Herre, Proc. Sixth Pacific Sci. Congress, Oceanogr. and Marine Biol., p. 211, 1940; Philippines. Herre, Copeia, No. 3, p. 148, 1945; Miagao, Iloilo Province, Panay; Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Bureau Science and other collections, 1926 to 1940-41; off Sibuyan; Si Amil Island, coast of British North Borneo; east coast of Tayabas Province, and the east coast of Camarines Norte Province, Luzon; Verde Island Passage; Cagayan, Misamis Oriental Province, Mindanao; Tubataha Reef, Sulu Sea; Gulf of Davao, Mindanao.

Genus 260. GERMO Jordan. Long-finned albacore.

Orcynus Cuvier, Règne Animal, ed. 1, p. 314, 1817; *Scomber germo* Lacépède=*Scomber alalunga* Gmelin; not *Orcynus* Rafinesque, 1810, which is *Scomberoides*.

Germo Jordan, Proc. Acad. Nat. Sci. Phila., vol. 40, p. 180, 1888; type *Scombrus alalonga* Gmelin; substitute for *Orcynus*, preoccupied.

675. *Germo alalunga* (Gmelin). Long-finned tuna; Germon; Tambakol.

All warm seas.

Scomber alalunga Gmelin, Syst. Nat., Linnaeus, vol. 1, p. 1930, 1789; Sardinia.

Scomber germo Lacépède, Hist. Nat. Poissons, vol. 3, p. 1, 1802; Pacific Ocean, lat. 27° S, long. 103°; on Commerson ms. Bennett, Narrative Whaling Voyage, vol. 2, p. 278, 1840; Polynesian Islands.

Thynnus alalonga Günther, Cat. Fishes British Mus. vol. 2, p. 366, 1860; Cape of Good Hope; Atlantic Ocean.

Germo alalunga Seale, Philippine Jour. Sci., vol. 3A, p. 515, 1908; the Philippines. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 33, 1922; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 133, 1928; Honolulu. Walford, Marine Game Fishes, p. 14, pl. 35, 1937; Puget Sound to San Diego. Herre, reported from the southern end of the Gulf of Davao by Alvin Seale and by two California fishermen of long experience—one in 1925, the other in 1945. Umali, 1937; Philippine Bureau Science Collection; Lagonoy Gulf, Camarines Sur Province, Luzon.

Thunnus germo Kishinouye, Jour. College Agric., Univ. Tokyo, vol. 8, p. 434, figs. 20, 46, and 52, 1923; Pacific coast of Hondo, and south coast of Hokkaido, Japan; widely distributed in the north and south Pacific.

Thunnus (Germo) germon McCulloch, Mem. 5, Australian Mus., p. 263, 1929; New South Wales; Indian Ocean; Japan; synonymy in part.

Thunnus germo Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon.

Genus 261. GRAMMATORCYNUS Gill.

Indo-Pacific from the Red Sea to the Philippines and East Indies, south to Australia.

Grammatorcynus Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 125, 1862; orthotype, *Thynnus bilineatus* Rüppell.

Nesogrammus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 61, 1907; orthotype, *Nesogrammus piersoni* Evermann and Seale.

676. *Grammatorcynus bicarinatus* (Guoy and Gaimard).

Tropical Indo-Pacific; marine.

Thynnus bicarinatus Quoy and Gaimard, Voy. *Uranie et Physicienne*, Poissons, p. 357, pl. 61, fig. 1, 1825; figure very bad; Shark's Bay, Western Australia.

Thynnus bilineatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 39, pl. 12, fig. 2, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 366, 1860; Red Sea.

Grammatorcynus bilineatus Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 125, 1862. Klunzinger, Fische Rothen Meeres, p. 113, 1884; Red Sea. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 413, figs. 8, 10, and 62, 1923; RiuKiu Islands; Marshall Islands. Hardenberg, Treubia, vol. 15, p. 137, 1935; fish market, Batavia, Java, from reefs in western part of Java Sea.

Nesogrammus piersoni Evermann and Seale, Bull. Bur. Fish., vol. 26, p. 61, fig. 3, 1907; Bulan, Sorsogen Province, Luzon.

Grammatorcynus bicarinatus McCulloch, Proc. Linn. Soc. New South Wales, vol. 40, p. 266, pl. 35, fig. 1, 1915; New South Wales, Australia. Herre, Fishes 1931 Philippine Exped., p. 33, 1934; Balabac Island; Jolo market, Jolo, Sulu Province. Herre, Bureau Science Collection, 1926; market, Manila, Luzon, Philippines. Herald, motorship *Spencer F. Baird*, April, 1948; market at Zamboanga, Zamboanga Province, Mindanao.

Genus 262. GYMNOSARDA Gill.

Pelagic fish of the tropical Indo-Pacific.

Gymnosarda Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 125, 1862; orthotype, *Thynnus unicolor* Rüppell. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 426, 1923.

677. *Gymnosarda nuda* (Günther).

Tropical Indo-Pacific Ocean; Philippines, RiuKiu Islands and Bonin Island.

Thynnus (Pelamys) unicolor Rüppell, Neue Wirbelt., Fisches Rothen Meeres, p. 40, pl. 12, fig. 1, 1835; Red Sea.

Pelamys nuda Günther, Cat. Fishes British Mus., vol. 2, p. 368, 1860; Red Sea. Klunzinger, Fische Rothen Meeres, p. 110, 1884; Red Sea.

Gymnosarda nuda Kishinouye, Sui. Gak. Ho, vol. 1, p. 13, pl. 1, fig. 8, 1915. Kishinouye, Jour. Coll. Agric., Univ. Tokyo, vol. 8, p. 426, fig. Y, 1923; Bonin and Ryukyu Islands; tropical Indo Pacific. Herre, 1936-37 and 1940-41 Expeds.; Zamboanga, Mindanao; Si Amil Island, off east coast of British North Borneo. Herre, Copeia, No. 3, p. 148, 1945; Lubang Island; Tailon Island, off north coast of Camarines

Norte Province, Luzon; off Verde Islands, Verde Island Passage; Tubataha Reef, Sulu Sea; Gulf of Leyte; off east coast of Leyte. Herald, Manila market, April 14, 1948.

Genus 263. KATSUWONUS Kishinouye. Oceanic bonitos.

Cosmopolitan; in temperate and tropical waters.

Katsuwonus Kishinouye, Suisan Gakkwai Ho, vol. 1, p. 21, 1915.

Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 452, 1923.

678. *Katsuwonus pelamis* (Linnaeus). Oceanic bonito; Skipjack; Tulingan; Puyan; Gulisan.

Scomber pelamis Linnaeus, Syst. Nat., ed. 10, p. 297, 1758; pelagic between tropics.

Scomber pelamides Lacépède, Hist. Nat. Poissons, vol. 3, p. 14, 1802; after Linnaeus.

Thynnus vagans Lesson, Dict. Classique Hist. Nat., vol. 15, p. 279, 1829; Tahiti.

Thynnus pelamys Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 82, p. 113, pl. 214, 1831; Tahiti; Dangerous Arch. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischoorten Manado en Makassar, p. 41, 1856, Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 364, 1860; tropical and warmer parts of the Atlantic and Indian Oceans. Bleeker, Nat. Tijds. Ned.-Ind., vol. 21, p. 53, 1860; Cape of Good Hope. Schlegel, Fauna Japonica, Pisces, p. 96, 49, 1846. Günther, Fische der Südsee, vol. 2, p. 151, 1876; Atlantic, Indian, and Pacific Oceans.

Pelamys pelamys Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 289, 1865; Amboina. Bleeker Versl. Akad. Amsterdam, vol. 18, 1879; Enumer. Poiss. connues Japon, p. 15.

Gymnosarda pelamis Jordan and Evermann, Fishes North and Middle Amer., vol. 1, p. 868, 1896. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 441, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 172, fig. 64, 1905; Honolulu and Hilo, Hawaii. North to Cape Cod and Bermudas, Atlantic Ocean; coast of California. Seale, Philippine Jour. Sci., vol. 3A, p. 515, 1908; Philippines; Cuyo Islands; shore of Palawan; Zamboanga.

Euthynnus pelamis Tanaka, Fishes Japan, vol. 10, pls. 37, 39, and 40, p. 140, 1912. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 31, 1922; Honolulu. Herre, Fisheries Resources Philippine Islands, p. 49, 1927; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 132, 1928; Honolulu, off north coast of Oahu.

Katsuwonus pelamis Kishinouye, Suisan Gakkwai Ho (Proc. Sci. Fisheries Assoc., Imperial Univ., Tokyo), vol. 1, p. 21, pl. fig. 14, 1915.

Katsuwonus pelamis Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 453, figs. 5, 14, 19, 25, 53, and 57, 1923; coast of Japan; RiuKiu Islands; Formosa; Bonin Islands. Villalobid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Martin, Philippine Jour. Sci., vol. 67, p. 189, 1938; Davao Gulf, Davao Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 71, pp. 82 and 100, 1940; Celebes and Sulu Seas, off Zamboanga Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Herre, Philippine Bureau Science Collection, and 1933-40 Collections; Taal, Batangas Province, Luzon; Zamboanguita, Negros Oriental Province; Butuan market, Agusan Province, and Zamboanga Province, Mindanao; Gorrer, Pelew Islands. Herre, Proc. Sixth Pacific Sci. Congress, Oceanogr. and Marine Biol., p. 211, 1940; the Philippines.

Genus 264. KISHINOELLA Jordan and Hubbs. Least tuna; northern bluefin (Australia). East Indies and Philippines, north to Japan, south to Australia; one species.

Kishinoella Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 219, 1925; orthotype, *Kishinoella rara* (Kishinouye) = *Thynnus tonggol* Bleeker.

679. *Kishinoella tonggol* (Bleeker).

Thynnus tonggol Bleeker, Verh. Bat. Gen., vol. 24, 1852; Makreel, viss., p. 89, Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 52, 1861; Singapore.

Thynnus rarus Kishinouye, Suisan Gakkwai Ho (Proc. Sci. Fisheries Assoc., Imperial Univ., Tokyo), vol. 1, p. 28, pl. 1, fig. 13, 1915; Tokyo market.

Neothunnus rarus Kishinouye Jour. College Agric., Univ. Tokyo, vol. 8, p. 448, figs. 24, 48, and 64, 1923; Nagasaki; western and southern coast of Kyushyu, Japan; market of Tokyo; southwestern part of Japan Sea. Herre, Bull. Raffles Mus., No. 16, p. 39, 1940; Singapore market. Nichols and La Monte, Ichth. Contrib. Internat. Game Fish Assoc., vol. 1, p. 1941; Japan; Hawaiian Islands.

Ktishinoella rara Herre, Philippine Bureau Science Collection and 1936-41 Collections; Zamboangita, Oriental Negros Province; Cagayan, Misamis Oriental Province; Surigao, Surigao Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Copeia, No. 3, p. 148, 1945; Zamboanga Province, Mindanao; off coasts of Basilan Island; Celebes Sea and Sulu Sea, off Sulu Islands; Siasi, Sulu Province; cannery at Si Amil Island, off east coast of British North Borneo; Singapore market.

Ktishinoella tonggol Serventy, Australia Council Sci. Industr. Research, Division Fisheries, Report 4, p. 33, pl. 3, top figure and text figs. 6-9, 1941; subtropical and tropical Australian waters.

Genus 265. NEOTHUNNUS Kishinouye. Yellow-finned albacores.

Fishes of worldwide distribution in tropical and warm temperate waters; perhaps only one species.

Neothunnus Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 445, 1923; type, *Neothunnus macropterus* Schlegel.

680. Neothunnus macropterus (Schlegel). Yellow-fin tuna; Yellow-fin albocore; Tuna: Tambakol; Tulingan: Bareles.

Japan, the Philippines, East Indies, and all over the warmer parts of the Indo-Pacific, from the Red Sea through Polynesia and Micronesia to California, Mexico, and south to the Galapagos Islands and Peru; also in the Atlantic, the coast of Florida and the West Indies; north Atlantic to England.

Thynnus macropterus Schlegel, Fauna Japonica, Pisces, p. 98, pl. 51, 1850.

Thynnus macropterus Day, Fishes India, p. 253, 1878; Seas of India to Japan.

Germo germo Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 174, fig. 66, 1905; Honolulu and Hilo, Hawaiian Islands.

Germo macropterus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 228, 1906; Hawaii; southern California; Japan. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 32, 1922; Honolulu market. Fowler, Mem. Bishop Mus., vol. 10, p. 134, 1928; Honolulu markets, Oahu.

Thunnus allisoni Mowbray, Copeia, No. 78, p. 9, figure, 1920; coast of Florida.

Neothunnus macropterus Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 446, figs. 13, 19, 23, 45, and 51, 1923; coast of Japan and southward; Hawaii south to California coast. Herre, Collections and Observations for Bureau of Science, 1920-1940; Lubang Islands; Manila market; Batangas, Batangas Province, Luzon; Verde Island Passage, off Mindoro; east coast of Luzon, Tayabas Province; Butuan Bay, Cabadbaran, Agusan Province, Surigao, Surigao Province, Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Si Amil Island, off east coast of British North Borneo; also reported from the Babuyan Islands, north of Luzon. Herre, Fishery Resources Philippine Islands, pl. 20, fig. 2, 1927; locality, Cabadbaran, Agusan Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 106, 1936; Albemarle Island, Galapagos. Umali, Edible Fishes Manila, p. 101, fig. 61, 1936; off entrance of Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province. Walford, Marine Game Fishes, p. 3, pl. 33, 1937; Point Concepcion, California, southward to the Galapagos. Martin, Philippine Jour. Sci., vol. 67, p. 190, 1938; Davao Gulf, Davao Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 71, pp. 82 and 100, 1940; off shore fishing grounds of Zamboanga Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.

Neothynnus macropterus Jordan and Evermann, Occas. Papers California Acad. Sci., vol. 12, p. 20, pl. 3, fig. 3, and pl. 5, 1926; Honolulu.

Neothunnus itosibi Jordan and Evermann, Occas. Papers, California Acad. Sci., vol. 12, p. 22, pl. 6, 1926; Honolulu markets.

Germo albacores Fowler, Mem. Bishop Mus., vol. 10, p. 134, 1928.

Neothunnus allisoni Nichols and La Monte, Ichth. Contrib. Internatl. Game Fish Assoc., vol. 1, p. 30, 1941; West Indies; southern Florida; tropical Pacific.

Neothunnus albacora Nichols and La Monte, Ichth. Contrib. Internatl. Game Fish Assoc., vol. 1, p. 30, 1941.

Thunnus macropterus Hildebrand, Bull. 189, U. S. Nat. Mus., p. 369, 1946; coast of Peru.

Genus 266. PARATHUNNUS Kishinouye.

A large tuna of the warm temperate and tropical Pacific; one species known.

Parathunnus Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 442, 1923; type, *Parathunnus mebachi* Kishinouye, which is a synonym of *P. sibi* Kitahara.

681. Parathunnus sibi (Kitahara).

Known from Japan, the Bonin and Riu Kiu Islands, Formosa, and the Sulu Sea, Philippines.

Orcynus sibi Kitahara, Jour. Fish. Bureau, vol. 6, p. 1, pl. 1, fig. 2, 1897; not *T. sibi* Schlegel, which seems to be *Neothunnus macropterus*.

Thunnus mebachi Kishinouye, Suisan Gakkwai Ho (Proc. Sci. Fisheries Assoc., Imperial Univ., Tokyo), vol. 1, p. 19, pl. 1, fig. 11, 1915.

Parathunnus mebachi Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 442, figs. 4, 22, 47, and 49, 1923; southern coast of Japan; Bonin Islands, Riu Kiu Islands, and Formosa; near mouth of Tokyo Bay.

Parathunnus sibi Jordan and Evermann, Occas. Papers, California Acad. Sci., vol. 12, p. 17, pl. 3, fig. 2, 1926; Japan. Herre and Doman-tay, September 1940; Sulu Sea, near Zamboanga, Zamboanga Province, Mindanao.

Genus 267. SARDA Cuvier. Bonitos.

Small or moderate-sized fish of the tropical and warm temperate Indo-Pacific and Atlantic Oceans.

Sarda Cuvier, Règne Animal, ed. 2, vol. 2, p. 199, 1829; type, *Scomber sarda* Bloch. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 424, 1923.

682. Sarda orientalis (Schlegel). Bonito; Skipjack: Oriental bonito; Gantaan. Ranging all over the western Pacific Ocean and perhaps occurring in the mid-Pacific.

Pelamys orientalis Schlegel, Fauna Japonica, Pisces, p. 90, 1850; Japan. Günther, Cat. Fishes British Mus., vol. 2, p. 368, 1860; Sea of Japan.

Sarda chilensis orientalis Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 3, Beiträge Kenntniss Fische Japans, p. 11, 1883.

Sarda orientalis Bleeker, Verh. Akad. Amsterdam, vol. 18, 1879; Enumeratio Poissons Japon, p. 15. Kishinouye, Suisan Gakkwai Ho, vol. 1, p. 12, pl. 1, fig. 7, 1915. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 424, figs. 11, 17, 33, and 42, 1923; southern Japan, especially Kyushu. Herre, Bureau Science Collection; Culion: southern end of Negros; around Jolo Island, Sulu Province. Herald, Collection of motorship *Spencer F. Baird*; Siokun Bay, Zamboanga Peninsula, March 1948. Herre, Herald, and Sabado, Philippine Fishery Program; markets at Batangas, Taal, and Lemery, Batangas, and Balayan Bays, Batangas Province, Luzon, April-May, 1948.

Genus 268. THUNNUS South. Great tunnies.

In all warm seas of the Indo-Pacific and Atlantic Oceans.

Thynnus Cuvier, Règne Animal, ed. 1, vol. 1, p. 313, 1817; type, *Scomber thynnus* L.: name preoccupied. Günther, Cat. Fishes British Mus., vol. 2, p. 368, 1860.

Thunnus South, Encyclopedia Metropolitana, vol. 5, p. 620, 1845; ortho-type, *Scomber thynnus* L. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 433, 1923.

Orcynus Cooper, Proc. California Acad. Nat. Sci., vol. 3, p. 77, 1863; type, *Scomber thynnus* L.

683. *Thunnus thynnus* (Linnaeus). Tuna; Bluefin tuna; Leaping tuna; Tunny; Horse mackerel; Tullifigan; Sobad.
Scomber thynnus Linnaeus, Syst. Nat., ed. 10, p. 297, 1758; pelagic between tropics.
Thynnus vulgaris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 59, pl. 210, 1831. Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 45, fig. 2, 1839.
Thynnus orientalis Schlegel, Fauna Japonica, p. 94, 1850; Nagasaki.
Thynnus thynnus Günther, Cat. Fishes British Mus., vol. 2, p. 362, 1860, Weymouth and Plymouth, England.
Orcynus schlegeli Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 3, Beiträge Kenntniss Fische Japan's, p. 11, pl. 3, fig. 1, 1883.
Orcynus thynnus Kitahara, Jour. Fish Bureau, vol. 6, p. 1, pl. 1, fig. 1, 1897.
Thunnus schlegeli Fujita, Otaki, and Higurashi, Fishes Japan, vol. 1, p. 21, pl. 1905.
Thunnus orientalis Kishinouye, Suisan Gakkwai Ho, (Proc. Sci. Fisheries Assoc., Imperial Univ., Tokyo), vol. 1, p. 17, pl. 1, fig. 99, 1915. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 32; 1922; Honolulu. Kishinouye, Jour. College Agric. Univ. Tokyo, vol. 8, p. 437, figs. 3, 21, 43, 44, and 50, 1923; coast of Japan, east coast of Korea.
Thunnus thynnus Fowler, Mem. Bishop Mus., vol. 10, p. 133, 1928; Honolulu; Society Islands. Walford, Marine Game Fishes, p. 7, pl. 34, 1937; Columbia River to coast of Lower California; on both sides of the Pacific and Atlantic Oceans; Black Sea, Mediterranean, Norway to Cape of Good Hope; Newfoundland to Florida and the Bahamas. Herre, observed 1925-48; Gulf of Davao and southeastern coast of Mindanao; China Sea, off Lubaug Islands, west coast of Mindoro.

Family 98. GEMPYLIDÆ. Snake Mackerels; Escolares

Genus 269. GEMPYLUS Cuvier and Valenciennes. Snake mackerel.

Circumtropical; in deep water and open sea.

Zyothyca Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 239; type,

Gempylus coluber Cuvier and Valenciennes.

Gempylus Cuvier, Règne Animal, ed. 2, vol. 2, p. 200, 1829; type, *Gempylus*

serpens Cuvier. Cuvier and Valenciennes Hist. Nat. Poiss., vol. 8, pp. 152 and 207, 1831. Günther, Cat. Fishes British Museum, vol. 2, p. 352, 1860. Goode and Bean, Oceanic Ichth., p. 202, 1895.

Lemnisoma Lesson, Voy. Coquille, Poissons, p. 160, (1826) 1831; type

Lemnisoma thyrstitoides Lesson. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 179, 1905.

684. *Gempylus serpens* Cuvier.

Distribution as for the genus.

Gempylus serpens Cuvier, Règne Animal, ed. 2, vol. 2, p. 200, 1829; on

Serpens marinus Sloane, Voy. Jamaica, vol. 1, p. 26, pl. 1, fig. 2, 1707;

tropic of Cancer. Cuvier and Valenciennes, Hist. Nat. Poissons, vol.

8, p. 152 (207), 1831; Martinique, West Indies. Günther, Cat. Fishes

British Mus., vol. 2, p. 352, 1860; tropical parts of the Atlantic Ocean,

especially the Caribbean Sea. Günther, Fische der Südsee, vol. 1, p.

106, pl. 68, fig. B, 1873-75; Hawaiian Islands. Goode and Bean,

Oceanic Ichth., p. 202, text figure, 1895; Canary Islands, Caribbean

Sea, and near the Society and Hawaiian Islands. Fowler, Mem.

Bishop Mus., vol. 10, p. 135, 1928; Honolulu, Hawaiian Islands. Herre

and Herald, Collection of motorship *Spencer F. Baird*, October, 1947;

Sulu Sea, between Palawan and the Cagayan Islands; also from the

stomach of *Katsuwonus pelamis* taken in Moro Gulf, lat. 7° N. long.

123°50' E.

Gempylus coluber Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8,

p. 155 (211), pl. 221, 1831; Tahiti. Günther, Cat. Fishes British Mus.,

vol. 2, p. 353, 1860; after Cuvier and Valenciennes.

Lemnisoma thyrstitoides Lesson, Voy. Coquille, vol. 2, p. 160, (1826) 1831;

South Sea near Tuamotu (Paumotu) Islands. Jordan and Evermann,

Bull. U. S. Fish Comm., vol. 23, Part 1, p. 179, 1905; Puna, south of

Hilo, Hawaii; Honolulu, Oahu, Hawaiian Islands.

Gempylus ophidianus Poey, Memoriae Hist. Nat. Cuba, vol. 2, p. 246,

pl. 18, fig. 1, 1861; Cuba.

Genus 270. JORDANIDIA Snyder.

A single species known, ranging from Japan to the Philippines and East Indies.

Jordanidia Snyder, Proc. U. S. Nat. Mus., vol. 40, p. 527, 1911; type, *Jordanidia raptatoria* Snyder. Kamohara, Annot. Zool. Japon., vol. 17, pp. 45 and 49, 1938.

685. Jordanidia promethoides (Bleeker).

Thyrssites promethoides Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 42, 1856; Amboina. Bleeker, Nat. Tijds. Ned. Ind., vol. 13, p. 372, 1857; Sangi Islands.

Jordanidia raptatoria Snyder, Proc. U. S. Nat. Mus., vol. 40, p. 527, 1912; Kagoshima, Japan. Snyder, Ibid., vol. 42, p. 410, pl. 52, fig. 2, 1912; Tanegashima market, Japan.

Jordanidia promethoides Kamohara, Annot. Zool. Japon., vol. 17, p. 50, 1938; common in markets of Tosa, Japan. Herre and Herald, Butong, Balayan Bay, market at Lemery, and Batangas Bay, Batangas Prov., Luzon.

Genus 271. PROMETHICHTHYS Gill.

Prometheus Lowe, Trans. Zool. Soc. London, vol. 2, p. 184, 1841; type *Prometheus atlanticus* Lowe, preoccupied.

Promethichthys Gill, Mem. Nat. Acad. Sci., vol. 6, pp. 115 and 123, (Note 4), 1893; type, *Promethichthys atlanticus* Lowe=*Gempylus Prometheus* Cuvier and Valenciennes. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 178, 1905. Herre, Philippine Jour. Sci., vol. 31, p. 217, 1926.

686. Promethichthys prometheus (Cuvier and Valenciennes). Rabbitfish; Langpoi.

Circumtropical; in rather deep water.

Gempylus prometheus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 213, pl. 222, 1831; St. Helena, South Atlantic. Valenciennes, Ichth. fles Canaries, p. 51, pl. 40, 1836-44; Canary Islands.

Gempylus solandri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 215, 1831; New Holland.

Prometheus atlanticus Lowe, Trans. Zool. Soc. London, vol. 2, p. 181, 1841; Madeira. Lowe, Fishes Madeira, vol. 1, p. 141, pl. 20, 1843. Poey, Synopsis piscium cubensium, in Repertorio Fisco-Natural Isla Cuba, vol. 2, p. 364, 1868; Cuba.

Thyrssites prometheus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Visch-soorten Amboina, p. 43, 1856. Günther, Cat. Fishes British Mus., vol. 2, p. 351, 1860; Madeira. Günther, Fische der Südsee, vol. 1, p. 107, plate 68, fig. A, 1875; Cook Island; Tahiti.

Promethichthys prometheus Gill, Mem. Nat. Acad. Sci., vol. 6, p. 115, 1893. Goode and Bean, Oceanic Ichthyology, p. 200, text figure, 1895; Bermuda. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 178, pl. 29, 1905; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 135, 1928; Honolulu, Hawaiian Islands; Tahiti. Herre, Philippine Jour. Sci., vol. 31, p. 218, 1926; Cabalian, Leyte.

Genus 272. RUVETTUS Cocco.

One circumtropical species known, living in rather deep water.

Ruvettus Cocco, Giornale Scienza Sicilia, vol. 42, p. 2, 1829; type, *Ruvettus pretiosus* Cocco. Goode and Bean, Oceanic Ichthyology, p. 196, 1895. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 177, 1905.

Acanthoderma Cantraine, Jour. Acad. Sci. Belles-Lettres Bruxelles, vol. 10, pp. 1-19, 1837; orthotype, *Acanthoderma temmincki* Cantraine.

Aplurus Lowe, Trans. Zool. Soc. London, vol. 2, p. 180, 1841; type, *Aplurus simplex* Lowe.

687. Ruvettus pretiosus Cocco. Ruvetto; Oilfish; Castor-oil fish; Ulago.

Throughout the warmer parts of the Indo-Pacific and Atlantic, usually at depths of 220 to 450 fathoms.

Ruvettus pretiosus Cocco, Giornale Scienza Sicilia, vol. 42, p. 21, 1829; Messina, Sicily. Bonaparte, Iconographia Fauna Italica, Pesci, pl. 42, 1834. Goode and Bean, Oceanic Ichthyology, p. 196, fig. 210, 1895; Sicily; Italy; Malta; Adriatic Sea; Madeira; Canary Islands; Portugal; Cuba; Georges Bank, north Atlantic. Waite, Records Australian Mus., vol. 5, p. 3, 1903; Paanopa or Ocean Island, Gilbert Group.

Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 177, fig. 67, 1905; Honolulu market. Gudger, American Naturalist, vol. 62, p. 467, 1928. Fowler, Mem. Bishop Mus., vol. 10, p. 135, pl. 10A, 1928; Honolulu. Herre, Philippine Jour. Sci., vol. 59, p. 365, 1936; Manila market, caught on Pacific coast of Camarines Norte Province, Luzon. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 108, 1936; Tahiti. Ronquillo, Zamboanga market, Zamboanga Province, Mindanao, March, 1948.

Ruvettus tydemani Weber, *Siboga*-Exped., vol. 57, Fische, p. 401, pl. 8, fig. 4, 1913; Binongka Island, Dutch East Indies.

Ruvettus pacificus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 34, 1922.

Family 99. TRICHIURIDÆ. Hairtails; Cutlassfishes

Fishes of the Indo-Pacific and Atlantic.

Genus 273. TRICHIURUS Linnaeus. Hairtails.

Western Pacific south to Australia and west across the Indian Ocean; also Pacific coast of tropical America and the Atlantic from the West Indies to New Jersey.

Trichiurus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 246; 1758; type, *Trichiurus lepturus* L., after Artedi.

688. *Trichiurus haumela* (Forskål). Hairtail; Bolungonas (Sugar-cane leaf); Balila; Langkoy; Bolungnas; Pinka; Sokwan; Sambukot; Tagisang lawin.

The Philippines, East Indies, Japan, Australia, India, Red Sea, and South Africa.

Clupea haumela Forskål, Descript. Animal., p. 72, 1775; Mocha, Red Sea. *Trichiurus haumela* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 516, 1845; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 212, 1851; Celebes. Bleeker, *ibid.*, vol. 3, p. 412, 1852; Borneo. Günther, Cat. Fishes, British Mus., vol. 2, p. 348, 1860; Malayan Peninsula; Amboyna. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 23, 1885; Manila Bay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 62, 1906; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 251, 1908, Manila; Cavite, Cavite Province, Luzon. Seale, Philippine Jour. Sci., vol. 5 D, p. 272, 1910; Sandakan, British North Borneo; the Philippines. Jordan, Tanaka, and Snyder Cat. Fishes Japan, p. 125, 1913; Indian Ocean and Archipelago; Manila; San Fabian; Cavite; Japan. Fowler, Copela, No. 58, p. 63, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 268, 1927; Santa Maria, Ilokos Sur Province, and Orion, Bataan Province, Luzon, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Bauang Sur, La Union Prov.; Nasugbu, Batangas Prov.; Manila, Luzon; Cebu, Cebu Prov.; Dumaguete, Negros Oriental Prov.; Cotabato, Cotabato Province, Mindanao. Umali, Edible Fishes Manila, p. 102, fig. 62, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Blanco, *ibid.*, vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, *ibid.*, vol. 71, p. 100, 1940; Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Iloilo, Iloilo Province, Panay.

Trichurus savala Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Prov., Luzon.

689. *Trichiurus japonicus* (Schlegel). Japanese hairtail; Tambukugan. Coasts of China, Japan, Formosa, and northern Philippines.

Trichiurus lepturus japonicus Schlegel, Fauna Japonica, Pisces, p. 102, pl. 54, 1846, Japanese coasts.

Trichiurus japonicus Bleeker, Verh. Bat. Gen., vol. 26, Ichth. Japan, p. 98, 1854-57. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Borneo, p. 34, 1860. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 60, p. 563, 1874; Singapore. Bleeker, Verh. Akad. Amsterdam, vol. 18, 1879; Poissons de Chine, p. 2; China. Peters, Monatsber. Akad. Wiss. Berlin, p. 922, 1880; Ningpo. Rutter, Proc. Acad. Nat. Sci. Phila., p. 72, 1897; Swatow, China. Jordan and Seale,

Proc. Davenport Acad. Sci., vol. 10, p. 6, 1905; Hong Kong. Herre, many specimens observed on coasts of Ilokos Norte and Ilokos Sur Provinces; 1922-1927; also many dried fish sent to Manila from Curimao, Ilokos Norte Province, Luzon; 1921, and subsequent years. Herre, Lingnan Sci. Jour., vol. 21, p. 115, 1945; Chusan Islands; Tanghai; Tai Po, New Territory, Hong Kong. (?) Borodin, Bull. Vanderbilt Marine Mus., vol. 1, Fishes, p. 49, 1950; Manila Bay, Philippines; a very doubtful record.

690. *Trichiurus lajor* Bleeker.

Trichiurus lajor Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 248, 1854; Celebes. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Borneo, p. 34, 1860. Bleeker, *ibid.*, Dertiende Bijdr. vischfauna Celebes, p. 38. Kner, Reise *Novara*, Fische, p. 140, 1865-67; Manila, Luzon.

691. *Trichiurus savala* Cuvier.

East Indies and Philippines, west to India, south to Australia.

Trichiurus savala Cuvier, Règne Animal, ed. 2, vol. 2, p. 219, 1829; Sea of the Indies. Cuvier and Valenciennes, Hist. Nat. Poisson, vol. 8, p. 251, pl. 224, 1831; Pondicherry, India; China; Malacca. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1097, 1850; Pinang; Malay Peninsula; Singapore. Bleeker, Nat. Tijds. Ned. Ind., vol. 1, p. 160, 1851; Banka. Bleeker, Verh. Bat. Gen., vol. 24, Bijdr. kennis Makreelachtige visschen, p. 41, 1852. Günther, Cat. Fishes British Mus., vol. 2, p. 347, 1860. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Borneo, p. 32, 1860. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes Exped. 1933-34; Dumaguete, Negros Oriental Province; Sulu Sea, Philippines.

Family 100. ISTIOPHORIDÆ. Sailfishes; Spearfishes; Malasugi

Genus 274. ISTIOPHORUS Lacépède.

Throughout the tropical and warm temperate Indo-Pacific and Atlantic. *Istiophorus* Lacépède, Hist. Nat. Poissons, vol. 3, p. 374, 1803; type, *Istiophorus gladius* Lacépède=*Scomber gladius* Broussonet.

692. *Istiophorus orientalis* (Schlegel). Sailfish; Kandayan; Kandalan; Layan; Malasugi.

Probably all over the tropical and warm temperate Pacific, from Japan to Hawaii and Australia and may be the same as the one in the Indian Ocean.

Istiophorus orientalis Schlegel, Fauna Japonica, Pisces, p. 103, pl. 55, 1850; southeast coast of Japan. Bleeker, Verh. Akad. Amsterdam, vol. 18, Enumeration Poissons Japon, p. 15, 1879.

Istiophorus orientalis Fowler, Mem. Bishop Mus., vol. 10, p. 136, 1928; Honolulu markets. Herre, 1923-1940; off Ambil Island, between Luzon and Mindoro; off Mindoro, in China Sea; Illana Bay, Lanao Province, Mindanao, between Cotabato and Zamboanga; Gulf of Leyte and market, Tacloban, Leyte; Albay Gulf, off Legaspi, Albay Province, and east coast of Luzon, Tayabas Province; Polillo; around Jolo Island, Simonor and Sibutu Islands, Sulu Province. Herre, 1929; north coast of New Guinea near Madang; Geelvink Bay, New Guinea. Herre and Herald, 1947-48 motorship *Spencer F. Baird* collections; Sulu Sea, lat. 6°57' N., long. 121° E.; Celebes Sea, lat. 6° N., long. 123° E.

Genus 275. MAKAIRA Lacépède. Spearfish; Marlinspike fishes.

In all warm seas.

Makaira Lacépède, Hist. Nat. Poissons, vol. 4, p. 688, 1802; type, *Makaira nigricans* Lacépède.

693. *Makaira mitsukurii* (Jordan and Snyder). Marlinspike fish; Spearfish; Marlin; Malasugi; Dogso.

All over the tropical and warm temperate Pacific, from Japan to California, Mexico, Hawaii, Tahiti, and the Philippines, south to Australia and New Zealand, and in the Indian Ocean.

Tetrapturus mitsukurii Jordan and Snyder, Jour. College Sci. Imperial Univ. Tokyo, vol. 15, Part 2, p. 303, pl. 16, fig. 5, 1901; Misaki; Sagami; Tokyo; Yokohama; Sendai; Otaru. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 30, 1922; Honolulu markets; Santa Catalina,

- California. Fowler, Mem. Bishop Mus., vol. 10, p. 136, 1928; Honolulu market.
- Tetrapturus mazara* Jordan and Snyder, Jour. College Sci. Univ. Tokyo, vol. 15, p. 305, pl. 2, 1901; Misaki, Sagami, Japan. Jordan and Evermann, Occas. Papers California Acad. Sci., vol. 12, p. 53, pl. 11, fig. 2, 1926, Honolulu.
- Makaira grammatica* Jordan and Evermann, Occas. Papers California Acad. Sci., vol. 12, p. 55, pl. 15, 1926; Honolulu.
- Makaira mitsukurii* Jordan and Evermann, Occas. Papers California Acad. Sci., vol. 12, p. 61, pl. 18, 1926; Honolulu. Walford, Marine Game Fishes, p. 47, pl. 41, 1937; coast of California to coast of Mexico; Gulf of California; Cape San Lucas. Herre, Philippine Bureau Science Collection and other observations: off west coast of Zamboanga Province, and Gulf of Davao, Mindanao; Manila Bay; off the coast of Batangas Province, Luzon; around the Lubang Islands; off Tagalo Point, Zamboanga Province, Mindanao.

Family 101. XIPHIIDÆ. Swordfishes

One genus and one species.

Genus 276. XIPHIAS Linnaeus. Swordfishes.

Xiphias Linnaeus, Syst. Nat., ed. 10, p. 248, 1758; type, *Xiphias gladius* L.

Phaethonichthys Nichols, Amer. Mus. Nat. Hist. Novitates, No. 19, p. 1, 1923; type, *Phaethonichthys tuberculatus* Nichols; a very young swordfish.

694. *Xiphias gladius* Linnaeus. Broadbill; common swordfish; Malasugi; Dogso; Mayaspas; Manumbuk.

In all tropical and temperate seas.

Xiphias gladius Linnaeus, Syst. Nat., ed. 10, p. 248, 1758; Europe. Bloch, Ichthyologie, vol. 3, p. 23, pl. 76, 1786. Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 8, p. 255, pls. 225, 226, and 231, 1831. Günther, Cat. Fishes British Mus., vol. 2, p. 511, 1860; Margate, England. Snyder, Bull. U. S. Fish Comm., vol. 22, p. 253, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 168, fig. 61, 1905; Hilo. Herre, Fishery Resources Philippine Islands, pp. 47 and 58, 1927; the Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 136, fig. 29, 1928; Honolulu. Herre, 1928-29; Suva, Fiji, and New Ireland; photographs. Herre, Philippine Bureau Science Collections and observations, 1921-1941; China Sea, off entrance to Manila Bay, and Lagonoy Gulf, off east coast of Albay Province, Luzon; Lubang Islands; Cabalian, Leyte; Malampaya Sound and off Bacuit, also east coast of Palawan; Cuyo Islands; off north end of Cebu Island; off north coast of Bohol; off southern Negros, near Siaton; Dumanguilas Bay, near Malangas, Zamboanga Province, Mindanao; Pitogo, Jolo, Sulu Province. Fish and Game Resources Philippine Islands, Manila, 1939; Gulf of Ragay, Luzon, Polillo Island, Casiguran Peninsula, Tayabas Province, Luzon. Smith, Sea Fishes South Africa, p. 314, pl. 67, 1949.

Xiphias imperator Bloch and Schneider, Syst. Ichth., p. 93, pl. 21, 1801; Mediterranean Sea.

Xiphias rondeletii Leach, Mem. Wernerian Nat. Hist. Soc., vol. 2, p. 58, pl. 2, fig. 1, 1818; Firth of Forth.

Phaethonichthys tuberculatus Nichols, Amer. Mus. Nat. Hist. Novitates, No. 94, p. 1, fig. 1, Oct. 19, 1923.

Family 102. CORYPHAENIDÆ. Dolphins

All temperate and tropical regions.

Genus 277. CORYPHAENA Linnaeus. Dolphins.

Two species; both occur in the Philippines.

Coryphaena Linnaeus, Syst. Nat., ed. 10, p. 261, 1758; type, *Coryphaena hippurus*. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 268, 1833. Günther, Cat. Fishes British Mus., vol. 2, p. 404, 1860. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 184, 1931. Agco, Philippine Jour. Sci., vol. 72, p. 313, 1940.

Lampugus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 317, 1833; type, *Scomber pelagicus* L.; female.

695. *Coryphaena equisetis* Linnaeus. Small dolphins.

Pelagic, in all warm seas.

Coryphaena equisetis Linnaeus, Syst. Nat., ed. 10, p. 261, 1758; pelagic; after Osbeck; misprinted *equiselis*. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 297, pl. 267, 1833. Webb et Berthelot, Hist. Nat. Iles Canaries, Ichth., p. 58, pl. 21, 1836; Canary Islands. Lowe, Fishes Madeira, p. 67, pl. 10, 1843. Günther, Cat. Fishes British Mus., vol. 2, p. 407, 1860; Atlantic Ocean. Günther, Fische der Südsee, vol. 1, p. 147, pl. 93, fig. A. 1873-76; between Tahiti and Hawaiian Islands. Herre and Herald, motorship *Spencer F. Baird*; Sulu Sea, east of Palawan; Sulu Archipelago, and Sulu Sea west of Pangutaran Islands, Sulu Province; west of Cagayan Sulu, Sulu Sea; Celebes Sea, south of Mindanao; Celebes Sea between Sulu Islands and Cotabato Province, Mindanao. Several specimens taken off the northern and western coasts of Celebes, Dutch East Indies.

Coryphaena aurata Rafinesque, Caratteri, p. 33, 1810; Sicily.

Coryphaena lessonii Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 9, p. 228 (307) 1833; India.

Lampugus punctulatus Cuvier and Valenciennes, *ibid.*, p. 242 (329) 1833; Atlantic at equator.

Lampugus neapolitanus Cuvier and Valenciennes, *ibid.*, p. 241 (325) 1833; Naples; after Bloch.

Coryphaena azorica Cuvier and Valenciennes, *ibid.*, p. 227 (306) 1833; Azores.

Coryphaena socialis Bennett, Narrative Whaling Voyage, vol. 2, p. 274, 1840; near Laysan Island.

Coryphaena equisetis Fowler, Mem. Bishop Mus., vol. 10, p. 137, fig. 31, 1928; Pacific Ocean between Easter Island and the Galapagos Islands.

696. *Coryphaena hippurus* Linnaeus. Common dolphin.

Throughout the Philippines and in all tropical and temperate seas.

Coryphaena hippurus Linnaeus, Syst. Nat., ed. 10, p. 261, 1758; the open sea. Günther, Cat. Fishes British Mus., vol. 2, p. 405, 1860; Cape Seas; Ile de France; Madeira; Mediterranean; Atlantic and Pacific Oceans. Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 21, p. 446, 1871; Red Sea. Day, Fishes India, p. 248, pl. 53, fig. 6, 1878; Madras; Seas of India to the Malay Archipelago. Lütken Dansk. Vidensk. Selsk. Skrift, ser. 5, vol. 12, p. 433, 1880. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 952, pl. 149, fig. 402, 1896; South Carolina to Texas, also north to Cape Cod. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 447, 1904; Honolulu. McCulloch, Australian Zoologist, vol. 1, p. 54, 1919; New South Wales. Barnard, Ann. South African Mus., vol. 21, p. 566, 1925-27. Fowler, Mem. Bishop Mus., vol. 10, p. 137, fig. 30, 1928; Honolulu, Hawaiian Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 185, figs. 37-39, 1931; Sumatra; Sumba; mouth of River Barito, Borneo; Makassar and Menado, Celebes; Amboina. Agco, Philippine Jour. Sci., vol. 72, p. 314, pl. 1, 1940; Naujan, Mindoro. Herre, Copeia, No. 3, p. 148, 1945; breakwater, Manila Harbor; Malampaya Sound, Palawan; west coast of Samar; Carnasa Island and Gato Rock, between Cebu and Masbate; Basilan; Tonkil Island, Jolo, Siasi, Pearl Bank, and Tumindao Islands, Sulu Province. Also Manila Bay; Fortune Island off Nasugbu, Batangas Province, Luzon; Apo Reef, west of Mindoro; Cuyo Islands. Smith, Sea Fishes S. Africa, p. 314, pl. 63, 1949.

Coryphaena fasciolata Pallas, Spicilegia Zoologica, vol. 8, p. 23, pl. 3, fig. 2, 1770; Amboina.

Coryphaena imperialis Rafinesque, Caratteri, p. 33, 1810; Sicily.

Coryphaena immaculata Agassiz, in Agassiz and Spix, Piscium Brasil., p. 111, pl. 56, 1829; Atlantic Ocean off Brazil.

Coryphaena Marcgravi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 223, 1833; America.

Coryphaena suerii Cuvier and Valenciennes, *ibid.*, p. 224; Philadelphia.

Coryphaena dorado, Cuvier and Valenciennes, *ibid.*, p. 225; Brazil.

Coryphaena dolfin Cuvier and Valenciennes, *ibid.*, p. 226; Antilles.

Coryphaena argyrurus Cuvier and Valenciennes, *ibid.*, p. 232; Sea of Coromandel.

Coryphaena Vlamingii Cuvier and Valenciennes, *ibid.*, p. 233; Seas of India.

- Lampugas siculus* Cuvier and Valenciennes, *ibid.*, p. 240, Sicily.
Coryphaena scomberoides Cuvier and Valenciennes, *ibid.*, p. 234; South Sea.
Coryphaena japonica Schlegel, *Fauna Japonica*, p. 120, 1846.
Coryphaena chrysurus Bleeker, *Jour. Indian Arch.*, vol. 3, pp. 67, 68, 1849; Celebes.
Lampugas fasciolatus Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 21, p. 66, 1860; Cape of Good Hope. Bleeker, *Ned. Tijds. Dierk.*, vol. 2, p. 290, 1865; Amboina.

Family 103. STROMATEIDÆ. Butterfishes; Pomfrets

Marine fishes of both coasts of the Atlantic and the southern coasts of Asia and adjacent islands, south to Australia.

Genus 278. APOLECTUS Cuvier and Valenciennes.

The Philippines, East Indies, India, China, and Japan.

Apolectus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 438, 1830; orthotype, *Apolectus stromateus* Cuvier and Valenciennes = *Stromateus niger* Bloch.

697. *Apolectus niger* (Bloch). Black butterfish; Sandatan; Duhay; Sampiro. *Stromateus niger* Bloch, *Naturges Ausland. Fische*, vol. 9, p. 93, pl. 422, 1795. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 1, p. 370, 1851; *Indian Archipelago*. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 401, 1860; *China Seas; Malayan Peninsula*. Day, *Fishes India*, p. 247, pl. 53, fig. 4, 1878; *Seas of India to Malay Archipelago and China; Tranquebar; Malabar; Madras*. Umali, *Philippine Jour. Sci.*, vol. 54, p. 371, 1934; *southwestern Samar*. Umali, *Edible Fishes Manila*, p. 103, fig. 63, 1936; *Manila Bay*. Umali, *Philippine Jour. Sci.*, vol. 63, p. 235, 1937; *San Miguel Bay, Luzon*. Umali, *Philippine Jour. Sci.*, vol. 65, p. 182, 1938; *Ragay Gulf, Luzon*. Domantay, *Phil. Jour. Sci.*, vol. 71, p. 98, 1940; *Zamboanga Prov., Mindanao*.

Apolectus stromateus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 439, pl. 238, 1830; *Malabar*.

Apolectus niger Bleeker, *Ned. Tijds. Dierk.*, vol. 4, p. 133, 1873; *China*. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 15, 1907; *Cavite Province, Luzon*. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 252, 1908; *Manila*. Herre, *Philippine Bureau Science Collection*, also 1936-37 and 1940-41 *Collections: Manila Bay; Iloilo market, Iloilo, Panay; Cebu, Cebu; Jolo, Sulu Province*.

Genus 279. STROMATEUS Linnaeus. Harvest fishes.

Stromateus Linnaeus, *Syst. Nat. ed. 10*, p. 248, 1758; after Artedi; type, *Stromateus flatola* L.

698. *Stromateus cinereus* Bloch. Silver Butterfish; Silver Pomfret; Gray Pomfret; Duhay; Alumbeberas.

India to China and the Philippines.

Stromateus cinereus Bloch, *Naturges Ausländ. Fische*, vol. 12, p. 90, pl. 420, 1797. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 400, 1860; *Malayan Peninsula*. Day, *Fishes India*, p. 247, pl. 53, fig. 3, 1878; *Seas of India, Malay Archipelago, and beyond*. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, 1933; p. 3, *Sandakan, British North Borneo*; p. 7, *Dumaguete, Negros Oriental Province*. Herre, *Fishes 1931 Philippine Exped.*, p. 34, 1934; *Dumaguete*. Umali, *Philippine Jour. Sci.*, vol. 65, p. 182, 1938; *Ragay Gulf, Luzon*. Herre, *Philippine Bureau Science Collection; Manila Bay and Lingayen Gulf, Luzon*.

Family 104. NOMEIDÆ. Man-of-war fishes

Circumtropical fishes of the open sea; most of them of small size.

Genus 280. CUBICEPS Lowe.

Pelagic fishes of the tropical Indo-Pacific, Atlantic, and Mediterranean; only known from a few specimens.

Cubiceps Lowe, *Proc. Zool. Soc. London*, p. 82, 1843; type, *Psenes gracilis* Lowe. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 388, 1860; *Fowler*, *Bull. Amer. Mus. Nat. Hist.*, vol. 70, p. 661, 1936.

Atimostoma Smith, Illustr. Zool. South Africa, Fishes, p. 24, 1849; type, *Atimostoma capense* Smith.
Navarchus Filippi and Varany, Mem. Acad. Sci. Torino, ser. 2, vol. 18, p. 7, 1860; type, *Navarchus sulcatus* Filippi and Varany.
Trachellocirrus Doumet, Revue Mag. Zoologie, vol. 15, p. 212, pl. 15, 1863; type, *Trachellocirrus mediterraneus* Doumet.

699. Cubiceps gracilis (Lowe).

A pelagic fish known from the eastern Atlantic to the Cape of Good Hope. *Seriola gracilis* Lowe, Proc. Zool. Soc. London, vol. 11, p. 82, 1843; Madeira.

Cubiceps gracilis Günther, Cat. Fishes British Mus., vol. 2, p. 389, 1860; Mediterranean Sea; Sea of Madeira. Günther, Report Voy. *Challenger*, Zoology, vol. 31, p. 11, pl. 2, figs. A-C, 1889; west of Teneriffe; Madeira; Messina; near the Azores. Richard, Bull. Inst. Oceanogr. Monaco, No. 162, p. 149, 1910; from stomach of an albacore off the Azores. Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 10, p. 123, Madeira. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 661, fig. 297, 1936; eastern Atlantic Ocean and Mediterranean Sea; after Günther and Regan. Herre and Herald, Collection Philippine Fishery Program; Lemery market, Batangas Province, Luzon.

Genus 281. NOMEUS Cuvier. Man-of-war fishes.

A single species, in all tropical seas.

Nomeus Cuvier, Règne Animal, ed. 1, vol. 2, p. 315, 1817; type, *Gobius gronovii* Gmelin. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 242, 1833. Günther, Cat. Fishes British Mus., vol. 2, p. 387, 1860. Goode and Bean, Oceanic Ichth., p. 219, 1895. Regan, Ann. Mag. Nat. Hist., ser. 7, vol. 10, p. 121, 1902. Barnard, Ann. South African Mus., p. 889, 1927. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 659, 1936.

700. Nomeus gronovi (Gmelin). Portuguese man-of-war fishes.

Distribution as for the genus.

Eleotris mauritii Bloch and Schneider, Syst. Ichth., p. 66, 1801; Brazil. *Gobius gronovii* Gmelin, Syst. Nat., ed. 13, p. 1205, 1788; "American Ocean in torrid zone."

Nomeus maculosus Bennett, Proc. Zool. Soc., London, vol. 1, p. 136, 1831; East Indies.

Seriola argyromelas Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, pl. 262, 1833.

Nomeus maculatus Valenciennes, in Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 56, fig. 2, 1839; intertropical sea of the Indies.

Nomeus mauritii Duméril, Arch. Mus. Hist. Nat. Paris, vol. 10, p. 263, 1858; Portuguese West Africa.

Nomeus gronovii Günther, Cat. Fishes, vol. 2, p. 387, 1860; South America; south Atlantic; Australia. Goode and Bean, Oceanic Ichth., p. 220, fig. 227, 1895; tropical Atlantic and Indian Oceans; the Bermudas; Florida coast. Thompson, Marine Biol. Rept. vol. 3, p. 103, 1916; South Africa. Barnard, Ann. South African Mus., p. 890, 1927; off Cape Point, False Bay, and Natal coast, South Africa. Fowler, Mem. Bishop Mus., vol. 10, p. 138, 1928; Oahu Island, Hawaiian Islands; lat. 6° N. and W. long. 162°. Beebe and Tee-Van, Shore Fishes Bermuda, p. 100, text figure, 1933. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 660, fig. 296, 1936; warmer Atlantic, Pacific, and Indian Oceans; Florida.

Nomeus oxyurus Poey, Memorias, Hist. Nat. Cuba, vol. 2, p. 236, 1861; Havana, Cuba.

Nomeus gronovi Herre and Herald, motorship *Spencer F. Baird*; Celebes Sea, 124° E., 4° N., south of Mindanao; Sulu Sea, 119°34' E., 8°27' N., east of Palawan.

Genus 282. PSENES Cuvier and Valenciennes.

Psenes Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 193, 1833; type *Psenes cyanophrys* Cuvier and Valenciennes.

701. Psenes cyanophrys Cuvier and Valenciennes.

Indo-Pacific and Atlantic Oceans.

Psenes cyanophrys Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, pp. 193 and 260, pl. 265, 1833; New Ireland. Günther, Report Voy. *Challenger*, Zoology, vol. 31, Part 2, p. 12, 1889; south of the Philippines; between the Sulu Islands and north of New Guinea.

- Psenes javanicus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 264, 1833; Batavia and Java.
Psenes auratus Cuvier and Valenciennes, loc. cit., p. 264, 1833; Bay of Bengal.
Psenes fuscus Guichenot, Mem. Soc. Nat. Cherbourg, vol. 12, p. 128, 1866; Madagascar.
Cubiceps multiradiatus Günther, Proc. Zool. Soc. London, p. 661, pl. 61, 1871; Menado, Celebes.

702. *Psenes arafurae* Günther.

Western and central Pacific.

Psenes arafurensis Günther, Report Voy. Challenger, Zoology, vol. 40, p. 13, pl. 2, fig. G, 1888; Arafura Sea. Fowler, Bull. Bishop Mus., 26, p. 11, 1925; Gardner Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 139, fig. 33, 1928; Gardner Island. Herre, 1936-37 Exped.; Dumaguete, Negros Oriental Province.

703. *Psenes extraneus* Herre.

A Philippine fish closely related to *Psenes indicus* (Day).

Known only from the type, purchased in the Batangas market and caught in Balayan Bay, Batangas Province, Luzon; Herre 1948 Collection.

Family 105. CARANGIDÆ. Cavallas; Pampanos; Hardtails; Jacks; Runners; Talakitoks; Momsas

A large family of all tropical and temperate seas. Marine, but some species entering rivers and lakes.

Genus 283. ALECTIS Rafinesque.

Near the shores of all tropical and subtropical seas.

Alectis Rafinesque, Analyse Nature, p. 84, 1815; substitute for *Gallus* Lacépède, preoccupied; type, *Zeus gallus* L.

704. *Alectis ciliaris* (Bloch). Cobblefish; Threadfish; Mangapahan.

From the Red Sea and Natal to Japan, Australia, and Tahiti.

Zeus ciliaris Bloch, Näturges. Ausland. Fische, vol. 6, p. 29, pl. 191, 1787; East Indies; Surat.

Caranx ciliaris Günther, Cat. Fishes British Mus., vol. 2, p. 454, 1860; Amboyna; India. Günther, Fische der Südsee, vol. 2, p. 135, pl. 89, 1876-1881; Pelew Islands; Gilbert Islands; Hawaiian Islands; Solomon Islands.

Carangus ciliaris Seale, Occas. Papers, Bishop Mus., vol. 1, p. 17, 1902; Honolulu.

Alectis ciliaris Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 200, fig. 78, 1905; Honolulu; Hanalei Bay, Kauai. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1905; Zamboanga, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 269, 1931; numerous localities in Sabang, Sumatra, Java, Bali, Celebes, Banda, Amboina, Ceram, and New Guinea; Philippines. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Calapan, Mindoro. Herre, 1935-36 Exped., Cebu. Herre, Philippine Fish Tales, plate on p. 60, 1935. Herre, 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao. Roxas and Ago, Philippine Jour. Sci., vol. 74, p. 51, pl. 9, fig. 2, 1941; Manila, Luzon; Tacloban, Leyte.

Blepharis ciliaris Fowler, Mem. Bishop Mus., vol. 10, p. 151, 1928; Honolulu; Hawaiian Islands; Oahu; Maui; Society Islands; Ebon Island, Marshall Islands.

705. *Alectis indica* (Rüppell). Indian threadfish; Damis dawin; Mangapahan. From the east coast of Africa to China, Hawaii, Australia, and the Society Islands. Marine, but sometimes entering fresh water.

Zeus gallus Bloch, Ausland. Fische, vol. 6, pl. 192, fig. 1, 1788; not of Linnaeus.

Scyris indicus, Rüppell, Atlas, Fische Rothen Meeres, p. 128, pl. 33, fig. 33, fig. 1, 1828; Djedda, Red Sea.

Scyris indica Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 145, pl. 252, 1833.

Gallichthys major Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 167, pl. 254, 1833; East Indies.

Citula gallus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 242, 1863; Obi; (not of Linnaeus). Bleeker, *ibid.*, vol. 2, p. 191, 1865; Ceram. Bleeker, *ibid.*, vol. 2, p. 290, 1865; Amboina. Günther, *Fische der Südsee*, vol. 2, p. 135, 1876; Hawaiian Islands; Society Islands.

Caranx gallus Day, *Fishes India*, p. 224, pl. 51, fig. 3, 1878; Red Sea through seas of India to Malay Archipelago.

Alectis ciliaris Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 14, 1907; Cavite, Cavite Province, Luzon (not of Bloch).

Alectis major Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 251, 1908; Manila.

Alectis indica Ogilby, *Mem. Queensland Mus.*, vol. 3, p. 83, 1915. McCulloch, *Mem. 5. Australian Mus.*, p. 191, 1929; Philippines; Australia; East Indies; Formosa, China; Persian Gulf; Hawaii; Red Sea; Madagascar. Weber and de Beaufort, *Fishes Indo-Austr. Arch.*, vol. 6, p. 271, fig. 53, 1931; more than 20 East Indian localities; also Philippines and many other places in the Indo-Pacific. Herre, *Fishes 1931 Philippine Exped.*, p. 36, 1934; Bauang Sur. La Union Province, and Lemery, Batangas Province, Luzon; Calapan, Mindoro; Capiz, Capiz Province, Panay. Herre, 1940-41 *Exped.*: Lake Bombon, Batangas Province, and Gulf of Ragay, Luzon. Roxas and Agco, *Philippine Jour. Sci.*, vol. 74, p. 52, pl. 9, fig. 3, 1941; Bangui, Ilokos Norte Province, Divisoria Market, Manila, and Manila Bay, Luzon; Balanacan, Marinduque; Capiz, Capiz Province, Panay; Guimaras, Guimaras Island.

Scyris indica Fowler, *Copeia*, No. 58, p. 63, 1918; Philippines. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 151, 1928; Honolulu; New Guinea.

Alectis indicus Jordan and Jordan, *Mem. Carnegie Mus.*, vol. 10, p. 41, 1922; Honolulu.

Genus 284. ATULE Jordan and Jordan.

Small Carangidae of the Indo-Pacific, occurring in large schools.

Atule Jordan and Jordan, *Mem. Carnegie Mus.*, vol. 10, p. 38, 1922; type, *Caranx affinis* Rüppell.

706. *Atule djedaba* (Forskål). Salay salay laki; Magca-Agum.

Red Sea and Natal to the Philippines, Formosa and RiuKiu Islands.

Scomber djedaba Forskål, *Descript. Animal.*, p. 56, 1775; Red Sea.

Caranx djeddaba Rüppell, *Atlas Reise Nördl. Afrika*, *Fische Rothen Meers*, p. 97, pl. 25, fig. 3, 1828. Cuvier and Valenciennes, *Hist. Nat. Poiss.*, vol. 9, p. 38, 1833. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 432, 1860; Red Sea; coast of Pondicherry; Sea of Pinang. Day, *Fishes India*, p. 218; pl. 49, fig. 3, 1878; Madras. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 65, 1907; Philippines. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 250, 1908; Manila. Fowler, *Copeia*, No. 58, p. 63, 1918; Philippines. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 270, 1927; Philippines; San Fernando, La Union Province; Orani and Orion, Bataan Province, Luzon.

Caranx (Selar) djedaba Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, 1931; Pinang; Singapore; Batavia, Java; Philippines. Roxas and Agco, *Philippine Jour. Sci.*, vol. 74, p. 19, pl. 3, fig. 1, 1941; Divisoria market, Manila; Estancia, Iloilo Province, Luzon; also Hong Kong.

Caranx djedaba Umali, *Philippine Jour. Sci.*, vol. 54, p. 371, 1934; southwestern Samar. Umali, *Edible Fishes Manila*, p. 110, fig. 70, 1936; Manila Bay and Manila markets. Villadolid, *Philippine Jour. Sci.*, vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon.

Atule djedaba Herre, 1936-37 *Exped.*; Manila Bay; Pinang, Malaya.

707. *Atule kalla* (Cuvier and Valenciennes). Salay-salay aso; Gela-gela.

All over the tropical Indo-Pacific from Africa to the Philippines and south China, south to the Solomon Islands and Australia.

Caranx kalla Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 9, p. 37, 1831; Pondicherry, India. Day, *Fishes India*, p. 219, pl. 49, fig. 5, 1878; Malabar; Madras; Seas of India. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 65, 1907; Bulan, Sorsogon Province, Luzon. Fowler, *Copeia*, No. 58, p. 63, 1918; Philippines. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 270, 1927; Philippines; Orani and Orion, Bataan Province, Philippines. Chevey, *Poissons de Lanessan*, p. 110, pl. 44, 1932; China Sea, Indo-China. Umali, *Philippine Jour. Sci.*, vol. 54, p. 370, 1934; southwestern Samar. Umali, *Edible*

- Fishes Manila, p. 111, fig. 71, 1936; Manila Bay and Manila markets. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon.
- Caranx cambon* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 60, 1833.
- Selar kuhli* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 360, 361, 1851.
- Selar brevis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 361, 1851. Bleeker, Verh. Bat. Gen., vol. 24, p. 54, 1952; Makreel, viss., p. 54.
- Selar para* Bleeker, Verh. Bat. Gen., vol. 25; Makreel. viss. Soenda-Molukschen Arch., p. 56; this is *Caranx cambon* Cuvier and Valenciennes, according to Bleeker.
- Caranx calla* Günther, Cat. Fishes, British Mus., vol. 2, p. 433, 1860; Sumatra; Moluccas; China, Red Sea. Meyer, An. Soc. España Hist. Nat., vol. 14, p. 25, 1885; Manila Bay. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila and Cavite, Cavite Province, Luzon; Iloilo, Iloilo Province, Panay.
- Caranx wanthurus* Günther, Cat. Fishes, British Mus., vol. 2, p. 434, 1860; Madras; Malayan Peninsula.
- Caranx brevis* Günther, Cat. Fishes British Mus., vol. 2, p. 435; 1860; Sea of Batavia, Java; after Bleeker. Seale, Philippine Jour. Sci., vol. 5D, p. 271, 1910; Sandakan, British North Borneo; Philippines.
- Caranx para* Kner, Reise Novara, Fische, p. 153, 1865-67.
- Caranx kuhli* Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 50, 1878; New Guinea. (?) Fowler, Mem. Bishop Mus., vol. 10, p. 145, pl. 12A, 1928; Honolulu market; Koko Head, Oahu.
- Micropteryx queenslandiae* de Vis, Proc. Linn. Soc. New South Wales, p. 541, vol. 9, 1884.
- Alepes scitula* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 509, 1904; Padang, Sumatra.
- Caranx nigripinnis* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 14, 1907; Cavite, Cavite Province, Luzon; (not of Day).
- Alepes kalla* Ogilby, Mem. Queensland Mus., vol. 3, p. 62, 1915.
- Selar cala* Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 443, 1917; Ceylon.
- Caranx (Selar) kalla* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 216, fig. 44, 1931; 20 East Indian localities; also Philippines and many other Indo-Pacific localities. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 20, pl. 3, fig. 2, 1941; Manila Bay; Calabanga and San Miguel Bay, Camarines Sur Province, Luzon, Calbayog, Samar; Capiz, Capiz Province, Panay.
- Atule kalla* Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Manila and Naga, Camarines Sur Province, Luzon; Capiz, Capiz Province, and Iloilo, Iloilo Province, Panay. Herre, 1936-37 and 1940-41 Expeds.; Balayan Bay, Batangas Province, Luzon; Cathalogan, Samar. Herre, Mem. Indian Mus., vol. 13, p. 349, 1941; various localities, and Philippines.
- 708. *Atule malam* (Bleeker).**
The Philippines and East Indies, north to China and Formosa, west to India, south to Queensland, Australia; marine.
- Selar malam* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 362, 1851. Bleeker, *ibid.*, vol. 2, p. 471, 1851; Riouw. Bleeker, *ibid.*, vol. 3, p. 445, 1852; Banka. Bleeker, Verh. Bat. Gen., vol. 24; 1852. Makreel. visschen, p. 55.
- Caranx malam* Günther, Cat. Fishes British Mus., vol. 2, p. 434, 1860; Sea of Batavia; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 173, 1865; Siam. Bleeker, *ibid.*, vol. 4, p. 131, 1873; China. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 397, 1913.
- Caranx (Atule) malam* Wakiya, Ann. Carnegie Mus., vol. 15, p. 200, pl. 29, fig. 3, 1924; Formosa.
- Caranx (Selar) malam* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 213, 1931; Singapore; Riouw Archipelago; Sumatra; Banka; Java; Borneo; Celebes, India; Andamans; Siam; China; Formosa; Queensland. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 18, 1941; Monja Island, near Corregidor Island, at entrance to Manila Bay; also Palawan Island.

Atule malam Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Alabat Island; Capiz, Capiz Province, Panay. Herre, 1948 Coll.; Manila Bay; Malam-paya Sound, Palawan.

709. *Atule mate* (Cuvier and Valenciennes).

From the Red Sea and Natal to the Hawaiian Islands and Tahiti, north to the RiuKiu Islands, south to Australia.

Caranx mate Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 54, 1833; Pondicherry; Seychelles; New Guinea; Anjer Strait. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1107, 1850; Pinang. Day, Proc. Zool. Soc. London, p. 689, 1870; Andaman Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 19, 1922; Cebu, Philippine Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 269, 1927; Philippines; Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 145, 1928; Fiji; Hawaii; Honolulu; Midway Island.

Caranx affinis Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 49, pl. 14, fig. 1, 1835; Massaua, Red Sea. Kner, Reise *Novara*, Fische, p. 151, 1865-1867. Day, Fishes India, p. 219, pl. 49, fig. 4, 1878; Red Sea; Seas of India; Andamans to the Malay Archipelago. Vaillant, Bull. Soc. Philom. Paris, 7th ser., vol. 11, p. 53, 1886-87; Tahiti. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 64, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Cavite, Cavite Province, Luzon.

Selar Hasseltii Bleeker, Nat. Tijds. Ned-Ind., vol. 1, p. 359, 1851; Indian Archipelago. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Makreel. viss., p. 56.

Caranx hasseltii Günther, Cat. Fishes British Mus., vol. 2, p. 430, 1860; Amboyna; Moluccas. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 776, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon.

Caranx affinis Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 446, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 195, fig. 76, 1905; Honolulu.

Selar affinis Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 443, 1917; Colombo, Ceylon. Oshima, Philippine Jour. Sci., vol. 26, p. 380, 1925; Takao, Formosa; Philippines; after Jordan and Evermann.

Caranx (Atule) affinis Wakiya, Ann. Carnegie Mus., vol. 15, p. 200, pl. 30, fig. 1, 1924; Formosa; RiuKiu Islands.

Caranx (Selar) mate Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 207, 1931; Singapore; Pinang; Banka; Sumatra; Java; Bali; Flores; Borneo; Celebes; Batjan; Amboina; Halmahera; Waigi; New Guinea; Philippines. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 11, 1941; Manila market, Balayan Bay, Batangas Province, and Legaspi, Albay Province, Luzon. Polillo Island. Calbayog and San Pedro Bay, Basey, Samar; Burauen and Cabalian, Leyte; Zamboanga, Zamboanga Province, Mindanao; also Honolulu, Hawaiian Islands.

Atule mate Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., 1934; Bauang Sur, La Union Province, and Manila Bay, Luzon; Capiz, Capiz Province, Panay; Cebu, Cebu Province. Herre, 1940-41 Exped.; Coron, Busuanga.

710. *Atule megalaspis* (Bleeker).

The East Indies and Philippines.

Selar megalaspis Bleeker, Nat. Tijds. Ned-Ind., vol. 5, p. 502, 1853; Sea of Priaman, Sumatra. Bleeker, *ibid.*, vol. 12, p. 214, 1856-57; Nias.

Caranx megalaspis Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 510, 1904; Padang, Sumatra.

Caranx (Selar) megalaspis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 219, 1931; after Bleeker.

Atule megalaspis Herre, Copeia, No. 3, p. 148, 1945; Gulf of Ragay, Luzon.

Genus 285. CARANX Lacépède. Cavallas; Crevalles; Jacks; Talakitok; Tarakitok; Momsa; Mamsa; Atoloy.

Marine, some species entering rivers and lakes. Many kinds are important food fishes.

Caranx Lacépède, Hist. Nat. Poissons, vol. 3, p. 57, 1802; type, *Scomber carangus* Bloch=*Scomber hippos* Linnaeus.

711. *Caranx altissimus* Jordan and Seale.
Caranx altissimus Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, p. 7, pl. 3, 1905; Hong Kong. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila. McCulloch, Mem. 5, Australian Mus., p. 187, 1929; Queensland, Australia.
712. *Caranx auroguttatus* (Cuvier and Valenciennes). Gold-spotted Jack.
Caranx fulvoguttatus Rüppell, Atlas Reise Nördl. Afrika, Fische, Rothen Meeres, p. 100, 1828; Red Sea (not of Forskål).
Caranx auroguttatus (Ehrenberg) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 71, 1833. Rüppell, Verzeich. Mus. Senckenberg. Sammlungen, p. 13, 1852. Boulenger, Proc. Zool. Soc. London, p. 660, 1870. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Culion. Herre, 1933-34 Exped.; Cebu, Cebu Province. Herre, 1940-41 Exped.; Busuanga Island; reef on east coast of Palawan. Herre, 1948 Coll.; Silerag Island, Sulu Prov.
Carangoides auroguttatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 470, 1853; Batavia, Java. Bleeker, *ibid.*, vol. 6, p. 175, 1854; Ternate. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 53, 1861; Singapore.
Caranx fulvoguttatus Günther, Cat. Fishes, British Mus., vol. 2, p. 439, 1860; Red Sea; not of Forskål.
Caranx (*Carangoides*) *auroguttatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 225, 1931; Singapore; Java; Ternate; Red Sea; Muscat; compiled. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 24, 1941; Calapan, Mindoro.
713. *Caranx butuanensis* Seale.
 Known only from the type, destroyed by the Japanese during World War II.
 Probably a synonym of *Caranx sexfasciatus* Quoy and Gaimard.
Caranx butuanensis Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 506, pl. 7, 1909; Butuan Bay, Agusan Province, Mindanao.
714. *Caranx caeruleo-pinnatus* Rüppell.
 Very close to *Caranx malabaricus* Bloch and Schneider, but apparently is distinct.
Caranx caeruleo-pinnatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 100, 1828; Red Sea; not of Cuvier and Valenciennes. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 47, pl. 13, fig. 2, 1835; Red sea. Wakiya, Ann. Carnegie Mus., vol. 15, p. 179, pl. 25, fig. 1, 1924; Uwajima, Japan; Formosa. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Cebu, Cebu Province.
Caranx armatus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 337, 1903; Formosa; (not of Forskål).
Caranx formosanus Jordan and Snyder, Mem. Carnegie Mus., vol. 4, p. 38, pl. 52, 1910; Takao, Formosa.
715. *Caranx carangus* (Bloch).
 An Atlantic species, believed by many to occur in the Indo-Pacific. Presence more or less doubtful.
Scomber carangus Bloch, Naturges. Ausland. Fische, vol. 7, p. 69, 1793; Antilles.
Caranx carangus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 91, 1833. Günther, Cat. Fishes, British Mus., vol. 2, p. 443, 1860; Santo Domingo, West Indies; India; Madras; Amboina; Sumatra. Day, Fishes India, p. 215, pl. 50, fig. 4, 1878; Madras; seas of India; Malay Archipelago. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 76, 1906; Cotabato, Cotabato Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao. Herre, 1940-41 Exped.; Pansipit River, Lemery, Batangas Province, Luzon.
Caranx (*Caranx*) *carangus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 257, 1931; 18 East Indian localities; Philippines and many other Indian and Pacific Ocean localities.
716. *Caranx chrysophrys* Cuvier and Valenciennes.
 From the east coast of Africa to the East Indies, Philippines, China, Formosa, and Queensland.
Caranx chrysophrys Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 77, pl. 247, 1833; Seychelles. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 328, 1891. McCulloch, Biological Re-

sults *Endeavour*, vol. 3, p. 36, 1915; Queensland. Barnard, *Ann. South African Mus.*, vol. 21, p. 540, 1927. Herre, 1940-41 Exped.; Gulf of Ragay, Luzon; Catbalogan, Samar.

Carangoides chrysophryoides Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 1, p. 366, 1851; Batavia, Java. Bleeker, *Verh. Bat. Gen.* vol. 24, 1852, *Makreel. viss.*, p. 63; Batavia.

Caranx chrysophryoides Günther, *Cat. Fishes British Mus.*, vol. 2, p. 452, 1860; sea of Batavia. Gilchrist and Thompson, *Ann. South African Mus.*, vol. 6, p. 242, 1908. Fowler, *Ann. Natal Mus.*, vol. 7, p. 433, 1934.

Caranx nigrescens Day, *Proc. Zool. Soc. London*, p. 704, pl. 1, fig. 6, 1867. Day, *Fishes India*, p. 223, pl. 50, fig. 6, 1878; Madras.

Otitula chrysophrys Bleeker, *Ned. Tijds. Dierk.*, vol. 4, p. 132, 1873; China. Bleeker, *Recherches faune Madagascar, Poissons*, p. 99, 1875.

Caranx armatus Jordan and Evermann, *Proc. U. S. Nat. Mus.*, vol. 25, p. 338, 1903; Formosa; not of Forskål.

Caranx (Citula) chrysophrys Wakiya, *Ann. Carnegie Mus.*, vol. 15, p. 180, pl. 24, fig. 1, 1924; Formosa.

Caranx (Carangoides) chrysophrys Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 239, 1931; Batavia, Java; Nias. Also Natal; Mozambique; Madagascar; Seychelles; Muscat; India; China; Formosa; Queensland. Hardenberg, *Treubia*, vol. 15, p. 373, 1936; Bawean Island, Dutch East Indies. Roxas and Agco, *Philippine Jour. Sci.*, vol. 74, p. 32, pl. 6, fig. 1, 1941; Dapitan and Malanao, Zamboanga Province, Mindanao.

717. *Caranx compressus* Day.

From the Red Sea to the Philippines, Japan and Australia. Marine.

Caranx ferdau Rüppell, *Atlas Reise Nördl. Afrika, Fische Rothen Meeres*, p. 99, pl. 25, fig. 6, 1828; Red Sea (not of Forskål). Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 9, p. 56, 1833; Red Sea; not of Forskål. Günther, *Cat. Fishes, British Mus.*, vol. 2, p. 439, 1860; Red Sea.

Caranx compressus Day, *Proc. Zool. Soc. London*, p. 689, 1861; Andaman Islands. Day, *Fishes India*, p. 221, pl. 50, fig. 1, 1878; Red Sea and Andamans. Herre, *Fishes 1931 Philippine Exped.*, p. 35, 1934; Jolo, Sulu Province. Herre, 1940-41 Exped.; Coron, Busuanga. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Caranx brevicarinatus Klunzinger, *Abh. Zool.-Bot. Gesell. Wien*, vol. 21, p. 461, 1871; Red Sea.

Caranx (Carangoides) compressus Klunzinger, *Fische Rothen Meeres*, p. 98, 1884. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 223, 1931; Red Sea; Andamans; Australia; Japan. Hardenberg, *Treubia*, vol. 15, p. 374, 1936; Batavia market, from the Java Sea. Roxas and Agco, *Philippine Jour. Sci.*, vol. 74, p. 23, pl. 3, fig. 3, 1941; Bennett Island, west of Masbate; Bantayan, Bantayan Islands; Canipo Island, Cuyo Islands.

Caranx (Carangoides) ferdau Wakiya, *Ann. Carnegie Mus.*, vol. 15, p. 165, pl. 19, fig. 2, 1924; Riu-kiu Islands.

Carangoides ferdau Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 272, 1927; Orion, Bataan Province, Luzon; Philippines.

718. *Caranx dinema* (Bleeker).

East Indies, and Philippines, north to the RiuKiu Islands, west to Arabia. Marine and entering fresh water.

Carangoides dinema Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 1, p. 365, 1851; Sea of Batavia, Java. Bleeker, *Verh. Bat. Gen.*, vol. 24, *Makreel. viss.*, p. 63, 1852.

Caranx dinema Günther, *Cat. Fishes British Mus.*, vol. 2, p. 452, 1860; Sea of Batavia; after Bleeker. Herre, *Copeia*, No. 3, p. 148, 1945; Lake Naujan, Mindoro. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Caranx lioglossus Kner, *Reise Novara, Fische*, p. 156, 1865-67. Boulenger, *Proc. Zool. Soc. London*, p. 135, 1892; Muscat, Arabia.

Caranx (Citula) dinema Wakiya, *Ann. Carnegie Mus.*, vol. 15, p. 178, pl. 23, fig. 2, 1924; RiuKiu Islands.

Caranx (Carangoides) dinema Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 241, 1931; Singapore; Nias; Su-

matra; Java; Banka; Waigi; after Bleeker. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 35, pl. 6, fig. 3, 1941; Barrio Estrella, Lake Naujan, Mindoro; Inabanga, Bohol.

719. *Caranx fulvoguttatus* (Forskål). Dark gold-spotted jack. Red Sea and Madagascar to Java and the Philippines. *Scomber fulvoguttatus* Forskål, Descript. Animal, p. 56, 1775; Red Sea, *Carangoides fulvoguttatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 178, 1851. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Makreel. viss., p. 80. *Caranx bleekeri* Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 21, p. 461, 1871; Red Sea. Picaglia, Atti. Soc. Modena, ser. 3, vol. 13, p. 31, 1894. Bamber, Jour. Cinn. Soc. Zool., vol. 31, p. 480, 1915. *Caranx (Carangoides) fulvoguttatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 227, 1931; Batavia, Java. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 26, pl. 4, fig. 3, 1941; Landiok, Zamboanga Province, Mindanao. *Caranx fulvoguttatus* Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Burias Island; Jolo, Sulu Province.
720. *Caranx gymnostethoides* (Bleeker). East Indies and Philippines, east to Hawaii and the Society Islands, south to Queensland, and west to India and Madagascar. Marine. *Carangoides gymnostethoides* Bleeker, Nat. Tijds. Ned. Ind., vol. 1, p. 364, 1850; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Makreel. viss., p. 61. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 199, 1905; Johnston Island. Fowler, Mem. Bishop Mus., vol. 10, p. 150, 1928; Honolulu; Laysan and Johnston Islands; Society Islands. *Caranx gymnostethoides* Günther, Cat. Fishes, vol. 2, p. 431, 1860; Sea of Batavia, after Bleeker. Day, Fishes India, p. 217, pl. 48, fig. 6, 1878; Madras; Seas of India and Malay Archipelago. *Carangoides gymnostethoides evermanni* Nichols, Amer. Mus. Nat. Hist. Novitates, No. 3, fig. 1, 1921; Honolulu market. *Caranx (Carangoides) gymnostethoides* Weber and de Beaufort, Fishes Indo-Australia Arch., vol. 6, p. 231, 1931; Batavia, Java. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga, Mindanao. Domantay, *ibid.*, vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 27, 1941; Jolo, Sulu Province.
721. *Caranx ignobilis* (Forskål). Lison; Malipito; Maliputoo; Maliputong laut; Sumaŕga. Throughout the tropical Indo-Pacific from the east coast of Africa to the Philippines and East Indies, north to Japan, south to Australia, and east to Hawaii and the Marquesas. *Scomber ignobilis* Forskål, Descript. Animal., p. 55, 1775; Djedda and Lohaja, Red Sea. *Caranx sansun* Rüppell, Atlas Reise Nordl. Afrika, Fische Rothen Meeres, p. 101, 1828; Red Sea. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 48, pl. 13, fig. 3, 1835; Red Sea. Günther, Cat. Fishes, British Mus., vol. 2, p. 447, 1860, Red Sea; Mauritius; Coromandel coast, India. ? Day, Fishes India, p. 216, pl. 50, fig. 5, 1878; Madras. *Caranx sansun* Bleeker, Recherches faune Madagascar, Poissons, p. 99, 1875. Bleeker, Verh. Akad. Amsterdam, vol. 18, 1879; Mauritius Island. *Caranx ignobilis* Klunzinger, Sitzungsber. Akad. Wien, p. 377, 1880; Port Darwin and Cleveland Bay, Australia. Klunzinger, Fische Rothen Meeres, p. 100, 1884; Red Sea. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 495, 1900; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 14, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Lubang Island; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 3A, p. 517, 1908; Philippines. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 269, 1911; Nukahiva, Marquesas Islands. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Wakiya, Ann. Carnegie Mus., vol. 15, p. 193, pl. 27, fig. 3, 1924; Nagasaki, Japan; RiuKiu Islands; Formosa. Herre, Philippine Jour. Sci., vol. 34, pp. 294 and 296, 1927; Lake Bombon, Batangas Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 148, 1928; Hawaiian Islands; Nukahiva, Marquesas Islands; Shortland Island, Solomons. Herre,

Jour. Pan. Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; very common, but only 1 specimen taken; Manila. Villadolid, Philippine Jour. Sci., vol. 63, 1937; pp. 192 and 198, Lake Bombon; pp. 214 and 215, Pansipit River and Balayan Bay, Batangas Province, Luzon. Herre, 1940-41 Exped.; Lake Naujan, Mindoro; Estancia, Iloilo Province, Panay.

Selar ignobilis Oshima, Philippine Jour. Sci., vol. 26, p. 383, 1925; after Jordan and Evermann; Takao, Formosa.

Caranx (Caranx) ignobilis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 255, 1931; Flores; Kwandang and Menado, Celebes; New Guinea; Philippines and more than 20 other places all over the Indo-Pacific. Roxas and Agco, Philippine Jour. Sci., vol. 76, p. 41, 1941; Legaspi Landing, Manila, and off Pasay, Manila Bay; Lake Bombon, Batangas Province, Luzon; Calapan, Mindoro.

722. *Caranx malabaricus* (Bloch and Schneider). Malabar jack; Malabar-talakitok; Malabar moms; Sebe.

East coast of Africa, India, Philippines, China, Japan, south to Australia. *Scomber malabaricus* Bloch and Schneider, Syst. Ichth., p. 31, 1801; Tranquebar, India.

Caranx malabaricus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 121, 1833. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 517, 1845; Batavia, Java. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1110, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 436, 1860; Madras, India; Sea of Pinang; Moluccas; China; Australia. ? Day, Fishes India, p. 221, pl. 50, fig. 2, 1878; Madras; Red Sea to Malabar. Weber, *Siboga*-Exped., vol. 57, Fische, p. 394, 1913. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 20, 1922; Takao, Formosa. Barnard, Ann. South African Mus., p. 541, 1925-27. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Bauang Sur, La Union Province, and Manila, Luzon; Cebu, Cebu Province. Umali, Edible Fishes Manila, p. 107, fig. 65, 1936; Manila Bay; Bataan Province, and Tayabas Province, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 181, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province, Mindanao. Domantay, *ibid.*, vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Manila Bay and Gulf of Ragay, Luzon; Catbalogan, Samar.

Carangoides talamparah Bleeker, Verh. Bat. Gen., vol. 24, 1852, Makreel. viss., p. 64; Sunda-Moluccan Archipelago. Günther, Cat. Fishes British Mus., vol. 2, p. 437, 1860; Ceylon; Seas of Sumatra and Ceylon.

Carangoides malabaricus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 57, p. 83, 1905. Oshima, Philippine Jour. Sci., vol. 26, p. 390, 1925; Anpin, near Tainan, and Taihoku; also Takao and Keelung, Formosa; Bako, Pescadores Island; Philippine Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 272, 1927; Philippines; San Fabian, Pangasinan Province, Luzon.

Caranx (Citula) malabaricus Wakiya, Ann. Carnegie Mus., vol. 15, p. 178, pl. 23, fig. 3, 1924; Formosa.

Caranx (Carangoides) malabaricus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 237, fig. 47, 1931; many East Indian and Indian Ocean localities; also China, Japan, Formosa and Australia. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 33, pl. 6, fig. 2, 1941; Manila, Luzon; Carigara, Leyte Province; also Hong Kong.

723. *Caranx manilensis* Roxas and Martin.

Caranx auriga Seale, Philippine Jour. Sci., vol. 40, sec. A, p. 505, pl. 6, 1909; Manila, preoccupied by *Caranx auriga* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 539, 1884; Cairns, Queensland; a synonym of *Caranx oblongus* Cuvier and Valenciennes.

Caranx manilensis Roxas and Martin, Check List Philippine Fishes, p. 92, 1937; Manila Bay, Luzon.

724. *Caranx melampygus* Cuvier and Valenciennes.

Tropical Indo-Pacific to the Philippines, Japan, Marcus Island, the Hawaiian, Society, and Marquesas Islands. Marine.

Caranx melampygus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 116, 1833; Waigiu, Rawak, Vanicolo, Buru and Isle de France. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Ichth. fauna van Bengalen, p. 44; Bengal and Hindostan. Bleeker, Nat. Tijds Ned. Ind., vol. 6, p. 58, 1854; Halmahira. Günther, Cat. Fishes, British Mus., vol. 2, p. 446, 1860; Guadalcanal, Solomon Islands; Tonga Islands; Wanderer Bay. Day, Fishes India, p. 214, pl. 50, fig. 3, 1878; Andaman Islands; Vizagapatam. Weber, Siboga-Exped., vol. 57, Fische, p. 397, 1913. Wakiya, Ann. Carnegie Mus., vol. 15, p. 192, 1924; RiuKiu Islands. Herre, Philippine Bur. Science Collection; Manila Market; Linapacan Island; Balabac Island; Ibahay, Capiz Province, Panay. Herre, 1948 Coll.; Manila Bay.

Caranx cynodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 362, 1851. Bleeker, Verh. Bat. Gen., p. 57, 1852; Makreel. viss., p. 57, Sea of Batavia. Günther, Cat. Fishes British Mus., vol. 2, p. 447, 1860; after Bleeker. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 64, 1907; Bacon (?), Sorsogon Province, Luzon. Oshima, Philippine Jour. Sci., vol. 26, p. 375, 1925; Taihoku fish market, Formosa; Philippines; Sea of Batavia, Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 270, 1927; Philippines.

Caranx ascensionis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 269, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 145, pl. 12, B, 1928; in part.

Caranx (*Caranx*) *melampygus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 248, 1931; 18 East Indian and 13 Indo-Pacific localities.

725. *Caranx oblongus* Cuvier and Valenciennes.

India to the Philippines and RiuKiu Islands, Caroline and Solomon Islands and Vanicolo.

Caranx oblongus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 128, 1833; Vanikoro. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1114, 1850; Sea of Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 452, 1860; East Indian Archipelago; Malayan Peninsula; Polynesia. Day, Fishes India, p. 222, pl. 51, fig. 1, 1878; seas of India; Madras; Andaman Islands. Herre, Exped. 1940-41; a sea coast barrio of Bolbok, Batangas Province, Luzon.

Carangoides oblongus Bleeker, Verh. Bat. Gen., vol. 24, 1852; Makreel. viss., p. 62; Soenda-Molukscen Arch. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 57, p. 83, 1905. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 272, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 151, 1928.

Caranx auriga de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 539, 1884; Cairns, Queensland.

Citula gracilis Ogilby, Mem. Queensland Mus., vol. 3, p. 75, pl. 23, 1915; Darnley Island, Queensland.

Caranx (*Citula*) *oblongus* Wakiya, Ann. Carnegie Mus., vol. 15, p. 175, pl. 22, fig. 2, 1924; Formosa; RiuKiu Islands.

Caranx (*Carangoides*) *oblongus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 235, fig. 46, 1931; Sea of Pinang; Singapore; Padang, Sumatra; Batavia, Java; Aru Islands; 11 localities, from India to Kusaie (Oualan) Island and Vanicolo. Roxas and Agco, Philippines Jour. Sci., vol. 74, p. 31, pl. 5, fig. 3, 1941; Zamboanga, Mindanao.

726. *Caranx ophthalmotaenia* (Bleeker).

East Indies and the Philippines. Marine.

Carangoides ophthalmotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 270, 1852; Amboina. Bleeker, Verh. Bat. Gen., vol. 24, p. 90, 1852; Makreel. viss., Sunda-Moluccan Archipelago.

Caranx ophthalmotaenia Günther, Cat. Fishes, vol. 2, p. 451, 1860; Sea of Amboyna; after Bleeker. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 64, 1907; Bulan, Sorsogon Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Dumaguete.

Citula ophthalmotaenia Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 360, 1864; Saparua Island. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 290, 1865; Amboina.

Caranx (Carangoides) ophthalmotaenia Weber and de Beaufort, Fishes Indo-Austr. Archipelago, vol. 6, p. 230, 1931; Menado, Celebes; Saleyer; Amboina; Saparua; after Bleeker.

727. *Caranx praeustus* Bennett. Salay-salay.

East Indies, the Philippines, Indo-China, Ceylon, and India. Marine.

Caranx praeustus Bennett, Life Raffles, Fishes, p. 689, 1830; Sumatra. Günther, Cat. Fishes British Mus., vol. 2, p. 436, 1860; Seas of Batavia and Sumatra; after Bleeker. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 271, 1927; Philippines; Orani and Orion, Bataan Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, vicinity of Dumaguete, Negros Oriental Province.

Caranx ire Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 43, 1833; Pondichery, India. Günther, Cat. Fishes British Mus., vol. 2, p. 436, 1860; Madras. Day, Fishes India, p. 220, pl. 49, fig. 6, 1878; Malabar; Seas of India to Malay Archipelago. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 776, 1905; Bais, Negros Oriental Province. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila; Iloilo, Iloilo Province, Panay.

Caranx ira Seale, Philippine Jour. Sci., vol. 5, sec. D., p. 271, 1910; Sandakan, British North Borneo; Manila; Iloilo, Negros, Philippines.

Caranx (Carangoides) praeustus Weber and de Beaufort, Fishes Indo-Austr. Arch., vol. 6, p. 224, 1931; Singapore; Riouw Archipelago; Banka; Billiton; Bintang; Java; Sumatra; Borneo; Celebes; Batjan; also the Philippines, Tonkin, Ceylon, and India. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 25, pl. 4, fig. 2, 1941; Malabon, Rizal Philippine Jour. Sci., vol. 74, p. 25, pl. 4, fig. 2, 1941; Malabon, Rizal

728. *Caranx sansun* (Forskål).

From the Red Sea to Japan. Marine.

Scomber sansun Forskål, Descript. Animal., p. 55, 1775; Red Sea.

Caranx jarra Bleeker, Verh. Bat. Gen., vol. 24, Makreel. viss., p. 58; 1852; Sunda-Moluccan Archipelago; not of Cuvier and Valenciennes. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. Visschen Sumatra, p. 29, 1860; not of Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 2, p. 446, 1860; Amboina; coast of Coromandel; Sea of Sumatra; not of Cuvier and Valenciennes. Day, Fishes India, p. 215, 1878; not of Cuvier and Valenciennes. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 270, 1927; Philippines.

Caranx sansun Meyer, An. Soc. España His. Nat. Madrid, vol. 14, p. 25, 1885; Cebu. Wakiya, Ann. Carnegie Mus., vol. 15, p. 197, pl. 28, figs. 1-2, 1924; RiuKiu Islands; Formosa; Dumamoto and Uwajima, Japan. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Manila, Luzon; Capiz, Capiz Province, Panay. Herre, 1940-41 Exped.; Puerto Galera, Mindoro.

Caranx (Caranx) sansun Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 254, 1931; Siboga, Sumatra; Amboina; Red Sea; India; Ceylon; Formosa; Japan; RiuKiu Islands.

729. *Caranx sexfasciatus* Quoy and Gaimard. Six-banded jack; Forster's jack; Barbakolan; Lison; Malipito; Muslo; Pinkit; Inggatan; Simbad.

All over the tropical Indo-Pacific; also China, Japan, and Australia. Marine, and entering rivers and lakes.

Caranx sexfasciatus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 358, pl. 65, fig. 4, 1824; Papous Islands. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 517, 1845; Batavia, Java. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 327, 1891. Seale, Occas. Papers Bishop Mus., vol. 1, p. 74, 1901; Guam. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 231, 190; Gasegase River, Apia; streams of Apulu; swamp at PagoPago; in sea, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 14, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 65, 1907; San Fabian, Pangasinan Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Mindanao. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 270, 1910; Sandakan, British North Borneo; common in the Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Wakiya, Ann. Carnegie Mus., vol. 15, p. 184, pl. 25, figs. 3-4, 1924; Japan; RiuKiu Islands; Bonin

- Islands; Formosa. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 270, 1927; Philippines; Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 149, 1928; not synonymy; Sulu, Philippine Islands; Fiji; Hawaiian Islands; Gilbert and Marshall Islands; Guam; Tahiti; Caroline and Ellice Islands; Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 3, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Manila Bay; Cavite, Cavite Province; Lake Bombon, Batangas Province, Luzon; Culion; Jolo, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 108, fig. 67, 1936; Manila Bay; Batangas Province; Tayabas Province. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Herre, 1936-37 Exped.; Balayan Bay, Batangas Province, Luzon. Herre, 1940-41 Exped.; Nasugbu and the Pansipit River, at Lemery, Batangas Province, Luzon; Puerto Galera and Hacienda Waterous, Mangarin, also Lake Naujan, Mindoro; Capiz, Capiz Province, Estancia and Miagao, Iloilo Province, Panay; Murcielagos Bay, Misamis Occidental Province, and San Ramon, Zamboanga Province, Mindanao.
- Caranx Forsteri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 107, 1833; Ile de France; Malabar; Celebes; New Guinea; New Ireland; Vanicoro; East Indies. Bleeker, Jour. Indian Archipelago, vol. 3, p. 67, 1849; Celebes.
- Caranx belengeri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 116, 1833.
- Caranx flavococeruleus* Schlegel, Fauna Japonica, Pisces, p. 110, pl. 59, fig. 2, 1844; Nagasaki.
- Caranx hippos* Günther, Cat. Fishes, vol. 2, p. 449, 1860; in part; not of Linnaeus. Day, Fishes India, p. 216, 1878; not of Linnaeus. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 25, 1885; Cebu, Cebu Province. Fowler, Proc. Acad. Nat. Sci. Phila. vol. 79, p. 270, 1927; Vigan, Ilokos Sur Province, Luzon; Rio Grande, Cotabato Province, Mindanao.
- Caranx forsteri* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 329, 1891. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 775, 1905; Bais, Negros Oriental Province. Smith and Seale, Proc. Biol. Soc. Wash., vol. 19, p. 76, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, Bull. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila, Luzon; Lubang Island; Iloilo, Iloilo Province, Panay; Cagayancillo, Cagayan Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 7, Dumaguete, Negros Oriental Province.
- Carangus hippos* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 282, 1868; New Guinea.
- Carangus rhabdotus* Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 444, fig. 16, 1903; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 193, fig. 74, 1905; Honolulu.
- Carangus marginatus* Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 444, 1904; Honolulu.
- Caranx marginatus* Fowler, Proc. Acad. Nat. Sci. Phila., p. 81, 1905; Honolulu. Herre, Philippine Jour. Sci., vol. 34, 1927; pp. 294 and 296, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Villadolid, Philippine Jour. Sci., vol. 63, pp. 214-215, 1937; Pansipit River, Lake Bombon, and Balayan Bay, Batangas Province, Luzon.
- Caranx (Caranx) seafasciatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 243, 1931; 43 East Indian localities; and 27 other Indo-Pacific localities. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 37, pl. 7, fig. 1, 1941; Alaminos, Pangasinan Province; Malabon and Pasay, Rizal Province; Lake Bombon, and Pansipit River at San Nicolas, Batangas Province, Lake Bato and Barrio Sibubu, San Miguel Bay, Camarines Sur Province, Luzon. Calapan; Butas baclad on Naujan River, and Naujan, Mindoro. Loay, Bohol Prov. Tolong, Negros Oriental Province; Siquijor Island; Catbalogan, Samar Province; Estancia, Iloilo Province; Butuan, Agusan Province, Davao, Davao Province, and Caldera Bay, Zamboanga Province, Mindanao. Also Hong Kong and Honolulu.

730. *Caranx stellatus* Eydoux and Souleyet. Starry talakitok; Blue talakitok; Starry momsa; Blue Crevally.

Ranges from Madagascar to the Hawaiian Islands; Australia, and on to the coast of Mexico and Central America. Common in Philippines. Marine, sometimes entering fresh water.

Caranx caeruleoptinatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 119, 1833; New Guinea; not of Rüppell. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 33, 1891; not of Rüppell.

Caranx stellatus Eydoux and Souleyet, Voy. *Bonite*, Zool., vol. 1, p. 167, pl. 3, fig. 2, 1841; Hawaiian Islands. Jouan, Mem. Soc. Sci. Nat. Cherbourg, vol. 17, (ser. 2, vol. 7), p. 91, 1873. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 40, 1922; Hilo and Honolulu, Hawaiian Islands. Jordan, E. K., Proc. U. S. Nat. Mus., vol. 66, p. 15, 1925; Fish market, Honolulu. McCulloch, Records Australian Mus., vol. 15, p. 33, 1926; Queensland, Australia. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 7, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1933-1941 Exped.: Naujan, Mindoro; Cuyo Islands; Manucan, Cagayan Islands, Sulu Sea; Bongao, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 116, 1936; Papeete, Tahiti; NukaHiva Island, Marquesas Islands; Tenibuli, Ysabel Island and Hathorn Sound, New Georgia Island, Solomon Islands. Walford, Marine Game Fishes, p. 75, pl. 53, 1937; Pacific Coast of Mexico and Central America.

Caranx punctatus Cuvier and Valenciennes, Hist. Nat. Poissons, p. 38, 1833; name preoccupied.

Caranx punctatus Bleeker, Verh. Bat. Gen., vol. 25, p. 44, 1853; ichth. fauna van Bengalen en Hindostan, p. 44. Bengal and Hindostan.

Caranx melampygus Günther, Fische der Südsee, vol. 2, p. 133, pl. 86, 1876-1881; Raiatea.

Caranx melampygus Jordan and Evermann, Bull. U. S. Fish. Comm. vol. 23, Part 1, p. 192, fig. 73, 1905; Honolulu market; Samoa.

Xurel stellatus Jordan, Evermann, and Clark, Check List of Fishes North and Middle America, p. 273, 1930.

Caranx (Caranx) stellatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 253, fig. 48, 1931; New Guinea; Madagascar; Queensland; Hawaiian Islands; Marshall Islands; Revillagigedo Islands; Pacific Ocean generally. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 40, pl. 7, fig. 2, 1941; Bungao, Sulu Province.

Genus 286. CITULA Cuvier.

All over the tropical Indo-Pacific.

Citula Cuvier, Règne Animal, p. 315, 1817; type, *Sciaena armata* Forskål. Oshima, Philippine Jour. Sci., vol. 26, p. 393, 1925.

731. *Citula armata* (Forskål). Jack; Ama-aligan; Buensang-sapse.

From the Red Sea and Madagascar to the Philippines, Japan, Australia, and Samoa. Marine, entering rivers and lakes.

Sciaena armata Forskål, Descript. Animal, p. 53, 1775; Red Sea.

Citula plumbea Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 361, 1824.

Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Manila; Magallanes, Sorsogon Province, Luzon.

Citula armata Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 103, 1828; Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 242, 1836; Obi. Bleeker, ibid., vol. 2, p. 191, 1865; Ceram. Bleeker, ibid., p. 290, Amboina.

Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Oshima, Philippine Jour. Sci., vol. 26, p. 396, 1925; Taihoku and Anping, Formosa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Curimao, Ilokos Norte Province, Luzon; Capiz, Capiz Province, Panay; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped., Lake Bombon; sea coast barrio of Bolbok, Batangas Province; Ragay Gulf, Luzon; Mangarin, Mindoro. Herre, 1948 Coll.; Lingayan Gulf, Pangasinan Province; Manila Bay, and Nasugbu, Batangas Province, Luzon; Guinlo, Malampaya Sound, Palawan.

Citula ciliaris Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 102, pl. 25, fig. 8, 1828; Red Sea. Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Cebu, Cebu Province.

Caranx armatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 127, 1833. Günther, Cat. Fishes British Mus., vol. 2, p. 453, 1860;

Sea of Pinang; Moluccas; Sumatra; China. Day, Fishes India, p. 223, pl. 51, fig. 2, 1878; Andamans; Seas of India to Malay Archipelago. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 14, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *ibid.*, p. 65, 1907; San Fabian, Pangasinan Province, and Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila.

Caranx plumbeus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 233, fig. 28, 1906; Apia and PagoPago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 14, 1907; Philippines.

Caranx rastrosus Jordan and Snyder, Mem. Carnegie Mus., vol. 4, p. 37, pl. 51, 1908; Takao, Formosa; Cavite, Cavite Province, Luzon, Philippines.

Caranx (Citula) schlegeli Wakiya, Ann. Carnegie Mus., vol. 15, p. 170, pl. 20, fig. 2, 1924; southern Japan; Formosa.

Caranx (Citula) plumbeus Wakiya, Ann. Carnegie Mus., vol. 15, p. 171, pl. 20, fig. 3, 1924; Kii, Japan; RiuKiu Islands; Formosa.

Caranx (Citula) ciliaris Wakiya, Ann. Carnegie Mus., vol. 15, p. 172, pl. 21, 1924; Formosa; RiuKiu Islands.

Caranx (Citula) armatus Wakiya, Ann. Carnegie Mus., vol. 15, p. 169, pl. 20, fig. 1, 1924; Formosa.

Carangoides armatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 272, 1927; Orion, Bataan Province, Luzon, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 151, 1928; Red Sea; East Africa; East Indies; Samoa. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 29, pl. 5, fig. 2, 1941; Manila Bay, Luzon; west coast of Guimaras Island.

Caranx (Carangoides) armatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 233, 1931; 30 East Indian localities. Also Philippines and 24 other localities from Japan to Australia, the Red Sea, Madagascar, and Delagoa Bay.

732. *Citula deani* (Jordan and Seale). Kalobe.

Caranx deani Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 775, fig. 2, 1905; Bais, Negros, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Cavite, Cavite Province, Luzon.

Caranx nigrippinis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 14, 1907; Cavite, Cavite Province, Panay.

Citula deani Herre, Jour. Pan. Pacific Research Inst., vol. 8, p. 8, 1933; vicinity of Dumaguete, Negros Oriental Province.

733. *Citula halli* Evermann and Seale. Pampanon.

This nominal Philippine species is probably only a young stage of some other species.

Citula halli Evermann and Seale, Philippine Jour. Sci., vol. 26, p. 65, 1907; San Fabian, Pangasinan Province, Luzon.

Genus 287. **ELAGATIS** Bennett.

Circumtropical.

Elagatis Bennett, Narrative Whaling Voyage, vol. 2, p. 283, 1835; type, *Seriola bipinnulata* Quoy and Gaimard. Oshima, Philippine Jour. Sci., vol. 26, p. 356, 1925. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 291, 1931. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 68, 1941.

734. *Elagatis bipinnulatus* (Quoy and Gaimard). Blue-striped runner; Rainbow runner; Lapi; Salmon.

Circumtropical.

Seriola bipinnulata Quoy and Gaimard, Voy. *Uranie*, Zoologie, vol. 1, p. 363, pl. 61, fig. 3, 1824; Keeling Island.

Elagatis bipinnulatus Bennett, Narrative Whaling Voyage, vol. 2, p. 283, 1840; Pacific Ocean; Indian Archipelago. Meek and Bollman, Proc. Acad. Nat. Sci. Phila., p. 42, 1890. Jordan and Evermann, Fishes North and Middle America, vol. 1, p. 906, 1896; West Indies. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 185, 1905; market at Honolulu. Wakiya, Ann. Carnegie Mus., vol. 15, p. 233, pl. 37, fig. 2, 1924; Kii, Japan; RiuKiu Islands. Oshima, Philippine Jour. Sci., vol. 26, p. 357, 1925; Taihoku fish market, Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 293, fig. 58, 1931; Padang, Sumatra; Batavia, Java; Cocos Island; Makassar;

and Menado, Celebes; Amboina; Banda, New Guinea. Also 15 localities from the Red Sea and Natal to Japan, Hawaii, and the Society Islands. Herre, Philippine Bur. Science Collection; Manila fish market; Subic Bay; Alumeros, Tayabas Province—all on Luzon. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Linapacan Island, Palawan Province; Jolo, Sulu Province. Umali, Edible Fishes Manila, p. 117, fig. 77, 1936; Subic Bay, Luzon; Palawan Province; Visayan Islands. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 69, pl. 12, fig. 1, 1941; Marinduque Island; Jolo, Sulu Province. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao.

Seriolichthys bipinnulatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 196, 1854; Batavia, Java. Bleeker, *ibid.*, vol. 15, p. 459, 1858; Cocos Island. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 39, 1860; Celebes. Günther, Cat. Fishes, British Mus., vol. 2, p. 468, 1860; Amboyna; Sea of Batavia; Keeling Islands; New Guinea. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 289, 1865; Amboina.

Genus 288. GNATHANODON Bleeker.

From the east coast of Africa through the Philippines, Hawaii, and Polynesia to the Pacific coast of America; from the Gulf of California to Panama.

Gnathanodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 160, 1851; Banka; orthotype, *Scomber speciosus* Forskål.

735. *Gnathanodon speciosus* (Forskål). Badlon; Inggatan; Garapeche; Garitan. Distribution under the genus.

Scomber rim speciosus Forskål, Descript. Animal., p. 54, 1775; Red Sea, Arabia.

Caranx speciosus Lacépède, Hist. Nat. Poissons, vol. 3, p. 72, pl. 1, fig. 1, 1802. Günther, Cat. Fishes, British Mus., vol. 2, p. 444, 1860; Madras; Philippines; Borneo; Sunda Sea; Sea of Pinang; Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 25, 1885; Cebu. Jordan and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 14, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 64, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Mindanao. Seale, Philippine Jour. Sci., vol. 3A, pl. 7, 1908; Philippines. Seale, Philippine Jour. Sci., vol. 5D, p. 270, 1910; Sandakan, British North Borneo. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 49, 1930; Philippines. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Zamboanga Province, Mindanao.

Gnathanodon speciosus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 160, 1851; Banka. Bleeker, Verh. Bat. Gen., vol. 24, Makreel. viss., p. 72, 1852; Sunda-Molucca Arch. Oshima, Phil. Jour. Sci., vol. 26, p. 403, 1925; Takao, Formosa; Bako, Pescadores Islands. Herre, Fishery Resources Philippine Islands, pp. 29 and 55, pl. 21, 1927; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 271, 1927; Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 149, 1928, Honolulu; Apia, Samoa; New Guinea; Suva, Fiji. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; San Fabian, Pangasinan Province and Manila Bay, Luzon; Cebu, Cebu. Umali, Edible Fishes Manila, p. 108, fig. 68, 1936; Manila Bay and elsewhere in Philippines. Walford, Marine Game Fishes, p. 77, pl. 54, fig. A, 1937; East Indies; Oceania; Borneo; Madras; Zanzibar; Red Sea; Gulf of California to Guaymas and Panama. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon.

Caranx (Gnathanodon) speciosus Wakiya, Ann. Carnegie Mus., vol. 15, p. 209, pl. 31, fig. 3; 1924; Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 264, fig. 50, 1931; 23 East Indian localities; also the Philippines and 20 other Indo-Pacific localities from the coast of Africa to Australia, Polynesia, Mexico, and Panama. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 47, pl. 8, fig. 3, 1931; Subic Bay, Zambales Province, and Manila Bay, Luzon; Mangarin, Mindoro; Masbate; Estancia, Iloilo Province, Panay; Guimaras Island; Cadiz Nuevo, Negros Occidental Province, and Dumaguete, Negros Oriental Province, Negros; Inabanga, Bohol; Guinlo, and Taytay, Palawan.

Genus 289. HYNNIS Cuvier and Valenciennes.

Tropical Indo-Pacific and Atlantic.

Hynnis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 195, pl. 257, 1833; type, *Hynnis gorceensis* Cuvier and Valenciennes. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 54, 1941.

736. *Hynnis moms* Herre. Philippine jack; Ampahan; Damis; Tawa-ay. *Hynnis moms* Herre, Philippine Jour. Sci., vol. 34, p. 235, pl. 1, 1927; China Sea, near entrance to Manila Bay, and Subic Bay, Zambales Province, Luzon. Umali, Philippine Jour. Sci., vol. 54, p. 372, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 114, fig. 74, 1936; Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Bantangas Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga, Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; common in Manila, Luzon, and Iloilo, Panay, markets; occasional in markets at Zamboanga, Zamboanga Province, Mindanao, and Jolo, Sulu Province; Malampaya Sound, Palawan. All too large for available containers. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 55, 1941; compiled.

Genus 290. NAUCRATES Rafinesque.

A single pelagic species in all tropical and subtropical seas.

Centronotus Lacépède, Hist. Nat. Poissons, vol. 3, p. 311, 1802; type, *Centronotus conductor* Lacépède = *Gasterosteus ductor* Lacépède; not *Centronotus* Bloch and Schneider.

Naucrates Rafinesque, Caratteri Alcuni Nuovi Generi, p. 43, 1810; typo, *Naucrates fanfarus* Rafinesque. Günther, Cat. Fishes, British Museum, vol. 2, p. 374, 1860. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 181, 1905. Barnard, Ann. South African Mus., vol. 21, p. 560, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 298, 1931. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 681, 1936.

Pompilus Minding, Lehrb. Naturges. Fische, p. 108, 1832; type, *Gasterosteus ductor* Lacépède; not of Schneider or Fabricius.

Nauclerus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 184 (247), 1833; type, *Nauclerus compressus* Cuvier and Valenciennes; juvenile.

Xystophorus Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 52, 1844; type, *Gasterosteus ductor* Lacépède, on the very young.

737. Naucrates ductor (Linnaeus). Pilot fish.

Accompanies sharks.

Gasterosteus ductor Linnaeus, Syst. Nat., ed. 10, p. 295, 1758; "in Pelago." *Gasterosteus antecessor* Daldorf, Skrif. Nat. Selskab. Kjobenhaven, vol. 2, p. 166, 1800.

Scomber kochreuteri Bloch and Schneider, Syst. Ichth., p. 570, 1801.

Centronotus conductor Lacépède, Hist. Nat. Poissons, vol. 3, p. 311, 1802.

Naucrates indicus Lesson, Voy. *Coquille*, p. 157, pl. 14, fig. 2, 1830; New Ireland. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 326, 1833. Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 54, fig. 1, 1839. Wakiya, An. Carnegie Mus., vol. 15, p. 232, pl. 38, fig. 2, 1924; Kii, Miyako, and Nagasaki, Japan; RiuKiu Islands.

Naucrates ductor Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 312, pl. 232, 1831. Günther, Cat. Fishes British Mus., vol. 2, p. 374, 1860; Polperro and Falmouth, England; Madeira; Cape Seas; South Pacific; Northwest coast of America. Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 21, p. 445, 1871; Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 132, 1873; China. Bleeker, Recherches faune Madagascar, Poissons, p. 98, 1875. Day, Fishes India, p. 229, 1878. Bleeker, Verh. Akad. Amsterdam, vol. 18, Enumer. Poissons Japon, p. 15, 1879; Japan. Lutken, Spoilia Atlantica, p. 96, 1880. Jordan and Evermann, Fishes North and Middle America, Bull. 47, U. S. Nat. Mus., vol. 1, p. 900, pl. 139, 1896. McCulloch, Records Australian Mus., vol. 15, p. 34, pl. 1, 1926. Barnard, Ann. South African Mus., vol. 21, p. 560, 1927; off Table Bay, Agulhas Bank; Natal coast. Fowler, Mem. Bishop Mus., vol. 10, p. 142, figs. 35-36, 1928; Honolulu; Laysan Island. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 300, figs. 60-62, 1931; west coast Sumatra; Banda Sea; Amboina; also Red Sea; Natal coast; Madagascar; Mauritius;

- Muscat; British India; Ceylon; China; Japan; New South Wales; Tasmania; New Zealand; Hawaiian Islands. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 681, fig. 306, 1936; Mediterranean Sea. Herald, motorship *Spencer F. Baird*; south of the Philippine boundary line, lat. 4° N., long. 124° E., March, 1948. Herre and Kauffman, motorship *Theodore N. Gill*, Sibuguey Bay, Zamboanga Province, Mindanao, March, 1948. Herre, 1948 Coll.; Manila Bay, June 1948.
- Naucrates novaboracensis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 325 (1831), 1832; New York.
- Seriola dussumieri* Cuvier and Valenciennes, *ibid.*, vol. 9, p. 217, 1833; Gulf of Bengal.
- Seriola succincta* Cuvier and Valenciennes, *ibid.*, p. 218, 1833; between Cape of Good Hope and St. Helena.
- Naucleus compressus* Cuvier and Valenciennes, *ibid.*, p. 249, pl. 263, 1833; Moluccas.
- Naucleus abbreviatus* Cuvier and Valenciennes, *ibid.*, p. 251, 1833; Atlantic Ocean.
- Naucleus brachycentrus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 252, 1833; Indian Ocean, Moluccas.
- Naucleus annulatus* Cuvier and Valenciennes, *ibid.*, p. 254, 1833; between the Cape of Good Hope and St. Helena.
- Naucleus leucurus* Cuvier and Valenciennes, *ibid.*, p. 255, 1833; between the Cape of Good Hope and St. Helena.
- Naucrates cyanophrys* Swainson, Natl. Hist. Animals, vol. 2, Fishes, p. 412, 1839; Palermo; Nice.
- Naucrates serratus* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 413, 1839; on *Scomber ductor* Bloch.
- Xystophorus* species Richardson, *Voy. Erebus and Terror*, Zool., Fishes, p. 52, pl. 30, fig. 22, 1846; juveniles.
- Thynnus pompilus* Gray, Cat. Fishes described by Gronow, p. 123, 1854; Mediterranean Sea; Spain; America.

Genus 291. SCOMBEROIDES Lacépède. Leatherjackets.

Fishes of the tropical and subtropical Indo-Pacific.

- Scomberoides* Lacépède, Hist. Nat. Poissons, vol. 3, p. 50, 1802; type, *Scomberoides commersonianus* Lacépède. Wakiya, Ann. Carnegie Mus., vol. 15, p. 234, 1924. Oshima, Philippine Jour. Sci., vol. 26, p. 349, 1925. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 56, 1941.
- Chorinemus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 367, 1831; type, *Scomberoides commersonianus* Lacépède. Günther, Cat. Fishes, British Mus., vol. 2, p. 471, 1860. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 275, 1931.
- Eleria* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 774, 1905; type, *Eleria philippina* Jordan and Seale.

- 738. *Scomberoides lysan* (Forskål).** Yellow leatherjacket; Kulangit; Lapis; Saleng-saleng; Salindatu; Tilapia; Talupak Tangtang; Tengteng; Dorado. From the Red Sea and Natal to the Philippines, New Guinea, Australia, and Tahiti.
- Scomber lysan* Forskål, Descript. Animal., p. 54, 1775; Djedda and Lohaja, Red Sea.
- Scomberoide commersonien* Lacépède, Hist. Nat. Poissons, vol. 2, pl. 20, fig. 3, 1800.
- Scomber Forsteri* Bloch and Schneider, Syst. Ichth., p. 26, 1801; Pacific Ocean.
- Scomber madagascariensis* Shaw, General Zoology, vol. 4, p. 590, pl. 85, 1803. Bennett, Life Raffles, p. 689, 1830; Java.
- Lichia lysan* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 91, 1828; Red Sea.
- Chorinemus commersonianus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 370, 1831.
- Chorinemus lysan* Cuvier and Valenciennes, Hist. Nat. Poiss., p. 387, 1831. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860; Achtste bijdrage vischfauna Sumatra, p. 28. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860; Dertiende bijdrage vischfauna Borneo, p. 13. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860; Dertiende bijdrage vischfauna Celibes, p. 38. Günther, Cat. Fishes British Mus., vol. 2, p. 471, 1860; Port Essington and northwest Australia; China; India; Malayan Peninsula. Day, Fishes India, p. 231, 1878. MacLeay, Proc. Linn. Soc.

New South Wales, vol. 7, p. 358, 1882, New Guinea. Barnard, Ann. South African Mus., vol. 21, p. 563, 1927; Natal coast; Delagoa Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 277, fig. 56 b, 1931; 18 East Indian and Malayan localities; also the Philippines and 16 other places from the coast of Africa to Siam and Australia. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; south-western Samar. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon.

Chorinemus aculeatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 384, 1831; not of Bloch. Bleeker, Jour. Indian Archipelago, vol. 3, pp. 67, 68, 1849; Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 213, 1851; Celebes. Bleeker, Verh. Bat. Gen., vol. 25, p. 42, 1853; Nalez. Ichth. fauna Bengalen, p. 42; Bengal; Hindostan.

Chorinemus Commersonianus Bleeker, Verh. Bat. Gen., vol. 23, Bijdr. Ichth. fauna Java, p. 8, 1850. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Bijdr. Makreel. viss., p. 44; Sunda-Moluccan Archipelago.

Scomberoides lysan Bleeker, Ned. Tijds. Dierk., vol. 4, p. 132, 1873; Canton, China. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 229, 1906; New Guinea. Seale, Philippine Jour. Sci., vol. 5D, p. 272, 1910; Sandakan, British North Borneo; Philippines. Wakiya, Ann. Carnegie Mus., vol. 15, p. 238, 1924; Formosa. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 268, 1927; Vigan, Ilokos Sur Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 140, 1928. Herre, Philippine Bur. Science Collection; Manila; southern coast of Negros; Siasi and Tumindao lagoon, Sibutu Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Umali, Edible Fishes Manila, p. 118, fig. 78, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Bolbok, Batangas Province, Luzon; Capiz, Capiz Province, Panay. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 57, pl. 10, fig. 1, 1941; Navotas, Rizal Province; Manila market, Luzon; Mangarin, Mindoro; Tacloban, Leyte; also Sandakan, British North Borneo; Hoihow, Hainan Island. Herre, 1948 Coll.; Guinlo, Malampaya Sound, Palawan.

739. *Scomberoides sancti-petri* (Cuvier and Valenciennes). Leatherjacket; Runner.

Red Sea and east coast of Africa to the Philippines, Hawaiian Islands, Polynesia, and Australia.

Chorinemus sancti-petri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 279, pl. 236, 1831; Malabar, India. Günther, Cat. Fishes British Mus., vol. 2, p. 473, 1860; Madagascar; Ceylon; Malayan Peninsula; Amboyna; Moluccas; China; not synonymy. Günther, Fische der Südsee, vol. 2, p. 138, 1876; Gilbert (Kingsmill) Islands; Samoa; Society Islands; Hawaiian Islands. Klunzinger, Fische Rothen Meeres, p. 106, 1884. Macleay, Proc. Linn. Soc. New South Wales, vol. 9, p. 24, 1884. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 25, 1885; Cebu, Cebu Province. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 331, 1891. Steindachner, Denks. Akad. Wien, vol. 70, p. 496, 1900. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 186, 1908. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 280, 1931; north coast of Flores; Red Sea; Zanzibar; Mozambique; Delagoa Bay; Natal coast; Madagascar; Formosa; Japan; Australia; Hawaiian, Fiji, and Samoan Islands.

Scomberoides sancti-petri Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Bleeker, *ibid.*, vol. 2, p. 31, 1865; Manila Bay, Luzon. Wakiya, Ann. Carnegie Mus., vol. 15, p. 234, 1924; RiuKiu Islands; Formosa. Oshima, Philippine Jour. Sci., vol. 26, p. 352, 1925; Tainan fish market and Toko, Formosa. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 268, 1927; Manila; Orion, Bataan Province, Luzon, Philippines.

740. *Scomberoides tala* (Cuvier and Valenciennes). Cassisung.

From the Red Sea to the Philippines, New Ireland, and Australia. Marine.

Chorinemus tala Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 317, 1831; Malabar, India. Günther, Cat. Fishes British Mus., vol. 6,

p. 473, 1860; coast of Malabar; after Cuvier. Day, Fishes India, p. 231, 1878; Seas of India. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 391; 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 281, 1931; Banka; Nias; Tandjong, Padang, Benkulan, Tiku, Trussan, and Siboga, Sumatra; Batavia, Java; Makassar, Badjoa, and Menado, Celebes; New Guinea. Also the Philippines and 10 other localities from the Red Sea to Siam and Australia.

Scomberoides tala Bleeker, Ned. Tijds. Ned.-Ind., vol. 4, p. 132, 1873; China. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 76, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Philippine Bur. Science Collection; Culion. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Manila, Luzon. Herre, Fishes 1940-41 Exped.; Coron, Busuanga; Murcielagos Bay, Misamis Occidental Province, Mindanao. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 60, pl. 10, fig. 3, 1941; Manila; Pasay, Rizal Province; Sibubu, San Miguel Bay, Camarines Sur Province, Luzon; Calbayog, Samar; Balabac Island.

Chorinemus toloo Day, Fishes India, p. 232, pl. 51, fig. 3, 1878; Seas of India; Andaman Islands.

Eleria philippina Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 774, fig. 1, 1905; Bais, Negros.

Scombroides tala Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 241, 1907; Zamboanga, Mindanao.

Eleria tala Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 249, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay. McCulloch, Mem. 5, Australian Mus., p. 181, 1929; Philippines.

741. *Scomberoides tol* (Cuvier and Valenciennes). Lapis; Pipicao.

East Indies and Philippines, west to the coast of Africa, north to Formosa and Japan. Marine and entering river mouths.

Chorinemus tol Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 385, 1831; Pondicherry, India. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1101, 1850; Pinang. Bleeker, Verh. Bat. Gen., vol. 24, Makreel. viss., p. 48, 1852; Sunda-Moluccan Archipelago. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 390, 1913. Barnard, Ann. South African Mus., vol. 21, p. 564, 1925-27. Weber and de Beaufort, Fische Indo-Australian Archipelago, vol. 6, p. 283, 1931; 21 East Indian localities; the Philippines; also Red Sea; Delagoa Bay, Natal coast, Madagascar, Arabia, India, Ceylon; Formosa; and Japan. Jordan and Richardson, Check list Philippine Fishes, p. 19, 1910; Manila; Cavite, Cavite Province, Luzon. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 19, 1922; Takao, Formosa; Philippines. Oshima, Philippine Jour. Sci., vol. 26, p. 351, 1925; Takao, Formosa. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 268, 1927; Philippines; Orani, Bataan Province, Luzon. Herre, Fishes 1931 Philippine Exped., 1934; Unisan, Tayabas Prov., Luzon; Dumaguete; Balabac. Herre, Jour. Pacific Research Inst., vol. 8, p. 8, 1934; Dumaguete, Negros Oriental Province. Herre, 1940-41 Exped.; Coron, Busuanga; Murcielagos Bay, Misamis Occidental Province, and Margosatubig, Zamboanga Province, Mindanao. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 62, pl. 11, fig. 1, 1941; Manila; San Miguel Bay, Camarines Sur Province, Luzon; Iloilo and Estancia, Iloilo Province, Panay; Bantayan, Bantayan Island, Cebu Province; Calbayog, Samar Province; Balabac Island.

Chorinemus moadetta Rüppell, Neue Wirbelt., Fische Rothen Meeres p. 45, 1835. Day, Fishes India, p. 230, pl. 51B, fig. 1, 1878; Red Sea; seas of India; not of Cuvier and Valenciennes.

Scomberoides tol Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863. Jordan and Snyder, Annot. Zool. Japon, vol. 3, p. 66, 1901; Nagasaki. Fowler, Proc. Acad. Nat. Sci. Phila., p. 59, 1905; Sumatra. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 249, 1908; Manila, Luzon.

Scomberoides toloo-parah Jordan and Seale; Bull. U. S. Bur. Fish., vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon; not of Rüppell.

Scomberoides toloo Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province, Mindanao.

742. *Scomberoides toloo-parah* (Rüppell). Cassisung.

From the Red Sea to the Philippines, Hawaiian and Marquesas Islands, south to Australia.

Lichia toloo-parah Rüppell, Atlas, Reise Nördl. Afrika, Fische Rothen Meres, p. 91, 1828; Massaua, Red Sea.

Chorinemus mauritianus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 382, 1831; Isle de France; Mabe; Vanicoro; Celebes.

Chorinemus toloo-parah Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 44, 1835. Weber and de Beaufort, Fish. Indo-Australia Arch. vol. 6, p. 278, figs. 54 and 56a, 1931; 25 East Indian localities; the Philippines and 17 other Indo Pacific localities.

Chorinemus sancti petri Bleeker, Verh. Bat. Gen., vol. 24, 1852; Makreel. viss., p. 45. Sunda-Moluccan Archipelago; not of Cuvier and Valenciennes. Gunther, Fische der Südsee, vol. 2, p. 138, 1876-1881; not of Cuvier and Valenciennes; not synonymy.

(f) *Chorinemus santi-petri* Day, Fishes India, p. 230, 1878; Red Sea, east coast of Africa, Seas of India to Malay Archipelago.

Scomberoides toloo-parah Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 180, 1905; Honolulu, Hilo, and Waialua, Hawaiian Islands. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 76, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 62, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 249, 1908; Cavite, Cavite Province, Luzon. Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 525, 1908; the Philippines. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 267, 1911; Suva, Fiji; Vavau, Tonga Islands; Ellice Islands; Gilbert Islands; Rangiroa, Tuamotu Islands; Nukahiva, Marquesas Islands; Arhno and Jaluit, Marshall Islands. Fowler, Copela, No. 58, p. 63, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 268, 1927; the Philippines; Orani and Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 140, 1928; Honolulu and Hilo, Hawaiian Islands; Nukuhiva; Suva; Rangiroa; Gilbert Islands; Arhno Atoll, Marshall Islands; Jaluit; Vavau; Funafuti. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 49, 1930; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Alabat Island; Atimonan, Tayabas Province, Luzon; Capiz, Capiz Province, Panay; Cebu, Cebu Province. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 59, pl. 10, fig. 2, 1941; Bangui, Ilokos Norte Province; Damortis, La Union Province; Manila; Pasay, Rizal Province; Barrio Papaya, Nasugbu, Batangas Province, Luzon; Cabalian, Leyte; Gigaquit, Surigao Province, and Sangali, Zamboanga Province, Mindanao.

Genus 292. *MEGALASPIS* Bleeker.

Only one species.

Red Sea and east Africa to the Philippines, Japan, Hawaiian Islands, and Samoa.

Megalaspis Bleeker, Verh. Bat. Gen., vol. 24, 1852; Makreel. viss., p. 49; orthotype, *Scomber cordyla* Linnaeus=*Caranx rottleri* Bleeker. Oshima, Philippine Jour. Sci., vol. 26, p. 364, 1925. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 192, 1931.

743. *Megalaspis cordyla* (Linnaeus). Hardtail; Mackerel scad; Adlao; Bacutut; Ballangaoan; Calapeon; Kubal-kubal; Oriles; Pakan; Tulay; Uriles.

Marine, sometimes in rivers and lakes.

Scomber cordyla Linnaeus, Syst. Nat., ed. 10, p. 298, 1758; America.

Scomber rottleri Bloch, Naturges. Ausländ. Fische, vol. 7, p. 88, pl. 346, 1793; Coromandel.

Caranx rottleri Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 102, 1833; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 29, 1833. Bleeker, Jour. Indian Archipelago, vol. 3, p. 67, 1849; Celebes. Günther, Cat. Fishes British Mus., vol. 2, p. 424, 1860; China; Madras, India; Malayan Peninsula. Day, Fishes India, p. 213, 1878; Seas of India; Coromandel; Malabar.

Trachurus rottleri Bleeker, Nat. Genesck. Arch. Ned.-Ind., vol. 2, p. 517, 1845; Batavia, Java.

Megalaspis Rottleri Bleeker, Nat. Tijds. Ned.-Ind., Vol. 2, p. 213, 1851; Celebes. Bleeker, Verh. Bat. Gen., vol. 24, 1852; Makreel. viss., p. 49; Sunda-Moluccan Archipelago.

Caranx (Paeiopterus) besselii Agassiz, Pisces Celebes, pl. 1, 1874.

Megalaspis cordyla Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 336, 1902; Formosa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 65, 1907; Bulan, Sorsogon Province, Luzon; Jolo, Sulu Province. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila. Seale, Philippine Jour. Sci., vol. 8, p. 517, 1908; Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Wakiya, Ann. Carnegie Mus., vol. 15, p. 147, pl. 15, fig. 1, 1924; Nagasaki, Japan; Formosa. Oshima, Philippine Jour. Sci., vol. 26, p. 364, 1925; Taihoku, Toko, and Tainan, Formosa. Fowler, Proc. Philadelphia Acad. Sci., vol. 79, p. 268, 1927; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 193, fig. 40, 1931; 17 East Indian localities; also Philippines and 17 other places from the Red Sea and Natal to Hawaii, Samoa, and Australia. Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Bauang Sur, La Union Province; Atimonan and Unisan, Tayabas Province, Luzon; Linapacan Island, Palawan Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 115, fig. 75, 1936; Manila Bay. Herre, 1936-37 Exped.; Verde Island Passage, Sibuyan, Tablas, Cuyo Islands, and Palawan. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, *ibid.*, p. 235, 1937; San Miguel Bay, Luzon. Umali, *ibid.*, vol. 65, p. 181, 1938; Ragay Gulf, Luzon. Blanco, *ibid.*, vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, *ibid.*, vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Herre, Philippine Bur. Science and 1940 Collections; Manila Bay; Cuyo Islands; Tacloban, Leyte; Coron, Busuanga; Lake Naujan, Mindoro; Iloilo market and Miagao, Iloilo Province, Panay; Zamboanga, Zamboanga Province, Mindanao. Roxas and Ageo, Philippine Jour. Sci., vol. 74, p. 5, pl. 1, fig. 1, 1941; Mariveles, Bataan Province; Manila market; Barrio Papaya, Nasugbu, Batangas Province, San Miguel Bay, Camarines Sur Province; and Bulan, Sorsogon Province—all on Luzon. Balanacan, Marinduque Island; Estancia, Iloilo Province, Panay; Bantayan, Bantayan Island, Cebu Province; Loay, Bohol; Davao, Davao Province, and Sangali, Zamboanga Province, Mindanao, Jolo, Sulu Province.

Genus 293. SELAR Bleeker. Gogglers; Bigeyed scads.

One species circumtropical to the other in western Pacific and Indian oceans; marine.

Selar Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 352, 1851; logotype, *Caranx hasselti* Bleeker.

744. Selar boops (Cuvier and Valenciennes). Atoloy; Bunutan; Mataan.

The Andaman Islands, Philippines, and East Indies, southeast to Australia and the New Hebrides.

Caranx boops Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 46, 1833; Amboina; Vanicolo. Günther, Cat. Fishes British Mus., vol. 2, p. 431, 1860; Seas of Batavia, Amboina, and Vanicolo. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Day, Fishes India, p. 218, pl. 49, fig. 2, 1878; Andaman Islands to the Malay Archipelago. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 63, 1907; Bacon, Sorsogon Province, Luzon. Seale, Philippine Jour. Sci., vol. 3A, p. 525, 1908; Philippines.

Selar boops Bleeker, Verh. Bat. Gen., vol. 24, p. 51, 1852; Makreel. viss., p. 51; Sunda-Molucca Arch. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 15, 1918. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 269, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 144, 1928; Shortland Island, Solomon Islands; Faté, New Hebrides. Herre, Fishes 1931 Philippine Exped., p. 34, 1934; Bauang Sur, La Union Province, Luzon; Cullion.

Caranx freeri Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 63, fig. 4, 1907; San Fabian, Pangasinan Province, Luzon. Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 525, 1908; Philippines.

Caranx (Scler) boops Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 209, fig. 43, 1931; Singapore; Billiton; Nias; Tiku and Trussan, Sumatra; Batavia, Java; Makassar and Badjoa, Celebes; Buton; Batjan; Ternate; Amboina; Saparua; Obi Major; Waigiu; New Guinea; Philippines; Andaman Islands; New Hebrides; Solomon Islands; Bismarck Archipelago; Australia. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 14, pl. 2, fig. 1, 1941; Polillo Island; Catbalogan, Samar; Iloilo, Iloilo Province, Panay; Culion; Puerto Princesa, Palawan; Misamis Oriental Province, Zamboanga, Zamboanga Province, and Samal Island, Davao Province, Mindanao; Bungau, Sulu Province.

745. *Scler crumenophthalmus* (Bloch). Big-eyed scad; Matang baka; Bunutan; Ataloy.
Circumtropical; north to Japan.
Scomber crumenophthalmus Bloch, Naturges. Ausländ. Fische, vol. 7, p. 77, pl. 343, 1793; Acara Bay, Guinea, West Africa.
Scomber plumieri Bloch, *ibid.*, vol. 10, p. 67, pl. 344, 1797; Antilles.
Scomber balantiophthalmus Bloch and Schneider, Syst. Ichth., p. 29, 1801; Guinea.
Caranx daubentonii Lacépède, Hist. Nat. Poissons, vol. 3, pp. 59, 71, 1802.
Caranx crumenophthalmus Lacépède, Hist. Nat. Poissons, vol. 4, p. 107, 1802. Günther, Cat. Fishes British Mus., vol. 2, p. 429, 1860; Puerto Cabello; Santa Domingo; Jamaica; West Indies; Congo Exped.; Niger Exped.; West Africa; Gulf of Guinea; Pearl Islands (Bay of Panama), New Hebrides; Red Sea; Indian Ocean; Polynesia. Day, Fishes India, p. 217, pl. 49, fig. 1, 1878; Red Sea, Seas of India to Malay Archipelago. Sauvage, in Grandidier, Hist. Phys. Nat., Madagascar, Poissons, p. 327, 1891. Umali, Edible Fishes Manila, p. 109, fig. 69, 1936; Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, *ibid.*, p. 234, 1937; San Miguel Bay, Luzon. Domantay, *ibid.*, vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Domantay, *ibid.*, vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Roxas and Agco (Phil. Jour. Sci., vol. 74, pp. 15-16, 1941), give a reference to Meyer, An. Soc. Espana Hist. Nat. Madrid, vol. 14, p. 25, 1885, but this is an error; my copy of Meyer's paper contains no reference to *Caranx crumenophthalmus* in the Philippines.
Caranx mauritanicus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 359, 1824; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 60, 1833.
Caranx macrophthalmus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 97, pl. 25, fig. 4, 1828; Red Sea.
Caranx torvus Jenyns, Zoology Voy. Beagle, Fishes, p. 69, pl. 15, 1842; Tahiti.
Trachurops crumenophthalmus Gill, Proc. Acad. Nat. Sci., Phila., vol. 14, p. 432, 1863. Oshima, Philippine Jour. Sci., vol. 26, p. 369, 1925; Takao, Taihoku, and Giran, Formosa; Pescadores Islands. Walford, Marine Game Fishes, p. 81, 1937; all warm seas.
Trachurops mauritanicus Streets, Bull. 7, U. S. Nat. Mus., p. 68, 1877; Honolulu.
Trachurops crumenophthalma Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 187, fig. 71, 1905; Honolulu, Kailua, Hilo, Hoopuloo, and Hanalei Bay, Kawai, Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 230, 1906; Samoa; Tahiti; Hawaii; Solomon Islands; New Hebrides; Marquesas; Rarotonga. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 13, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Manila, Luzon; Lubang Island. Oshima, Philippine Jour. Sci., vol. 26, p. 369, 1925; Taihoku, Takao, and Giran, Formosa; Bako, Pescadores Islands.
Scler crumenophthalmus Fowler, Copela, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., p. 15, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 269, 1927; Philippines. Barnard, Ann. South African Mus., vol. 21, p. 536, 1927. Fowler, Mem. Bishop Mus., vol. 10, p. 144, fig. 37, 1928; Honolulu, Tahiti, Nukahiva; Rarotonga; Christmas Islands; Pago Pago, Samoa; Fakarava, Society Islands; Herre, 1940-41 Exped.; Gulf of Ragay, Luzon; Miagao, Iloilo Province, Panay.

Selar mauritanus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 38, 1922.

Selar macrophthalmus Wakiya, Ann. Carnegie Mus., vol. 15, p. 160, pl. 18, fig. 3, 1924; Kagoshima and Nagasaki, Japan; RiuKiu Islands; Bonin Islands; Formosa. Herre, Fishes 1931 Philippine Exped. p. 34, 1934; Unisan, Tayabas Province, Luzon; Culion; Dumaguete; Capiz, Capiz Province, Panay; Jolo, Sulu Province.

Trachurops mauritiana Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 223, 1925; Tokyo, Shizuoka, Wakanoura, and Misaki, Japan.

Caranx (Selar) crumenophthalmus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 210, 1931; 24 East Indian localities; Sulu Islands, Philippines, and 22 other Indo-Pacific localities. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 15, pl. 2, fig. 2, 1941; Bangui, Ilokos Norte Province; Orion, Bataan Province; Manila market; Bulan, Sorsogon Province, Luzon; Calapan, Mindoro; Tolong, Negros Oriental Province; Puerto Princesa, Palawan; Camaguin Island, off north coast of Mindanao; Cagayan, Misamis Oriental Province, Malangas, and Zamboanga, Zamboanga Province, Mindanao.

Genus 294. DECAPTERUS Bleeker. Mackerel scads; Round scads; Galongong.

Tropical and subtropical waters of the Indo-Pacific and Atlantic Oceans; north to Japan and Cape Cod, south to Natal and Brazil; marine.

Decapterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 352, 1851; orthotype, *Caranx kurra* Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 194, 1931.

746. *Decapterus kurroides* Bleeker.

A rare fish, only known from 10 specimens, 4 from the East Indies and 6 from the Philippines.

Decapterus kurroides Bleeker, Nat. Tijds. Ned.-Ind. vol. 8, p. 420, 1855; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 427, 1860; after Bleeker. Oshima, Philippine Jour. Sci., vol. 26, p. 361, 1925; Toko, Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 199, 1931; after Bleeker. Herre, Copeia, No. 3, p. 149, 1945; Catbalogan, Samar; Iloilo market, Iloilo Province, Panay.

Decapterus maruadsi kurroides Nichols, American Mus. Nat. Hist., Novitates, No. 1196, p. 2, 1942; Amurang, North Celebes.

747. *Decapterus lajang* Bleeker.

East Indies and Philippines, north to Japan and in the Indian Ocean to South Africa.

Decapterus lajang Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 302, 1855; Ternate. Günther, Cat. Fishes British Mus., vol. 2, p. 425, (note), 1860. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 289, 1865; Amboina. Wakiya, Ann. Carnegie Mus., vol. 15, p. 155, 1924; Tokyo Bay, Kii, Uwajima, and Kagoshima, Japan; Bonin Islands. Barnard, Ann. South African Mus., vol. 21, p. 535, 1925-27; False Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 200, 1931; after Bleeker; Amboina; Ternate. Herre, 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Prov., Luzon; Iloilo, Iloilo Province, Panay. Nichols, American Mus. Nat. Hist. Novitates, No. 1196, p. 4, 1942; Batavia, Java; North Celebes; Japan.

748. *Decapterus macrosoma* Bleeker. Galongong.

From Natal to the Philippines, north to Japan and the Bonin Islands, south through the East Indies to Australia; marine.

Decapterus macrosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 358, 1851; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 24; Makreel. viss., p. 87, 1852; Sunda-Moluccan Archipelago. Wakiya, Ann. Carnegie Mus., vol. 15, p. 153, pl. 16, fig. 2, 1924; Japan; Bonin Islands; RiuKiu Islands; Formosa. Barnard, Ann. South African Mus., vol. 21, p. 535, 1925-27; Natal. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 197, 1931; Java; Menado, Celebes; Sangir Islands; Philippines. Norman, Ann. Mag. Nat. Hist., vol. 16, p. 262, 1935; Philippines. Umali, Edible Fishes Manila, p. 116, fig. 76, 1936; Manila Bay. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 8, pl. 1, fig. 2, 1941; Manila, Luzon; Bongao, Sulu Province.

Caranx macrosoma Günther, Cat. Fishes British Mus., vol. 2, p. 425, 1860; Sea of Batavia; after Bleeker.

- Decapterus macrosomus* Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 337, 1903; Formosa; Kagoshima, Japan. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 63, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 269, 1927; Bulan, Sorsogon Province, Luzon.
- Decapterus macarellus macrosoma* Nichols, American Mus. Nat. Hist. Novitates, No. 1196, p. 7, 1942; Menado, Celebes; Batavia, Java.

749. *Decapterus russelli* (Rüppell).

Red Sea and east coast of Africa to the Philippines, Japan, and Australia; marine.

Caranx russellii Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 99, 1828; Tor, Red Sea.

Caranx kurra Cuvier and Valenciennes Hist. Nat. Poissons, vol. 9, p. 44, 1833; Vizagapatam; based on Russell's pl. 139. Bleeker, Jour. Indian Archipelago, vol. 3, p. 72, 1849; Celebes. Günther, Cat. Fishes British Mus., vol. 2, p. 427, 1860; Sea of Batavia; Moluccas. Day, Fishes India, p. 214, pl. 48, fig. 5, 1878; Madras; Red Sea; Seas of India, to the Malay Archipelago.

Caranx pseudoptygius Bleeker Jour. Indian Archipelago, vol. 3, p. 71, 1849; Celebes.

Decapterus kurra Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 358, 1851; Indian Archipelago. Evermann and Seale, Bull. U. S. Bureau Fisheries, vol. 26, p. 63, 1907; Bulan, Sorsogon Province, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Oshima, Philippine Jour. Sci., vol. 26, p. 359, 1925; Taihokufish market, and Tainan; Formosa; Bako; Pescadores Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 268, 1927; Philippines.

Decapterus russellii Klunzinger, Fische Rothen Meeres, p. 91, 1884. Weber Siboga-Exped., vol. 57, Fische, p. 393, 1913.

Decapterus russelli Gilby, Mem. Queensland Mus., vol. 3, p. 59, 1915. Wakiya, Ann. Carnegie Mus., vol. 15, p. 149, pl. 15, fig. 2, 1924; Tokyo Bay, Kii, and Uwajima, Japan; RiuKiu Islands. Barnard, Ann. South African Mus., vol. 21, p. 534, 1925-27; Natal. McCulloch, Mem. 5, Australian Mus., p. 184, 1929; Philippines; Red Sea; India; East Indies; Japan; Queensland. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 196, fig. 41, 1931; Singapore; Java; Makassar, Celebes; Saleyer; Amboina; Philippines. Herre, 1940-41 Exped.; Iloilo, Iloilo Province, Panay.

Genus 295. **SELAROIDES** Bleeker.

Only one species known. Philippines, East Indies, north to China and to RiuKiu Islands, south to Australia, west to India and Arabia. Marine.

Selaroides Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 352, 1851: Indian Archipelago; orthotype, *Caranx leptolepis* Cuvier and Valenciennes, Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 261, 1931; subgenus. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 44, 1941; subgenus.

Leptaspis Oshima, Philippine Jour. Sci., vol. 26, p. 386, 1925.

750. *Selaroides leptolepis* (Cuvier and Valenciennes). Crevalle; Lambiao; Salay-salay; Salay-salay aso; Salay-salay-habagat; Salay-salay batang; Tabaroyan.

Distribution as for the genus.

Caranx leptolepis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 63, 1833; Java.

Caranx mertensi Cuvier and Valenciennes, *ibid.*, p. 64, 1833; Manila, Luzon.

Caranx leptolepis Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 517, 1845; Batavia, Java. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1108, 1850. Günther, Cat. Fishes British Mus., vol. 2, p. 440, 1860; Malayan Peninsula; Australia. Day, Fishes India, p. 225, pl. 51, fig. 4, 1878; Madras; Sea of India to Malay Archipelago. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 250, 1908; Cavite, Cavite Province, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. McCulloch, Mem. 5, Australian Mus., p. 188, 1929; Queensland; New Guinea; East Indies; Philippines. Umali, Edible Fishes Manila, p. 112, fig. 72, 1936; Manila Bay and the Visayas. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province,

- Luzon. Umali, *ibid.*, p. 235; San Miguel Bay, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province, Mindanao. Domantay, *ibid.*, vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.
- Selaroides leptolepis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 213, 1851; Celebes. Herre, Fishes 1931 Philippine Exped., p. 35, 1934; Bauang Sur, La Union, Province; Manila, Luzon; Alabat Island; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay. Herre, 1936-37 and 1940-41 Exped.; Manila Bay, Luzon; Estancia and Iloilo, Iloilo Province, Panay. Also Singapore and Johore Bahru, Johore, Malaya.
- Leptaspis leptolepis* Bleeker, Verh. Bat. Gen., vol. 24, Makreel. viss., pp. 71 and 87, 1852; Sunda-Moluccan Archipelago. Oshima, Philippine Jour. Sci., vol. 26, p. 387, 1925; Keelung, Formosa; after Day.
- Caranx cheverti* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 324, pl. 10, fig. 1, 1877; Katow, New Guinea.
- Caranx procaranx* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 540, 1884; Cape York, Queensland.
- Caranx (Selaroides) leptolepis* Wakiya, Ann. Carnegie Mus., vol. 15, p. 208, pl. 31, fig. 2, 1924; Riukiu Islands; Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 262, fig. 49, 1931; Singapore; Pinang; Sumatra; Batavia, Java; Flores; Bonthain, Bulukomba, Badjoa, and Makassar, Celebes; Amboina; south coast New Guinea. Also Philippines and numerous other places from Arabia to China and Australia. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 45, pl. 8, fig. 2, 1941; Divisoria market, Manila; San Pedro Bay, Basey, Samar; Carigara, Leyte; Antique Prov., Panay; Cebu, Cebu Prov., Barrio Sicaba, Cadiz Nuevo, Occidental Negros Province.
- Gnathanodon leptolepis* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 271, 1927; Orion, Bataan Province, Luzon, Philippines.

Genus 296. **SERIOLA** Cuvier. Amberfish; Amberjack; Lali; Lapis; Lumasang; Pikay.

All tropical and subtropical seas.

Seriola Cuvier, Règne Animal, ed. 2, p. 218, 1829; type, *Caranx dumerili* Risso. Günther, Cat. Fishes British Mus., vol. 2, p. 462, 1860. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 182, 1905. Oshima, Philippine Jour. Sci., vol. 26, p. 354, 1925. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 294, 1931. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 70, 1941.

Zonichthys Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 248, 1839.

Naucratopsis Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 441, 1862.

Halatractus Gill, *ibid.*, p. 442.

Lepidomegas Thominot, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 173, 1880.

Seriolina Wakiya, Ann. Carnegie Mus., vol. 15, p. 230, 1924.

Regifcola Whitley, Australian Zoologist, vol. 6, p. 316, 1931.

751. *Seriola dumerili* (Risso). Dumeril's amberjack; Lumasang.

All tropical and subtropical seas.

Caranx dumerilii Risso, Ichth. Nice, p. 175, 1810.

Seriola dumerili Risso, Hist. Nat. Europ. Mérid., vol. 3, p. 424, 1826. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 201, pl. 258, 1833. Günther, Cat. Fishes British Mus., vol. 2, p. 462, 1860; Mediterranean, China; seas of Japan and China. Kner, Reise *Novara*, Fische, p. 161, 1867; Manila, Luzon. Günther, Fische der Südsee, vol. 2, p. 136.

Seriola purpurascens Schlegel, Fauna Japonica, Pisces, p. 113, pl. 61, 1845; Nagasaki, Japan. Wakiya, Ann. Carnegie Mus., vol. 15, p. 228, pl. 36, fig. 2, 1924; Tokyo Bay, Kii; Uwajima; Kumanoto; Niigata; Toyama Bay, Japan. Oshima, Philippine Jour. Sci., vol. 26, p. 355, 1925; coast of Japan, Formosa; China. Fowler, Mem. Bishop Mus., vol. 10, p. 141, pl. 10C, 1928; Honolulu; Hawaiian Islands.

Seriola dumerili Day, Fishes India, p. 228, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 297, 1931; Flores; Solor, Amboina, New Guinea; Philippines; Red Sea, Arabia, India, China, Japan, Hawaiian Islands.

752. *Seriola nigrofasciata* (Rüppell). Black-barred amberjack; Lapis; Pikay. East coast of Africa to the Philippines, Japan, Australia, and the Louisiade Archipelago. Marine but entering rivers.

- Nomeus nigrofasciatus* Rüppell, Atlas Reise Nördl. Afrika Fische Rothen Meeres, p. 92, pl. 24, fig. 2, 1828; Massaua, Red Sea.
- Seriola binotata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 215, 1833. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1119, 1850; Pinang. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 57, 1852; Singapore.
- Seriola ruppellii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 216, 1833. Bleeker, Verh. Bat. Gen., vol. 24, p. 73, 1852 Makreel. viss., p. 78; Sunda-Moluccan Archipelago.
- Seriola nigrofasciata* Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 51, 1835; Red Sea. Günther, Cat. Fishes, British Mus., vol. 2, p. 465, 1860; Red Sea; Sea of Pinang; Amboyna; Louisiade Archipelago. Day, Fishes India, p. 227, 1878; Madras; Red Sea, east coast Africa. Seas of India to Malay Archipelago. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 63, 1907; Bulan, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 268, 1927; Orion, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 295, fig. 59, 1931; Pinang Sea; Singapore; Batavia, Java; Makassar, Celebes; Amboina; Philippines; Natal Coast to Japan; Australia; and the Louisiades. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 71, pl. 12, fig. 2, 1941; Manila and Bikol Rivers, Camarines Sur Province, Luzon; Dumangas, Iloilo Province, Panay. Umali, Collection motorship *Theodore N. Gill*, 11 kilometers southwest of Corregidor in China Sea, at 36 fathoms, Oct. 1947.
- Seriola intermedia* Schlegel, Fauna Japonica, Pisces, p. 116, 1845, Nagasaki. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 14, 1879; Japan.
- Seriolina intermedia* Wakiya, Ann. Carnegie Mus., vol. 15, p. 230, pl. 38, fig. 1, 1924; Kii and Nagasaki, Japan; RiuKiu Islands.
- Zonichthys nigrofasciata* Barnard, Ann. South African Mus., vol. 21, p. 557, 1925-1927; coast of Natal.

Genus 297. TRACHINOTUS Lacépède. Pampano; Palometa; Bitilla.

In all tropical seas.

Trachinotus Lacépède, Hist. Nat. Poissons, vol. 3, p. 79, 1802; type, *Labrus falcatus* L. Weber and de Beaufort, Fishes Indo-Austr. Archipelago, vol. 6, p. 285, 1931.

Caesiomorus Lacépède, Hist. Nat. Poissons, vol. 3, p. 92, 1802; type, *Caesiomorus bailloni* Lacépède.

Acanthinion Lacépède, Hist. Nat. Poissons, vol. 4, p. 499, 1803; type, *Chaetodon rhomboides* L.

Hypodis Rafinesque, Caratteri Alcuni Nuovi Generi Sicilia, p. 41, 1810; type, *Scomber glaucus* L.

Baillonis Rafinesque, Analyse Nature, p. 85, 1815; substitute for *Caesiomorus* Lacépède.

Bothrolaemus Holbrook, Ichth. South Carolina, p. 80, 1855; orthotype, *Trachinotus pampanus* Cuvier and Valenciennes.

Campogramma Regan, Ann. Mag. Nat. Hist., ser. 2, vol. 12, p. 350, 1903; orthotype, *Lichia radigo* Risso.

Glaucus (Klein) Fowler, Proc. Acad. Nat. Sci. Phila., vol. 58, p. 116, 1906; orthotype, *Scomber amia* L.

Pampanoa Fowler, *ibid.*, p. 116; orthotype, *Chaetodon glaucus* Bloch.

Glaucus (Klein) Jordan and Hubbs, Ann. Carnegie Mus., vol. 11, p. 463, 1917; orthotype, *Scomber glaucus* L.

753. *Trachinotus bailloni* Lacépède. Bitilla.

All over the tropical Indo-Pacific; marine.

Caesiomorus bailloni Lacépède, Hist. Nat. Poissons, vol. 3, p. 93, pl. 3, fig. 1, 1802.

Caesiomorus quadripunctatus Rüppell, Atlas Reise Nördl. Afrika Fische, p. 90, pl. 24, fig. 1, 1828; Massaua, Red Sea.

Trachinotus Baillonii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 431, 1831. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 237, 1852; Banka. Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 21, p. 449, 1871; Red Sea.

Trachinotus quadripunctatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 434, 1831.

Trachynotus baillonii Günther, Cat. Fishes, British Mus. vol. 2, p. 484, 1860; India; Malayan Peninsula; Tanna, New Hebrides. Günther,

Fische der Südsee, vol. 2, p. 130, 1876-1881; Society Islands; Apia, Samoa; New Hebrides. Wakiya, Ann. Carnegie Mus., vol. 15, p. 219, 1924; Formosa.

Trachynotus Baillonii Day, Fishes India, p. 233, pl. 51A, fig. 4, 1878; Aden; Red Sea; east coast of Africa; Seas of India to Malay Archipelago.

Trachinotus Baillonii Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 66, 1907; Zamboanga, Zamboanga Province, Mindanao. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 271, pl. 2, fig. 1, 1911; Funafuti. Oshima, Philippine Jour. Sci., vol. 26, p. 407, 1925; after Day; Takao, Formosa; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 152, 1928; Funafuti; Bonin Islands; Society Islands.

Trachynotus quadripunctatus Wakiya, Ann. Carnegie Mus., vol. 15, p. 220, pl., fig. 2, 1924; Kii, Japan; RiuKiu Islands; Formosa.

Trachynotus cuvieri Wakiya, Ann. Carnegie Mus., vol. 15, p. 220, 1924; Misaka, and Uwajima, Japan; RiuKiu Islands; Formosa.

Trachynotus bailloni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 288, 1931; 17 East Indian localities; also Philippines and 28 other Indo-Pacific localities from the Red Sea to the Marquesas. Herre, Jour. Pan Pac. Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21; p. 117, 1936; Bushunan's Bay, Malekula Island, New Hebrides. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 66, pl. 11, fig. 3, 1941; Mangarin, Mindoro; Estancia, Iloilo Province, Panay; Comiran Island, Sulu Sea, east of Balabac; Jolo, Sulu Province. Herre, Philippine Bureau Science Collection; south coast of Bohol; Cagayan, Misamis Oriental Province, Mindanao; Jolo, Sulu Province. Herre, 1948 Coll.; entrance to Manila Bay.

754. *Trachinotus blochi* (Lacépède).

Marine. Known from most of the tropical Indo-Pacific.

Scomber falcatus Forskål, Descript. Animal., p. 57, 1775; Djedda and Lohaja, Red Sea.

Trachinotus falcatus Lacépède, Hist. Nat. Poissons, vol. 3, p. 79, 1802. Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 89, 1828.

Centronotus ovalis Lacépède, Nat. Hist. Poissons, vol. 3, p. 309, 1802.

Caesiomorus blochii Lacépède, Nat. Hist. Poissons, vol. 3, p. 79, pl. 3, fig. 2, 1802.

Trachinotus mookalee Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 423, 1831; Pondicherry, India; based on Russell's fig. 154. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1102, 1850; Pinang. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 412, 1852; Borneo.

Trachinotus affinis, Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 428, 1831; Malabar.

Trachinotus falciger Cuvier and Valenciennes, *ibid.*, vol. 8, p. 428, 1831; Malabar.

Trachinotus drepanis Cuvier and Valenciennes, *ibid.*, vol. 8, p. 429, 1831; Seychelles.

Trachinotus blochii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 425, 1831.

Trachynotus ovatus Günther, Cat. Fishes British Mus., vol. 2, p. 481, 1860; Santo Domingo; West Indies; Jamaica; South America; Malayan Peninsula; Ceylon; Aneiteum; Red Sea; Amboyna; Moluccas; Pinang; India; China; Australia. Day, Fishes India, p. 234, pl. 51B, fig. 2, 1878; Seas of India to Malay Archipelago; Red Sea; east coast Africa. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 25, 1885; Cebu, Cebu Province. Oshima, Phil. Jour. Sci., vol. 26, p. 409, 1925; Takao and Taihoku fish market, Formosa.

Trachinotus blochii Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 52, 1861; Singapore; Bleeker, *ibid.*, p. 74; Pinang.

Trachinotus ovatus Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 271, 1911; Vavau, Tonga Islands. Ogilby, Mem. Queensland Mus., vol. 5, p. 154, 1916. Whitley, Records Australian Mus., vol. 16, 1927. Fowler, Mem. Bishop Mus., vol. 10, p. 152, 1928; Apia, Samoa; Vavau, Tonga Islands.

Trachinotus Blochi Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 6, p. 286, 1931; 17 East Indian localities; Cebu, Cebu Prov.,

Philippines; and 23 Indo-Pacific localities, from the Red Sea and Natal to Japan, Samoa, and the Tonga Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Culion; not Dumaguete as accidentally given in text. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 64, pl. 11, fig. 2, 1941; Jolo, Sulu Province; also Guam.

Genus 298. ULUA Jordan and Snyder.

Formosa, the Philippines, Borneo, New Guinea, Pelew Islands, Australia.

Marine; two species known.

Ulua Jordan and Snyder, Mem. Carnegie Mus., vol. 4, p. 39, 1908; Takao, Formosa; orthotype, *Ulua richardsoni* Jordan and Snyder. Wakiya, Ann. Carnegie Mus., vol. 15, p. 210, 1924. Oshima, Philippine Jour. Sci., vol. 26, p. 405, 1925. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 266, 1931. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 49, 1941.

755. Ulua mandibularis (Macleay).

Australia to New Guinea and the Philippines.

Caranx mandibularis Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 356, 1882; New Guinea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 234, 1906; after Macleay.

Ulua mandibularis McCulloch, Biological Results *Undeavour*, vol. 3, p. 140, 1915. McCulloch, Mem. Queensland Mus., vol. 8, p. 75, pl. 14, 1924; near Port Moresby; New Guinea. Herre, Philippine Bur. Science Collection, 1926; east coast of Palawan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 266, figs. 51-52, 1931; Balikpapan, Borneo; Port Moresby, New Guinea; Pelew Islands; Gulf of Carpenteria, Australia. Herre, 1940-41 Collection; Market, Iloilo, Iloilo Province, Panay. Roxas and Agco, Philippine Jour. Sci., vol. 74, p. 49, pl. 9, fig. 1, 1941; Manila, Luzon; Estancia, Iloilo Province, Panay.

Carangoides mandibularis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 272, 1927; Philippines. Fowler, Mem. Bishop. Mus., vol. 10, p. 151, 1928; New Guinea.

Genus 299. URASPIS Bleeker.

Philippines, East Indies, Polynesia, north to southern Japan.

Uraspis Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 418, 1855; type, *Uraspis carangoides* Bleeker. Wakiya, Ann. Carnegie Mus., vol. 15, p. 205, 1924. Jordan, Evermann, and Tanaka, Proc. California Acad. Sci., 4th ser., vol. 16, p. 657, 1927.

756. Uraspis helvola (Bloch and Schneider).

Tropical Indo-Pacific, north to Japan; marine.

Scomber helvolus (Forster) Bloch and Schneider, Syst. Ichth., p. 38, 1801. Forster, Descript. Animal., pp. 414-415, 1775; Lichtenstein ed. 1844; (?) Society Islands.

Caranx helvolus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 104, 1833. Günther, Cat. Fishes British Mus., vol. 2, p. 443, 1860; Red Sea. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 270, 1927; Philippines. Fowled, Mem. Bishop Mus., vol. 10, p. 146, 1928; Honolulu.

Carangus helvolus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 96, pl. 32, 1905; Honolulu market.

Caranx (Uraspis) helvola Wakiya, Ann. Carnegie Mus., vol. 15, p. 206, pl. 28, fig. 4, 1924; Wajima, Japan; Formosa.

Uraspis helvola Herre, Philippine Bur. Science Collection; reef in China Sea, off Bataan Province, Luzon.

Caranx (Uraspis) helvolus Hardenberg, Treubia, vol. 15, p. 374, 1936; fish market, Batavia, Java.

Family 106. MENIDAE. Moonfishes

Genus 300. MENE Lacépède.

Only one species known.

Mene Lacépède, Hist. Nat. Poissons, vol. 5, p. 479, 1803; type, *Mene Annacarina* Lacépède=*Zeus maculatus* Bloch and Schneider=*Mene maculata* (Bloch and Schneider).

757. *Mene maculata* (Bloch and Schneider). Moonfish; Spotted moonfish; Akikiro; Bete-bete; Cadiz; Chabita; Dalupane; Hiwas; Tabas; Zapatero.

East Coast of Africa to Philippines, north to China and Japan, south to Queensland, Australia.

Zeus maculatus Bloch and Schneider, Syst. Ichth., p. 95, pl. 22, 1801; Tranquebar.

Mene anna Carolina Lacépède, Hist. Nat. Poissons, vol. 5, p. 479, 480, 1803.

Mene maculata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 104, pl. 285, 1835. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 518, 1845; Batavia, Java. Schlegel, Fauna Japonica, Pisces, p. 127, pl. 67, fig. 3, 1846; Nagasaki. Bleeker, Jour. Indian Archipelago, vol. 3, p. 67, 1849; Celebes. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1136, 1850; Malayan Peninsula. Bleeker, Verh. Bat. Gen., vol. 24, p. 86, 1852; Makreel. viss., p. 86, Sunda-Molucca Archipelago. Günther, Cat. Fishes British Mus., vol. 2, p. 415, 1860; East Indian Seas; Malayan Peninsula. Day, Fishes India, p. 249, pl. 53, fig. 5, 1878; Seas of India to Malay Archipelago and beyond. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 15, 1907; Iloilo, Iloilo Province, Panay. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 251, 1908; Manila, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 272, 1927; Santa Maria and Vigan, Ilokos Sur Province, Luzon. Herre, Fishery Resources Philippine Islands, p. 54, 1927; Philippines. McCulloch, Memoir 5, Australian Mus., p. 194, 1929; Philippines; Queensland; East Indies; Japan; Ceylon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 309, 1931; Sea of Pinang; Singapore; Sumatra; Java; Celebes; Amboina; Batjan. Also Philippines and 9 other Indo-Pacific localities. Herre, Fishes 1931 Philippine Expedition, p. 36, 1934; Bauang Sur, La Union Province; Manila and Magallanes, Sorsogon Province, Luzon; Capiz, Capiz Province, Panay. Montilla, Philippine Jour. Sci., vol. 58, p. 281, pl. 1, fig. 1, 1935; Vigan, Ilokos Sur Province, Rabon, La Union Province, and Manila, Luzon; Calbayog, Samar; Cadiz, Negros Occidental Province; Butuan Bay, Agusan Province, Mindanao. Umali, Edible Fishes Manila, p. 120, fig. 79, 1936; Manila markets, from Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937. Umali, *ibid.*, vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Blanco, *ibid.*, vol. 66, p. 506, 1938; Cagayan Prov., Luzon. Domantay, *ibid.*, vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, 1936-37 and 1940-41 Expeds.; Manila; Culion; Iloilo, Iloilo Province, Panay; Cebu; Tacloban, Leyte; on practically all Philippine coasts.

Family 107. RACHYCENTRIDÆ. The sergeantfishes

Only one genus and one species. Pantropical, north to Japan and Cape Cod.

Genus 301. RACHYCENTRON Kaup.

Rachycentron Kaup, Isis, vol. 19, p. 89, 1826; type, *Rachycentron typus* Kaup. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 302, 1931.

Elecate Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 8, p. 328, 1831; type, *Elecate malabaricus* Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 2, p. 375, 1860.

Meladerma Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 243, 1839; type, *Meladerma nigerrima* Swainson=*Elecate pondicerrians* Cuvier and Valenciennes.

758. *Rachycentron canadus* (Linnaeus). Sergeantfish; Crab eater; Balisokan; Gele; Itang; Lang-linga; Pandauan; Sakalan-itang; Tase.

All warm seas except eastern Pacific.

Gasterosteus canadus Linnaeus, Syst. Nat., ed. 12, p. 491, 1766; the Carolinas.

Scomber niger Bloch, Ichthyologie, pl. 337, 1793.

Centronotus gardenii Lacépède, Hist. Nat. Poissons, vol. 3, p. 357, 1803.

Elecate bivittata Cuvier and Valenciennes, *ibid.*, p. 238, 1831; Molucca. Schlegel, Fauna Japonica, Pisces, p. 104, pl. 56, 1846; Nagasaki. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 516; 1845; Batavia, Java.

- Elecate hexacantha* Bleeker, *ibid.*
- Elecate pondiceriana* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 329, 1831; Pondicherry, India. Rüppell, *Neue Wirbelt., Fische Rothen Meeres*, p. 13, pl. 12, fig. 3, 1835; Red Sea.
- Elecate motta* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 332, 1831; Oriva, India. Rüppell, *Neue Wirbelt., Fische Rothen Meeres*, p. 43, pl. 12, fig. 3, 1835; Red Sea.
- Elecate atlantica* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 8, p. 334, pl. 233, 1831; Brazil.
- Elecate malabarica* Cuvier and Valenciennes, *ibid.*, p. 332, 1831; Malabar. Cuvier, *Règne Animal*, *Illus. ed.*, *Poiss.*, pl. 54, fig. 2, 1828.
- Elecate motta* Bleeker, *Verh. Bat. Gen.*, vol. 24, *Makreel. Visschen*, p. 52, 1852; Sunda-Molucca Archipelago.
- Elecate nigra* Günther, *Cat. Fishes, British Mus.*, vol. 2, p. 375, 1860; New Orleans; Jamaica; Malayan Peninsula; Japan, Sea of Pinang. Day, *Fishes India*, p. 256, pl. 55, fig. 2, 1878; Madras; Seas of India to Japan.
- Rachycentron canadus* Jordan and Evermann, *Fish North and Middle America*, vol. 1, p. 948, fig. 401, 1896. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 61, 1907; Bulan, Sorsogon Province, Luzon. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 303, fig. 63, 1931; Sea of Pinang; Singapore; Bintang; Banka; Batavia, Samarang, Japara, Prigi, and Tamara, Java; Padang and Benkulen, Sumatra; Sinkawang, Borneo; Makassar, Celebes; Amboina; Batjan. Also the Philippines and 12 other localities from the Red Sea and Madagascar to Japan, Australia, and Vanicolo. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, *Fishes 1931 Philippine Exped.*, p. 36, 1934; Manila Bay; Nasugbu, Batangas Province; and Atimonan, Tayabas Province, Luzon. Herre, *Philippine Bur. Science Collection* and various expeditions up to 1940-41; Apo Reef, China Sea, west of Mindoro; Cabalian, Leyte; Carnasa Island and Gato Rock, between Cebu and Masbate; reefs north of Bohol; Malampaya Sound, Palawan; off Basilan Island; Jolo and Sibutu Islands, Sulu Province; Dagat-dagatan Fisheries Station, Rizal Province, Luzon; also Singapore. Umali, *Philippine Jour. Sci.*, vol. 54, p. 371, 1934; southwestern Samar. Umali, *Edible Fishes Manila*, p. 121, fig. 80, 1936; Manila Bay; China Sea, off Bataan and Batangas Provinces, Luzon. Umali, *Philippine Jour. Sci.*, vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, *ibid.*, vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, *ibid.*, vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.
- Rachycentron pondicerianus* Fowler, *Jour. Acad. Nat. Sci. Phila.*, vol. 12, p. 513, 1904; Sumatra.
- Rachycentron pondicerianum* Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 14, 1907; Manila, Luzon; Iloilo, Iloilo Province, Panay.
- Rachycentron canadum* Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 251, 1908; Manila. Herre, *Fishery Resources Philippine Islands*, pp. 47 and 56, 1927; Philippines.
- Rachycentron pondicerianum* McCulloch, *Proc. Linn. Soc. New South Wales*, vol. 40, p. 263, 1915.

Family 108. LACTARIIDÆ

A small marine family, with but one genus and a single species.

Genus 302. LACTARIUS Cuvier and Valenciennes.

Lactarius Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 19, p. 237, 1833; type, *Scomber lactarius* Bloch and Schneider=*Lactarius delcatulus* Cuvier and Valenciennes. Günther, *Cat. Fishes British Mus.* vol. 2, p. 507, 1860. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 307; 1931.

759. *Lactarius lactarius* (Bloch and Schneider). Milkfish; Algodon; Pagapa; Damos; Pellan; Kopog; Susu; Bog-suag-taen; Rigodon. Arabia to the Philippines and China, south to Queensland, Australia. *Scomber lactarius* Bloch and Schneider, *Syst. Ichth.*, p. 31, 1801; Tranquebar.
- Seriola lactaria* Cuvier, *Règne Animal*, ed. 2, vol. 2, p. 206, 1829.

Lactarius delicatulus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 238, 1833; Tranquebar. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 518, 1845; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 24, 1852, Makreel. viss., p. 74; Sunda Molucca Arch. Günther, Cat. Fishes British Mus., vol. 2, p. 507, 1860; Madras; Malayan Peninsula; Sumatra; Amboina. Day, Fishes India, p. 245, pl. 53, fig. 2, 1878; Malabar; Seas of India to Malay Peninsula and China. Macleay, Proc. Linn. Soc. New South Wales, vol. 9, p. 26, 1884; Queensland. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 63, 1907; San Fabian, Pangasinan Province, Luzon.

Lactarius lactarius Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 270, 1910; Sandakan, British North Borneo. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines; Orion, Bataan Prov., Luzon. Herre, Bur. Sci. Collections, Gulf of Lingayen, Pangasinan Province; Manila Bay; Batangas Bay, Batangas Province; San Miguel Bay, Luzon; Tacloban, Leyte. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 307; fig. 605, 1934; Pinang; Singapore; Sumatra; Nias; Java; Madura; Borneo; Celebes; Amboina; Misol; Waigiu; Philippines; also 7 other countries, from Arabia to China and Queensland. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 3, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Bauang Sur, La Union, Province, Luzon. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 122, fig. 81, 1936; Manila Bay; Lingayen Gulf; Aloueros, Tayabas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.

Family 109. LEIOGNATHIDÆ

From Africa to Tahiti, north to China and Japan; marine, some in fresh water.

Genus 303. GAZZA Rüppell.

Two species; one known from Ceylon and the Philippines, the other from Africa to Polynesia; marine, and said to enter fresh water.

Gazza Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 3, 1835.

760. *Gazza achlamys* Jordan and Starks.

Ceylon and Philippines.

Gazza achlamys Jordan and Starks, Ann. Carnegie Mus., vol. 12, p. 446, pl. 45, 1917; Ceylon. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Bauang Sur, La Union Province, Luzon; Cotabato, Cotabato Province, Mindanao.

761. *Gazza minuta* (Bloch). Motambo; Buegsang; Gumabek.

East coast of Africa to the Philippines, Australia, and Tahiti.

Scomber minutus Bloch, Ichthyologie, p. 110, pl. 429, fig. 2, 1797; Malabar. *Zeus argentarius* (Forster) Bloch and Schneider, Syst. Ichth., p. 196, 1801.

Equula minuta Cuvier and Valenciennes. Hist. Nat. Poissons, vol. 10, p. 88, 1835. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 213, 1851, Celebes. Bleeker, Verh. Bat. Gen., vol. 24; Makreel. viss., p. 85, 1852, Sunda-Molucca Archipelago. Day, Fishes India, p. 244, 1878. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 777, 1905; Bais, Negros. Smith and Seale, Proc. Biol. Soc., Washington, vol. 19, p. 77, 1906; Rio Grande, Cotabato Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 15, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *ibid.*, p. 69, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Manila, Luzon; Lubang Island; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 272; 1910; Sandakan, British North Borneo; Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines; Vigan, Ilokos Sur Province; Orani and Orion, Bataan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 154, 1928; after Günther; Bourbon; Seychelles; Mauritius; East Indies;

Tahiti. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 339, figs. 71-72, 1931; 43 East Indian localities; the Philippines and 21 other Indo-Pacific localities. Herre, Jour. Pan. Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Bauang Sur, La Union Province, Manila, and Unisan, Tayabas Province, Luzon; Culion; Capiz, Capiz Province, Panay; Dumaguete, Negros Oriental Province; Cotabato, Cotabato Province, Mindanao. Herre, Philippine Bur. Science and 1940-41 Collections; Manila Bay; Gulf of Lingayen, Pangasinan Province; San Miguel Bay, Camarines Sur Province, and Gulf of Ragay, Luzon; Puerto Galera, Mindoro; Cebu, Cebu; Catbalogan, Samar; Miagao, Iloilo Province, Panay; Murcielagos Bay, Misamis Occidental Province, Mindanao.

Gazza equulaeformis Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 4, pl. 1, fig. 3, 1835; Massaua, Red Sea. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 518, 1845; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 261, 1853; Sumatra. Günther, Cat. Fishes British Mus., vol. 2, p. 506, 1860; Malayan Peninsula. Günther, Fische der Südsee, vol. 2, p. 144, 1876; Rarotonga; Solomon Islands. Day, Fishes India, p. 244, 1878. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Vigan, Ilokos Sur Province; Bulan, Sorsogon Province, Luzon.

Equula dentex Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 91, 1835; Pondicherry, India; Mauritius; Amboina; Vanicolo; Seychelles. Kner, Reise Novara, Fische, vol. 2, p. 170, 1865; Tahiti.

Gazza tapeinosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 14, p. 260, 1853; Sumatra. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 69, 1907; Philippines; Bulan, Sorsogon Province, Luzon.

Gazza argentaria Günther, Cat. Fishes British Mus., vol. 2, p. 506, 1860; Seas of Sumatra and Tanna (New Hebrides). Günther, Fische der Südsee, vol. 2, p. 144, pl. 91, fig. 3, 1876; Tanna, New Hebrides. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 26, 1885; Cebu, Cebu Prov.

Gazza argentarius Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 24, 1922; Takao, Formosa. Not Ticao Island as listed in the Roxas and Martin Check List.

Genus 304. **LEIOGNATHUS** Lacépède.

Over most of the tropical Indo-Pacific; marine, but some species enter fresh water.

Leiognathus Lacépède, Hist. Nat. Poissons, vol. 4, p. 448, 1803; type, *Leiognathus argenteus* Lacépède=*Scomber edentulus* Bloch. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 312, 1929.

Equula Cuvier, Règne Animal, ed. 1, vol. 2, p. 323, 1817; type, *Centrogaster equula* Gmelin=*Leiognathus edentulus* (Bloch). Günther, Cat. Fishes British Mus., vol. 2, p. 497, 1860.

762. *Leiognathus berbis* (Cuvier and Valenciennes).

East Indies and Philippines, north to southern Japan, west to the Red Sea and Zanzibar.

Equula berbis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 85, 1835; Red Sea. Klunzinger, Fische Rothen Meeres, p. 107, 1884.

Leiognathus berbis Fowler, Mem. Bishop Mus., vol. 10, p. 153, 1928. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 336, 1931; Pinang; Singapore; Batavia, Java; Bali; Makassar, Menado, Bulacomba, Bonthain, and Badjoa, Celebes; Saleyer; Timor; Ceram; Amboina. Herre, Fishes 1940-41 Philippine Exped.; Estancia, Iloilo Province, Panay.

763. *Leiognathus bindus* (Cuvier and Valenciennes).

India and Ceylon, the Philippines, East Indies, China, Formosa.

Equula bindus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 78, 1835. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1130, 1850; Sea of Pinang. Day, Fishes India, p. 240, 1878. Weber, Siboga-Exped., vol. 57, Fische, p. 268, 1913.

Equula bindoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 372, 1851; Indian Archipelago.

Leiognathus virgatus Fowler, Jour. Acad. Nat. Sci. Phila., vol. 12, p. 515, pl. 15 (lower right hand figure), 1904; Padang, Sumatra. Evermann

and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 67, 1907; Bulan, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Orion, Bataan Province, Luzon.

Leiognathus bindus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 334, 1931; Sea of Pinang; Singapore; Padang, Sumatra; Banka; Batavia, Tandjong Priok, and Patjitan, Java; Lombok; Sumbawa; Kota Baru, Borneo; Bulucumba, Badjoa, and Menado, Celebes; Buton; Philippines. Herre, Fishes 1931 Philippine Exped., p. 36, 1934; Bauang Sur, La Union Province, Luzon; La Paz, Iloilo Province, Panay. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay, and Ragay Gulf, Luzon.

764. *Leiognathus blochi* (Cuvier and Valenciennes). Sap-sap.

Indian Ocean, Borneo, and Philippines; marine and in brackish water. *Equula blochii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 84, 1835; coast of Malabar. Bleeker, Verh. Bat. Gen., vol. 25, Nalezingen ichth. Fauna Bengalen, p. 46, 1853; name only.

Equula Blochii Day, Fishes India, p. 241, 1878.

(?) *Leiognathus (Eubleckeria) spilotus* Fowler, Jour. Acad. Nat. Sci. Phila., vol. 12, p. 516, pl. 14 (lower figure to right), 1904.

Leiognathus blochii Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 273, 1910; Sandakan, British North Borneo; Philippines. Chaudhuri, Mem. Indian Mus., vol. 5, p. 732, 1923; Chilka Lake.

Leiognathus blochi Herre, Fishes 1936-37 and 1940-41 Expeds.; Balayan Bay, Batangas Province, and Dagat-Dagatan Experiment Station, Navotas, Rizal Province, Luzon. Also Kabili River, British North Borneo, and Pinang, Malaya. Herre, 1948 Coll.; Lingayen Gulf, Pangasinan Prov., Luzon.

765. *Leiognathus brevisrostris* (Cuvier and Valenciennes).

India and the Philippines; marine.

Equula brevisrostris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 85, 1835; coast of Malabar. Day, Fishes India, p. 241, 1878; Seas of India to China.

Leiognathus brevisrostris Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 330, 1931; Kota Baru and Balikpapan Bay, Borneo. Herre, Philippine Jour. Sci., vol. 59, p. 366, 1936; Manila Bay.

766. *Leiognathus daura* (Cuvier). Balangat; Bakagan.

East Indies and Philippines, westward to the coast of Arabia and south to Queensland.

Equula daura Cuvier, Règne Animal, vol. 2, p. 212, 1829. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 83, 1835. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1132, 1850; Sea of Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 502, 1860; Malayan Peninsula. Day, Fishes India, p. 240, 1878.

Equula brevisrostris Bleeker, Nat. Geneesk. Arch. Ned. Ind., vol. 2, p. 518, 1845; Batavia, Java; (not of Cuvier and Valenciennes).

Equula gerroides Bleeker, Nat. Tijds. Ned. Ind., vol. 1, p. 371, 1851; Indian Archipelago.

Leiognathus gerroides Bleeker, Ned. Tijds. Dierk., vol. 2, p. 174, 1865; name only.

Leiognathus daura Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 444, 1917; Ceylon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 332, 1931; Sea of Pinang, Singapore, and 15 other localities in Sumatra, Java, Madura, Borneo, Buton and Ambonina. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; San Fernando, La Union Prov., Luzon. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; Southwestern Samar. Herre, Fishes 1936-37 Exped.; Dumaguete, Negros Oriental Province. Umali, Edible Fishes Manila, p. 125, fig. 84, 1936; Manila Bay, and Lingayen Gulf, Luzon.

767. *Leiognathus dussumieri* (Cuvier and Valenciennes). Malaway.

Over most of the tropical Indo-Pacific; marine and entering rivers and lakes.

Equula dussumieri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 77, pl. 283, 1835; Coromandel. Günther, Cat. Fishes British Mus., vol. 2, p. 500, 1860; East Indian Seas; Borneo. Day, Fishes India, p. 239, 1878. Günther, Report Voy. Challenger Exped., Zoology,

- vol. 1, Part 6, p. 52, 1880; Philippines. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 26, 1885; Cebu, Cebu Province.
- Leiognathus dussumieri* Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 77, 1906; Rio Grande de Mindanao, Cotabato, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 15, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 67, 1907; San Fabian, Pangasinan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 326, fig. 67, 1931; Singapore; Minralang River and Lake Sidenreng, Celebes; also Philippines. Herre, Exped. 1940-41; Manila Bay and Ragay Gulf, Luzon; Murcielagos Bay, Misamis Occidental Province, Mindanao.
- (?) *Leiognathus ensiferus* Jordan and Richardson (not of Cuvier and Valenciennes), Bull. U. S. Bur. Fisheries, vol. 27, p. 252, 1908; Iloilo, Iloilo Province, Panay. Cavite, Cavite Province, and Manila, Luzon.
768. *Leiognathus edwardsi* Evermann and Seale. Patuan.
Only the type known.
Leiognathus edwardsi Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 68, fig. 7, 1907; San Fabian, Pangasinan Province, Luzon.
769. *Leiognathus elongatus* (Günther).
The East Indies, Philippines, and Japan.
Equula elongata Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 14, p. 369, 1874; north Celebes. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 26, 1885.
Leiognathus elongatus Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 466, 1906; Kagoshima, Japan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 318, fig. 70, 1931 (omitting *L. stercorarius*); Lalewa, North Nias. *L. elongatus* has 42 scales, the depth 3.25 to 5 in length; *L. stercorarius* has 53-55 scales, depth 2.5 to 3 in length. Herre, Fishes 1936-37 Exped.; Balayan Bay, Batangas Province, Luzon.
770. *Leiognathus equulus* (Forskål). Barorog; Lawayan; Malaway; Sapsap; Laway laway.
Over most of the tropical Indo-Pacific; in the sea, brackish water, and entering rivers.
Scomber equula Forskål, Descript. Animal., p. 75, 1775; Red Sea.
Scomber edentulus Bloch, Naturges. Ausländ. Fische, pl. 428, 1785. Bloch, ibid., vol. 9, p. 109, 1795; Tranquebar.
Leiognathus argenteus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 448-449, 1802; Tranquebar; based on Bloch, pl. 428.
Equula ensifer Cuvier, Règne Animal, ed. 2, vol. 2, p. 212, 1829; on Bloch, pl. 428.
Equula caballa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 73, 1835.
Equula edentula Günther, Cat. Fishes British Mus., vol. 2, p. 498, 1860; Red Sea; Bengal; Madras; Calcutta; Amboyna; India; Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 31, 1885; Manila Bay, Luzon; Cebu, Cebu Prov. Day, Fishes India, p. 238, pl. 53, fig. 1, 1878.
Leiognathus edentulus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay.
Leiognathus edentula Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 69, 1907; San Fabian, Pangasinan Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao.
Leiognathus caballa Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 253, 1908; Aparri, Cagayan Province, and Manila, Luzon; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5 sec. D, p. 273, 1910; Sandakan, British North Borneo.
Leiognathus coma Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 253, 1908; Manila, Luzon; Iloilo, Panay.
Leiognathus equula Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 44, 1917; Colombo, Ceylon. Fowler, Mem. Bishop Mus., vol. 10, p. 323, 1928. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines;

Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province; Orani, Bataan Province, Luzon.

Leiognathus caballus Herre, Philippine Jour. Sci., vol. 34, p. 296, 1927; Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro.

Leiognathus equulus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 322, 1931; 42 East Indian localities; also Philippines and many other places. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 3, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Phil. Exped., p. 37, 1934; Banang Sur, La Union Prov.; San Fabian, Pangasinan Province; Manila; Lake Bombon, Batangas Province, Luzon; Alabat Island; Culion; Capiz, Capiz Province, Panay; Dumaguete; Cotabato, Cotabato Province, Mindanao; Jolo, Sulu Province, Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 123, fig. 82, 1936; Manila Bay, Lingayen Gulf, and Tayabas Province, Luzon. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Kabili River, British North Borneo; South Natuna Island, South China Sea; Malabon, Rizal Province, Luzon; Puerto Galera, Mindoro; Capiz, Capiz Province, and Iloilo, Iloilo Province, Panay. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province; Domantay, *ibid.*, vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.

771. *Leiognathus fasciatus* (Lacépède). Hualing; Lawihan; Motomot.
Tropical Indo-Pacific: marine.

Clupea fasciata Lacépède Hist. Nat. Poissons, vol. 5, pp. 460 and 463, 1803; Mauritius. Not *Clupeia fasciata* Le Sueur 1818.

Equula cara, Cuvier, Règne Animal, ed. 2, vol. 2, p. 212, 1829; based on Russell, pl. 66; Vizagapatam.

Equula fasciata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 96, 1835, Günther, Cat. Fishes British Mus., vol. 2, p. 498, 1860; Red Sea; Malayan Peninsula; Philippines. Day, Fishes India, p. 243, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, p. 26, 1885; Manila Bay, Luzon.

Equula filigera Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 92, pl. 284, 1835; Moluccas; Trincomalee.

Equula longispinis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 94, 1835; Waigi; Manila, Luzon.

Leiognathus fasciatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 15, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 69, 1907; San Fabian, Pangasinan Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 17, 1918; Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines; Orani and Orion, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 320, 1931; 23 East Indian localities; the Philippines, and numerous other places in the Indian and Pacific Oceans. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Capiz, Capiz Province, Panay; Cebu, Cebu; Sitankai, Sulu Province. Umali, Edible Fishes Manila, p. 124, fig. 83, 1936; Manila Bay, and Lingayen Gulf, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon. Herre, 1940-41 Exped.; Gulf of Ragay, Luzon; Murcielagos Bay, Misamis Occidental Province, Mindanao.

772. *Leiognathus insidiator* (Bloch). Dalupane; Bilong bilong.

Tropical Indo-Pacific; marine and entering fresh water.

Zeus insidiator Bloch, Naturges. Ausländ. Fische, vol. 3, p. 41, pl. 192, figs. 2-3, 1787.

Equula insidiatrix Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 98, 1835. Günther, Cat. Fishes, British Mus., vol. 2, p. 504, 1860; Sumatra; Malayan Peninsula; China. Kner, Reise Novara, Fische, p. 169, 1865; Manila, Luzon.

Leiognathus insidiator Bleeker, Ned. Tijds. Dierk., vol. 2, p. 290, 1865; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 316, 1931; 14 East Indian localities; the Philippines,

- and 9 other places from Africa to Tahiti. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1936-37 Exped.; Manila Bay, Luzon. Umali, Edible Fishes Manila, p. 126, fig. 86, 1936; Manila Bay, and Lingayen Gulf, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon.
- Equula insidiator* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 777, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 15, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 252, 1908; Manila, Luzon.
- Deveimentum insidiator* Fowler, Copela, No. 58, p. 63, 1918; Philippines. *Secutor insidiator* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines; Orani and Orion, Bataan Province, Luzon.
773. *Leiognathus leuciscus* (Günther). Miralla.
Philippines, Formosa, and East Indies; marine.
Equula leuciscus Günther, Cat. Fishes British Mus., vol. 2, p. 503, 1860; Sea of Amboyna. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 26, 1885; Cebu, Cebu Province.
- Leiognathus leuciscus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 290, 1865; Amboina. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 777, 1905; Bais, Negros Oriental Province. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 23, 1922; Takao, Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 237, 1931; Amboina; Formosa; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Atimonan, Tayabas Province, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, p. 215, 1937; Balayan Bay, Batangas Province, Luzon. Herre, Fishes 1940-41 Exped.; Gulf of Ragay, Luzon; Murcielagos Bay, Misamis Occidental Province, Mindanao.
774. *Leiognathus lineolatus* (Cuvier and Valenciennes).
East Indies, Philippines, north to Japan, south to Queensland, westward in the Indian Ocean to Madagascar; marine.
Equula lineolata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10 p. 86, 1835; Java, Antjer, East Indies. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 445, 1852; Banka. Günther, Cat. Fishes British Mus., vol. 2, p. 502, 1860; Madras.
- (?) *Leiognathus vermiculatus* Fowler, Jour. Acad. Nat. Sci. Phila., vol. 12, p. 513, pl. 15 (lower figure on left), 1904. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Orion, Bataan Prov., Luzon; Calapan, Mindoro.
- Leiognathus lineolatum* Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 131, 1913; Nagasaki; East Indies.
- Leiognathus lineolatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 337, 1931; Singapore; Banka; Nias; Padang and Priaman, Sumatra; Batavia, Anjer, and Banjuwangi, Java; Lombok; Makassar, Celebes; Amboina. Herre, Philippine Jour. Sci., vol. 59, p. 366, 1936; Iloilo, Panay. Herre, 1940-41 Exped.; Estancia and Miagao, Iloilo Province, Panay. Herre, 1948 Coll.; Lingayen Gulf, Pangasinan Province, Luzon.
775. *Leiognathus ruconius* (Hamilton [né Buchanan]). E-im.
Tropical Indian Ocean to Philippines, Formosa and China, south through the East Indies to Australia; marine and entering rivers.
Chanda ruconius Hamilton [né Buchanan], Fishes Ganges, pp. 106 and 371, pl. 12, fig. 35, 1822; Ganges River.
- Equula ruconius* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 79, 1835. Day, Fishes India, p. 242, pl. 51 C, fig. 4, 1878.
- Equula interrupta* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 102, 1835. Günther, Cat. Fishes, vol. 2, p. 504, 1860; Amboyna; Singapore; China; Port Essington, Australia.
- Equula ruconia* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 15, 1907; Cavite, Cavite Province, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 272, 1910; Sandakan, British North Borneo; Philippines. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, art. 2, p. 49, 1930; Manila Bay, Philippines.

Devæimentum ruconius Fowler, Copeia, No. 58, p. 63, 1918; Philippines. *Secutor ruconius* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines; Vigan, Ilokos Sur Province, and Orion, Bataan Province, Luzon.

Leiognathus ruconius Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 317, fig. 69, 1931; Singapore; Bagan Api Api, Benkulen, Padang, Tiku, Priaman, Sumatra; Java Sea; Batavia, Tanjong Priok, and Samarang, Java; Lombok; Sumbawa; Sandakan, British North Borneo; Amboina; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Pinang, Malaya; Ragay Gulf, Luzon. Umali, Edible Fishes Manila, p. 125, fig. 85, 1936; Manila Bay and Gulf of Lingayen, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Luzon.

776. *Leiognathus splendens* (Cuvier). Masangi.

Tropical Indian Ocean, eastward through East Indies and Philippines and in the Pacific to Fiji.

Equula splendens Cuvier, Règne Animal, vol. 2, p. 212; 1829; Indies. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1131, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 501, 1860; Malayan Peninsula; Red Sea.

Leiognathus splendens Bleeker, Ned. Tijds. Dierk., vol. 1, p. 270, 1863; Timor. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 776, 1905; Bais, Negros Oriental Province. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 77, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao. Evermann and Seale, U. S. Bull. Bur. Fish., vol. 26, p. 67, 1907; San Fabian, Pangasinan Prov., and Bacon, Sorsogon Prov., Luzon; also Philippines. Jordan and Richardson, Bull. Bur. Fish., vol. 27, p. 254, 1907; Aparri, Cagayan Prov., and Manila, Luzon. Seale, Philippine Jour. Sci., vol. 3, Sec. A, p. 529, 1908; Philippines. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 273, 1910; Sandakan, British North Borneo; Philippines. Fowler, Copeia, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci., Philadelphia, vol. 79, p. 273, 1927; Philippines; Vigan, Ilokos Sur Province; Orani, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 6, p. 324, 1931; 33 East Indian localities; also Philippines, and 11 other places from the Red Sea to Fiji. Herre, Jour. Pan Pac. Res. Inst., vol. 8, 1933; p. 3, Sandaken, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Currimao, Ilokos Norte Province; Bauang Sur, La Union Province; Manila, Luzon. Alabat Island; Dumaguete. Herre, Fishes 1940-41 Exped.; Ragay Gulf, Luzon. Herre, 1948 Coll.; Guinlo, Malampaya Sound, Palawan.

Leiognathus philippinus Fowler, Proc. Acad. Nat. Sci., Philadelphia, vol. 70, p. 15, fig. 7, 1918; Philippine Islands. Fowler, *ibid.*, vol. 79, p. 273, 1927; San Fernando, La Union Province, and Orani, Bataan Province, Luzon.

777. *Leiognathus stercorarius* Evermann and Seale.

Confused by authors with *Leiognathus clongatus*.

Leiognathus stercorarius Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 67, fig. 6, 1906; Bulan, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Vigan, Ilokos Sur Province, and Bulan, Sorsogon Province, Luzon. Herre, Fishes 1936-37 Exped.; Manila Bay. Herre, 1948 Coll.; Guinlo, Malampaya Sound, Palawan.

Family 110. GERRIDÆ

In all tropical seas; some enter rivers.

Genus 305. GERRES Cuvier.

In all tropical seas.

Gerres Cuvier, in Quoy and Gaimard, Voy. *Uranie*, Zoologie p. 293, 1824; type, *Gerres vaiigiensis* Quoy and Gaimard.

Xystema Jordan and Evermann, Proc. California Acad. Sci., vol. 5, p. 471, 1895; type, *Mugil cinereus* Walbaum.

778. *Gerres abbreviatus* Bleeker. Malakapas; Bansa.

The East Indies and Philippines, west to India, north to Formosa, south to Australia.

- Gerres abbreviatus* Bleeker, Verh. Bat. Gen., vol. 23, Maenidae, p. 11, 1850; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 345, 1859; Seas of Batavia and Amboyna. Günther, *ibid.*, vol. 4, p. 257, 1862; Amboyna. Day, Proc. Zool. Soc. London, p. 698, 1870; Andaman Islands. Day, Fishes India, p. 99, pl. 25, fig. 6, 1878. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 284, 1927; Orion, Bataan Province, Luzon, Philippines; Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 344, 1931; 18 East Indian localities; Philippines; India; Andaman Islands; Formosa; Australia. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 232, fig. 14, 1933; Orion, Bataan Province, Ragay River, Ragay Gulf, Tayabas Province, and river at Pasacao, Camarines Sur Province, Luzon. Port Dupon, Leyte; Catbalogan, Samar; Buena Vista, Guimaras Island; Malacochin Harbor, Linapacan Island; Malampaya River and Verde del Sur Island, Palawan; Cotabato and Parang Parang, Cotabato Province, and Davao, Davao Province, Mindanao; also the Philippines and New Guinea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Bauang Sur, La Union Province, Nasugbu, Batangas Province, Luzon; Culion; Capiz, Capiz Province, Panay; Cotabato, Cotabato Province, Mindanao; and Sitankai, Sulu Province. Montilla, Philippine Jour. Sci., vol. 58, p. 284, pl. 1, fig. 2, 1935; Subic, Zambales Province; Manila market; Lemery, Balayan Bay, Batangas Province; Polillo, Polillo Island. Tayabas Province, Luzon, Mangarin, Mindoro Province; Romblon, Romblon Province; Aroroy and Guinobatan, Masbate Province; Carigara, Leyte; Calbayog, Samar, Lazi, Siquijor Island; Puerto Princesa, Panacan, Guinlo, and Canigaran, Palawan, Balabac, Balabac; Cagayan, Misamis Oriental Province; Samal, Davao Province, and Zamboanga Province, Mindanao. Buan Island, Bilatan Island, and Bongao, Sulu Province. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province. Domantay, *ibid.*, vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Herre, Fishes 1936-37 and 1940-41 Expeds.; Sitankai, Sulu Province; Pinang, Malaya; Iloilo, Iloilo Province, Panay.
- 779. *Gerres argyraeus* (Bloch and Schneider).**
Over most of the tropical Indo-Pacific; marine.
Cichla argyrea Bloch and Schneider, Syst. Ichth., p. 344, 1801; Tanna, New Hebrides.
Sciaena argyrea Bloch and Schneider, on Forster, Syst. Ichth., p. 344, 1801.
Gerres argyreus Cuvier, Règne Animal, ed. 2, vol. 2, p. 188, 1829. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 478, 1830; Waigiu; Strong Island=Kusaie, Caroline Islands. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 242, 1891; Red Sea; Seychelles; Malabar; Vanicolo; Waigiu; Oualan, Fowler, Mem. Bishop Mus., vol. 10, p. 224, 1928; Fatè, New Hebrides; Shortland Island, Solomon Islands; Bonin Islands; Funafuti. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 246, 1933; Varadero Bay, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 37, 1934; Dumaguete.
- 780. *Gerres baconensis* (Evermann and Seale).**
A Philippine species, found also in the Bonins.
Xystaema baconensis Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 69, fig. 8, 1907; Bacon, Sorsogon Province, Luzon; Jolo, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 245, 1933; Port San Vicente, Cagayan Province, and Bacon, Sorsogon Province, Luzon. Also the Bonin Islands. Montilla, Philippine Jour. Sci., vol. 58, p. 293, pl. 3, fig. 2, 1935; Catbalogan, Samar.
- 781. *Gerres filamentosus* Cuvier.** Malakapas; Hamarok; Latob; Manobon. Tropical Indian Ocean, East Indies, Philippines, China, Japan, Formosa, Australia, and Melanesia. In the sea and in rivers and lakes.
Gerres filamentosus Cuvier, Règne Animal, ed. 2, vol. 2, p. 188, 1829; Vizagapatam; on *Wodowaha* Russell. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 482, 1830; Java; Vanikoro; New Guinea. Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; Catbalogan, Samar. Day, Fishes India, p. 98, pl. 25, fig. 3, 1878; Amboina. Day, Fauna British India, vol. 2, p. 537, fig. 163, 1889. Fowler, Proc. Acad.

- Nat. Sci. Phila., vol. 79, p. 285, 1927; Bangui, Ilokos Norte Province, Philippines; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province; Orani and Orion, Bataan Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 243, 1933; pro parte, not synonymy; Ragay River, Tayabas Province, Pasacao, Camarines Sur Province, Bulan, Sorsogon Province, and Basut River, Luzon. Iloilo and Iloilo River, Panay; Buena Vista, Guimaras Island, Davao, Davao Province, Mindanao. Bais, Negros. Calayan Island, Babuyan Islands north of Luzon, not Cagayan as Fowler has it. Montilla, Philippine Jour. Sci., vol. 58, p. 286, pl. 2, fig. 1, 1935; Vigan, Ilokos Sur Province; Agno River, Pangasinan Province; Santa Cruz, Bulacan Province; Malabon, Rizal Province; Lubao and Macabebe, Pampanga Province; Iba and Subic Bay, Zambales Province; Manila Bay near Limay, Bataan Province; Manila; Limbones, Cavite Province; Batangas, Lake Bombon, Barrio San Nicolas at Pansipit River, and Barrio Papaya, Nasugbu, Batangas Province; Yawa River, Legaspi, Albay Province; San Miguel Bay, Camarines Sur Province; Bulan, Sorsogon Province—all from Luzon. Butas River, Naujan, and Mangarin, Mindoro. Zamboangita, Negros Oriental Province. Catbalogan and San Pedro Bay at Basey, Samar. Dumangas and Iloilo, Iloilo Province; New Washington, Capiz Province; San Jose, Antique Province, Panay; Guimaras, Guimaras Island; Tagbanua, and Puerto Princesa, Palawan; Culion. Agusan River, Agusan Province; Davao, Davao Province; Gigakit, Surigao Province; Zamboanga, Zamboanga Province, Mindanao. Also Sandakan British North Borneo, Hong Kong, China, and Hoihow, Hainan. Umali, Edible Fishes Manila, p. 165, fig. 130, 1936; Manila Bay. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 56, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Herre, Fishes 1940-41 Exped.; Malabon, Rizal Province, and Nasugbu, Batangas Province, Luzon. Puerto Galera, Mindoro.
- Gerres punctatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 480, 1830; Pondicherry, India. Günther, Cat. Fishes, British Mus., vol. 1, p. 345, 1859; China; Philippines. Herre, Philippine Jour. Science, vol. 34, 1927; p. 297, Lake Bombon (Taal), Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 349, fig. 73, 1933; 35 East Indian localities; the Philippines and 18 other Indo-Pacific localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar.
- Diapterus filamentosus* Bleeker, Nat. Tijds. Dierk., vol. 1, p. 231, 1863; Ternate. Bleeker, Atlas Ichth., vol. 8, p. 124, pl. 362, fig. 3, 1876-77. Philippines; also Sumatra; Singapore; Pinang; Banka; Java; Madura; Bawean; Bali; Celebes; Sangi; Halmahera; Ternate; Obi Major; Sumbawa; Amboina; Timor; Waigiu; New Guinea.
- Xystaema punctatum* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 782, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 24, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *ibid.*, p. 69, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Calayan, Babuyan Islands; Aparri, Cagayan Province, Luzon; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 277, 1910; misprinted as *Zystaema*; Sandakan, British North Borneo. Fowler, Copeia, No. 58, p. 64, 1918; Philippines.
- 782. Gerres kapas** Bleeker. Ikoran; Malakapas; Porak; Duldul. East Indies, Philippines, Siam, and Fiji. In the sea and river mouths. *Gerres kapas* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 482, 1851; Riouw; Batavia, Java. Martens, Preuss. Exped. Ost-Asien, p. 387, 1876; Bangkok. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 41, 1922; Philippines; Zamboanga, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 284, 1927; Philippines; Jolo, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 225, 1928; Apiang; Fiji; Guam; Samoa. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 231, 1933; Bulan, Sorsogon Province, Luzon; Zamboanga, Zamboanga Province,

Mindanao; Jolo, Sulu Province; Samoa. Montilla, Philippine Jour. Sci., vol. 58, p. 289, pl. 2, fig. 2, 1935; San Fernando, La Union Province, and Limbones Cove, Cavite Province, Luzon; Inabanga, Bohol; Cuyo, Cuyo Islands; Placer, Surigao Province, and Samal, Davao Province, Mindanao; Sitankai, Sulu Province; Guam; Sandakan, British North Borneo.

Gerres capas Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; Pulo Brani, Singapore.

Diapteras kapas Bleeker, Atlas Ichth., vol. 8, p. 127, pl. 361, fig. 3, 1876-77; Sumatra; Batu; Nias; Singapore; Bintang; Banka; Java; Celebes; Timor; Amboina.

Xystaema kapas Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 70, 1907; Bacon, Sorsogon Province, Luzon; Jolo, Sulu Province. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Cuyo. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 278, 1910; Sandakan, British North Borneo; Philippines.

783. *Gerres macracanthus* Bleeker.

East Indies, the Philippines; Admiralty Islands; marine and entering rivers.

Gerres macracanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 195, 1854; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 261, 1862; Java; Nias; Banka. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 351, 1931; Banka; Nias; Batavia, Java; river in Amboina; New Guinea; Admiralty Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Bauang Sur. La Union Province, and Manila Bay, Luzon; Dumaguete; Cotabato, Cotabato Province, Mindanao. Herre, Fishes 1936-37 Exped.; Manila Bay, Luzon. Herre, 1948 Coll.; Guinlo, Malampaya Sound, Palawan.

Xystaema macracanthum Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 272, 1906; New Guinea; East Indies.

Xystaema macracantha Fowler, Copeia, No. 58, p. 64, 1918; Philippines.

Gerres filamentosus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 252, 1933; in part, as nominal *Gerres macracanthus*; Bangui, Ilokos Norte Province; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, and San Fernando Bay, La Union Province; Orani and Orion, Bataan Province; Dagupan, Pangasinan Province; Pucot River and Mariveles Bay, Bataan Province; Daet, Camarines Norte Province; near mouth of Tayabas River, and Ragay River, Tayabas Province; river at Pasacao, Camarines Sur Province; Yawa River, Mindoro; Catbalogan, Samar; Malaga River, Hinunangan Bay, Leyte; Buena Vista, Guimaras Island; Malampaya River, Mantaquin Bay, Nakoda Bay, and Verde del Sur Island, Palawan; Davao, Davao Province, and Parang Parang, Cotabato Province, Mindanao.

784. *Gerres macrosoma* Bleeker.

East Indies, Philippines, Admiralty Islands, Bismarck Archipelago, and Samoa; marine.

Gerres macrosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 56, 1854; Sindangole, Halmahera. Günther, Cat. Fishes British Mus., vol. 1, p. 353, 1859; Amboyna. Günther, *ibid.*, vol. 4, p. 263, 1862; Amboyna. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 354, 1931; Singapore; Nias; Batavia, Java; Bali; Makassar, Celebes; Timor; Ternate; Amboina; Saparua; Halmahera; Obi Major; Waigiu. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 241, 1933; Madagascar. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Cullion. Montilla, Philippine Jour. Sci., vol. 58, p. 294, pl. 3, fig. 3, 1935; Calapan, Mindoro; Bantayan, Bantayan Island, Cebu Province; Cebu, Cebu Province; Lazi, Siquijor; Comiran Island, east of Palawan; Puerto Princesa, and Lumbucan, Palawan Province; Cuyo, Cuyo Island, Palawan Province; Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Jolo, and Sitankai, Sulu Province. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Diapterus macrosoma Bleeker, Atlas Ichth., vol. 8, p. 126, pl. 362, fig. 5, 1876-77; 10 East Indian localities.

Gerres (Xystaema) macrosoma Steindachner, Sitzber. Akad. Wiss. Wien, Math.-Natur. Klasse, vol. 115, p. 1381, 1906; Upolu, Samoa.

785. *Gerres oblongus* Cuvier and Valenciennes.

East Indies and Philippines to New Caledonia and Fiji, west to India and the east coast of Africa; marine.

Gerres oblongus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 479, 1830; Ceylon. Day, Fishes India, p. 98, pl. 25, fig. 2, 1878; Madras; Andamans. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 352, 1931; Amboina; Ceram; New Guinea; India; Ceylon; Andamans; Delagoa Bay; New Caledonia; Fiji; Tonga, and Samoa. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 242, fig. 17, 1933; Canmahala Bay, Ragay Gulf, Tayabas Province, Luzon; Mansalay, Mindoro; Romblon; Pandanon Island on north side of Bohol; Nogas Point, Panay; Apia, Samoa. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Jolo and Sitankai, Sulu Province. Montilla, Philippine Jour. Sci., vol. 58, p. 292, pl. 3, fig. 1, 1935; Calapan, Mindoro; Cuyo, Cuyo Islands; Lumbucan, Palawan, Zamboanga, Zamboanga Province, and Samal, Davao Province, Mindanao. Herre, 1948 Coll.; Lingayan Gulf, Pangasinan Province.

786. *Gerres oyena* (Forksål).

East Indies, Philippines, Japan, Caroline Islands, Fiji, Australia, India, Red Sea, Zanzibar, Madagascar; marine, and entering fresh water.

Labrus oyena Forskål, Descript. Animal., p. 35, 1775; Suez; Djedda.

Smaris oyena Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 11, pl. 3, fig. 2, 1828; Red Sea.

Gerres oyena Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 472, 1830; Mauritius; Red Sea. Günther, Cat. Fishes, vol. 4, p. 261, 1862; Amboyna. Day, Fishes India, p. 99, pl. 25, fig. 4, 1878; Mangalore. Meyer, An. Soc. España Hist. Nat., Madrid, vol. 14, p. 18, 1885; Cebu. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 6, p. 345, 1931; 22 East Indian localities; the Philippines, and 15 other Indo-Pacific places. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, fig. 16, 1933; pro parte, not synonymy; Basut River, Camarines Norte Province; Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; Port San Vicente, Cagayan Province; Ragay River, Ragay Gulf, Tayabas Province; river at Pasacao, Ragay Gulf; Mansalay, Mindoro; Santa Cruz Island; Martinduque; Romblon; Tagbilaran Channel, Bohol, Pandanon Island, north coast of Bohol, and Mantacao Island, west coast of Bohol; Guijulugan, Negros; Buena Vista, Guimaras Island; Port Caltom, Busuanga; Malcochin Harbor, Linapacan Island; Cuy Island, Sulu Sea; Sirinao Island, Nakoda Bay, and Ulugan Bay, near mouth of Baheli River, Palawan. Davao and Mati, Davao Province, Zamboanga market, Zamboanga Province, and Capunuyugan, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Manila, Luzon; Cebu, Cebu Province; Dumaguete; Jolo, Sulu Province. Montilla, Philippine Jour. Sci., vol. 58, p. 290, pl. 2, fig. 3, 1935; not synonymy; Catbalogan, Samar; Bantayan, Bantayan Island Cebu, Cebu Province; Estancia, Iloilo Province, Panay; Cuyo, Cuyo Islands; Puerto Princesa, Palawan; Cagayan, Misamis Oriental Province; Caldera Bay and Zamboanga, Zamboanga Province, Mindanao. Tubigan, Bilatan, and Sitankai, Sulu Province; also Sandakan British North Borneo.

Diapterus oyena Bleeker, Atlas Ichth., vol. 8, p. 129, pl. 361, fig. 5, 1876-77; Sumatra; Nias; Singapore; Java; Cocos; Madura; Bali; Celebes; Timor; Ternate; Bura; Amboina; Banda.

Xystaema oyena Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 478, 1906; Yamagawa, Japan. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Mindanao; misprinted as *Xyataema*. Seale, Philippine Jour. Sci., vol. 5, Sec. D, p. 278, 1910; Sandakan, British North Borneo; Philippines.

787. *Gerres poietii* Cuvier.

The Indian Ocean to East Indies and Philippines; marine, and entering rivers.

Gerres poietii Cuvier, Règne Animal, ed. 2, vol. 2, p. 188, 1829; Moluccas. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 284, 1927; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 234, fig. 15, 1933; Port

San Vicente, Cagayan Province, and Port Matalvi, Zambales Province, Luzon; Cabugao River, Catanduanes; Malcochin Harbor, Linapacan Island, Mantacao Island, west coast of Bohol; Mahinog, Camaguin Island, north coast of Mindanao; Sandakan, British North Borneo. Herre, Fishes 1940-41 Exped.; Estancia; Iloilo Province, Panay. Herre, 1948 Coll.; Binmaley River, Binmaley, Pangasinan Province, Luzon.

Gerres poeti Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 468, 1830. Day, Fishes India, p. 100, pl. 26, fig. 1, 1875; Andaman Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 341, 1931; Bintang; Riouw; Banka; Batavia, Surabaya and Pasuruan, Java; Madura; Amboina; Saparua; New Guinea.

Diapterus poeti Bleeker, Atlas Ichth., vol. 8, p. 128, 1876-77; Bintang; Banka; Java; Madura; Amboina; Saparua.

Diapterus poetic Bleeker, *ibid.*, pl. 361, fig. 1, 1876-77.

Xystacma kapas Fowler, Copeia, No. 58, p. 64, 1918; Philippines; not of Bleeker.

Xystacma oyena Fowler, Copeia, No. 58, p. 64, 1918; Philippines; not of Forskal.

Xystacma poieti Fowler, Copeia No. 58, p. 64, 1918; Philippines.

788. *Gerres philippinus* Günther.

A doubtful species, considered valid by McCulloch. It is made a synonym of *G. filamentosus* by Fowler, but only an examination of the type can determine its position and until this is done it must be given a place.

Gerres philippinus Günther, Cat. Fishes British Mus., vol. 4, p. 258, 1862; Philippines. Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 66, 1867; Australia. McCulloch, Memoir 5, Australian Mus., p. 216, 1929; Philippines; Western Australia; Queensland.

Diapterus philippinus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 242, 1873. Bleeker, Atlas Ichth., vol. 8, p. 125, 1876-77; Philippines.

Genus 306. **PENTAPRION** Bleeker.

One species.

Pentaprion, Bleeker, Verh. Bat. Gen., vol. 23, Maenoiden Sunda-Molukkschen Archipelago, p. 13, 1850; type, *Pentaprion gerroides* Bleeker.

789. *Pentaprion longimanus* (Cantor).

India to the Philippines and Formosa; marine, and in brackish water. *Equula longimana* Cantor, Jour. Asiatic. Soc. Bengal, vol. 18, p. 1134, 1850; Malayan Peninsula; islands in Malacca Straits.

Pentaprion gerroides Bleeker, Verh. Bat. Gen., vol. 23, Maenoiden, p. 13, 1850; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 396, 1859; Sea of Batavia.

Equula longimanus Günther, Cat. Fishes British Mus., vol. 2, p. 505, 1860; Sea of Malayan Peninsula and islands.

Pentaprion longimanus Day, Fishes India, p. 101, pl. 52, fig. 6, 1878; Madras. Bleeker, Atlas Ichth., vol. 8, p. 130, pl. 362, fig. 2, 1876-77; Sumatra, Java, Celebes. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 24, 1907; Cavite, Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 360, fig. 74, 1931; Malay Peninsula; Singapore; Pinang; Priaman, Sumatra; Batavia and Anjer, Java; Makassar and Badjoa, Celebes; Philippines; Madras, Formosa. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, 1933; Balayan Bay, Batangas Province, and Manila Bay, Luzon; Formosa and Padang, Sumatra. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Bauang Sur, La Union Province, Luzon.

Family 111. **BATHYCLUPEIDÆ**

Deep-sea fishes of the Atlantic and Indo-Pacific Oceans.

Genus 307. **BATHYCLUPEA** Alcock.

Bathyclupea Alcock, Ann. Mag. Nat. Hist., 6th ser., vol. 8, p. 130, 1891; orthotype, *Bathyclupea hoskynii* Alcock.

790. *Bathyclupea megaceps* Fowler.

Bathyclupea megaceps Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 33, fig. 7, 1938; Iligan Bay, Lanao Prov., Mindanao.

[*Bathyclupea gracilis* Fowler.]

Bathyclupea gracilis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 35, fig. 8, 1938; Makyan Island, off Celebes. Probably in Philippine waters but not yet taken there.

Family 112. APOGONIDÆ

Genus 308. APOGON Lacépède.

Small fishes of coral reefs and sheltered places; in all tropical seas. *Amia* Gronow, Zoophylaceum, p. 80, 1763; type, *Amia caput catheoplateaum* Gronow, non-binomial; type, *Apogon moluccensis* Cuvier and Valenciennes. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 23, 1930.

Apogon Lacépède, Hist. Nat. Poissons, vol. 3, p. 411, 1802; type, *Apogon ruber* Lacépède. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 277, 1929.

791. *Apogon amboinensis* Bleeker. Matan; Parafigan.

Marine, and entering fresh water; Philippines, East Indies, southeast to the Solomons, and New Caledonia, west to Zanzibar. Record from Japan doubtful.

Apogon amboinensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 329, 1853; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 234, 1859. Playfair and Günther, Fishes Zanzibar, p. 19, 1866. Weber and de Beaufort, Nova Caledonia, Zool., vol. 2, Part 1, No. 2, p. 32, 1915. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 340, 1929; Singapore and 12 East Indian localities. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 130, 1936; in fresh water streams, Kulambangra Island, and Tenibuli, Ysabel Island, Solomon Islands. Herre, 1940-41 Exped., Nasugbu, Batangas Province; Luzon; Dumaguete and Old Ayukitan, Negros Oriental Province; Cagayan de Misamis, Misamis Oriental Province; Kolambungan, Lanao Province, and Zamboanga, Zamboanga Province, Mindanao.

Amia amboinensis Bleeker, Ned. Tijds. Dierk., vol. 2, p. 147, 1865; Buru. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, 1874, No. 1, Révision Apogon, p. 44. Bleeker, Atlas Ichth., vol. 7, p. 90, 1873-76; Singapore; Bawean; Billiton; Buru; Amboina; Goram. Bleeker, *ibid.*, vol. 8, pl. 346, fig. 1, 1876-77. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 81, 1930; brackish water in river at Port Dupon, Leyte; Nonucan River, Camp Overton, Lanao Province, Mindanao.

792. *Apogon angustatus* (Smith and Radcliffe).

Amia angustata Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 253, A Philippine marine species.

fig. 1, 1911; Malanipa Island, east of Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 51, 1930; Malanipa Island, east of Zamboanga, Mindanao; Sipadan Island, off Sibuko Bay, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Dumaguete; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 124, 1936; Nukahiva Island, Marquesas Islands.

793. *Apogon aroubiensis* Hombron and Jacquinot.

The East Indies, Philippines and Polynesia. Marine.

Apogon aroubiensis Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, p. 31, pl. 1, fig. 1, 1953; Aroub, Malaysia. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Dumaguete. Herre, 1936-37 Exped.; Sitankai, Sulu Province.

Amia aroubiensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 241, fig. 35, 1906; Apia and Pago Pago, Samoa. Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 250, pl. 22, 1911; Tutu Bay, Jolo, Sulu Province; Philippines; Celebes; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 157, 1928; Nukahiva, Marquesas Islands; Tubuai, Austral Islands; Raiatea, Mangareva, Tuamotu Islands; Apia, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 53, 1930; Alibijaban Island, and Canmahala Bay, Ragay Gulf, Tayabas Province;

Pasacao River, Camarines Sur Province, Ligpo Point, Balayan Bay, and Maricaban Island, south coast of Batangas Province; Rapurapu Island Albay Prov., and Limbones Cove, Cavite Prov., Luzon; Galera Bay, and Verde I., Mindoro; Alimango Bay, Burias Island; Port Banalacan, Marinduque Island; Catbalogan, Samar; Port Dupon, Leyte, Mactan Island, Cebu Province, and Pandanon Island, between Cebu and Bohol; Mahinog, Camaguin Island, off Misamis Oriental Province, Mindanao; Tulnalutan Island, east of Zamboanga, Zamboanga Province; Polloc, Cotabato Province, and Opal, Mindanao; Isabela, Basilan. Sulu Province: Bulan Island, and Tonquil Island, Samales group; Tapiantana Island; Tutu Bay, Jolo Island; Busbus Point, Siasi; Panpan Point, Tara; Tataan Island. Also Banawan and Si Amil Islands, off British North Borneo near Alice Channel.

794. *Apogon atrogaster* (Smith and Radcliffe).

A rare Philippine species.

Amia atrogaster Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 439, pl. 35, fig. 3, 1912; west coast of Luzon; lat. 16°35' N.; long. 120°11' E. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 93, fig. 2 (p. 6), 1930; off San Fernando Point Light, La Union Province, 8.4 miles west of coast.

795. *Apogon aureus* (Lacépède). Bunka.

The Philippines and East Indies, west in the Indian Ocean to the Red Sea and south to Natal and Madagascar, north to the coast of China.

(?) *Ostorhinchus Fleurieu* Lacépède, Hist. Nat. Poissons, vol. 3, pl. 32, fig. 2, 1802. Lacépède, *ibid.*, vol. 4, pp. 23-24, 1803; evidently not an *Apogon*.

Centropomus aureus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 253, 273, 1803; Mauritius and Réunion.

Apogon annularis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 48, 1828; Tor, Red Sea. Günther, Cat. Fishes, British Mus., vol. 1, p. 239, 1859; Amboina; Hong Kong. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Cebu, Cebu Province.

Apogon roseipinnis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 490, 1829; Trinquemale, Ceylon. Bleeker, Verh. Bat. Gen., vol. 22; 1849; Bijdrage kennis Percoiden, p. 3; Malayo-Molukkan Archipelago. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 31, 1860; Celebes.

Amia aurea Bleeker, Atlas Ichth., vol. 7, p. 92, pl. 337, fig. 1, 1873-76; Celebes; Flores; Solor; Batjan; Buru; Amboina; Waigi; Rawak.

Apogon aureus Day, Fishes India, p. 61, 1878. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 236, 1883; Port Moresby, New Guinea. Klunzinger, Fische Rothen Meeres, vol. 1, p. 22, 1884; Koseir. Sauvage, in Grandidier, Hist. Nat. Phys. Madagascar, Poissons, p. 142, 1891. Barnard, Ann. South African Mus., vol. 21, p. 521, 1927; Natal coast; Mozambique. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 319, 1929; 17 East Indian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Dumaguete; Jolo, Sulu Province.

Amia fleurieu Fowler, Copela, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 84, 1930; Batangas market, Batangas Bay, and Verde Island Passage, Batangas Province, Luzon; Puerto Galera, Mindoro; Pagbilao and Santa Cruz Islands, Marinduque; Murcielagos Bay, Misamis Occidental Province, Inamukan Bay, Malanipa Island, and Tulnalutan Island, east of Zamboanga, Zamboanga Province, Mindanao; Isabela, Basilan; in Sulu Prov.; Tonquil Island; off Jolo Light; Simaluc Sibi Sibi Island; Singaan Island; Tumindao Island, Sibutu Islands; also Danawan and Si Amil Islands, off coast of British North Borneo near Alice Channel.

796. *Apogon bandanensis* Bleeker.

The Philippines, East Indies, north to the Riu Kiu Islands, west to the Red Sea and east coast of Africa, south to Queensland, Australia, and east to Micronesia and the Tuamoto Islands.

Apogon bandanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 95, 1854; Banda Neira. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Menado, Celebes. Weber, *Siboga* Exped., vol. 57, Fishes, p. 222, 1913; Sanguisiapo, Sulu Province, Sulu Archipelago. Weber and de

Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 317, 1929; Sulu Islands and 30 East Indian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao; Jolo and Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Exped.; Cagayan de Misamis, Misamis Oriental Province, Mindanao; Jolo, Bongao, and Sitankai, Sulu Province. Herre, Field Mus., Nat. Hist., Zool. Ser., vol. 21, p. 122, 1936; Tahiti and BoraBora, Society Islands; Vila, Efate Island and Malo Island, New Hebrides. Herre, 1948 Coll.; Layia, Batangas Province, Luzon; Siluag Island, Sulu Province.

Amia bandanensis Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, p. 82, 1873-76; 15 East Indian localities, from Sumatra to the Aru Islands; vol. 8, pl. 345, fig. 2, 1876-77. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273; 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 155, 1928; 14 localities throughout Micronesia and Polynesia. Fowler and Bean, Bull. U. S. Nat. Mus., vol. 10, p. 40, 1930; Batan Island and RapuRapu Island, Albay Province; Manila Bay; Port Matalvi and Port Palapag, Canmahala Bay, and Gubat Port, Sorsogon Province, Luzon. Galera Bay, and Sablayan, Mindoro; Capulaan Bay, Pagbilao Island, Port Banalacan, and Santa Cruz Island, Marinduque; Busin Harbor, Burias; Romblon; Cataingan Bay, Masbate; Biri Channel, Balicuatro Islands; Gigoso Point, Quinapundan Bay, Samar; Maribohoc, Bohol; Mactan Reef and reef opposite Cebu, and Cebu market; Iloilo River, Panay; Dalanganem Island; Cuyo Islands; Endeavor Strait, Makesi Island, Nakoda Bay, Ulugan Bay, and Rasa Island, Mantaquin Bay, Palawan; Port Ciego, Balabac, and Bugsuk Island, Balabac Strait; Manhinog, Camaguin Island, north of Mindanao; Camp Overton, Lanao Province; Davao, Gulf of Davao; Murcielagos Bay, Occidental Misamis Province, Sacol Island, Tulnalutan Island, Pangasinan Island, and Pilas Island, Zamboanga Province, Mindanao; Isabela, Basilan; from Sulu Province were the following: Tapiantana Island and Tonquil Island; Jolo; Tutu Bay, Jolo Island; Tulayan, and Sulade Islands, near Jolo; Tataan, Simulac Island; Bisibisi Island; Sitankai and Tumindao Island, Sibutu Islands; also Danawan and Si Amil Islands, near Alice Channel, off British North Borneo.

Apogon savayensis Günther, Proc. Zool. Soc. London, p. 656, 1871; Savaii, Samoan Islands. Günther, Fische der Südsee, vol. 1, p. 22, pl. 19, fig. 5, 1873-75; Samoa; Tonga; Yap; Tahiti; Celebes.

Amia savayensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 239, fig. 33, 1906; Apia and PagoPago, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 72, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 27, 1918; Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines.

797. *Apogon cardinalis* (Seale).

A Philippine species.

Amia cardinalis Seale, Philippine Jour. Sci., vol. 4, p. 503, 1909; Puerto Princesa, Palawan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 102, 1930; Saboon Island, Ragay Gulf, Luzon; Biri Channel, Balicuatro Island, north coast of Samar; Cataingan Bay, Masbate; Port Banalacan, Marinduque; Romblon Reef; Grande Island Reef; Murcielagos Bay, Misamis Occidental Province; Mindanao; Jolo, Sulu Province.

Apogon cardinalis Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Exped., p. 38, 1934; Dumaguete, Negros Oriental Province. Herre, 1936-37 and 1940-41 Exped.; Coron, Busuanga; Dumaguete; Jolo, and Sitankai, and throughout Sulu Sea, Sulu Province.

798. *Apogon chrysopomus* Bleeker. Bengka.

The Philippines and East Indies; marine.

Apogon chrysopomus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 239, 1854; Makassar, Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 312, 1929; Singapore; Bawean; Makassar, Celebes; Amboina; Kei Islands. Herre, Fishes 1931 Philippine Exped., p. 38, 1934; Cullion; Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Expeditions; Jolo and Sitankai, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Province.

- (?) *Amia melanorhynchus* Bleeker, Atlas Ichth., vol. 7, p. 90, 1873-76; Singapore; Bawean; Celebes; Ternate; Buru; Ceram; Amboina. Bleeker, *ibid.*, vol. 8, pl. 343, fig. 1, 1876-77.
- Amia urostigma* Bleeker, Nat. Verh. Holland Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Révision Apogon, p. 51, 1874. Bleeker, Atlas Ichth., vol. 7, p. 94, 1873-76.
- Amia chrysopomus* Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz. vol. 2, No. 1, Révision Apogon, p. 34, 1874. Bleeker, Atlas Ichth., vol. 7, p. 86, 1873-76; Singapore, Bawean; Celebes; Amboina; vol. 8, pl. 359, fig. 1, 1876-77. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 72, 1907; Bacon, Sorsogon Province, Luzon.
- Apogon melanorhynchus* Weber, *Siboga-Exped.*, vol. 57, Fische, p. 227, 1913; Nusa Laut and Low Key.
- Amia sealei* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 20, fig. 9, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 24, 1922; Cebu. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; Philippines; Santa Maria, Ilokos Sur Province; San Fernando, La Union Province.

799. Apogon chrysotaenia Bleeker.

East Indies and the Philippines.

- Apogon multitaeniatus* Bleeker, Jour. Indian Archipelago, vol. 2, p. 635, 1848; Sumbawa. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Cebu.
- Apogon chrysotaenia* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 168, 1851; Batavia, Java. Steindachner, Abh. Senckenb. Naturf. Gesells., vol. 25, Heft 2, p. 416, 1901. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 314, 1929; Sulu Islands, Philippines; Batavia, Java; Menado, Celebes; Bima; Saleyer; Sumbawa; Flores; Timor; Solor; Ceram; Ternate; Amboina; Nusa Laut; Goram; Kei Islands; Aru Islands. Herre Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete, Negros Oriental Province; Jolo, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Province.
- Amia multilineatus* Bleeker, Ned. Tijds. Ned.-Ind., p. 188, 1865; Ceram. Bleeker, Atlas Ichth., vol. 7, p. 82, 1873-76; Celebes; Sumbawa; Flores; Timor; Ternate; Ceram; Amboina; Goram. Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 259, pl. 25, 1911; Jolo Reefs and Tataan Bay, Tawi Tawi, Sulu Province, Philippines; Celebes. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 48, 1930; Calangaman Island, between Leyte and Cebu; Cebu market, Cebu; Dalanganem Island; Puerto Princesa, Palawan; Jolo, Pangasinan Island, south lagoon, Tumindao Island, Simaluc and Tonquil Islands, Sulu Province. Also Danawan and Si Amil Islands, near Alice Channel, off British North Borneo.
- Amia multitaeniata* Bleeker, Atlas Ichth., vol. 7, pl. 319, fig. 1, 1873-76.
- Amia chrysotaenia* Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Revision Apogon, p. 30, 1874. Bleeker, Atlas Ichth., vol. 7, p. 84, 1873-76.
- Apogon multilineatus* Weber, *Siboga-Exped.*, vol. 57, Fische, p. 23, 1913; Sanguisiapo, Sulu Islands, Philippines.

800. Apogon compressus (Smith and Radcliffe).

The Philippines, south to Borneo, and the Moluccas, and southeast to the Solomons; marine, and entering fresh water.

- Amia compressa* Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 246, pls. 20-21, 1911; Port Matalvi, Zambales Province, and Quinalasag Island, Albay Province, Luzon; Port Uson, Masbate, Bisucay Island, Cuyo Islands; Bulato Bay, Palawan; Tataan, Simaluc Island, and Tataan Pass, Tawi Tawi Group, Sulu Province; also Borneo and the Moluccas. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 75, 1930; Port Matalvi, Zambales Province; Port Jamelo, Batangas Province; Butaanan Island, Masamat Bay, Quinalasag Island and Sacol Island, Camarines Sur Province; Batan and Rapu Rapu Islands, Albay Province, Luzon; Port Palapag, Biri Channel, and Catbalogan, Samar; Port Uson, Masbate; Alimango Bay and Busin Harbor, Burias; Romblon; Sablayan, Mindoro; Tlig, Lubang Island; Bisucay Island, near Cuyo Island; Bolalo Bay, Ulugan Bay, Rasa Island in Mantaquin Bay, Endeavor Strait, and Makesi Island, Palawan;

Caxisigan Island, north Balabac Strait; Mantacao Island, west coast of Bohol; Mahinog, Camiguin Island, north coast of Mindanao; Surigao, Surigao Province, and Opol, Mindanao; Isabela, Basilan; Tataan, Simaluc Island; Tataan Pass, Tawi Tawi; Tutu Bay, Jolo Island; Tulayan Island and Sitankai, Sulu Province. Also Danawan and Si Amil Islands, near Alice Channel, off British North Borneo.

Amia fasciata compressa McCulloch, Biol. Results *Endeavour*, vol. 3, Part 3, p. 118, 1915; Bougainville Island, Solomon Islands.

Apogon compressus Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Cullion. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 129, 1936; from fresh water stream, Kulambangra Island, and from sea at Tenibuli, Ysabel Island, Solomon Islands.

301. *Apogon cyanosoma* Bleeker. Kandaman; Dangat.

East Indies, Philippines, Seychelles, and Zanzibar.

Apogon cyanosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 71, 1853; Lawajong, Solor Island. Playfair and Günther, Fishes Zanzibar, p. 20, 1866; Zanzibar. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 315, 1929; Solor; Timor. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Apogon wassinki Bleeker, Nat. Tijds. Ned.-Ind., p. 257, 1860; Timor.

Amia cyanosoma Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Révision Apogon, p. 37, 1874. Bleeker, Atlas Ichth., vol. 7, p. 87, 1873-76, Solor. Bleeker, *ibid.*, vol. 8, pl. 354, fig. 2, 1876-77. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 46, 1930; Batan Island, Albay Province, Luzon; Alimango Bay, Burias Island; Cataingan Bay, Masbate; Tonquil Island, Pangasinan Island and Usadea Island near Jolo, Simaluc Island north of Tawi Tawi, and Tumindao Island, Sulu Province.

Amia Wassinki Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz. vol. 2, No. 1, Révision Apogon, p. 38, 1874. Bleeker, Atlas Ichth. vol. 7, p. 88, 1873-76.

302. *Apogon diencaeus* (Smith and Radcliffe).

The Philippines and East Indies.

Amia diencaea Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 431, pl. 34, fig. 1, 1912; Sulade Island, Sulu Province, Philippines. Fowler and Bean, Bull. 100, Proc. U. S. Nat. Mus., vol. 10, p. 103, 1930; same specimen.

Apogon diencaeus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 337, 1929; Nias; Serbete Island, near East Flores; Amboina; also Sulade Island, Sulu Province, Philippines.

303. *Apogon diversus* (Smith and Radcliffe).

Marine and entering fresh water; the Philippines.

Amia diversa Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 434, pl. 37, fig. 1, 1912; from small stream, Canmahala Bay, Gulf of Ragay, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 95, 1930; same specimen.

Apogon diversa Herre, 1936-37 Exped.; Sitankai, Sulu Province.

304. *Apogon doederleini* Jordan and Snyder.

Japan, Formosa and the Philippines.

Apogon doederleini Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 901, fig. 6, 1901; Nagasaki. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Amia doederleini Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 58, 1930; Mompog Island, near Marinduque, and Cataingan Bay, Masbate, Philippines. Also Hokuho, Soo Wan, Formosa.

305. *Apogon endekataenia* Bleeker.

The East Indies and Philippines, north to Japan (?), west to Ceylon, south and southeast to Australia, Tasmania, the New Hebrides and Fiji Islands.

Apogon endekataenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 449, 1852; Banka. Ogilby, Proc. Roy. Soc. Queensland, vol. 21, p. 23, 1908; Green, Cairns, and Dunk Islands; Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 306, 1929; 14 East Indian localities; Philippines.

Apogon fasciatus (not of Shaw) Günther, Cat. Fishes British Mus., vol. 1, p. 241, 1859; India; Amboyna; Feejee; Port Jackson, Australia.

Amia endekataenia Bleeker, Atlas Ichth., vol. 7, p. 85, pl. 310, fig. 2, 1873-76; Singapore; Banka; Bawean; Java. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 73, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 50, 1930; Philippines.

Amia wilsoni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 22, 1918; Philippines.

806. *Apogon exostigma* (Jordan and Starks).

Philippines to the Samoan Islands.

Amia exostigma Jordan and Starks in Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 238, fig. 31, 1906; Apia and Pago Pago, Samoa. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 71, 1930; Limbones Cove, Cavite Province, and Caracaran, Batan Island, Albay Province, Luzon; Cataingan Bay, Masbate; Romblon; Pandanon Island, Bohol Province; Port Palapag, Samar; Rasa Island, Mantaquin Bay, Palawan; Bugsuk Island and Candaraman Island, Balabac, Malanipa Island, Sacol Island, and Tictauan Island, east of Zamboanga, Zamboanga Province, Mindanao; Tutu Bay, Jolo, and Tumindao Island, Sulu Islands.

Apogon exostigma Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Nasugbu, Batangas Province, Luzon. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao.

807. *Apogon frenatus* Valenciennes.

Marine, entering fresh water. The Philippines, East Indies, Micronesia, Polynesia, India, Red Sea, and Natal.

Apogon frenatus Valenciennes, Nouv. Ann. Mus. Hist. Nat. Paris, vol. 1, p. 57, pl. 4, fig. 4, 1832; New Guinea and Guam. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 25, 1856; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 241, 1859; Feejee Islands; Mauritius; Ceram; Amboyna; Guam; New Guinea. Günther, Fische der Sudsee, vol. 1, p. 19, pl. 19, fig. A, 1873; Hawaiian, Society, and Tuamotó Islands. Peters, Monatsber. Akad. Wiss. Berlin, p. 436, 1876; Mauritius. Day, Fishes India, p. 58, pl. 16, fig. 4, 1878. Barnard, Ann. South African Mus., vol. 21, p. 518, 1927; Mozambique and Natal coast. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 295, 1929; Pulu Weh; Singapore; Java; Bawean; Menado, Badjoa, and Biaru, Celebes; Sangir Islands; Talaut Islands; Buru; Ceram; Amboina; Goram; Batjan; Ternate; Tarfia, Tana merah Bay, and Humboldt Bay, New Guinea. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 50, 1930; China Sea; Andaman Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete, Negros Oriental Province. Herre, 1936-37 Exped., Sitankai, Sulu Province, and Dumaguete.

Amia frenata Bleeker, Atlas Ichth., vol. 7, p. 89, 1873-76; Celebes; Ternate; Batjan; Buru; Ceram; Amboina; Goram; New Guinea. Bleeker, *ibid.*, vol. 8, pl. 342, fig. 2, 1876-77. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; Philippines.

Amia fraenata Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 71, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 72, 1930; Port San Quinto, Camaguin Island, Babuyan Islands; Palui Island, off Cagayan Province; Port Jamelo, Batangas Province, and San Miguel Island, Tabaco Bay, Albay Province, and Corregidor Light, Manila Bay, Luzon; Tara Island, Mindoro Strait; Alimango Bay, Burias Island; Port Dupon, Leyte; Dalaganam Island, east coast of Palawan; Candaraman Island, east of Balahac; Zamboanga Light and Malanipa Island near Zamboanga, Zamboanga Province, Mindanao; Isabela, Basilan.

Amia bifasciata Fowler, Copeia, No. 58, p. 63, 1918; Philippines.

808. *Apogon griffini* (Seale).

The Philippines; marine.

Amia griffini Seale, Philippine Jour. Sci., vol. 5, p. 117, pl. 2, fig. 2, 1910; Bantayan Island, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 99, 1930; Saboon Island, Ragay Gulf, Camarines Sur

Province, Luzon; Busin Harbor, Burias; Catbalogan and Nabatas Point, Samar; San Juanico Strait, between Samar and Leyte; Malampaya Sound, Palawan.

809. *Apogon hartzfeldi* Bleeker.

East Indies and the Philippines; marine.

Apogon Hartzfeldii Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 254, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 242, 1859; Amboyna.

Amia hartzfeldi Bleeker, Atlas Ichth., vol. 7, p. 86, 1873-76; Ternate; Buru; Goram; Amboina. Bleeker, *ibid.*, vol. 8, pl. 346, fig. 2, 1876-77. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 72, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 44, 1930; Caracaran, Batan I., Albay Prov., Limbones Cove, Cavite Prov., Manila Bay, and Subic Bay, Zambales Prov. Luzon; Catbalogan, Samar; Cebu market; Observation Rock, Palawan Passage; Pandanon Island, between Bohol and Cebu; Sulu Archipelago, and Tutu Bay, Jolo Island, Sulu Province. Also Danawan and Si Amil Islands, near Alice Channel, off British North Borneo.

Apogon cavitensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 16, fig. 5, 1907; Cavite, Cavite Province, Luzon.

Apogon radcliffei Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 25, fig. 11, 1918; Philippines. Fowler, *ibid.*, vol. 79, p. 274, 1927; same specimens.

Apogon hartzfeldi Weber and de Beaufort, Fish Ind.-Austr. Arch., vol. 5, p. 311, 1929; Siau; Ternate; Obi; Buru; Amboina; Goram; Doreh, New Guinea; Philippines. Herre, Jour. Pan Pac. Res. Inst., vol. 8, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete, Sitankai, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Prov.

810. *Apogon hoeveni* Bleeker.

East Indies and the Philippines; marine.

Apogon Hoevenii Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 483, 1854; Amboina.

Apogon Hoevenii Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, p. 93; vol. 8, pl. 322, fig. 4, 1873-76.

Apogon hoeveni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 816, fig. 74, 1929; Singapore; Trussan, Sumatra; Banka; Bawean; Bali; Sumbawa; Flores; Timor; Badjoa, Menado; Tanawanko, and Gorontalo, Celebes; Buton; Sangir Islands; Ceram; Amboina; Goram; Ternate; Banda; Kei Islands; Cocos Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete. Herre, 1936-37 Exped.; Dumaguete; Sitankai, Sulu Province.

811. *Apogon hyalosoma* Bleeker.

East Indies and Philippines, Siam, India, west to Zanzibar and the Seychelles, Melanesia. Marine, and entering fresh water.

Apogon thermalis Bleeker, Nat. Gen. Arch. Ned.-Ind., vol. 2, p. 526, 1845; Batavia, Java; (not of Cuvier and Valenciennes).

Apogon hyalosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 63, 1852; Sumatra; on *Apogon thermalis* Bleeker. Günther, Cat. Fishes British Mus., vol. 1, p. 231, 1859; seas of Amboina, Batavia, Sumbawa, and Sumatra. Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Paracale, Camarines Norte Province, Luzon. Day, Fishes India, p. 64, pl. 17, fig. 5, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Cebu; Rubi, New Guinea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 341, 1929; Singapore; Simalur; Sumatra; Nias; Engano; Biliton; Java; Borneo; Sumbawa; Celebes; Amboina; Aru Islands; Humboldt Bay, New Guinea; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Nasugbu, Batangas Province, Luzon; Cullion; La Paz, Iloilo Province, Panay; Dumaguete; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 133, 1936; Tenibulu, Ysabel Island, and Auki, Malaita Island, Solomon Islands. Herre, 1936-37 Exped.; Calatagan, Batangas Province, Luzon; Kuching, Sarawak, Borneo. Herre, 1940-41 Exped.;

Cagayan River, near Cagayan de Misamis, Misamis Oriental Province, Mindanao.

Amia hyalosoma Bleeker, Ned. Tijds. Dierk., vol. 2, p. 284, 1865; *Amboina*. Bleeker, Atlas Ichth., vol. 7, p. 96, pl. 309, fig. 1, 1873-76; Sumatra; Nias; Singapore; Biliton; Java; Sumbawa; Celebes; *Amboina*; Luzon, Philippine Islands. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Calayan, Babuyan Islands; Mindoro. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 274, 1910; Sandakan, British North Borneo, and Philippines. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 296, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 105, 1930; Mariveles Bay, Bataan Province; Nato River, and stream at Maagnas, Albay Province; Canmahala Bay, Ragay Gulf and Ragay River, Camarines Sur Province, near the mouth of Tayabas River, Tayabas Province, and Basut River, Camarines Norte Province, Luzon; Alimango River, Burias; Cataingan Bay, Masbate; Iomi River, Marinduque; Paluan River, Mindoro; Pangauaran River, Port Caltom, Busuanga; Baheli and Caiholo Rivers, Ulugan Bay, Endeavor Strait, Mantaquin and Hakoda Bays, creek at head of tide water near Pancel, Malampaya Sound, and Verde del Sur Island, Palawan; Port San Pio Quinto, Camaguin Island, Babuyan Islands; Nonucan River, Camp Overton, Lanao Province, Mindanao.

812. *Apogon kallopterus* Bleeker.

The East Indies, Philippines, Formosa, and Natal. Marine.

Apogon kallopterus Bleeker, Acta Soc. Sci Indo-Neerl., vol. 1, p. 83, 1856; Menado, Celebes. Regan, Ann. Durban Mus., vol. 1, p. 168, 1916; Durban, Natal. Barnard, Ann. South African Mus., vol. 21, p. 519, 1927; Natal coast. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete.

Amia kallopterus Bleeker, Atlas Ichth., vol. 7, p. 89, 1873-76; Celebes and Sangir Island. Bleeker, *ibid.*, vol. 8, pl. 337, fig. 2, 1876-77.

Amia kalloptera Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 225, 1908; Fuga Island, Babuyan Islands. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 67, 1930; Sabtang Island, Batanes Islands; Palaul Island, off north coast Cagayan Province; Pagapas Bay and Port Hamilo, Batangas Province; Port Matalvi, Zambales Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Magnaas, Lagonoy Gulf, Albay Province; Alibijaban Island, Ragay Gulf, and Capulaan Bay, Pagbilao, Tayabas Province; and Manila Bay—preceding all on Luzon. Alimango, Burias Island; Balikias Bay, and Tilig, Lubang Island; Port Maricaban, Verde Island Passage; Varadero Bay, Mansalay and Sablayan, Mindoro; Romblon; Port Banalacan, Mompog and Santa Cruz Islands, Marinduque; Mantacao Island, and Maribojoc Bay, west coast of Bohol; Pandanon Island, between Bohol and Cebu; Mactan Island; Malapascua Island, north of Cebu; Port Calton, Busuanga; Puerto Princesa, Makes Island and Ulugan Bay, Palawan; Mahinog, Camaguin Island off north coast of Mindanao; Mabul Island, Little Santa Cruz Island, Tictauan Island, Sacol Island, Lampinigan and Tulnalutan Islands, near Zamboanga, Zamboanga Province; Murcielagos Bay, Misamis Occidental Province; and Polloc, Cotabato Province, Mindanao; Tonquil Island, Pangasinan Island, Tapiantana Island, Tataan Island, Simaluc Island, Singaan Island, Tutu Bay, Jolo Island, and Tumindao Reef, Sulu Islands.

813. *Apogon kiensis* Jordan and Snyder

Japan, China, and the Philippines. Marine.

Apogon kiensis Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 905, fig. 9, 1901; Wakanoura, Kii Province, Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 231, 1925; Misaki, Japan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, Copeia, No. 4, p. 217, 1943; Manila Bay.

Amia kiensis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 66, 1930; Corregidor Light, Manila Bay, Luzon.

814. *Apogon lateralis* Valenciennes.

The Philippines, East Indies, Micronesia, Melanesia, Polynesia, Indian Ocean to Madagascar: Marine, and in brackish and fresh water.

Apogon lateralis Valenciennes, Nouv. Ann. Mus. Hist. Nat. Paris, vol. 1, p. 58, 1832; Vanicolo. Guichenot, Mem. Soc. Hist. Nat. Cherbourg, ser. 2, vol. 2, p. 145, 1866; Madagascar. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Cape Bolinao, Pangasinan Province, Luzon; Culion; Cebu; Jolo and Sitankai, Sulu Province. Herre, 1940-41 Exped.; Dumaguete, Negros Oriental Province.

Apogon ceramensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 256, 1852; Ceram. Day, Fishes India, p. 65, pl. 17, fig 6, 1878; Nicobar Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 338, 1929; Singapore; Siboga, Sumatra; Bawean; Pulu Kelapa; Kota Baru and Sandakan, Borneo; Badjoa, Celebes; Buru; Ceram; Amboina; Kangeang Islands; Sumbawa; Timor; Kei Islands; Ternate; Waigiu; Mysore; New Guinea; the Philippines, Caroline, Fiji, and Marshall Islands.

Amia ceramensis Bleeker, Atlas Ichth., vol. 7, p. 91, 1875-76; Sumatra, Singapore; Bawean; Buru; Ceram; Amboina. Bleeker, *ibid.*, vol. 8, pl. 336, fig. 1, 1876-77. Seale, Philippine Jour. Sci., vol. 5D, p. 274, 1910; Sandakan, British North Borneo, and Philippines.

Amia lateralis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 246, fig. 40, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Cuyo, Cuyo Islands, Palawan Province. Snyder, Proc. U. S. Nat. Mus., vol. 49, p. 497, 1912; Okinawa, RiuKiu Islands.

Amia laterale Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 82, 1930; Port San Vicente, and west coast of Palau Island, Cagayan Province; Port Santiago, Pagapas Bay, Batangas Province; Pasacao River, Camarines Sur Province; Bato River, Lagonoy Gulf, and Batan Island, Albay Province; Canmahala Bay, Tayabas Province, Luzon; Cabugo Bay, Catanduanes; Varadero Bay, and Paluan River, Mindoro; Pucot River, Marinduque; Alimango River and San Pascual, Burias; Nabatas Point, Samar; Pandanan Island, between Bohol and Cebu; Cebu market and docks; Mactan Island; Baheli River and Caiholo River, Ulugan Bay, Endeavor Strait, Malampaya Sound, Malampaya River, Mantaquin Bay, and Nakoda Bay, Palawan; Malacochin Harbor, Linapacan Island; Malinos River, Dumaran Island; Nasipit, Agusan Province, Capunuyugan Point, Surigao Province, and Murcielagos Bay, Misamis Occidental Province, Mindanao; Bulan Island and Jolo, Sulu Province; Sandakan, British North Borneo.

815. *Apogon leptacanthus* Bleeker.

East Indies and the Philippines. Marine.

Apogon leptacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 204, 1856; Ternate. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 344, 1929; Pulu Weh; Nias; Ternate; New Guinea. Herre, Copeia, No. 4, p. 217, 1943; Cagayan, Misamis Oriental Provinces, Mindanao.

Amia leptacanthus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate.

Amia gilberti Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 777, fig. 3, 1905; Bais, Negros Oriental Province.

Amia leptacantha Fowler, Copeia, No. 58, p. 63, 1918; Philippines.

Amia hypselonota Fowler and Bean, Bull. 100, U. S. Nat. Museum, vol. 10, p. 91, 1930; (2 species confused; *Amia leptacanthus* has 6 spines, *Amia hypselonota* has 7 spines); Port Matalvi, Zambales Province; Caracaran, Batan Island, Rapurapu Island, Palag Bay, and San Miguel Island, Tabaco Bay, Albay Province; Butauanan Island and Saboon Island, Ragay Gulf, Camarines Sur Province; Port Jamelo Batangas Province; Canmahala Bay, Luzon; Busin Harbor, Burias; Cataingan Bay, Masbate; Romblon; Port Uson, Busuanga; Biri Channel, off north coast of Samar; Mantacao Island, west coast of Bohol; Endeavor Strait, Bolalo Bay, Makesi Island, Mantaquin Bay, and Ulugan Bay, Palawan; Murcielagos Bay, Misamis Occidental Province, Mindanao; Jolo Light, Tutu Bay, Jolo Island, Tonquil Reef, and Tataan, Tawi Tawi group, Sulu Province.

816. *Apogon magnifica* (Seale).

A Philippine marine species.

Amia magnifica-Seale, Philippine Jour. Sci., vol. 4, p. 507; 1906; Balabac.

Apogon magnifica Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete; Sitankai, Sulu Province. Herre, 1936-37 Exped.; Sitankai, Sulu Province.

816b. *Apogon margaritophorus* Bleeker.

East Indies and Philippines. Marine.

Apogon margaritophorus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 363, 1854; Batjan. Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Singapore; Pulo brani. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 299, 1929; Pulo brani; Singapore; Java Sea; Bawean; Makassar, Celebes; Biaru; Batjan. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Cebu, Cebu Prov.; Dumaguete, Negros Oriental Province. Herre, 1936-37 and 1940-41 Expeds.; Coron, Busuanga; Sitankai; Sulu Province.

Amia margaritophora Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Révision Apogon, p. 46, 1874. Bleeker, Atlas Ichth., vol. 7, p. 91, pl. 301, fig. 4, 1873-76; Singapore; Bawean; Batjan. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 74, 1907; Bacon, Sorsogon Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 77, 1930; Port Jamelo, Batangas Province; Saboon Island, Ragay Gulf; Camarines Sur Province, Luzon; San Juanico Straits, Leyte; Catbalogan, Samar; Cebu market, Cebu; Mactan Island, opposite Cebu city; Chase Head, Endeavor Strait, and Nakoda Bay, Palawan; Malacochin Harbor, Linapacan Island; Tara and Tataan Islands, Sulu Province; Sandakan, British North Borneo.

817. *Apogon melanopus* Weber.

Aru Islands and Philippines. In the sea and in brackish water.

Apogon melanopus Weber, Abhandl. Senckenb. Naturforschers Gesellschaft., vol. 34, p. 28, 1911; Aru Islands, in brackish water. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 5, p. 332, fig. 73, 1929; on the type specimen. Herre, 1948 Coll.; Siluag Island, Sulu Province. A specimen 53 mm. long.

818. *Apogon melas* Bleeker.

The East Indies, Philippines, and Pelew Islands. Marine.

Apogon melas Bleeker, Jour. Indian Archipelago, vol. 2, p. 635, 1848; Bima, Sumbawa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 309, 1929; Singapore; Batu Islands; Nias; Banka; Billiton; Patjitan and Prigi, Java; Bali; Menado, Celebes; Biaru; Sumbawa; Buru; Timor; Amboina; Ceram; Goram; Ternaté; Kei Islands; Aru Islands. Herre, 1933-34 Micronesia Exped.; Gorrer, Pelew Islands. Herre, 1936-37 and 1940-41 Expeds.; Coron, Busuanga; Jolo and Sitankai, Sulu Province.

Amia melas Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, p. 94, 1873-76; Batu; Nias; Singapore; Celebes; Sumbawa; Ternate, Buru, Ceram, Amboina. Bleeker, *ibid.*, vol. 8, pl. 348, fig. 1, 1876-77. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 88, 1930; Port Matalvi, Zambales Province, and Masamat Bay, Camarines Sur Province, Luzon; Nabatas Point and Port Palapag, Samar; Cebu market, Cebu; Mantacao Island, west coast of Bohol; Iloilo market; Mantaquin Bay and Endeavor Strait, Palawan; Port Ciego, Balabac; Polloc, Cotabato Province, and Opol, Mindanao; Jolo, Taganak Island, Bisibisi Island, Tataan, Simaluc Island, and Sitankai, Sulu Islands.

819. *Apogon moluccensis* Valenciennes.

The East Indies, Philippines, coast of China, Natal, southeast to Fiji. Marine.

Apogon moluccensis Valenciennes, Nouv. Arch. Mus. Hist. Nat. Paris, vol. 1, p. 54, 1832; Amboina. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 199, 1858; Goram. Weber, *Siboga*-Exped., vol. 57, Fische, p. 229, 1913; Ceram. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 322, 1929; Singapore; Nias; Sumatra; Banka; Java Bawean; Bali; Menado, Tanawanko, Badjoa, and Gorontalo, Celebes; Sangir; Ceram; Ambogna; Goram; Timor; also the Philippines. Herre, Jour. Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Alabat Island; Dumaguete.

Amia moluccensis Bleeker, Ned. Tijds. Dierk., vol. 1, p. 269, 1863; Timor, Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Révision *Apogon*, pp. 50 and 51, 1874. Bleeker, Atlas Ichth., vol. 7, p. 93, 1873-76; Sumatra; Singapore; Bangka; Cocos; Bawean; Bali; Celebes; Sangir; Timor; Ceram; Amboina; Goram.
Amia fusca Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 59, 1930; in part; two or more species included and many localities given, but non-separable except by reexamination of specimens.

820. Apogon monochrous Bleeker.

East Indies, Philippines, Red Sea, Natal, and Fiji. Marine.
Apogon monochrous Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 34, 1856; Menado, Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 236, 1859; Amboyna; East Indies; Fiji. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 715, 1870; Koseir, Red Sea. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Cebu, Philippines; North Celebes. Regan, Ann. Durban Mus., vol. 1, p. 168, 1914-17; Durban, Natal. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 39, 1934; Dumaguete; Cebu, Cebu Province; Sitankai, Sulu Province.
Amia monochrous Bleeker, Ned. Tijds. Dierk., vol. 2, p. 284, 1865; Amboina. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 72, 1907; Bulan, Sorsogon Province, Luzon.
Amia monochroa Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 90, 1930; Batangas market, Batangas Province, and Pagbilao Island, Tayabas Province, Luzon; Mansalay, Mindoro; Jolo and Sulade Island, Sulu Province.

821. Apogon nematopterus Bleeker.

East Indies and Philippines.
Apogon nematopterus Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 1, p. 35, 1856; Menado, Celebes. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 236, 1882; New Guinea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 335, 1929; Menado, Celebes; New Guinea. Herre, 1940-41 Exped.; Jolo, Sulu Province.
Amia nematopterus Bleeker, Atlas Ichth. vol. 7, p. 79, 1875-76; Menado, Celebes.
Amia nematophora Bleeker, Atlas Ichth., vol. 7, plate 313, fig. 1, 1875-76.
Amia nematoptera Fowler, Mem. Bishop Mus., vol. 10, p. 154, 1928; New Guinea. Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, p. 29, 1930; Rapu Rapu, I., Albay Prov., Luzon; Catbalogan, and Biri Channel north of Samar; Romblon Harbor and reef; Endeavor Strait, Ulugan Bay, Mantaquin Bay, and Bolalo Bay, Palawan; Port Uson, Busuanga; Sacol Island, east of Zamboanga, Mindanao; Tutu Bay, Jolo Island and Tulayan Island near Jolo, Tataan, Simaluc Island, Sitankai Reef and Tumindao Lagoon, Sulu Province.

822. Apogon novae-guineae Valenciennes.

East Indies, Philippines, Norfolk Island; marine.
Apogon novae-guineae Valenciennes, Nouv. Ann. Mus. Hist. Nat. Paris, vol. 1, p. 53, pl. 4, fig. 1, 1832; New Guinea. Günther, Cat. Fishes, British Mus., vol. 1, p. 237, 1859; India; Norfolk Island.
Apogon Novae-Guineae Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 316, 1854; Bantam, Java.
Amia Novae-Guineae Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Revision *Apogon*, p. 60, 1874. Bleeker, Atlas Ichth., vol. 7, p. 97, pl. 319, fig. 5, 1873-76; Java; New Guinea.
Amia novae-guineae Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 777, 1905; Bais, Negros. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 17, 1907; Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 72, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Iloilo, Panay. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 100, 1930; Port San Vicente, Cagayan Province; Port Matalvi, Zambales Province, Saboon Island, Ragay Gulf, Camarines Sur Province, and Canmahala Bay, Luzon; Puerto Galera and Mansalay, Mindoro; Busin Harbor and San Pascual, Burias; San Miguel Harbor, Ticao; Cataingan Bay, Masbate; Pandanan Island, between Bohol and Cebu;

Cebu market, Cebu; Puerto Princesa, Palawan; Surigao, Surigao Province, off mouth of the Rio Grande de Mindanao, Cotabato Province, Nasipit, Agusan Province, and Mati, Pujada Bay, Mindanao; Simaluc Island, TawiTawi group, Sulade Island, and Tuminadao Island, Sulu Province.

Apogon novae-guineae Weber and de Beaufort, Fishes Indo-Austr. Arch., vol. 5, p. 332, 1929; Singapore; Batavia and Anjer, Java; North Celebes; New Guinea; also Philippines. Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Cebu, Cebu Province; Jolo, Sulu Province.

823. *Apogon novemfasciatus* Cuvier and Valenciennes.

All over the tropical Indo-Pacific; marine.

Apogon fasciatus Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 344, 1824; Guam; (not of Shaw). Kner, Reise *Novara*, Zool., vol. 1, p. 43, 1865; Puynipet; Tahiti; Hong Kong; Java. Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Paracale, Camarines Norte Province, Luzon; east of Lauang, Samar. Günther, Fische der Südsee, vol. 1, p. 19, pl. 20, fig. B, 1873-75; in part; Society Islands; Gilbert Islands; Apia, Samoa. Meyer, An. Soc. España. Hist. Nat. Madrid, vol. 14, p. 12, 1885; Cebu, Philippines; North Celebes.

Apogon novemfasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 154, 1828; Timor and Guam. Bleeker, Jour. Indian Archipelago, vol. 3, p. 10, 1849; Celebes. Bleeker, Nat. Tijds. Ned. Ind., vol. 3, p. 163, 1852; Timor. Weber, *Siboga* Exped., vol. 57, Fische, p. 224, 1913; Sanguisiapo, Sulu Province, and 13 other localities in the East Indies. Weber and de Beaufort, Fishes, Indo-Australian Archipelago, vol. 5, p. 302, 1929; in part; many East Indian localities; also Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Herre, Expeds. of 1936-37 and 1940-41; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province.

Amia fasciata Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, p. 87, 1873-76; 18 East Indian localities, also Luzon and Samar, Philippine Islands. Bleeker, *ibid.*, vol. 8, pl. 326, fig. 4, 1876-77. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 72, 1907; Bacon, Sorsogon Province, Luzon; Samoa. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao.

Amia novemfasciata Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 777, 1905; Bais, Negros. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 242, fig. 36, 1906; Apia and PagoPago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Calayan, Babuyan Islands; Ticao Island; Cuyo, Cuyo Islands. Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 251, pl. 23, 1911; Gubat Bay, Sorsogon Province, Luzon, and also Celebes, Fiji Islands, and Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 156, 1928; 12 localities from Polynesia and Micronesia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 56, 1930; Batan Island, Albay Province, and Gubat Bay, Sorsogon Province, Luzon; Sablayan, Mindoro Island; San Pascual, Burias Island, and Simaluc, Sibi Sibi Islands, Sulu Province.

824. *Apogon nigrocinctus* (Smith and Radcliffe).

A Philippine species.

Amia nigrocincta Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 435, pl. 37, fig. 2, 1912; Jolo, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 96, 1930; Corregidor Light, Manila Bay, Luzon; Jolo Light and Balukbaluk Island, Sulu Province.

825. *Apogon notatus* (Houttuyn).

Japan and the Philippines; marine.

Sparus notatus Houttuyn, Verh. Holland. Maatsch. Wetenschappen Haarlem, vol. 20, p. 320, 1782; Japan.

Apogon notatus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 904, fig. 8, 1901; Nagasaki and Wakanoura, Japan.

Amia notata Jordan and Starks, Proc. U. S. Nat. Mus., vol. 30, p. 698, fig. 4, 1906; Yakushima. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 98, 1930; Port San Pio Quinto, Camaguin Island, Babuyan

Islands, north of Luzon; Canmahala Bay, Luzon; Catbalogan, Samar; Cataingan Bay, Masbate; Jolo Light, Sulu Province.
Amia jenkinsi Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 73, fig. 9, 1907; Bulan, Sorsogon Province, Luzon.

826. *Apogon orbicularis* Cuvier and Valenciennes. Pering.

East Indies, Philippines, west to the Andamans, east to the Marshalls and the Solomon Islands. Marine.

Apogon orbicularis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 155, 1828. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 495, 1830; Java. Quoy and Gaimard, Voy. *Astrolabe*, Zool., p. 648, pl. 1, fig. 4, 1834. Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. kennis Percoiden, p. 3; 1849; Malayo-Moluccan Archipelago. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 254, 1852; Amboina and Ceram. Günther, Fische der Südsee, vol. 1, p. 22, pl. 20, fig. D, 1873-1875; Radack Island. Day, Fishes India, p. 65, pl. 17, fig. 7, 1878; Andaman Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Manila Bay, Luzon. Cebu, Cebu, Philippines; Sangi Island; Menado, Celebes; Rubi, New Guinea. Vaillant, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 5, vol. 3, p. 58, 1893; Palawan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 333, 1929; 16 East Indian localities; Philippines; Hong Kong. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Cullion; Cebu, Cebu Province; Jolo and Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Exped., Dumaguete, Negros Oriental Province; Coron, Busuanga; Santa Maria and Patalan Plantation north of San Ramon, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 120, 1936; Auki, Malaita Island, and Tenibuli, Ysabel Island, Solomon Islands.

Apogon nigromaculatus Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, Poiss., p. 32, pl. 1, fig. 2, 1853; New Guinea. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Revision *Apogon*, p. 20, 1874.

Amia orbicularis Bleeker, Ned. Tijds. Dierk., vol. 2, p. 188, 1865; Ceram. Bleeker, Atlas Ichth., vol. 7, p. 79, 1873-76; Sumatra; Nias; Singapore; Java; Sangir; Ceram; Amboina; Goram. Bleeker, *ibid.*, vol. 8, pl. 339, fig. 1, 1876-77. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 31, 1930; Canmahala Bay, Ragay Gulf, Camarines Sur Province, Luzon; San Pascual, Burias; Cebu market and Mactan Reef, Cebu Province; Mahinog, Camaguin Island, north coast of Misamis Oriental Province, Mindanao; Simaluc Island, Tawi Tawi group, Sulu Province.

827. *Apogon parvulus* (Smith and Radcliffe).

A Philippine species.

Amia parvula Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 432, pl. 34, fig. 2, 1912; Saboon Island, Ragay Bay, Camarines Sur Province, Luzon; Tataan Pass, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 80, 1930; Port Hamilo, Batangas Province, Saboon Island, Ragay Bay, Ragay Gulf, Camarines Sur Province, Alibijaban Island, Ragay Gulf, Tayabas Province, and Canmahala Bay, Luzon; Port Banalacan, Marinduque; Busin Harbor, Burias; Cataingan Bay, Masbate; Nabatas Point, Samar; Mantacao Island, west coast of Bohol; Rasa, Mantaguin Bay, Palawan; Caxisigan Island, Balabac; Tataan Islands, Sulu Province; Tomahu Island (?).

828. *Apogon quadrifasciatus* Cuvier and Valenciennes.

East Indies, Philippines, Formosa, China, tropical Indian Ocean, Australia, Fiji; marine.

Apogon quadrifasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 153, 1828; Pondicherry, India. Peters, Archiv Naturges., p. 234, 1855; Mozambique. Günther, Cat. Fishes, British Mus., vol. 1, p. 239, 1859; India; China; Fiji Islands; Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Manila Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 300, 1929; Singapore; Padang, Sumatra; Banka; Sandakan, Borneo; Java Sea; Batavia, Bantam, and Japara, Java; Makassar, Menado, Badjoa and Bonthain, Celebes; Timor; Saleyer; Arafura Sea; the Philippines. Herre, Fishes 1931 Philippine Exped., p. 40, 1934;

- San Juan, La Union Province, and Manila, Luzon; Alabat Island, off Tayabas Province, east coast of Luzon. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay and Ragay Gulf, Luzon.
- Amia quadrifasciata* Bleeker, Atlas Ichth., vol. 7, p. 88, 1873-76; Singapore; Pinang; Java; Celebes. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 16, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 71, 1907; Jolo, Sulu Province. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Manila. Seale, Philippine Jour. Sci., vol. 5D, p. 274, 1910; Sandakan, British North Borneo, and Philippines. McCulloch, Biological Results *Endeavor*, vol. 3, p. 120, 1915; 6 Australian localities. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; Jolo, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 63, 1930; Manila market, Corregidor Light, and Manila Bay; Bacoor, Cavite and San Roque markets, Cavite Province; Balayan Bay, Batangas Province; San Miguel Point, Albay Province; and San Fernando Point Light, La Union Province, Luzon; Catbalogan, Samar; Hinunangan Bay, and Tacbuc Point, Leyte; Iloilo market, Iloilo Province, Panay; Surigao, and Nagubat Island, Surigao Province, and off Panabutan Point, Zamboanga Province, Mindanao; Observation Island, Pajumajan Island, Sulade Island, and Tinakta Island, Sulu Province.
829. *Apogon robustus* (Smith and Radcliffe).
The Philippines, East Indies, and New Hebrides. Marine.
Amia robusta Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 254, fig. 2, pl. 24, 1911; 11 localities from the Philippines and Celebes; Canimo Island, Camarines Norte Province, and southeastern coast of Luzon; Jolo Reefs, Sulu Province.
Amia fasciata Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, p. 51, 1930; Batan Island, Albay Province, Canimo Island and Maculabo Island, Camarines Norte Province, and Gubat Bay, Sorsogon Province, Luzon; Sablayan, Mindoro; Nogas Point, Antique Province, Panay; Sirinao Island and Ulugan Bay, Palawan; Mahinog, Camaguin Island, off coast of Misamis Oriental Province, Mindanao; Jolo Reefs, Sulu Province; Bani Reef, Gulf of Boni, Celebes.
Apogon robustus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Culion; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 126, 1936; Wala Island, New Hebrides. Herre, 1936-37 and 1940-41 Exped.; Dumaguete; Nasugbu, Batangas Province, Luzon; Kolambugan, Lanao Province, Mindanao.
830. *Apogon sangiensis* Bleeker.
The East Indies, Philippines, west to the Andamans, southwest to Natal; in the Pacific to the Marshall, Solomon, and New Hebrides Islands.
Apogon sangiensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 375, 1857; Sangir Islands. Günther, Fische der Südsee, vol. 1, p. 20, 1873-75; Yap. Day, Fishes India, p. 64, pl. 17, fig. 3, 1878. Regan, Ann. Durban Mus., vol. 1, p. 458, 1917; Durban, Natal. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 343, 1929; Singapore; Pulu Weh; Nias; Pulu Kelapa; Sangir Islands; Waigiu; New Guinea. Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Culion; Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Expeds.; Coron, Busuanga; and Sitankai, Sulu Province.
831. *Apogon semilineatus* Schlegel.
Japan, China and the Philippines; marine.
Apogon semilineatus Schlegel, Fauna Japonica, Pisces, p. 4, pl. 2, fig. 3, 1842; Nagasaki. Bleeker, Verh. Bat. Gen., vol. 26, 1854; Nieuwe nalez. ichth. Japan, pl. 1, fig. 2, p. 55; Nagasaki. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 903, fig. 7, 1901; Tokyo, Yokohama, Yodomi, Enoshima, Misaki, and Wakanoura, Japan.
Amia semilineata Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 412, 1912; Misaki and Shimizu, Japan. Jordan and Thompson, Mem. Carnegie Mus., vol. 6, p. 247, fig. 19, 1914; Shimonoseki and Osaka, Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 9, 1930; San Fernando Point Light, La Union Province, Luzon; Uanivan Island, near Pujada Bay, Davao Province, Mindanao.

Amia semilineatus Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 64, 1914; Hong Kong.

832. *Apogon taeniatus* Cuvier and Valenciennes.

East Indies, Philippines, China and the tropical Indian Ocean; marine. *Apogon taeniatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 115, 1828; Djedda, Red Sea. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 48, 1828; Red Sea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 307, 1929; Singapore; Bintang; Java; Kota Baru, Borneo; Buton; Timor; Savu; Amboina; Sulu Islands, Philippines.

Apogon bifasciatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 86, pl. 22, fig. 2, 1835; Djedda, Red Sea. Günther, Cat. Fishes British Mus., vol. 1, p. 238, 1859; Philippines; China; Red Sea. Day, Fishes India, p. 62, pl. 16, fig. 9, 1878; Madras. Regan, Jour. Bombay Nat. Hist. Soc., vol. 16, p. 330, 1905; Persian Gulf. Regan, Ann. Durban Mus., vol. 2, p. 197, 1919; Durban, Natal.

Apogon trimaculatus Richardson, Ichth. China Japan, p. 221, 1846; China; not of Cuvier and Valenciennes.

Apogon Cantori Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 479, 1851; Riouw Islands.

Apogon timorensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 207, 1854; Timor.

Amia cantori Bleeker, Atlas Ichth., vol. 7, p. 82, 1873-76.

Amia timorensis, Bleeker, *ibid.*

Amia bifasciata Bleeker, Atlas Ichth., vol. 7, p. 81, 1873-76. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 63, 1914; Hong Kong. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 24, 1922; Cebu, Philippines.

Amia taeniata Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Révision Apogon, p. 24, 1874. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 33, 1930; Manila market and Mariveles wharf, off Manila Bay, Luzon; Nabatas Point, Samar; Cabalian Point, Jolo, Sulu Province. Also Kowloon, China.

833. *Apogon trimaculatus* Cuvier and Valenciennes.

East Indies, Philippines, and south east in the Pacific to Australia, and Samoa.

Apogon trimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 156, 1828; Buru; Moluccas. Bleeker, Verh. Bat. Gen., vol. 22, 1849, Percoiden, p. 3; Malayo-Moluccan Archipelago. Macleay, Descript. Cat. Australian Fish, vol. 1, p. 46, 1881. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 5, p. 335, 1929; Singapore; Java; Flores; Sangir Islands; Ternate; Batjan; Buru; Amboina; New Guinea; the Philippines. Also Queensland, New Hebrides, Solomon Islands and Samoa. Herre, 1936-37 and 1940-41 Exped.; Dumaguete, Negros Oriental Province; Coron, Busuanga; Capiz, Capiz Province, Panay.

Apogon rhodopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 62, 1852; Singapore. Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 121, 1936; Tenibuli, Ysabel Island, Auki, Malaita Island, and Hathorn Sound, New Georgia Island, Solomon Islands.

Apogon koilomatodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 134, 1853; Ternate. Weber, *Siboga*-Exped., vol. 57, Fische, p. 222, 1913; Seba, Savu Island; Nusa Laut; Sanguislapo, Sulu Archipelago, Philippines.

Amia koilomatodon Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, p. 81, pl. 307, fig. 1, 1873-76; Singapore; Java; Sangir; Ternate; Batjan; Amboina. Fowler and Bean, Bull. 100, Proc. U. S. Nat. Mus., vol. 10, p. 37, 1930; Atulayan and Batan Is., Albay Prov.; Limbones Cove, Cavite Prov., and Manila Bay; Pagapas Bay and Port Hamilo, Batangas Province; Maculabo Island, Camarines Norte Province; Butuanan Island, and Quinalasag Bay, Masamat Island, Camarines Sur Province; Port Matalvi, Zambales Province; Alibijaban Island, Ragay Gulf, and Pagbilao Chica Island, Tayabas Province; Matnog Bay, Sorsogon Province; Catanduanes Island—preceding all from the Luzon coast. Port San Pio Quinto, Camaguin Island, Babuyan Islands; Tillig, Lubang Island; Mansalay, Sablayan, Veradero Bay, and Paluan Bay, Mindoro; Port Banalacan and Mompog Island, off Marinduque; Alimango Bay, and Busin

Harbor, Buriás; Cataingan Bay, Masbate; Biri Channel, Port Palapag, and Nabatas Point, north coast and Quinapudan Bay, south coast of Samar; Buang Bay, Talahit Island, between Samar and Masbate; Casogoran, Malhon Island, between Samar and Leyte; Mantacao Island, west coast of Bohol; Cebu market; Malapascua Island, north of Cebu; Pandanon Island, between Cebu and Bohol; Port Uson, Busuanga; Cuyo, Cuyo Island; Bolalo Bay, Endeavor Strait, Malampaya Sound, Guntao Island, Machesi Island, Port Langcan, Dumaran Island, Rasa Island, Mantaquin Bay, Ulugan Bay, and Malcochin Harbor, Linapacan Island, Palawan Province; Bugsuk and Caxisigan Islands north of Balabac, Candaraman Island, Balabac strait, and Port Ciego, Balabac; Surigao, Capunuyugan, Generale Island, and Lianga Bay, Surigao Province; Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province; Polloc, Cotabato Province; Sacol Island, Zamboanga Province, and Opol, Mindanao; Singaan Island and Taganak Island, Sulu Province.

Amia rhodopterus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, Revision Apogon, p. 22 1874. Bleeker, Atlas Ichth., vol. 7, p. 81, pl. 312, fig. 1, 1873-76; Singapore.

Amia rhodoptera Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 34, 1930; Port Matalvi, Zambales Province, and Saboon Island, Ragay Gulf, Camarines Sur Province, Luzon; Romblon Harbor and reefs; Busin Harbor, Buriás; Cataingan Bay, Masbate; Biri Channel and Port Palapag, on north coast, and Quinapudan Bay on south coast of Samar; Tara Island, Mindoro Strait; Mantacao Island, west coast of Bohol; Port Uson, Busuanga; Bolalo Bay, Endeavor Strait and Ulugan Bay, Palawan; Candaraman Island, Balabac; Murcielagos Bay, Misamis Occidental Province, Mindanao; Tutu Bay, Jolo Island, and Tataan, Simaluc Island, Sulu Province.

Genus 309. AMIOIDES Smith and Radcliffe.

One species from the Philippines.

Amioides Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 439, 1912; type, *Amia (Amioides) grossidens* Smith and Radcliffe. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 144, 1930.

834. *Amioides grossidens* Smith and Radcliffe.

Amia (Amioides) grossidens Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 440, pl. 36, fig. 1, 1912; off La Union Province, lat. 16°30'36" N., long. 120°11'06" E.

Amia grossidens Fowler and Bean, Bull. 100, Proc. U. S. Nat. Mus., vol. 10, p. 144, 1930; Lingayen Gulf, La Union Province, Luzon.

Amioides grossidens Herre, 1948 Coll.; Manila Bay entrance.

Genus 310. APOGONICHTHYS Bleeker.

In tropical seas.

Apogonichthys Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, pp. 312 and 321, 1854; type, *Apogonichthys perditæ* Bleeker. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 4, 1930.

Fowleria Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 180, 1903; type, *Apogon auritus* Cuvier and Valenciennes.

Astrapogon Fowler, Proc. Acad. Nat. Sci. Phila., p. 527, 1906; type, *Apogonichthys stellatus* Cope.

835. *Apogonichthys albomarginatus* Smith and Radcliffe.

A Philippine species.

Apogonichthys albomarginatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 438, pl. 35, fig. 2, 1912; Cavite, Cavite Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 16, 1930; Cavite markets, Cavite Province and Subic Bay, Bataan Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 16, 1930; p. 40, 1934; Manila Bay.

836. *Apogonichthys auritus* (Cuvier and Valenciennes).

Over most of the tropical Pacific and Indian Oceans.

Apogon auritus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 443, 1831; Mauritius. Günther, Fische der Südsee, vol. 1, p. 23, 1873-75; Tahiti and Yap. Day, Fishes India, p. 63, pl. 17, fig. 2, 1878; Suez; Massaua; Zanzibar; Andamans. Klunzinger, Sitzungsber. Akad. Wiss. Berlin, vol. 80, p. 344, 1879; Port Darwin, Australia.

- Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 235, 1929; Singapore; Sumatra; Java Sea; Sangir Islands; Celebes; Ternate; Buru; Ceram; Amboina; Banda; Aru Islands; New Guinea; also the Philippines.
- Apogonichthys polystigma* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 484, 1854; Wahai, Ceram; Priaman, Sumatra. Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Pulo brani, Singapore.
- Apogonichthys auritus* Günther, Cat. Fishes British Mus., vol. 1, p. 246, 1859; Isle de France; Red Sea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 6, 1930; Limbones Cove, Cavite Prov.; Port Hamilo, Batangas Province, and Port Matalvi, Zambales Province, Luzon; North-west Verde Island, Verde Island Passage; Biri Channel, on north coast and Lauang Point and Quinapundan Bay, on south coast of Samar; San Juanico Strait, between Samar and Leyte; San Miguel Harbor, Ticao; Port Dupon, Leyte; Cebu market; Mactan Island; Galera Bay, and Sablayan, Mindoro; Tilig, Lubang Island; Romblon; Bolalo Bay, Palawan; Generale Island, Surigao Province, and Sacol Island, east of Zamboanga, Zamboanga Province, Mindanao; Tutu Bay, Jolo, Tataan, Simaluc Island, and Tinakta Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, 1931 Philippine Exped., p. 40, 1934; Magallanes, Sorsogon Province, Luzon; Culion; Cebu, Cebu Province; Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province; Dumaguete, Negros Oriental Province; Coron, Busuanga; Cagayan, Misamis Oriental Province, Kolambugan, Lanao Province, Mindanao; Jolo and Bongao, Sulu Province.
- Apogon (Apogonichthys) auritus* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 709, 1870; Koseir, Red Sea.
- 837. *Apogonichthys brachygrammus* (Jenkins).**
Hawaiian Islands and just below the southern tip of the Philippines.
Fowleria brachygrammus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 448, fig. 20, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 217, 1905; Waikiki and Hilo.
Foa brachygramma Gilbert, Bull. U. S. Fish Comm., vol. 23, Part 2, p. 617, 1905; off Molakai, and between Maui and Lanai.
Amia brachygramma Fowler, Mem. Bishop Mus., vol. 10, p. 162, 1928; Pearl City, Oahu; type of *Fowleria brachygrammus* Jenkins.
Apogonichthys brachygrammus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 12, 1930; Danawan and Si Amil islands, near Alice Channel, just south of the Sulu Islands, off coast of British North Borneo.
- 838. *Apogonichthys carinatus* (Cuvier and Valenciennes).**
Japan and the Philippines; marine.
Apogon carinatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 157, 1828; Japan. Schlegel, Fauna Japonica, Pisces, p. 3, 1842; Nagasaki.
Apogonichthys carinatus Bleeker, Verh. Bat. Gen., vol. 26, Nieuwe-nalez. icht. Japan, p. 56, pl. 1, fig. 3, 1857; Nagasaki, Japan. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 892, fig. 1, 1901; Misaki, Wakanoura, and Nagasaki, Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 230, 1925; Wakanoura, Toba, Kochi, and Misaki, Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 16, 1930; Tayabas Light, Marinduque Island.
- 839. *Apogonichthys elliotti* (Day).**
India, Philippines, East Indies, and Queensland, Australia.
Apogon nigripinnis Jerdon, Madras Jour. Lit. Science, p. 128, 1851 (not of Cuvier and Valenciennes).
Apogon elliotti Day, Fishes India, p. 63, pl. 17, fig. 1, 1878; Madras. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 329, 1929; Singapore; Arafura Sea.
Apogon arafurae Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 38, pl. 16, fig. C, 1880; Arafura Sea.
Amia elliotti McCulloch, Biological Results Endeavour, vol. 3, p. 119, 1915; off Gloucester Head, Queensland.
Apogonichthys elliotti Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 10, 1930; Corregidor Light, Manila Bay; San Fernando Point Light, La Union Province, Luzon; Tacbuc Point, Leyte; Nagubat Island,

- Surigao Province, an island off Panabutan Point, Zamboanga Province, and Utara Point, Bongo Island, Cotabato Province, Mindanao. Tinakta Light, Tawi Tawi Group, Sulu Province. Herre, Copeia, no. 4, p. 217, 1943; Ragay Gulf, Luzon.
840. *Apogonichthys hyalinus* (Smith and Radcliffe).
Philippines and East Indies.
Amia hyalina Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 433, pl. 36, fig. 3, 1912; Talisse Island, north of Celebes, East Indies.
Foa hyalina Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 353, 1929; Talisse Island, North Celebes.
Apogonichthys hyalinus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 13, 1930; Parang, Cotabato Province, Mindanao; Talisse Island, north of Celebes. Herre, 1940-41 Exped.; Bongao, Sulu Province.
841. *Apogonichthys landoni* Herre.
Apogonichthys landoni Herre, Fishes 1931 Philippine Exped., p. 40, 1934; Cebu Harbor; only the type known.
842. *Apogonichthys melanopterus* Fowler and Bean.
A Philippine species.
Amia melas Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 17, fig. 8, 1918; Philippines; (not of Bleeker).
Amia nigricans Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; same specimen as above; (not of Day). Fowler, Mem. Bishop Mus., vol. 10, p. 156, fig. 38, 1928; same specimen.
Apogonichthys melanopterus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 17, 1930; same specimen as above. Herre, Jour. Pan. Pac. Res. Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 41, 1934; Manila, Luzon; Culion; Cebu, Cebu; Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province.
843. *Apogonichthys ocellatus* (Weber).
The East Indies and Philippines.
Apogon ocellatus Weber, Siboga-Exped., vol. 57, Fische, p. 231, 1913; Sanguisiapo and North Ubian, Sulu Province, Philippines; Celebes; Nusa Laut; Amboina; Sumba; Nias. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 327, 1929; Nias, Sumba, Amboina, Nusa Laut, Celebes; Sulu Islands, Philippines.
844. *Apogonichthys perdis* Bleeker.
The Philippines and East Indies.
Apogonichthys perdis Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 321, 1854; Larantuka, Flores. Bleeker, Atlas Ichth., vol. 7, pl. 322, fig. 2, 1873-76; Flores and Buru. Fowler, Bull. Bishop Mus., vol. 22, p. 8, 1925; Guam. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 13, 1930; Canmahala Bay, Luzon; Alimango Bay, and San Pascual, Burias; San Miguel Harbor, Ticao; Cataingan Bay, Masbate; Santa Cruz Island, coast of Marinduque; Tilig, Lubang Island; Gigantangan Island, west coast of Leyte; Cebu market, Cebu; Iloilo market, Iloilo Province, Panay; Nasipit, Agusan Province, Mati, Pujada Bay, Davao Province, below mouth of Rio Grande de Mindanao, Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Prov. Herre, Fishes 1931 Phil. Exped., p. 41, 1934; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao.
Amia perdis Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz. vol. 2, No. 1, Révision Apogon, p. 65, 1874. Bleeker, Atlas Ichth., vol. 7, p. 100, 1873-76; Flores and Buru.
Foa fo Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 779, 1905; Cavite, Cavite Province, Luzon; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 248, fig. 42, 1906; Apia, Samoa; Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 17, 1907; Cavite, Cavite Province, Luzon.
Apogonichthys fo Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Iloilo, Iloilo Province, Panay.
Apogon perdis Weber, Siboga-Exped., vol. 57, Fische, p. 230, 1913; Sulu Islands, Philippines; Biaru Island; Nusa Laut. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 328, 1929; Flores; Biaru; Buru; Ceram; Nusa Laut; and Sulu Islands, Philippines.

845. *Apogonichthys poecilopterus* (Cuvier and Valenciennes).

East Indies, the Philippines, Japan, and India. Marine.

Apogon poecilopterus (Kuhl and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 114, 1828; Java. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 12, 1885; Cebu, Cebu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 330, fig. 80, 1929; Singapore; Banka; Batavia, Cheribon, Patjitan, Samarang, and Tjilatjap; Java; Lombok; Amboina; Philippines; Madras; and Japan.

Apogon glaga Bleeker, Nat. Gen. Arch. Ned.-Ind., vol. 2, p. 526, 1845; Batavia, Cheribon, Tjilatjap, and Samarang, Java. Day, Fishes India, p. 62, pl. 16, fig. 10, 1878; India.

Apogon truncatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 415, 1854; Java.

Apogonichthys glaga Bleeker, Verh. Bat. Gen., vol. 26, No. 4, p. 57, 1857; Nagasaki; Java; Singapore. Bleeker, Atlas Ichth., vol. 7, pl. 311, fig. 1, 1873-76. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 20, 1930; Corregidor Light, Manila Bay, and Manila market, Luzon; Tarataro Island, off western Samar.

Amia poecilopterus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschapen, 3 verz., vol. 2, No. 1, Révision Apogon, p. 54, 1874; in part.

Mionorus glaga Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 17, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Manila, Luzon.

Amia poeciloptera Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 24, 1930; the Philippines.

Apogonichthys poecilopterus Herre, Fishes 1931 Philippine Exped., p. 41, 1934; Manila and Unisan, Tayabas Province, Luzon. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay; Nasugbu, Batangas Province, and Ragay Gulf, Luzon.

846. *Apogonichthys striatus* (Smith and Radcliffe).

A Philippine marine species.

Amia striata Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 437, pl. 35, fig. 1, 1912; coast of La Union Province, Luzon.

Apogonichthys striatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 11, 1930; Manila Bay, and coast of La Union Province, Luzon; Cebu market, Cebu; Iloilo market, Iloilo Province, Panay; Surigao Strait, south coast of Samar; west coast of Zamboanga Province, Mindanao. Herre, Copeia, No. 4, p. 218, 1943; Manila Bay, Luzon.

847. *Apogonichthys uninotatus* (Smith and Radcliffe).

A Philippine fish; marine.

Amia uninotata Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 436, pl. 34, fig. 3, 1912; Bisucay Island, Cuyo Islands.

Apogonichthys uninotatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 18, 1930; Tara Island, Mindoro Strait; near Romblon; Bisucay Island, Cuyo Islands; Candaraman Island, Balabac.

Genus 311. *ARCHAMIA* Gill.

Archamia Gill, Proc. Acad. Nat. Sci. Phila., p. 81, 1863; type, *Apogon bleekeri* Günther.

848. *Archamia bleekeri* (Günther).

Philippines and East Indies.

Apogon macropterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 168, 1851; Padang (not of Cuvier and Valenciennes).

Apogon bleekeri Günther, Cat. Fishes British Mus., vol. 1, p. 245, 1859; Batavia; Padang; Amboyna.

Archamia bleekeri Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 519, 1904; Padang, Sumatra. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 75, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 110, 1930; Batangas market, Batangas Province; Butaanan Island, Camarines Sur Province, RapuRapu Island, and Maagnas, Lagonoy Gulf, Albay Province, Bolinao Bay and Dasol Bay, Pangasinan Province; Casogoron, Malhon Island, between Samar and Leyte; San Roque, Leyte; Bolalo Bay and Puerto Princesa, Palawan; Bisucay Island, Cuyo Islands; Port Ciego, Balabac; Mahinog, Camaguin Island, off coast of Misamis Oriental Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 41, 1934; Cullion; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Miagao, Iloilo Province, Panay.

- 849. *Archamia buruensis* (Bleeker).**
 East Indies and the Philippines; in brackish and salt water.
Apogon buruensis Bleeker, Nat. Tijds., Ned.-Ind., vol. 11, p. 394, 1856; Kajeli, Buru.
Amia buroënsis Bleeker, Ned Tijds. Dierk., vol. 2, p. 147, 1865; Buru. Bleeker, Nat. Verh. Holland Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, 1874. Révision Apogon, p. 70. Bleeker, Atlas Ichth., vol. 7, p. 102, 1873-76; vol. 8, pl. 353, fig. 2, 1876-77.
Apogon buruensis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 345, 1929; Simalur; Buru; New Guinea.
Archamia buruensis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 112, 1930; Philippines; China Sea, northwest of Luzon; Port Dupon, Leyte; below mouth of the Rio Grande de Mindanao; Mantaquin Bay, Palawan. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Cotabato, Cotabato Province, Mindanao.
- 850. *Archamia lineolata* (Cuvier and Valenciennes).**
 Tropical Indo-Pacific; marine.
Apogon lineolatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 160, 1828; Red Sea. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 47, pl. 12, fig. 1, 1828; Massaua, Red Sea. Barnard, Ann. South African Mus., vol. 21, p. 516, 1927; Delagoa Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 347, 1929; *A. bleekeri* and *A. lineolatus* confused, synonymy and description. East Indies; Philippines.
Apogon fucatus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 986, 1850; Sea of Pinang.
Apogon macropteroides Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 724, 1852; Lepar Island.
Archamia lineolata Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 252, pl. 38, fig. 1, 1906; PagoPago and Apia, Samoa. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao. Fowler, Proc. Acad., Nat. Sci. Phila., vol. 79, p. 274, 1927; Santa Maria, Ilokos Sur Province, and Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 113, 1930; *typical form*; Batangas market, and Port Hamilo, Batangas Province; Mariveles wharf, Mariveles Bay, Bataan Province; Alibijaban Island and Canmahala Bay, Ragay Gulf, Tayabas Province; Magnaas, Lagonoy Gulf, Albay Province; Luzon; Varadero Bay, Mindoro; Endeavor Strait, Puerto Princesa, and Rasa Island in Mantaquin Bay, Palawan; Port Ciego, Balabac; Isabela, Basilan; Jolo, Tara Island, Tutu Bay, Jolo, and Tataan Island, Sulu Province. *Fucata* form; Alibijaban Island, and Canmahala Bay, Tayabas Province; Caracaran, Batan Island and Lagonoy Gulf; Albay Province; Masamat Bay, Butauanan Island, and Saboon Island, Ragay Gulf, Camarines Sur Province; Mariveles, Bataan Province; Port Hamilo, Batangas Province; Bolinao Bay, Pangasinan Province, Luzon; Alimango Bay and Busin Harbor, Burias Island; San Roque, Leyte; Cebu market, Cebu; Endeavor Strait and Bolalo Bay, Malampaya Sound, Machesi Island, Rasa Island, Mantaquin Bay, and Ulugan Bay, Palawan; Port Uson, Busuanga; Malcochin Harbor, Linapacan Island; Capunuyugan, Generale Island, Surigao Province, Polloc, Cotabato Province, and Tulnalutan Island, Zamboanga Province, Mindanao; Isabela Channel, Basilan Island; Tutu Bay, Jolo Island, Simaluc SibiSibi Island, and Tataan Island, Sulu Province. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Dumaguete. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon.
Archamia macropteroides Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 74, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Mem. Carnegie Mus., vol. 6, p. 181, 1909; Takao, Formosa. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 274, 1927; Bacon, Sorsogon Province, Luzon.
- 851. *Archamia zosterophora* (Bleeker).**
 East Indies and Philippines; marine.
Apogon zosterophora Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 36, 1856; Menado, Celebes. Macleay, Proc. Linn. Soc. New South Wales,

vol. 7, p. 235, 1882; New Guinea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 346, 1929; Menado, Celebes; Ternate; Kei Islands; New Guinea; Philippines.

Amia zosterophora Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Révision *Apogon*, p. 71, 1874; Menado, Celebes. Bleeker, Atlas Ichth., vol. 7, p. 103, pl. 313, fig. 2, 1873-76; Celebes.

Archamia zosterophora Weber, *Siboga*-Exped., vol. 57, Fische, p. 236, 1913; Tual, Low Key. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 70, p. 28, fig. 12, 1918; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 117, 1930; Manila Harbor, Sangley Point, Cavite Province, and Limbones Cove, Manila Bay; Port Matalvi, Zambales Province; Canmahala Bay, Ragay Gulf, Tayabas Province; Refugio Island, Pasacao, Camarines Sur Province; RapuRapu Island, and San Miguel Island, Tabaco Bay, Albay Province, Luzon. Busin Harbor, Burias; Puerto Galera, Mindoro; Port Uson, Busuanga; Romblon Harbor; Santa Cruz Island, Marinduque; Mantacao Island, west of Bohol; Biri Channel and Port Palapag, north coast of Samar; Bolalo Bay, Endeavor Strait, Malampaya Sound, Makesi Island, Mantaquin Bay, Ulugan Bay, and Puerto Princesa, Palawan. Below mouth of Rio Grande de Mindanao, Cotabato Province, and Sacol Island, Zamboanga Province, Mindanao; Isabela Channel, Basilan; Candaraman Island, Balabac; Tutu Bay, Jolo, and Tataan Island, Sulu Province. Herre, 1931 Philippine Exped., p. 42, 1934; Unisan, Tayabas Province, Luzon.

Genus 312. CHEILODIPTERUS Lacépède.

Marine reef fishes of the tropical Indo-Pacific.

Cheilodipterus Lacépède, Hist. Nat. Poissons, vol. 3, p. 539, 1802; type,

Cheilodipterus lineatus Lacépède. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 359, 1929. Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, p. 122, 1930.

Cheilodipterus Günther, Cat. Fishes British Mus., vol. 1, p. 248, 1859.

Paramia Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863.

352. *Cheilodipterus macrodon* (Lacépède).

From the east coast of Africa to Samoa and the Tuamoto Islands; marine.

Centropomus macrodon Lacépède, Hist. Nat. Poissons, vol. 4, p. 273, 1802; Mauritius and Réunion.

Cheilodipterus lineatus Lacépède, Hist. Nat. Poissons, vol. 4, p. 543, 1802; not of Forskål. Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 352, 1859; Bawean; not of Forskål. Day, Fishes of India, p. 66, pl. 18, figs. 8-9, 1878; Gwadar; not of Forskål. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 274, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 131, 1930; Batan Island, Guinanayan Island, RapuRapu Island, Tabaco Bay and Palag Bay, Albay Province; Bauang Bay, Batangas Province; Alibijaban Island and Canmahala Bay, Ragay Gulf; Gubat and Langoa Point, Sorsogon Province; Masamat Bay and Canmahala Bay, Camarines Sur Province; Pagbilao Island, Tayabas Province—preceding all on Luzon; Bilikias Bay and Tilig, Lubang Island; Verdadero Bay, Puerto Galera and Mansalay, Mindoro; Maricaban Island, Verde Island Passage; Busin Harbor, Burias; Mompong Island, between Marinduque and Luzon; Santa Cruz, Marinduque; Romblon; Masbate and Cataingan Bay, Masbate; Catbalogan, and Nabatas Point, and Port Palapag, Samar; Port Dupon, Leyte; Pandanon Island, north coast of Bohol; Malapascua Island, north of Cebu; Port Caltom and Port Uson, Busuanga; Surigao, Surigao Province, Pujada Bay, east coast of Davao Province, Polloc, Cotabato Province, Sacol Island near Zamboanga, Zamboanga Province, and Mahinog, Camaguin Island off coast of Misamis Oriental Province, Mindanao; Isabela, Basilan; Cuyo and Bisucay Island, Cuyo Islands; Bolalo Bay, Endeavor Strait, Malampaya Sound, and Port Matalvi and Makesi Island, Palawan Caxisigan Island; north Balabac Strait; Tapiantana Island, Tonquil Island, Tulayan Island, Tutu Bay, Jolo Island, Jolo Reefs, Tara Island, Tataan, Simaluc Island, Sitankai Reef, and Tumindao Reef, Sulu Province.

- Paramia macrodon* Bleeker, Nat. Verh. Holland, Maatsch. Wetenschap-
pen, 3 verz., vol. 2, No. 1, Révision Apogon, p. 75, 1874. Bleeker, Atlas
Ichth., vol. 7, p. 105, 1873-76; Batu; Singapore; Java; Bawean;
Celebes; Batjan; Amboina.
- Paramia ocolineata* Bleeker, Atlas Ichth., vol. 7, pl. 305, fig. 2, 1873-76.
- Cheilodipterus macrodon* McCulloch, Proc. Linn. Soc. New South Wales,
vol. 46, p. 469, 1921; Palm Island, Queensland, Australia. Weber and
de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 363, 1929;
15 East Indian localities. Herre, Fishes 1931 Philippine Exped., p.
42, 1934; Cullion; Jolo, Sulu Province. Herre, Collection Philippine
Bureau of Science; Taytay, Palawan; Tubataha Reef, Sulu Sea;
Tubigan, Pearl Bank, Bongao, and Sibutu, Sulu Province.
853. *Cheilodipterus nigrotaeniatus* Smith and Radcliffe.
The Philippines and East Indies; marine.
- Cheilodipterus nigrotaeniatus* Smith and Radcliffe, Proc. U. S. Nat.
Mus., vol. 41, p. 442, pl. 37, fig. 3, 1912; northeast shore of Sacol Island,
Zamboanga Province, Mindanao; Tutu Bay, Jolo, Sulu Province, also
Gomomo Island, Dutch East Indies. Fowler and Bean, Bull. 100,
U. S. Nat. Mus., vol. 10, p. 124, 1930; Sacol Island, east of Zamboanga,
Zamboanga Province, Mindanao; Tutu Bay, Jolo Island, Sulu Prov-
ince; also Gomomo Island, East Indies.
854. *Cheilodipterus quinquelineatus* Cuvier and Valenciennes.
Indo-Pacific from east coast of Africa to the Marquesas Islands; marine.
- Cheilodipterus quinquelineatus* Cuvier and Valenciennes, Hist. Nat.
Poissons, vol. 2, p. 167, 1828; Society Islands. Lesson, Voy. *Coquille*,
Zool., vol. 2, p. 237, 1830; Bora Hora, Society Islands. Rüppell, Neue
Wirbelt., Fische Rothen Meeres, p. 89, 1835; Red Sea. Bleeker, Nat.
Tijds. Ned.-Ind., vol. 3, p. 252, 1852; Molucca Islands. Meyer, An.
Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Cebu, Cebu Prov-
ince; Rubi, New Guinea. Fowler, Proc. Acad. Sci. Phila., vol. 79, p.
274, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus.,
vol. 10, p. 127, 1930; Limbones Cove, Manila Bay, Cavite Province;
Port Hamilo, Batangas Province; Palag Bay, Guinayan Island, and
Caracaran, Batan Island, RapuRapu Island, and San Miguel Island,
Tabaco Bay, Albay Province; Alibijaban Island, and Cammahala Bay,
Ragay Gulf, and Capulaan Bay, Pagbilao Chica Island, Tayabas
Province; Saboon Island, Ragay Bay, Ragay Gulf, Camarines Sur
Province, Luzon; Puerto Galera, Mindoro; Port Banalacan, and Santa
Cruz Island, Marinduque; Romblon; Busin Harbor, Buriás; San
Miguel Port, Ticao; Cataingan Bay, Masbate; Biri Channel, Cat-
balogan, and Port Palapag, Samar; Mantacao Island, coast of Bohol,
and Maribojoc Bay, Bohol; Cebu market, Cebu; Bolalo Bay, Endeavor
Strait, Makesi Island, Pandanan Island, Mantaquin Bay, and Port
Langcan, Palawan; Port Ciego, and Candaraman Island, Balabac;
Surigao, and Generale Island, Surigao Province, Inamuogan Bay, and
Murcielagos Bay, Misamis Occidental Province, Mahinog, Camaguin
Island off coast of Misamis Oriental Province, Polloc, Cotabato Prov-
ince, Pujada Bay, Davao Province, Sacol Island, and Tulnalutan Is-
land, Zamboanga Province, and Opol, Mindanao; Isabela, Basilan;
Tonquil Island, Tutu Bay, Jolo Island and Tulayan Island off Jolo,
Tara Island, Tataan, Simaluc Island, and Tataan Pass, and Tunindao
Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8,
p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931
Philippine Exped., p. 42, 1934; Calapan, Mindoro; Cullion; Dumaguete;
Sitankai, Sulu Province. Herre, 1940-41 Exped.; Coron, Busuanga;
Santa Maria, Zamboanga Province, Mindanao; Jolo and Bungau, Sulu
Province.
855. *Cheilodipterus singapurensis* Bleeker.
East Indies and Philippines; marine.
- Cheilodipterus singapurensis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p.
452, 1859-60; Singapore. De Beaufort, Bijdr. Dierk. Amsterdam, p.
116, 1913; Beo, Majalibit Inlet, Waigiu. Weber and de Beaufort,
Fishes Indo-Australian Archipelago, vol. 5, p. 360, 1929; Singapore;
Misol; Waigiu. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10,
p. 125, 1930; Port Matalvi, Zambales Province, and San Miguel Island,
Tabaco Bay, Albay Province, Luzon; Busin Harbor, Buriás; Romblon
Harbor, Romblon; Santa Cruz Island, Marinduque; Cataingan Bay,

Masbate; Biri Channel; Port Palapag, and Gigoso Point, Quinapundan Bay, Samar; Iloilo River, Panay; Mactan Island, Cebu Province; Bisuway Island, Cuyo Islands; Bolalo Bay, Endeavor Strait, Makes Island, Rasa Island, Mantaquin Bay, and Ulugan Bay, Palawan. Murcielagos Bay, Misamis Occidental Province, Polloc, Cotabato Province, and Sacol Island, east of Zamboanga, Zamboanga Province, Mindanao; Tutu Bay, Jolo Island, Tapiantana Island, Tataan, Simaluc Island, and Tumindao Island, Sulu Province. Herre, 1936-37 Exped.; Sitankai, Sulu Province.

856. *Cheilodipterus subulatus* Weber.

Celebes and Sulu Islands; marine.

Cheilodipterus subulatus Weber, Notes Leyden Mus., vol. 31, p. 164, 1909; Makassar, Celebes. Weber, *Siboga*-Exped., vol. 57, Fische., p. 239, 1913; Fish market, Makassar, Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 365, fig. 87, 1929; Makassar, Celebes. Herre, Copeia, No. 4, p. 217, 1943; coral reef west of Jolo, and coral reef at Sitankai, Sulu Province.

857. *Cheilodipterus zonatus* Smith and Radcliffe.

A Philippine marine fish.

Cheilodipterus zonatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 443, pl. 38, fig. 1, 1912; Rita Island, Ulugan Bay, and Endeavor Strait, Palawan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 123, 1930; Rita Island, Ulugan Bay, and Endeavor Strait, northwest coast of Palawan.

Genus 313. HYNNODUS Gilbert.

Hynnodus Gilbert, Bull. U. S. Fish Comm., vol. 23, Part 2, p. 617, 1905; type, *Hynnodus atherinoides* Gilbert. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 121, 1930.

Sceptarias Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 44, 1922; type, *Sceptarias fragilis* Jordan and Jordan.

858. *Hynnodus atherinoides* Gilbert.

Hawaiian Islands and the Philippines.

Hynnodus atherinoides Gilbert, Bull. U. S. Fish Comm., vol. 23, Part 2, p. 618, pl. 79, 1905; Pailolo Channel, Hawaii. Fowler, Mem. Bishop Mus., vol. 10, p. 165, 1928; Lahaina, Maui. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 121, 1930; Bagatao Island Light, Sorsogon Province, Luzon; Camp Overton Light, Iligan Bay, Lanao Province, Mindanao. Also Gilbert's type from Hawaii.

Genus 314. MIONORUS Kreffl.

Mionurus Kreffl, Proc. Zool. Soc., London, p. 942, 1867; type, *Mionurus lunatus* Kreffl.

859. *Mionorus bombonensis* Herre.

The Philippines; in fresh water.

Mionorus bombonensis Herre, Philippine Jour. Sci., vol. 26, p. 341, pl. 1, 1925; Lake Bombon, Batangas Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 41, 1934; Lake Bombon.

860. *Mionorus heraldi* Herre.

The Philippines; marine.

Mionorus heraldi Herre, Copeia, No. 4, p. 216, 1943; Ragay Gulf, Luzon.

861. *Mionorus mydrus* Jordan and Seale.

The Philippines; marine.

Mionorus mydrus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 778, fig. 4, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 17, 1907; Manila. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 21, 1930; not the synonymy; Negros Island. Herre, 1940-41 Exped.; Manila Bay.

Genus 315. NEAMIA Smith and Radcliffe.

Known only from the Philippines.

Neamia Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 441, 1912; type *Neamia octospina* Smith and Radcliffe.

862. *Neamia octospina* Smith and Radcliffe.

Neamia octospina Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 441, pl. 36, fig. 2, 1912; Rasa Island, Mantaquin Bay, Palawan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 22, 1930; same specimen.

Genus 316. PSEUDAMIA Bleeker.

East Indies and the Philippines. Marine.

Pseudamia Bleeker, Ned. Tijds. Dierk., vol. 2, p. 284, 1865; orthotype, *Apogon polystigma* Bleeker. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 370, 1929.

863. Pseudamia polystigma (Bleeker).

East Indies and the Philippines.

Cheilodipterus polystigma Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 454, 1859-60; Singapore.

Pseudamia polystigma Bleeker, Ned. Tijds. Dierk., vol. 2, p. 284, 1865; Amboina. Bleeker, Atlas Ichth., vol. 7, p. 107, 1873-76; Amboina. Bleeker, *ibid.*, vol. 8, pl. 348, fig. 2, 1876-77. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 17, 1907; Cavite, Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 370, fig. 90, 1929; Singapore; Sandakan, British North Borneo; Amboina; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Balayan Bay, Batangas Province; Culion; Cebu; Dumaguete; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Coron, Busuanga; Kolambungan, Lanao Province, Mindanao.

Apogonichthys polystigma Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Cebu, Cebu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 19, 1930; in part; not synonymy; Canmahala Bay, Ragay Gulf, Luzon; Cebu market, Cebu.

Pseudoamia polystigma Seale, Philippine Jour. Sci., vol. 5, sèc. D, p. 274, 1910; Sandakan, British North Borneo; Philippines.

Genus 317. RHABDAMIA Weber.

East Indies and the Philippines.

Rhabdamia Weber, Notes Leyden Mus., vol. 31, p. 165, 1909; orthotype, *Rhabdamia clupeiiformis* Weber. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 357, 1929.

864. Rhabdamia cypselurus Weber.

East Indies and the Philippines.

Rhabdamia cypselurus Weber, Notes Leyden Mus., vol. 31, p. 167, 1909; Ceram. Weber, *Siboga*-Exped., vol. 57, Fische, p. 242, fig. 60, 1913; Kawa, West Ceram. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 358, fig. 86, 1929; Ceram.

Amia cypselura Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 107, 1930; Bolinao Bay, Pangasinan Province, Port Hamilo, Batangas Province; Canmahala Bay, Ragay Gulf, Luzon; Busin, Burias; Bolalo Bay, and Ulugan Bay near mouth of Baheli River, Palawan Tutu Bay, Jolo, and Tataan Island, Sulu Province.

865. Rhabdamia gracilis (Bleeker).

The Philippines and East Indies.

Apogonichthys gracilis Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 371, 1856; Ternate. Karoli, Termesz. Füzetek., Budapest, vol. 5, p. 152, 1882; Serangoon, Singapore.

Amia gracilis Bleeker, Nat. Verh. Holl. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 1, Revison Apogon, p. 69, 1874. Bleeker, Atlas Ichth., vol. 7, p. 102, 1873-76; Ternate. Bleeker, *ibid.*, vol. 8, pl. 343, fig. 2, 1876-77.

Rhabdamia clupeiiformis Weber, Notes Leyden Mus., vol. 31, p. 165, 1909. Weber, *Siboga*-Exped., vol. 57, Fische, p. 241, 1913.

Rhabdamia gracilis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 357, fig. 85, 1929; Singapore; Puli Babi; Solor; Salibabu; Saleyer; Ternate.

Archamia gracilis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 120, 1930; Limbones Cove, Manila Bay, Cavite Province, Luzon; Tutu Bay, Jolo, and Simaluc Island, Sulu Province.

Genus 318. SIPHAMIA Weber.

The Philippines and East Indies.

Siphamia Weber, Notes Leyden Mus., vol. 31, p. 168, 1909; type, *Siphamia tubifer* Weber. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 355, 1929. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 142, 1930.

Adenopogon McCulloch, Records Australian Mus., vol. 13, p. 132, 1921; type, *Apogon roseigaster* Ramsay and Ogilby.

866. *Siphamia versicolor* (Smith and Radcliffe).

A Philippine species; marine.

Amia versicolor Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 257, fig. 3, 1912; Cataingan Bay, Masbate; Canmahala Bay, Ragay Gulf, Luzon; Usada Island near Jolo, and Sibutu Island, Sulu Province; North Balabac Strait. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 273, 1927; Philippines.

Siphamia versicolor Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 142, 1930; Canmahala Bay, Ragay Gulf, Luzon; Romblon; Cataingan Bay, Masbate; Antonia Island, off eastern Panay; North Balabac Straits; Point Tagolo Light, Zamboanga Province, Mindanao; off Jolo Light, and Pangasinan, Sibutu, Sirun, and Usada Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Cebu, Cebu Province; Dumaguete, Negros Oriental Province.

Genus 319. SYNAGROPS Günther.

Japan, Philippines, East Indies, Hawaii, Indian Ocean, and the Gulf of Mexico; deep sea fishes.

Melanostoma Döderlein, Denks. Akad. Wiss. Wien., vol. 48, p. 5, 1884; preoccupied.

Synagrops Günther, Report Voy. *Challenger*, Zoology, vol. 22, Part 57, Deep-Sea Fishes, p. 16, 1887; type, *Melanostoma japonicum* Steindachner and Döderlein.

Parascombrops Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 296, 1890; type, *Parascombrops pellucidus* Alcock.

Hypocydonia Goode and Bean, Oceanic Ichthyology, p. 236, 1895; type, *Hypocydonia bella* Goode and Bean.

Macculochina Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 44, 1922; type, *Synagrops serratospinosus* Smith and Radcliffe.

867. *Synagrops japonicus* (Steindachner and Döderlein).

Japan, the Philippines, East Indies, Guam, Hawaiian Islands.

Melanostoma japonicum Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 48, p. 5, pl. 1, fig. 2, 1884; Tokyo, Japan. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 72, 1901; Yokohama.

Synagrops japonicus Günther, Report Voy. *Challenger* Zool., vol. 22, Pt. 57, p. 16, 1887. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 136, 1930; Escarceo Light, Batangas Bay, Batangas Province, Luzon; Malavatuan Island, Lubang Islands; Apo Island, off Zamboanguita, Negros Oriental Province; Tayabas Light, Marinduque; Point Tagolo, Zamboanga Province, Mindanao; Ternate Island, East Indies. Norman, Scientific Reports Murray Exped., vol. 7, p. 60, 1939; Zanzibar and Maldive areas, Indian Ocean; also Philippines, east coast of Africa, Maldives, Japan, and Micronesia.

Synagrops japonica Fowler and Ball, Bull. Bishop Mus., No. 26, p. 13, 1925; Lahaina, Maui, Territory of Hawaii. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 231, 1925; Misaki, Japan.

868. *Synagrops philippinensis* (Günther).

The Philippines and Indian Ocean.

Acropoma philippinense Günther, Report Voy. *Challenger*, Zoology, vol. 1, Pt. 6, p. 51, 1880; Philippines. Alcock, Jour. Asiatic Soc. Bengal, vol. 62, p. 116, 1894.

Parascombrops pellucidus Alcock, Jour. Asiatic Soc. Bengal, vol. 58, p. 296, pl. 22, fig. 1, 1889; Bay of Bengal.

Synagrops philippinense Alcock, Jour. Asiatic Soc. Bengal, vol. 65, p. 311, 1896; Indian coast.

Synagrops philippinensis Regan, Jour. Bombay Nat. Hist. Soc., vol. 16, p. 329, 1905; Sea of Oman. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 138, 1930; Cape Santiago Light, Sombrero Island, Verde Island Passage and Malabrigo Light, coast of Batangas Province; Corregidor Light, entrance to Manila Bay; Arena Point, Bondoc Peninsula, Tayabas Province; Legaspi Light, Albay Province, Luzon; Malavatuan Island, Lubang Islands; off Escarceo Light, Mindoro;

Tayabas Light, Marinduque, Tubig Point, Destacado Island, mid-way between Samar and Masbate; Capitancillo Island Light, off east coast of Cebu; Louis Point Light, between Cebu and Bohol; Cruz Point, Bohol; Apo Island, off Zamboanguita, Negros Oriental Province; Point Tagolo Light, Zamboanga Province; Macabalan Point Light, Cagayan, Misamis Oriental Province, Mindanao; Cape Melville Light, Balabac. Bay of Bengal, from Indian Museum as *Parascombrops pellucidus* Alcock. Norman, Scientific Reports Murray Exped., vol. 7, p. 60, 1939; Gulf of Aden and Gulf of Oman, Indian Ocean.

869. *Synagrops serratospinosus* Smith and Radcliffe.

The Philippines.

Synagrops serratospinosus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 41, p. 444, pl. 38, fig. 2, 1912; Batangas Bay, Batangas Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 140, 1930; Cape Santiago Light, Balayan Bay, and Matoco Point, Batangas Province, and Corregidor Light, Manila Bay, Luzon; Bagatao Island Light, between Buriyas and Luzon; Louis Point Light, between Cebu and Bohol; also Apo Island, off Zamboanguita, Negros Oriental Province; Lusaran Light, between Panay and Negros; Macabalan Light, Cagayan, Misamis Oriental Province, and Point Tagolo Light, Zamboanga Province, Mindanao.

Family 113. ACROPOMATIDÆ

Indo-Pacific fishes.

Genus 320. ACROPOMA Schlegel.

Japan, the Philippines, East Indies, and Indian Ocean.

Acropoma Schlegel, Fauna Japonica, Pisces, p. 31, 1843, Günther, Cat. Fishes British Mus., vol. 1, p. 250, 1859; type, *Acropoma japonicum* Günther. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 911, 1901. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 367, 1929. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 145, 1930.

870. *Acropoma japonicum* Günther.

Japan, the Philippines, East Indies, and Arabian Sea.

Acropoma japonicum Günther, Cat. Fishes British Mus., vol. 1, p. 250, 1859; Nagasaki; on Schlegel. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Pt. 6, p. 38, 1880; Arafura Sea. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 912, fig. 10, 1901; Misaki and Wakanoura, Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 231, 1925; Wakanoura. Fowler, Jour. Bombay Nat. Hist. Soc., p. 259, 1927; Bombay. Jordan and Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, p. 145, 1930; Tayabas Light, Marinduque; Chocolate Island, off northern Cebu.

Acropoma apogonoides Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 16, 1878; name only.

Family 114. AMBASSIDÆ

Small silvery Indo-Pacific fishes, in the sea and in rivers and lakes.

Genus 321. AMBASSIS Cuvier and Valenciennes. Langaray; Bangan; Daŋgat; Begaŋg.

Chanda Hamilton [né Buchanan], Fishes Ganges, pp. 103 and 370, 1822. *Ambassis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 175, 1828; type, *Centropomus ambassis* Lacépède. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 398, 1929. Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, pp. 147-148, 1930.

Priopis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 348, 1830; type *Priopis argyrozona* Kuhl and van Hasselt.

Parambassis Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen Haarlem, 3 verz., vol. 2, Révision *Ambassis*, p. 102, 1874.

Pseudambassis Bleeker, Arch. Neerl. Sci. Nat., vol. 11, p. 292, 1876.

871. *Ambassis buruensis* Bleeker. Laŋgaray.

East Indies, the Philippines, and China in coastal waters, entering rivers and lakes.

Ambassis buruensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 396, 1856; Buru. Bleeker, Atlas Ichth., vol. 8, p. 137, pl. 353, fig. 5, 1876-77; Sumatra; Bali; Buru. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 417, 1929; Sumatra; Java; Bali; Celebes; Buru; Amboina; Timor; Philippines. De Beaufort, Philippine Jour. Sci., vol. 49, p. 95, 1932; Bauang River, La Union Province; Subic, Zambales Province; Pasig River, Manila; Lake Bombon, Pansipit River, and Balayan Bay, Batangas Province; Arimbay River and Bigeoa, Albay Province, Luzon; Cabalian, Leyte; Dumaguete, Negros Oriental Province; San Jose de Buenavista, Antique Province, Panay; Lazi, Siquijor Island; Agusan River, Agusan Province, Cagayan, Misamis Oriental Province, and Caldera Bay, Zamboanga Province, Mindanao. Herre, Fishes 1936-37 Exped.; Manila Bay and Balayan Bay, Batangas Province, Luzon; Dumaguete. Negros Oriental Province; Tawau, and Segaliud River, British North Borneo. Herre, Fishes 1940-41 Exped.; Capiz, Capiz Province, Panay; Cagayan River, Cagayan, Misamis Oriental Province, Mindanao.

Ambassis buruensis Bleeker. Nat. Tijds. Ned.-Ind., vol. 13, p. 79, 1857; Kejeli, Buru. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 157, 1930; Batangas River, Pagapas Bay, and Port Hamilo, Batangas Province; Port San Vicente. Cagayan Province; Pucot River, Mariveles, Bataan Province; Malabon market. Rizal Province; Basut River, Camarines Norte Province; Nato River, Lagonoy Gulf, Albany Province; Butaanan Island and river at Pasacao. Ragay Gulf, Camarines Sur Province; Ragay River. Ragay Gulf, Tayabas Province, Luzon. Naujan River, Estero at Sablayan Bay, and Tara Island, Mindoro Strait; Catbalogan, Samar; Malaga River, Port Dupon, and San Roque, Leyte; Cebu dock, Cebu Province; Port San Pio Quinto. Camiguin Island, Babuyan Islands; Caiholo River, Malatgo and Canina River, Nakoda Bay, and north end of Endeavor Strait, Palawan; Mahinog, Camiguin Island, off coast of Misamis Oriental Province, Mindanao; Capunuypugan, Generale Island, Surigao Province; Mati, Pujada Bay, Davao Province; Nonucan River, Camp Overton, Lanao Province; and Murcielagos Bay, Misamis Occidental Province, Mindanao. Also Kowloon docks, Hong Kong, China, China Sea, Amboina, and Sebatik Island, Borneo.

Priopis buruensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 18, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Aparri, Cagayan Province, Luzon. Herre, Philippine Jour. Sci., vol. 34, p. 296, 1927; Lake Bombon, Batangas Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Pasig River, Manila; Laguna de Bay, and Lake Bombon, Batangas Province, Luzon; Alabat Island; La Paz, Iloilo Province, Panay; Rio Grande, Cotabato, and Pulangi River at Fort Pikit, Cotabato Province, Mindanao.

872. *Ambassis commersoni* Cuvier and Valenciennes. Lañgaray; Bagsang. East coast of Africa to Siam and the Philippines, south to Australia; marine, and in fresh water.

Ambassis commersonii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 176, pl. 25, 1828; Bourbon; Pondicherry; Mahe; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 223, 1859; Port Essington, Australia. Day, Fishes India, p. 52, pl. 15, fig. 3, 1878. Boulenger, Cat. Fresh Water Fishes Africa, vol. 3, p. 112, fig. 85, 1915; Zanzibar, Rovuma River; Dar-es-Salaam, East Africa; Orilaky River, Madagascar.

Ambassis batjanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 196, 1855; in fresh water; Batjan. Günther, Cat. Fishes British Mus., vol. 1, p. 225, 1859; Amboyna. Bleeker, Atlas Ichth., vol. 8, p. 138, pl. 354, fig. 4, 1876-77; Singapore; Java; Bali; Celebes; Sumbawa; Rotti; Batjan; Burn; Amboina. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 11, 1885; Manila Bay, Luzon. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 296, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 161, 1930; Port San Pio Quinto, Camaguin Island, Babuyan Islands; from Luzon: Pucot River, Pagapas Bay, Batangas Province; west coast Palaui Island, Cagayan Province; Basut River, Camarines Norte Province; Maagnas and Nato River, Lagonoy Gulf, and the

Yana River, Lagonoy, Albay Gulf, Ragay Gulf, Tayabas Province, and the Duwaca River; Cabugo River, Catnadauanes Islands; Caluagan and Paluan Rivers, Paluan Bay, Mindoro; Bito Lake, Abuyog, Malaga River, and San Roque, Leyte; Yan River, Marinduque Island; Mahinog River, Camiguin Island, off north coast of Mindanao; Cotabato, Cotabato Province; Nonucan River, Camp Overton, Lanao Province, and Zamboanga canal and River, Zamboanga Province, Mindanao; Isabela, Basilan Island; Iwahig River and tributaries, Malinao River and Nakoda Bay, Palawan.

Ambassis Commersonii Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 719, 1870; Koseir, Red Sea. Bleeker, Atlas Ichth., vol. 8, p. 136, pl. 352, fig. 1 (not fig. 5 as in text), 1876-77; Philippines; Sumatra; Nias; Singapore; Java; Celebes; Amboina.

Priopis buruensis Fowler, Copeia, No. 58, p. 63; 1918; Philippines; not of Bleeker.

Ambassis safga Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Santa Maria and Vigan, Ilokos Sur Province, and San Fernando, La Union Province, Luzon; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 153, 1930; Duwaca River, Luzon; Bagaong River, Sablayan Bay, and Paluan River, Mindoro; Yom River, Marinduque; Malaga River, and San Roque, Leyte; Nonucan River, Camp Overton, Lanao Province, and Davao, Davao Province, Mindanao. Also Sandakan Bay and Sebatik Island, Borneo.

Ambassis commersoni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, 1929; 23 East Indian localities; Philippines; Red Sea and east coast of Africa, Madagascar, Mauritius, Seychelles, India, Siam, and North Australia. De Beaufort, Philippine Jour. Sci., vol. 49, p. 92, 1932; Buguey, Cagayan Province; Vigan, Ilokos Sur Province; Iba, Zambales Province; Lake Bombon (Taal), Batangas Province; Camarines Sur Province, Luzon; Baco River, Mindoro; San Jose de Buenavista, Antique Province, Panay; Agusan River, Rio Grande, Cotabato Province, Zamboanga, Zamboanga Province, and Davao, Davao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Lake Bombon, and Pansipit River, Batangas Province, Luzon; Rio Grande, Cotabato, Cotabato Province, Mindanao. Herre, Fishes 1936-37 Exped.; Manila Bay, Luzon; Pinang, Malaya.

873. *Ambassis gymnocephalus* (Lacépède).

East Indies and the Philippines to India and East Africa, north to China, south to Australia.

Lutjanus gymnocephalus Lacépède, Hist. Nat. Poissons, vol. 3, pl. 23, fig. 3, 1802. Lacépède, *ibid.*, vol. 4, p. 216, 1802; "Great Equinoxial Ocean"—Indo-Pacific.

Ambassis Dussumieri Quoy and Gaimard, Voy. *Astrolabe*, p. 650, pl. 1, fig. 3, 1826-1834; Amboina and Celebes. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 181, 1828; Malabar. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 503, 1830; Moluccas. Cuvier and Valenciennes, *ibid.*, vol. 9, p. 43, 1833; Mauritius and Seychelles. Günther, Cat. Fishes, British Mus., vol. 1, p. 225, 1859; China.

Ohanda dussumieri Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 988, 1850; Sea of Pinang.

Ambassis gymnocephalus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, p. 99, Révision *Ambassis*, 1874. Bleeker, Atlas Ichth., vol. 8, p. 138, pl. 352, fig. 3, 1876-77; Sumatra; Pinang; Singapore; Bintang; Banka; Java; Bali; Madura; Celebes; Timor; Batjan; Buru; Amboina. Day, Fishes India, p. 54, pl. 15, fig. 6, 1878; Cochin, Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Vigan, Ilokos Sur Province; Orani, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 412, 1929; 25 East Indian localities and the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 160, 1930; Cavite markets, Cavite Province; Malabon market, Rizal Province, Manila Bay, Luzon; Tacloban market, Leyte; Tara Island, Mindoro Strait; Palawan; Philippines. De Beaufort, Philippine Jour. Sci., vol. 49, p. 94, 1932; Malabon, Rizal Province; Tondo market, Manila; Lake Bombon, Batangas Province, and San Miguel Bay, Camarines Sur Province, Luzon; Catbalogan, Samar; Carigara, Leyte; Bantayan, Ban-

tayan Island, Cebu Province; Guimaras Strait; also Sandakan, British North Borneo, Amoy, and Hong Kong. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Capiz, Capiz Province, Panay. *Priopis gymnocephalus* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 780, 1905; Bais, Oriental Negros Province. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 274, 1910; Sandakan, British North Borneo; Philippines. Herre, Philippine Jour. Sci., vol. 34, p. 296, 1927; Lake Bombon, Batangas Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Oriental Negros Province.

874. *Ambassis interrupta* Bleeker.

East Indies and Philippines, north to China, Andaman Islands, south-east to New Caledonia; along sea coasts and entering rivers.

Ambassis interrupta Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 696, 1852; Wakai, Ceram; Batavia, Java. Peters, Monatsber. Akad. Wiss. Berlin, p. 255, 1868; Quingoa River at Calumpit, Bulacan Province, Luzon; Calbigan River, Samar. Bleeker, Atlas Ichth., vol. 8, p. 137, pl. 348, fig. 5, 1876-77; Luzon; Samar; Singapore; Java; Borneo; Celebes; Batjan; Buru; Ceram; Amboina. Day, Fishes India, p. 53, pl. 15, fig. 5, 1878; Andamans. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 412, 1929; Singapore; Engano; Batavia, Java; Banjermassin and Pontianak, Borneo; Makassar, Menado, and Gorontalo, Celebes; Batjan; Buru; Ceram; Amboina; Siko and the Sermowai River, New Guinea; also the Philippines, Andamans, and New Caledonia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 160, 1930; Markets, Cavite, Cavite Province; Port Matalvi, and Subic Bay, Zambales Province; Malabon market, Rizal Province; Pucot River, Mariveles, Bataan Province; Manila market; Laguna de Bay; Ragay River, Ragay Gulf, Tayabas Province; Pasacao, Refugio Island, Ragay Gulf, Camarines Sur Province; Nato River, Albay Province; Dumara River, Luzon; Estero, Sablayan, and Paluan River, Mindoro; Tayabas, Marinduque Island; Alimango River, Alimango Bay, Burias; river at Port Dupon, Leyte; near Buena Vista, Guimaras Island; Pangauran River, Busuanga; Chase Head, Malampaya River, Pancol, and Verde del Sur Island, Palawan; Malcochin Harbor, Linapacan Island; Camp Overton, Iligan Bay, Lanao Province, Mindanao; Jolo market, Jolo, Sulu Province; also Tawao River, near Sibuko Bay, British North Borneo. De Beaufort, Philippine Jour. Sci., vol. 49, p. 94, 1932; Agno River, Pangasinan Province; Subic Zambales Province; Guagua and Pilipit Creek, Pampanga Province; Orani and Pilar, Bataan Province; Malabon, Rizal Province; Pasig River, Bureau of Science fish pond, and Manila Markets, Manila; Cavite, Cavite Province; Balanak River, Laguna Province; Laguna de Bay; Pansipit River, Batangas Province; Arimbay River and Bigaa, Albay Province—the preceding all from Luzon; Bato River, Mindoro; Anajauan, Leyte; Agusan River, Agusan Province; Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Balabac Island; Malum River, TawiTawi, Sulu Province; also Hong Kong.

Priopis interruptus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 18, 1907; Cavite, Cavite Province, Luzon. Herre, 1931 Philippine Exped., p. 43, 1934; Pasig River, Manila, Luzon.

Priopis interrupta Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Mindoro; Cuyo, Cuyo Island, Sulu Sea.

875. *Ambassis kopsi* Bleeker.

East Indies and Philippines; along coasts and entering rivers.

Ambassis kopsii Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 253, 1858; Singapore. Peters, Monatsber. Akad. Wiss. Berlin, p. 255, 1868; Pulo Brani, Singapore.

Ambassis kopsi Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, 3 verz., vol. 2, No. 2, Révision *Ambassis*, p. 91, 1874. Bleeker, Atlas Ichth., vol. 8, p. 134, pl. 344, fig. 1, 1876-77; Singapore and Banka. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 18, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 274, 1910; Sandakan, British North Borneo; Philippines. Fowler, Proc. Acad. Nat. Sci., Manila, vol. 79, p. 275, 1927; Philippines. Weber and de Beaufort,

Fishes Indo-Australian Archipelago, vol. 5, p. 405, 1929; Singapore; Banka; Sandakan, British North Borneo; Kota Baru, and Balikpapan, Borneo; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 149, 1930; Manila market, Manila Harbor, and Manila Bay; Sangley Point, Cavite Province; Malabon market, Rizal Province; Basut River, Camarines Norte Province; Sorsogon market, Sorsogon Province, Luzon; Catbalogan, Samar; Iloilo market, Iloilo Province, Panay; Buena Vista, Guimaras Island; Malampaya River, Palawan; also Sandakan British North Borneo. De Beaufort, Philippine Jour. Sci., vol. 49, p. 92, 1932; Paombong, Bulacan Province; Orani, Bataan Province; Malabon, Rizal Province; Manila; and Cavite, Cavite Province, Luzon; Mangarin, Mindoro; Catbalogan, Samar; Estancia and Dumangas, Iloilo Province, Panay; Polo Plantation, Negros Oriental Province; Guinlo, Palawan; Balabac, Balabac Island; Buan Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Oriental Negros Province. Herre, 1931 Philippine Exped., p. 42, 1934; Pasig River, Manila; Culion; Dumaguete. Herre, 1936-37 and 1940-41 Expeds.; Manila Bay, Luzon; Kabil River, British North Borneo; Malabon, Rizal Province, Luzon; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay.

Ambassis ambassis Fowler, Copeia, No. 58, p. 63, 1918; Philippines.

876. *Ambassis miops* Günther.

Rarotonga to the Philippines and India; marine and entering rivers.

Ambassis miops Günther, Proc. Zool. Soc. London, p. 655, 1871; Rarotonga.

Weber and de Beaufort, Nova Caledonia, vol. 2, Part 1, p. 31, 1915; Outabatche River, Bonde, New Caledonia. Sundara Raj, Records Indian Mus., vol. 12, p. 279, 1916; Madras, India. Fowler, Mem. Bishop Mus., vol. 10, p. 166, 1928; Apia, Samoa. De Beaufort, Philippine Jour. Sci., vol. 49, p. 93, 1932; Bauang River, La Union Province; Cavite, Cavite Province; Lake Bombon and Pansipit River, Batangas Province; Arimbay River and Bigaa, Albay Province; Bacon, Sorsogon Province; Luzon. Baco, Lapog, and Bato Rivers, and Butas, Naujan River, Mindoro; Sibuyan Island; Polillo Island; Anajauan, Leyte; Dumaguete and Zamboanguita, Oriental Negros Province; Malampaya Sound, Palawan; Balabac, Balabac Island; Cagayan, Misamis Oriental Province, Rio Grande, Cotabato Province, Davao, Davao Province, and Zamboanga, Mindanao. Herre, Jour. Pan Pac. Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Alaminos, Pangasinan, Province and Lake Bombon, Batangas Province, Luzon; Tanjay River, Negros Oriental Province. Herre, 1933-34 and 1940-41 Expeds.; Malabon, Rizal Province, Manila Bay, and Nasugbu, Batangas Province, Luzon; Lake Naujan, Mindoro.

877. *Ambassis nalua* (Hamilton, [né Buchanan]).

India, the Philippines, and East Indies; in the sea and entering rivers.

Chanda nalua Hamilton [né Buchanan] Fishes Ganges, p. 107, pl. 6, fig. 36, 1822; fresh waters of lower Bengal.

Ambassis nalua Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 182, 1828. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 29, 1849; Malayo-Molukkan Archipelago. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 453, 1853; Batavia, Java. Bleeker, Atlas Ichth., vol. 8, p. 135, 1876-77; Manila Bay, Luzon. Day, Fishes India, p. 53, 1878; Malabar coast; Andamans. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 409, 1929; 24 East Indian localities and the Philippines. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Manila Bay, Luzon. Herre, Fishes from 1933-34, 1936-37, and 1940-41 Expeds.; Pansipit River, Calatagan, and Nasugbu, Batangas Province, and Malabon, Rizal Province, Luzon; Hacienda Waterous, Mindoro; Iloilo and Estancia, Iloilo Province, Panay; and Zamboanga, Zamboanga Province, Mindanao; also Pinang, Malaya.

878. *Ambassis urotaenia* Bleeker.

From the coast of Natal to the Philippines, East Indies, and in the Pacific to the Caroline Islands and Fiji; in the sea and entering rivers and lakes.

Ambassis urotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 257, 1852; Amboina; Wahai, Ceram. Playfair and Günther, Fishes Zanzibar,

- p. 18, 1866; fresh water; Seychelles. Bleeker, Atlas Ichth., vol. 8, p. 135, pl. 344, fig. 2, and pl. 351, fig. 1, 1876-77; Sumatra; Nias; Singapore; Banka; Celebes; Sangir; Ternate; Buru; Batjan; Ceram; Amboina. Day, Fishes India, p. 55, pl. 15, fig. 8, 1878; Andamans. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 75, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Calayan Island, Babuyan Islands, and Iloilo, Iloilo Province, Panay. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Santa Maria and Vigan, Ilokos Sur Province, San Fernando, La Union Province, and Bacon, Sorsogon Province, Luzon. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 296, Lake Bombon, Batangas Province, Luzon; pp. 300 and 303, Naujan River and Naujan Lake, Mindoro. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 404, 1929; 21 East Indian localities and the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 150, 1930; in part only; confused with *A. mitys* Günther, and separable only by reexamination of specimens. Numerous localities given in Luzon, Mindoro, Lubang, Camaguin Island, in the Babuyan Islands, and Camaguin Island, on the north coast of Misamis Province, Palawan, Mindanao, and Jolo. De Beaufort, Philippine Jour. Sci., vol. 49, p. 91, 1932; Vigan, Ilokos Sur Province; Batangas and Lake Bombon, Batangas Province; Arimbay River and Bigaa, Albay Province; Bacon and Bulan, Sorsogon Province, Luzon; Puerto Galera and Pinamalayan, Mindoro; Despujols, Tablas; Bantayan, Bantayan Islands, Cebu Province; Loay, Bohol; Lazi, Siquijor; Culion; Balabac; Agusan River and Placer, Agusan Province; Cagayan, Misamis Oriental Province; Zamboanga and Caldera Bay, Zamboanga Province; and Davao, Davao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 42, 1934; Bauang Sur, La Union Province; Lemery, Batangas Province, Luzon; Culion; Okoi River, and Mangutu Creek, Negros Oriental Province. Herre, 1936-37 and 1940-41 Expeds.; Balayan Bay, and Nasugbu, Batangas Province, Luzon; Kolambugan, Lanao Province, Mindanao.
- Priopsis urotaenia* Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 77, 1906; Rio Grande, Cotabato, Mindanao; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao.
- Priopsis lungi* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 18, fig. 6, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Zamboanga Province, Mindanao.
- Ambassis lungi* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 75, 1907; Bacon, Sorsogon Province, Luzon.

Family 115. CENTRARCHIDÆ. Sunfishes and black bass.

Native to the eastern United States.

Genus 322. HURO Cuvier and Valenciennes. Large mouth black bass. Rivers and lakes of eastern United States, from the Great Lakes to Florida, Texas, and Mexico, and west to the Dakotas, Nebraska and Kansas. Introduced into California.

Huro Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 125, 1825;
Huro nigricans Cuvier and Valenciennes=*Cichla floridana* Le Sueur.

879. Huro floridana (Le Sueur).

Introduced into the Philippines from California by Alvin Seale in 1908. *Cichla floridana* Le Sueur, Jour. Acad. Nat. Sci. Phila., vol. 2, p. 219, 1822; east Florida.

Huro nigricans Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 93, pl. 17, 1828; Lake Huron.

Micropterus salmoides of authors in general; not *Labrus salmoides* Lacépède.

Micropterus salmoides Seale, Philippine Jour. Sci., vol. 5, p. 153, 1910; Baguio, Mountain Province, Luzon. Herre, January 1926, and September 1940; naturalized in Taraka River, and Lake Lanao, Lanao Province, Mindanao.

Family 116. KUHLIIDÆ

The tropical and sub-tropical Indo-Pacific region.

Genus 323. *KUHLIA* Gill. Mountain bass.

In fresh and salt water, over most of the Indo-Pacific region.

Kuhlia Gill, Proc. Acad. Nat. Sci. Phila., vol. 13, p. 48, 1861; type *Perca ciliata* Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 268, 1929. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 199, 1927.

Moronopsis Gill, Proc. Acad. Nat. Sci., Phila., vol. 15, p. 82, 1863; type, *Dules marginatus* Cuvier and Valenciennes.

Paradules Bleeker, Ned. Tijds. Dierk., vol. 1, p. 257, 1863; type, *Dules rupestris* Cuvier and Valenciennes.

Herops de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 392, 1885; type, *Herops munda* de Vis.

Boulengerina Fowler, Proc. Acad. Nat. Sci. Phila., vol. 58, p. 512, 1907; type, *Dules mato* Lesson; not Dollo, 1886.

Safole Jordan, Proc. U. S. Nat. Mus., vol. 42, p. 655, 1912; orthotype, *Dules taeniurus* Cuvier and Valenciennes.

Dules Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 165, 1930.

880. *Kuhlia malo* (Cuvier and Valenciennes).

South Africa; Islands of the Indian and tropical Pacific oceans and Queensland.

Dules mato Lesson, Voy. *Coquille*, Zool., vol. 2, p. 223, 1830; Matavai River, Venus Point, Tahiti. Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, pl. 3, fig. 4, 1853.

Dules malo Cuvier and Valenciennes, Hist. Nat. Poissons. vol. 7, p. 479, 1831; Tahiti.

Dules leuciscus Jenyns, Zool. Voy. Beagle, Fishes, p. 17, 1842; Matuvui River, Tahiti.

Kuhlia malo Boulenger, Cat. Fishes, British Mus., ed. 2, vol. 1, p. 40, 1895; 9 localities from South Africa to Hawaii and Tahiti. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Zamboanga Province, Mindanao. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 280, pl. 2, fig. 2, 1911; Tipaerui River, Tahiti. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 202, 1927; Zamboanga, Mindanao.

881. *Kuhlia marginata* (Cuvier and Valenciennes). Damagan.

East Indies and the Philippines, north to Japan, east to the Carolines, southeast to Samoa and Tahiti.

Dules marginatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 116, pl. 52, 1829; Java. Cuvier and Valenciennes, *ibid.*, vol. 7, p. 474, 1831; Vanicolo. Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, p. 41, pl. 3, fig. 3, 1853; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 268, 1859; Java; Amboina; Fiji. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 169, 1930; not synonymy. Batangas market, Batangas Prov.; Pucot River and Mariveles Bay, Bataan Prov.; Basut River, Camarines Norte Province; stream at *Magnus*, and Yaua River, Albay Province; Dumaco River, Luzon; San Roque, Leyte; Nianauga River, Cebu. Joni River, Tayabas Island; Calugan River, near Paluan Bay, Mindoro; Iwahig, Malatgas, and Cannia River, near Puerto Princesa, and Malinao River, Palawan; Mahinog River, Camaguin Island, off north coast of Mindanao; Cascade River, Murcielagos Bay, Misamis Occidental Province, Nonucan River, Camp Overton, Lanao Province, and Zamboanga River, Zamboanga Province, Mindanao; Busbus Point, Siasi, Sulu Province.

Moronopsis ciliatus Bleeker, Arch. Neerl. Sci. Nat., vol. 7, p. 376, 1872; not of Cuvier and Valenciennes. Bleeker, Atlas Ichth., vol. 7, p. 120, pl. 316, fig. 1, and pl. 324, fig. 2, 1873-76; Java; Bali; Sumatra; Nias; Celebes; Batjan; Buru; Amboina; Ceram. Not *Perca ciliata* Cuvier and Valenciennes.

Kuhlia marginata Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 38, 1895; Java; Menado, Celebes; Amboyna; Misol; Shortland Islands and Treasury Island, Solomon Islands; Bonham Islands; Savail, Samoa; Fiji Islands; Tahiti. Ishikawa, Proc. Nat. Hist. Tokyo Mus.,

vol. 1, p. 9, pl. 3, fig. 1, 1904; Wakanoura, and Tojimgawa, Idzu, Japan. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Aparri, Cagayan Province, Luzon; Camp Balete, Baco River, Mindoro, Philippines. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 525, 1912; Mindoro, Philippines; Kotosho, Japan; Apia, Samoa. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 203, pl. 1, fig. 3, 1927; Bataan Province; Pansipit River, Batangas Province; Bigaa and Arimbay Rivers, Albay Province, Luzon; Pinamalayan, Mindoro; San Jose de Buenavista, Antique Province, Panay; Dumaguete, Negros Oriental Province; Lazi, Siquijor Island; Cagayan, Misamis Oriental Province; Kolambugan, and the spring at Malabang, Lanao Province, Davao, Davao Province, Saub River and the south coast of Cotabato Province, Mindanao; Gandasole River, Jolo; Malum River, TawiTawi, Sulu Province. Herre, Philippine Jour. Sci., vol. 34, 1927, p. 296; Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 271, fig. 72, 1929; 32 East Indian localities and the Philippines; pro parte. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Manila, Luzon; Concepcion, Busuanga; Zamboanga Province, Mindanao. Herre, Expeds. from 1931 to 1941; stream near Baler, Tayabas Province, and Baco River, Camarines Sur Province Luzon; Dumaguete and Okoi River, Negros Oriental Province; Cagayan River, Misamis Oriental Province; and creek at San Ramon, Zamboanga Province, Mindanao.

882. *Kuhlia rupestris* (Lacépède).

Kalabiñgat; Rock kuhlia; Rock mountain bass.

From East Africa across the Indo-Pacific to the Carolines and the Tuamotus. In rivers and lakes.

Centropomus rupestris Lacépède, Hist. Nat. Poissons, vol. 4, pp. 252, 273, 1802; Réunion.

Dules fuscus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 52, 1828; Bourbon.

Dules rupestris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 119, 1829; vol. 7, p. 477, 1831; Bourbon and Mauritius. Günther, Cat. Fishes British Mus., vol. 1, p. 268, 1859; Fiji; Ovalau; Amboina; Mauritius. Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Basey River, Samar; Burauen River, Leyte. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 166, 1930; Pucot River, Mariveles Bay, Bataan Province, stream at Maagnas, Lagonoy Gulf, and Yaua River, Legaspi, Albay Province, Luzon. Calugan River near Paluan Bay, Mindoro; Bito River, Abuyog, Malaga River, Hinunangan Bay, and stream at San Roque, Leyte; Capitancillo Island, off northern Cebu; Iwahig, Malatgas, and Cannia Rivers, near Puerto Princesa, and Malinao River, Palawan; Isabela River, Basilan.

Dules guamensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 474, 1831; Guam. Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, p. 42, pl. 3, fig. 1, 1853; Guam.

Dules vanicolensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 478, 1831; Vanicolo. Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, p. 42, pl. 3, fig. 2, 1853; Vanicolo.

Moronopsis rupestris Bleeker, Atlas Ichth., vol. 7, p. 121, pl. 339, fig. 2, 1873-76; Timor, Batjan, Buru, Amboina.

Dules marginatus Day, Fishes India, p. 67, pl. 18, fig. 1, 1878; not of Cuvier and Valenciennes.

Dules haswelli Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 350, 1880; Queensland.

Kuhlia rupestris Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 36, 1895; Zanzibar; Mauritius; Rodriguez; Pelew Islands; Ponape; Amboina; Solomons; New Hebrides; Fiji; Tonga. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Mindoro. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 205, pl. 1, fig. 2, 1927; Abulug, Cagayan Province; Kiangnan Ifugao sub-Province; Bataan Province; Pansipit River, Batangas Province; Pawis River, Legaspi, Albay Province, Luzon; Nauhan River, Mindoro; Anajawan and Cabalian, Leyte; Ulot River, Samar; Dumaguete, Negros Oriental Province; Concepcion, Busuanga; Cullion; Titunod River,

Kolambugan, Lanao Province, Mindanao; Balabac Island; Bangtoli, Gandasole, and Tagbili Rivers, and Asturias, Jolo Island; Tawi-Tawi Island; Sulu Province. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 297, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Concepcion, Busuanga; Okoi River, near Dumaguete, Negros Oriental Province.

883. *Kuhlia taeniura* (Cuvier and Valenciennes).

From the east coast of Africa through the Indo-Pacific to the Galapagos and islands off the coast of Mexico. On coral reefs and in brackish and fresh water.

Dules taeniurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 114, 1829; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 267, 1859; Chinese and Javanese seas. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 172, 1930; Port Ciego, Balabac; Silino Island, off northwest coast of Zamboanga Province, Mindanao.

Perca argentea Bennett, Fishes of Ceylon, pl. 22, 1830; Fort Point de Galle, Ceylon (not of Linnaeus).

Dules bennetti Bleeker, Verh. Bat. Gen., vol. 25, 1853; Ichth. fauna Japan, p. 32; on Bennett.

Doules taeniurus Guichenot, Notes Ile Réunion, vol. 2, p. 24, 1862.

Dules argenteus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 730, 1870; Red Sea. Günther, Fische der Südsee, vol. 1, pl. 19, fig. C, 1874; Tahiti and Gilbert (Kingsmill) Islands. Day, Fishes India, p. 65, pl. 18, fig. 2, 1878; Andamans.

Moronopsis taeniurus Bleeker, Atlas Ichth., vol. 7, p. 119, 1873-76; Java; Sumatra; Burnu. Bleeker, *ibid.*, vol. 8, pl. 345, fig. 5, 1876-77.

Kuhlia arge Jordan and Bollman, Proc. U. S. Nat. Mus., vol. 12, p. 159, 1889; Chatham Island, Galapagos.

Kuhlia taeniura Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 39, 1895; Socotra; Zanzibar; Port Natal; Seychelles; Mauritius; Laccadives; China; Tahiti. Boulenger, Cat. Fresh-Water Fishes Africa, vol. 3, p. 95, 1915; South Africa and Port Natal. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 200, pl. 1, fig. 1, 1927; Guam; Tanegashima Island, Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 171, 1928; Marcus Island; Faté, New Hebrides; Apia, Samoa; Johnston Island; Marshall Islands; Gilbert Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 273, 1929; Benkulen, Sumatra; Pagotang, Karagbollong, and Bantam, Java; Sumaba; Buru; Sangir Islands. Herre, Field Mus. Nat. Zool. Ser. Hist., vol. 21, p. 146, 1936; Maraa, Tahiti; Cocos Island, off Central America.

Kuhlia Sternecki Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 107, p. 461, 1898; Gulf of Alsabah.

Boulengerina taeniura Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 522, 1911; Tanegashima and Misaki, Japan; Okinawa; Samoa; Lord Howe Island; off western Mexico.

Safote taeniura Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 497, 1912; Okinawa.

Family 117. SERRANIDAE

Used here in a wide sense to include all Sea-basses. In all warm seas. some in fresh water.

Genus 324. *LATES* Cuvier and Valenciennes.

From the Nile, the Niger, and rivers of Senegal, to India, south China, and north Australia.

Lates Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 88, 1828; type, *Perca nilotica* Gmelin. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 395, 1929. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 177, 1930.

Pseudolates Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 262, 1877; type, *Pseudolates cavifrons* Alleyne and Macleay.

884. *Lates calcarifer* (Bloch). Apahap; Bolgan; Katoyot; Matakating; Kakab; Tapog; Sea-bass; White sea-bass; Silver sea perch. Shallow coasts and river mouths; south Arabia, India, Burma, East Indies, Philippines, China, Japan (?), and Australia.

- Holocentrus calcarifer* Bloch, Naturges. Ausländ. Fische, vol. 4, p. 106, pl. 244; 1790; Japan (?).
- Holocentrus heptadactylus* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 344, and 389, 1802.
- Coius vacti* Hamilton [né Buchanan], Fishes Ganges, pp. 86 and 369, pl. 16, fig. 28, 1822; all mouths of Ganges River.
- Lates nobilis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 96, pl. 13, 1828; Pondicherry, India.
- Lates calcarifer* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 100, 1828; on Bloch. Richardson, Ichth. China, Japan, p. 222, 1846; Canton, China. Günther, Cat. Fishes British Mus., vol. 1, p. 68, 1859; India; Ganges; China. Day, Fishes India, p. 7, pl. 1, fig. 1, 1878. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 363, 1895; west coast India; Madras; Ganges River; Burma; China; Amoy; Malay Peninsula; Baram River, Sarawak, Borneo; Fitzroy River, Queensland. Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 517, 1908; Philippines. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 275, 1910; Sandakan, British North Borneo; Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Philippines; San Fernando, La Union Province, and Orani and Orion, Bataan Province; Luzon. Herre, Philippine Jour. Sci., vol. 34, p. 303, 1927; Lake Naujan, Mindoro. Herre, Philippine Jour. Sci., vol. 38, p. 494, 1929; bangos ponds about Manila Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 396, fig. 96, 1929; 23 East Indian localities; also the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 177, 1930; Aparri market, Cagayan Province, Luzon; Macassar, Celebes. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933, p. 4; Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Umali, Edible Fishes Manila, p. 134, fig. 97, 1936; fish ponds, Pampanga and Bataan Provinces, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, pp. 216, and 217, 1937; Balayan Bay and Pansipit River, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao. Herre, various expeds., 1926-1941; Manila market, bangos ponds and Rio Grande, Pampanga Province; Cagayan River, Cagayan and Isabela Provinces; Malabon, Rizal Province; Ilokos Sur Province, Luzon; Agusan River, Agusan Province, and Rio Grande, Cotabato Province, Mindanao.
- Lates heptadactylus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 983, 1850; Pinang Sea; Malay Peninsula; Singapore.
- Plectropoma calcarifer* Bleeker, Atlas Ichth., vol. 7, p. 109, 1873-76; Java; Madura; Singapore; Banka; Borneo; Celebes; vol. 8, pl. 322, fig. 3, 1876-77.
- Pseudolates cavifrons* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 262, pl. 3, 1877; Torres Straits or coast of New Guinea.
- Lates darwiniensis* Macleay, Proc. Linn. Soc. New South Wales, vol. 2, p. 345, 1878; Port Darwin, Australia.
- Plectropomus calcarifer* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 19, 1907; Cavite, Cavite Province, Luzon.
- Plectropoma calcariferum* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 78, 1907; Zamboanga, Zamboanga Province, Mindanao. 1844; type, *Psammoperca datnioides* Richardson=*Labrax waigiensis* Cuvier and Valenciennes.
- Genus 325. PSAMMOPERCA** Richardson.
- Coastal fishes from the Bay of Bengal to China and the Philippines, south to North Australia.
- Psammoperca* Richardson, Zool. Voy. *Erebus* and *Terror*, Ichth., p. 115, 1844; type, *Psammoperca datnioides* Richardson=*Labrax waigiensis* Cuvier and Valenciennes.
- Cnidon* Müller and Troschel, Horae Ichth., vol. 1, p. 21, 1845; orthotype, *Cnidon chinensis* Müller and Troschel=*Labrax waigiensis* Cuvier and Valenciennes.
- Hypopterus* Gill, Proc. Acad. Nat. Sci. Phila., p. 50, 1861; type, *Psammoperca macroptera* Günther.

885. *Psammoperca waigiensis* (Cuvier and Valenciennes). Apahap; Waigiu sand perch.

East Indies and Philippines, north to Japan, south to Australia, west to India and Ceylon.

Labrax waigiensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 83, 1828; Waigiu. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 237, 1830; Offack Bay, Waigiu.

Psammoperca datnoides Richardson, Zool. Voy. *Erebus and Terror*, Ichth., p. 116, pl. 57, figs. 1 and 2, 1844; Australia.

Cnidon chinensis Müller and Troschel, Horae Ichth., vol. 3, p. 21, 1849; Manila, Luzon. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 8, 1885; Manila Bay, Luzon; Cebu, Cebu; North Celebes.

Psammoperca waigiensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 177, 1853; Banka. Günther, Cat. Fishes British Mus., vol. 1, p. 69, 1859; Victoria, Australia; China. Kner, Reise *Novara*, Fische, vol. 1, p. 13, 1865; Manila, Luzon; Hong Kong. Günther, Ann. Mag. Nat. Hist. London, ser. 4, vol. 10, p. 426, 1872; Manila, Luzon; China; Torres Straits; New South Wales and Victoria, Australia. Bleeker, Atlas Ichth., vol. 7, p. 108, pl. 306, fig. 2, 1873-76; Singapore; Bintang; Banka; Java; Madura; Borneo; Celebes; Waigiu; Manila. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 78, 1907; Bulan, Sorsogon Province, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 274, 1910; Sandakan, British North Borneo; Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 394, fig. 95, 1929; 14 East Indian localities; and the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 179, 1930; Limbones Cove, Manila Bay, Cavite Province; Port Hamilo, Batangas Province, Luzon; Port San Pio Quinto, Camaguin Island, Babuyan Islands; San Miguel Harbor, Ticao Island; Siasi Island, Simaluc, and Sibi Sibi Island, Sulu Province; Malcochin Harbor, Lingapacan Island; Nonucan River, Camp Overton, Lanao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Manila, Luzon; Cullion; Sitankai, Sulu Province.

Psammoperca vaigiensis Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 365, 1895; Cebu, Philippines; also Victoria River, Australia; Hammond Island, Torres Straits; Borneo; China Sea; Singapore; Madras coast; Ceylon.

Genus 326. MALAKICHTHYS Döderlein.

Japan, China, Formosa, and the Philippines.

Malakichthys Döderlein, in Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 240, 1883; type, *Malakichthys griseus* Döderlein. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 425, 1910. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 187, 1930.

Satsuma Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 472, 1906.

886. *Malakichthys griseus* Döderlein.

Malakichthys griseus Döderlein, in Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 240, 1883; vol. 48, pl. 2, figs. 1-1a, 1884; Tokyo. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 425, fig. 1, 1910; Yodomi, Misaki, and Odawara, Sagami Bay; Kagoshima. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 187, 1930; off San Fernando Point Light, La Union Province; off Corregidor Light, China Sea; off Malabrigo Light, Batangas Province, Luzon; off Talajit Island, between Samar and Masbate; off Capitancillo Island Light, northeast coast of Cebu; Balanja Point, off southeastern Mindoro; Point Tagolo Light, off northwestern coast Zamboanga Province; Macabalan Point Light, Misamis Oriental Province, Mindanao; off Cape Melville Light, Balabac Strait; Noble Point, Tulayan Island, and Mount Dromedario, north of TawiTawi, Sulu Province. Also China Sea near Formosa and vicinity of Hong Kong.

Genus 327. NIPHON Cuvier and Valenciennes.

One species; Japan and the Philippines.

Nippon Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 131, 1828; type, *Nippon spinosus* Cuvier and Valenciennes. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 431, 1910. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 191, 1930.

887. *Nippon spinosus* Cuvier and Valenciennes.

Nippon spinosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 131, pl. 19, 1828; Japan. Schlegel, Fauna Japonica, Pisces, pl. 1, p. 1, figs. 1-2, 1842; Nagasaki; coasts of the southern provinces. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 124, 1895; Yokohama. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Cuyo, Cuyo Islands; Sulu Sea. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 431, 1910; Misaki, Japan; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 192, 1930; Japan and the Philippines.

Genus 328. DIPLOPRION Cuvier and Valenciennes.

East Indies and Philippines to China and Japan; a single species.

Diploprion Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 137, 1828; type, *Diploprion bifasciatum* (Kuhl and van Hasselt) Cuvier and Valenciennes. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 183, 1930.

888. *Diploprion bifasciatum* (Kuhl and van Hasselt) Cuvier and Valenciennes.
East Indies, Philippines, China, Japan, India, Ceylon, and Australia; marine.

Diploprion bifasciatum (Kuhl and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 137, pl. 21, 1828; Java. Schlegel, Fauna Japonica, Pisces, p. 2, pl. 2A, 1842; Simabara Bay, Nagasaki. Richardson, Ichth. China Japan, p. 221, 1846; China. Günther, Cat. Fishes British Mus., vol. 1, p. 174, 1859; China; Hong Kong; Japan; Molucca Islands; India. Bleeker, Atlas Ichth., vol. 7, p. 71, 1873-76; Batú; Singapore; Bintang; Java; Celebes; Buru; Amboina; Timor. vol. 8, pl. 346, fig. 3, 1876-77. Day, Fishes India, p. 28, pl. 9, fig. 2, 1878. Macleay, Descript. Cat. Australian Fishes, vol. 1, p. 26, 1881; Queensland. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 183, 1930; Palau Island, Cagayan Prov., Maculabo Island, Camarines Norte Province, and Alibijaban Island, Ragay Gulf, Tayabas Province, Luzon; Mansalay, Mindoro; Gigoso Point, Samar; Lampinigan Island, Zamboanga Province, Mindanao; Jolo, Sulu Province. Also Celebes, Halmahera (Gilolo) and Kokuku, Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 9, fig. 3, 1931; Singapore; Batu; Bintang, Riouw Archipelago; Batavia, Java; Postillon Islands; Macassar, Celebes; Buru; Timor; Amboina; Ternate. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Cullion; Jolo, Sulu Province.

Genus 329. CHORISTISTIUM Gill.

West Indies and tropical Pacific.

Chorististium Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 15, 1862; orthotype, *Liopropoma rubra* Poey. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 185, 1930.

889. *Chorististium susumi* Jordan and Seale.

Samoa and the Philippines; marine.

Chorististium susumi Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 256, fig. 48, 1907; Apia, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 185, 1930; Pauluan Bay, Mindoro; Baganga Bay, Davao Province, Mindanao.

Chorististium swalesi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 186, 1930; on the coast of Celebes, probably occurs in the southern Philippines.

Genus 330. CENTROGENYS Richardson.

East Indies, Philippines, north to the RiuKiu Islands, south to Australia, west to India.

Centrogenys Richardson, Ann. Mag. Nat. Hist., vol. 9, p. 120, 1842; type, *Centropristis scorpaenoides* Cuvier. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 146, 1895. Fowler and Bean, Bull. 100, U. S. Nat.

- Mus., vol. 10, p. 193, 1930, Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 87, 1931.
- Myriodon* Barneville, Revue Zoologique, p. 133, 1847; type, *Scorpaena vaiigiensis* Quoy and Gaimard.
- Gennadius* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; type, *Sebastes stoliczkae* Day.
- Rhabdosebastes* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 60, 1922; type, *Sebastes stoliczkae* Day.
- 890. Centrogenys vaiigiensis** (Quoy and Gaimard).
Distribution that of the genus.
Scorpaena vaiigiensis Quoy and Gaimard, Voy. Uranie, Zoologie, p. 324, pl. 58, fig. 1, 1824; Waigiü.
Myriodon scorpaenoides Barneville, Revue Zoologique, p. 130, 1847.
Myriodon vaiigiensis Günther, Cat. Fishes, British Mus., vol. 1, p. 175, 1859; Port Essington and Freycinet's Harbor, Australia. Bleeker, Atlas Ichth., vol. 7, pl. 297, fig. 1, 1873-76; East Indies. Meyer, An. Soc. Espana Hist. Nat. Madrid. vol. 14, p. 10, 1885; Cebu, Cebu Province.
Centrogenys waigiensis Bleeker, Atlas Ichth., vol. 7, p. 68, 1873-76; Java; Singapore; Bintang; Banka; Bawean; Celebes; Amboina; Timor; Waigiü.
Sebastes stoliczkae Day, Fishes India, p. 148, pl. 36, fig. 1, 1878; Nicobars.
Centrogenys vaiigiensis Boulenger, Cat. Fishes, British Mus., ed. 2, vol. 1, p. 147, 1895; Cebu, Philippines; Singapore; Torres Straits; Australia. Jordan and Richardson, Bull. U. S. Fisheries, vol. 27, p. 256, 1908; Cuyo, Cuyo Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 193, 1930; Port San Vicente, Cagayan Province, and Ligo Point, Balayan Bay, Batangas Province, Luzon; Cebu market, Cebu; Iloilo market, Iloilo Province, Panay. Herre, Philippine Bureau Science Collection, 1922-1930; Manila market, Luzon; Calapan, Mindoro; Estancia, Panay; Zamboanga, Zamboanga Province, Mindanao; Jolo, Tubigan, Bongao, and Sibu, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 87, fig. 11, 1931; 18 East Indian localities; Cebu and Panay, Philippines. Herre, Jour. Pan Pacific Research Institute, vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete. Negros Oriental Province. Herre, Fishes 1931 Phil. Exped., p. 43, 1934; Culion; Cebu, Cebu Province.
Gennadius stoliczkae Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Panay Island, Philippines.
Rhabdosebastes stoliczkae Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 60, 1922; Cebu, Cebu Province.
- Genus 331. VARIOLA** Swainson.
One species of the tropical Indo-Pacific.
Louti Forskål, Descript. Animal., p. 44, 1775; type, *Perca louti* Forskål; inadmissible.
Variola Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 202, 1839; type, *Variola longipinna* Swainson. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 203, 1930. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 11, 1931.
Pseudoserranus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 687, 1870; type, *Perca louti* Forskål.
- 891. Variola louti** (Forskål).
From the Red Sea and Madagascar to the Philippines, Okinawa and the Caroline, Society, and Tuamotu Islands.
Perca louti Forskål, Descript. Animal., p. 40, 1775; Djedda and Lohaja, Red Sea.
Bodianus louti Suckow, Naturgeschichte der There, Fische, vol. 4, p. 517, 1799; Red Sea.
Labrus punctulatus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 431 and 477, pl. 17, fig. 2, 1802; "the Great Ocean."
Serranus punctulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 367, 1828; Moluccas; Waigiü; Ceylon. Quoy and Gaimard, Voy. Astrolabe, Zool., vol. 3, p. 654, pl. 3, fig. 2, 1834; New Ireland.
Serranus luti Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 363, 1828; Red Sea.
Serranus flavimarginatus Rüppell, Atlas Reise Nordl. Afrika, Fische Rothen Meeres, p. 109, 1828; near Möbila.

Serranus louti Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 106, pl. 26, fig. 2, 1828; Mohila. Günther, Cat. Fishes British Mus., vol. 1, p. 101, 1859; Copang, Timor; Mauritius; Red Sea; Amboina. Günther, Fische der Südsee, vol. 1, p. 2, pl. 1, 1873; Red Sea; East Africa; Indian Ocean; New Hebrides; Society Islands; Tuamotus.

Pseudoserranus louti Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 687, 1870; Red Sea.

Variola louti Bleeker, Atlas Ichth., vol. 7, p. 24, 1873-76; Sumatra; Java; Celebes; Timor; Ternate; Batjan; Amboina; Waigi; New Guinea; vol. 8, pl. 288, fig. 3, 1876-77. Day, Fishes India, p. 26, pl. 7, fig. 3, 1878. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 257, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 256, 1908; Calayan, Babuyan Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 497, 1912; Okinawa, Riu Kiu Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 198, 1913; Sanguisiapo, and Sulu, Sulu Archipelago, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 173, pl. 14, fig. B, 1928; Faté, New Hebrides; Fanning Island; Palmyra; Wake Island; Christmas Island; Society Islands; Apia; Apiang, Gilbert Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 203, 1930; Maricaban Island and north-west Verde Island, in Verde Island Passage, off south coast of Batangas Province; near Palag Bay, Camarines Sur Province, Luzon; Romblon; Malhon Island, between Samar and Leyte; Tulnalutan Island, east of Zamboanga, Zamboanga market, Zamboanga Province, and Opol, Mindanao; Doc Can Island and Tara Island, near Siasi, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 12, fig. 4, 1931; Sumatra; Java; Celebes; Sulu Islands, Philippines; Talaut Islands; Ternate; Batjan; Amboina; Banda; Timor; Damar; Waigi; New Guinea. Herre, Bureau Science Collection; Tubbataha Reef and Cagayan Islands; Sulu Sea; Comiran Island, near Balabac; Zamboanga and Jolo markets; Baco Islands, Verde Island Passage, off north coast of Mindoro.

Variola flavimarginata Bleeker, Atlas Ichth., vol. 7, p. 23, 1873-76; Amboina. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 257, fig. 49, 1906; Apia, Samoa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 492, 1912; Okinawa.

Pseudoserranus louti var. *flavimarginata* Klunzinger, Fische Rothen Meeres, p. 7, 1884.

Epincphelus louti Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 173, 1895; Red Sea; Zanzibar; Seychelles; Mauritius; Mascarenes; Manado; Amboyna; Timor; Aneiteum; New Hebrides; Samoa; Marshall Islands.

Variola louti var. *flavimarginata* Weber, *Siboga*-Exped., vol. 57, Fische, p. 198, 1913; Banda.

Genus 332. CEPHALOPHOLIS Bloch and Schneider.

Tropical seas.

Cephalopholis Bloch and Schneider, Syst. Ichth., p. 311, 1801; type, *Cephalopholis argus* Bloch and Schneider. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 235, 1930.

Uriphaeton Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 202, 1839; type, *Serranus phaeton* Cuvier and Valenciennes=*Uriphaeton microleptes* Swainson.

Enneacentrus Gill, Proc. Acad. Nat. Sci. Phila., vol. 17, p. 105, 1865; type, *Serranus outalibi* Cuvier and Valenciennes=*Labrus fulvus* L.

Phaethonichthys Bleeker, Arch. Neerl. Sci. Nat., vol. 11, Systema Percarum revisum, p. 256, 1876; type, *Serranus phaeton* Cuvier and Valenciennes.

Aethaloperca Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 522, 1904; type, *Perca rogaa* Forskål.

892. *Cephalopholis albomarginatus* Fowler and Bean.

The Philippines and East Indies.

Cephalopholis albomarginatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 235, fig. 11, 1930; Port Maricaban, Verde Island Passage, off south coast Batangas Province, Luzon. Sablayan Bay, Mindoro. Also various localities on the coasts of Borneo, Celebes, Gilolo, Makyan, and Ternate, Dutch East Indies.

893. *Cephalopholis argus* (Bloch and Schneider). Peacock lapo-lapo; Turnutulin; Blue-spotted grouper. The tropical Indo-Pacific.
- Bodianus guttatus* Bloch, Naturges. Ausländ. Fische, vol. 4, p. 36, pl. 224, 1790; not of Linnaeus.
- Cephalopholis argus* Bloch and Schneider, Syst. Ichth., p. 311, pl. 61, 1801; East Indies. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 221, fig. 88, 1903; Hawaii. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 258, 1906; Reefs of Samoa; Pago-Pago. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 256, 1908; Cagayanillo, Cagayan Islands, Sulu Sea. Fowler, Mem. Bishop Mus., vol. 10, p. 174, pl. 14, fig. C, 1928; 21 localities in Polynesia, Melanesia, and Micronesia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 226, 1930; Palau Island, Cagayan Province; Alibijaban Bay, Ragay Gulf, Tayabas Province; Canimo Island, near Daet, Camarines Norte Province; Port Maricaban, Verde Island Passage, south of Batangas Province, and Masinloc Bay, Zambales Province, Luzon; Agojo Point, Catanduanes Island; Paluan Bay and Sablayan, Mindoro; Port Banalacan, Marinduque; Port Palapag, north coast of Samar; Camaguin Island, off coast of Misamis Oriental Province, Inamucan Bay, Misamis Occidental Province, Zamboanga market, Silino Island, Little Santa Cruz Island, and Tulnalutan Island, Zamboanga Province, Mindanao; Pilas Island, Tapanan Island, Usada Island and Tataan Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Punta Flecha, Zamboanga Province, Mindanao; Jolo, Sulu Province.
- Serranus argus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 369, 1828.
- Serranus myriaster* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 365, 1828; BoraBora, Society Islands, and Hawaiian Islands. Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 107, pl. 27, fig. 1, 1828; Red Sea. Lesson, Voy. Coquille, Zool., vol. 2, p. 234, pl. 37, 1830; BoraBora. Quoy and Gaimard, Voy. Astrolabe, Zool., vol. 3, p. 653, pl. 3, fig. 1, 1834; New Guinea.
- Cromileptes myriaster* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 201, 1839; on Rüppell, pl. 27, fig. 1.
- Serranus guttatus* Peters, Archiv. Naturges., p. 235, 1855; Mozambique. Günther, Cat. Fishes British Mus., vol. 1, p. 119, 1859; Isle de France; Ceylon; Borneo. Günther, Fische der Südsee, vol. 1, p. 5, pl. 4, 1873-75; Red Sea; East Africa; North Australia; Polynesia. Day, Fishes India, p. 24, pl. 6, fig. 3, 1878.
- Serranus immunerur* Tholliere, Fauna Woodlark, p. 144, 1857; Woodlark Island.
- Serranus guttatus* var. *argus* Günther, Fische der Südsee, vol. 1, p. 5, pl. 4, figs. A-B, 1873.
- Epinephelus argus* Bleeker, Atlas Ichth., vol. 7, p. 43, 1873-76; 15 East Indian localities. Bleeker, *ibid.*, vol. 8, pl. 342, fig. 3, 1876-77. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 189, 1895; Zanzibar; Seychelles; Mauritius; Ceylon; Andamans; Borneo; Ceram; Duke of York Island; Savay; Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 28, 1931; Philippines; Sangir Islands; Singapore; Batlo Islands; Nias; Sumatra; Java; Lombok; Borneo; Celebes; Ternate; Buru; Ceram; Amboina; Batjan; Goram; Timor; Waigi; New Guinea.
- Serranus perguttatus* de Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 445, 1883; New Hebrides.
- Serranus thyrstites* Kent, Great Barrier Reef, p. 369, 1893; Queensland.
- Cephalopholis stigmatopomus* Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 517, 1908; Zamboanga market, Zamboanga Prov., Mindanao.
894. *Cephalopholis aurantius* (Cuvier and Valenciennes). Tropical Indo-Pacific, from Madagascar to Tahiti.
- Serranus aurantius* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 305, 1828; Seychelles.
- Serranus analis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 307, 1828; New Ireland.
- Serranus rufus* Hombron and Jacquinot, Voy. Astrolabe, Zool., vol. 3, p. 35, pl. 1, fig. 4, 1853.

Epinephelus analis Bleeker, Atlas Ichth., vol. 7, p. 38, 1873-76; Sumatra; Celebes. Bleeker, *ibid.*, vol. 8, pl. 329, fig. 5, 1876-77.

Epinephelus aurantius Bleeker, Atlas Ichth., vol. 7, p. 37, pl. 20, fig. 3, 1873-76; Sumatra; Ternate; Batjan; New Guinea. Sauvage, in Grandidier Hist. Phys. Nat. Madagascar, Poissons, p. 60, pl. 9, fig. 5, 1891. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 193, 1895; North Celebes; Louisiades. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 32, 1931; Sumatra; Java; Celebes; Ternate; Batjan; Banda; New Guinea.

Bodianus indelebis Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 521, pl. 17, lower figure, 1904; Padang, Sumatra.

Cephalopholis aurantius Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 258, 1906. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 208, 1930; Padang, Sumatra.

Cephalopholis obtusauris Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 22, p. 77, fig. 12, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga market, Zamboanga Province, Mindanao.

895. *Cephalopholis boenack* (Bloch).

East coast of Africa to southern Japan and North Australia.

Bodianus boenack Bloch, Naturges. Ausländ. Fische, vol. 4, p. 43, pl. 226, 1790; Japan.

Perca fusca Thunberg, Vet. Akad. Handlingar, vol. 14, p. 297, pl. 9, lower figure, 1793.

Sciaena formosa Shaw, Naturalist's Miscellany, vol. 23, pl. 107, 1789-1813.

Serranus formosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 311, 1828; Coromandel; Pondicherry; Goa. Richardson, Ichth. China, Japan, p. 233, 1846; Canton. Günther, Cat. Fishes British Mus., vol. 1, p. 154, 1859; China, Mauritius.

Serranus boelang Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 308, 1828; Seas of the Indies. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 504, 1830; Ceylon, Sunda Straits, New Guinea. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 2, p. 657, pl. 3, fig. 4, 1834; Sunda Straits.

Serranus spiloparaeus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 338, 1828.

Serranus boenack Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 362, 1828; Japan; Moluccas. Günther, Cat. Fishes British Mus., vol. 1, p. 112, 1859; Amboina. Day, Fishes India, p. 23, pl. 6, fig. 1, 1878; Waltair; Mauritius.

Serranus stigmatopomus Richardson, Ichth. China, Japan, p. 232, 1846; Canton; northwest coast Australia.

Serranus nigrofasciatus Hombron and Jacquinot, Voy. *Astrolabe*, Zool., vol. 3, p. 36, pl. 2, fig. 1, 1853.

Serranus micropirion Günther, Cat. Fishes British Mus., vol. 1, p. 116, 1859; Amboina; China; *pro parte*.

Epinephelus boenack Bleeker, Ned. Tids. Dierk., vol. 2, p. 277, 1865; Amboina. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 180; 1895; Zanzibar; Madras; Vizagapatam; China; Shanghai; Formosa; Malay Archipelago; Java; Amboina; Sarawak, Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 20, fig. 6, 1931; 27 East Indian localities and the Philippines.

Epinephelus formosus Bleeker, Atlas Ichth., vol. 7, p. 44, 1873-76; Java; Sumatra; Singapore; Borneo; Celebes. Bleeker, *ibid.*, vol. 8, pl. 340, fig. 3, 1876-77.

Serranus stigmatopoma Kent, Great Barrier Reef, p. 369, 1893; Queensland.

Petrometopon formosus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 521, 1904; Padang, Sumatra.

Cephalopholis boenack Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 77, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 230, fig. 10, 1930; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Manila market; Pagapas Bay, Batangas Province; Butauanan Island and Masamat Bay, Kinalasag Island, off Pacific coast, and Saboon Island, Gulf of Ragay coast, Camarines Sur Province; Capulaan Bay, Pagbilao,

Tayabas Province; Canmahala Bay, Ragay Gulf, Luzon; Puerto Galera, Mindoro; Santa Cruz Island, coast of Marinduque; Busin Harbor, Burias; Cataingan Bay, Masbate; Nabatas Point and Catbalogan, Samar; San Juanico Strait, and San Roque, Leyte; Cebu market, Cebu; Malapascua Island, north of Cebu; Makesi Island and Endeavor Strait, Palawan; Tutu Bay, Jolo Island, and Tataan Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Manila. Herre, various collections: Cebu; Bennet Island, off Masbate; Dapitan, Zamboanga Province, Mindanao; Linapacan Island, Palawan Province; Tonkil Island, Sulu Province. *Cephalopholis stigmatopus* Jordan and Seale, Bull. U. S. Bur. Fisheries vol. 26, p. 19, 1907; Manila, Luzon. *Petrometopon boenack*, Jordan, Tanaka, and Snyder, Jour. College Sci., Univ., Tokyo, vol. 33, p. 152, 1913.

896. *Cephalopholis cyanostigma* (Cuvier and Valenciennes).

East Indies and Philippines.

Serranus cyanostigma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 359, 1828; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 117, 1859; Javanese Sea; Amboina.

Epinephelus cyanostigma Bleeker, Atlas Ichth., vol. 7, p. 42, 1873-76; Sumatra; Java; Duizend Islands; Celebes; Flores; Batjan; Amboina. Boulenger, Cat. Fishes British Mus. ed. 2, vol. 1, p. 181, 1895; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 22, 1931; Sumatra; Java; Duizend Islands; Celebes; Saleyer; Flores; Batjan; Amboina.

Epinephelus argus Bleeker, Atlas Ichth., vol. 8, pl. 320, fig. 3, 1876-77; not of Bloch and Schneider.

Petrometopon cyanostigma Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 521, 1904; Padang, Sumatra.

Cephalopholis cyanostigma Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 223, 1930; Batan Island, Albay Province; Capulaan Bay, Pagbilao, and Alibijaban Island, Ragay Gulf, Tayabas Province; Palag Bay, Maagnas, Lagonoy Gulf, Butaanan Island, on Pacific coast, and Pasacao, Gulf of Ragay, Camarines Sur Province; Canimo Island near Daet, and Maculabo Island, Camarines Norte Province; Limbones Cove, Manila Bay, Cavite Province; Porte Hamilo, Batangas Province; Port Matalvi, Zambales Province; Palau Island, Cagayan Province; Canmahala Bay, Luzon; Maricaban Island, and Port Maricaban, Verde Island Passage, between Luzon and Mindoro; Lubang Island, and Tilig, Lubang Island, off northwest corner of Mindoro; Varadero Bay, Mansalay and Paluan Bay, Mindoro; Mompog Island, between Marinduque and Tayabas Province, Luzon; Alimango Bay, Burias; San Miguel Harbor, Ticao; Biri Channel and Nabatas Point, Samar; Cebu market, Cebu; Iloilo market, Iloilo Province, Panay; Tara Island, Mindoro Strait, off Busuanga; Bolalo Bay, Makesi Island, Port Langkan, Dumarán Island, Rasa Island, Ulugan Bay, and Malcochin Harbor, Linapacan Island, Palawan Province; Caxisigan Island, and Candaraman Island, Balabac; Murcielgos Bay, Misamis Occidental Province, and Little Santa Cruz Island, near Zamboanga, Zamboanga Province, Mindanao; Singaan and Tataan Islands, Sulu Province.

897. *Cephalopholis kendalli* Evermann and Seale.

The Philippines and Melanesia.

Cephalopholis kendalli Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 76, fig. 11, 1907; Bacon, Sorsogon Province, Luzon. Herre, Philippine Bureau Science Collection, 1920-28; Batan Island, Albay Province; Cresta de Gallo, Sibuyan Sea; Calapan, Mindoro; Surigao, Surigao Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 149, 1936; Tenibuli, Ysabel Island, Solomon Islands.

898. *Cephalopholis leopardus* (Lacépède).

Tropical Indo-Pacific, north to China, east to the Marshall Islands, and Tahiti.

Labrus leopardus Lacépède, Hist. Nat. Poissons, vol. 6, pp. 165 and 260, pl. 18, fig. 1, 1802; "Great Equatorial Ocean;" on Commerson.

Serranus leopardus Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 2, p. 336, 1828; on Lacépède. Günther, Fische der Südsee, vol. 1, p. 4, pl. 3, fig. B, 1873-75; East Africa; Seychelles; Samoa; East Indies; Society Islands. Day, Fishes India, p. 25, pl. 6, fig. 4, 1878.

Serranus zanana Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 339, 1828. Günther, Cat. Fishes British Mus., vol. 1, p. 123, 1859; Amboyna.

Serranus spilurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 433, 1833; Mauritius.

Plectropoma leoparda Richardson, Ichth. China Japan, p. 230, 1846.

Epinephelus spilurus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate.

Serranus homfrayi Day, Proc. Zool. Soc. London, p. 678, 1870; Port Blair, Andaman Islands.

Epinephelus leopardus Bleeker, Atlas Ichth., vol. 7, p. 44, pl. 288, fig. 2, 1873-76; Sumatra; Sangir; Ternate, Batjan; Flores; Amboina, Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 57, pl. 10, fig. 1, 1895. Boulenger, Cat. Fishes British Mus., ed. 2, p. 195, 1895; Amboina; Louisiades; Tahiti. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 33, 1931; Sumatra; Java; north Celebes; Sangir Islands; Ternate; Batjan; Amboina; Banda, Flores; Kei Islands; Philippines.

Epinephelus zanana Bleeker, Atlas Ichth., vol. 7, pl. 288, fig. 2, 1873-76.

Cephalopholis leopardus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 256, 1908; Calayan, Babuyan Islands. Fowler and Bean, Bull. U. S. Nat. Mus., vol. 10, p. 217, 1930; Bolinao Bay, Pangasinan Province; Port Matalvi, Zambales Province; Batan Islands and RapuRapu Island, Albay Province; Magnaas, Lagonoy Gulf, and near Palag Bay; Camarines Sur Province, Luzon; Agojo Point, Catanduanes; Maricaban Island and Port Maricaban, Verde Island Passage between Mindoro and Luzon; Sablayan, Mindoro; Dalaganem Island, east coast of Palawan; Port Palapag, north coast of Samar; Pilas Island, Bongao Anchorage, Sulade, Tapiantana, and Tara Islands, and Tutu Bay, Jolo Island, Sulu Province. Var. *zanana*: Doc Can Island, Sulu Sea; Tapiantana Island, and Tutu Bay, Jolo Island, Sulu Province.

899. *Cephalopholis maculatus* Seale and Bean.

Cephalopholis maculatus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 235, fig. 5, 1907; Zamboanga, Zamboanga Province, Mindanao.

900. *Cephalopholis miniatus* (Forskål).

Tropical Indo-Pacific from the east coast of Africa to Samoa and Tahiti. *Perca miniata* Forskål, Descript. Animal., p. 41, 1775; Djedda and Lohaja, Red Sea.

Bodianus miniatus Bloch and Schneider, Syst. Ichth., p. 332, 1801; Red Sea. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 522, 1904; Padang, Sumatra.

DiaCOPE miniata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 433, 1828.

Serranus miniatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 106, pl. 26, fig. 3, 1828; Red Sea. Day, Fishes India, p. 24, pl. 6, fig. 2, 1878.

Cromileptes miniatus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 201, 1839.

Serranus cyanostigmatoides Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 31, 1849; Batavia, Java. Günther, Cat. Fishes, British Mus., vol. 1, p. 117, 1859; Amboina.

Epinephelus cyanostigmatoides Bleeker, Atlas Ichth., vol. 7, pl. 283, fig. 3, 1873-76.

Epinephelus miniatus Bleeker, Atlas Ichth., vol. 7, p. 41, 1873-76; Sumatra, Java; Celebes, Flores; Ternate; Batjan; Obi Major; Buru; Ceram; Amboina; Waigus; New Guinea. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 210, 1895; Zanzibar; Mauritius; Ceylon; Madras; Andaman Islands; North Celebes; Amboina; Apia, Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 30, 1931; 23 East Indian localities; Philippines.

Cephalopholis miniatus Seale, Occas. Papers Bishop Mus., vol. 4, p. 35, 1906; Shortland Island, Solomon Islands. Jordan and Richardson,

Bull. U. S. Bur. Fisheries, vol. 27, p. 256, 1908; Calayan, Babuyan Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, p. 210, fig. 8, 1930; Alibijaban Island, Ragay Gulf, Tayabas Province; Guinenayan (Guiniyans) Island, Albay Province; Pasacao Island, Ragay Gulf, Camarines Sur Province; Canmahala Bay, Luzon; Sabtang Island, Batanes Province; Alimango Bay, and Port Busin, Burias Island; Tayabas River, Marinduque; Tilig, Lubang Island; Varadero Bay, Mindoro; Port Maricaban, and northwest of Verde Island, Verde Island Passage, between Luzon and Mindoro; Tara Island, northeast of Busuanga; Guntao Island, Palawan Passage; Zamboanga market, Malanipa Island, and Tulnalutan Island, east of Zamboanga, Zamboanga Province, Mindanao; Tutu Bay, Jolo, Jolo market, Doc Can Island, and Tawi Tawi Group, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Jolo, Sulu Province. Herre, Fishes Philippine Bureau Science Collection; North Ubian, Pearl Bank, and Bongao, Sulu Province.

901. *Cephalopholis pachycentron* (Cuvier and Valenciennes).

Tropical Indo-Pacific from the east coast of Africa to the Solomon Islands and North Australia.

Serranus pachycentron Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 295, 1828; East Indies.

Serranus guttatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 359, 1828; Waigi; not of Bloch.

Serranus zanarella Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 32, 1849; Batavia, Java; not of Cuvier and Valenciennes.

Serranus microprius Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 552, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 116, 1859; Amboina; China; Louisiade Archipelago.

Serranus pachycentrum Günther, Cat. Fishes British Mus., vol. 1, p. 116, 1859; Ceylon. Macleay, Proc. Linn. New South Wales, vol. 5, p. 314, 1880; Port Darwin, Queensland.

Epinephelus microprius Bleeker, Ned. Tijds. Dierk., vol. 1, p. 155, 1863; Halmahera. Bleeker, Atlas Ichth., vol. 7, p. 39, pl. 280, fig. 1, 1873-76; from 14 East Indian Islands.

Epinephelus boelangi Bleeker, Atlas Ichth., vol. 8, pl. 346, fig. 5, 1876-77; not of Cuvier and Valenciennes.

Epinephelus pachycentrum Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 178, 1895; Ceylon; Madras; Singapore; Malay Archipelago; Louisiade Archipelago. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 19, 1931; 36 East Indian localities; Philippines.

Petrometopon pachycentron Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 521, 1904; Padang, Sumatra.

Cephalopholis pachycentron Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 76, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 220, fig. 9, 1930; Bolinao Bay, Pangasinan Province; Alibijaban Island, Ragay Gulf, and Capulaan Bay, Pagbilao Chica Island, Tayabas Province; Butaanan Island, Masamat Bay, Quinalasag Island, Pasacao, Ragay Gulf, and Refuge Island, Camarines Sur Province; Canimo Island near Daet and Maculabo Island, Camarines Norte Province; Caracaran, Batan Island, Paron Point, Albay Gulf, near Palag Bay, Rapu Rapu Island, and San Miguel Island, Tabaco Bay, Albay Province; Port Matalvi, Zambales Province; Port Hamilo, and Balayan Bay, Batangas Province; Canmahala Bay, Ragay Gulf, Luzon; Port Maricaban, Verde Island Passage, between Luzon and Mindoro; Tilig, Lubang Island, off northwest corner of Mindoro; Mansalay and Varadero Bay, Mindoro; Port Banalacan and Santa Cruz Island, Marinduque; Mompog Island between Marinduque and Luzon; Romblon Harbor, Romblon; Alimango Bay and Busin Harbor, Burias; San Miguel Harbor, Ticao; Catbalogan, Quinapundan Bay, Port Palapag, and Mabatans Point, Samar; Talajit Island, between Samar and Masbate; Port Uson, west of Piñas Island, and Masbate Reef, Masbate; Maribococ Bay, Bohol; Mactan Island, and Malapascua Island, Cebu Province; Tara Island, north coast of Busuanga; Bolalo Bay, Endeavor Strait, Makesi Island, Malcochin Harbor, Linapacan Island, Rasa Island, Mantaquin Bay, and Ulugan Bay, Palawan; Candaraman Island, north Balabac Strait; Pol-

loc, Cotabato Province; Surigao, and Pujada Bay, Surigao Province; Murcielagos Bay, Misamis Occidental Province; and Opol, Mindanao; Taganak Island, and Tataan Island, Sulu Province; also northwest Verde Island. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Manila; Dumaguete, Negros Oriental Province; and Cullion. Herre, 1933-34, 1936-37, and 1940-41 Expeds.: Coron, Busuanga; Agutava, Cuyo Islands; Catbalogan, Samar; Sibuyan; Cebu; Sibutu, Sulu Province. Also Sultan Shoal, Singapore. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 150, 1936; Tenibull, Ysabel Island, Solomon Islands.

902. *Cephalopholis rogaa* (Forskål).

From the Red Sea to the Pelew and Solomon Islands.

Perca rogaa Forskål, Descript. Animal., p. 38, 1775; Djedda, Red Sea.

Perca lunaria Forskål, *ibid.*, p. 39; Djedda and Lohaja, Red Sea.

Bodianus rogaa Bloch and Schneider, Syst. Ichth., p. 334, 1801; Red Sea. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 522, 1904; Padang, Sumatra.

Serranus rogaa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 349, 1828. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 105, pl. 26, fig. 1, 1828; Red Sea.

Epinephelus rogaa Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 185, 1895; Red Sea; Zanzibar; Muscat; Ceylon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 24, 1931; Padang; Sumatra; copied.

Cephalopholis rogaa Fowler, Proc. Acad. Nat. Sci. Phila., p. 252, 1907; Padang, Sumatra. Herre, Philippine Bureau Science Collection, 1922-28; Calapan and Puerto Galera, Mindoro; Bennett Island, Sibuyan Sea; Taytay Bay, Palawan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 233, 1930; Malapascua Island, north of Cebu; Tara Island, northeast of Busuanga; Rasa Island, east coast of Palawan; Bugsuk Island and Caxisigan Island, north Balabac Strait; Murcielagos Bay, Occidental Misamis Province, and Malanipa Island, Zamboanga Province, Mindanao; Lampinigan Island, Simaluc, Sibi Sibi Island, Tapiroantana Island, Doc Can Island, and Cagayan Sulu Island, Sulu Province. Also Borneo and Halmahera (Gilolo). Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Jolo, Sulu Province. Herre, 1933-34 Exped.; Gorrer, Pelew Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 153, 1936; Tenibuli, Ysabel Island, Solomon Islands.

903. *Cephalopholis sexmaculatus* (Rüppell).

The Red Sea to Tahiti and the Tuamotus.

Serranus sexmaculatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 107, 1828; Red Sea. Günther, Fische der Südsee, p. 3, vol. 1, pl. 2, 1873-75; Red Sea; Indian Ocean; Society Islands, Tuamotus.

Epinephelus sexmaculatus Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 194, 1895; Red Sea; Zanzibar; Mauritius; Tahiti.

Cephalopholis sexmaculatus Fowler, Mem. Bishop Mus., vol. 10, p. 175, 1928; Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 229, 1930; Zamboanga market, Zamboanga Prov., Mindanao. Also Ternate market, Ternate, Dutch East Indies.

904. *Cephalopholis sonnerati* (Cuvier and Valenciennes).

From Natal, South Africa, to the Philippines and Okinawa, east to the Carolines, south to Australia and Samoa.

Serranus sonnerati Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 299, 1828; Pondicherry and Ceylon. Günther, Cat. Fishes British Mus., vol. 1, p. 122, 1859; Sumatra; Louisiade Archipelago. Playfair and Günther, Fishes Zanzibar, p. 3, 1866; not pl. 3, fig. 1. Day, Fishes India, p. 25, pl. 7, fig. 1, 1878; Madras.

Serranus erythraeus Playfair and Günther, Fishes Zanzibar, p. 2, pl. 1, fig. 1, 1866; Seychelles; not of Cuvier and Valenciennes.

Epinephelus janthinopterus Bleeker, Verh. Akad. Amsterdam, vol. 14, No. 2, Révision Epinephelini, p. 40, 1874; Makassar, Celebes. Bleeker, Atlas Ichth., vol. 7, p. 36, 1873-76; Celebes. Bleeker, *ibid.*, vol. 8, pl. 332, fig. 5, 1876-77. Weber, Siboga-Exped., vol. 57, Fische, p. 199, 1913; Sanguisiapo, Sulu Province, Philippines.

Epinephelus sonnerati Boulenger, Cat. Fishes, ed. 2, vol. 1, p. 187, 1885; Mauritius; Zanzibar; Seychelles; Muscat; Ceylon; Madras; Pelew

Islands; Gilbert (Kingsmill) Islands; Samoa; Australia. Weber, *Siboga-Exped.*, vol. 57. Fische, p. 199, 1913; Sanguisiapo, Sulu Archipelago, Philippines; Banda, Dutch East Indies. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 25, 1931; Sanguisiapo, Sulu Province, Philippines; Java; Balikpapan, Borneo; Makassar, Celebes; Banda; Philippine Islands.

Cephalopholis sonnerati Seale and Bean, *Proc. U. S. Nat. Mus.*, vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler and Ball, *Bull. Bishop Mus.*, No. 26, p. 14, 1925; Wake Island. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 173, 1928; Wake Island; Apiang, Gilbert Islands. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 10, p. 213, 1930; Manila market, Luzon; Zamboanga market, Zamboanga Province, Mindanao.

Serranus (Epinephelus) sonneratii Zugmayer, *Abh. Bayerisch. Akad. Wiss., Math.-Phys. Klasse*, vol. 26, p. 9, 1913; Oman.

905. *Cephalopholis urodelus* (Cuvier and Valenciennes).

Islands of the tropical Indian Ocean, east to the Philippines, north to Japan, and in the Pacific to the Marshall, Tuamotu, and Marquesas Islands.

Bodianus miniatus Bloch and Schneider, *Syst. Ichth.*, p. 33, 1801; in part. *Serranus urodelus* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 306, 1828; Tahiti. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 513, 1830; Ulea, Caroline Islands. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 122, 1859; India, Amboyna. Günther, *Fische der Südsee*, vol. 1, p. 3, pl. 3, fig. A, 1873-75; Society, Gilbert (Kingsmill), Hervey, Tuamotu, and Solomon Islands; East Indies.

Serranus erythraeus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 6, p. 516, 1830; Mauritius.

Serranus sonnerati Günther, *Cat. Fishes British Mus.*, vol. 1, p. 122, 1859; Sumatra; (part). Playfair and Günther, *Fishes Zanzibar*, p. 3, pl. 3, fig. 1, 1866.

Epinephelus urodelus Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 232, 1863; Ternate. Bleeker, *Atlas Ichth.*, vol. 7, p. 41, 1873-76; Sumatra; Cocos; Nias; Java; Celebes; Sangir; Ternate; Obi Major; Amboina; New Guinea. Bleeker, *ibid.*, vol. 8, pl. 321, fig. 2, 1876-77. Boulenger, *Cat. Fishes British Mus.*, ed. 2, vol. 1, p. 192, 1895; Amboina; Solomon Islands; Aneiteum; Micronesia; Zanzibar; Mauritius; Seychelles; Sumatra. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 27, 1931; 16 East Indian localities; also the Philippines.

Epinephelus miltostigma Bleeker, *Verh. Akad. Amsterdam*, vol. 14, No. 2, Révision *Epinephelini*, p. 43, 1874; Amboina. Bleeker, *Atlas Ichth.*, vol. 7, p. 37, 1873-76; Amboina. Bleeker, *ibid.*, vol. 8, pl. 330, fig. 5, 1876-77.

Epinephelus playfairi Bleeker, *Verh. Akad. Amsterdam*, vol. 18, Fauna Maurice, p. 2, 1879; Mauritius.

Serranus erythrorus Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 9, 1885; Kordo, Mysore Island, New Guinea.

Epinephelus erythraeus Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar*, Poissons, p. 57, pl. 10, fig. 1, 1891.

Epinephelus urodelus var. *urodelus* Steindachner, *Abh. Senckenb. Naturh. Gesell.*, vol. 25, p. 414, 1900; Ternate.

Cephalopholis urodelus Seale, *Occas. Papers, Bishop Mus.*, vol. 4, p. 34, 1906; Mangareva; Marquesas Islands. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 258, 1906; Apia, Samoa. Seale and Bean, *Proc. U. S. Nat. Mus.*, vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 175, 1928; Society, Marquesas, Tuamotu, Gilbert, and Fanning Islands; Palmyra; Apia; Jaluit. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 10, p. 214, 1930; off Corregidor Light, Manila Bay; Dasol Bay, Pangasinan Province; Grande Island Reef, Subig Bay; Nasugbu, Batangas Province; Palau Island, Cagayan Province, Luzon; Port San Pio Quinto, Camaguin Island, Babuyan Islands; Balicuatro Islands, north coast of Samar; Sililo Island and Little Santa Cruz Island, Zamboanga Province, Mindanao; Bulan Island, Samales Group; Cagayan Sulu, Taganak Island, Turtle Islands Group, and Teomabal Islands, Sulu Province; also numerous specimens from the coasts of Borneo and Celebes. Herre, *Fishes 1931 Philippine Exped.*, p. 44, 1934; Calapan,

Mindoro; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 153, 1936; New Hebrides; Solomon Islands; Waigiu; Lembe Strait, Celebes.

Cephalopholis sonnerati Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 498, 1912; Okinawa.

Genus 333. EPINEPHELUS Bloch. Groupers; Lapo-lapo.

In all warm seas.

Epinephelus Bloch, Naturges. Ausländ. Fische, vol. 6, p. 11, 1793; type, *Epinephelus marginalis* Bloch. Boulenger, Cat. Fishes British Mus., vol. 1, p. 162, 1895; in part. Jordan, Evermann, and Clark, Check List Fishes North and Middle America, p. 310, 1930; synonymy in part. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 14, 1931; in part.

Cerna Bonaparte, Introd. Fauna Italica, vol. 3, Part 1, 1833; no pagination; type *Perca gigas* Brünnich.

Cynichthys Swainson, Nat. Hist. Animals, vol. 2, Fishes, pp. 168, 201, 1839; type, *Perca flavopurpurea* Bennett.

Hyporthodus Gill, Proc. Acad. Nat. Sci. Phila., p. 98, 1861; type, *Hyporthodus flavicauda* Gill.

Labroperca Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 236, 1862; type, *Serranus labriformis* Jenyns.

Schistoris Gill, ibid., p. 237; type, *Serranus mystacinus* Poey.

Priacanthichthys Day, Proc. Zool. Soc. London, p. 194, 1868; type, *Priacanthichthys maderaspatensis* Day.

Merus Poey, Ann. Lyceum Nat. Hist. New York, vol. 10, p. 39, 1871; type, *Serranus gigas* Cuvier and Valenciennes.

Homalagrystes Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 268, 1877; type, *Homalagrystes güntneri* Alleyne and Macleay.

Hyposerranus Klunzinger, Fische Rothen Meeres, p. 3, 1884; logotype, *Serranus morrhua* Cuvier and Valenciennes, designated by Jordan, Genera Fishes, Part 4, p. 429, 1920.

Serranus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 237, 1930.

906. Epinephelus areolatus (Forskål).

Red Sea and east coast of Africa to the Philippines and Japan.

Perca summana areolata Forskål, Descript. Animal., p. 42, 1775; Djedda, Red Sea.

Bodianus melanurus Geoffroy Saint Hilaire, Description Egypte, Poissons, p. 317, pl. 21, fig. 1, 1809; Suez.

Serranus melanurus Geoffroy Saint Hilaire, ibid., p. 319. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 351, 1828; Suez.

Serranus angularis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 353, 1828; Ceylon. Day, Fishes India, p. 22, pl. 5, fig. 2, 1878. Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 232, 1883; Kagoshima Bay and Oshima, Japan.

Serranus celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 217, 1851; Bulucomba, Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 139, 1859; Celebes; Amboyna. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 8, 1885; Cebu, Cebu Province, Philippines; also Kordo, Mysore Island, Geelvink Bay, New Guinea.

Epinephelus celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 281, 1865; Amboina. Bleeker, Verh. Akad. Amsterdam, vol. 14, p. 69, 1874.

Serranus glaucus Day, Proc. Zool. Soc. London, p. 678, 1870; Andaman Islands.

Epinephelus angularis Bleeker, Atlas Ichth., vol. 7, p. 48, 1873-76; Sumatra; Nias; Singapore; Banka; Java; Celebes; Sumbawa; Batjan; Amboina.

Serranus areolatus Karoli, Termesz. Füzetek, Budapest, vol. 5, p. 150, 1882; Yokohama.

Serranus (Hyposerranus) areolatus Klunzinger, Fische Rothen Meeres, p. 3, 1884; Koseir.

Epinephelus areolatus Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 202, 1895; Red Sea; Aden; Muscat; Andaman Islands; Malay Archipelago; Amboyna. Weber *Siboga*-Exped., vol. 57, Fische, p. 201, 1913; Sulu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 37, fig. 5, 1931; Sabang; Singapore; Sumatra; Nias; Banka; Java; Celebes; Sulu Islands, Sulu Province; Philippines; Bali; Sumbawa; Flores; Amboina; Batjan; and 7 other

- localities from Madagascar to Japan. Domantay, *Philippine Jour. Sci.*, vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.
- Serranus (Epinephelus) areolatus* Zugmayer, *Abh. Bayerisch Akad. Wiss. Math.-Phys. Klasse*, vol. 26, p. 9, 1913; Mekran and Oman, Arabia.
- Serranus areolatus* Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 10, p. 246, fig. 12, 1930; Cebu market; Hinunangan Bay, and Tacbuc Point, Leyte; Malabang market, Lanao Province, Mindanao; Observation Island, TawiTawi Group, Sulu Province.
- 907. *Epinephelus bleekeri* (Vaillant and Bocourt).**
 Persian Gulf, Mauritius, India, Siam, China, East Indies, and Philippines.
Serranus variolosus Bleeker, *Verh. Bat. Gen.*, vol. 22, Percoiden, p. 35, 1849; not of Cuvier and Valenciennes.
Epinephelus variolosus Bleeker, *Ned. Tijds. Dierk.*, vol. 2, p. 281, 1865; Amboina. Bleeker, *Atlas Ichth.*, vol. 7, p. 48, pl. 300, fig. 3, 1873-76.
Serranus longispinis Playfair and Günther, *Fishes Zanzibar*, p. 10, 1866; in part.
Epinephelus dayi Bleeker, *Atlas Ichth.*, vol. 7, p. 47, 1873-76; not of Bleeker, 1873.
Serranus coromandlicus Bleeker, *Atlas Ichth.*, vol. 7, p. 47, 1873-76.
 Day, *Fishes India*, Supplement, p. 746, 1888; on *Epinephelus dayi*, Bleeker. Boulenger, *Proc. Zool. Soc. London*, p. 237, 1889; Muscat, Arabia. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 10, p. 248, 1930; Dagupan, Pangasinan Province, Subic Bay, Zambales Province; Manila market; Batangas market, Batangas Province; and Sorsogon market, Sorsogon Province, Luzon; Cebu market, Cebu Province; near mouth of Baheli River, Ulugan Bay, Palawan; also Sandakan, British North Borneo, and Kowloon, China.
Serranus bleekeri Vaillant and Bocourt, *Mission scient. Mexique, Poissons*, p. 69, 1877.
Serranus waandersi Day, *Fishes India*, p. 12, pl. 8, fig. 1, 1878; not of Bleeker, 1873-76.
Epinephelus bleekeri Boulenger, *Cat. Fishes*, ed. 2, vol. 1, p. 212, 1895; north Celebes; Singapore. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 40, 1931; 18 East Indian localities. Herre, *Fishes 1931 Philippine Exped.*, p. 44, 1934; Manila market, Luzon. Herre, *Collections 1927-28 and 1936-37*; Calapan; Mindoro. Linapacan Island, Palawan Province; also Pulau Pisang, Singapore.
Epinephelus albimaculatus Seale, *Philippine Jour. Sci.*, vol. 4, p. 509 (misprinted as *albimuculatus*), pl. 6, 1909; Butuan Bay, Agusan.
- 908. *Epinephelus bontoides* (Bleeker).**
 East Indies and Philippines; also Caroline Islands.
Serranus bontoides Bleeker, *Nat. Tijds. Ned-Ind.*, vol. 8, p. 405, 1855; 1865; Amboina. Bleeker, *Ibid.*, vol. 17, p. 144, 1858-59; Bali.
Epinephelus bontoides Bleeker, *Ned. Tijds. Dierk.*, 1865; vol. 2, p. 281; Amboina. Bleeker, *Atlas Ichth.*, vol. 7, p. 53, pl. 287, fig. 2, 1873-76; Bali; Celebes; Amboina; New Guinea. Boulenger, *Cat. Fish. Brit. Mus.*, ed. 2, vol. 1, p. 218, 1895; Malay Archipelago; North Celebes. Smith and Seale, *Proc. Biol. Soc. Washington*, vol. 19, p. 77, 1906; Cotabato, Cotabato Province, Mindanao. Fowler, *Copeia*, No. 58, p. 63, 1918; Philippines. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 51, 1931; Bali; Celebes; Amboina; New Guinea. Herre, 1940-41 Exped.; Kolambungan, Lanao Province, Mindanao.
Serranus bontoides Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 275, 1927; the Philippines.
- 909. *Epinephelus caeruleo-punctatus* (Bloch).**
 Coast of Africa to the Philippines, Japan, Marshall, and Fiji Islands.
Holocentrus caeruleo-punctatus Bloch, *Naturges, Ausländ. Fische*, vol. 4, p. 94, pl. 242, fig. 2, 1790.
Serranus leucostigma Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 346, 1828; Massaua, Red Sea. Martens, *Preuss. Exped. Ost-Asien*, vol. 1, p. 387, 1876; Amboina River.
Serranus alboguttatus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 366, 1828; Sea of the Indies. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar, Poissons*, p. 79, 1891.
Serranus summana Rüppell, *Atlas Reise Nördl. Afrika, Fische Rothen Meeres*, p. 104, 1828; in part.

- Serranus dermochirus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 513, 1830; Coromandel. Day, Fishes India, p. 21, 1878; Malabar.
- Serranus Hoevenii* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 36, 1849; Batavia. Günther, Cat. Fishes British Mus., vol. 1, p. 138, 1859; Amboina.
- Serranus Kundardtii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 169, 1851; Padang, West Sumatra.
- Epinephelus Hoevenii* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Verh. Akad. Amsterdam, vol. 14, p. 110, 1874. Bleeker, Atlas Ichth., vol. 7, p. 63, pl. 282, fig. 1; pl. 286, fig. 3; pl. 290; fig. 4, 1873-76; Sumatra; Nias; Java; Borneo; Bawean; Timor; Sangi; Ternate; Buru; Ceram; Amboina; Goram.
- Serranus caeruleo-punctatus* Peters, Monatsber. Akad. Wiss. Berlin, p. 108, 1865. Fowler, Bull. 100, U. S. Nat. Mus., vol. 10, p. 276, figs. 18 and 19, 1930; Tilig Bay, Lubang Island; Port Maricaban, Verde Island Passage; Sablayan, Mindoro; Alibijaban Island, Gulf of Ragay, Tayabas Province; Galvaney Island, Gulf of Ragay, Camarines Sur Province; and Canmahala Bay, Gulf of Ragay; Batag Island, north coast of Samar; San Roque, Leyte; Mompog Island, between Marinduque and Luzon; Cebu market and Mactan Island, Cebu Province; Nugas Point, Panay; Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island, near Zamboanga, Mindanao; Pilas and Taganak Islands, and Simaluc, Sibi Sibi Island, Sulu Province.
- Epinephelus alboguttatus* Bleeker, Atlas Ichth., vol. 7, pl. 284, fig. 1, 1873-76.
- Epinephelus dermochirus* Bleeker, Recherches faune Madagascar, Poissons, p. 88, 1875.
- Serranus tumilabris* Day, Fishes India, p. 16, pl. 3, fig. 3, 1878; not of Cuvier and Valenciennes.
- Serranus sumana* Klunzinger, Fische Rothen Meeres, p. 5, pl. 2, fig. 2, 1884; in part.
- Epinephelus caeruleo-punctatus* Boulenger, Cat. Fish. British Mus., ed. 2, vol. 1, p. 246, 1895; the Philippines; Zanzibar, Seychelles; Mauritius; Ceylon; Malay Archipelago; Borneo; Amboina; Misol; Ponapé, Caroline Islands. McCulloch, Proc. Linn. Soc. New South Wales, vol. 46, p. 468, 1921; Queensland, Australia; New Hebrides; New Caledonia; Bougainville, Solomon Islands; Batavia, Java. Barnard, Ann. South African Mus., vol. 21, p. 485, 1925-27; Natal coast. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 66, 1931; 24 East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Alabat Island. Herre, Expeds. of 1936-37 and 1940-41; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province, Negros; Dapitan, Zamboanga Province, Mindanao; and Jolo, Sulu Province.
- 910. *Epinephelus corallicola* (Cuvier and Valenciennes).**
From India to the Caroline Islands, North Australia, and the Tuamotu Archipelago. Marine and entering rivers.
- Serranus corallicola* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 336, 1828. Bleeker, Jour. Indian Archipelago, vol. 3, p. 66, 1849; Celebes. Fowler, Mem. Bishop Mus., vol. 10, p. 181, 1928; 11 localities in the tropical Pacific. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 274, 1930; Manila market; Balayan Bay, Batangas Province; Butaunan Island, Quinalasag Island, Masamat Bay, and Galvaney Island, Ragay Gulf, Camarines Sur Province, Luzon; Batag Island, Biri Channel, north coast Samar; Calangaman Islet, between Cebu and Leyte, and Malapascua Island, north of Cebu; Iloilo market, Panay; Endeavor Strait, Malampaya Sound, Palawan; Bugsuk Island, North Balabac Strait; Murcielagos Bay, Misamis Occidental Province, and Polloc, Cotabato Province, Mindanao.
- Serranus miliaris* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 520, 1830; New Guinea.
- Serranus altivelioides* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 38, 1849; Batavia. Kner, Reise Novara, Zool., vol. 1, p. 23, 1865; Singapore; Madras.
- Serranus macrospilos* Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 499, 1855; Batjan.

- Epinephelus altiveloides* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 281, 1865; Amboina. Bleeker, Atlas Ichth., vol. 7, pl. 308, fig. 1, 1873-76.
- Epinephelus macrospilus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 281, 1865; Amboina. Bleeker, Atlas Ichth., vol. 7, p. 52, pl. 209, fig. 2, 1873-76; Amboina.
- Serranus howlandi* Günther, Fische der Südsee, vol. 1, p. 8, pl. 9, fig. B, 1873; Howland Island and Tahiti.
- Epinephelus corallicola* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 46, 1873. Bleeker, Atlas Ichth., vol. 7, p. 53, pl. 308, fig. 1, 1873-76; Java; Singapore; Celebes; Amboina. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 236, 1895; Malay Archipelago, Manado, Celebes; Pelew Islands; Mortlock, Ponapé and Greenwich Islands, Caroline Islands; Howland Island, Phoenix Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 259, 1906; Apia, Samoa. Seale, Occas. Papers, Bishop Mus., vol. 4, p. 35, 1906; Society Islands; Tuamotu Islands; Cook Islands; New Hebrides; Solomon Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 52, 1931; 13 East Indian localities and the same number from the Indian Ocean and the Pacific. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Cullion; Sitankai, Sulu Province. Umali, Edible Fishes Manila, p. 130, fig. 90, 1936; Manila Bay; Ragay Gulf, Tayabas Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Herre, 1940-41 Exped.; Coron, Busuanga; Estancia, Iloilo Province, Panay.
911. *Epinephelus chlorostigma* (Cuvier and Valenciennes).
Red Sea and east coast of Africa to the Philippines, Formosa, China, and Japan.
- Serranus tauvina* Geoffroy Saint Hilaire, Descript. Egypte, Poissons, p. 317, pl. 20, fig. 1, 1809; not of Forskål.
- Serranus areolatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 350, 1828; Red Sea; not of Forskål. Day, Fishes India, p. 12, pl. 1, fig. 4, 1878; not of Forskål.
- Serranus chlorostigma* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 352, 1828; Seychelles. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 252, 1930; Gulf of Tomini, Celebes, Dutch East Indies; also Philippines.
- Serranus Waandersi* Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 152, 1858-59; Boleing, Bali.
- Serranus (Hyposerranus) geoffroyi* Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 20, p. 675, 1870; Red Sea.
- Epinephelus waandersi* Bleeker, Atlas Ichth., vol. 7, p. 47, pl. 281, fig. 1, 1873-76; Bali.
- Serranus celebicus* var. *multipunctatus* Kossmann and Räuber, Verh. Naturh. verein Heidelberg, vol. 1, p. 10, 1877; Red Sea.
- Serranus assabensis* Giglioli, An. Mus. Genova, ser. 2, vol. 6, p. 68, 1888; Assam.
- Epinephelus areolatus* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 74, 1891; not of Forskål.
- Epinephelus chlorostigma* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 73, 1891. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 203, 1895; Red Sea; Massowah; Zanzibar; Seychelles; Muscat; China. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 341, 1903; Formosa. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 446, fig. 6, 1910; Misaki, Nagasaki, and Wakanoura, Japan. Jordan. Tanaka and Snyder, Cat. Fishes Japan, p. 153, fig. 109, 1913. Tanaka, Figures and Descriptions Fishes Japan, vol. 38, pl. 163, fig. 453, 1927; Tanaka, Japan. Herre, Philippine Bureau Science Collection; Hundred Islands, Pangasinan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 39, 1931; Bali; Sunda Sea; Philippines.
- Serranus wandersi* Pearson, Rept. Marine Biol. Ceylon, Pt. 4, Page E1 3, 1912-13; Cheval Paar Group.
912. *Epinephelus diacanthus* (Cuvier and Valenciennes).
Coast of Natal, South Africa, to the Philippines, Formosa, China, and Japan.
- Serranus diacanthus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 319, 1828; Malabar. Günther, Cat. Fishes British Mus., vol. 1,

p. 110, 1859; Bengal; China; Hong Kong; Louisiade Archipelago; India. Day, Fishes India, p. 17, pl. 3, fig. 4, 1878; Karachi (Kurra-
chee). Günther, Report Voy. *Challenger*, Zoology, vol. 1, Part 6,
p. 51, 1880; the Philippines. Fowler, Bull. Bishop Mus., No. 38, p.
13, 1927; Jarvis Island, Line Islands. Fowler and Bean, Bull. 100,
U. S. Nat. Mus., vol. 10, p. 258, fig. 14, 1930; Hong Kong and Kowloon
markets; Philippines.

Serranus nebulosus Richardson, Ichth. China Japan, p. 232, 1846; Can-
ton; not of Cuvier and Valenciennes.

Serranus trimaculatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, No.
9, 1858; Fauna Japan, p. 8; not of Cuvier and Valenciennes.

Serranus seefasciatus Günther, Cat. Fishes British Mus., vol. 1, p. 108,
1859; East Indies; not of Cuvier and Valenciennes.

Epinephelus dayi Bleeker, Verh. Akad. Amsterdam, vol. 14, p. 105,
1874.

Epinephelus diacanthus Boulenger, Cat. Fishes British Mus., ed. 2, vol.
1, p. 209, 1895; Muscat, Bombay; Madras; India; Hong Kong; Amoy;
Formosa; Shanghai; China; synonymy in part. Jordan and Seale,
Bull. U. S. Bur. Fisheries, vol. 26, p. 19, 1907; Cavite, Cavite Province,
Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p.
256, 1908; Cuyo and Cagayancillo, Sulu Sea, Palawan Province, Philip-
pines. Weber and de Beaufort, Fishes Indo-Australian Archipelago,
vol. 6, p. 41, 1931; Buru; Philippines; synonymy in part. Herre,
Exped. 1933-34; Manila Bay, Luzon. Herre, Hong Kong Nat., Supple-
ment, No. 3, p. 30, 1934; Hong Kong.

Serranus (Epinephelus) diacanthus Zugmayer, Abh. Bayerisch. Akad.
Wiss. Math.-Phys. Klasse, vol. 26, p. 10, 1913; Mekran and Oman.

913. *Epinephelus fario* (Thunberg).

Japan, China, Philippines, and East Indies.

Perca fario Thunberg, Kongl. Vet. Akad. Nya Handlingar, vol. 14, p. 296,
pl. 9, 1792; Nagasaki, Japan.

Holocentrus fario Bloch and Schneider, Syst. Ichth., p. 323, 1801; on
Thunberg.

Epinephelus japonicus Krusenstern, Reise, pl. 64, fig. 2, 1810; Japan.

Serranus trimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol.
2, p. 331, 1828; after Krusenstern. Schlegel, Fauna Japonica, Pisces,
p. 8, 1842; Japan. Kner, Reise *Novara*, Zool., vol. 1, p. 18, 1865; Hong
Kong; Java.

Serranus ura Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p.
332, 1828; Nagasaki: *ura*—misspelling of *ara*, vide Peters, 1865.

Serranus ara Schlegel, Fauna Japonica, Pisces, p. 8, 1842; Nagasaki.

Epinephelus trimaculatus Boulenger, Cat. Fishes British Mus., ed. 2, vol.
1, p. 221, 1895; China. Jordan and Snyder, Proc. U. S. Nat. Mus.,
vol. 23, p. 354, 1901; Tokyo.

Epinephelus fario Jordan and Richardson, Proc. U. S. Nat. Mus., vol.
37, p. 451, fig. 9, 1910; Nagasaki; Wakanoura. Synonymy in part.
Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 155, fig. 112, 1913;
synonymy in part. Tanaka, Figures and Descriptions Fishes Japan,
vol. 38, p. 726, pl. 162, fig. 451, 1927; Saiki. Herre, Fishes 1931 Philip-
pine Exped., p. 44, 1934; Sitankai, Sulu Province.

Serranus matterni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 31,
fig. 13, 1918; Philippines. Fowler, *ibid.*, vol. 79, p. 275, 1927; same
specimen.

Serranus fario Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p.
249, 1930; Puerto Galera, Mindoro; Zamboanga market, Zamboanga
Province, Mindanao. Also Talisse Island, north of Celebes; synonymy
in part.

914. *Epinephelus fasciato-maculatus* (Peters).

Philippines and China; also Japan?

Serranus fasciatomaculatus Peters, Monatsber. Akad. Wiss. Berlin, p.
111, 1865; on Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, Vierde Bijdr.
ichth. Japan, p. 8, 1858. Fowler and Bean, Bull. 100, U. S. Nat.
Mus., vol. 10, p. 257, 1930; Manila market; Cavite and San Roque
markets, Cavite Province; off Corregidor Light, Manila Bay, Luzon;
Cathalogan, Samar; Cebu market, Cebu; Iloilo market, Iloilo Province,
Panay; also Kowloon market, Hong Kong, China.

Epinephelus fasciatomaculatus Herre, Lingnan Sci. Jour., vol. 11, p. 435, 1932; Canton, China, and Hainan Islands. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Manila market. Herre, Expeds. 1936-37 and 1940-41; Nasugbu, Batangas Province, Luzon; Catbalogan, Samar. Herre, Lingnan Sci. Jour., vol. 21, p. 116, 1945; Tinghai, Chusan Island, China.

915. *Epinephelus fasciatus* (Forskål).

Red Sea and east coast of Africa to the Philippines, China, Japan, Australia, and east to the Marquesas Islands.

Perca fasciata Forskål, Descript. Animal., pp. 11 and 40, 1775; Cape Mohammed, Red Sea. Houttuyn, Nat. Verh. Holland. Maatsch. Wetenschappen Haarlem, vol. 20, p. 326, 1782; Japan.

Epinephelus marginatus Bloch, Naturges, Ausland, Fische, vol. 7, p. 14, pl. 328, fig. 1, 1793; East Indian Seas.

Holocentrus erythraeus Bloch and Schneider, Syst. Ichth., p. 320, 1801; Red Sea.

Holocentrus forskål Lacépède, Hist. Nat. Poissons, vol. 4, p. 377, 1802; Arabia.

Holocentrus marginatus Lacépède, *ibid.*, p. 384, 1802.

Holocentrus rosemarus Lacépède, *ibid.*, p. 389, pl. 7, figs. 2, 1802; "the Great Ocean." Indo-Pacific.

Holocentrus oceanicus Lacépède, *ibid.*, p. 389, pl. 7, fig. 3, 1802; "the Great Ocean."

Serranus marginalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 301, 1828; Mauritius; Seychelles. Günther, Cat. Fishes British Mus., vol. 1, p. 135, 1859; Ambonia; China; Japan; India; Louisiades; Darnley Islands; Koepang. Timor. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 9, 1885; Cebu, Philippines. Also North Celebes and Rubi, New Guinea.

Serranus oceanicus Cuvier and Valenciennes, Hist. Poissons, vol. 2, p. 302, 1828; Mauritius; Massaua, Red Sea.

Serranus variolosus Cuvier and Valenciennes, *ibid.*, p. 354, 1828; Tahiti.

Perca maculata Cuvier and Valenciennes, *ibid.*, p. 354.

Serranus tsirimenara Schlegel, Fauna Japonica, Pisces, p. 7, pl. 4A, fig. 3, 1842; Japan. Kent, Great Barrier Reef, p. 369, 1893; Queensland.

Epinephelus retouti Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 339, 1868; Borbonia. Bleeker, Recherches, faune Madagascar, Poissons, p. 21, pl. 12, fig. 1, 1875; Borbonia. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 69, pl. 8, fig. 2, 1891.

Serranus fasciatus Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 20, p. 681, 1870; Koseir, Red Sea. Günther, Fische der Südsee, vol. 1, p. 6, pl. 6, 1873; Red Sea; East Africa; India Ocean; China; North Australia; Society Islands; Tuamotus. Day, Fishes India, p. 15, pl. 3, fig. 2, 1878; Andaman Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 176, 1928; Mangareva; Faté; Nukuhiva; Palmyra; Wake; Tuamotus; Tahiti. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Philippines; Santa Maria, Ilokos Sur Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 263, 1930; Limbones Cove, Manila Bay, Cavite Province; Dasol Bay, Pangasinan Province; Canimo Island, near Daet, and Maculabo Island, Camarines Norte Province; Masamat Bay, Quinalasag Island, Camarines Sur Province; Alibijaban Island, Ragay Gulf, Tayabas Province; also Canmahala Bay, Ragay Gulf; and Langoa Point, Sorsogon Province, Luzon; Mansalay, Mindoro; Capulaan Bay, Pagbilao Chica Island, and Mompog Island, between Marinduque and Luzon; Romblon; Cataingan Bay, east coast of Masbate; Catbalogan, Samar; Malapascua Island, north of Cebu; Caxisigan Island, off north coast of Balabac; Zamboanga, Zamboanga Province, Mindanao; Doc Can Island, Sulu Sea, Jolo market, Jolo, Teomabal Island, Taganak Island, Usada Island, Simaluc Island, Suluda Island, and Sitankai Wharf, Sulu Province; also Nan Wan, Formosa, and Cape Kait, Libani Bay, Celebes.

Epinephelus fasciatus Bleeker, Verh. Akad. Amsterdam, vol. 14, Revision Epinephelini, p. 119, 1874. Bleeker, Atlas Ichth., vol. 7, p. 66, 1873-76; 10 East Indian localities. Bleeker, *ibid.*, vol. 8, pl. 326, fig. 3, 1876-77. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 238, 1895; Cebu, Philippines; Red Sea; Zanzibar; Seychelles; Singapore; China; RiuKiu (Loo Choo) Islands; Japan, Amboina; Koepang, Timor; Louisiade Archipelago; Bonham and Darnley Islands; Tahiti

(?). Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 75, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 232, 1907; Zamboanga, Zamboanga Province, Mindanao. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 204, 1913; Sanguisiapo, and Sulu Archipelago, Sulu Province, Philippines. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 58, 1931; Sulu Islands, Philippines, and 21 East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Manila, Luzon; Jolo and Sitankai, Sulu Province.

Serranus retouti Peters, Monatsber. Akad. Wiss. Berlin, p. 43, 1876; Mauritius.

Serranus tsiremenara Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 232, 1883; Tokyo; Kochi.

Serranus cruentatus de Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 446, 1884; New Britain.

Epinephelus tsirimenara Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 468, 1906; Kochi. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 460, fig. 13, 1910; Nagasaki, Tokyo and Wakanoura, Japan. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 157, fig. 115, 1913; Tokyo to Nagasaki. Jordan and Metz, Mem. Carnegie Mus., vol. 6, p. 32, 1913; Fusan, Korea.

Serranus (Epinephelus) fasciatus Zugmayer, Abh. Bayerisch. Akad. Wiss., Math.-Phys. Klasse, vol. 26, p. 10, 1913; Mekran and Oman.

916. *Epinephelus flavo-caeruleus* (Lacépède).

East coast of Africa to East Indies, Philippines, China, Formosa, Ponapé, Gilbert Islands, and Australia.

Holocentrus flavocaeruleus Lacépède, Hist. Nat. Poissons, vol. 4, p. 367, 1802; Mauritius. Günther, Cat. Fishes British Mus., vol. 1, p. 145, 1859; Mauritius; Ceylon. Day, Fishes India, p. 15, pl. 3, fig. 1, 1878; Andaman Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 244, 1930; Manila market, Luzon; Port San Pio Quinto, Camaguin Island, Babuyan Islands.

Holocentrus gymnosus Lacépède, Hist. Nat. Poissons, vol. 3, pl. 27, fig. 2, 1802. Lacépède, *ibid.*, vol. 4, p. 372, 1802; on Chinese manuscripts.

Bodianus macrocephalus Lacépède, *ibid.*, vol. 3, pl. 20, fig. 3, 1802; vol. 4, p. 293, 1802.

Serranus borbonicus Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 312, pl. 57, fig. 2, 1824; Bourbon Island.

Perca flavopurpurea Bennett, Fishes Ceylon, pl. 19, 1830.

Serranus Hoedtii Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 406, 1855; Amboina. Bleeker, Atlas Ichth., vol. 7, p. 45, pl. 283, fig. 2, 1873-76; Celebes; Amboina. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 342, 1902; Formosa.

Serranus punctatissimus Günther, Cat. Fishes British Mus., vol. 1, p. 144, 1859; China.

Epinephelus flavocaeruleus vars. *melanometopon* and *xanthometopon* Bleeker, Recherches faune Madagascar, Poissons, p. 17, 1875.

Homalagrystes luctuosus de Vis, Proc. Linn. Soc. New South Wales, vol. 7, p. 369, 1882; Brisbane, Queensland.

Epinephelus flavocaeruleus Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 198, pl. 4, fig. A, 1895; Zanzibar; Mauritius; Ceylon; Madras; Rodriguez; China; Mortlock Island; Ponapé; Micronesia. Gilchrist and Thompson, Ann. South African Mus., vol. 13, p. 67, 1914; Natal, South Africa.

Epinephelus flavocaeruleus var. *flavocaeruleus* Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 125, 1907; Gischin, Makalla, Socotra.

917. *Epinephelus fusco-guttatus* (Forskål).

Red Sea and east coast of Africa to the Philippine Islands, China, Formosa, Ponapé, Marshall Islands, Australia, and the Tuamotu Islands.

Perca summana fusco-guttata Forskål, Descript. Animal., p. 42, 1775; Suerens, Djedda.

Serranus fusco-guttatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 108, pl. 27, fig. 2, 1828; Red Sea. Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 57, 1867; East Africa; Hope Islands; Port Essington; Port Denison; Cape York. Day, Fishes India, p. 22,

- pl. 5, fig. 3, 1878; Sind. Fowler, Mem. Bishop Mus., vol. 10, p. 183, pl. fig. A, 1928; Palmyra; Ponapé; Gilbert Islands; Ebon Island; Makemo. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 284, fig. 22, 1930; Maculabo Island, north coast of Camarines Norte Province; Butaanan Island, Camarines Sur Province; Guinayanay Island, Albay Province; Matnog Bay, Sorsogon Province, Luzon; Sablayan Bay, and Puerto Galera, Mindoro; Mompog Island, between Mindoro and Luzon; Romblon Harbor, Romblon; Busin Harbor, Burias; Cebu market, Cebu; Nabatas Point, Samar; Endeavor Strait, Makes Island, Nakoda Bay, and Ulugan Bay, Palawan; Isabella, Basilan Island; Jolo market, Jolo, Tataan Islands, and Doc Can Island, Sulu Province; also Si Amil Island, British North Borneo, and Dodinga Bay, Gilolo.
- Serranus horridus* Cuvier and Valenciennes, Hist. Nat. Poissons., vol. 2, p. 321, 1828; Java. Fowler, Proc. Acad. Nat. Sci. Phila., p. 257, 1907; Padang, Sumatra.
- Serranus taeniocheirus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 518, 1830; on Gaimard.
- Serranus lutra* Cuvier and Valenciennes, ibid., vol. 8, p. 474, 1831; Mauritius.
- Serranus lebretonianus* Hombron and Jacquinet, Voy. *Astrolabe*, Zool. vol. 3, p. 3, pl. 1, fig. 3, 1853.
- (?) *Serranus goliath* Peters, Monatsber. Akad. Wiss. Berlin, p. 430, 1855; Mossimboa, Mozambique.
- Serranus hexagonatus* var. *merra* Günther, Cat. Fishes British Mus., vol. 1, p. 141, 1859; in part.
- Sebastes meleagris* Peters, Monatsber. Akad. Wiss. Berlin, p. 392, 1865.
- Serranus dispar* Playfair and Günther, Fishes Zanzibar, p. 6, pl. 1, figs. 2-3, 1866; Seychelles and Zanzibar. Günther, Fische der Südsee, vol. 1, p. 9, 1873; Marshall Islands.
- Epinephelus fuscoguttatus* Bleeker, Versl. Akad., Amsterdam, vol. 7, ser. 2, p. 46, 1873. Bleeker, Atlas Ichth., vol. 7, p. 57, pl. 307, fig. 3, 1873-76; Singapore; Java; Bawean; Timor; Ternate; Waigiu. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 249, 1895; Philippines; Mauritius; Zanzibar; Seychelles; Borneo; Hope Island; Tongatabu; Samoa; Greenwich Island; Meduro. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 28, 1922; Cebu, Cebu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, v. 6, p. 68, 1931; 13 East Indian localities; also the Philippines and 14 other Indo-Pacific localities. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Sitankai, Sulu Province. Herre, Exped. of 1936-37; Dumaguete, Negros Oriental Province; Zamboanga, Zamboanga Province, Mindanao. Umali, Edible Fishes Manila, p. 131, fig. 92, 1936; Manila Bay; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.
- Serranus microdon* Bleeker, Verh. Akad. Amsterdam, vol. 14, p. 95, 1874. Bleeker, Atlas Ichth., vol. 7, p. 57, pl. 281, fig. 3, 1873-76; Batavia, Java.
- Epinephelus lutra* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 70, pl. 7, fig. 3, 1891.
- Epinephelus horridus* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 524, 1904; Padang, Sumatra.
- 918. *Epinephelus maculatus* (Bloch).**
East coast of Africa to the Philippines, China, Caroline, Solomon, Samoan, and Tuamotu Islands.
- Holocentrus maculatus* Bloch, Naturges. Ausländ. Fische, vol. 4, p. 96, pl. 242, fig. 3, 1790; East Indies.
- Holocentrus albofuscus* Lacépède, Hist. Nat. Poissons, vol. 4, p. 384, 1802; East Indies.
- Serranus quoyanus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 519, 1830; New Guinea.
- Serranus gaimardi* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 520, 1830; New Guinea. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 656, pl. 3, fig. 3, 1834; Vanikoro; New Guinea.
- Serranus Gaimardi* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 4, 1849.
- Serranus Quoyanus* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 4, 1849.

- Serranus Sebæ* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 488, 1854; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 137, 1859; China; Amboyna.
- Serranus maculatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 398, 1856; Buru. Day, Fishes India, p. 14, pl. 2, fig. 4, 1875. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Philippines; Orani, Bataan Province, Luzon.
- Serranus albofuscus* Günther, Cat. Fishes British Mus., vol. 1, p. 108, 1859.
- Serranus longispinis* Kner, Sitzungsber. Akad. Wiss. Wien, vol. 49, p. 483, 1864. Kner, Reise Novara, Zool., vol. 1, p. 275, pl. 2, fig. 5, 1865; Madras.
- Epinephelus albofuscus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 146, 1865; Buru. Bleeker, Atlas Ichth., vol. 7, pl. 304, fig. 2, 1873-76.
- Serranus medurensis* Günther, Fische der Südsee, vol. 1, p. 8, pl. 9, fig. A, 1873; Meduro and Marshall Islands.
- Epinephelus maculatus* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 46, 1873. Bleeker, Atlas Ichth., vol. 7, p. 50, pl. 286, fig. 3, and pl. 289, fig. 2, 1873-76; Java; Celebes; Menado; Ternate; Batjan; Buru; Amboina; Timor; New Guinea. Boulenger, Cat. Fishes British Mus., ed., 2, vol. 1, p. 211, 1895; Zanzibar; Mauritius; Ceylon; Menado; Ponapé; Meduro. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 76, 1907; San Fabian, Pangasinan Province, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 47, 1931; 12 East Indian localities; also the Philippines, and 13 localities in the Indo-Pacific. Herre, Philippine Bureau Science Collection and Exped., 1940-41; Bauang Sur, La Union Province and Hundred Islands, Pangasinan Province, Luzon; Kolambungan, Lanao Province, Mindanao.
- Epinephelus gaimardi* Bleeker, Atlas Ichth., vol. 7, pl. 285, fig. 1, 1873-76.
- 919.** *Epinephelus malabaricus* (Bloch and Schneider).
Red Sea and Natal to the Philippines, China, East Indies, and Queensland, Australia.
- Holocentrus malabaricus* Bloch and Schneider, Syst. Ichth., p. 319, plate 63; 1801; Tranquebar.
- Holocentrus pantherinus* Lacépède, Hist. Nat. Poissons, vol. 3, pl. 27, fig. 3, 1802; on Commerçon. Lacépède, *ibid.*, vol. 4, p. 389, 1802.
- Holocentrus salmoides* Lacépède, Hist. Nat. Poissons, vol. 4, 1802, p. 389; "Grand Ocean."
- Bota* (?) *coioides* Hamilton [né Buchanan], Fishes Ganges, pp. 82 and 369, 1822; large Gangetic estuaries.
- Serranus maculosus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 332, 1828.
- Serranus bontoo* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 334, 1828; Vizagapatam, India. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 993, 1850; Pinang Sea. Günther, Cat. Fishes British Mus., vol. 1, p. 138, 1859; Ceylon.
- Serranus suillus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 335, 1828; Coromandel, India. Günther, Cat. Fishes British Mus., vol. 1, p. 129, 1859; Philippines.
- Serranus semipunctatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 341, 1828; Pondicherry, India.
- Serranus pantherinus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 333, 1828; Fort Dauphin, Madagascar.
- Serranus salmonoides* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 343, 1828; Mauritius; Seychelles; Red Sea; Suez. Günther, Cat. Fishes British Mus., vol. 1, p. 128, 1859; Red Sea; Mauritius; India. Boulenger, Proc. Zool. Soc. London, p. 237, 1887; Muscat, Arabia.
- Serranus crapao* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 494, 1829; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 137, 1859; Port Essington, Australia.
- Serranus diacopeformis* Bennett, Life Raffles, p. 686, 1830; Sumatra.
- Serranus shihpan* Richardson, Ichth. China Japan, p. 231, 1846; Canton, China.
- Serranus variegatus* Richardson, *ibid.*, p. 231; China Seas, Canton.
- Serranus polydophilus* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 37, 1849; Batavia, Java.

- Serranus coioides* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 993, 1850; Pinang Sea; Singapore.
- Serranus Janseni* Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 376, 1857; Sangi Island.
- Serranus diacanthus* Günther, Cat. Fishes British Mus., vol. 1, p. 110, 1859; in part.
- Epinephelus crapao* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 268, 1863; Timor. Bleeker, Atlas Ichth., vol. 7, pl. 286, fig. 1, 1873-76. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 104, 1881; Swatow, China.
- Epinephelus polypodophilus* Bleeker, Atlas Ichth., vol. 7, p. 59, pl. 283, fig. 1, 1873-76; Java; Singapore; Banka; Celebes; Amboina.
- Epinephelus Janseni* Bleeker, Atlas Ichth., vol. 7, p. 51, pl. 289, fig. 5, 1873-76; Sangi Island.
- Serranus gilberti* Bleeker, Atlas Ichth., vol. 7, p. 56, 1873-76; (not of Richardson). Bleeker, *ibid.*, vol. 8, pl. 331, fig. 3, 1876-77.
- Epinephelus pantherinus* Bleeker, Verh. Akad. Amsterdam, vol. 14, Revision Epinephelini, p. 78, 1874; Philippines. Bleeker, Atlas Ichth., vol. 7, p. 51, 1873-76; the Philippines and 12 East Indian localities.
- Serranus multinotatus* Peters, Monatsber. Akad. Wiss. Berlin, p. 435, 1876; Mauritius.
- Serranus malabaricus* Day, Fishes India, p. 19, pl. 4, fig. 2, 1875. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 289, fig. 23, 1930; Manila market; San Roque Market, Cavite, Cavite Province; Basut River, Camarines Norte Province; Dagupan, Pangasinan Province; near mouth of Tayabas River, and Ragay River, Ragay Gulf, Tayabas Province; river at Pasacao, and Refugio Island, Ragay Gulf, Camarines Sur Province; Sorsogon market, Sorsogon Province, Luzon; Abuyog and Tacloban market, Leyte; Iloilo market, Iloilo Province, Panay; mouth of Malampaya River, Malampaya Sound, and Ulugan Bay, Palawan; Zamboanga market, Zamboanga Province, Mindanao; also Kowloon market, Hong Kong, China.
- Serranus salmoides* Day, Fishes India, p. 20, pl. 4, fig. 3, 1878; Andaman Islands; India.
- Epinephelus malabaricus* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 67, 1891. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 19, 1907; Cavite, Cavite Province, Luzon. Herre, Fishes 1931 Philippine Exped. p. 44, 1934; Capiz, Capiz Province, Panay. Herre, various expeditions up to 1940-41; Manila market; Legaspi market, Albay Province, Luzon; Cebu, Cebu Province; Calapan, Mindoro; Cagayan River, Misamis Oriental Province, Mindanao; Cuyo, Cuyo Islands, Sulu Sea; also Singapore.
- Epinephelus multinotatus* Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 246, 1895; after Peters.
- Serranus tauvina* Fowler, Mem. Bishop Mus., vol. 10, p. 182, 1928; in part; (not of Forskål).
- 920. *Epinephelus megachir* (Richardson). Lapo-lapong Hglig; Baghak; Long-pectoral honeycomb grouper.**
India to the Philippines, China, Japan, south to the Louisiade Archipelago and Australia.
- Serranus areolatus japonicus* Schlegel, Fauna Japonica, Pisces, p. 8, 1842; Japan; not *Epinephelus jayonicus* Krusenstern.
- Serranus gilberti* Richardson, Ichth. China Japan, p. 230, 1846; China; (in part). Günther, Cat. Fishes British Mus., vol. 1, p. 148, 1859; China; Amboyna.
- Serranus megachir* Richardson, Ichth. China Japan, p. 230, 1846; China. Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 319, 1881; Torres Straits, Queensland, Australia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 255, fig. 13, 1930; Manila market; Daet Beach and Canimo Island, Camarines Norte Province, Luzon; Verde Island, Verde Passage, between Luzon and Mindoro; Mansalay, Mindoro; Catbalogan, Samar; Cebu market, Cebu; Iloilo market, Iloilo Province, Panay; Endeavor Strait, Palawan; Zamboanga market, Zamboanga Province, Mindanao; also Great Toba Island, Dutch East Indies and Kowloon market, Hong Kong, China.
- Serranus pardalis* Bleeker, Jour. Indian Archipelago, vol. 2, p. 635, 1848; Bima, Sumbawa; Batavia; Java.
- Serranus quoyanus* Günther, Cat. Fishes British Mus., vol. 1, p. 153, 1859; Amboyna; Celebes; (not of Cuvier and Valenciennes).

Serranus hexagonatus Klunzinger, Verh. Zool.-Bot. Gesell. Wien., vol. 20, p. 683, 1870; (in part).

Epinephelus gilberti Bleeker, Atlas Ichth., vol. 7, p. 56, 1873-76; 16 East Indian localities. Bleeker, *ibid.*, vol. 8, pl. 331, fig. 3, 1876-77.

Serranus alatus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 264, pl. 4, fig. 2, 1876; Hall Sound, New Guinea.

Serranus merra Day, Fishes India, p. 13, pl. 2, fig. 2, 1878; (not of Bloch).

Epinephelus megachir Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 219, 1895; Philippines; China; China Sea; Siam; Celebes; Mysol; Amboyna; Louisiade Archipelago. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 256, 1908; Calayan, Babuyan Islands, north of Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 45, 1931; the Philippines and 31 East Indian localities. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 50, 1930; Manila, Philippine Islands. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Manila, Luzon. Herre, Philippine Bur. Sci. Collections; Atimonan, Tayabas Province, Luzon; Calapan, Mindoro; Agutaya, Cuyo Islands. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 129, fig. 89, 1936; Manila Bay; Ragay Gulf and Atimonan, Tayabas Province, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon.

921. *Epinephelus merra* Bloch.

From East Africa to the Marquesas Islands. Commonest of all Indo-Pacific serranids.

Epinephelus merra Bloch, Naturges Auslând, vol. 7, Fische, p. 17, pl. 329, 1793; Japan Sea. Bleeker, Atlas Ichth., vol. 7, p. 55, 1873-76; the Philippines and 19 East Indian localities. Boulenger, Cat. Fishes, ed. 2, vol. 1, p. 241, 1895; the Philippines and 20 Indo-Pacific localities; Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 75, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Zamboanga Province, Mindanao. Weber, *Siboga*-Exped., vol. 57, Fische, p. 204, 1913; Sanguisiapo, Sulu Archipelago, Philippines, and 19 East Indian localities. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 28, 1922; Zamboanga Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 64, 1931; Sulu Islands, Philippines, and 55 East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 44, 1934; Culion; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province. Umali, Edible Fishes Manila, p. 130, 1936; Manila Bay; Ragay Gulf, Tayabas Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Herre, various expeditions up to October 1940; Nasugbu, Batangas Province, Calapan, Mindoro; Romblon; Bantayan Island, Cebu Province; Estancia, Iloilo Province, Panay; Manucan, Cagayan Islands, Sulu Sea; Kolambangan, Lanao Province, and Dapitan, Zamboanga Province, Mindanao; Pearl Bank, Bongao and Sibutu, Sulu Province.

Holocentrus merra Lacépède, Hist. Nat. Poiss., vol. 4, p. 384, 1802; Japan.

Serranus merra Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 325, 1828; Japan, East Indies; Red Sea; Waigiu; Timor; Mauritius; Bourbon; Seychelles; BoraBora; Kusaie (Oualan). Fowler, Mem. Bishop Mus., vol. 10, p. 181, 1928; 26 localities in the tropical Pacific. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 268, figs. 16-17, 1930; Saptang Island, Batan Islands, Batanes Province; Dasol Bay, Pangasinan Province; Hermana Mayor Islands, Zambales Province; Rapu-rapu, Guinayanay, and Batan Islands, Albay Province; Masamat Bay, Quinalasag Island, and Porongpong Island, Palumbanes Islands, Camarines Sur Province; Limbones Cove, Cavite Province; and Gubat, Sorsogon Province, Luzon; Maricaban Island and Verde Island, Verde Island Passage between Luzon and Mindoro; Port Palapag, north coast of Samar; Puerto Princesa, and Dalaganem Island, Palawan; Candaraman Island, Balabac; Iloilo market, Iloilo Province, Panay; Little Santa Cruz and Tictawan Islands, Zamboanga Province, Mindanao; Bulan, Doc Can, Siasi; Cagayan Sulu, Sanguisiapo, Simaluc, Sibi Sibi, Tonquil, Teomabul, and Tapiantana Islands; Tutu Bay, Jolo Island, and Jolo market, Jolo, Sulu Province.

- Serranus hexagonatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 330, 1828; BoraBora and Oualan. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 516, 1830; Carteret Harbor, New Ireland. Guerin, Iconographie du Règne Animal de Cuvier, Poissons, p. 3, pl. 4, fig. 1, 1829-44; BoraBora; Oualan. Richardson, Voy. *Sulphur*, Zool., p. 82, pl. 38, fig. 1, 1844. Günther, Fische der Südsee, vol. 1, p. 7, pl. 7, figs. A-B, 1873; Society Islands; Polynesia.
- Serranus faveatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 329, 1828; Seas of India; Ceylon; Mauritius.
- Serranus nigriceps* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 517, 1830.
- Serranus confertes* Bennett, Life Raffles, p. 686, 1830; Sumatra.
- Serranus stellans* Richardson, Ann. Mag. Nat. Hist., vol. 9, p. 23, 1842; Melville Island, Torres Straits.
- Serranus hexagonatus* var. *merri* Günther, Cat. Fishes British Mus., vol. 1, p. 141, 1859; Philippines; China; Singapore; India.
- Epinephelus hexagonatus* Bleeker, Nat. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 301, fig. 2, 1873-76.
- Epinephelus stellans* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 281, 1865; Amboina. Bleeker, Atlas Ichth., vol. 7, p. 54, 1873-76; Amboina. Bleeker, *ibid.*, vol. 8, pl. 382, fig. 4, 1876-77.
- Epinephelus stellatus* Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 498, 1912; Okinawa.

922. *Epinephelus morrhua* (Cuvier and Valenciennes).

- From the Red Sea and Natal, South Africa, to the Philippines and Japan.
- Serranus morrhua* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 434, 1833; Mauritius. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 678, 1870; Red Sea. Day, Fishes India, p. 21, pl. 5, fig. 1, 1878; Madras. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 243, 1930; Jolo, Sulu Province.
- Serranus poecilnotus* Schlegel, Fauna Japonica, Pisces, p. 6, pl. 4, fig. 1, 1842; Nagasaki. Bleeker, Verh. Bat. Gen., vol. 26, 1857; Nieuwe nalez. Ichth. Japan, p. 61; Nagasaki.
- Serranus angularis* Günther, Cat. Fishes British Mus., vol. 1, p. 126, 1859; Mauritius; not of Cuvier and Valenciennes.
- Serranus radiatus* Day, Proc. Zool. Soc. London, p. 699, 1867; near Madras.
- Epinephelus morrhua* Bleeker, Recherches faune Madagascar, Poissons, p. 89, 1875. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 65, pl. 7, fig. 1, 1891. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 208, 1895; Red Sea; Muscat; Mauritius. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 454, fig. 11, 1910; Nagasaki, Japan. Barnard, Ann. South African Mus., vol. 21, p. 476, 1927; Natal and Zululand coast. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 42, 1931; Buru, East Indies.
- Serranus (Epinephelus) brunneus* Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 230, pl. 5, figs. 1 and 2, 1883; Japan; not of Bloch.
- Serranus (Hyposerranus) morrhua* Klunzinger, Fische Rothen Meeres, p. 3, pl. 1, fig. 2, 1884; Koseir.
- Epinephelus poecilnotus* Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 414, 1912; Nagasaki.
- Serranus (Epinephelus) morrhua* Zugmayer, Abh. Bayerisch. Akad. Wiss. Math.-Phys. Klasse, vol. 26, p. 9, 1913; Oman.

923. *Epinephelus nebulosus* (Cuvier and Valenciennes).

- East Indies, the Philippines, Formosa and China, Japan, and Pelew Islands.
- Serranus nebulosus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 313, 1828. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 525, 1845; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 148, 1859; Javanese Sea. Fowler, Mem. Bishop Mus., vol. 10, p. 181, 1928; Pelew Islands.
- Serranus moara* Schlegel, Fauna Japonica, Pisces, p. 10, pl. 4, fig. 2, 1842. Bleeker, Verh. Bat. Gen., vol. 25, 1853; Nalez. Ichth. Japan, p. 24; Japan. Kner, Reise Novara Fische, vol. 1, p. 23, 1865-67.
- Epinephelus nebulosus* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 45, 1873; Malay Archipelago. Bleeker, Atlas Ichth., vol. 7, p. 66,

pl. 339, fig. 3, 1873-76. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 240, 1895; Japan; Malay Archipelago. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 256, 1908; Aparri, Cagayan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 57, 1931; the Philippines and 10 East Indian localities.

Epinephelus moara Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, pl. 5, p. 9, 1905; Hong Kong. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 183, 1909; Takao, Formosa. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 456, 1910; Nagasaki, Wakanoura, Misaki and Hakata, Japan.

924. *Epinephelus rhyncholepis* (Bleeker).

East Indies, the Philippines, RiuKiu Islands, south to Lord Howe and Norfolk Islands, west to Mauritius and Madagascar.

Serranus rhyncholepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 749, 1852; Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 105, 1859; Sea of Bulucomba, Celebes. Lunel, Mem. Soc. Phys. Hist. Nat. Geneve, p. 270, 1881. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 267, 1930; Cebu, Cebu Province; Zamboanga, Zamboanga Province, Mindanao. Also Nafa, RiuKiu Islands.

Epinephelus rhyncholepis Bleeker, Ned. Tijds. Dierk., vol. 1, p. 268, 1863; Timor. Bleeker, Atlas Ichth., vol. 7, p. 62, pl. 286, fig. 2, 1873-76; Celebes; Timor. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 231, 1895; coasts of Celebes and Timor. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 498, 1912; Okinawa, RiuKiu Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 49, 1931; Makassar and Bulucomba, Celebes; Atapupu, Timor.

925. *Epinephelus sexfasciatus* (Cuvier and Valenciennes).

East Indies, Philippines, China, Japan, Louisiade Archipelago, Maldive Archipelago.

Serranus seafasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 360, 1828; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 108, 1859; East Indies. Day, Fishes India, p. 17, 1878; Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 261, fig. 15, 1930; Manila market; Corregidor Light, Manila Bay; Cavite and San Roque markets, Cavite Province, Luzon.

Epinephelus seafasciatus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 138, 1873; China. Bleeker, Atlas Ichth., vol. 7, p. 60, pl. 281, fig. 2, 1873-76; Sumatra; Singapore; Java; Celebes. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 214, 1895; Philippines; Arafura Sea; Louisiade Archipelago. Seale, Philippine Jour. Sci., vol. 5A, p. 275, 1910; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 46, 1931; the Philippines and 10 East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Bauang Sur, La Union Province; Nasugbu, and Lemery, Batangas Province, Luzon. Herre, Expeds. of 1936-37 and 1940-41; Manila Bay, and Gulf of Ragay, Luzon; Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao; also Singapore.

926. *Epinephelus summana* (Forskål).

From Red Sea and Madagascar to the Philippines, Japan, Caroline and Society Islands.

Perca summana Forskål, Descript. Animal., p. 42, 1775; Arabia.

Holocentrus ongus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 69, pl. 234, 1790; Japan.

Bodianus summana Bloch and Schneider, Syst. Ichth., p. 334, 1801; Red Sea.

Pomacentrus summana Lacépède, Hist. Nat. Poissons, vol. 4, p. 511, 1802; Arabia.

Serranus summana Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 344, 1828. Lefebvre, Voy. Abyssinie, Zool., vol. 6, p. 229, pl. 5, fig. 1, 1845; Massuah. Playfair and Günther, Fishes Zanzibar, p. 8, pl. 2, fig. 1, 1866; Zanzibar. Day, Fishes India, p. 21, pl. 4, fig. 4, 1878; Andaman Islands. Klunzinger, Fische Rothen Meeres, p. 5, pl. 2, figs. 1-2, 1884. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 280, figs. 20-21, 1930; Masinloc Bay and Port Matalvi, Zambales

Province; Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Butauanan Islands, and Saboon Island, Ragay Gulf, Camarines Sur Province; near Palag Bay, Albay Prov., and Langoa Point, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon; Bilikias Bay, and Tilig, Lubang Island; Maricaban Island and Verde Island, Verde Island Passage between Luzon and Mindoro; Puerto Galera and Varadero Bay, Mindoro; Santa Cruz, Marinduque, Capulaan Bay, Pagbilao Chica Island, and Mompog Island, between Marinduque and Luzon; Nabatas Point, Catbalogan and Gigoso Point, Quinapundan Bay, Samar; Cebu market, and Mactan Island, Cebu Province; Calangaman Island, between Leyte and Cebu; Endeavor Strait, and Ulugan Bay, Palawan; Polloc, Cotabato Province, Mindanao; Jolo market and Tutu Bay, Jolo Island and Singaan Island, Sulu Province; Buang Bay, Talajit Island (locality?).

Serranus bataviensis Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 38, 1849; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 129, 1859; Java; Amboina. Bleeker, Atlas Ichth., vol. 7, pl. 282, fig. 2, 1873-76.

Serranus alboguttatus Günther, Cat. Fishes, British Mus., vol. 1, p. 129, 1859; Amboyna; not of Cuvier and Valenciennes.

Serranus ongus Peters, Monatsber. Akad. Wiss. Berlin, p. 102, 1865.

Epinephelus alboguttatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 155, 1863; Halmahera; not of Cuvier and Valenciennes. Bleeker, Atlas Ichth., vol. 7, pl. 284, fig. 1, 1873-76.

Epinephelus summana Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 46, 1873. Bleeker, Atlas Ichth., vol. 7, p. 61, 1873-76; Sumatra; Celebes; Buton; Buru; Amboina. Boulenger, Cat. Fishes, British Mus., ed. 2, vol. 1, p. 248, 1895; Red Sea; Massowah; Zanzibar; Malay Archipelago; Borneo; Java; Menado, Celebes; Amboyna; Ponape, Caroline Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 498, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 27, 1922; Zamboanga, Zamboanga Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 54, 1931; the Philippines, and 24 places in the East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Cullion; Cebu Province; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, various expeditions, 1926 to 1941; Calapan, Mindoro; Polillo Island; Sibuyan Island; Dumaguete; Bantayan Island; Jolo, Siasi, and Sibutu Islands, Sulu Province.

Epinephelus ongus Bleeker, Verh. Akad. Amsterdam, vol. 14, p. 113, 1874. Bleeker, Atlas Ichth., vol. 7, p. 64, 1873-76; Sumatra; Duizend Islands; Java; Borneo; Celebes; Amboina.

927. *Epinephelus tauvina* (Forskål). Malabar grouper; Kulapo; Kuhapo; Kugtung; Korapo.

Red Sea and Natal to the Philippines, China, Japan, Carolines, Hawaii, Australia, and the Ellice Islands; enters fresh water. Becomes more than 2 meters long, with weight of 200 kilograms.

Perca tauvina Forskål, Descript. Animal., p. 39, 1775; Djedda, Red Sea. *Holocentrus tauvinus* Suckow, Naturgeschichte der Thiere, Fische, vol. 4, p. 523, 1799; Arabia.

Holocentrus tauvina Bloch and Schneider, Syst. Ichth., p. 321, 1801; Arabia.

Serranus reticulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 323, 1828; Java.

Serranus tumilabrus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 346, 1828; Seychelles. Playfair and Günther, Fishes Zanzibar, p. 8, pl. 2, fig. 1, 1866; Aden.

Serranus polystigma Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 244, 1853; Benculen, Sumatra.

Serranus reticularis Günther, Cat. Fishes British Mus., vol. 1, p. 150, 1859.

Epinephelus polystigma Bleeker, Ned. Tijds. Dierk., vol. 2, p. 146, 1865; Buru. Bleeker, Atlas Ichth., vol. 7, pl. 285, fig. 4, 1873-76.

Serranus tauvina Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 28, p. 683, 1870; Koseir, Red Sea. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Orion, Bataan Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 182, fig. 42, 1928; Palmyra Island. Fowler

and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 287, 1930; Manila market, Luzon; Burias Island; Iloilo market, Iloilo Province, Panay; Davao, Davao Province, Mindanao.

Epinephelus caeruleo-punctatus Bleeker, Atlas Ichth., vol. 7, p. 62, 1873-76. Herre, Philippine Bureau Science Collection, 1922-1928; Dapitan and Zamboanga, Zamboanga Province, Mindanao; Calapan, Mindoro; China Sea, off entrance to Manila Bay; Jolo, Siasi, Bongao, and Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 60, fig. 7, 1931; Philippines and 32 East Indian localities; synonymy only in part. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province.

Homalagrystes guntheri Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 269, pl. 6, fig. 3, 1877; Katow, New Guinea.

Epinephelus tauvina Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 244, 1895; Red Sea; Zanzibar; Port Natal; Muscat; Persian Gulf; Ceylon; Madras; Vizagapatam; Bengal; Singapore; Malay Archipelago; Borneo; Formosa; Amoy; China; Ponape, Caroline Islands; North Celebes; Amboina; Pelew Islands; Java; Ports Essington, Denison, and Bowen, Australia. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Mindanao.

Serranus phaeostigmaeus Fowler, Proc. Acad. Nat. Sci. Phila., p. 255, fig. 2, 1907; Hawaiian Islands.

Serranus (Epinephelus) tauvina Zugmayer, Abh. Bayerisch. Akad. Wiss. Math.-Phys. Klasse, vol. 26, p. 10, 1913; Oman.

928. *Epinephelus undulosus* (Quoy and Gaimard). Wavy-lined grouper; Lapolapo; Abo-abo.

Arabia to the Philippines, China, and Solomon Islands.

Bodianus undulosus Quoy and Gaimard, Voy. *Urante*, Zoologie, p. 310, 1824; Waigi; Rawak.

Serranus lineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 312, 1828; Pondicherry, India. Günther, Cat. Fishes British Mus., vol. 1, p. 156, 1859; China.

Serranus amboinensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 258, 1852; Amboina.

Epinephelus amboinensis Bleeker, Ned. Tijds. Dierk., vol. 2, p. 281, 1865; Amboina.

Epinephelus undulosus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 296, 1868; Waigi. Bleeker, Atlas Ichth., vol. 7, p. 46, pl. 288, fig. 3, 1873-76; Celebes; Amboina; Waigi. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 199, 1895; Ceylon; Madras; China; Mysol. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 242, 1907; Zamboanga, Zamboanga Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 36, 1931; Makassar, Celebes; Saleyer; Amboina; Misol; Waigi; Philippines. Herre, 1931 Philippine Exped., p. 45, 1934; Manila, Luzon. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 129, fig. 88, 1936; Manila Bay; Ragay Gulf, Tayabas Province. Herre, various expeditions; Puerto Galera, Mindoro; Cabalian, Leyte; Tonquil Island, Sulu Province.

Epinephelus lineatus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 138, 1873; China.

Serranus undulosus Day, Fishes India, p. 13, pl. 2, fig. 1, 1878; Madras. Fowler, Mem. Bishop Mus., vol. 10, p. 177, 1928; Shortland Island, Solomon Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 242, 1930; Hinanungan Bay, Leyte; Ulugan Bay, Palawan; Jolo market, Jolo, Sulu Province.

Genus 334. PROMICROPS Poey. Banded giant grouper; Jewfish.

Tropical Indo-Pacific and Atlantic.

Promicrops Poey, Reportorio Fisico-Nat. Isla de Cuba, vol. 2, p. 287, 1868; orthotype, *Serranus guaza* Poey.

Itaiara Vaillant and Bocourt, Mission Scientifique Mexique, Poissons, vol. 4, p. 67, 1878; orthotype, *Serranus itaiara* Lichtenstein=*Perca guttata* L.

Phrynotitan Gill, *Riverside Nat. Hist.*, vol. 3, p. 255, 1885; type *Batrachus gigas* Günther.

929. *Promicrops lanceolatus* (Bloch). Banded giant sea bass; Kugtung; Kulapo; Kuhapo.
Largest of all serranids. From Natal to the Philippines, Formosa, Gilbert Islands, Hawaii, Australia, and Fiji.
- Holocentrus lanceolatus* Bloch, *Naturges. Ausländ. Fische*, vol. 4, p. 92, pl. 242, fig. 1, 1790; East Indies.
- Serranus lanceolatus* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 316, 1828; Pondicherry, India. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 107, 1859; Bay of Bengal; Batavia and Samarang, Java. Day, *Fishes Malabar*, p. 4, pl. 1, fig. 1, 1865. Day, *Fishes India*, p. 18, pl. 4, fig. 1, 1878. Kent, *Great Barrier Reef*, p. 369, 1893; Queensland. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 184, 1928; Apiang, Gilbert Islands.
- Serranus geographicus* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 322, 1828; Java.
- Serranus horridus* Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 990, 1850; Pinang Sea; Singapore; not of Cuvier and Valenciennes.
- Batrachus gigas* Günther, *Ann. Mag. Nat. Hist.*, ser. 4, vol. 3, p. 131, 1869; Seychelles Islands.
- Epinephelus lanceolatus* Bleeker, *Verh. Akad. Amsterdam*, vol. 14, p. 73, 1874. Bleeker, *Atlas Ichth.*, vol. 7, p. 49, 1873-76; Singapore; Banka; Java; Celebes; Goram. Bleeker, *ibid.*, vol. 8, pl. 332, fig. 3, 1876-77. Boulenger, *Cat. Fishes British Mus.*, ed. 2, vol. 1, p. 251, 1895; Port Natal; Zanzibar; Mauritius; Seychelles; Madras; Pinang; Singapore; West Africa? Jordan, Evermann, and Tanaka, *Proc. California Acad. Sci.*, ser. 4, vol. 16, p. 654, 1927; Honolulu. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 70, 1931; 10 East Indian places.
- Oligorus terra-reginae* Ramsay, *Proc. Linn. Soc. New South Wales*, vol. 5, p. 93, 1880; Queensland, Australia.
- Oligorus goliath* de Vis, *Proc. Linn. Soc. New South Wales*, vol. 7, p. 318, 1882; Moreton Bay, Queensland.
- Promicrops lanceolata* Jordan and Evermann, *Proc. U. S. Nat. Mus.*, vol. 25, p. 342, 1902; Formosa.
- Epinephelus lancelotus* Seale, *Philippine Jour. Sci.*, vol. 11, sec. D, p. 237, 1916; Mindanao and Sulu Archipelago.
- Promicrops lanceolatus* Fowler and Bean, *Bull.* 100, U. S. Nat. Mus., vol. 10, p. 297, fig. 24, 1930; Cavite market, Cavite Province, and Manila market, Luzon; Cebu market, Cebu; Makassar market, Celebes. Herre, *Philippine Bureau Science Collection and 1936-37 Exped.*; Calapan, Mindoro; Taytay Bay, Palawan; Zamboanga, Zamboanga Province, Mindanao; Jolo, Pearl Bank, and Tumindao, Sulu Province; also Singapore.
- Genus 335. **PLECTROPOMUS** (Cuvier) Oken. Hind; Lapo-lapo; Grouper.
Tropical Indian and Western Pacific Oceans, north to Japan.
- Plectropomus* (Cuvier) Oken, *Isis*, p. 1182, 1817; on "Les Plectropomes" Cuvier, *Règne Animal*, p. 277, 1817.
930. *Plectropomus leopardus* (Lacépède). Spotted hind.
- Holocentrus leopardus* Lacépède, *Hist. Nat. Poissons*, vol. 4, pp. 332-367, 1802.
- Plectropoma leopardinum* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 392, pl. 36, 1828; Indian Ocean. Schlegel, *Fauna Japonica*, *Pisces*, p. 12, 1842; Nagasaki. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 157, 1859; Louisiade Archipelago.
- Plectropoma (maculatum) areolatum* Rüppell, *Atlas Reise Nördl. Afrika*, *Fische Rothen Meeres*, p. 143, 1828; Red Sea.
- Plectropoma cyanostigma* Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, vol. 2, p. 525, 1845; Batavia, Java.
- Plectropoma leopardus* Richardson, *Ichth. China, Japan*, p. 230, 1846.
- Paracanthistius leopardinus* Bleeker, *Atlas Ichth.*, vol. 7, p. 25, 1873-76; Java.
- Acanthistius leopardinus* Bleeker, *Atlas Ichth.*, vol. 7, pl. 296, fig. 3, 1873-76.

Plectropomus leopardus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 199, 1930; Manila Bay; Port Hamilo, Batangas Province; Lahuy Island, Pocket Bay, and Quinalasag Island, Masamat Bay, Camarines Sur Province; Atulayan Island, and Palag Bay, Albay Province; Langoa Point, Sorsogon Province, Luzon; Anabayas Islands, between Marinduque and Luzon; Alimango Bay, Burias Island; Destacado Island, between Masbate and Samar; Batag Island, and Gigoso Point, Quinapundan Point, Samar; Bisucay Island, Cuyo Islands, Sulu Sea; Bolalo Bay and Endeavor Strait, Palawan; Port Langcan, Dumarán Island, east of Palawan; Tara Island, northeast of Busuanga; Balabac; Surigao, Surigao Province, and Zamboanga market, Zamboanga Province, Mindanao; Tutu Bay, Jolo Island, and Taganak Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Market, Manila, Luzon. Herre, Philippine Bureau Science Collection; Layia, Batangas Province; Luzon; Romblon; Punta Flecha, Zamboanga Province; Jolo and Siasi, Sulu Province.

Plectropoma maculatum Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 77, 1931; in part.

931. *Plectropomus maculatus* (Bloch). Blue spotted grouper; Blue spotted hind; Lapo-lapo.

East coast of Africa to the Philippines, China, Pelew Islands, and Tuamotu Archipelago.

Bodianus maculatus Bloch, Naturges. Ausland. Fische, vol. 4, p. 48, pl. 228, 1790; Japan (?). Lacépède, Hist. Nat. Poissons, vol. 4, p. 280, and 293, 1802.

Plectropoma punctatum Quoy and Gaimard, Voy. Uranie, Zoologie, p. 318, pl. 45, fig. 1, 1824; Mauritius.

Plectropoma maculatum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 393, 1828; Mauritius. Günther, Fische der Südsee, vol. 1, p. 10, pl. 10, 1873; East Africa, Japan (?), Australia, Polynesia. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 160, 1895; Zanzibar, Singapore, Cape York, Australia, Samoa, Mauritius, Ceylon, Pelew Islands, Seychelles; in part. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 77, fig. 8, 1931; Singapore, Sumatra, Java, Celebes, Saleyer, Halmahera, Ternate, Mysore, New Guinea. Also 22 other Indo-Pacific localities; in part; not synonymy.

Paracanthistius maculatus Bleeker, Atlas Ichth., vol. 7, p. 26, 1873-76; Singapore; Java; Celebes; Halmahera; Ternate.

Acanthistius maculatus Bleeker, Atlas Ichth., vol. 7, pl. 291, fig. 3, 1873-76.

Plectropoma pessuliferum Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 520, pl. 17, upper fig., 1904; Padang, Sumatra.

Plectropomus maculatus Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 37, p. 442, 1910; Nagasaki. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 197, fig. 6, 1930; Manila market, Luzon; Catbalogan, and Natabas Point, Samar; Endeavor Strait, Palawan; also Great Tobea Island, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Manila, Luzon; Cullion; Jolo, Sulu Province. Herre, Philippine Bureau Sci., and 1936-37 Collections; Polillo; Verde Island, Verde Island Passage, between Luzon and Mindoro; Manucan, Cagayan Islands, Sulu Sea; Balabac and Comiran Island; Jolo, Tandubas, Bongao, and Sitankai, Sulu Province.

932. *Plectropomus oligacanthus* Bleeker. Blue striped scarlet hind; Blue-lined grouper; Lapo-lapo.

East Indies, Philippine and Caroline Islands.

Plectropoma oligacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 422, 1854; Batavia, Java. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 162, 1895; Malay Archipelago; Caroline Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 79, 1931; Batavia, Java; Menado, Celebes; Amboina.

Plectropomus oligacanthus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 201, fig. 7, 1930; Albay Gulf, Albay Province, and Alibijaban Island, Ragay Gulf, Tayabas Province, Luzon; Busin Harbor, Burias Island; Gigoso Point, Samar; Port Caltom, Busuanga Island; Ulugan Bay, Palawan, and Murcielagos Bay, Misamis Occidental Province, Mindanao; Bumbum Island, off British North Borneo. Herre, 1931 Philippine Exped., p. 43, 1934; Taytay, Palawan. Umali, Edible Fishes Manila, p. 132, fig. 24, 1936; Manila Bay; Ragay Gulf, Luzon.

Herre, Philippine Bureau Science Collection; Monja Island, entrance to Manila Bay, and Rapu Rapu Island, Albay Province, Luzon; Apo Reef, Mindoro; Ticao Island; Jolo, North Ubian, Pearl Bank, and Tumindao, Sulu Province.

933. *Plectropomus truncatus* Fowler and Bean.

Philippines and East Indies.

Plectropomus truncatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 196, fig. 5, 1930; Port Matalvi, Zambales Province; Atulayan Bay and Island, Lagonoy Gulf, Camarines Sur Province, Luzon; Alimango Bay, Burias Island; Gigoso Point, Samar; Endeavor Strait, Malampaya Sound, Palawan; Tapiantana Island, and Sulade Island, Sulu Province; Bumbum Island and Si Amil Island, near Darvel Bay, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 43, 1934; Culion.

Genus 336. ANYPERODON Günther.

Tropical Indian and Western Pacific Oceans.

Anyperodon Günther, Cat. Fishes British Mus., vol. 1, p. 95, 1859; type, *Serranus leucogrammicus* Cuvier and Valenciennes. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 293, 1930. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 80, 1931. *Anhyperodon* Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 269, 1895.

934. *Anyperodon leucogrammicus* (Cuvier and Valenciennes). White-lined grouper.

Zanzibar and Madagascar to the Philippines, the Carolines, and Samoa. *Serranus leucogrammicus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 347, 1828; Moluccas and Seychelles.

Anyperodon leucogrammicus Günther, Cat. Fishes British Mus., vol. 1, p. 96, 1859; Amboina. Bleeker, Atlas Ichth., vol. 7, p. 28, 1873-76; Singapore; Java; Flores; Timor; Ternate; Amboina. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 83, pl. 7, fig. 4, 1891. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 293, 1930; Palaui Island; Cagayan Province; Masinloc, Zambales Province; Alibijaban Island, Tayabas Province; Atulayan Island, and Rapu Rapu Island, Albay Province; Butauanan Island, Galvaney Island and Saboon Island, Camarines Norte Province; Langoa Point, Sorsogon Province; Talaji, Batangas Bay (?), Ligo Point, Balayan Bay, Batangas Province, Luzon; Sablayan, Puerto Galera, and Varadero Bay, Mindoro; Maricaban Island and Verde Island, Verde Island Passage, between Luzon and Mindoro; Port Banalacan and Santa Cruz, Marinduque Island, Mompog Island, between Marinduque and Luzon; Alimango Bay and Busin Harbor, Burias Island; Romblon; Masbate Reef, Masbate Island; San Miguel Harbor, Ticao Island; Ulugan Bay, Bolalo Bay, and Endeavor Strait, Palawan; Murcielagos Bay, Misamis Occidental Province; Polloc, Cotabato Province; Little Santa Cruz Island, Zamboanga Province; Surigao, Surigao Province, Mindanao; Taganak, Tara, Tataan, Simulac, and Cagayan Sulu Islands, Sulu Province, Philippine Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 81, fig. 9, 1931; 12 East Indian and 8 Indo-Pacific localities. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Manila, Luzon; Cebu, Cebu Province; Jolo, Sulu Province. Umali, Edible Fishes Manila, p. 133, fig. 95, 1936; Manila Bay; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Herre, Philippine Bureau Science Collection; Manila Bay, Luzon; Calapan and Puerto Galera, Mindoro; Cebu market and Bantayan Island, Cebu Province; Cuyo, Cuyo Islands; Zamboanga Province, Mindanao; Jolo, Bongao and Pearl Bank, Sulu Province.

Epinephelus leucogrammicus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 279, fig. 4, 1873-76.

Anhyperodon leucogrammicus Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 270, 1895; Seychelles; North Celebes; Amboina; Ponapé, Caroline Islands; Aneiteum, New Hebrides; Zanzibar.

Genus 337. CROMILEPTES Swainson.

India to the Philippines, China, and Australia: only one species known. *Cromileptes* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 201, 1839;

type, *Serranus altivelis* Cuvier and Valenciennes. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 271, 1895. Fowler and Bean, Bull. 100 U. S. Nat. Mus., vol. 10, p. 299, 1930. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 84, 1931.

935. *Cromileptes altivelis* (Cuvier and Valenciennes). High-finned grouper; Lapolapong manotchot.

Distribution that of the genus.

Serranus altivelis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 324, pl. 35, 1828; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 300, 1859; East Indies; China; Port Essington, Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 8, 1885; Cebu, Cebu Province, Philippines; Makassar, Celebes.

Cromileptes altivelis Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 201, 1839; name only. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 281, 1865; Amboina. Bleeker, Atlas Ichth., vol. 7, p. 30, 1873-76; Singapore; Pinang; Java; Duizend Islands; Celebes; Batjan; Amboina. Bleeker, *ibid.*, vol. 8, pl. 322, fig. 3, 1876-77. Day, Fishes India, p. 9, pl. 1, fig. 2, 1878; Nicobar Islands. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 271, 1895; Cebu, Cebu Province, Philippines; China; Pinang; Macassar; East Indies; Port Essington. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Oriental Negros Province. Jordan and Seale, Bull. Bur. Fish., vol. 26, p. 19, 1907; Manila, Luzon, Philippines. Evermann and Seale, Bull. Bur. Fish., vol. 26, p. 78, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, U. S. Nat. Mus., vol. 62, p. 29, 1922; Cebu, Philippine Islands. Herre, Philippine Jour. Sci., vol. 34, p. 303, 1927; Lake Naujan, Mindoro. Herre, Bur. Sci. Coll.; 1922-1927; Manila; Balayan Bay; Batan Island; Albay Province, Luzon; Baco Islands, and Calapan, Mindoro; Tanjay River; Negros Oriental Province, Agusan River, Agusan Province, Mindanao. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 300, fig. 25, 1930; Manila Market; Pagapas Bay, Batangas Province and Batauanan Island, Camarines Sur Province, Luzon; Cataingan Bay, Masbate, Cebu Market, Cebu, Endeavor Strait, Palawan; Jolo Market, Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 6, p. 85, 1930; Philippines, and 12 East Indian localities. Herre, Jour. Pan. Pac. Res. Inst., vol. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Culion; Dumaguete; Jolo, Sulu Province. Umali, Edible Fishes Manila, p. 133, fig. 1936; Manila Bay and Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Zamboanga Province, Mindanao.

Genus 338. GRAMMISTES Bloch and Schneider.

Tropical Indo-Pacific from Africa to the Marquesas Islands. Only one species known.

Grammistes Bloch and Schneider, Syst. Ichth., p. 182, 1801; type, *Perca sexlineata* Thunberg. Bleeker, Atlas Ichth., vol. 7, p. 69, 1873-76; in part. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 310, 1930. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 4, 1931.

936. *Grammistes sexlineatus* (Thunberg).

Distribution that of the genus.

Perca sexlineata Thunberg, Vet. Akad. Nya Handlingar Stockholm, vol. 13, p. 142, pl. 5, 1792; Japan.

Grammistes orientalis Bloch and Schneider, Syst. Ichth., p. 188, 1801; East Indies. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 203, pl. 27, 1828; East Indies; Neros Banks. Günther, Cat. Fishes British Mus., vol. 1, p. 171, 1859; Philippines; Mauritius; Indian Ocean; Australia. Günther, Fische der Südsee, vol. 1, p. 10, 1873; Tuamotus; Gilbert (Kingsmill) Islands. Bleeker, Atlas Ichth., vol. 7, p. 70, pl. 337, fig. 5, 1873-76; 15 East Indian localities and the Philippines. Day, Fishes India, p. 28, pl. 9, fig. 1, 1878; Andamans. Vaillant, Nouv. Arch. Hist. Nat., ser. 3, vol. 5, p. 58, 1893; Palawan, Philippines.

Sciaena vittata Lacépède, Hist. Nat. Poissons, vol. 4, pp. 310 and 316, 1802; near Mauritius.

Perca pentacantha Lacépède, Hist. Nat. Poissons, vol. 4, pp. 398 and 424, 1802.

Perca triacantha Lacépède, Hist. Nat. Poissons, ibid., 1802.

Bodianus sexlineatus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 285, 302, 1802.

Grammistes sexlineatus Klunzinger, Fische Rothen Meeres, p. 10, 1884. Boulenger, Cat. Fishes, British Mus., ed. 2, vol. 1, p. 346, 1895; Philippines, and 10 other Indo-Pacific localities. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 260, pl. 38, fig. 2, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 78, 1907; Bacon, Sorsogon Province, Luzon. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 214, 1913; Sanguisiapo, Sulu Province, Philippines; also Pepela Bay, Rotti. Tanaka, Figures and Descriptions, Fishes Japan, vol. 33, p. 626, pl. 150, fig. 414, 1924; Tanabe. Fowler, Mem. Bishop Mus., vol. 10, p. 187, 1928; Marcus Island; Tahiti; Nukuhiva; Tubuai; Shortland Island; Guam; Apia; Society Islands; Ebon Island; Apiang; Ascension Island. Fowler and Bean, Bull. 100 U. S. Nat. Mus., vol. 10, p. 311, 1930; Sablayan, Mindoro; Bacon, Sorsogon Province, Luzon, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 4, fig. 1, 1931; Philippines; Sulu Islands, Sulu Province, Philippines; and 28 East Indian places; also 15 localities in the Indian and Pacific Oceans. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Manila Bay, Luzon; Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete; Sitankai. Herre, Philippine Bureau Science Collection; Monja Island, entrance to Manila Bay, Luzon; Calapan and Puerto Galera, Mindoro; Sibuyan Island; Cebu, Cebu Province; Samal Island, Davao Gulf, Davao Province, Mindanao; Tonquil Island, Tandubas Island, Pearl Bank and Sibutu Island, Sulu Province.

Labrax orientalis Steindachner, Anz. Akad. Wiss. Wien, vol. 32, p. 259, 1895; Suez.

Genus 339. RHOMBOSERRANUS Fowler.

A Philippine genus with one species known.

Rhomboserranus Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 59, 1943; type, *Rhomboserranus gracillispinis* Fowler.

937. Rhomboserranus gracillispinis Fowler.

Rhomboserranus gracillispinis Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 59, fig. 8, 1943; China Sea off west coast of Batangas Province, Luzon, in 114 fathoms; Matoco Point, Batangas Bay, Batangas Province, Luzon, in 135 fathoms.

Genus 340. SCHISTOPERCA Fowler.

The Philippines and East Indies.

Schistoperea Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Pt. 2, p. 61, 1943; type, *Schistoperca macrobrachium* Fowler.

938. Schistoperca macrobrachium Fowler.

Schistoperca macrobrachium Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 62, fig. 9, 1943; Matoco Point, Balayan Bay, Batangas Province, Luzon, in 210 fathoms; Anima Sola Island, north of the western end of Burias Island, in 215 fathoms; Cagayan Sulu Island, in 508 fathoms, and along shore in Tataan Pass, Simalac Island, Sulu Prov. Makyan Island, off Halmahera, Dutch East Indies, in 288 fathoms.

Genus 341. ANTHIAS Bloch.

Tropical and subtropical seas.

Anthias Bloch, Naturges. Ausländ. Fische, vol. 6, p. 97, 1792; type, *Labrus anthias* L. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 301, 1930. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 99, 1931.

Aylopon Rafinesque, Caratteri Alcuni Nuovi Generi Sicilia, p. 52, 1810; type, *Labrus anthias*. To replace *Anthias*, supposed to be preoccupied.

Pseudanthias Bleeker, Ned. Tijds. Dierk., vol. 4, p. 94, 1873; type, *Anthias pleurotaenia* Bleeker, Atlas Ichth., vol. 7, p. 16, 1873-76.

939. *Anthias albofasciatus* Fowler and Bean.

China Sea and Philippines.

Anthias albofasciatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 309, 1930; China Sea, 21°54' N., and 115°42' E., west of the Batan Islands. Herre, Copeia, No. 3, p. 149, 1945; Puerto Galera, Mindoro. Herre and Kauffman, motorship *Theodore N. Gill*, November, 1947; entrance to Manila Bay, 1.2 miles off Cochinos Point, Bataan Province, Luzon, in 27-30 fathoms.

940. *Anthias cichlops* (Bleeker).

East Indies and the Philippines.

Serranus cichlops Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 245, 1853; Priaman, Sumatra. Günther, Cat. Fishes British Mus., vol. 1, pp. 95 and 503, 1859; after Bleeker. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 328, 1895; Sumatra.

Pseudanthias cichlops Bleeker, Atlas Ichth., vol. 7, p. 20, pl. 289, fig. 1, 1873-76; Priaman, Sumatra.

Anthias cichlops Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 308, 1930; Palau Island, Cagayan Province, Luzon; Maricaban Island, Verde Island Passage between Luzon and Mindoro, Tacbuc Point, Leyte; Malanipa Island, east of Zamboanga, Zamboanga Province, and Murcielagos Bay, Misamis Occidental Province, Mindanao; Jolo, Jolo Island, Sulade and Teomabal Islands, Sulu Province, Si Amil and Danawan near boundary line, off British North Borneo coast. Herre, various collections; Calapan, Mindoro; Little Santa Cruz Island, near Zamboanga, Mindanao; Manuk Manka, Sulu Province.

941. *Anthias huchti* Bleeker.

East Indies, Philippines, and Natal, South Africa.

Anthias Huchtii Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Vischfauna Amboina, p. 38, 1857.

Pseudanthias Huchtii Bleeker, Ned. Tijds. Dierk., vol. 4, p. 160, 1873. Bleeker, Atlas Ichth., vol. 7, p. 17, pl. 290, fig. 1, 1873-76.

Anthias huchtii Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 329, 1895; Amboyna; Flores. Barnard, Ann. South African Mus., vol. 21, p. 463, 1925-27; Natal coast.

Anthias huchti Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 103, 1931; Amboyna; Flores. Herre, Philippine Jour. Sci., vol. 59, p. 366, 1936; Dumaguete, Negros Oriental Province.

942. *Anthias pleurotaenia* Bleeker.

The East Indies, Philippines, and Australia.

Anthias pleurotaenia Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Vischfauna Amboina, p. 34, 1857. Günther, Cat. Fishes British Mus., vol. 1, p. 502, 1859; after Bleeker. Ogilby, Proc. Zool. Soc. London, p. 153, 1889; Great Barrier Reef, Australia. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 330, 1895; Amboyna; Flores. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 302, 1930; Danawan and Si Amil Islands, near Philippine boundary, off coast of British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 101, 1931; Amboyna. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Dumaguete.

943. *Anthias squamipinnis* (Peters).

East Indies, Philippines, Red Sea, Mozambique, Madagascar, and Natal. *Serranus (Anthias) squamipinnis* Peters, Monatsber. Akad. Wiss. Berlin, p. 429, 1855; Mozambique.

Anthias squamipinnis Günther, Cat. Fishes British Mus., vol. 1, p. 89, 1859; after Peters. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 706, 1870; Koseir, Red Sea. Regan, Ann. Durban Mus., vol. 1, p. 458, 1917; Durban, Natal. Fowler, Mem. Bishop Mus., vol. 10, p. 185, 1928; New Guinea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 304, figs. 26-27, 1930; Port San Pio Quinto, Camaguin Island, Babuyan Islands; Ligpo Point, Balayan Bay, Batangas Province; Refugio Island near Pasacao, Camarines Sur Province; and Batan Island, Albay Province; also Canmahala Bay, Ragay Gulf, Luzon; Tilig Bay, Lubang Island, China Sea; Puerto Galera, Sablayan, and Varadero Bay, Mindoro; Maricaban and Verde Island, Verde Island Pas-

sage, between Luzon and Mindoro; Port Banalacan, Marinduque; Busin Harbor, Burias Island; Masbate Reef, Masbate; Maribojoc Bay, and Mantatao Islet, Bohol; Calangaman Island, and Malapascua Island, between Leyte and Cebu; Inamucan Bay, Misamis Occidental Province; Opol, Mindanao; Cagayan Island, Cagayanes Island, Sulu Sea; Pangasinan, Singaan, Tara, Cagayan Sulu, Sulade, Teomabal, Tapiantana, Doc Can, Singaan, and Simaluc, Sibi Sibi Islands, and Sitankai Reef, Sulu Province; Danawan and Si Amil Islands, just over British North Borneo-Philippine boundary. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Dumaguete, Negros Oriental Province. Herre, 1936 Exped.; Si Amil, British North Borneo, just across the international boundary.

Family 118. PLESIOPIDAE

Genus 342. PLESIOPS (Cuvier) Oken.

Indo-Pacific from Africa to the Philippines, China, Japan, Australia, east to the Samoan Islands.

Plesiops (Cuvier) Oken, Isis, p. 1182, 1817; on Cuvier, Règne Animal, vol. 2, p. 266, 1817. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 374, 1929. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 312, 1930.

Pharopteryx Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 15, 1828; type, *Pharopteryx nigricans* Rüppell.

Cirrhiptera Bleeker, Nat. Tijds. Ned-Ind., vol. 4, p. 280, 1853; type, *Cirrhiptera corallicol* Bleeker; name in synonymy.

944. *Plesiops melas* (Bleeker).

East Indies, Philippines, Japan, Australia, Fiji, and Samoa.

Plesiops melas Bleeker, Verh. Bat. Gen., vol. 22, Ichth. Fauna Bali, p. 9, 1849; Boleling, Bali. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 257, 1908; Calayan, Babuyan Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 378, fig. 91, 1929; Philippines, and 15 East Indian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8*, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Culion; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds. Nasugbu, Batangas Province, Luzon; Dumaguete; Brooke's Point, Palawan; Sitankai and Sibutu, Sulu Province.

Plesiops nigricans var. *apoda* Kner, Sitzungsber. Akad. Wiss. Wien, vol. 58, p. 346, 1868; Savay, Samoa; Kandavu.

Pharopteryx melas Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province. Ogilby, Mem. Queensland Mus., vol. 2, p. 84, 1913; Masthead Island, Queensland.

945. *Plesiops nigricans* (Rüppell).

East coast of Africa to the Philippines, Australia, the Gilbert, Tonga, and Samoan Islands.

Pharopteryx nigricans Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 15, pl. 4, fig. 2, 1828; Mohila, Red Sea. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 78, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 188, 1928; Shortland Island; Guam; Gilbert Island; Ebon Island; Ponape; Apia; Fiji.

Plesiops nigricans Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 5, 1835; Red Sea. Bleeker, Verh. Akad. Amsterdam, vol. 15, p. 27, pl. 3, fig. 2, 1875; Luzon and 18 East Indian localities; in part. Bleeker, Atlas Ichth., vol. 9, pl. 390, fig. 3, 1877. Day, Fishes India, p. 128, pl. 31, fig. 5, 1878; Andamans. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 340, 1895; Zanzibar; Ceylon; China; Andaman Islands; Sumatra; Menado; Amboina; Australia; Fiji; Tonga; Samoa; Micronesia; Jordan and Richardson, Bull. U. S. Bur. Fish., vol. 27, p. 257, 1908; Calayan, Babuyan Islands, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 375, 1929; 36 East Indian localities; also Philippines and 19 other places in the Indo-Pacific. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 313, 1930; synonymy only in part; Mariveles Bay, Bataan Province; Canimo Pass near Daet, and Maculabo Island, Camarines, Norte Province; Ragay

Bay and San Miguel Island, Camarines Sur Province; Batan Island, Albay Province, Luzon; Sablayan, Mindoro; Cataingan Bay, Masbate; Masingan Island, north of Bohol, and Mantacao Island, west of Bohol; Bisucay Island, Cuyo Islands; Sirinao Island and Ulugan Bay, Palawan; Pujada Bay, Davao Province, and Pilas Island, west of Basilan, Zamboanga Province, Mindanao; Bubuan Island, Cabalian Point, Jolo, Pangasinan Island, and Sitankai Reef, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Nasugbu, Batangas Province, Luzon; Dumaguete; and Jolo, Sulu Province. Herre, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon, and Sitankai, Sulu Province.

Plesiops caeruleolineatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 5, pl. 2, fig. 5, 1835; Massaua. Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; Paracale, Luzon, Philippines.

Plesiops corallicola Rüppell, Neue Wirbelt., Fische Rothen Meeres p. 5, 1835; Java Sea. Günther, Fische der Südsee, vol. 1, p. 87, pl. 58, fig. 5, 1873-75; East Indies; Samoa; Tonga; Fiji; Pelew and Gilbert Islands. Vaillant, Nouv. Arch. Hist. Nat., ser. 3, vol. 5, p. 58, 1893; Palawan, Philippines.

Pharopteryx corallicola Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 530, 1904; Padang, Sumatra. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 275, 1927; Philippines.

946. *Plesiops altivelis* Steindachner.

A rare East Indian and Philippine fish.

Plesiops altivelis Steindachner, Sitzungsber. Akad. Wissenesch. Wien, vol. 112, p. 17, 1903; Nias East Indies; type and only specimen 160 mm. long. Weber and de Beaufort, Fishes Indo-Australia Archipelago, vol. 5, p. 377, 1929; after Steindachner. Herre, 1948 Collection; Siaton, Negros Oriental Province; one specimen, 100 mm. long.

Genus 343. CALLOPLESIOPS Fowler and Bean.

The Philippines and East Indies.

Calloplesiops Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 316, 1930; type, *Calloplesiops niveus* Fowler and Bean.

947. *Calloplesiops niveus* Fowler and Bean.

The Philippines and East Indies.

Calloplesiops niveus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 317, 1930; Sabtang Island, Batanes Islands; San Miguel Island, Tabaco Bay, Albay Province; Sablayan and Puerto Galera, Mindoro; Romblon Reef, Romblon; Port Palapag, north coast of Samar; Bagacay Bay, Iloilo Province, Panay; Bisucay Island, Cuyo Islands, Sulu Sea; Little Santa Cruz Island, opposite Zamboanga, Zamboanga Province, Mindanao; Tutu Bay, Jolo, Sulu Province.

Family 119. PSEUDOPLESIOPIDÆ

East Indies, Philippines, Chagos Archipelago in Indian Ocean. A single genus and species known.

Genus 344. PSEUDOPLESIOPS Bleeker.

Pseudoplesiops Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 215, 1858; type, *Pseudoplesiops typus* Bleeker.

948. *Pseudoplesiops typus* Bleeker.

Distribution that of the family.

Pseudoplesiops typus Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 217, 1858; Goram Island. Günther, Cat. Fishes British Mus., vol. 2, p. 260, 1860; after Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 15, p. 30, pl. 3, fig. 1, 1875; Goram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 388, fig. 3, 1877. Regan, Trans. Linn. Soc. London, ser. 2, vol. 12, Zool., p. 228, 1905; Chagos Archipelago. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 276, 1927; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 381, fig. 92, 1929; Amboina; Goram; Doreh, New Guinea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 10, p. 42, 1930; Port Matalvi, Zambales Province, and Caracaran, Batan Island, Albay Province, Luzon; Biri Channel and Port Palapag, north coast of Samar; Romblon Reef, Romblon; Rasa Island, and Endeavor Strait, Palawan.

Family 120. PSEUDOCROMIDÆ

Genus 345. **DAMPIERIA** Castelnau.

East Indies, Philippines, Japan, and Australia.

Cichlops Müller and Troschel, Horae Ichth., vol. 3, p. 24, 1849; type, *Cichlops cyclophthalmus* Müller and Troschel; preoccupied.

Labracinus Schlegel, Handleiding beoef. dierkunde, vol. 2, p. 121, 1858; nomen nudum.

Dampiera Castelnau, Researches Fishes Australia, Phila. Centennial Exposition of 1876, Official Record, p. 30, 1875; type, *Dampiera lineata* Castelnau. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 4, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 121, 1931.

949. *Dampiera atrofasciatus* Herre.

A Philippine species.

Dampiera atrofasciatus Herre, Copeia, No. 1, p. 17, 1933; Cullion. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Cullion.

950. *Dampiera bitaeniata* Fowler.

A Philippine species.

Dampiera bitaeniata Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 18, fig. 4, 1931; Puerto Galera, Mindoro; Santa Cruz, Marinduque, Philippines.

951. *Dampiera melanostigma* Fowler.

The Philippines and Formosa.

Dampiera melanostigma Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 16, figs. 2-3, 1931; Alibijaban Island, Ragay Gulf, Tayabas Province; Saboon Island, Ragay Gulf, Camarines Sur Province; Langoa Point, Sorsogon Province; Canmahala Bay, Luzon; Alimango Bay and Busin Harbor, Burias Island; Cebu market, Cebu, and Mactan Island, Cebu Province; Hokoku, Soo Wan, Formosa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, 1931 Philippine Exped., p. 47, 1934; Cebu, Cebu Province; Dumaguete, Negros Oriental Province.

952. *Dampiera melanotaenia* (Bleeker).

The East Indies and Philippines.

Cichlops melanotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 765, 1852; Makassar, Celebes. Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 7, pl. 2, fig. 3, 1875; Banka; Celebes. Bleeker, Atlas Ichth., vol. 9, pl. 395, fig. 5, 1876-77. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 261, 1908; Cuyo, Cuyo Islands, Sulu Sea.

Labracinus melanotaenia Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 95, 1907; Bulan, Sorsogon Province, Philippines.

Dampiera melanotaenia Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 12, fig. 1, 1931; Alimango Bay and Busin Harbor, Burias Island; Port Dupon, Leyte; Port Caltom, Busuanga; Bolalo Bay and Makesi Island, Palawan; Candaraman and Caxisigan Islands, North Balabac Strait; Pandanon Island, between Cebu and Bohol; Ponson Island, Camotes Islands, between Leyte and Cebu; Isabela, Basilan; Little Santa Cruz, Lampingan, Pilas, and Tulnalutan Islands, Zamboanga Prov. Mindanao; Cagayan Sulu, Bubuan, Simaluc, Sibi Sibi, Sitankai, Tara, Tonquill, and Tumindao Islands, and Tutu Bay, Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 123, 1931; Philippines; Banka; Billiton; Makassar, Celebes; Sangir Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Expedition., p. 47, 1934; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, 1933-34 and 1936-37 Philippine Exped., and Bureau Science Collection; Calapan, Mindoro; Bantayan Island and Cebu, Cebu Province; Sibutu and Sitankai, Sulu Province.

953. *Dampiera spiloptera* (Bleeker).

The East Indies, Philippines, Formosa, and RiuKiu Islands.

Cichlops spilopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 168, 1853; Macassar, Celebes. Günther, Cat. Fishes, British Mus., vol. 2, p. 259, 1860; Sea of Macassar; after Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 11, pl. 1, fig. 4, 1875; Celebes;

Sangi, Batjan; Waigiu. Bleeker, Atlas Ichth., vol. 9, pl. 390, fig. 9, 1877.

Cichlops Hellmuthii Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 329, 1854; Larautuka, Flores.

Cichlops Hellmuthi Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 12, pl. 1, fig. 1, 1875; Obi Major; Flores; Letti; Waigiu. Bleeker, Atlas Ichth., vol. 9, plate 390, fig. 4, 1877.

Cichlops spiloptera Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 261, 1908; Calayan and Fuga Islands, Babuyan Islands, north of Luzon.

Dampieria hellmuthii Fowler, Mem. Bishop Mus., vol. 10, p. 189, 1928; after Bleeker.

Dampieria spiloptera Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 6, 1931; Sabtang Island, Batanes Islands; Palau Island, Cagayan Province; Grande Island Reef, Bataan Province; Alibijaban Island, Ragay Gulf, and Casiguran, Tayabas Province; Basot and Maculabo Islands, Camarines Norte Province; Quinalasag Island, Saboon Island, Ragay Gulf, and Butaanan Island, Camarines Sur Province; Gubat, Sorsogon and Langoa Point, Sorsogon Province, Luzon; Port San Pio Quinto, Camaguin Island, and Fuga Island, Babuyan Islands; Santo Domingo de Basco, Batan Island, Batanes Islands; Sablayan and Puerto Galera, Mindoro; Alimango Bay, and Busin Harbor, Burias Island; Capulaan Bay, Pagbilao Chica Island, off south coast of Tayabas Province, Luzon; Cataingan Bay, and San Miguel Harbor, Masbate; Mompog Island, between Marinduque and Luzon; Biri Channel, north coast of Samar; San Roque, Leyte; Tilig, Lubang Island, Destacado and Talajit Islands, between Samar and Masbate; Calangaman Island, between Leyte and Cebu; Cebu market and Mactan Island, Cebu Province; Mantatao Islet, north coast of Bohol; Tara Island, northeast of Busuanga; Ulugan Bay, Mantaquin Bay, Bolalo Bay in Malampaya Sound, Malcochin Harbor, Linapacan Island, Port Langcan, Dumarang Island and Observatory Island, Palawan; Candaraman and Caxisigan Islands, North Balabac Strait; Little Santa Cruz, Pilas, Tapiantana and Lampinigan Islands, and Isabel, Basilan, Zamboanga Province, Murcielagos Bay, Misamis Occidental Province, and Baganga Bay, Davao Province, Mindanao; Siasi, Tara, Cagayan Sulu, Simaluc, Sibi Sibi, Singaan, Tulayan, Tataan, and Tonquil, and Tumindao Islands, and south lagoon, Tumindao and Sitankai Reefs, Sulu Province. Herre, Fishes 1931 Philippines Exped., p. 47, 1934; Sitankai, Sulu Province. Herre, 1936-37 and 1940-41 Exped., Puerto Galera, Mindoro; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province.

Dampieria spilopterus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 126, fig. 22, 1931; 13 East Indian localities; Fuga and Calayan Islands; Philippines.

954. *Dampieria trispilus* (Bleeker).

East Indies and Philippines.

Cichlops trispilos Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 110, 1855; Sahu, Halmahera.

Cichlops trispilus Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 10, pl. 3, fig. 5, 1875; Halmahera; Ternate; Batjan; Guebe. Bleeker, Atlas Ichth., vol. 9, pl. 390, fig. 2, 1877.

Labracinus trispilos Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 95, 1907; Bacon, Sorsogon Province, Luzon.

Dampieria trispilos Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 11, 1931; Butaanan Island, on Pacific coast, and Pasacao, Ragay Gulf, Camarines Sur Province; Bacon, Langoa Point and Matuog Bay, Sorsogon Province, Luzon; Canmahala Bay, and Dumaca River, Luzon; San Miguel Harbor, Ticao Island; Masbate Reef, Masbate; Lode Bay, Destacado Island, between Masbate and Samar; Biri Channel, Balicutat Islands, north coast of Samar. Port Dupon, Leyte; Endeavor Strait, Palawan; Bubuan Island, Cagayan Sulu and Tara Islands, Sulu Province.

Dampieria trispilos Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 124, 1931; Halmahera; Ternate; Batjan, Guebe; Philippines.

Genus 346. **PSEUDOCROMIS** Rüppell.

East coast of Africa to Philippines, Caroline Islands, New Hebrides, and Australia.

Pseudochromis Rüppell, Neue Wirbelt., Fische, Rothen Meeres, p. 8, 1835; type, *Pseudochromis olivaceus* Rüppell. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 19, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 127, 1931.

Labristomus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 230, 1839; type, *Pseudochromis olivaceus* Rüppell.

Assiculus Richardson, in Stokes, Discoveries in Australia, vol. 1, p. 492, 1846; type, *Assiculus punctatus* Richardson.

Onar de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 875, 1885; type, *Onar nebulosum* de Vis.

955. *Pseudochromis aureus* Seale.

The Philippines.

Pseudochromis aurea Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 528, 1909; Sitankai, Sulu Province.

Pseudochromis aureus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 27, 1931; after Seale. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Cabalian, Leyte; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped., Jolo, Sulu Province.

956. *Pseudochromis colei* Herre.

Pseudochromis colei Herre, Copeia, No. 1, p. 18, 1933; Cullion, Philippines. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Cullion.

957. *Pseudochromis flavipinnis* (Seale).

The Philippines.

Labracinus flavipinnis Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 530, 1909; Zamboanga, Mindanao.

Pseudochromis flavipinnis Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 22, 1931; after Seale.

958. *Pseudochromis fowleri* Herre.

Pseudochromis fowleri Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 45, 1934; Dumaguete.

959. *Pseudochromis fuscus* Müller and Troschel.

East Indies and Philippines to India, Pelew Islands, Yap, Melanesia, and Australia.

Pseudochromis fuscus Müller and Troschel, Horae Ichth., Part 3, p. 23, pl. 4, fig. 2, 1849; Celebes. Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoidea p. 16, pl. 1, fig. 5, 1875. Günther, Fische der Südsee, vol. 2, p. 159, 1876; Solomons; Pelews; Yap; not synonymy. Bleeker, Atlas Ichth., vol. 9, pl. 388, fig. 4, 1877. Day, Fauna British India, vol. 2, p. 227, fig. 82, 1889. Weber, *Siboga*-Exped., vol. 57, Fische, p. 262, 1913; Sumba; Kabala dua; Borneo Bank; Kaniugan ketjil; Salibabu; Salomakie; Saleyer; Tual Kei; Elat, High Key; Roma; also Philippine and Andaman Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 28, 1931; Alimango Bay, and Busin Harbor, Burias Island; Cataingan Bay, Masbate; Maculabo Island, Camarines Norte Province; Luzon; Porongpong Island, Palumbanes Group, near Catanduanes; Romblon Island; Biri Channel, north coast of Samar; Mactan Island, Cebu Province; Dalaganem Island, Port Langean, Dumaran Island, Palawan Province; Candaraman and Caxisigan Islands, North Balabac Strait; Pujada Bay, Davao Province, and Sacol Island east of Zamboanga, Zamboanga Province, Mindanao; Pangasinan, Tulayan, and Sitankai Islands and Tumindao lagoon, Sulu Province; Casagoran, Malhon Island, and Toggian Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 130, 1931; not synonymy; numerous localities. Herre, Fishes 1931 Philippine Exped., p. 46, 1934; Bauang Sur, La Union Province; Jolo and Sitankai, Sulu Province.

960. *Pseudochromis moorei* Fowler.

Pseudochromis moorei Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 39, fig. 6, 1931; Observation Rock, Palawan; Linao Point, Gulf of Davao, Davao Province, Mindanao; Sulade Island, Sulu Province.

- 961. *Pseudochromis perspicillatus* Günther.**
East Indies and Philippines.
Pseudochromis perspicillatus Günther, Proc. Zool. Soc. London, p. 193, 1862; not. pl. 27, fig. 2; China. Weber, *Siboga* Exped., vol. 57, Fische, p. 263, fig., 1913; Kei Island reefs. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 27, 1931; not synonymy; description after Günther. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 132, fig. 24, 1931; China; Kei Islands, on reefs. Herre, Fishes 1936-37 Exped., Sitankai, Sulu Province.
- 962. *Pseudochromis rex* Seale.**
Pseudochromis rex Seale, Philippine Jour., Sci., vol. 4, sec. A, p. 529, 1908; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Sitankai, Sulu Province.
- 963. *Pseudochromis simillimus* Herre.**
Pseudochromis simillimus Herre, Copeia, No. 1, p. 19, 1933; Culion, Philippines. Herre, 1940-41 Exped.; Sitankai, Sulu Province.
- 964. *Pseudochromis swaini* Herre.**
Pseudochromis swaini Herre, Fishes 1931 Philippine Exped., p. 46, 1934; reef in Culion Harbor.
- 965. *Pseudochromis tapeinosoma* Bleeker.**
The East Indies, Philippines, Melanesia, and Queensland, Australia.
Pseudochromis tapeinosoma Bleeker, Nat. Tijds. Ned-Ind., vol. 4, p. 115, 1853; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 258, 1860; Sea of Amboyna; after Bleeker. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 276, 1927; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 24, 1931; Batan Island, Albay Province, Luzon; Bais, Negros Oriental Province; Philippines. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Dumaguete, Oriental Negros Province. Herre, Fishes 1936-37 Exped.; Dumaguete; Sitankai and Sibutu, Sulu Province.
Pseudochromis (Leptochromis) tapeinosoma Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 23, pl. 1, fig. 1, 1875; Sumatra; Buru; Ceram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 390, fig. 1, 1877. McCulloch, Biol. Results *Endeavour*, vol. 5, p. 192, pl. 51, 1926; 4 Australian localities; New Hebrides. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 135, fig. 23, 1931; Philippines and 12 East Indian localities.
Pseudochromis tapeinosomus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province, Negros. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province.
- 966. *Pseudochromis xanthochir* Bleeker.**
The East Indies, Philippines, and Andaman Islands.
Pseudochromis xanthochir Bleeker, Nat. Tijds. Ned-Ind., vol. 8, p. 443, 1855; Menado, Celebes. Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 17, pl. 3, fig. 4, 1875. Bleeker, Atlas Ichth., vol. 9, pl. 388, fig. 1, 1877. Day, Fishes India, p. 267, pl. 58, fig. 6, 1878; Andaman Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 30, 1931; Bolinao Bay, Pangasinan Province; Port Matalvi, Zambales Province; Batan and Rapurapu Islands, Albay Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Butauanan Island, Camarines Sur Province, Luzon; Busin Harbor, Burias Island; Caldigan Bay and Cataingan Bay, Masbate; Puerto Galera and Sablayan, Mindoro; Candaraman Island, North Balabac Strait; Biri Channel and Port Palapag, north coast of Samar; Port Dupon, Leyte; Murcielagos Bay, Misamis Occidental Province; Point Tagolo Light, and Sakol Island, Zamboanga Province; Surigao, Surigao Province; Baganga Bay, Davao Province Mindanao; Isabela, Basilan Island; Simalac Sibi Island, Sitankai Reef, Marongas, Taganak, Tapiantana, Tataan and Tumindao Islands, and Tutu Bay, Jolo, Sulu Province; Canmahala Bay, Luzon. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Sitankai, Sulu Province.
- Genus 347. PSEUDOGRAMMA** Bleeker.
Pseudogramma Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoides, p. 24, 1875; type, *Pseudochromis polyacanthus* Bleeker. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 3, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 119, 1931.

967. *Pseudogramma polyacanthus* Bleeker.
Seychelles Islands, Indian Ocean, to the Philippines, Marcus Island, Hawaii, Fiji, and Tahiti.

Pseudochromis polyacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 375, 1856; Ternate. Kner, Sitzungsber. Akad. Wiss. Wien, vol. 56, p. 717, 1867; Fiji. Günther, Fische der Südsee, vol. 2, p. 159, pl. 98, fig. A, 1876; Tahiti; Raiatea. Fowler, Mem. Bishop Mus., vol. 10, p. 189, 1928; Honolulu; Marcus Island; Tahiti.

Pseudogramma polyacanthus Bleeker, Verh. Akad. Amsterdam, vol. 15, Pseudochromidoidea, p. 24, pl. 3, fig. 2, 1875; Ternate; Timor. Bleeker, Atlas Ichth., vol. 9, 389, fig. 3, 1877. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 139, 1903; Marcus Island. Regan, Trans. Linn. Soc. London, ser. 2, vol. 12, Zool., p. 227, 1905; Amirante, Seychelles. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 3, 1931; Port Matalvi, Zambales Province, and RapuRapu Island, Albay Province, Luzon. Puerto Galera, Mindoro; Verde Island, Verde Island Passage, between Luzon and Mindoro; Biri Channel, north coast of Samar; Little Santa Cruz Island, Zamboanga, Zamboanga Province, and Opol, Mindanao; Mahinog, Camaguin Island, off north coast of Mindanao; Cagayan Island Cagayanes Islands, Sulu Sea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 120, fig. 21, 1931; 9 East Indian localities. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province.

Genus 348. *LOXOPSEUDOCHROMIS* Fowler.

Loxopseudochromis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 354, 1933.

968. *Loxopseudochromis dorypterus* Fowler.

Loxopseudochromis dorypterus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 355, fig. 106, 1933; off northern Mindanao.

Family 121. *PRIACANTHIDÆ*

Fishes of warm seas, living at moderate depths and mostly bright red in life.

Genus 349. *PRIACANTHUS* Oken.

Species few, in the tropical Indo-Pacific and Atlantic Oceans.

Abuhamrur Forskål, Descript. Animal., p. 44, 1775; type, *Sciaena hamrur* Forskål.

Priacanthus Oken, Isis, p. 1183, 1817; on "Les Priacanthes" Cuvier, Règne Animal, ed. 1, vol. 2, p. 281, 1817; orthotype, *Anthias macrophthalmus* Bloch. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 383, 1929. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 65, 1931.

Boops Gray, Cat. Fishes described by Gronow, p. 58, 1854; type, *Boops asper* Gray = *Anthias boops* Schneider; not of Cuvier, 1815.

Bogota Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 139, 1860; type, *Bogota infuscata* Blyth = *Priacanthus* (juvenile).

Cookeolus Fowler, Mem. Bishop Mus., vol. 10, p. 190, 1928; orthotype, *Anthias boops* Schneider.

969. *Priacanthus boops* (Bloch and Schneider).

Tropical Atlantic and Indo-Pacific Oceans from the Cape of Good Hope and Madagascar to the Philippine and Hawaiian Islands.

Anthias boops Bloch and Schneider, Syst. Ichth., p. 308, 1801; Atlantic Ocean near Saint Helena.

Perca boops Bloch and Schneider, loc. cit.; on Forster.

Priacanthus japonicus Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 3, p. 103, 1829; Saint Helena; in part. Günther, Cat. Fishes British Mus., vol. 1, p. 216, 1859; Saint Helena; coast of Mozambique. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 357, 1895; Saint Helena; South America; Cape of Good Hope; Muscat; Bay of Tokyo, Japan; China Sea. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 83, 1901; Yokohama and Nagasaki. Fowler, Mem. Bishop Mus., vol. 10, p. 190, pl. 15, fig. C, 1928; Honolulu. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 77, 1931; Philippines. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Taytay, Palawan.

Polyprion japonicus (Langsdorf) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 79, 1829.

Priacanthus japonicus Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 3, p. 106, pl. 50, 1829. Günther, Cat. Fishes British Mus., vol. 1, p. 217, 1859; Cape Seas; Japan; China Sea. Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 239, 1883, and vol. 48, p. 40, pl. 1, fig. 1, 1883. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 232, 1925; Tokyo; Yokohama; Kochi; Toyama; Miyasu.

Priacanthus bonariensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 105, 1829; Buenos Aires, Argentina.

Priacanthus macropus Cuvier and Valenciennes, *ibid.*, vol. 7, p. 361, 1831. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 669, pl. 7, fig. 2, 1834; St. Helena.

Priacanthus alticlavens Valenciennes, Comptes Rendus Acad. Sci. Paris, vol. 54, p. 1168, 1862; Bourbon. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 127, pl. 16, figs. 3a-b, 1891; Réunion.

Priacanthus supra armatus Hilgendorf, Sitzungsber. Gesell. Naturf. Freunde, Berlin, p. 79, 1879; Japan.

Priacanthus schlegeli Hilgendorf, loc. cit., p. 79, 1879; Japan.

970. *Priacanthus cruentatus* (Lacépède).

Tropical and warm temperate Indo-Pacific and Atlantic Oceans. *Labrus cruentatus* Lacépède, Hist. Nat. Poissons, vol. 3, pp. 452 and 522, 1802; Martinique, West Indies, from a copy of a plate by Plumier at Martinique, West Indies.

Priacanthus cruentatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 102, 1829. Boulenger, Cat. Fishes, British Mus., ed. 2, vol. 1, p. 352, 1895; Bermuda, Jamaica, St. Croix, and St. Helena, West Indies; Samoa; Tahiti; Ponapé, Caroline Islands; Moluccas; Amboina; Zanzibar. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 229, fig. 94, 1905; Honolulu; Hilo; Napoopoo; Kailua. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 190, 1928; Honolulu; Tahiti. Society Islands; Nukuhiva; Rarotonga; Papeete; Apia; Maui. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 66, fig. 8, 1931; Sabtan Island, Batanes Province, north of Luzon; Ligo Point, Balayan Bay, Batangas Province; Tayabas Light, near Marinduque, Tayabas Province, Luzon; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Port Palapag, north coast of Samar; Ponson Island, Camotes Islands, west coast of Leyte; Baganga Bay, Davao Province; Zamboanga Province, Mindanao; Simaluc and Singaan Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Dumaguete.

Priacanthus carolinus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 105, 1829; Oualan ou Strong, l'une des Carolines. Günther, Fische der Südsee, vol. 1, p. 17, pl. 18, 1873; Tahiti and Raiatea; Society Islands. Bleeker, Atlas Ichth., vol. 7, p. 13, 1873-76; Amboina; Banda. Bleeker, *ibid.*, vol. 8, pl. 351, fig. 5, 1876-77.

Priacanthus macracanthus Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 27, 1922; Zamboanga, Zamboanga Province, Mindanao; not of Cuvier and Valenciennes.

971. *Priacanthus hamrur* (Forskål).

East coast of Africa to the Philippines, Japan, Hawaii, and the Solomon Islands.

Sciaena hamrur Forskål, Descript. Animal., p. 45, 1775; Djedda, Red Sea. *Anthias macrophthalmus* Bloch, Naturages. Ausländ. Fische, vol. 6, p. 115, pl. 319, 1792; Japan.

Anthias hamrur Bloch and Schneider, Syst. Ichth., p. 307, 1801; Red Sea. *Lutjanus hamrur* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 178, 209, 1802; Arabia.

Priacanthus hamruhr Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 104, 1829; Lohaja. Günther, Cat. Fishes, British Mus., vol. 1, p. 219, 1859; Red Sea.

Priacanthus speculum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 471, 1831; Mahe, Seychelles. Cuvier, Règne Animal, Illustr. ed., pl. 11, fig. 1, 1839. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 117, pl. 14, fig. 2-a, 1891; Bourbon Island; Seychelles; Mahe; Madagascar.

Priacanthus Blochii Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 456, 1853; Batavia, Java.

Priacanthus hamrur Bleeker, Atlas Ichth., vol. 7, p. 13, 1873-76; Java; Sumatra; Batu; Celebes; Sangi; Ternate; Batjan; Buru; Amboina. Bleeker, *ibid.*, vol. 8, pl. 353, fig. 3, 1877. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 78, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 257, 1908; Calayan Island, Babuyan Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 74, 1931; Port San Pio Quinto, Camaguin Island, Babuyan Islands; Lubang Island, off northwest corner of Mindoro; Varadero Bay, Mindoro, Opol, Mindanao. Balukbaluk and Pilas Islands, west of Basilan Island, Zamboanga Province; Jolo Island, Sulu Province; synonymy in part. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Burias Island; Jolo and Bongao, Sulu Province.

Priacanthus blochii Day, Fishes India, p. 48, pl. 8, fig. 2, 1878. Day, Fishes India Supplement, p. 783, 1888.

972. *Priacanthus macracanthus* Cuvier and Valenciennes.

East Indies, Philippines, China, Japan, and Australia.

Priacanthus macracanthus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 108, 1829; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 220, 1859; Amboina; Batavia; Japan. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 354, 1895; Japan; Formosa; Banda; Arafura Sea; Port Jackson, Australia. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 388, 1929; Nias; Batavia, Java; North Celebes; Amboina; Banda; Arafura Sea; Philippine Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 70, 1931; Arena Point, Bondoc Peninsula, Tayabas Province, Luzon; off Point Tagolo Light, Zamboanga Province, Mindanao.

973. *Priacanthus tayenus* Richardson.

East Indies, Philippines, Formosa, China, and Japan.

Priacanthus tayenus Richardson, Ichth. China Japan, p. 237, 1846; Canton, China. Bleeker, Atlas Ichth., vol. 7, p. 12, 1873-76; Java; Sumatra; Singapore; Banka; Celebes; Amboina. Bleeker, *ibid.*, vol. 8, pl. 349, fig. 4, 1877. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 355, 1895; Canton; Madras; Sumatra. Fowler, *Copeia*, no. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 276, 1927; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 387, 1929; Singapore; Sumatra; Banka; Batavia, Tijiringin, and Bantam, Java; Makassar, Celebes; Amboina; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 72, fig. 9, 1931; San Fernando Point Light, La Union Province, Luzon; Mansalay, Mindoro; Cebu market, Cebu; Philippines. Kowloon, Hong Kong, and Foo Chow, China. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 47, 1934; Bauang Sur, La Union Province, and Manila, Luzon; Cebu, Cebu. Herre, Fishes 1940-41 Exped.; Gulf of Ragay, Luzon; Iloilo, Iloilo Province, Panay.

Priacanthus holocentrum Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 48, 1849; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 220, 1859; Sumatra.

Priacanthus Schmittii Bleeker, Nat. Tijds. Ned. Ind., vol. 3, p. 572, 1852; Padang, Sumatra.

Genus 350. PSEUDOPRIACANTHUS Bleeker.

A small genus of the tropical and warm-temperate Pacific and the western tropical Atlantic Oceans.

Pseudopriacanthus Bleeker, Versl. Akad. Amsterdam, ser. 2, v. 3, p. 241, 1869; type, *Priacanthus nipponius* Cuvier and Valenciennes. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 358, 1895. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 533, 1912. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 390, 1929. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 79, 1931.

974. *Pseudopriacanthus nipponius* (Cuvier and Valenciennes).

Japan, the Philippines, East Indies, and Réunion and Bourbon Islands in the Indian Ocean.

Priacanthus nipponius Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 107, 1829; Japan. Schlegel, Fauna Japonica, Pisces, p. 21, pl. 7a, figs. 1-2, 1842; Japan. Günther, Cat. Fishes British Mus., vol. 1,

- p. 217, 1859; Japan. Guichenot, Notes Ile Réunion, vol. 2, p. 24, 1862.
- Myripristis refulgens* Valenciennes, Compt. Rendu Acad. Sci. Paris, vol. 54, p. 1169, 1862; Ile Bourbon.
- Pseudopriacanthus nipponius* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 241, 1869; Japan. Bleeker, Atlas Ichth., vol. 7, p. 14, 1873-76; Celebes. Bleeker, *ibid.*, vol. 8, pl. 350, fig. 5; pl. 354, fig. 3, 1876-77. Boulenger, Cat. Fishes British Mus., ed. 2, vol. 1, p. 358, 1895; Japan, Manado, Celebes. Franz, Abh. Bayerisch. Akad. Wiss., vol. 4, Supplement, Band 1, p. 40, 1910; 6 Japanese localities. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 233, 1925; Tokyo, Kochi and Misaki, Japan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 390, fig. 94, 1929; Menado, Celebes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 80, 1931; Aua and Urado, Japan. Herre, determined collection of Kaufmann and Umali, taken on Motorship *Theodore N. Gill*, October, 1947; entrance to Manila Bay, Luzon, at 65 fathoms.
- Priacanthus meyeri* Günther, Proc. Zool. Soc. London, p. 656, 1871; Menado, Celebes. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 6, p. 168, 1882; Réunion. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 11, 1885; Manado, Celebes.
- Priacanthus (Pseudopriacanthus) nipponius* Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 47, p. 239, 1883; Tokyo and Oshima, Japan.
- Priacanthus refulgens* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 129, pl. 5, fig. 5, 1891; Madagascar.

Family 122. PEMPHERIDÆ

Genus 351. PEMPHERIS Cuvier.

Tropical and temperate Indo-Pacific and western Atlantic Oceans.

- Pempheris* Cuvier, Règne Animal, ed. 2, p. 195, 1829; type, *Pempheris touca* Cuvier. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 49, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 210, 1936.
- Priacanthopsis* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 58, p. 122, 1906; type, *Pempheris mülleri* Poey.
- Catalufa* Snyder, Proc. U. S. Nat. Mus., vol. 40, p. 528, 1911; type, *Catalufa umbra* Snyder.

975. *Pempheris moluca* Cuvier and Valenciennes. Moluca *Catalufa*; Kanda Aman.

East Indies, Philippines, Indian Ocean.

- Pempheris moluca* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 304, 1831; Moluccas; Batavia, Java. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 521, 1845; Batavia, Java. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1157, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 509, 1860; Madras; Malayan Peninsula; Moluccas. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 213, fig. 56, 1936; Pulo Weh; Java Sea; Batavia, Java; Makassar, Celebes. Herre, Philippine Bureau Science Collection; Poillo; Puerto Galera, Mindoro; Culion; Dapitan, Zamboanga Province; Jolo, Sulu Province.
- Pempheris nesogallica* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 304, 1831; Mauritius.
- Pempheris mangula* Bleeker, Arch. Neerl. Sci. Nat., vol. 12, p. 45, 1877. Bleeker, Atlas Ichth., vol. 9, p. 6, 1877; not of Cuvier and Valenciennes. Day, Fishes India, p. 175, 1878-88; not of Cuvier and Valenciennes; in supplement, p. 788, changed to *malabarica* Cuvier and Valenciennes. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 285, 1891. Pellégrin, Bull. Soc. Zool. France, vol. 13, p. 84, 1905. Barnard, Ann. South African Mus., vol. 21, p. 666, 1927.
- Pempheris mangula* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 55, 1931; Bolinao Bay, Pangasinan Province, and Butuanan Island, Camarines Sur Province, Luzon; Jolo and Tutu Bay, Jolo Island, and Bongao, Sulu Province; Baganga Bay, Davao Province, Mindanao; Alimango Bay, Burias Island. Synonymy in part only.
- Pempheris macrolepidotus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 51, 1931.

976. Pempheris otaitensis Cuvier and Valenciennes.

East Indies, Philippines, New Guinea, Tahiti, Indian Ocean to Madagascar and Natal.

Pempheris otaitensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 304, 1831; Tahiti. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 167, 1831; Tahiti. Günther, Cat. Fishes British Mus., vol. 2, p. 568, 1860; China; Amboina. Bleeker, Arch. Neerl. Sci. Nat., vol. 12, p. 51, 1877. Bleeker, Atlas Ichth., vol. 9, p. 8, pl. 383, fig. 1, 1877; Amboina; Banda. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 285, 1883; Hood Bay, New Guinea. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 23, 1885; Cebu, Philippines; north Celebes. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 286, 1891. Seale, Occas. Papers Bishop Mus., vol. 1, p. 74, 1901; Guam. Regan, Ann. Durban Mus., vol. 1, p. 169, 1916. Barnard, Ann. South African Mus., vol. 21, p. 666, 1927; Natal. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 217, 1936; Pulu Weh; Balikpapan, Borneo; Celebes; Amboina; Banda; Hood Bay, New Guinea; Cebu, Philippines. Herre, Philippine Bureau Science Collection, 1922-28; Calapan and Puerto Galera, Mindoro; Bennett Island, near Masbate; Bantayan and Mactan Islands, Cebu Province; Jolo, Sitankai, and Pearl Bank, Sulu Province.

Pempheris adustus Bleeker, Arch. Neerl. Sci. Nat., vol. 12, p. 50, 1877; Amboina. Bleeker, Atlas Ichth., vol. 9, p. 7, pl. 383, fig. 1, 1877; Amboina.

977. Pempheris oualensis Cuvier and Valenciennes.

The Philippines, East Indies, Melanesia, Polynesia, and Australia.

Pempheris oualensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 299, 1831; Oualan (Kusale), Caroline Islands. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 242, 1851; in part. Bleeker, Atlas Ichth., vol. 9, p. 6, pl. 383, fig. 5, 1877; Java; Celebes; Timor; Halmahera; Amboina. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1376, 1906; Savaii and Upolu, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 236, 1906; Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 254, 1908; Calayan Island, Babuyan Islands, Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 497, 1912; Okinawa. Weber, *Siboga*-Exped., vol. 57, Fische, p. 192, 1913; Makassar; Gisser; Binongka. Ogilby, Mem. Queensland Mus., vol. 2, p. 366, 1913; Moluccas; Malaysia; Caroline Islands, New Guinea; South Sea Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 59, 1931; Sabtan=Sabantang Island, Batanes Province; Varadero Bay, Mindoro; Biri Channel, Balicuatro Islands, north coast of Samar; San Roque, Leyte; Dalaganem, Cuyo Islands, Sulu Sea; Caracaran, Batan Islands, Albay Province, Luzon; Tataan, Simaluc Island, TawiTawi coast, Sulu Province; not synonymy. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Culion. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 216, fig. 255, 1936; in East Indies; Pulu Weh; Nias; Batavia, Java; Java Sea; Menado and Tombariri, Celebes; Timor; Ternate; Gisser; Binongka; Amboina; Halmahera; Culion, Philippines. Herre, Philippine Bureau Sci. Coll., 1922-28; Calapan, Mindoro; Bantayan Island, Cebu Province; Romblon; Tubigan, Bongao, and Sibutu Islands, Sulu Province.

978. Pempheris vanicolensis Cuvier and Valenciennes.

The Philippines, East Indies, New Hebrides, Australia, Samoa, Indian Ocean to Ceylon and Mauritius.

Pempheris vanicolensis Cuvier and Valenciennes, Hist. Nat. Poissons, p. 305, 1831; Vanicolo. Bleeker, Arch. Neerl. Sci. Nat., vol. 12, p. 218, 1877. Bleeker, Atlas Ichth., vol. 9, p. 7, pl. 383, fig. 6, 1877; Singapore; Java; Celebes; Sangi; Timor; Ternate; Amboina. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 236, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 75, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Weber, *Siboga*-Exped., vol. 57, Fische, p. 193, 1913; Biaru. Ogilby, Mem. Queensland Mus., vol. 2, p. 66, 1913; Moluccas; Samoa; Vanicolo; Mauritius. Herre, 1922-30 Collections; Laiya, Batangas Province; Tablas; Cabalian, Leyte; Siasi, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol.

11, p. 58, 1931; Santo Domingo-de Basco, Batan Island, Batanes Province; Canino Island, near Daet, Camarines Norte Province, Bacon, Sorsogon Province, and RapuRapu Island, Albay Province, Luzon. San Roque, Leyte. Mahinog, Camaguin Island, north of Mindanao; Camp Overton, Lanao Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 218, 1936; Singapore; Batavia, Java; Sabang; Makassar, Celebes; Sangir Island; Adonare; Timor; Banda; Ternate; Amboina; Philippines.

Family 123. LOBOTIDÆ

A small family with two genera and few species; found in the Indo-Pacific and Atlantic Oceans.

Genus 352. LOBOTES Cuvier.

Apparently but one species; of the Atlantic, Pacific, and Indian Oceans.

Lobotes Cuvier, Règne Animal, ed. 2, vol. 2, p. 177, 1829; type, *Holocentrus surinamensis* Bloch. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 43, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 457, 1936.

Verrugato Jordan, Stanford Univ. Pub., Biol. Sci., vol. 3, p. 195, 1923; orthotype, *Lobotes pacificus* Jordan and Evermann. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 457, 1936.

379. *Lobotes surinamensis* (Bloch). Triple tail; Kakap bato.

A large marine coastal fish, entering rivers. Philippines and East Indies, north to China and Japan, south to Australia; west in the Indian Ocean to Natal and Madagascar; Atlantic coast of tropical America, north to Carolina, occasional in the Mediterranean.

Holocentrus surinamensis Bloch, Naturges. Ausländ. Fische, vol. 4, p. 98, pl. 243, 1790; Surinam, Guiana, South America. Bloch and Schneider, Syst. Ichth., p. 316, 1801; Surinam.

Holocentrus surinam Lacépède, Hist. Nat. Poissons, vol. 4, p. 384, 1802; Surinam.

Bodianus triourus Mitchell, Trans. Lit. Philos. Soc. New York, vol. 1, p. 418, pl. 3, fig. 10, 1815; Prowles Hook, New Jersey.

Lobotes surinamensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 319, 1830; Surinam; Brazil; New York. Day, Proc. Zool. Soc. London, p. 14, 1865; Cochin, Malabar. Day, Proc. Zool. Soc. London, p. 683, 1870; Andaman Islands. Bleeker, Atlas Ichth., vol. 7, pl. 311, fig. 4, 1873-76. Bleeker, *ibid.*, vol. 8, p. 12, 1876-77; Java; Madura; Padang, Sumatra; Singapore; Bintang; Banka; Borneo; Ceram; Celebes; Amboina; Waigiu. Day, Fishes India, p. 84, pl. 21, fig. 5, 1878. Stead, Fishes Australia, p. 94, fig. 39, 1906; Queensland and New South Wales. Gilchrist and Thompson, Ann. South African Mus., vol. 11, p. 33, 1908; Tugela River mouth, Natal. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 436, 1911; Misaki, Japan. McCulloch, Australian Zoologist, vol. 1, p. 57, pl. 24, fig. 206a, 1919; New South Wales. Tanaka, Fishes Japan, vol. 40, p. 775, pl. 168, fig. 468, 1927; Tokyo market. Barnard, Ann. South African Mus., vol. 21, p. 638, pl. 27, fig. 1, 1927; Natal and Zululand. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 44, p. 61, 1931; east of Long Island, New Guinea. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 44, 1931; Mansalay, Mindoro; Cebu market; Sebatik Island, and Sandakan, British North Borneo; Knowlloon market, China. Herre, Jour. Pan-Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Manila market. Delsman and Hardenberg, Indian Zeevischen, p. 232, 1934. Herre, Philippine Bureau Science Collection, 1920-28; Agusan River near Butuan, Agusan Province, Rio Grande, near Cotabato, Cotabato Province, and Zamboanga Province, Mindanao; Tawi Tawi, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 7, p. 459, fig. 91, 1936; the Philippines and 19 East Indian localities; also numerous localities in the Pacific and Indian Oceans, the tropical Atlantic Coast of America, and the Mediterranean.

Lobotes erate Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 322, 1830; Pondicherry; Mahé; Malabar; Java; Trinqueemale, Ceylon.

- Valenciennes, in Cuvier, Règne Animal, Illustr. ed., pl. 31, fig. 1, 1839. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1062, 1850; Pinang; Malay Peninsula; Singapore.
- Lobotes farkhari* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 324, 1830; Malacca.
- Lobotes somnolentus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 324, pl. 126, 1830; Santo Domingo, West Indies.
- Lobotes incurvus* Richardson, Ichth. China Japan, p. 237, 1846; China Seas; Canton.
- Lobotes citrinus* Richardson, *ibid.*, p. 237, 1846; China Seas; Canton.
- Lobotes auctororum* Günther, Cat. Fishes British Mus., vol. 1, p. 338, 1859; North Africa; Cuba; Jamaica; Calcutta. Playfair and Günther, Fishes Zanzibar, p. 28, 1866; Zanzibar. Bleeker, Versl. Akad. Amsterdam, vol. 2, p. 291, 1868. Macleay, Descript. Cat. Australian Fishes, vol. 1, p. 75, 1881. Pöhl, Cat. Mus. Godeffroy, No. 9, p. 27, 1884; New Britain. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, 1885; Makassar, Celebes.
- Lobotes surinamensis* var. *somnolentus* Macleay, Proc. Linn. Soc. New South Wales, vol. 5, p. 375, 1881; Endeavor River.

Family 124. GLAUCOSOMIDÆ

Genus 353. GLAUCOSOMA Schlegel.

Japan to Australia.

Glaucosoma Schlegel, Fauna Japonica, Pisces, p. 62, 1842; p. 317, 1850; type, *Glaucosoma burgeri* Richardson. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 440, 1911. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 82, 1931.

Breviperca Castelnau, Researches Fishes Australia. Official Records Philadelphia Centennial Exhibit, p. 6, 1875; type, *Breviperca lineata* Castelnau.

Reganichthys Ogilby, Mem. Queensland Mus., vol. 3, p. 123, 1915; type, *Reganichthys magnificus* Ogilby.

980. *Glaucosoma taeniatus* Fowler.

Glaucosoma taeniatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 357, fig. 108, 1934; east of Masbate Island, Samar Sea.

Family 125. LUTIANIDÆ

In all warm seas.

Genus 354. LUTIANUS Bloch. Snappers.

All tropical and subtropical seas; some enter rivers and fresh-water lakes.

Lutianus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 105, 1790; type, *Lutianus lutianus* Bloch.

Lutjanus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 108, 1790; change of spelling; various other authors. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 86, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 235, 1936.

Diacope Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 1, p. 360, 1815; type, *Holocentrus bengalensis* Bloch.

Mesoprion Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 441, 1828; type, *Lutianus lutianus* Bloch.

Genyrorge Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 904, 1850; type *Diacope sebae* Cuvier and Valenciennes.

Neomaenis Girard, Proc. Acad. Nat. Sci. Phila., vol. 10, p. 167, 1859; type, *Lobotes emarginatus* Baird and Girard=*Labrus griseus* L.

Hypoplites Gill, *ibid.*, p. 236, 1862; type *Mesoprion retrospinis* Cuvier and Valenciennes.

Evoplites Gill, *ibid.*, p. 236, 1862; type, *Mesoprion pomacanthus* Bleeker=young of *Lutianus kasmira* (Forskål).

Neomesoprion Castelnau, Researches Fishes Australia, Official Records Philadelphia Centennial Exposition, p. 8, 1875; *Neomesoprion unicolor* Castelnau.

Raizero Jordan and Fesler, U. S. Fish. Comm., 1893, p. 438; type, *Mesoprion aratus* Günther.

Rabirubia Jordan and Fesler, Report U. S. Fish Comm., p. 438, 1893; type, *Mesoprion inermis* Peters.
Bennettia Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 524, 1904; type, *Anthias johnii* Bloch.
Parkia Fowler, Ibid., p. 525; type *Lutianus furvicaudatus* Fowler.
Rhomboplitoides Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 33, 1918; type, *Rhomboplitoides megalops* Fowler.
Glabrilutjanus and *Loxolutjanus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, pp. 88 and 90, 1931.

931. *Lutianus argentimaculatus* (Forskål). Gray snapper; Silver snapper; Also; Gingao; Bambang; Aliso; Bolidao; Dodong; Kising; Kalumbang.
 Tropical Indo-Pacific, north to the RiuKiu Islands, south to Australia, east to the Tuamotus. Marine, entering rivers and lakes.
Sciaena argentimaculata Forskål, Descript. Animal., p. 47, 1775; Arabia.
Sciaena argentata Gmelin, Syst. Nat., Linnaeus, ed. 13a, vol. 1, p. 1300, 1789.
Perca argentata Bloch and Schneider, Syst. Ichth., p. 86, 1801.
Alphestes gembra Bloch and Schneider, Syst. Ichth., p. 236, 1801; Tranquebar.
Labrus argentatus Lacepède, Hist. Nat. Poissons, vol. 3, pp. 426, 467, pl. 18, fig. 1, 1802; Arabia.
Mesoprion gembra Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 485, 1828; Peron Collection. Günther, Cat. Fishes British Mus., vol. 1, p. 193, 1859; India, Sumatra; Borneo; Amboyna.
Diacope argentimaculata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 432, 1828. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 71, pl. 19, fig. 1, 1828; Red Sea.
Mesoprion lineolatus Bleeker Verh. Bat. Gen., vol. 22, Percoiden, p. 46, 1849; Batavia, Java; (not of Rüppell).
Mesoprion bleekeri Günther, Cat. Fishes British Mus., vol. 1, p. 208, 1859; Amboyna. Day, Proc. Zool. Soc. London, p. 680, 1870; Andaman Islands.
Mesoprion argentimaculatus Günther, Cat. Fishes British Mus., vol. 1, p. 192, 1859; after Rüppell. Playfair, Proc. Zool. Soc. London, p. 849, 1867; Seychelles. Klunzinger, Sitzungsber. Akad. Wiss. Wien., vol. 80, p. 341, 1879; Port Darwin and Cleveland Bay, Queensland, Australia.
Lutjanus gembra Bleeker, Versl. Akad. Amsterdam, vol. 14, Sixième mémoire faune ichth. Batjan, p. 106, 1862; Batjan.
Lutjanus argentimaculatus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 44, 1873. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Lutjanus, p. 84, 1873. Bleeker, Atlas Ichth., vol. 6, p. 75, pl. 324, fig. 3, and pl. 333, fig. 1, 1877; 14 East Indian islands. Fowler, Mem. Bishop Mus., vol. 10, p. 202, 1928; Apia, Samoa, and Society Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 97, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Palau Island, and Aparri, Cagayan Province; Cavite, Cavite Province; Manila market; Pucot River, Mariveles, Bataan Province; Pagapas Bay; Batangas Province; Joni and Tayabas Rivers, Tayabas Province; Basud River, Camarines Norte Province; Canmahala Bay, Ragay River, river at Pasacao, and Galvaney Island, Ragay Gulf, Nato River, stream at Maagnas, Lagonoy Gulf, and Rosa Island, Lagonoy, Camarines Sur Province; Yaua River, Legaspi, Albay Province; and Dumaca River, Luzon. Malugao River, Paluan Bay, Varadero Bay, and Bagaong River, Sablayan Bay, Mindoro Tilig, Lubang Island. Pangauran River, Port Caltom, Busuanga Island; Port Dupon, Leyte; Iloilo market, Passi, and Buena Vista, Guimaras Island, Iloilo Province; Iwahig River, Malinao River, Mantaquin Bay, Endeavor Strait, mouth of Malampaya River, Pancol, Malampaya Sound, river at Nakoda Bay, and stream at Chase Head, Endeavor Strait, Palawan; Murcielagos Bay, Misamis Occidental Province; Mahinog, Camaguin Island on north coast of Misamis Oriental Province, Cotabato market and below mouth of Rio Grande River, Cotabato Province, Nonucan River, Camp Overton, Lanao Province, and Zamboanga, Zamboanga Province, Mindanao. Also Quinianca River, Chevey, Poissons Campagnes de Lanessan, Inst. Oceanogr. Indo-Chine, 4^e Mémoire, p. 76, pl. 28, 1932. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 246, 1936;

34 East Indian localities; Philippines, and 12 Indo-Pacific localities. Umali, Edible Fishes Manila, p. 138, fig. 100, 1936; Manila markets. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.

Lutianus argentimaculatus Day, Fishes India, p. 51, pl. 11, fig. 5, 1878. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 262, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 257, 1908; Calayan Island, Babuyan Islands, north of Luzon; Baco River, Mindoro; Iloilo, Iloilo Province, Panay. Herre, Philippine Jour. Sci., vol. 34, 1927; pp. 294 and 297, Lake Bombon, Batangas Province, Luzon; p. 303; Lake Naujan, Mindoro. Herre, Philippine Bureau Science Collection; Cagayan River, Cagayan Province; Abra River, Abra Province; Dagupan, Pangasinan Province; Lake Bato, Camarines Sur Province, Luzon. Butuan, Agusan River, Agusan Province; Lake Mainit, Surigao Province; Rio Grande, Cotabato Province, Mindanao; Sibutu Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Capiz, Capiz Province, and La Paz, Iloilo Province, Panay; Busuanga Island; Jolo, Sulu Province. Herre, Expeds. of 1933-34, 1936-37, and 1940-41; Calatagan, Batangas Province, Luzon; Mangarin and Puerto Galera, Mindoro; Cebu, Cebu Province; Dumaguete, Oriental Negros Province. Villadolid, Philippine Jour. Sci., vol. 63, pp. 192 and 217, 1937; Lake Bombon (Taal), Pansipit River, and Balayan Bay, Batangas Province, Luzon.

Lutianus gembra Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 516, 1908; Naujan River, Butas, Mindoro. Barnard, Ann. South African Mus., vol. 21, p. 661, 1927; East London, Natal coast.

Lutianus salmonoides Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 146, 1908.

982. *Lutianus biguttatus* (Cuvier and Valenciennes). Two-spot snapper. India, Ceylon, Andamans, East Indies, the Philippines, and Solomon Islands.
- Serranus biguttatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 507, 1830; Trincomalee, Ceylon.
- Mesoprion lineolatus* Bleeker (not of Rüppell), Verh. Bat. Gen., vol. 22, 1849; Percoiden Malayo-Molukschen Arch., p. 46; Batavia, Java.
- Mesoprion bleekeri* Günther, Cat. Fishes British Mus., vol. 1, p. 208, 1859; Amboyna. Day, Proc. Zool. Soc., London, p. 680, 1870; Andaman Islands.
- Lutjanus biguttatus* Bleeker, Atlas Ichth., vol. 8, p. 54, pl. 338, fig. 5, 1877; 10 East Indian localities. Day, Fauna British India, Fishes, vol. 1, p. 469, 1889. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 136, 1931; Canimo Island, near Daet, Camarines Norte Province, Mariveles Wharf, Bataan Province, Matnog Bay, and Sorsogon market, Sorsogon Province, and San Miguel Island, Tabaco Day, Albay Province, Luzon. Mansalay and Varadero Bay, Mindoro. Mompog Island, between Marinduque and Tayabas Province, Luzon. Busin Harbor, Burias Island. Cataingan Bay, Masbate. Catbalogan, Samar; Pandanon Island on north coast and Maribojoc Bay, Bohol. Panguauran River, Port Caltom, Busuanga. Endeavor Strait, Malampaya Sound, and Rasa Island, Mantaquin Bay, Palawan. Malcochin Harbor, Linapacan Island. Candaraman Island, North Balabac Strait. Polloc, Cotabato Province, Camp Overton, Lanao Province, and Inamucan Bay, Misamis Occidental Province, Mindanao. Singaan and Tataan Islands, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 255, 1936; the Philippines and 17 East Indian localities.
- Lutianus biguttatus* Day, Fishes India, p. 34, pl. 10, fig. 6, 1878; Seas of India. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 524, 1904; Padang, Sumatra. Herre, Philippine Bureau Science Coll., 1921-28; Cebu; Iloilo; Dapitan, Zamboanga, Mindanao; Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine

Exped., p. 48, 1934; Lamon Bay, Tayabas Province, Luzon; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 173, 1936; Hathorn Sound, New Georgia Island, Solomon Islands.

983. *Lutianus bohar* (Forskål). White-spotted red snapper; Bohar; Red snapper; Maya-maya.

East coast of Africa to the Philippines, Tahiti, and the Tuamotus.

Sciæna bohar Forskål, Descript. Animal., p. 46, 1775; Arabia.

Lutianus bohar Bloch and Schneider, Syst. Ichth., p. 325, 1801; Red Sea.

Day, Fishes India, p. 44, pl. 13, fig. 4, 1878. Fowler, Proc. Acad. Nat. Sci. Phila., p. 485, 1899; Thornton Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 262, 1906; PagoPago, Samoa. Regan, Ann. Durban Mus., vol. 1, p. 168, 1908; Durban, Natal. Herre, Philippine Bureau Science Collection; Maricanan Island, Verde Island Passage; Bennett Island, west of Masbate; Balabac; Jolo, Sulu Province.

Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Taytay, Palawan.

Sparus lepisurus Lacépède, Hist. Nat. Poissons, vol. 3, pl. 15, fig. 2, 1802.

Lacépède, *ibid.*, vol. 4, pp. 45 and 141; 1803. "Great Equinoxial Ocean."

Diacope bohar Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 433, 1828. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 73, 1828; Red Sea.

Diacope quadriguttata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 427, 1828; Mauritius; Seychelles; Massauá; East Indies.

Mesoprion quadriguttata Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 233, 1851; Banda Islands.

Mesoprion bohar Günther, Cat. Fishes British Mus., vol. 1, p. 190, 1859; Madagascar. Günther, Fische der Südsee, vol. 1, p. 13, 1873-75; Society Islands; Tuamotus.

Lutjanus bohar Bleeker, Ned. Tijds. Dierk., vol. 2, p. 231, 1865; Amboina. Bleeker, Atlas Ichth., vol. 8, p. 64, pl. 343, fig. 4, 1876-77; 8 East Indian islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 107, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon. Pucot River, Mariveles, Luzon Point, Bataan Province; Port Hamilo, Batangas Province; Limbones Cove, Cavite Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Maculabo Island, Camarines Norte Province; Leung Point, Batug Island, and Langao Point, Sorsogon Province, Luzon. Tilig, Lubang Island, northwest of Mindoro. Port Maricanan, Verde Island Passage. Puerto Galera, and Mansalay, Mindoro; Port Bawalacan, Marinduque. Alimango Bay and Busin Harbor, Burias. Biri Channel, Balicuatro Islands, north coast of Samar. Bolalo Bay, Endeavor Strait, Makesi Island, Observatory Inlet, and Port Langcan, Dumaran Island, Palawan. Bugsuk Island and Caxisigan Island, Balabac; Mactan Island and Malapascua Island, Cebu Province. Iloilo market, Iloilo Province, Panay. Little Santa Cruz Island, and Tulnalutan Island, Zamboanga Province, Mindanao. Doc Can, Singaan, Taganak, Tara, Teomabal, Tataan, Tulayan, and Usada Islands, and Tutu Bay, Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 276, 1936; 17 East Indian localities, and the Philippines. Umali, Edible Fishes Manila, p. 139, fig. 102, 1936; Tayabas Province, Luzon; Visayan Sea; Palawan.

Lutianus lepisurus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 525, 1904; Padang, Sumatra.

984. *Lutianus caeruleovittatus* (Cuvier and Valenciennes).

Mauritius, Madagascar, the Philippines, and RiuKiu Islands.

Diacope caeruleovittata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 530, 1831; Mauritius. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 94, pl. 12, fig. 2, 1891.

Diacope angulus Bennett, Proc. Zool. Soc. London, p. 127, 1831; Mauritius.

Genyoroge caeruleovittata Günther, Cat. Fishes British Mus., vol. 1, pp. 179 and 504, 1859; after Cuvier and Valenciennes.

Lutjanus caeruleo-vittatus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 152, 1931; Malabang market, Lanao Province, Mindanao. Also Naha, Okinawa, RiuKiu Islands.

985. *Lutianus chrysoaenia* (Bleeker). Golden-banded snapper.

India to the Philippines, East Indies, Solomon Islands, and Australia.

Mesoprion chrysoaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 170, 1851; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 192,

- 1859; Batavia. Kner, *Reise Novara*, Fische, p. 34, 1865; Singapore; Madras.
- Mesoprión quinquelineatus* Günther, *Cat. Fishes British Mus.*, vol. 1, p. 209, 1859.
- Lutjanus chrysotaenia* Bleeker, *Versl. Akad. Amsterdam*, vol. 14, p. 106, 1862; Batjan. Bleeker, *Atlas Ichth.*, vol. 7, pl. 302, fig. 4, 1873-76; Sumatra; Nias; Singapore; Bintang; Banka; Biliton; Java; Bali; Celebes; Timor; Batjan; Obi; Amboina. Fowler, *Bull. 100, U. S. Nat. Mus.* vol. 11, p. 141, 1931; Dagupan, Pangasinan Province; Cavite, Cavite Province; Santiago River, Pagapas Bay, Batangas Province; Subig, Subig Bay, Zambales Province; Quinalasag Island, on Pacific coast of Camarines Sur Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Caracaran, Batan Island, Albay Province, Luzon. Catbalogan, and Nabatas Point, Samar. River at Port Dupon, Leyte, Buang Bay, Talajit Island, between Samar and Masbate; Port Busin, Burias Island. Port Caltom, and Pangauran River, also Tara Island, northeast of Busuanga. Bolalo Bay, village near Chase Head, Endeavor Strait, Malampaya River, Rasa Island, Mantaquin Bay, Ulugan Bay, near mouth of Baheli River, and Malinao River, Mantaquin Bay, Palawan; Malcochin Harbor, Linapacan Island, Palawan Province; Bugsuk Island and Port Ciego, Balabac, Paluan River, Mindoro; Tutu Bay, Jolo, and Tataan Island, Sulu Province. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 248, 1936; 22 East Indian localities and the Philippines.
- Lutianus chrysotaenia* Seale and Bean, *Proc. U. S. Nat. Mus.*, vol. 33, p. 243, 1907; Zamboanga, Mindanao. Herre, *Fishes 1931 Philippine Exped.*, p. 48, 1934; Culion.
- Lutianus quinquelineatus* Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 258, 1908; Aparri, Cagayan Province, and Manila, Luzon.
- Lutianus russelli* Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon.
986. *Lutianus decussatus* (Cuvier and Valenciennes). Checkered snapper; Dolesan; Buegsang; Tambangao.
- The Philippines and East Indies, west to India and Ceylon.
- Mesoprión decussatus* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 2, p. 487, 1828; Java. Bleeker, *Verh. Bat. Gen.*, vol. 22, Percoiden, p. 43, 1849. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 210, 1859; the Philippines; India; Amboina. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 10, 1885; Cebu, Cebu Prov.; Makassar; North Celebes.
- Lutjanus decussatus* Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 233, 1863; Ternate. Bleeker, *Atlas Ichth.*, vol. 8, p. 72, pl. 338, fig. 4, 1876-77; Sumatra; Nias; Biliton; Java; Duizend Islands; Bali; Celebes; Flores; Timor; Ceram; Amboina; Aru; also the Philippines. Fowler and Bean, *Proc. U. S. Nat. Mus.*, vol. 62, p. 31, 1922; Cebu, Cebu. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 277, 1927; Philippines; Calapan, Mindoro. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 11, p. 104, 1931; Sabtang Island, Batanes Province; Port Matalvi and Hermana Mayor Island, and Subig, Subig Bay, Zambales Province; Grande Island Reef, Subic Bay, and Port Binanga, Bataan Province; Limbones Cove, Cavite Province; Pagapas Bay and Santiago River, Port Hamilo, and Nasugbu Bay, Batangas Province; Refugio Island, Ragay Gulf; at Pasacao, Camarines Sur Province; between Paron and Jesus Points, Albay Province; Bacon, Sorsogon Province; Alibijaban Island, Ragay Gulf, Tayabas Province, Luzon. Maricanan Island, Verde Island Passage, between Mindoro and Luzon. Mansalay, Paluan Bay, Puerto Galera, Sablayan, and Varadero Bay, Mindoro. Port Banalacan, Marinduque. Santa Cruz Island, and Mompog Island off Marinduque. Romblon Harbor, Romblon. Busin Harbor and Alimango Bay, Burias Island. Masbate Reef, Masbate. San Miguel Harbor, Ticao Island. San Roque, Leyte. Mantacao Island, Bohol. Mactan Island, and Cebu market, Cebu Province. Tara Island, northeast of Busuanga. Casogoran, Homonhon Island. Bolalo Bay, Chase Head, Endeavor Strait, and Malcochin Harbor, Linapacan Island, Palawan Province. Bugsuk Island, Balabac. Lianga Bay, Surigao Province, Pujada Bay and Baganga Bay, Davao Province, Polloc, Cotabato Province, and

Little Santa Cruz Island, Zamboanga Province, Mindanao. Usada, Taganank, Cagayan Sulu, and Doc Can Islands, and Jolo market, Jolo, Sulu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 285, fig. 61, 1936; 38 East Indian localities; Philippines. Umali, Edible Fishes Manila, p. 138, fig. 101, 1936; Manila markets. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga, Mindanao.

Mesoprion. theapon Day, Proc. Zool. Soc. London, p. 514, 1869; Andaman Islands.

Lutianus decussatus Day, Fishes India, p. 47, pl. 14, fig. 4, 1875; Andaman Islands. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province, Negros. Jordan and Seale, Bull. U. S. Bureau Fisheries, vol. 26, p. 21, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 79, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Herre, Jour. Pan-Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province, Negros. Herre, Philippine Bureau Science Collection; Manila market; Layia, Batangas Province, Luzon. Puerto Galera, Mindoro; Cebu, Cebu Province; Zamboanga, Zamboanga Province. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Calapan, Mindoro; reef near Burias; Cebu; Dumaguete; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Kolombungan, Lanao Province, and Cagayan, Misamis Oriental Province, Mindanao.

987. *Lutianus fulviflamma* (Forskål). Gold-flame snapper; Bahaba; Bitilla; Darag-darag.

East coast of Africa to Philippines, East Indies, Formosa, Australia, Fiji, and Tahiti. Enters fresh water, but most abundant where streams are lacking.

Sciaena fulviflamma Forskål, Descript. Animal., p. 45, 1775; Arabia.

Perca fulviflamma Bloch and Schneider, Syst. Ichth., p. 90, 1801; Red Sea.

Centropomus hober Lacépède, Hist. Nat. Poissons, vol. 4, p. 255, 1803; Arabia.

Diacope fulviflamma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 423, 1828; Red Sea. Rüppell, Atlas Reise Nördl. Africa, Fische Rothen Meeres, p. 72, pl. 19, fig. 2, 1828; Red Sea.

Mesoprion fulviflamma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 553, 1852; Amboyna. Günther, Cat. Fishes British Mus., vol. 1, p. 201, 1859; Amboyna; Ceram; China. Kner, Reise, *Novara*, Fische, p. 35, 1865; Ceylon; Java; Hong Kong. Meyer, An. Soc. Española Hist. Nat. Madrid, vol. 14, p. 10, 1885; Cebu, Cebu Province, Philippines.

Lutianus fulviflamma Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan. Bleeker, Atlas Ichth., vol. 8, p. 65, pl. 344, fig. 3, 1876-77; 18 East Indian localities. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 89, 1891; Madagascar; Zanzibar; Red Sea; Pondicherry; Trincomale; Nias; Sumatra; Celebes; Fiji. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 31, 1922; Cebu, Cebu Prov.; Zamboanga, Mindanao, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Island; San Vicente Harbor, and Palaui Island, Cagayan Province; Dagupan, Pangasinan Province; Limbones Cove, Cavite Province; Mariveles, Bataan Province; Nasugbu and Santiago River, Pagapas Bay, Batangas Province; Basut River and Maculabo Island, Camarines Norte Province; near mouth of Tayabas River, Tayabas Province; Galvaney and Saboon Islands, Ragay Gulf, and river at Pasacao, Camarines Sur Province; near Palag Bay, and San Miguel Island, Tabaco Bay, Albay Province; Matnog Bay and Sorsogon Province, Luzon. Balikias Bay, Lubang Island. Mansalay, Sablayan, and Varadero Bay, Mindoro; Port Banalacan, and Santa Cruz Island, Marinduque. Alimango Bay and Busin Harbor, Burias Island; Romblon Harbor, Romblon: Buang Bay, Talajit Island, between Masbate and Samar. Catbalogan, Samar; Tagbilaran Channel, Bohol; Cebu market and Malapascua Island, Cebu Province. Nogas Point, Antique Province, Panay. Port Caltom, Basuanga Island; Bisucay Malayon, and Cuyo, Cuyo Islands. Endeavor Strait, Makesi Island, Observatory Island in Linapacan Strait, Ulugan Bay, Rasa, Mantaquin Bay, and Verde del Sur Island, Palawan. Bugsuk Island, north Balabac Strait, and Port Ciego, Balabac Island. Cotabato mar-

ket and shore below mouth of Rio Grande, Cotabato Province; Davao, Davao Province; Inamucan Bay, and Murcielagos Bay, Misamis Oriental Province, Mindanao. Mahinog, Camiguin Island, north of Mindanao, also Opol, Mindanao. Gondra Island, reefs at Jolo, Taganak, and Tataan Islands, Sulu Province; (not synonymy). Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 272, 1936; 24 East Indian localities; Philippines.

Lutianus fulviflanma Day, Fishes India, p. 41, pl. 12, fig. 6, 1878; in part. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 79, 1907; Bacon, Sorsogon Province, Luzon, and Zamboanga, Zamboanga Province, Mindanao. Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 525, 1908; Philippines. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 275; 1910; Sandakan, British North Borneo; the Philippines. McCulloch, Biological Results *Endeavour*, vol. 3, p. 141, 1915; North Reef, Moreton Bay, Queensland; Port Moresby, New Guinea; Madras, India; and Philippines. Jordan and Starks, Ann. Carnegie Mus., vol. 9, p. 449, 1917; Colombo, Ceylon; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Baugang Sur, LaUnion Province, Manila, and Nasugbu, Batangas Province, Luzon; Cullion; Cebu; Dumaguete; Puerto Princesa, Palawan; Jolo and Sitankai, Sulu Province. Herre, Philippine Fish Tales, p. 272, 1935; Bongao, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Exped.; Puerto Galera, Mindoro; Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Kolambugan, Lanao Province, and Murcielagos Bay, Misamis Oriental Province, Mindanao; Sitankai, Sulu Province. Herre, Philippine Bureau Science Coll., 1921-28; Zamboanguita, Negros Oriental Province; Larena, Siquijor; Cagayan, Misamis Province, Kenami and Lebak, Cotabato Province, Mindanao; Lapak, Bongao, Sibutu, and Sitankai, Sulu Province.

988. *Lutianus fulvus* (Bloch and Schneider). Flame-colored snapper; Agawin; Bambangin; Tingarog.

Andaman Islands to the Philippines and Tahiti.

Holocentrus fulvus Bloch and Schneider, Syst. Ichth., p. 318, 1801; Tahiti.

Perca fulva Bloch and Schneider, Syst. Ichth., p. 318, 1801.

Diacope fulva Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 435, 1828.

Genyoroge fulva Günther, Cat. Fishes British Mus., vol. 1, p. 184, 1859; Tahiti. Günther, Fische der Südsee, vol. 1, p. 13, 1873.

Lutianus fulvus Day, Fishes India, p. 34, pl. 10, fig. 5, 1878; Andaman Islands. Herre, Philippine Bureau Science Collection; Manila market; Hondagua, Tayabas Province; Ragay Gulf.

Lutjanus fulvus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 162, 1931; after Day. Umali, Edible Fishes Manila, p. 142, fig. 106, 1936; Manila Bay and Ragay Gulf, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Tayabas Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.

989. *Lutianus fuscescens* (Cuvier and Valenciennes). Fuscus snapper; Kamangbuhu.

The Philippines, East Indies, and China. In sea and in rivers.

Mesoprius fuscescens Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 538, 1830; fresh waters of Celebes. Bleeker, Jour. Indian Archipelago, vol. 3, p. 66, 1849; Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 201, 1859; China. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 11, 1885; North Celebes.

Lutjanus fuscescens Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan Island. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Lutjanus, p. 15, 1873. Bleeker, Atlas Ichth., vol. 8, p. 48, pl. 321, fig. 3, 1876-77; Celebes; Batjan; Ceram. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 94, 1931; Philippines; East Indies; China. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 241, 1936; Philippines; Borneo; Menado; Celebes; Batjan; Ceram; Timor; China.

- Lutianus fuscescens* Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 546, 1908; Zamboanga, Mindanao. Seale, Philippine Bureau Science Collection; Agusan River, Butuan Province, Mindanao.
990. *Lutianus gibbus* (Forskål). Humped red snapper; Dapak; Maya-maya. From the Red Sea and East Coast of Africa to the Philippines, Caroline Islands, Australia, and east to the Tuamoto Islands.
- Sciaena gibba* Forskål, Descript. Animal., p. 46, 1775; Arabia.
- Lutianus gibbus* Bloch and Schneider, Syst. Ichth., p. 326, 1801; Red Sea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 262, 1906; Apia and Pago Pago, Samoa. Jordan and Seale, *ibid.*, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *ibid.*, p. 80; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Mindanao. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 286, 1911; Fiji; Paumotu; Society, Gilbert, and Marshall Islands. Herre, Philippine Bureau of Science Collection; Manila market; Sibuyan; Masbate; Maricaban, Verde Island Passage; Bulalacao Bay, Mindoro; Linapacan Island, Palawan Province; Jolo, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Cullion; Taytay Bay, Palawan; Balabac Island.
- Lutjanus gibbus* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 183 and 219, 1803. Weber, *Siboga*-Exped., vol. 57, Fische, p. 250, 1913; Flores, Makassar and Menado, Celebes; Biaru; Siau; Gisser; Kei; Rotti. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 277, 1927; Santa Maria, Ilokos Sur Province, Luzon; Calapan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 200, pl. 18, fig. A, 1928; 14 Polynesian localities. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 168, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Palaui Island, Cagayan Province; Hermiana Mayor Island, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo and Pagapas Bay, Batangas Province; Matnog Bay, Sorsogon Province, Luzon, Tilig, Lubang Island, off northwest corner of Mindoro. Puerto Galera, Medio Island in Galera Bay, Mansalay, and Sablayan, Mindoro, Port Banalacan, Marinduque. Mompog Island, between Marinduque and Luzon. Alimango Bay and Port Busin, Burias Island. San Roque, Leyte. Destacado Island, between Masbate and Samar. Cebu market, Cebu. Iloilo market, Iloilo Province, Panay. Port Maricaban, Verde Island Passage, between Luzon and Mindoro. Tara Island, northeast of Busuanga. Ulugan Bay, Palawan. Bugsuk, Caxisigan and Candaraman Islands, Balabac. Generale Island, Surigao Province; Malabang market, Lanao Province, Inamucan Bay, Misamis Occidental Province; Polloc, Cotabato Province, Mindanao. Jolo market, Jolo, Tapiantana Island, and Siasi market, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 263, 1936; 36 East Indian localities and Philippines. Umali, Edible Fishes Manila, p. 137, fig. 99, 1936; Manila Bay; Tayabas Province, Luzon.
- Holocentrus boutton* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 331 and 367, 1803; Moluccas.
- DiaCOPE lineata* Quoy and Gaimard, Voy. *Uranie*, Zool., Poiss., p. 309, 1824; Rawak, Waigiu.
- DiaCOPE gibba* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 438, 1828; on Forskål.
- DiaCOPE bottonensis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 434, 1828; on Lacépède. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 535, 1830; New Guinea.
- DiaCOPE striatus*, Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 430, 1828; Waigiu; Buru.
- DiaCOPE coccinea* Cuvier and Valenciennes, *ibid.*, p. 437, 1828; Massauah. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 91, pl. 23, fig. 1, 1835; Djedda.
- DiaCOPE melanura* Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 92, pl. 23, fig. 1, 1835; Red Sea.
- Mesoprion bottonensis* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 12, 1849. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 170, 1851. Kner, Reise Novara, Fische, p. 32, pl. 2, fig. 3, 1865; Madras.
- Mesoprion janthinurus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 52, 1854; Halmaheira; Banda Neira; Koepang, Timor.

- Genyoroge gibba* Günther, Cat. Fishes British Mus., vol. 1, p. 180, 1859; Red Sea; coast of Mozambique.
- Genyoroge bottonensis* Günther, Cat. Fishes British Mus., vol. 1, p. 181, 1859; Amboina.
- Genyoroge melanura* Günther, Cat. Fishes British Mus., vol. 1, p. 183, 1859; Red Sea.
- Lutjanus bottonensis* Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan. Bleeker, Atlas Ichth., vol. 7, pl. 315, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 59, 1876-77; 19 East Indian localities.
- Mesoprion gibbus* Günther, Fische der Südsee, vol. 1, p. 12, pls. 12-13, fig. A, 1873; Samoa; Society Islands.
- Genyoroge bostonensis* Pöhl, Cat. Mus. Godeffroy, No. 9, p. 26, 1884; South Seas; misprint.
- Genyoroge bottoniensis* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 10, 1885; Cebu, Cebu Province, Philippine Islands; also North Celebes.
- Lutianus tahitiensis* Seale, Occas. Papers Bishop Mus., vol. 4, p. 40, fig. 13, 1906; Tahiti, Society Islands.
991. *Lutianus janthinuropterus* (Bleeker). Golden-spotted snapper; Alangot. South Africa to the Philippines, Australia, Solomon Islands, and Samoa.
- Mesoprion striatus* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 44, 1849; not of Cuvier and Valenciennes.
- Mesoprion janthinuropterus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 751, 1852; Celebes.
- Mesoprion lineatus* Günther, Cat. Fishes British Mus., vol. 1, p. 193, 1859; Waigi; Molucca Sea; Java Sea; not of Quoy and Gaimard.
- Lutjanus lineatus* Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Lutjanus, p. 70, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 304, fig. 4, 1873-76. Bleeker, *ibid.*, vol. 8, p. 69, 1876-77; Sumatra; Singapore; Java; Celebes; Timor; Batjan; Buru; Ceran; Amboina; Obi Maor; Waijgi; not of Quoy and Gaimard.
- Lutianus lineatus* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 525, 1904; Padang, Sumatra; not of Quoy and Gaimard. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 77, 1906; near Cotabato, Cotabato Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 257, 1908; Aparri, Cagayan Province, Luzon. Lubang Island, off northwest corner of Mindoro, Philippines. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Jolo, Sulu Province.
- Lutianus fuvicaudatus* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 525, pl. 18, lower figure, 1904; Padang, Sumatra. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 80, 1907; Bacon, Sorsogon Province, Luzon.
- Lutjanus flavipes* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 123, fig. 12, 1931; Mariveles Bay, Bataan Province, Luzon; Cebu-market, Cebu Province, Philippines.
- Lutjanus lineatus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 148, 1931; Batauanan Island, Camarines Sur Province and Canmahala Bay, Ragay Gulf, Luzon.
- Lutjanus janthinuropterus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 281, 1936; 20 East Indian localities; Philippines.
992. *Lutianus johni* (Bloch). John's snapper; Bitilla; Maya-maya. Coast of Africa to the Philippines, China, Australia, and Tahiti.
- Anthias johni* Bloch, Naturges. Ausländ. Fische, vol. 6, p. 113, pl. 318, 1792; Suratta, India. Bloch and Schneider, Syst. Ichth., p. 303, 1801; Tranquebar, India.
- Lutjanus johnii* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 191 and 235, 1802; Tranquebar. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 282, 1865; Amboina. Bleeker, Verh. Akad. Amsterdam, vol. 13, 1873, Révision Lutjanus, p. 20. Bleeker, Atlas Ichth., vol. 8, p. 49, pl. 338, fig. 8; 1876-77; 14 East Indian localities; also Luzon, Philippines. Sauvage, Bull. Soc. Philom., ser. 7, vol. 5, p. 104, 1885; Swatow, China. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 277, 1927; Santa Maria, Ilokos Sur Province, Luzon, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 90, 1931; Port San Pio Quinto, Camiguin I., Babuyan Islands,

north of Luzon; San Fernando Point, La Union Province; Dagupan, Pangasinan Province; Hermana Mayor Island, Zambales Province; Manila market; Pagapas Bay, and Santiago River, Batangas Province; near Palag Bay, Albay Province; Galvaney Island, Ragay Gulf and Ragay River, Camarines Sur Province; off Daet, Camarines Norte Province; Varadero Bay, Mindoro; Port Banalacan and Santa Cruz Island, Marinduque; Malampaya River, Palawan; Iloilo market, Panay; Cotabato Province, and Panabutan Bay, Zamboanga Province, Mindanao.

Sparus tranqubaricus Shaw, General Zoology, vol. 4, p. 471, 1803; Tranquebar, India.

Coius catus Hamilton [né Buchanan], Fishes Ganges, pp. 90 and 369, pl. 38, fig. 30, 1822; larger Ganges estuaries.

Mesoprion unimaculatus Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 304, 1824; Rawak; Waigi. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 441, 1828. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 665, pl. 5, fig. 3, 1834; Port Dorey, New Guinea.

Mesoprion johnii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 443, 1828. Günther, Cat. Fishes British Mus., vol. 1, p. 200, 1859; Australia; China; Madras; Makassar; Cape Sea, Pacific Ocean. Kner, Reise *Novara*, Fische, p. 35, 1865; Manila, Luzon; Singapore.

Serranus pavoninus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 443, 1831; Bombay.

Diacope xanthozona Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 526, 1845; Batavia, Java.

Lutianus johnii Day, Fishes India, p. 42, pl. 13, fig. 1, 1878; Madras. Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, p. 10, 1905; Hong Kong. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 79, 1907; Bacon and Bulan, Sorsogon Province, Luzon, and Jolo, Sulu Province, the Philippines.

Lutianus johni Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province, Negros. Herre, Philippine Bureau Science Collection; Manila Bay; Balayan Bay, Batangas Province, Luzon. New Washington, Capiz Province, Panay. Sibuyan Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 48, 1934; Manila; Calapan, Mindoro; Capiz, Capiz Province, Panay; La Paz, Iolo Province, Panay; Jolo, Sulu Province.

Lutjanus johni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 244, 1936; 28 East Indian localities; Philippines.

993. *Lutianus kasmira* (Forskål). Blue-banded snapper.

Red Sea and east coast of Africa to the Philippines, China, Japan, Marcus Island, Australia, east to the Marquesas Islands.

Sciaena kasmira Forskål, Descript. Animal., p. 46, 1775; Arabia.

Holocentrus quinquelineatus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 84, 1790; Japan.

Holocentrus quinquelinearis Bloch, Naturges. Ausländ. Fische, vol. 4, pl. 239, 1790.

Holocentrus bengalensis Bloch, Naturges. Ausländ. Fische, vol. 4, p. 102, pl. 246, fig. 2, 1790; Bengal.

Lutjanus bengalensis Forster, Fauna Indica, p. 16, 1795. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan. Bleeker, Recherches faune Madagascar, Poissons, p. 35, pl. 9, fig. 2, 1874; Reunion. Bleeker, Atlas Ichth., vol. 7, pl. 302, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 55, pl. 333, fig. 4, 1876-77; Sumatra; Java; Celebes; Timor; Ternate; Halmahera; Batjan; Buru; Ceram; Amboina; Waigi.

Grammistes kasmira Bloch and Schneider, Syst. Ichth., p. 189, 1801; Red Sea.

Labrus kasmira Lacépède, Hist. Nat. Poissons, vol. 3, pp. 434 and 483, 1802; Arabia.

Diacope octolineata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 418, 1828; Tahiti; Mauritius; Red Sea; Pacific Ocean. Schlegel, Fauna Japonica, Pisces, p. 12, pl. 6, fig. 2, 1842; Japan.

Diacope notata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 422, 1828.

Diacope octovittata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 528, 1830; Mauritius.

- Mesoprion octolineatus* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 40, 1849.
- Mesoprion pomacanthus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 407, 1855; Amboina.
- Genyoroge octovittata* Günther, Cat. Fishes British Mus., vol. 1, p. 180, 1859; Mauritius.
- Genyoroge bengalensis* Günther, Cat. Fish Brit. Mus., vol. 1, p. 178, 1859; China; India; Fiji Islands; Louisade Archipelago; Amboina; Mauritius; Red Sea. Meyer, An. Soc. Espana Hist. Nat. Madrid, vol. 14, p. 10, 1885; Cebu, Cebu, Philippines; Menado, Celebes.
- Mesoprion bengalensis* Kner, Reise Novara, Fische, p. 31, 1865; Java; Hong Kong. Günther, Fische der Südsee, vol. 1, p. 12, 1873; Society Islands.
- Genyoroge notata* Schmeltz, Cat. Mus. Godeffroy, No. 3, p. 7, 1866; Samoa.
- Diacope kasmira* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 695, 1870; Koseir, Red Sea.
- Lutjanus bengalensis* Day, Fishes India, p. 33, pl. 10, fig. 4, 1878. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 130, 1903; Marcus Island. Seale, Occas. Papers Bishop Mus., vol. 6, p. 44, 1906; Faté; Tahiti; Nukahiva. Barnard, Ann. South African Mus., vol. 21, 652, 1927; Natal, Delagoa Bay, Mozambique.
- Diacopus bengalensis* Castelnau, Proc. Linn. Soc. New South Wales, vol. 3, p. 369, 1878; Port Jackson.
- Lutjanus quinquelinearis* Day, Fishes India, p. 46, pl. 14, fig. 1, 1878. Gilchrist and Thompson, Ann. South African Mus., vol. 13, p. 65, 1914; Natal. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 449, 1917; Colombo, Ceylon; Philippines.
- Mesoprion kasmira* Klunzinger, Fische Rothen Meeres, p. 12, 1884.
- Mesoprion quinquelineatus* Myer, An. Soc. Espana Hist. Nat. Madrid, vol. 14, p. 11, 1885; Cebu, Cebu Province, Philippines; North Celebes.
- Genyoroge quinquelinearis* Boulenger, Proc. Zool. Soc. London, p. 655, 1887; Muscat, Arabia.
- Lutjanus kasmira* Day, Fishes India, Supplement, p. 783, 1888. Day, Fauna British India, Fishes, vol. 2, p. 468, 1889. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 29, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 476, 1927; Santa Maria, Ilokos Sur Province, Luzon, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 157, fig. 14, 1931; Santo Domingo de Basco, Batan Island, Batanes Province; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Hermana Mayor Island, and Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; San Miguel Island, Tabaco Bay, and near Palag Bay, Albay Province; Canmahala Bay, Ragay Gulf, Luzon. Tilig, Lubang Island, off northwest corner of Mindoro. Calangaman Island, Leyte. Makes Island, Palawan. Port Ciego, Balabac. Murcielagos Bay, Misamis Occidental Province, and Malanipa Island, east of Zamboanga, Zamboanga Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 256, 1936; many East Indian localities; Philippines; in part.
- Lutjanus quinquelinearis* Day, Fauna British India, Fishes, vol. 1, p. 479, 1889. Pillay, Jour. Bombay, Nat. Hist. Soc., vol. 33, p. 365, 1929; Travancore, India.
- Diacope bengalensis* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 97, pl. 13, figs. 1, and b, 1891; Madagascar.
- Mesoprion quinquelinearis* Ishikawa and Matsuura, Preliminary Cat. Fishes Mus. Tokyo, p. 56, 1897.
- Lutjanus kasmira* Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 76, 1901; Kagoshima; Nagasaki. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 261, 1906; Pago Pago, Samoa. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 257, 1908; Fuga Island, Babuyan Islands, north of Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped.; p. 48, 1934; Dumaguete. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro. Herre, Philippine Bureau Science Collection; Cuyo Islands; Romblon; Cebu, Cebu; Jolo and Sibutu, Sulu Province.

Lutjanus (Genyoroge) kasmira Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 128, 1907; Gischin, Shieck Othman, Bal Hel, South Arabia; Ras Shoab and Kalansige, Sokotra.

994. *Lutjanus lineolatus* (Rüppell). Red Sea lined snapper.

Red Sea to Madagascar, east to the Philippines and Guam, Marine.

Diacope lineolata Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 76, pl. 19, fig. 3, 1828; Massaua.

Serranus nouleny Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 247, 1828; Coromandel.

Mesoprion caroui Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 489, 1828. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 998, 1850; Pinang.

Mesoprion xanthopterygius Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 46, 1849; Batavia, Java.

Mesoprion erythropterus Bleeker, *ibid.*, p. 47, 1849; Batavia, Java.

Mesoprion lineolatus Günther, Cat. Fishes British Mus., vol. 1, p. 205, 1859; Red Sea; Amboina. Kner, Reise Novara, Fische, p. 36, 1865; Java.

Lutjanus erythropterus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 282, 1865; Amboina. Bleeker, Verh. Akad. Amsterdam, ser. 2, vol. 13, p. 43, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 298, fig. 2, 1873-76. Bleeker, *ibid.*, vol. 8, p. 53, 1876-77; Sumatra; Nias; Pinang; Banka; Java; Celebes; Sumbawa; Amboina.

Lutjanus lineolatus Day, Fishes India, p. 35, pl. 11, figs. 1 and 2, 1878; Madras. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Herre, Philippine Bur. Science Collection; Manila market, Balayan Bay, Batangas Province, and Hundred Islands, Pangasinan Province, Luzon. Cabalian, Leyte. Bantayan Island, Cebu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Manila, Luzon; Alabat Island; Calapan, Mindoro; Cebu, Cebu Province; Dumaguete; Jolo, Sulu Province. Herre, Exped. 1940-41; Nasugbu; Batangas Province, and Ragay Gulf, Luzon.

Lutjanus lineolatus Day, Fauna British India, Fishes, vol. 1, p. 460, 1889. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 277, 1927; Orion, Bataan Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 144, 1931; Lingayen Gulf; Batangas market, Batangas Province; Mariveles Bay, Bataan Province; Manila market, Matnog Bay, and Bulan, Sorsogon Province, Luzon. Catbalogan, Samar; Tacloban market, and Hinunangan Bay, Leyte. Tataan Island, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 253, 1936; 15 East Indian localities; and the Philippines.

Lutjanus nouleny Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 14, p. 524, 1904; Padang, Sumatra.

Lutjanus (Mesoprion) lineolatus Zugmayer, Abh. Bayerisch. Akad. Wiss., vol. 26, p. 10, 1913; Mekran and Oman, Arabia.

Rhomboplitoides megatops Fowler, Proc. Acad. Nat. Sci. Phila., p. 33, fig. 4, 1918; Philippines.

995. *Lutjanus lunulatus* (Mungo Park). Crescent-banded snapper.

India to Celebes and the Philippines.

Perca lunulata Mungo Park, Trans. Linn. Soc. London, vol. 3, p. 37, pl. 6, 1797; Sumatra.

Lutjanus lunulatus Bloch and Schneider, Syst. Ichth., p. 329, 1801; Sumatra. Day, Fishes India, p. 41, pl. 12, fig. 4, 1875; Sind coast. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 80, 1907; Bulan, Sorsogon Province, Luzon. Herre, July 1929 Coll.; Taruna, Sangi I., Sangir Islands. Here, Philippine Bureau Science Collection; Sibuyan Island; Taytay Bay, Palawan; Sarangani Island, south coast of Mindanao; Tonquil Island, Sulu Province.

Lutjanus lunulatus Lacépède, Hist. Nat. Poissons, vol. 4, p. 213, 1803; after Park. Bleeker, Atlas Ichth. vol. 7, pl. 295, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 66, 1876-77; Sumatra; Celebes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 122, 1931; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 278, 1936; Simalur, Sumatra, and Celebes; also Philippines.

- Mesoprion lunulatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 477, 1828. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 4, 1849. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. Sumatra, p. 75, 1860.
- DiaCOPE bitaeniata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 536, 1830; Celebes. Quoy and Gaimard, Voy. *Astrolabe*, Poissons, p. 664, pl. 5, fig. 2, 1834.
- Mesoprion bitaeniatus* Günther, Cat. Fishes British Mus., vol. 1, p. 191, 1859; Celebes. Schmeltz, Cat. Mus. Godeffroy, No. 1, p. 7, 1864; East Indies.
- Lutjanus (Mesoprion) lunulatus* Zugmayer, Abh. Bayerisch. Akad. Wiss., vol. 26, p. 10, 1913; Mekran and Oman, Arabia.

996. *Lutianus lutjanus* Bloch. Madras snapper.

Tropical Indian Ocean, East Indies, the Philippines, Indo-China, Japan, and Pelew Islands.

Lutianus lutjanus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 107, 1790; Japan.

Lutianus lutianus Bloch, *ibid.*, vol. 4, pl. 245, 1790.

Lutianus Blochi Lacépède, Hist. Nat. Poissons, vol. 4, pp. 178 and 210, 1803.

Mesoprion madras Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 479, 1828. Günther, Cat. Fishes British Mus., vol. 1, p. 200, 1859; Seychelles; Batavia.

Mesoprion olivaceus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 478, 1828; Waigiü.

Mesoprion lutjanus Cuvier and Valenciennes, *ibid.*, p. 479, 1828. Kner, Reise *Novara*, Fische, p. 37, 1865; Java.

Lutjanus lutjanus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 187, 1865; Ceram. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision *Lutjanus*, p. 27, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 314, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 52, 1876-77; 11 East Indian Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 147, 1931; Mariveles Wharf, Bataan Province, and Port Hamilo, Batangas Province; Bacon, Sorsogon Province, Luzon. Polo and Inamucan Bay, Misamis Occidental Province; Malabang, Lanao Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 251, 1936; 20 East Indian localities; Philippines. Seychelles; coasts of India; Tonkin.

Mesoprion machas Playfair, Proc. Zool. Soc. London, p. 849, 1867.

Lutianus madras Day, Fishes India, p. 47, pl. 14, fig. 3, 1878. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 449, 1917; Ceylon.

Lutjanus madras Day, Fauna British India, vol. 1, p. 480, 1881. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 89, pl. 12, fig. 4, 1891. Pellegrin, Bull. Soc. Zool. France, vol. 30, p. 85, 1905; Bate d'Along, Tonkin.

Lutianus lunulatus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 80, 1907; Bacon, Sorsogon Province, Luzon; not of Mungo Park.

Lutianus lutjanus Herre, Philippine Bureau Science Collection; Calapan, Mindoro; Quiminatin, Cuyo Islands.

997. *Lutianus luzonius* Evermann and Seale.

A Philippine and East Indian marine species.

Lutianus luzonius Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 79, fig. 13, 1907; Bacon, Sorsogon Province, Luzon. Herre, Philippine Bureau Science Collection, 1920-28; Romblon; Cebu market; Cagayan, Misamis Oriental Province, and Dapitan, Zamboanga Province, Mindanao; Jolo and Bongao, Sulu Province, Philippines.

Lutianus chrysotaenia Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1908; Zamboanga, Mindanao; (not of Bleeker).

Lutianus luzonius Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 163, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon; Mariveles Wharf, Bataan Province; Subig Bay, Zambales Province; Limbones Cove, Cavite Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Canmahala Bay, Ragay Gulf, Luzon. Tiliig, Lubang Island, off northwest corner of Mindoro; Mansalay, Mindoro; Busin Harbor, Burias Island; San Roque, Leyte; Cebu market, Cebu; Iloilo market, Iloilo Prov., and Nogas Point, Antique Prov., Panay. Davao, Davao Prov., and Malabang market, Lanao Province, and Zamboanga, Zamboanga

Province, Mindanao; also Philippine Islands; Buru and Celebes, Dutch East Indies.

998. *Lutianus malabaricus* (Bloch and Schneider). Malabar snapper; Malabar red snapper; Maya-maya; Bakba-an; Dapak; Polahan.

The Philippines, East Indies, India, Red Sea, Formosa, and Solomon Islands. Marine.

Sparus malabaricus Bloch and Schneider, Syst. Ichth., p. 278, 1801; "in mari Indico."

Mesoprion malabaricus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 480, 1828; Coromandel. Günther, Cat. Fishes British Mus., vol. 1, p. 204, 1859; East Indies. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 11, 1885; Cebu, Cebu Province.

Mesoprion dodecakanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 104, 1853; Amboina.

Lutjanus dodecakanthus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 146, 1865; Buru Island. Bleeker, Atlas Ichth., vol. 7, pl. 302, fig. 2, 1873-76; Amboina.

Lutjanus malabaricus Bleeker, Versl. Akad. Amsterdam, vol. 13. Révision Lutjanus, p. 50, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 293, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 61, 1876-77; Java; Sumatra; Buru; Amboina; Timor. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 174, 1931; Dagupan, Pangasinan Prov.; Manila market; Batangas market, Batangas Province; Bulan, Sorsogon Province, Luzon. Tacloban market and Tacbuc, Leyte. Iloilo market, Iloilo Province, Panay. Malabang market, Lanao Province, and Cotabato market, Cotabato Province, Mindanao. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 137, fig. 98, 1936; Manila Bay; Batangas and Tayabas Provinces. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 268, 1936; Singapore; Nias; Pandang and Ulakan, Sumatra; Batavia, Java; Sandakan, Borneo; Lombok; Flores; Buru; Amboina; Mysore, New Guinea. Philippines. Umali, Philippine Jour. Sci., vol. 6, p. 234, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon.

Lutianus malabaricus Day, Fishes India, p. 31, pl. 9, fig. 4, 1878; Mekran. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 78, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, 1907; Bulan, Sorsogon Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, 1940-41 Exped.; Miagao, Iloilo Province, Panay. Herre, Philippine Bureau Science Coll., 1926-28; Manila market; Bennett Island, near Masbate; Catbalogan, Samar; Cebu market, Cebu. Siasi market, Siasi, Sulu Province. Sandakan market, British North Borneo.

Lutianus dodecakanthus Day, Fishes India, p. 33, pl. 10, fig. 3, 1878; Madras. Seale, Philippine Jour. Sci., vol. 3, sec. A, p. 516, pl. 6, 1908; Philippines. Herre, Fishery Resources Philippines, pl. 28, 1927.

Mesoprion dodecakanthus Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 10, 1885; Kordo, Mysore Island, off New Guinea.

999. *Lutianus maxweberi* Popta.

East Indies and Philippines in fresh water.

Lutjanus maxweberi Popta, Zool. Meded. Rijksmus. Nat. Hist. Leiden, vol. 6, p. 203, 1921; La River, Muna Island, Dutch East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 243, fig. 60, 1936; on the type of specimen.

Lutjanus palmeri Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 94, 1931; Malabang, Lanao Province, Mindanao.

1000. *Lutianus monostigma* (Cuvier and Valenciennes). Black spot maya-maya; Red snapper.

Red Sea to the Philippines and Riu Kiu Islands, the Caroline, Society, and Marquesas Islands.

Mesoprion monostigma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 446, 1828; Seychelles. Günther, Fische der Südsee, vol. 1, p. 14, pl. 16, 1873; Gilbert, Society, and Tuamotu Islands.

Lutjanus monostigma Bleeker, Ned. Tijds. Dierk., vol. 1, p. 155, 1863; Halmahera. Fowler, Mem. Bishop Mus., vol. 10, p. 202, pl. 18, fig. B, 1928; 15 islands in the tropical Pacific Ocean. Fowler, Bull. 100,

U. S. Nat. Mus., vol. 11, p. 125, 1931; Sabtang Island, Batanes Islands; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Masinloc Bay, Zambales; Pagapas Bay, Batangas Province; Galvaney Island, Ragay Gulf, Camarines Sur Province, Maculabo Island, Camarines Norte Province; Batan and Rapurapu Island and Strait, and Rosa Island, Lagonoy Gulf, Albay Province; Bacon and Matnog Bay, Sorsogon Province; also Canmahala Bay, Tubbataha Tilig, Lubang Island. Varadero Bay, and Mansalay, Mindoro. Malubokan Island, Verde Island Passage. Alimango Bay and Busin Harbor, Burias Island. Quinapundan Bay, Samar; Calangaman Island, northeast of Cebu. Buang Bay, Talajit, between Samar and Masbate. Malajon Island, west coast of Busuanga. Bolalo Bay, Endeavor Strait, Makesi Island, Rasa Island, and Ulugan Bay, Palawan. Mahinog, Camiguin Island, off north coast of Mindanao. Bugsuk and Caxisigan Islands, north Balabac Strait. Inamucan Bay, Misamis Occidental Province, and Zamboanga, Zamboanga Province, and Opol, Mindanao. Balukbaluk Island, off Basilan. Simaluc Sibi and Taganak islands, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 284, 1936; 19 East Indian localities; Philippines. Umali, Edible Fishes Manila, p. 140, fig. 103, 1936; coast of Busuanga, Palawan, and Zamboanga Peninsula, Mindanao. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.

Dicope monostigma Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 702, 1870; Koseir, Red Sea.

Lutjanus uoglossus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 44, 1873. Bleeker, Verh. Akad. Amsterdam, vol. 13, Revision Lutjanus, p. 74, 1873; Bintang; Java; Celebes; Halmahera; Amboina. Bleeker, Atlas Ichth., vol. 8, p. 70, pl. 344, fig. 4, 1876-77; same localities.

Lutjanus uoglossus Day, Fishes India, p. 39, pl. 12, fig. 1, 1878.

Lutjanus monostigma Day, Fishes India, p. 39, 1878. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 264, 1906; Apia and Pago Pago, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 40, 1906; Tubuai; Faté, New Hebrides; Marquesas Islands. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 79, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Bureau Science Collection; Bulalacao Bay, Mindoro; Taytay Bay, Palawan; Sitankai, Sulu Province.

Mesoprion uoglossus Klunzinger, Fische Rothen Meeres, p. 14, 1884; Koseir, Red Sea.

1001. *Lutjanus nematophorus* (Bleeker). Thread-finned snapper; Sampak bakal.

Singapore and the Philippines to Queensland, Australia. Marine.

Mesoprion nematophorus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Der-tiende Bijdr. vischfauna Celebes, p. 56, 1860.

Lutjanus nematophorus Bleeker, Verh. Akad. Amsterdam, vol. 13, Rev. Lutjanus p. 12, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 285, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 47, 1876-77; Singapore; Celebes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 95, fig. 10, 1931; Cebu market, Cebu Prov. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 240, 1936; Singapore; Celebes; Philippines. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga Province, Mindanao.

Lutjanus nematophorus Ogilby, Mem. Queensland Mus., vol. 7, p. 20, pl. 1, 1920; off Hervey Bay, Queensland. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Phil. Exped., p. 49, 1934; Manila market, but specimen came from Linapacan Island, Palawan Province; reef near Burias Island; Cullion; Cebu, Cebu; Dumaguete, Negros Oriental Province. Herre, Fishes 1933-34 and 1936-37 Exped.; Menado, Celebes; Sandakan, British North Borneo; Zamboanga, Zamboanga Province, Mindanao.

1002. *Lutjanus orientalis* Seale.

A Philippine species of uncertain status. Fowler considers it a synonym of *L. chrysoaenia*, from which it apparently differs too much. *Lutjanus orientalis* Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 513, 1909; Limbones Cove, Cavite Province, Luzon. Balabac Island. Herre, Philippine Bureau Science Collection, 1925; Santo Domingo de Basco, Batan Island, Batanes Province.

- 1003. *Lutianus philippinus* Borodin.**
Lutianus philippinus Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 51, pl. 2, fig. 1, 1930; Philippines; validity doubtful.
- 1004. *Lutianus rivulatus* (Cuvier and Valenciennes).** Blue-spotted snapper.
 Tropical Indian Ocean to the Philippines, China, and Japan, and south-east to the Gilbert Islands and Samoa. Marine.
DiaCOPE rivulata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 414, pl. 38, 1828; Coromandel and Malabar coasts and Pondicherry, India; Java; Red Sea.
DiaCOPE caeruleopunctata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 424, 1828; Vizagapatam.
DiaCOPE alboguttata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 445, 1831; Malabar and Bombay, India.
Mesoprion myriaster Lienard, Mem. Soc. Hist. Nat. Maurice, p. 32, 1839; Mauritius.
DiaCOPE rivulina Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 211, 1839; on pl. 38, Cuvier and Valenciennes.
Mesoprion caeruleopunctatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 169, 1851.
Genyorange caeruleopunctata Günther, Cat. Fishes British Mus., vol. 1, p. 182, 1859; after Bleeker; coast of Coromandel; Sea of Padang, Sumatra.
Genyorange rivulata Günther, Cat. Fishes British Mus., vol. 1, p. 182, 1859; China; Amboyna; Red Sea.
Genyorange alboguttata Day, Fishes Malabar, p. 9, 1865.
Lutjanus rivulatus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 138, 1873; China. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Lutjanus, p. 81, 1873. Bleeker, Atlas Ichth., vol. 8, p. 73, pl. 347, fig. 3, 1876-77; 10 East Indian islands. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 184, 1910; Takao, Formosa. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 111, fig. 11, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Sorsogon market, Sorsogon Province, Luzon. Biri Channel, Balicuatro Islands, Samar. San Roque, Leyte. Iloilo market, Iloilo Province, Panay. Endeavor Strait and Mantaquin Bay, Palawan. Bugsuk Island, north Balabac Strait. Near mouth of Rio Grande and Polloc, Cotabato Province; Davao, Davao Province; Opol, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 287, 1936; 24 East Indian localities; Philippines and 10 Indo-Pacific localities.
Lutianus rivulatus Day, Fishes India, p. 37, pl. 11, fig. 4, 1878. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 76, 1901; Yokohama, Japan. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Barnard, Ann. South African Mus., vol. 22, p. 655, 1927; Natal, South Africa. Herre, Philippine Bureau Science Collection; Hondagua and Ragay Gulf, Tayabas Province, Luzon; Jolo, Sulu Province. Herre, Fishes 1931 Phil. Exped., p. 49, 1934; Manila markets, Luzon; Cotabato, Cotabato Province, Mindanao. Herre, Exped., 1933-34; Taruna, Sangi Island, Sangir group; Sandakan, British North Borneo.
Mesoprion parvidens Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 234, 1882; New Guinea.
Lutianus caeruleopunctatus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 525, 1904; Padang, Sumatra.
- 1005. *Lutianus rufolineatus* (Cuvier and Valenciennes).**
 Andaman Islands to East Indies and Philippines.
DiaCOPE rufolineata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 531, 1830; New Guinea.
Mesoprion rufolineatus Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 12, 1849.
Mesoprion melanospilos Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 750, 1852; Celebes.
Mesoprion amboinensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 259, 1852; Amboina.
Genyorange amboinensis Günther, Cat. Fishes British Mus., vol. 1, p. 183, 1859; Amboyna.
Genyorange melanospilos Günther, Cat. Fishes British Mus., vol. 1, p. 183, 1859; after Bleeker.

- Lutjanus amboinensis* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 318, fig. 2, 1873-76. Bleeker, *ibid.*, vol. 8, p. 57, 1876-77; Bali; Celebes; Ternate; Obi; Buru; Ceram; Amboina; Waigi; New Guinea.
- Lutianus amboinensis* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, 1907; Bulan, Sorsogon Province, Luzon.
- Lutjanus rufolineatus* Weber, *Siboga* Exped., vol. 57, Fische, p. 250, 1913; Banda. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 150, 1931; Bulan, Sorsogon Prov., Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 259, 1936; 21 East Indian localities; Philippines.
- Lutianus rufolineatus* Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Dumaguete; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro.
1006. *Lutianus russelli* (Bleeker). Russell's snapper; Bahaba; Darag-darag. From Madagascar and Zanzibar to the Philippines and Japan, southward to the Solomon Islands and Australia. Marine and entering fresh water.
- Mesoprion Russellii* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 41, 1849.
- Lutjanus Russellii* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 187, 1865; Ceram. Bleeker, Atlas Ichth., vol. 8, p. 71, pl. 300, fig. 2, 1876-77; 17 East Indian localities.
- Mesoprion russelli* Day, Proc. Zool. Soc. London, p. 701, 1867; Madras. Day, *ibid.*, p. 680, 1870; Andaman Islands.
- Lutianus johnii* Ogilby, Cat. Fishes New South Wales, p. 9, 1886; not of Bloch.
- Lutjanus monostigma* Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 86, 1891; not of Cuvier and Valenciennes.
- Genyrorge lemniscata* Weber, Jenaische Denkschr., vol. 8, p. 102, 1895; not of Cuvier and Valenciennes.
- Lutianus johnii* Waite, Mem. New South Wales Nat. Club, p. 29, 1904; not of Bloch.
- Lutianus russelli* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 525, 1904; Padang, Sumatra. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 237, 1908; Iloilo, Iloilo Province, Panay; Cuyo, Cuyo Islands, Sulu Sea. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 450, fig. 3, 1911; Japan; Formosa; Queensland; also Cavite, Cavite Province, and Palawan, Philippines. Herre, Fishes 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Panay; Sitankai, Sulu Province.
- Lutianus quinquelineatus* Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 184, 1910; Aparri, Cagayan Province, and Manila, Luzon; (not of Cuvier and Valenciennes).
- Lutianus fuscescens* Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 184, 1910; Takao, Formosa; (not of Cuvier and Valenciennes).
- Lutjanus russelli* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 272, 1936; 24 East Indian localities; also the Philippines.
1007. *Lutianus sanguineus* (Cuvier and Valenciennes). Tropical Indian Ocean to the East Indies, Philippines, China, Japan, and Australia.
- DiaCOPE sanguinea* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 437, 1828; Massaua. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 697, 1870; on the type.
- Mesoprion rubellus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 475, 1828; Pondicherry, India; Red Sea.
- Mesoprion annularis* Cuvier and Valenciennes, *ibid.*, p. 484; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 204, 1859; China; Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 282, 1885; Cebu, Cebu Province.
- DiaCOPE annularis* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 74, 1828; Massaua. Quoy and Gaimard, Voy. *Astrolabe*, Poissons, p. 666, pl. 5, fig. 4, 1834; Sunda Straits. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 91, pl. 24, fig. 2, 1835; Massaua.

Lutjanus sanguineus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 265, 1936; 35 East Indian localities and the Philippines.

Lutjanus sanguineus Herre, Fishes of 1936-37 and 1940-41 Expeds.; Balayan Bay, Batangas Province, Manila Bay, and Ragay Gulf, Luzon, Miagao, Iloilo Province, Panay; also Tawau, British North Borneo, and Singapore.

1008. *Lutjanus sebae* (Cuvier and Valenciennes). Seba's snapper.

Red Sea and Zanzibar to the Philippines, East Indies, and Australia.

DiaCOPE Sebae Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 411, 1828; Waigiú; Java; Pondicherry, India. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 692, 1870; Koseir, Red Sea.

Mesoprion Sebae Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 45; 1849.

Genjoroge sebae Günther, Cat. Fishes British Mus., vol. 1, p. 176, 1859; coast of Pondicherry; Seas of Java, Amboyna, Waigiú; Louisiade Archipelago; coast of Mozambique.

Lutjanus Sebae Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan. Bleeker, Atlas Ichth., vol. 8, p. 62, pl. 350, fig. 2, 1876-77; Sumatra; Singapore; Biliton; Java; Bali; Celebes; Batjan; Amboina; Waigiú; New Guinea.

Mesoprion sebae Kner, Reise Novara, Fische, vol. 1, p. 30, 1865; Java; Singapore.

Lutjanus sebae Day, Fishes India, p. 30, pl. 9, fig. 3, 1878; Madras. Barnard, Ann. South African Mus., vol. 21, p. 654, 1927; Mozambique. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Dumaguete, Negros Oriental Province; Jolo, Sulu Province. Herre, Philippine Bureau Science Collection and Collection of 1936-37; Linapacan Island, Palawan, and Quiminatan, Cuyo Islands; Jolo and Pearl Bank, Sulu Province.

DiaCOPE sebae Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 78, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao.

Lutjanus sebae Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 31, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 176, 1931; Luzon; Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province. Chevey, Poissons Campagnes de Lanessan, p. 79, pl. 29, 1932; Annam. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 261, 1936; 15 East Indian localities and the Philippines.

1009. *Lutjanus semicinctus* (Quoy and Gaimard).

The Philippines, East Indies, and east to the Society Islands.

Lutjanus semicinctus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 303, 1824; Rawak; Waigiú. Bleeker, Verh. Akad. Amsterdam, vol. 13, Revision Lutjanus, p. 55, 1873. Bleeker, Atlas Ichth., vol. 8, p. 63, pl. 341, fig. 3, 1876-77; Batjan; Obi Major; Amboina; Goram; Waigiú; Rawak; New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 198, 1928; Shortland Island; New Guinea; Society Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 103, 1931; East Indies; New Guinea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 275, 1936; 11 East Indian localities; Admiralty, Solomon, New Hebrides, Gilbert, and Fiji Islands. Hardenberg, Treubia, vol. 16, p. 316, 1938; Makassar, Celebes.

Lutjanus semicinctus Seale, Occas. Papers Bishop Mus., vol. 4, p. 43, 1906; Shortland Island, Solomon Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 263, 1906. Herre collections, 1928-34; Taruna, Sangi Island, Sangir Islands, Dutch East Indies; south coast of Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 173, 1936; Malo Island, New Hebrides; Ysabel Island and Ugi Island, Solomon Islands.

1010. *Lutjanus spilurus* (Bennett). Blue-striped snapper.

Tropical Indian Ocean to the Philippines, China, and the Riu Kiu Islands, east to Marcus Island and the Marquesas Islands.

- Holocentrus quinquelineatus* Bloch, Naturges. Ausländ. Fische, vol. 4, p. 94, 1790; in part.
- Mesopriion quinquelineatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 442, 1828; Java.
- DiaCOPE spilurus* Bennett, Proc. Zool. Soc. London, p. 182, 1832; Ceylon Sea.
- Genyroroge spilura* Günther, Cat. Fishes British Mus., vol. 1, p. 504, 1859.
- Lutjanus quinquelineatus* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 72, 1869. Bleeker, Recherches Faune Madagascar, Poissons, p. 33, pl. 16, fig. 3, 1874; Bourbon. Bleeker, Atlas Ichth., vol. 8, p. 56, pl. 343, fig. 4, 1876-77; 18 East Indian localities.
- Lutianus quinquelineatus* Day, Fishes India, p. 40, pl. 12, fig. 3, 1878; Andaman Islands. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 130, 1903; Marcus Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. Bur. Fish., vol. 26, p. 79, 1907; Bacon and Bulan, Sorsogon Province, Luzon.
- Lutjanus spilurus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 53, fig. 13, 1931; Santo Domingo de Basco, Batan Island, Batanes Province; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Manila market, Alibijaban Island, Ragay Gulf, Tayabas Province, San Miguel, Tabaco Bay, Albay Province, Canmahala Bay, Ragay Gulf, Luzon. Tilig Bay, Lubang Island, northwest corner of Mindoro. Busin Harbor, Burias Island; Romblon; Santa Cruz, Marinduque; Makesi Island, Palawan, Mahinog, Camiguin Island, off north coast of Misamis Oriental Province; Pandanon Island, north of Bohol. Malanipa Island, east of Zamboanga, Zamboanga Province, Mindanao. Singaan and Usada Islands, Sulu Province. Umali, Edible Fishes Manila, p. 141, fig. 105, 1936; reefs about southern Luzon and Mindoro. Manila markets.
- Lutianus spilurus* Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Dumaguete, Negros Oriental Province, Negros.

1011. *Lutianus vaiigiensis* (Quoy and Gaimard). Waigiu snapper; Tapako. East coast of Africa to the Philippines, Japan, Caroline Islands, New Hebrides, Australia, and east to the Marquesas Islands.
- DiaCOPE vaiigiensis* Quoy and Gaimard, Voy. Uranie, Zoologie, p. 307, 1824; Waigiu.
- DiaCOPE marginata*, Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 425, 1828; Pondicherry, India; Oualan=Kusaie, Carolines. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 100, pl. 12, fig. 3, 1891.
- DiaCOPE immaculata* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 430, 1828; Sumatra.
- DiaCOPE xanthopus* Cuvier and Valenciennes, *ibid.*, vol. 3, p. 495, 1829; Trinquemale, Ceylon.
- DiaCOPE axillaris* Cuvier and Valenciennes, *ibid.*, vol. 6, p. 532, 1830; East Indies; Vanicolo.
- DiaCOPE flavipes* Cuvier and Valenciennes, *ibid.*, vol. 6, p. 534, 1830; Vanicolo.
- DiaCOPE aurantiaca* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 536, 1830; Vanicolo.
- Mesopriion Gaimardi* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Enumeratio Piscium, p. 23, 1859; Waigiu.
- Mesopriion vaiigiensis* Günther, Cat. Fishes British Mus., vol. 1, p. 191, 1859; Port Essington, Australia.
- Genyroroge marginata* Günther, Cat. Fishes British Mus., vol. 1, p. 181, 1859; Ceylon; Amboyna; Louisiades. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 10, 1885; Sangi Island; North Celebes; Ternate.
- Lutjanus marginatus* Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 106, 1862; Batjan. Bleeker, Atlas Ichth., vol. 8, p. 68, pl. 349, fig. 2, 1876-77; 17 East Indian Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 277, 1927; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province, Luzon. Calapan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 200, 1928; 21 localities in the tropical Pacific Ocean.

Lutjanus flavipes Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Lutjanus, p. 68, 1873. Bleeker, Atlas Ichth., vol. 8, p. 68, pl. 331, fig. 5, 1876-77; Amboina.

Lutianus marginatus Day, Fishes India, p. 44, pl. 13, fig. 5, 1878; Madras. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga Province, Mindanao. Seale, Philippine Bureau Science Collection; Puerto Galera, Mindoro; Bantayan Island, Cebu Province; Samal Island, Gulf of Davao, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Calapan, Mindoro; Culion; Dumaguete; Sitankai, Sulu Province.

Mesoprion marginipinnis Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 254, 1884; in fresh water, Normanby Island, New Guinea.

Mesoprion mahogoni Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 11, 1885; Makassar, South Celebes; not of Cuvier and Valenciennes.

Dicope analis Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 103, pl. 13, figs. 2, a-c, 1891; Madagascar.

Lutianus vaigiensis Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 525, 1904; Padang, Sumatra. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 457, fig. 4, 1911; RiuKiu Islands; Apia, Formosa. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 164, fig. 120, 1913; Philippines; East Indies; New Guinea; Japan. Herre, Fishes 1936-37 and 1940-41 Expeds.; Balayan Bay and Nasugbu, Batangas Province, Luzon; Miagao, Iloilo Province, Panay.

Lutjanus (Genyorogete) marginatus Steindachner, Denks. Akad. Wiss. Wien, Math.-Natur. Klasse, vol. 71, p. 128, 1907; Sokotra.

Lutianus marginatoides Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 287, pl. 4, fig. 1, 1911; Makemo, Tuamotu Islands.

Lutianus waigiensis Barnard, Ann. South African Mus., vol. 21, p. 656, 1927; Natal; Mozambique.

Lutianus vaigiensis Fowler, Mem. Bishop Mus., vol. 10, p. 200, 1928. Fowler, Proc. Acad. Nat. Sci. Phila., p. 636, 1929; Thornton Island; Palmyra; Guam; Samoa; Nukuhiva; Faté; Shortland Island; Padang. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 115, 1931; Sabtan Island, Batanes Province; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. San Vicente Harbor, Cagayan Province; Bolinao Bay, Pangasinan Province; Port Matalvi, and Subig Bay, Zambales Province. Cavite market and Limbones Cove, Cavite Province; Mariveles wharf, Bataan Province; Port Hamilo and Santiago River, Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Refugio Island, Pasacao, Ragay Gulf, Camarines Sur Province; Matnog Bay, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon. Bilikias Bay and Tilig, Lubang Island, off northwest corner of Mindoro; Maricaban Island, Verde Island Passage; Varadero Bay, Mindoro; Romblon; Busin Harbor, Burias Island; Buang Bay, Talajit Island (said to be between Masbate and Samar); San Roque, Leyte; Malhon Island (said to be between Samar and Leyte); Pandanon Island, north of Bohol; Cebu market and Mactan Island, Cebu Province; Iloilo market, Iloilo Province, Panay; Buena Vista, Guimaras Island, Panay Province; Tara Island, northeast of Busuanga Island; Bolalo Bay, Endeavor Strait, and Ulugan Bay, Palawan. Below mouth of the Rio Grande, and Cotabato market, Cotabato Province; Davao, Davao Province; Mahinog, Camiguin Island, off coast of Misamis Oriental Province, Mindanao.

1012. *Lutianus vitta* (Quoy and Gaimard). Black-striped snapper; Brown-striped snapper; Alongot; Macotod; Maya-maya; Bitilla.

From the Seychelles to the East Indies, the Philippines, China, Japan, and Australia, and east to Tahiti.

Serranus vitta Quoy and Gaimard, Voy. Uranie, Zoologie, p. 315, pl. 58, fig. 3, 1824; Waigi. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 239, 1828; Waigi. Cuvier and Valenciennes, *ibid.*, vol. 6, p. 505, 1830; Tahiti; Waigi. Richardson, Ichth. China Japan, p. 234, 1846; Hong Kong.

Dicope vitta Schlegel, Fauna Japonica, Pisces, p. 13, pl. 6, fig. 4, 1842; Nagasaki.

Mesoprion vitta Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 44, 1849. Günther, Cat. Fishes British Mus., vol. 1, p. 207; 1859; China; Hong Kong; Amboina; Moluccas; Lousiade Archipelago; Port Essington, Australia.

Lutjanus vitta Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Lutjanus, p. 25, 1873. Bleeker, Atlas Ichth., vol. 8, p. 51, pl. 340, fig. 5, 1876-77; 13 East Indian localities. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 30, 1922; Cebu, Cebu, Philippines; Takao, Formosa. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 277, 1927; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 138, 1931; Manila market, Cavite, Cavite Province, Saboon Island, Ragay Gulf, Camarines Sur Province, and Bacon, Sorsogon Province, Luzon. Cataingan Bay, Masbate. Catbalogan and Nabatas Point, Samar. Hinunangan Bay, Leyte. Cebu, Cebu Province. Diuata Point, Agusan Province, and Zamboanga market, Zamboanga Province, Mindanao. Jolo market, Jolo, and Tataan Island, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 250, 1936; 22 East Indian localities and the Philippines. Umali, Edible Fishes Manila, p. 141, fig. 104, 1936; Manila Bay and coasts of southwestern Samar.

Lutianus vitta Day, Fishes India, p. 46, pl. 14, fig. 2, 1878. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 20, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, 1907; Bacon and Bulan, Sorsogon Province, Luzon; Zamboanga, Zamboanga Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 275, 1910; Sandakan, British North Borneo. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Herre, Philippine Bureau Science Collection; Manila Bay; Iba, Zambales; Hundred Islands, Pangasinan Province, Luzon. Tacloban, Leyte. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Curimao, Ilokos Norte Province, and Bauang Sur, La Union Province, Luzon. Capiz, Capiz Province, Panay; Cebu Province; Jolo, Sulu Province. Herre, Fishes of 1936-37 and 1940-41 Expeds.; Puerto Galera, Mindoro; Iloilo Province, Panay; Dumaguete, Negros Oriental Province.

Genus 355. MACOLOR Bleeker.

Species few; in the tropical Indo-Pacific from Africa to Samoa.

Macolor Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 25, 1860; type, *Macolor typus* Bleeker = *Diacope macolor* Cuvier and Valenciennes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 178, 1931.

Proamblys Gill, Proc. Acad. Nat. Sci. Phila., p. 236, 1862; type, *Diacope nigra* Lesson.

1013. Macolor macolor (Lesson).

Tropical Indo-Pacific. Marine.

Diacope macolor Lesson, Bull. Sci. Nat. Ferrussac, vol. 12; p. 138, 1827; New Guinea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 415, 1828; New Guinea. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 230, pl. 22, fig. 2, 1831; Dorey Harbor.

Genyoroge macolor Günther, Cat. Fishes, British Mus., vol. 1, p. 170, 1859; Molucca Sea; Amboyna. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 10, 1885; North Celebes; Tabukan, Sangi Island.

Mesoprion macolor Günther, Fische der Südsee, vol. 1, p. 11, 1873; Samoa.

Lutjanus macolor Bleeker, Atlas Ichth., vol. 8, p. 75, pl. 343, fig. 3, 1876-77; Celebes; Buru, Ternate; Amboina; Haruko; Banda; Waigi; New Guinea.

Lutjanus niger Weber, *Siboga*-Exped., vol. 57, Fische, p. 253, pl. 12, figs. 1-2, 1913; Binongka and Bangka, Dutch East Indies.

Macolor niger Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 179, 1931; Masinloc Bay, Zambales Province; Pagapas Bay and Port Hamilo, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Palag Bay and Rapurapu Island, Albay Province, Luzon. Agojo Point, Catanduanes Island; Tilig, Lubang Island, off northwest corner of Mindoro; Sablayan, Mindoro; Mompog Island, between Marinduque and Luzon; Alimango Bay, Burias Island; Caxisigan Island, Balabac.

Cagayan Sulu, southern Sulu Sea, Tataan Island, Sulu Province; not of Forskål. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 289, fig. 62, 1936; East Indies; Philippines; in part.

Macolor macolor Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Dumaguete; Linapacan Island; Jolo, Jolo Island, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 183, 1936; Tenibuli, Ysabel Island, Solomon Islands. Herre, Philippine Bureau Science Collection; Manila market, Luzon; Maricaban Island, Verde Island Passage; Masbate Island; Capul Island, between Samar and Masbate; Balabac.

1014. *Macolor macularis* Fowler.

Macolor macularis Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 181, 1931; Sabtang Island, Batanes Islands; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Alibijaban Island, Ragay Gulf, Tayabas Province; near Palag Bay, Albay Province; Refugio Island, Pasacao, Ragay Gulf, Camarines Sur Province, Luzon. Balikias Bay and Tilig, Lubang Island, off northwest corner of Mindoro. Puerto Galera Bay, Mindoro. Mompog Island, between Marinduque and Luzon. Alimango Bay, Burias Island. Murcielagos Bay, Misamis Occidental Province, Polloc, Cotabato Province, and Tunalutan Island, east of Zamboanga, Zamboanga Province, Mindanao. Tara Island, northeast of Busuanga. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Taytay, Palawan.

Genus 356. APRION Cuvier and Valenciennes.

A single widely distributed Indo-Pacific species.

Aprion Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 543, 1830; type, *Aprion virescens* Cuvier and Valenciennes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 184, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 310, 1936.

Sparopsis Kner, Sitzungsber. Akad. Wiss. Wien, vol. 58, p. 27, 1868; type, *Sparopsis latifrons* Kner; preoccupied.

1015. *Aprion virescens* Cuvier and Valenciennes. Blue snapper; Slender snapper; Guntol.

Tropical Indo-Pacific, from Hawaii and the Society Islands to Queensland, the Philippines, Ceylon, Seychelles, and Mauritius.

Aprion virescens Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 544, pl. 168, 1830; Seychelles. Günther, Fische der Südsee, vol. 1, p. 16, 1873; Society and Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 239, fig. 99, 1905; Honolulu, Hilo; Kailua. Weber, *Siboga*-Exped., vol. 57, Fische, p. 257, 1913; Sulu, Sulu Archipelago, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 185, 1931; Puerto Galera, Mindoro; Zamboanga market, Zamboanga Province, Mindanao. Tonquil Island, Sulu Province. Herre, Philippine Bureau Science Collection; Basilan, Sangboy, Pilas and Tamuk Islands, Zamboanga Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 311, 1936; Makassar, Celebes; Ternatè; Amboina; Sulu Islands, Sulu Province, and the Philippines.

Mesoprion microchir Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 332, 1853; Amboina.

Lutjanus microchir Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate.

Sparopsis latifrons Kner, Sitzungsber. Akad. Wiss. Wien, p. 27, 1868; Kandavu, Fiji.

Sparopsis elongatus Kner, *ibid.*, p. 303, pl. 3, fig. 6, 1868; on same type as *Sparopsis latifrons* Kner.

Chaetopterus microchir Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 85, 1869. Bleeker, Atlas Ichth., vol. 7, pl. 293, fig. 3, 1873-76.

Aprion (Aprion) virescens Bleeker, Atlas Ichth., vol. 8, p. 77, 1876-77; Celebes; Ternate; Amboina.

Genus 357. PRISTIPOMOIDES Bleeker.

Fishes of the tropical Indo-Pacific and of the West Indies in the Atlantic. *Chaetopterus* Schlegel, Fauna Japonica, Pisces, p. 78, 1844; type, *Chaetopterus sieboldii* Bleeker; name preoccupied.

Pristipomoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 575, 1852; type, *Pristipomoides typus* Bleeker. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 186, 1931.

Platyinius Gill, Proc. Acad. Nat. Sci. Phila., p. 236, 1862; type, *Mesoprion vorax* Poey.

1016. *Pristipomoides filamentosus* (Cuvier and Valenciennes). Crimson snapper; Ula-ula.
Tropical Indian Ocean to the Philippines.
Serranus filamentosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 508, 1830; St. Denis, Bourbon; Mauritius.
Serranus mitis Bennett, Proc. Zool. Soc. London, vol. 1, p. 127, 1833.
Anthias filamentosus Günther, Cat. Fishes British Mus., vol. 1, p. 502, 1859; Mauritius.
Centropristis filamentosus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 703, 1870; Red Sea.
Centropristis (Aprion) filamentosus Klunzinger, Fische Rothen Meeres, p. 16, 1884.
Etelis filamentosus Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 108, pl. 11, figs. 2 and 2a, 1891; Madagascar.
Aprion filamentosus Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 226, 1909; Durban, Natal.
Pristipomoides filamentosus Barnard, Ann. South African Mus., vol. 21, p. 648, 1927; Natal coast. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 191, 1931; off Cape Melville Light, Balabac Strait; Cebu market, Cebu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Dumaguete.
1017. *Pristipomoides microdon* (Steindachner). Manambulao; Tulotoon; Kalaskasin.
Australia, the Philippines, and Hawaiian Islands.
Aprion microdon Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 74, p. 206, 1876; Hawaiian Islands.
Apsilus microdon Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 451, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish., vol. 23, p. 234, 1905; Honolulu; Hilo; Kailua.
Platyinius microdon Snyder, Bull. U. S. Fish. Comm., vol. 22, p. 527, 1904; Honolulu.
Pristipomoides microdon Fowler, Proc. Acad. Nat. Sci. Phila., p. 634, 1929; Honolulu. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 188, 1931; Capitancillo Light, off Cebu; Zamboanga market, Zamboanga Province, Mindanao. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Camarines Sur Province, Luzon; (as deep-bodied *Pristipomid*). Umali, Philippine Jour. Sci., vol. 65, p. 183, 1938; Ragay Gulf, Luzon, also Burias Island. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.
1018. *Pristipomoides microlepis* (Bleeker).
Bourbon, the Philippines, East Indies, and the Hawaiian Islands. Marine.
Etelis brevirostris Vaillant, Bull. Soc. Philom. Paris, ser. 6, vol. 10, p. 15, 1873; Bourbon. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 109, pl. 10, fig. 2, a-b, 1891.
Chaetopterus microlepis Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 80, 1869; Amboina. Bleeker, Recherches faune Madagascar, Poissons, pl. 17, fig. 2, 1874.
Aprion (Aprion) microlepis Bleeker, *ibid.*, p. 26, 1874; Bourbon; Amboina. Bleeker, Atlas Ichth., vol. 8, p. 78, 1876-77; Amboina.
Aprion microlepis Bleeker, Atlas Ichth., vol. 8, pl. 336, fig. 5, 1876-77. Fowler, Proc. Acad. Nat. Sci. Phila., p. 502, 1900; Hawaiian Islands. Weber, *Siboga* Exped., vol. 57, Fische, p. 257, 1913; Sulu, Sulu Archipelago, Philippines; Banda.
Aprion brevirostris Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 109, 1891.
Pristipomoides microlepis Fowler, Mem. Bishop Mus., vol. 10, p. 192, 1928; Hawaiian Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, 1931; San Fernando, La Union Province, Luzon, Hawaiian Islands. Herre, 1948 Coll.; near Corregidor, south entrance to Manila Bay; taken by trawler.

Aprion (Pristipomoides) microlepis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 312, fig. 66, 1936; Sulu, Sulu Province, Philippines; Amboyna; Banda; also Bourbon, Philippines; and Hawaiian Islands.

1019. *Pristipomoides typus* Bleeker. Besugo laut.

East Indies to Madagascar and the Red Sea. Abundant in the central and southern Philippines in deep water; reaches length of 700 mm., or more.

Pristipomoides typus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 575, 1852; Siboga, Western Sumatra. Herre, 1940-41 Exped.; Miagao, Iloilo Province, Panay. Bravo, October to November, 1947; common at Royal Ice Plant landing, Manila. Herre and Herald, Philippine Fisheries Program, May, 1948; Nasugbu, Batangas Province, Luzon.

Dentex pristipoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 246, 1854; Celebes.

Mesoprion dentex Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 20, 1859; Sumatra; Amboina.

Chaetopterus pristipoma Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 83, 1869; Amboina. Bleeker, Recherches faune Madagascar, Poissons, pl. 10, 1874.

Mesoprion multidens Day, Proc. Zool. Soc. London, p. 680, 1870; Andaman Islands.

Aprion (Aprion) pristipoma Bleeker, Verh. Akad. Amsterdam, ser. 2, vol. 7, p. 96, 1873. Bleeker, Atlas Ichth., vol. 8, p. 79, 1876-77; Sumatra; Celebes; New Guinea.

Aprion pristipoma Bleeker, Atlas Ichth., vol. 8, pl. 336, fig. 3, 1876-77. Day, Fauna British India, Fishes, vol. 1, p. 533, 1889.

Anthias multidens Day, Fishes India, p. 27, pl. 7, fig. 4, 1878.

Centropristis (Aprion) pristipoma Klunzinger, Fische Rothen Meeres, vol. 1, p. 16, 1884; Red Sea.

Aprion typus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 527, 1904; Padang, Sumatra.

Pristipomoides argyrogrammicus Fowler, Bull. U. S. Nat. Mus., vol. 11, p. 189, 1931; Padang, Sumatra.

Aprion (Pristipomoides) typus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 313, 1936; Siboga and Padang, Sumatra; Celebes; Amboina; Mysore, Schouten Islands; New Guinea.

Genus 358. ETELIS Cuvier and Valenciennes.

Tropical Indo-Pacific and Atlantic. Species very few.

Etelis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 93, 1828; type, *Etelis carbunculus* Cuvier and Valenciennes. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 240, 1905. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 464, 1911. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 193, 1931.

1020. *Etelis carbunculus* Cuvier and Valenciennes. Ruby snapper.

Islands of the tropical Indian Ocean, the Philippines, Japan, Hawaiian Islands, and West Indies.

Etelis carbunculus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 127, pl. 18, 1828; Mahé, Seychelles. Günther, Cat. Fishes British Mus., vol. 1, p. 79, 1859; Mauritius. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 77, 1901; Nagasaki, Japan. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 465, 1911. Fowler, Mem. Bishop Mus., vol. 10, p. 193, pl. 17A, 1928. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 195, 1931; Honolulu and Hilo, Hawaiian Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1931; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Dumaguete.

Serranus oculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2, p. 266, pl. 32, 1828; Martinique. Schlegel, Fauna, Japonica, Pisces, p. 5, 1842; Nagasaki Bay.

Anthias oculatus Günther, Cat. Fishes British Mus., vol. 1, p. 92, 1859; South America; Jamaica; West Indian Islands; Madeira.

Etelis oculatus Gill, Proc. Acad. Nat. Sci. Phila., p. 449, 1862.

Etelis coruscans Valenciennes, Comptes Rendus l'Acad. Sci. Paris, vol. 54, p. 1166, 1862; Bourbon.

Etelis evirus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 242, pls. 18 and 38, 1905; Hilo and Honolulu, Hawaiian Islands.

Genus 359. APHAREUS Cuvier and Valenciennes.

Tropical Indo-Pacific.

Aphareus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 485, 1830; type, *Aphareus caeruleus* Cuvier and Valenciennes. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, p. 467, 1911. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 196, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 317, 1936.

1021. *Aphareus furcatus* (Lacépède).

Tropical Indo-Pacific, from Mauritius and Réunion to Japan, Hawaii and Tahiti.

Labrus furcatus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 429, 447, 1802; "The Great Ocean" (Mauritius).

Caranxomorus sacrestinus Lacépède, Hist. Nat. Poissons, vol. 5, p. 681, 682, 1803; on Commerson.

Aphareus caeruleus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 487, pl. 167-b, 1830; Port Louis, Mauritius.

Aphareus furcatus Günther, Cat. Fishes British Mus., vol. 1, p. 386, 1859; Île de France. Günther, Fische der Südsee, vol. 1, p. 17, 1873-75; Society Islands. Streets, Bull. U. S. Nat. Mus., No. 7, p. 90, 1877; Fanning Island. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 23, p. 719, pl. 28-29; Odawara, Japan. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 451, 1903; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 194, 1928; Honolulu; Fanning Island; Society Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 197; Celebes and Buru, East Indies; Fanning Islands; Honolulu, Hawaiian Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 318, 1936; Pulu Weh, Celebes; Talisse Island; Buru. Also 7 Indo-Pacific localities.

Aphareus flavivultus Jenkins, Bull. U. S. Fish Comm., vol. 19, p. 390, fig. 1, 1901; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 235, fig. 96, 1905; Honolulu, Oahu; Kona, Hawaii; Kailua; Hilo, Hawaii.

Aphareus (Sacretinus) flavivultus Jordan, Evermann, and Tanaka, Proc. California Acad. Sci., ser. 4, vol. 16, p. 671, 1927; Honolulu.

Aphareus manillae Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 51, 1930; Manila, Philippines.

1022. *Aphareus rutilans* Cuvier and Valenciennes. Flame snapper.

Tropical Indo-Pacific. Marine.

Aphareus rutilans Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 390, 1830; Red Sea. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 52, 1857; Amboina. Bleeker, Atlas Ichth., vol. 7, pl. 299, fig. 2, 1873-76. Fowler, Mem. Bishop Mus., vol. 10, p. 195, fig. 45, 1928; Honolulu. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 198, 1931; Jolo market, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 49, 1934; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 319, fig. 68, 1936; Menado, Celebes; Amboina; New Guinea; Philippines. Hardenberg, Treubia, vol. 16, p. 315, 1938, Java.

Aphareus furcatus Bleeker, Atlas Ichth., vol. 8, p. 80, 1876-77; not of Lacépède.

Aphareus thompsoni Fowler, Occas. Papers Bishop Mus., vol. 8, p. 382, 1923; Honolulu.

Aphareus (Fares) rutilans Jordan, Evermann, and Tanaka, Proc. California Acad. Sci., 4th ser., vol. 16, p. 673, pl. 24, fig. 1, 1927; Honolulu.

Genus 360. PINJALO Bleeker.

From the Philippines, South China, and East Indies to India. Marine. *Pinjalo* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 521, 1845; orthotype, *Caesio pinjalo* Bleeker=*Pinjalo typus* Bleeker. Bleeker, Arch. Neerl. Sci. Nat., vol. 8, p. 179, 1873. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 292, 1936.

1023. *Pinjalo pinjalo* (Bleeker).

The Philippines to India.

Pinjalo typus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 521, 1845; nomen nudum. Bleeker, Atlas Ichth., vol. 8, p. 33, 1876-77; Sumatra; Singapore; Java; Celebes. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 21, 1907; Cavite, Cavite Province, Luzon. Evermann

and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, 1907; San Fabian, Pangasinan Province, and Bulan, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 638, 1929; the Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 224, 1931; Manila market, Cavite, and Bulan, Sorsogon Province, Luzon; Tacloban market, Leyte; Cebu market, Cebu. Also Hong Kong market, China. Herre, Philippine Bureau Science Collection; Maricaban, Verde Island Passage; Sibuyan; Burias Island; Agutaya Island, Cuyo Islands; Tawi Tawi, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; La Paz, Iloilo Province. Umali, Edible Fishes Manila, p. 147, fig. 112, 1936; Manila markets; reefs and rocky coasts of the Visayas, Sulu Islands, and other southern points.

Caesio pinjalo Bleeker, Verh. Bat. Gen., vol. 23, Maenoiden, p. 10, 1850; Batavia. Bleeker, Atlas Ichth., vol. 7, pl. 292, fig. 3, 1873-76. Day, Fishes India, p. 94, pl. 24, fig. 4, 1878. Day, Fauna Brit. India, Fishes, vol. 1, p. 532, fig. 160, 1889.

Mesoprion Mitchelli Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 19, pl. 9, p. 257, 1867; Madras Museum.

Odontonectes pinjalo Day, Fishes India, p. 29, 1878.

Pinjalo pinjalo Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 278, 1927; Philippines; Orion, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 293, fig. 63, 1936; Singapore; Sumatra; Java; Celebes; Buka-Buka Island, Gulf of Tomini, Celebes; Philippines. Herre and Villadolid, June 1940; Nasugbu Bay, Batangas Province, Luzon.

Genus 361. CAESIO Lacépède.

Tropical and subtropical Indo-Pacific. Marine.

Caesio Lacépède, Hist. Nat. Poissons, vol. 3, p. 85, 1802; type, *Caesio caeruleaureus* Lacépède. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 203, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 294, 1936.

1024. *Caesio chrysozona* Cuvier and Valenciennes. Golden-banded caesio; Golden caesio; Sulid.

East Indies, the Philippines, north to Japan, west to India and the Red Sea, east and south to the Solomon Islands.

Caesio chrysozona Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 440, 1830; East Indies. Bleeker, Nat. Geneesk. Arch. Ned-Ind., vol. 2, p. 521, 1845; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 392, 1859; Moluccas. Bleeker, Atlas Ichth., vol. 7, pl. 307, fig. 2, 1873-76; vol. 8, p. 39, 1876-77; Nias; Java; Duizend Islands; Bawean; Celebes; Flores; Ternate; Amboina; Banda. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; Bacon, Sorsogon Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 303, 1936; 14 East Indian localities; Philippines.

Caesio striatus Bleeker, Nat. Geneesk. Arch. Ned-Ind., vol. 2, p. 521, 1845; Java; not of Rüppell.

Pristipomoides aurolineatus Day, Proc. Zool. Soc. London, p. 937, 1876; Madras.

Caesio chrysozona var. *aurolineatus* Day, Fishes India, p. 95, pl. 24, fig. 5, 1878.

Caesio coeruleaureus Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 37, 1922; Cebu, Cebu Province; not of Lacépède.

Caesio chrysozonus Fowler, Mem. Bishop Mus., vol. 10, p. 204, 1928. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 212, 1931; Bacon, Sorsogon Province, Luzon; Cebu, Cebu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Manila market, Luzon; Culion; Taytay, Palawan. Umali, Edible Fishes Manila, p. 146, 1936; reefs of the southern islands. Herre, Philippine Bureau Science Collections; Maricaban Island, Verde Island Passage; Cresta de Gallo, southeast of Romblon; Cuyo Islands.

1025. *Caesio coeruleaureus* Lacépède. Caesio; Baraniti; Sulid; Lapas.

East coast of Africa to the Philippines, China, Japan, New Hebrides, Australia, and Samoa.

Caesio coeruleureus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 85, 86, 1802; Moluccas. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 434, 1830; Red Sea; Gonfod; Trinquemale; Ceylon; Mauritius; Bourbon; Pondicherry, India. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 521, 1845; Batavia, Java. Bleeker, Atlas Ichth., vol. 8, p. 39, pl. 347, fig. 4, 1876-77; 13 East Indian Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 306, 1936; 39 East Indian localities; Philippines and 16 Indo-Pacific localities.

Smaris mauritianus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 290, pl. 44, fig. 3, 1824; Mauritius.

Caesio maculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 439, 1830; Vanicolo. Günther, Cat. Fishes British Mus., vol. 1, p. 391, 1859; Amboyna; Vanicolo; China; Madagascar. Meyer, An. Soc. Espana Hist. Nat. Madrid, vol. 14, p. 20, 1885; Cebu, Cebu Province, Philippines; North Celebes.

Caesio caeruleureus var. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1036, 1850; Pinang.

Caesio caeruleureus Günther, Cat. Fishes British Mus., vol. 1, p. 392, 1859; Red Sea; Mauritius; Ceylonese Sea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 266, 1906; Apia, Samoa; Solomon Islands. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon; Zamboanga, Zamboanga Province, Mindanao. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 278, 1927; Zamboanga, Zamboanga Province, Mindanao, Philippines. Seale and Herre, Philippine Bureau Science Collection; Maricaban and Verde Islands, Verde Island Passage; Bulalacao, Mindoro; Sibuyan; Cresta de Gallo; Bennett Island, near Masbate; Cebu; Cuyo Islands, Sulu Sea; Zamboanga, Zamboanga Province, Samal Island, Davao Province, Mindanao. Jolo and Cagayan Sulu, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 213, 1931; Santo Domingo de Basco, Batan Island, Batanes Province; Bolinao Bay, Pangasinan Province; Port Matalvi, Zambales Province; Mariveles wharf, Bataan Province; Malabon market, Rizal Province; Limbones Cove, Cavite Province; Balayan Bay, and Pagapas Bay, Batangas Province; Pagbilao Island, south coast of Tayabas Province; Butaanan and Quinalasag Islands on the Pacific coast, and Refugio Island, Ragay Gulf, Camarines Sur Province; San Miguel Point, Tabaco Bay, Albay Province; Bacon and Gubat and Palag Bays, Sorsogon Province; also Canmahala Bay, Ragay Gulf, Luzon. Bilikias Bay and Tilig, Lubang Island, China Sea. Verde Island and Maricaban, Verde Island Passage. Varadero Bay, Sablayan, and Puerto Galera, Mindoro. Port Banalacan, Marinduque. Alimango Bay and Busin Harbor, Burias, Romblon. San Miguel Harbor, Ticao Island. Cataingan Bay, Masbate. Destacado Island, between Masbate and Samar. Cathalogan and Port Palapag, Samar. San Roque, Leyte. Pandanon Island, north coast of Bohol. Cuyo, Cuyo Islands. Endeavor Strait, Makesi Island, Mantaquin Bay, Bolalo Bay, Ulugan Bay, Palawan, and Guntao Island, Palawan Passage. Bugsuk Island, north Balabac Strait. Murcielagos Bay and Inamucan Bay, Misamis Occidental Province; shore below mouth of Rio Grande, Cotabato Province; Balukbaluk Island off Basilan, and Tulnalutan Island, Zamboanga Province, and Opol, Mindanao. Bongao, Bulan, Sanga, Teomabal, Simaluc, Taganak, Tara, Tonquil, and Sitankai Islands, and Tutu Bay, Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Cullion; Taytay, Palawan; Balabac. Umali, Edible Fishes Manila, p. 145, fig. 109, 1936; rocky shores of southern islands. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon.

1026. *Caesio diagramma* Bleeker.

East Indies and Philippines.

Caesio diagramma Bleeker, Ned. Tijds. Dierk., vol. 2, p. 180, 1865; Amboina. Bleeker, Arch. Neerl. Sci. Nat., vol. 8, Révision *Caesio*, p. 175, 1873. Weber, Jenaische Denkschr., vol. 8, p. 103, 1895. Weber, *Siboga*-Exped., vol. 57, Fische, p. 285, 1913; Makassar, Celebes; Saleyer. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Cullion; Dumaguete, Negros Oriental Province; Jolo, Sulu Province. Weber and de Beau-

fort, Fishes Indo-Australian Archipelago, vol. 7, p. 305, fig. 64, 1936; Singapore; Batavia, Java; Lombok; Makassar, Celebes; Amboina; Philippines.

Caesia digramma Bleeker, Ned. Tijds. Dierk., vol. 2, p. 180, 1865; Amboina. Bleeker, Atlas Ichth., vol. 8, p. 140, pl. 334, fig. 1, 1876-77; Amboina.

Caesio digramma Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 219, 1931; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon. Refugio Island, Pasacao, Ragay Gulf, and Quinalasag Island, Camarines Sur Province; Maculabo Island, Camarines Norte Province, Atulayan Bay and Guinanayan Island, Albay Province; Luzon. Puerto Galera, Mindoro; Malapascua Island, Cebu Province; Tara Island and Tataan Island, Sulu Province.

1027. *Caesio erythrogaster* Cuvier and Valenciennes. Yellow-tailed caesio; Bilason; Molong; Lapas. East Indies, Philippines, India, RiuKiu Islands, Solomon Islands, and Australia.

Caesio erythrogaster Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 442, pl. 166, 1830; Java. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 521, 1845; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 23, Maenoiden, p. 8; 1850. Bleeker, Atlas Ichth., vol. 7, pl. 312, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 36, 1876-77; 13 East Indian localities. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 298, 1936; 30 East Indian localities; Sitankai Reef, Sulu Province; Philippines. Herre, Fishes 1940-41 Exped.; Iloilo Province, Panay.

Odonectes erythrogaster Günther, Cat. Fishes British Mus., vol. 1, p. 265, 1859; Amboina; Molucca Sea. Boulenger, Proc. Zool. Soc. London, p. 656, 1887; Muscat, Arabia.

Caesio erythroterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 365, 1859; Banka (error).

Caesio cuning Day, Fishes India, p. 95, 1875. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; Bacon, Sorsogon Province, Luzon; Zamboanga, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 638, 1929; Padang, Sumatra; Bacon, Sorsogon Province, Luzon. Herre, Philippine Bureau Science Collection; Nasugbu, Batangas Province, Luzon; Maricaban Island, Verde Island Passage; Agutaya, Cuyo Islands; Cebu market, Cebu. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 220, 1931; Port Matalvi, Zambales Province; Limbones Cove, Cavite Province; Pagapas Bay and Port Hamilo, Batangas Province; Maculabo Island and Canimo Island near Daet, Camarines Norte Province; Butauanan and Quinalasag Islands, also Refugio Island, Pasacao, Ragay Gulf, Camarines Sur Province, Caracaran Bay, Batan Island, Guinanayan Island, Paron Point, Albay Gulf, Porongpong Island of the Palumbanes Islands, Rapurapu and San Miguel Islands, Tabaco Bay, Albay Province; Langao Point, Bacon, and near Palag Bay, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon. Maricaban Island, Verde Island Passage, Varadero Bay and Mansalay, Mindoro. Alimango Bay and Busin Harbor, Burias Island. Santa Cruz Island and Port Banalacan, Marinduque. Mompog Island, between Marinduque and Luzon. Masbate Reef, Masbate. Romblon Harbor, Romblon Island. San Miguel Harbor, Ticao Island. Catbalogan and Quinapundan Bay, Samar. San Juanico Strait, Port Dupon, and San Roque, Leyte. Mantacao Island, west coast of Bohol. Malapascua Island, Cebu Province. Port Caltom and Port Uson, Busuanga. Puerto Princesa, Bolalo Bay, Endeavor Strait, Makesi Island, and Ulugan Bay, Palawan. Generale Island, Lianga Bay, and Surigao, Surigao Province; Little Santa Cruz Island and Zamboanga market, Zamboanga Province; and Opol, Mindanao. Tara, Tulayan, and Sitankai Islands, and the Siasi Island market, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Taytay, Palawan. Umali, Edible Fishes Manila, p. 145, fig. 108, 1936; rocky shores of southern islands. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.

Caesio erythrochilurus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 528, pl. 19, upper figure, 1904; Padang, Sumatra.

Caesio lunaris Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 278, 1927; Bacon, Sorsogon Province; not of Cuvier and Valenciennes.

1028. *Caesio lunaris* Cuvier and Valenciennes. Moon caesio; Sulid. Red Sea, Madagascar, Philippines, Japan, East Indies, Bismarck Archipelago, and the Solomon Islands.

Caesio lunaris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 441, 1830; East Indies; Red Sea; New Ireland. Rüppell, Neue Wirbelt., Fische Rothen Meers, p. 120, 1835; Massaua. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 177, 1851. Bleeker, Arch. Neerl. Sci. Nat., vol. 8, Révision *Caesio*, p. 165, 1873. Bleeker, Atlas Ichth., vol. 8, p. 37, pl. 334, fig. 4, 1876-77; Java. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 37, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, 1931; Nasugbu and Port Hamilo, Batangas Province, Luzon. Tilig, Lubang Island, off northwest corner of Mindoro. Port Banalacan, Marinduque; Alimango Bay and Busin Harbor, Burias Island, Romblon. Masbate Reef, Masbate, Makesi Island, Palawan. Parang, Cotabato Province, Zamboanga, Zamboanga Province, Mindanao. Tapiantana Island, off Basilan Island. Opol, Mindanao. Simaluc Sibi and Tataan Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Culion; Balabac Island. Umali, Edible Fishes, Manila, p. 147, fig. 111, 1936; rocky shores of southern islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 299, 1936; 11 East Indian localities; Philippines.

1029. *Caesio pisang* Bleeker.

East Indies and Philippines, Formosa, and the Caroline Islands.

Caesio pisang Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 113, 1853; Amboina; Batavia. Bleeker, Arch. Neerl. Sci. Nat., vol. 8, Révision *Caesio*, p. 168, 1873. Bleeker, Atlas Ichth., vol. 8, p. 38, pl. 334, fig. 2, 1876-77; Java; Celebes; Ternate; Amboina. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 38, 1922; Cebu, Cebu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 209, 1931; Dasol Bay, Pangasinan Province; Corregidor Light, Manila Bay; Limbones Cove, Cavite Province; Maculabo Island, Camarines Norte Province; Butauanan Island and Pasacao, Ragay Gulf, Camarines Sur Province; Atulayan Island, Lagonoy Gulf, Albay Gulf, and San Miguel Island, Tabaco Bay, Albay Province, Luzon. Tilig, Lubang Island; Verde Island and Maricaban, Verde Island Passage. Paluan Bay, Puerto Galera, and Varadero Bay, Mindoro. San Miguel Harbor, Ticao Island; Masbate; Pandanan Island, north of Bohol, and Mantacao Island, west of Bohol. Maribojoc Bay, Bohol. Cebu market and Malapascua Island, Cebu Province; Puerto Princesa, Palawan. Candaraman Island, north Balabac Strait. Inamucan Bay, Misamis Occidental Province, and Malanipa Island, Zamboanga Province; Surigao, Surigao; Opol, Mindanao. Simaluc Sibi, Tara, Tataan, Tonquil, and Tumindao Islands, Sitankai Reef, and Tutu Bay, Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Manila market, Manila, Luzon. Dumaguete, Negros Oriental Province, Negros. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 302, 1936; 17 East Indian localities. Sitankai Reef, Sulu Province; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Dumaguete, Negros Oriental Province; Si Amil Island, near Philippine boundary, coast of British North Borneo; Singapore.

1030. *Caesio tile* Cuvier and Valenciennes.

East Indies, Philippines, Caroline Islands, and Polynesia.

Caesio tile Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 428, 1830; Caroline Archipelago. Günther, Fische der Südsee, vol. 1, p. 34, 1873-75; Gilbert and Society Islands. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 350, 1902; Kaerun, Formosa. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 114, 1912; Mangareva, Gambier Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 204, 1928;

Gilbert and Society Islands; Mangareva; Nukuhiva; Marquesas Islands; and Guam. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 296, 1936; Amboina; Banda; Philippines. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Caesio multiradiatus Steindachner, Verh. Zool.-Bot. Gesell. Wien, vol. 11, p. 176, pl. 5, fig. 1, 1861; Amboina.

Pterocaesio multiradiatus Bleeker, Atlas Ichth., vol. 8, p. 41, 1876-77. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 38, 1922; Zamboanga, Zamboanga Province, Mindanao.

Pterocaesio tile Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 202, 1931; Philippines.

1031. *Caesio xanthonotus* Bleeker:

East Indies, Philippines, Indo-China, and Solomon Islands.

Caesio xanthonotus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 466, 1853; Batavia, Java. Bleeker, Arch. Neerl. Sci. Nat., vol. 8, Révision *Caesio*, p. 167, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 302, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 37, 1876-77; Java; Amboina. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 20, 1885; Menado, Celebes. Fowler, Mem. Bishop Mus., vol. 10, p. 203, 1928; Shortland Island; on type of *Caesio teres* Seale. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 207, 1931; Sabtang Island, Batanes Province; Canmahala Bay, Ragay Gulf; Refugio Island, Pasacao, Camarines Sur Province, Luzon. Sablayan, Mindoro. Mompog Island, between Marinduque and Luzon. Makesi and Guntao Islands, Palawan. Singaan and Tataan Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Culion; Taytay, Palawan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 301, 1936; Sumatra; Java; Celebes; Dowarra; Buru; Amboina. Herre, Fishes 1940-41 Exped.; Singapore. *Caesio teres* Seale, Occas. Papers Bishop Mus., vol. 6, p. 44, fig. 13, 1906; Shortland Island, Solomon Islands.

Genus 362. GYMNOCAESIO Bleeker.

Only one species known; marine. East Indies and Philippines.

Gymnocaesio Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 9, p. 152, 1876; type, *Caesio gymnopterus* Bleeker.

1032. *Gymnocaesio gymnopterus* (Bleeker).

Caesio gymnopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 372, 1856; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 310, fig. 5, 1873-76. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 9, p. 152, 1876.

Smaris gymnopterus Bleeker, Arch. Neerl. Sci. Nat., vol. 8, p. 181, 1873.

Gymnocaesio gymnopterus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 9, p. 152, 1876. Bleeker, Atlas Ichth., vol. 8, p. 34, 1876-77; Flores; Ternate; Amboina. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 316, fig. 67, 1936; Flores; Ternate; Amboina.

Gymnocaesio argenteus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 201, 1931; Batangas market, Batangas Province, Luzon. Varadero Harbor, Mindoro. Cebu market, Cebu. Tanum Point, Jolo, Sulu Province; in part.

Genus 363. MIROLABRICHTHYS Herre.

The Philippines, East Indies, and RiuKiu Islands. Marine.

Mirolabrichthys Herre, Philippine Jour. Sci., vol. 32, p. 413, 1927; type,

Mirolabrichthys tuka Herre. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 226, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 321, 1936.

Entonanthias Jordan and Tanaka, Ann. Carnegie Mus., vol. 17, p. 385, 1927; type, *Entonanthias pascalus* Jordan and Tanaka.

1033. *Mirolabrichthys tuka* Herre.

Mirolabrichthys tuka Herre, Philippine Jour. Sci., vol. 32, p. 413, pl. 1, 1927; Maricaban Island, Verde Island Passage. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 226, 1931; Caracaran, Batan Island, Albay Province, Luzon; Port Dupon, Leyte; Maribojoc Bay, Maribojoc, Bohol; Malapascua Island, Cebu Province; Cagayan Island, Cagayanes Islands, Sulu Sea; Palawan Province; Tapiantana Island, off Basilan, Zamboanga Province, Mindanao; Teomabal Island, Sulu Province; also 11 East Indian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre

Fishes 1931 Philippine Exped., p. 50, 1934; Dumaguete. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 322, fig. 69, 1936; East Indian localities after Fowler; Philippines; after Herre. Herre, Fishes 1936-37 Exped.; Si Amil Island, near Philippine boundary off British North Borneo.

Genus 364. LUZONICHTHYS Herre.

Only one species known. Philippines and East Indies; marine.

Luzonichthys Herre, Philippine Jour. Sci., vol. 59, p. 366, 1936; type, *Luzonichthys waitiei* (Fowler).

1034. *Luzonichthys waitiei* (Fowler).

Mirolabrichthys waitiei Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 228, fig. 16, 1931; Puerto Galera, Mindoro; Maricaban Island, Verde Island Passage; Celebes, Dutch East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 323, fig. 70, 1936; after Fowler. *Luzonichthys waitiei* Herre, Philippine Jour. Sci., vol. 59, p. 367, 1936; Dumaguete, Negros Oriental Province.

Family 126. POMADASYIDÆ

Genus 365. HAPALOGENYS Richardson.

A small genus of eastern Asiatic marine fishes.

Hapalogenys Richardson, Ann. Mag. Nat. Hist., vol. 13, p. 462, 1844; type, *Hapalogenys nitens* Richardson.

1035. *Hapalogenys meyeri* Peters.

A Philippine fish.

Hapalogenys meyeri Peters, Monatsber. Akad. Wiss. Berlin, p. 96, 1866; Manila. Bleeker, Atlas Ichth., vol. 8, p. 13, 1876-77; after Peters. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 267, 1931; after Peters.

1036. *Hapalogenys mucronatus* (Eydoux and Souleyet).

China, Japan and south to the Borneo coast.

Pristipoma mucronata Eydoux and Souleyet, Voy. Bonite, Zool., vol. 1, p. 161, pl. 2, fig. 1, 1841; Macao, China.

Hapalogenys analis Richardson, Ichth., China Japan, p. 235, 1846; Sea of China; Canton. Richardson, Zoology, Voy. Sulphur, Fishes, p. 85, pl. 43, fig. 3, 1846.

Hapalogenys mucronatus Günther, Cat. Fishes British Mus., vol. 1, p. 318, 1859. Bleeker, Ned. Tijds. Dierk., vol. 41, p. 139, 1863. Ishikawa and Matsuura, Prelim. Cat. Fishes Mus. Tokyo, p. 54, 1897. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 4, p. 552, 1912; Kobe, Onomichi, and Hiroshima, Japan. Tanaka, Fishes Japan, vol. 45, p. 888, pl. 181, fig. 495, 1928; Tadanoumi. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 269, 1931; Hong Kong market; Kobe, Onomichi, and Hiroshima, Japan. Herre, Fishes 1936-37 Exped.; Sandakan market, British North Borneo; fishes obtained from the Sulu Sea along the Philippine boundary.

Hapalogenis mucronatus Steindachner and Döderlein, Denks. Akad. Wiss. Wien, Math.-nat. Klasse, vol. 48, p. 11, 1883; Osaka.

Genus 366. PLECTORHINCHUS Lacépède.

Marine fishes of the tropical Indo-Pacific and tropical and subtropical Atlantic Ocean; a few species enter fresh water.

Plectorhinchus Lacépède, Hist. Nat. Poissons, vol. 3, p. 134, 1802; type, *Plectorhinchus chaetodonoides* Lacépède. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 231, 1931. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, Part 2, p. 806, 1936.

Diagramma Cuvier, Mem. Mus. Hist. Nat. Poissons, vol. 1, p. 360, 1815; type, *Anthias diagramma* Bloch.

Plectorhynchus Cuvier, Règne Animal, vol. 2, p. 344, 1817; type, *Plectorhinchus chaetodonoides* Lacépède. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 409, 1936.

Pseudopristipoma Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 220, 1880; type, *Pristipoma leucurum* Sauvage.

Euelaticthys Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 527, 1904; type, *Diagramma affine* Günther.

Spilotichthys Fowler, *ibid.*, p. 528; type, *Holocentrus radjabau* Lacépède.

1037. *Plectorhynchus albovittatus* (Rüppell).

Red Sea to the East Indies, Philippines, and Marshall Islands.

Diagramma albovittatum Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 125, pl. 31, fig. 2, 1835; Massaua. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Besch. vischfauna Menado, p. 46, 1856. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 736, 1870; Koseir, Red Sea Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 14, 1885; Cebu, Cebu Province; Makassar, Celebes.

Plectorhynchus albovittatus Bleeker, Nat. Tijds. Dierk., vol. 4, p. 280, 1873. Bleeker, Atlas Ichth., vol. 8, p. 16, pl. 329, fig. 2, 1876-77; Celebes. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Manila, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 422, fig. 82, 1936; Makassar and Menado, Celebes; Flores; Ternate; Philippines.

Plectorhynchus lineatus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 259, 1908; Aparri, Cagayan Province, Luzon; not of Cuvier and Valenciennes.

Plectorhynchus albovittatus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 242, 1931; Canmahala Bay, Luzon; Cebu, Cebu Province.

1038. *Plectorhynchus celebicus* Bleeker.. Kiting.

The East Indies and Philippines to the Solomon Islands.

Plectorhynchus celebicus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 285, 1873; Makassar, Celebes. Bleeker, Atlas Ichth., vol. 8, p. 18, pl. 329, fig. 3, 1876-77; Celebes. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 420, 1936; Sandakan, British North Borneo; Makassar, Celebes; Rotti; Sadaa Island; New Guinea; Philippines and Solomon Islands.

Diagramma celebicum Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 238, 1882; New Guinea.

Diagramma celebicus Weber, *Sidoga*-Exped., vol. 57, Fische, p. 279, 1913; Rotti.

Plectorhynchus celebicus Fowler, Mem. Bishop Mus., vol. 10, p. 205, 1928; after Bleeker. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 190, 1936; Tenibuli, Ysabel Island, Solomon Islands.

Plectorhynchus faetala Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 237, 1931; in part; numerous localities but impossible to separate *P. celebicus* and *P. chrysotaenia*.

1039. *Plectorhynchus chaetodonoides* Lacépède.

East Indies, Philippines, RiuKiu Islands, Fiji, and Samoa; marine but entering fresh water.

Plectorhynchus chaetodonoides Lacépède, Hist. Nat. Poissons, vol. 2, pl. 13, fig. 2, 1800. Lacépède, *ibid.*, vol. 3, pp. 134, 135, 1802. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 81, p. 608, 1929; Hong Kong. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 257, fig. 2, 1931; Butauanan and Galvaney Islands, Ragay Gulf, Camarines Sur Province; Maculabo Island, Camarines Norte Province; Atulayan Bay, and San Miguel Island, Tabaco Bay, Albay Province; Port Matalvi, Zambales Province, Luzon. Catanduanes Island. Tilig, Lubang Island, northwest of Mindoro. Maricaban Island, Verde Island Passage, Varadero Bay, Mindoro. Biri Channel, Balicutro Islands, and Catbalogan, Samar. Buang Bay, Talajit Island, between Masbate and Samar. Pandanon Island, north coast of Bohol. Cebu market and Managua River, Cebu. Endeavor Strait and Ulugan Bay, Palawan. Caxisigan Island, Balabac. Parang, Cotabato Province; Sacol and Tulanlutan Islands, Zamboanga Province, Mindanao. Jolo Island, Sulu Province.

Lutjanus chaetodonoides Lacépède, Hist. Nat. Poissons, vol. 4, p. 195 and p. 243, 1802.

Chaetodon plectorhynchus Shaw, General Zoology, vol. 4, p. 356, pl. 49, 1803.

Diagramma plectorhynchus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 294, 1830.

Diagramma pardalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 300, 1830; Java. Günther, Cat. Fishes British Mus., vol. 1, p. 323, 1859; Javanese Sea.

Diagramma chaetodonoides Günther, Cat. Fishes British Mus., vol. 1, p. 326, 1859; Sea of Batavia.

- Plectorhynchus chaetodonoides* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 301, fig. 3, and pl. 303, fig. 2, 1873-76. Jordan and Seale, Bull., U. S. Bur. Fisheries, vol. 25, p. 267, 1906; Apia, Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 413, figs. 80 and 81, 1936; Singapore; Pulu Weh; Batavia, Java; Menado, Celebes; Ternate; Amboina; Haruko; Philippines.
- Plectorhynchus chaetodontoides* Bleeker, Atlas Ichth., vol. 8, p. 17, 1876-77. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Cebu, Cebu Province, Jolo and Sitankai, Sulu Province.
- Diagramma pardale* Karoli, Termesz. Füzetek, Budapest, vol. 5, p. 153, 1881; Singapore.
- Diagramma papuense* Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 237, 1882; New Guinea.
- Diagramma chaetodontoides* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 14, 1885; Cebu, Philippines.
- Plectorhynchus papuensis* Jordan and Seale, Bull. U. S. Bur. Fisheries., vol. 25, p. 268, 1906.
- Plectorhynchus doanei* Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 511, 1909; Cagayan Misamis Oriental Province, Mindanao. Sitankai, Sulu Province.
- Plectorhynchus chaetodontoides* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 34, 1922; Cebu, Cebu Province.
1040. *Plectorhynchus chrysaenia* (Bleeker).
East Indies and Philippines; marine.
- Diagramma chrysaenia* Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 303, 1855; Makassar, Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 333, 1859; after Bleeker.
- Plectorhynchus chrysaenia* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 279, 1873. Bleeker, Atlas Ichth., vol. 8, p. 16, pl. 329, fig. 1, 1876-77; Singapore, Celebes. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Bulan, Sorsogon Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 50, 1934; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 419, 1936; Singapore; Makassar, Badjoa, and Menado, Celebes; Philippines.
- Plectorhynchus faetala* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 237, 1931; numerous localities, but impossible to separate *Plectorhynchus chrysaenia* and *Plectorhynchus celebicus*.
- Plectorhynchus chrysaenia* Herre, Siluag Island, Sulu Province; specimen 338 mm. long.
1041. *Plectorhynchus crassispina* (Rüppell).
East Coast of Africa to the East Indies, Philippines, China, Australia, and Samoa. Marine and entering river mouths.
- Pristipoma nigrum* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 258, 1830; Manila, Luzon. Günther, Cat. Fishes British Mus., vol. 1, p. 289, 1859; Manila; Sea of Pinang.
- Diagramma crassispinum* Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 125, pl. 30, fig. 4, 1835; Djedda. Day, Fishes India, p. 78, pl. 20, fig. 4, 1878. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 154, 1908-11; Durban, Natal.
- Diagramma gibbosus* Hombron and Jacquinot, Voy. *Astrolabe*, Zool.; vol. 3, p. 46, pl. 5, fig. 2, 1853; Samoa.
- Diagramma affine* Günther, Cat. Fishes British Mus., vol. 1, p. 319, 1859; Northwest Australia; Moluccas; Amboyna; Madras; China.
- Plectorhynchus crassispina* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 277, 1873. Bleeker, Atlas Ichth., vol. 8, p. 15, pl. 342, fig. 4, 1876-77; 13 East Indian Islands, also Luzon, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 410, 1936; 36 East Indian localities; Philippines.
- Diagramma nigrum* Day, Proc. Zool. Soc. London, p. 14, 1865; Cochin; Madras, India.
- Diagramma crassilabre* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 277, pl. 5, fig. 5, 1877; Hall Sound, New Guinea.
- Pseudopristipoma leucurum* Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 220, pl. 32, fig. 1, 1891; Madagascar.

- Plectorhynchus crassispinus* Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 508, 1907; Manila, Luzon. Barnard, Ann. South African Mus., vol. 21, part 2, p. 673, 1927; Natal; Zululand.
- Euelaticthys crassispinus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 22, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1908; Zamboanga, Zamboanga Province, Mindanao. Seale, Philippine Jour. Sci., vol. 5, sec. D, 1910; Sandakan, British North Borneo; Philippines.
- Plectorhynchus crassispinus* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 7, 1927; Benkulen, Sumatra.
- Euelaticthys niger* McCulloch, Memoir 5, Australian Mus., p. 218, 1929; Manila, Luzon.
- Plectorhynchus nigrus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 638, 1929; Padang, Sumatra. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 233, fig. 17, 1931; Port San Vicente, Cagayan Prov.; Subig Bay, Zambales Province; Manila market; Batan Island, and Caracaran, Batan Island, Albay Province, Luzon. Paluan Bay, Mindoro; Abuyog and San Roque, Leyte. Doc Can and Tara Island, Sulu Province. Malabang River, Lanao Province, Mindanao.
- Plectorhynchus nigrus* Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Manila, Luzon; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped., Zamboanga, Mindanao.

1042. *Plectorhynchus cuvieri* (Bennett).

- Madagascar and Zanzibar to the East Indies, Philippines, Solomon Islands, and Samoa.
- Bodian cuvieri* Bennett, Fishes Ceylon, pl. 13, 1830; Ceylon.
- Diagramma Sebae* Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 24, 1850; Batavia, Java; Banda Neira. Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 226, 1914; Madagascar.
- Diagramma lessonii* Günther, Cat. Fishes British Mus., vol. 1, p. 329, 1859; Amboyna; not of Cuvier and Valenciennes.
- Plectorhynchus Sebae* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 283, 1865; Amboina.
- Diagramma Cuvieri* Playfair and Günther, Fishes Zanzibar, p. 28, 1866; Zanzibar. Day, Fishes India, Supplement, p. 785, 1888. Day, Fauna British India, Fishes, vol. 1, p. 516, 1889.
- Plectorhynchus cuvieri* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 291, 1873. Bleeker, Atlas Ichth., vol. 8, p. 21, 1876-77; Java; Sumatra; Batu; Amboina; Banda.
- Diagramma lessonii* Günther, Fische der Südsee, vol. 1, p. 28, pl. 23, 1873-75; East Africa; East Indies; Samoa; not of Cuvier and Valenciennes.
- Plectorhynchus sebae* Bleeker, Atlas Ichth., vol. 7, pl. 305, fig. 3, 1873-76.
- Plectorhynchus diagramma* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 267, 1906; Apia and Pago Pago, Samoa; excluding synonymy.
- Plectorhynchus cuvieri* Fowler, Mem. Bishop Mus., vol. 10, p. 206, 1928. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 608, 1929; Hong Kong.
- Plectorhynchus diagrammus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 244, figs. 18-19, 1931; Santo Domingo de Basco, Batan and Sabtan Islands, Batanes Province; Port San Pio Quinto, Camiguin Island, Babuyan Islands, and Palaui Island, Cagayan Province; Masinloc Bay, Zambales Province; Nasugbu and Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao and Alibijaban Islands, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Butaanan, Quinañlasag Island, Camarines Sur Province; Atulayan and Rapurapu Islands, Albay Province, Langao Point, Sorsogon Province, Luzon. Tilig, Lubang Island at northwest corner of Mindoro. Varadero Bay, Mindoro. Alimango Bay, Burias Island. Masbate Reef, Masbate. Buang Bay, Taliit Island, between Masbate and Samar. Pandanon Island, north coast of Bohol. Cebu market, Cebu. Endeavor Strait, Guntao Island, and Ulugan Bay, Palawan. Port Ciego and Bugsuk Island, Balabac. Baganga Bay, and Tataidaga Point, Davao Province; Cotabato, Cotabato Province; Surigao, Surigao Province, Mindanao; Jolo market, Jolo, Sulu Province; in part only.
- Plectorhynchus diagrammus* Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes

- 1931 Philippine Exped., p. 51, 1934; Calapan, Mindoro; Culion; Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province.
- Plectorhynchus cuvieri* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 423, 1936; Pulu Weh; Sumatra; Batu Islands; Celebes; Amboina; Banda; Mysore Island, Geelvink Bay, New Guinea; Philippines.
1043. *Plectorhynchus goldmanni* (Bleeker). Goldmann's grunt; Pasinko. The East Indies and Philippines.
- Diagramma Goldmanni* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 602, 1853; Ternate.
- Diagramma haematochir* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 175, 1854; Ternate.
- Plectorhynchus haematochir* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 17, pl. 297, fig. 3, 1873-76. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1908; Zamboanga, Zamboanga Province, Mindanao.
- Plectorhynchus Goldmanni* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, *ibid.*, vol. 4, p. 292, 1873.
- Plectorhynchus goldmanni* Bleeker, Atlas Ichth., vol. 7, pl. 295, fig. 2, 1873-76; vol. 8, p. 21, 1876-77; Celebes; Ternate; Obi Major; Timor. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; San Fabian, Pangasinan Province, Luzon; Jolo, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Culion. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 418, 1936; 12 East Indian localities; Philippines.
- Plectorhynchus goldmanni* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 249, 1931; Santo Domingo de Basco, Batan Island, Batanes Province; Port Matalvi and Masinloc Bay, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo and Pagapas Bay, Batangas Province; Maricaban Island, Verde Island Passage; Capulaan Bay, Pagbilao Island, off south coast of Tayabas Province, Luzon. Alimango Bay, Buriyas Island. Sablayan Bay, Mindoro. Ulugan Bay, Palawan; Port Ciego, North Balabac Strait; Cebu, Cebu Prov., Zamboanga, Zamboanga Prov., Mindanao. Isabela, Basilan Island. Jolo market, Jolo and Tara Island, Sulu Province.
1044. *Plectorhynchus lineatus* (Cuvier and Valenciennes). Tropical Indian Ocean, East Indies, the Philippines, and Marshall Islands.
- Diagramma lineatum* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 309, 1830. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 112, 1853; Amboina. Day, Fishes India, p. 78, pl. 20, fig. 5, 1878; Cuddalore, India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 14, 1885; Cebu, Cebu.
- Diagramma Lessoni* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 313, 1830; Waigi. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 199, pl. 24, 1831; Offack Bay; Waigi.
- Diagramma radja* Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 336, 1853; Amboina.
- Diagramma Lessonii* Günther, Cat. Fishes British Mus., vol. 1, p. 329, 1859; Amboyna.
- Plectorhynchus Lessonii* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, *ibid.*, vol. 4, p. 288, 1873.
- Plectorhynchus radja* Bleeker, Ned. Tijds. Dierk., p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 292, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 20, 1876-77; Celebes; Goram; Halmahera; Ternate; Buru; Amboina.
- Plectorhynchus lineatum* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate.
- Plectorhynchus lineatus* Bleeker, *ibid.*, p. 268, 1863; Timor. Bleeker, *ibid.*, vol. 4, p. 286, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 306, fig. 4, 1873-76. Bleeker, *ibid.*, vol. 8, p. 19, 1876-77; 11 East Indian islands. Barnard, Ann. South African Mus., vol. 21, p. 671, 1925-27; Mozambique; in part. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Dumaguete; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 416, fig. 79, 1936; 21 East Indian localities; Philippines. Herre,

Fishes 1940-41 Exped.; Manila Bay, Luzon. Murcielagos Bay, Misamis Occidental Province, Mindanao.

Plectorhynchus Lessoni Bleeker, Atlas Ichth., vol. 7, pl. 305, fig. 3, 1873-76.

Plectorhynchus lineatus Fowler, Copeia, No. 58, p. 64, 1918; Philippines.

Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 278, 1927; Philippines.

Fowler, Mem. Bishop Mus., vol. 10, p. 206, 1928; Marshall Islands.

Herre, 1948 Collection; Dumaguete; Caxisigan Island, off Balabac;

Zamboanga; Siluag Island, Sulu Province.

Plectorhinus lineatus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p.

252, fig. 20, 1931; Cebu market, Cebu; Jolo and Siasi markets, Sulu

Province; synonymy in part; misprinted.

1045. *Plectorhynchus orientalis* (Bloch).

Tropical Indo-Pacific, from the coast of Africa to Tahiti.

Anthias orientalis Bloch, Naturges, Ausländ. Fische, vol. 7, p. 10, pl.

326, fig. 3, 1793; Japan (?).

Lutjanus aurantius Lacépède, Hist. Nat. Poissons, vol. 4, p. 239, 1802;

Japan (?).

Serranus orientalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 2,

p. 318, 1828; after Bloch.

Diagramma pica Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5,

p. 297, pl. 124, 1830; Tahiti. Peters, Monatsber. Akad. Wiss. Berlin,

p. 437, 1876; Mauritius.

Diagramma orientale Cuvier and Valenciennes, Hist. Nat. Poissons, vol.

5, p. 299, pl. 124, 1831. Günther, Cat. Fishes, British Mus., vol. 1,

p. 326, 1859; Seas of Ceylon and Ball. Günther, Fische der Südsee,

vol. 1, p. 28, pl. 22, figs. B-C, 1873-75; Samoa. Day, Fishes India, p.

80, pl. 20, fig. 6, 1878.

Diagramma Sibaldi Bennett, Proc. Zool. Soc. London, vol. 2, p. 182,

1832; Ceylon.

Plectorhynchus orientale Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863;

Ternate.

Plectorhynchus orientalis Bleeker, *ibid.*, p. 268, 1863; Timor. Bleeker,

ibid., vol. 4, p. 295, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 306, fig. 3,

1873-76; Bleeker, *ibid.*, vol. 8, p. 22, 1876-77; Sumatra; Bali; Timor;

Ternate; Buru; Amboina. Jordan and Richardson, Bull. U. S. Bur.

Fisheries, vol. 27, p. 259, 1908; Calayan, Babuyan Islands, north of

Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago,

vol. 7, p. 425, fig. 83, 1936; 9 East India localities; the Philippines.

Also Mauritius, Zanzibar, British India, Samoa, and Tahiti.

Plectorhynchus orientalis Fowler, Mem. Bishop Mus., vol. 10, p. 207,

1928; after Bleeker. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11,

p. 243, 1931; Philippines; after Günther.

1046. *Plectorhynchus pictus* (Thunberg). Painted grunt; Alatan; Gabilan;

Labian; Gollabao; Lepe-bato.

East Coast of Africa to the Philippines, China, Japan, Australia, Fiji,

and Society Islands.

Perca picta Thunberg, Kongl. Vet. Akad. Nya Handlingar, vol. 13, p.

143, 1792; Japan.

Grammistes pictus Bloch and Schneider, Syst. Ichth., p. 190, 1801;

Japan.

Holocentrus radjabou Lacépède, Hist. Nat. Poissons, vol. 4, pp. 335 and

374, 1802.

Lutjanus pictus Lacépède, Hist. Nat. Poissons, vol. 5, pp. 687, 688, 1803;

Japan.

Diagramma lineatum Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen

Meeres, p. 125, 1828; Massaua; not of Linnaeus.

Diagramma punctatum Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen

Meeres, p. 126, pl. 32, fig. 2, 1828; Red Sea. Cuvier and Valenciennes,

Hist. Nat. Poissons, vol. 5, p. 302, 1830; Java; Batavia; Vanicolo. Quoy

and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 699, pl. 12, fig. 2,

1834; Vanikoro. Schlegel, Fauna Japonica, Pisces, p. 60, pl. 26,

fig. A, 1842; Japan. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden,

p. 25, 1850. Günther, Cat. Fishes British Mus., vol. 1, p. 323, 1859;

Red Sea; Ceylon; China. Day, Fishes India, p. 83, pl. 21, fig. 4, 1878.

Diagramma cinerascens Rüppell, Atlas Reise Nördl. Afrika, Fische, p.

127, 1828; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons,

vol. 5, p. 307, 1830; Trincomale, Ceylon.

- Diagramma venturio* Cuvier and Valenciennes, *ibid.*, p. 308, 1830; Seychelles. Sauvage, in Granddidier, *Hist. Phys. Nat. Madagascar, Poissons*, p. 166, pl. 20, fig. 2-a, 1891.
- Diagramma poecilopterum* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 314, 1830; Pondicherry, India. Schlegel, *Fauna Japonica, Pisces*, p. 61, 1842; Japan.
- Diagramma ocellatum* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 302, 1830.
- Diagramma pictum* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 315, 1830; Japan; Java; Pondicherry, India. Valenciennes, in Cuvier, *Règne Animal, Illustr. ed.*, p. 86, pl. 30, fig. 3, 1839. Schlegel, *Fauna Japonica, Pisces*, p. 62, 1842; Japan. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 327, 1859; China; Japan; Amboina; Madras; Java. Day, *Fishes India*, p. 81, pl. 21, fig. 3, 1878. Klunzinger, *Fische Rothen Meeres*, p. 30, 1884. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 14, 1885; Cebu, Cebu.
- Diagramma balteatum* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 316, 1830.
- Plectorhynchus balteatus* Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1060, 1849; Singapore.
- Plectorhynchus pictus* Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 282, 1865; Amboina. Bleeker, *Atlas Ichth.*, vol. 8, p. 24, pl. 329, fig. 4, and pl. 333, fig. 2, 1876-77; specimens from 14 East Indian localities. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 84, 1907; Bulan, Sorsogon Province, Luzon; Jolo, Sulu Province. Jordan and Thompson, *Proc. U. S. Nat. Mus.*, vol. 41, p. 546, 1912; Manila; Cavite, Cavite Province, Luzon; Formosa; Japan. Tanaka, *Fishes Japan*, vol. 22, p. 386, pl. 105, fig. 325, 1916; Japan, north to Tokyo. Barnard, *Ann. South African Mus.*, vol. 21, p. 670, 1927; Natal; Delagoa Bay; Mozambique. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 51, 1934; Manila, Luzon; Cebu, Cebu; Dumaguete; Sitankai, Sulu Province. Herre, *Philippine Bureau Sci. Coll.*, 1920-28; Ayukitan, Negros Oriental Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Brooke's Point, Palawan; Bongao, Pearl Bank, Siasi, and Sitankai, Sulu Province.
- Plectorhynchus punctatus* Bleeker, *Atlas Ichth.*, vol. 7, pl. 300, fig. 1, 1873-76.
- Diagramma labiosum* Macleay, *Proc. Linn. Soc. New South Wales*, vol. 8, p. 202, 1883; Wide Bay, Queensland. Macleay, *ibid.*, vol. 21, p. 25, 1908.
- Plectorhynchus poecilopterus* Jordan and Snyder, *Annot. Zool. Japon.*, p. 78, 1901; East Indies; Yokohama, Japan.
- Plectorhynchus radjabau* Fowler, *Jour. Acad. Nat. Sci. Phila.*, ser. 2, vol. 12, p. 528, 1904; Padang, Sumatra.
- Splotichthys pictus* Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 22, 1907; Cavite, Cavite Province, Luzon. Seale, *Philippine Jour. Sci.*, vol. 5, sec. D, p. 276, 1910; Sandakan, British North Borneo; Philippines. Umali, *Philippine Jour. Sci.*, vol. 54, p. 370, 1934; south-western Samar.
- Plectorhynchus diagramma* Snyder, *Proc. U. S. Nat. Mus.*, vol. 42, p. 500, 1912; Okinawa, Riu Kiu Islands.
- Diagramma (Plectorhynchus) pictum* Zugmayer, *Abh. Bayer. Akad. Wiss. Math.*=Physik. Klasse, vol. 26, p. 10, 1913; Oman Arabia.
- Plectorhynchus (Diagramma) pictus* McCulloch, *Biological Results Endeavour*, vol. 4, p. 184, 1916; off Double Island Point, Queensland, Australia.
- Plectorhynchus pictus* Fowler, *Copeia*, No. 58, p. 64, 1918; Philippines. Fowler and Bean, *Proc. U. S. Nat. Mus.*, vol. 62, p. 35, 1922; Cebu, Cebu, Philippines; Takao, Formosa. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 279, 1927; Philippines; Orion, Bataan Province, Luzon. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 11, p. 260, figs. 22-23, 1931; Santo Domingo de Basco, Batan Island, Batanes Province; Manila market; Cavite, Cavite Province; Batanes market, Batangas Province, Luzon. Catbalogan, Samar; Cebu market, Cebu. San Juanico Strait, between Samar and Leyte. Iloilo market, Iloilo Province, Panay. Endeavor Strait, Palawan. Cotabato, Cotabato Province.

ince; Malabang market, Lanao Province, and Zamboanga market, Zamboanga Province, Mindanao. Jolo market, Jolo Island, and Simaluc Sibi Island, Sulu Province. Umali, Edible Fishes Manila, p. 152, fig. 117, 1936; Aluneros, Tayabas Prov., Luzon. Domentay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Prov., Mindanao.

Plectorhinchus punctatus Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 34, 1922; Cebu, Cebu Province.

Plectorhinchus diagrammus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 279, 1927; Calapan, Mindoro.

1047. *Plectorhinchus polytaenia* (Bleeker).

East Indies, Philippines, and Australia; marine.

Diagramma polytaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 755, 1852; Makassar, Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 332, 1859; Port Essington, Australia. Macleay, Descript. Cat. Australian Fishes, vol. 1, p. 71, 1881.

Diagramma polytaenioides Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 377, 1854; Solor. Günther, Cat. Fishes British Mus., vol. 1, p. 333, 1859; Amboyna.

Plectorhynchus polytaenia Bleeker, Ned. Tijds. Dierk., vol. 1, p. 232, 1863; Ternate. Bleeker, Atlas Ichth., vol. 7, pl. 295, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 23, 1876-77; Celebes; Ternate; Solor; Batjan; Amboina. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; reef near Burias Island, Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 414, 1936; Lombok; Makassar, Celebes; Solor; Ternate; Batjan; Amboina; Misol; New Guinea; Philippines; North Australia.

Plectorhynchus polytaenioides Bleeker, Ned. Tijds. Dierk., vol. 2, p. 282, 1865; Amboina. Bleeker, Atlas Ichth., vol. 7, pl. 293, fig. 2, 1873-76.

Plectorhinchus polytaenia Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 33, 1922; Zamboanga, Zamboanga Province, Mindanao; misprinted.

Plectorhinchus polytaenia Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 240, 1931; Zamboanga market, Zamboanga Province, Mindanao; Jolo market, Jolo Island, and Sulade Island, Sulu Province.

1048. *Plectorhinchus schotaf* (Forskål). Gray grunt.

Coast of Africa to the Philippines, China, and the Carolina Islands; marine, entering estuaries and rivers.

Sciaena abu-mgaterin schotaf Forskål, Descript. Animal., p. 51, 1775; Arabia.

Diagramma schotaf Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 126, 1828; Red Sea.

Diagramma schotaf Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 126, 1828; Red Sea.

Diagramma griseum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 306, 1830; Malabar, India. Playfair and Günther, Fishes Zanzibar, p. 26, pl. 4, fig. 3, var. *b*, 1866; Zanzibar; Aden; Kiswarra Bay. Day, Fishes India, p. 81, pl. 21, fig. 2, 1878. Day, Fauna British India, vol. 1, p. 517, fig. 156, 1889. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 167, pl. 24, fig. 4, 1891; Malabar; Bombay; Mascate; Batavia record doubted by Weber and de Beaufort. Boulenger, Cat. Freshwater Fishes Africa, vol. 3, p. 128, fig. 93, 1915; Zanzibar; Seychelles. Regan, Ann. Durban Mus., vol. 2, p. 199, 1918; Durban, Natal.

Diagramma reticulatum Günther, Cat. Fishes British Mus., vol. 1, p. 334, 1859; China. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 139, 1873; China.

Diagramma obscurum Günther, Proc. Zool. Soc. London, p. 657, pl. 58, 1871; Fiji.

Diagramma grisea Schmeltz, Cat. Mus. Godeffroy, No. 6, p. 12, 1877; Zanzibar.

Diagramma giganteum Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 4, p. 136, 1879; Ponapé, Caroline Islands.

Diagramma sordidum Klunzinger, Fische Rothen Meeres, p. 31, pl. 3, fig. 6, 1884; Koseir, Red Sea.

Diagramma durbanense Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 155, 1908; Natal.

Diagramma (Plectorhynchus) griseum Zugmayer, Abb. Bayerisch. Akad. Wiss., vol. 26, p. 10, 1913; Mekran; Oman.

- Diagramma griseum* var. *playfatri* Pellegrin, Bull. Soc. Zool. France, vol. 39, p. 233, 1914; Mahambo, Madagascar.
- Plectorhynchus reticulatus* McCulloch, Biological Results Endeavour, vol. 4, p. 185, pl. 53, 1916; New South Wales and west Australia.
- Plectorhynchus griseus* Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 132, 1917; Makalla; Bal Haf; Tamarida; Sokotra. Barnard, Ann. South African Mus., vol. 21, p. 671, 1927; Natal and Zululand coast; Delagoa Bay.
- Plectorhynchus foetala* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 77, p. 229, 1925; Delagoa Bay; not of Forskål.
- Plectorhynchus durbanensis* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 77, p. 228, 1925; Delagoa Bay.
- Plectorhynchus foetala*, Fowler, Proc. Acad. Nat. Sci. Phila., p. 229, 1925; Delagoa Bay; not of Forskål.
- Plectorhynchus schotaf* Fowler, Mem. Bishop Mus., vol. 10, p. 207, 1928. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 255, 1931; Quinalasag Island, Camarines Sur Province, and Matnog Bay, Sorsogon Province, Luzon; Surigao, Surigao Province, Mindanao.
- Plectorhynchus schotaf* Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Cotabato market, Cotabato Province, Mindanao.

Genus 367. POMADASYS Lacépède.

Shore fishes in all tropical and subtropical seas; marine, but some species entering rivers. Some species and their ranges poorly defined; perhaps some to be reduced to synonymy.

Pomadasys Lacépède, Hist. Nat. Poissons, vol. 4, p. 515, 1803; type, *Sciaena argentea* Forskål. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 303, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 397, 1936.

Pristipomus (Cuvier) Oken, Isis, p. 1182 (misprinted 1782), 1817; on *Les Pristipomes* Cuvier, Mem. Hist. Nat. Paris, vol. 1, p. 361, 1815; type, *Lutianus hasta* Bloch.

Pristipoma Quoy and Gaimard, Voy. Uranie, Zoologie, p. 320, 1824; type, *Lutianus hasta* Bloch.

Anomalodon Bowdich, Fishes Madeira, p. 237, 1825; type, *Anomalodon incisus* Bowdich.

Polotus Blyth, Proc. Asiatic Soc. Bengal, vol. 27, p. 283, 1858; type, *Polotus nitidus* Blyth=*Lutianus hasta* Bloch.

1049. *Pomadasys argenteus* (Forskål). Silver grunt.

This species may not be valid, but a synonym of *P. hasta*.

Red Sea to the Philippines, and Indo-China.

Sciaena argentea Forskål, Descript. Animal., p. 51, 1775; Djedda, Arabia.

Pomadasys argenteus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 515, 516, 1802; Arabia. Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 130, 1907; Tamarida, Sokotra. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 311, 1931; Manila, Luzon; in part.

Pristipoma argenteum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 249, 1830; Red Sea. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 733, 1870; Koseir, Red Sea. Tiránt, Service Oceanogr. Pêches Indo-Chine, 6^e note, p. 168, 1929; Cochín-China.

1050. *Pomadasys argyreus* (Cuvier and Valenciennes). Bangongok.

Tropical Indo-Pacific from Mauritius to the New Hebrides.

Pristipoma argyreum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 385, 1833; Coromandel coast, India; Sumatra; Mauritius; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 22, 1850. Day, Proc. Zool. Soc. London, p. 683, 1870; Andaman Islands. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 313, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 320, fig. 4, 1873-76.

Pomadasys argyreus Bleeker, Atlas Ichth., vol. 8, p. 30, 1876-77; Sumatra; Nias; Java; Borneo. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Curimao, Ilokos Norte Province; Bauang Sur, La Union Province; Manila; Unisan, Tayabas Province, Luzon. Alabat Island; Capiz, Capiz Province, Panay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 406, 1936; 19 East Indian localities. Herre, Fishes 1940-41 Exped.; Dagat-Dagatan Fisheries Station, Navotas, Rizal Province; Ragay Gulf, Luzon.

- Pomadasis argyreus* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 259, 1908; Manila, Luzon.
- Pomadasis grunniens* Fowler, Mem. Mishop Mus., vol. 10, p. 208, 1928; after Bleeker; (not of Forster).
- Pomadasyus grunniens* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 305, 1931; Corregidor Light, Manila Bay, and Manila market; San Fernando Point Light, La Union Province; Caringo Island, Camarines Norte Province, Luzon; (not of Forster).

1051. Pomadasys guoraca (Cuvier and Valenciennes).

- East coast of Africa to the East Indies and the Philippines.
- Pristipoma guoraca* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 256, 1830; on *Guoraca* Russell, Fishes of Coromandel, vol. 2, p. 24, pl. 132, 1803; Vizagapatam, India. Valenciennes, Voy. Ind. Orient. Zool. [Bèlanger], p. 363, 1834; Malabar; Mahé. Day, Fishes India, p. 75, not pl. 20, fig. 1, 1878. Pillay, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 367, 1929; Travancore.
- ? *Pristipoma guaraca* Bleeker, Atlas Ichth., vol. 8, pl. 323, fig. 1, 1876-77.
- Pomadasyus guoraca* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 306, 1931; San Fernando Point Light, La Union Province; Dagupan, Pangasinan Province; Orion, Bataan Province, Luzon. Tacloban market, Tacloban, Leyte. Sandakan market, British North Borneo.

1052. Pomadasys hasta (Bloch). Silver-spotted grunt; Agut; Ibalay; Ikuran; Kiskisan; Lagonot; Lepe.

- From the east coast of Africa to the Philippines, China, Japan, and Australia.
- Lutjanus hasta* Bloch, Naturges. Ausländ. Fische, vol. 4, p. 109, pl. 246, fig. 1, 1790; Japan. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 187, 229, 1802; Japan.
- Labrus Commersoni* Lacépède, Hist. Nat. Poissons, vol. 3, pp. 431 and 477, pl. 23, fig. 1, 1802; "the Great Ocean."
- Ootus gudjulia* Hamilton [né Buchanan], Fishes Ganges, pp. 94, 370, 1822; mouths of the Ganges.
- Pristipoma kakaan* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 244, 1830; Arian Coupang River, Pondicherry and Mahé, India. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 123, pl. 20, fig. 1, 1835; Massaua.
- Pristipoma chrysobalion* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 248, 1830.
- Pristipoma hasta* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 247, 1830; Batavia, Java; Malabar; India. Günther, Cat. Fishes British Mus., vol. 1, p. 289, 1859; Philippines; China; Moluccas; Amboyna; Ceram; Sumatra; Cape York, Australia; North Australia; Red Sea; India. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Bleeker, Atlas Ichth., vol. 8, pl. 325, fig. 3, 1876-77. Day, Fishes India, p. 73, but not pl. 19, fig. 3, 1878. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 350, 1879; Cleveland Bay, Endeavor River, Queensland. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 105, 1881; Swatow, China. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 14, 1885; Cebu, Cebu; North Celebes; Rubi, New Guinea. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 78, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Zamboanga Province, Mindanao. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 276, 1910; Sandakan, British North Borneo; Philippines.
- Pristipoma commersonii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 252, 1830; mouths of small rivers in southern Madagascar.
- Pristipoma nageb* Bleeker, Verh. Bat. Gen., vol. 22, 1849; Bijdr. ichth. fauna, Madura, p. 4; Madura; not of Rüppell. Günther, Cat. Fishes British Mus., vol. 1, p. 289, 1859; Sunda Sea; not of Rüppell. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 310, 1873; not of Rüppell. Bleeker, Atlas Ichth., vol. 8, pl. 351, fig. 4, 1876-77; not of Rüppell.
- Pristipoma commersoni* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1054, 1850; Pinang; Singapore.
- Pristipoma manadense* Günther, Proc. Zool. Soc. London, p. 657, 1871; Menado, Celebes. Weber, Siboga-Exped., vol. 57, Fische, p. 278, 1913; Saleyer.

Pomadasys manadensis Bleeker, Atlas Ichth., vol. 8, p. 28, 1876-77; after Günther. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 313, 1931; after Günther.

Pomadasys nageb Bleeker, Atlas Ichth., vol. 8, p. 29, 1876-77; Sumatra, Singapore, Bintang, Banka, Java, Madura, Borneo, Celebes, Amboina; not of Rüppell.

Pomadasys hasta Bleeker, Atlas Ichth., vol. 8, p. 28, 1876-77; the Philippines and 14 East Indian islands. Regan, Ann. Durban Mus., vol. 1, p. 244, 1908; Durban Bay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, 1931; San Vicente Harbor, Cagayan Province; Manila market and Manila Harbor; Bacoor, Rizal Province; San Fernando Point Light, La Union Province; Subig Bay, Zambales Province; Santiago River, Batangas Province; Basud River, Camarines Norte Province; Sorsogon market, Sorsogon Province; also stream at Maagnas, Luzon. San Roque, Leyte. Iloilo market, Iloilo Province, Panay, and Buena Vista, Guimaras Island. Malampaya Sound and Ulugan Bay, Palawan. Cotabato and below mouth of the Rio Grande, Cotabato Province; Generale Island, Surigao Province; Zamboanga, Zamboanga Province; Mindanao. Simaluc Sibi and Doc Can Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Manila and Manila Bay; Nasugbu and Batangas, Batangas Province, Luzon. Capiz, Capiz Province, and La Paz, Iloilo Province, Panay. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 148, fig. 113, 1936; Bataan Province; Manila Bay, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 402, 1936; 41 East Indian localities; Philippines. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Villadolid, Philippine Jour. Sci., vol. 63, pp. 214, and 216, 1937; Balayan Bay, Pansipit River, and Lake Bombon (Taal), Batangas Province, Luzon. Herre, Fishes 1936-37 and 1940-41 Expeds.: Manila Bay, Dagat-Dagatan Experiment Station, Rizal Province; Nasugbu, Batangas Province, Luzon. Pinang, Malaya. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.

Pomadasis hasta Rutter, Proc. Acad. Nat. Sci. Phila., p. 75, 1897; Swatow, China. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 279, 1927; Port San Pio Quinto, Camiguin Island, Babuyan Islands. San Fernando, La Union Province; Orani, Bataan Province, Luzon, Philippines.

Pomadasys commersonii Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 528; 1904; Padang, Sumatra.

Pristipoma (Pomadasys) hasta Zugmayer, Abh. Bayer. Akad. Wiss., vol. 26, p. 10, 1913; Mekran; Oman.

1053. *Pomadasys maculatus* (Bloch). Banded grunt; Spotted grunt; Lak-sagu; Sikoy.

East coast of Africa to the Philippines, China, Formosa, and Queensland, Australia.

Anihias maculatus Bloch, Naturges. Ausländ. Fische, vol. 7, p. 7, pl. 326, fig. 2, 1797; East Indies.

Lutjanus maculatus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 193, 239, 1802; East Indies.

Pristipoma caripa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 261, 1830; Pondicherry, Malabar, and Mahè, India; Batavia, Java. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 124, 1835; Massaua. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 21, 1850. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.

Pristipoma therapon Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 22, 1850. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 100, 1850; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 293, 1859; after Bleeker. Bleeker, Atlas Ichth., vol. 8, pl. 341, fig. 1, 1876-77. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 276, 1910; Sandakan, British North Borneo; Philippines.

Pristipoma maculatum Günther, Cat. Fishes British Mus., vol. 1, p. 293, 1859; Torres Strait; Amboyna. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 734, 1870; Koseir, Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 306, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 308, fig. 2, 1873-76. Meyer, An. Soc. España, Hist. Nat. Madrid, vol. 14, p. 14, 1885; Manila Bay, Luzon.

Pomadasys tharapon Bleeker, Atlas Ichth., vol. 8, p. 29, 1876-77; Java; Banka; Celebes; placed in the synonymy by Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 400, 1936; may be a valid species, but study of a large series of fresh material is necessary to decide this.

Pomadasys maculatus Bleeker, Atlas Ichth., vol. 8, p. 27, 1876-77; Sumatra; Nias; Singapore; Banka; Java; Bawean; Bali; Celebes; Amboina; Waigi. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 309, 1931; off San Fernando Point Light, La Union Province; Dagupan, and San Fabian, Pangasinan Province; Cavite, Cavite Province; Manila market; off Daet, Camarines Norte Province, Luzon. Tacloban market, Tacloban, Leyte. Market, Iloilo, Iloilo Province, Panay. Herre, Fishes, 1931 Philippine Exped.; p. 52, 1934; San Juan, La Union Province; and Manila Bay, Luzon. Capiz, Capiz Province, Panay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 400, 1936; 24 East Indian localities; the Philippines and 9 other Indo-Pacific localities.

Pomadasys maculatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 23, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 259, 1908; Manila, Luzon. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 450, 1917; Ceylon; Aden; Philippines.

Pomadasys maculatum Barnard, Ann. South African Mus., vol. 21, Part 2, p. 679, 1927; Natal coast; Delagoa Bay, Chinde, Mozambique.

1054. *Pomadasys opercularis* (Playfair).

An Indian Ocean species, once reported from the Philippines.

Pristipoma operculare Playfair, in Playfair and Günther, Fishes Zanzibar, p. 24, pl. 4, fig. 1, 1866; Aden; Port Natal. Day, Fishes India, p. 76, pl. 20, fig. 2, 1878. Pellégrin, Bull. Mus. Hist. Nat. Paris, vol. 13, p. 203, 1907; Madagascar.

Pomadasys opercularis Regan, Ann. Durban Mus., vol. 1, p. 244, 1908; Durban Bay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 317, 1931; Philippines; Santa Maria, Ilokos Sur Province, Luzon. Delagoa Bay, Portuguese East Africa.

Pristipoma (Pomadasys) operculare Zugmayer, Abh. Bayer. Akad. Wiss. Math-Phys. Klasse, vol. 26, p. 10, 1913; Mekran; Oman.

Pomadasys opercularis Fowler, Proc. Acad. Nat. Sci. Phila., p. 231, 1925; Delagoa Bay. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 279, 1927; Santa Maria, Ilokos Sur Province, Luzon, Philippines.

Pomadasys operculare Barnard, Ann. South African Mus., vol. 21, Part 2, p. 675, 1927; East London; Natal; Zululand; Delagoa Bay.

Genus 368. *SCOLOPSIS* Cuvier.

Tropical and subtropical Indo-Pacific; marine, rarely entering rivers. *Ghanam* Forskål, Descript. Animal, p. 44, 1775; type, *Sciama ghanam* Forskål; inadmissible.

Scolopsis Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 1, p. 361, 1815; type, *Scolopsis curite* Cuvier. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 270, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 325, 1936.

Scolopsides Cuvier, Règne Animal, ed. 2, vol. 2, p. 178, 1829; type, *Scolopsides kurita* Cuvier.

Lycogenis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 346, 1830; orthotype, *Holocentrus ciliatus* Lacépède, Jordan, Genera Fishes, p. 174, 1919; according to Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 270, 1931, the type is *Lycogenis argyrosoma* Cuvier = *Scolopsides lycogenis* Cuvier.

1055. *Scolopsis bilineatus* (Bloch). Two-striped Scolopsis.

Andaman Islands to the Philippines, Japan, and Fiji.

Anthias bilineatus Bloch, Naturges. Ausländ. Fische, vol. 7, p. 3, pl. 325, fig. 1, 1793; Japan.

Lutjanus ellipticus Lacépède, Hist. Nat. Poissons, vol. 4, p. 213, 1802; Japan.

Scolopsides bilineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 336, 1830. Bleeker, Atlas Ichth., vol. 8, pl. 323, fig. 2, 1876-77.

Scolopsides bilineatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 73, 1852; Solor; not of Quoy and Gaimard.

Scolopsis bleekeri Günther, Cat. Fishes British Mus., vol. 1, p. 357, 1859; Amboyna; Celebes. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 15, 1885; Cebu, Cebu. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Paroir, La Union Province, Luzon; Dumaguete; Sitankai, Sulu Province.

Scolopsis bilineatus Günther, Cat. Fishes British Mus., vol. 1, p. 357, 1859; Amboyna; Celebes. Bleeker, Atlas Ichth., vol. 8, p. 7, pl. 342, fig. 1, 1876-77; 14 East Indian localities. Day, Fishes India, p. 85, pl. 22, fig. 3, 1878; Andaman Islands. Fowler, Copeia, No. 53, p. 64, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 280, fig. 24, 1927; Calapan, Mindoro; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 292, 1931; Grande Island Reef, Bataan Province; Ligo Point and Pagapas Bay, Batangas Province; Alibijaban and Ragay Gulf, Tayabas Province; Pasacao, and Ragay Gulf and Butaanan Island, Camarines Sur Province; Caracaran Bay, Batan Island, and Bulan Point near Palag Bay, Albay Province; Bulan, Langoa Point and Matnog Bay, Sorsogon Province; Maculabo Island, Camarines Norte Province; also Canmahala Bay, Luzon. Port Maricaban, Maricaban Island and Verde Island, Verde Island Passage, between Luzon and Mindoro. Sablayan and Puerto Galera, Mindoro. Alimango Bay, and Busin Harbor, Burias. Romblon; Agojo Point; Catanduanes Island; Bagacay Bay, Escarpada Island, and Lode Bay, Destacado Island, between Masbate and Samar. Biri Channel, north coast of Samar. Mompog Island, between Marinduque and Luzon. Cabugan Grande Island, Leyte. Pandanon Island, north of Bohol. Polloc, Cotabato Province; Surigao Island, and Generale Island, Surigao Province; Panabutan Bay, Little Santa Cruz Island, Tictaun Island, and Zamboanga, Zamboanga Province, Mindanao. Jolo, Taganak, Pangasinan, Tara, Usada, Sanguisiapo and Tonquil Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Manila and Lamon Bay, Tayabas Province, Luzon. Dumaguete; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 339, 1936; 27 East Indian localities; Philippines.

Scolopsis bilineata Martens, Preuss. Exped. Ost-Asien, p. 387, 1876; Amboina. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 500, 1912; Naha, Okinawa.

Scolopsis bilineatum Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Bulan, Sorsogon Province, Luzon.

1056. *Scolopsis cancellatus* (Cuvier and Valenciennes). Langing.

From the Andaman Islands, East Indies, and Philippines to the RiuKlu Islands, Hawaii, New Hebrides, the Marshall and Samoan Islands.

Scolopsides cancellatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 351, 1830; Hawaii; Waigi; Rawak; northeast New Guinea; Vanicolo; Ulea. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 28, 1850. Bleeker, Atlas Ichth., vol. 7, pl. 309, fig. 2, 1873-76.

Scolopsis cancellatus Günther, Cat. Fishes British Mus., vol. 1, p. 361, 1859; Sumatra. Bleeker, Atlas Ichth., vol. 8, p. 5, 1876-77; 17 East Indian localities. Day, Fishes India, p. 86, pl. 22, fig. 6, 1878. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 279, 1927; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 283, 1931; Sabtang Island, Batanes Province; Palau Island, Cagayan Province; Hermana Mayor Island, Zambales Province; Canimo Island near Daet, Camarines Norte Province; Pocket Bay, Basot Island and Butaanan Island, Camarines Sur Province; near Palag Bay, Bacon, and Sorsogon market, Sorsogon, Province, Luzon. Verde Island, Verde Island Passage. Busin Harbor, Burias Island. Cataingan Bay, Masbate. Romblon. Cebu market, Cebu, and Mactan Island, Cebu Province. Port Caltom, Busuanga. Generale Island, Surigao Province, and Zamboanga, Zamboanga Province, Mindanao. Jolo market and Tataan Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Calapan, Mindoro. Dumaguete. Punta Flecha, Zamboanga Province, Mindanao. Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-

Australian Archipelago, vol. 7, p. 335, 1936; 22 East Indian localities; Philippines. Domantay, Philippine Jour. Sci., vol. 71, p. 100, 1940; Zamboanga, Mindanao. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro.

Scolopsis cancellatum Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Bacon and Bulan, Sorsogon Province, Luzon.

Scolopsis cancellata Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 259, 1908; Cuyo, Cuyo Islands, Sulu Sea.

1057. *Scolopsis ciliatus* (Lacépède).

Mauritius to the Philippines, East Indies, Solomon Islands, and Vanikolo.

Holocentrus ciliatus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 333 and 367, 1802.

Scolopsides lycogenis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 346, pl. 127, 1830; Java; New Guinea; Vanikolo. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 27, 1850.

Scolopsis ciliatus Günther, Cat. Fishes British Mus., vol. 1, p. 355, 1859; Amboyna. Day, Proc. Zool. Soc. London, p. 633, 1870; Andaman Islands. Bleeker, Atlas Ichth., vol. 8, p. 6, 1876-77; 15 East Indian localities. Day, Fishes India, p. 89, pl. 23, fig. 5, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 15, 1885; Cebu, Cebu. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 280, 1927; Bacon, Sorsogon Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 300, 1931; Subic Bay, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo and Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao, Tayabas Province; Butauanan, Saboon, and San Miguel Islands, Camarines Sur Province; Maagnas, Lagonoy Gulf, and near Palag Bay, Albay Province; Canmahala Bay, Langao Point, and Nabatas Point, Luzon. Tilik, Lubang Island, northwest of Mindoro. Santa Cruz Island, off Marinduque. Catbalogan, Samar. Malapascua Island, off Cebu. Busin Harbor, Burias Island. Pandanon Island, north coast of Bohol. Pangauron River and Port Caltom, Busuanga Island. Ulugan Bay, Palawan. Surigao and Generale Island, Surigao Province; Cotabato market and Polloc, Cotabato Province; Murcielagos Bay, Misamis Occidental Province, Mindanao. Taganak Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 14, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Calapan, Mindoro; Cullion; Cebu, Cebu; Dumaguete; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 332, 1936; 32 East Indian localities; Philippines. Herre, 1940-41 Philippine Exped.; Murcielagos Bay, Misamis Occidental Province, Mindanao.

Scolopsis ciliata Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. Bur. Fisheries, vol. 26, p. 23, 1907; Manila, Luzon.

Scolopsis luzonia Jordan and Seale, Bull. Bur. Fisheries, vol. 26, p. 22, fig. 1, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 85, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province.

1058. *Scolopsis dubiosus* Weber. Tagisang lawin; Magkotkot.

India, East Indies, Philippines, Indo-China and West Australia.

Scolopsides monogramma Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 29, 1850; in part; not of Cuvier and Valenciennes.

Scolopsis bimaculatus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 367, 1873; not of Rüppell. Bleeker, Atlas Ichth., vol. 7, pl. 314, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 10, 1876-77; not of Rüppell; Singapore; Bantang; Banka; Java; Bali; Celebes; Ternate; Batjan; Amboina. Day, Fishes India, p. 85, pl. 22, fig. 1, 1878; Madras. Jordan and Starks, Mem. Carnegie Mus., vol. 11, p. 451, 1917; Ceylon; not of Rüppell. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 285, 1931; Zamboanga, Zamboanga Province, Mindanao; Endeavor Strait, Palawan; Tapiantanta Island, Sulu Province; in part. Herre, Fishes 1931 Philippine Exped., p. 51, 1934; Manila, Luzon; Sitankai, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 151, fig. 116, 1936; Tayabas Province and Manila Bay, Luzon.

Scolopsis monogrammus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 85, 1907; Bulan, Sorsogon Province, Luzon.

Scolopsis dubiosus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 282, 1913. Makassar, Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 344, 1936; 15 East Indian localities; Philippines.

1059. *Scolopsis eriomma* Jordan and Richardson.

Originally described from Formosa.

Scolopsis eriomma Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 188, plate 70, 1909; Takao, Formosa. Jordan and Starks, Annals Carnegie Mus., vol. 11, p. 451, 1917; Colombo, Ceylon. Fowler, Bulletin 100 U. S. Nat. Mus., vol. 11, p. 273; after Jordan and Richardson. Herre, 1948 Coll.; 2 specimens from the south entrance to Manila Bay.

1060. *Scolopsis inermis* (Schlegel).

Coasts of Japan to Arabia.

Scolopsides inermis Schlegel, Fauna Japonica, Pisces, p. 63, pl. 28, fig. 1, 1842; Japan. Bleeker, Verh. Bat. Gen., vol. 26, Nieuwe Nalez. Ichth. Japan, pp. 5 and 83, 1857; Nagasaki. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 751, 1901; Yokohama. Smith and Pope, Proc. U. S. Nat. Mus., vol. 31, p. 477, 1907; Kagoshima.

Scolopsis inermis Günther, Cat. Fishes British Mus., vol. 1, p. 357, 1859. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 352, 1873. Bleeker, Atlas Ichth., vol. 8, p. 4, pl. 341, fig. 5, 1876-77; Sangir Islands; Nagasaki. Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 48, p. 14, 1883; Kagoshima. Klunzinger, Fische Rothen Meeres, p. 32, pl. 7, fig. 3; 1884; Red Sea. Boulenger, Proc. Zool. Soc. London, p. 656, 1887; Muscat. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 555, 1912; Nagasaki Zugmayer, Abh. Bayer. Akad. Wiss., vol. 26, p. 11, 1913; Mekran; Oman. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 274, 1931; Japan; Kagoshima. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 330, 1936; Java Sea; Sangir Islands. Hardenberg, Treugia; vol. 16, p. 317, 1938; south coast of Java. Kaufmann, Motorship *Theodore N. Gill*, Philippine Fishery Program, October, 1947; 0.5 miles south of Bataan Peninsula, off entrance to Manila Bay in the China Sea, at 65 fathoms.

1061. *Scolopsis leucotaenia* (Bleeker).

India, East Indies, Philippines, and Solomon Islands.

Scolopsides leucotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 451, 1852; Banka.

Scolopsides leucotaenioides Bleeker, Natur. Tijds. Ned.-Ind., vol. 8, p. 439, 1855; Menado, Celebes.

Scolopsis leucotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 351, 1873; Bleeker, Atlas Ichth., vol. 7, pl. 294, fig. 4, 1873-76. Bleeker, *ibid.*, vol. 8, p. 4, 1876-77; Banka, Celebes; Ceram; Amboina; Nusa Laut. Day, Fishes India, p. 88, pl. 23, fig. 4, 1878. Fowler, Proc. Acad. Nat. Sci., Phila., vol. 79, p. 279, 1927; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Cullion; Cebu, Cebu; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao; Jolo and Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 329, 1936; Banka; Biliton; Menado, Celebes; Great Tobea; Ceram; Amboina; Nusa Laut; New Guinea; also Philippines. Herre, Fishes 1940-41 Exped.; Bungau, Sulu Province.

Scolopsis longulus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 288, 1931; Alibijaban Island, Ragay Gulf, Tayabas Province, and Canmahala Bay, Luzon; Cataingan Bay, Masbate; Buang Bay, Talajit Island, between Masbate and Samar; Quinapundan Bay, Samar; Port Uson, Masbate. Cebu market, Cebu; Endeavor Strait and Makes Island, Palawan; Santa Cruz Island, Zamboanga Province, Mindanao; Usada Island, Sulu Province.

1062. *Scolopsis margaritifera* (Cuvier and Valenciennes). Pearl-spotted *Scolopsis*.

The East Indies, Philippines, China, Solomon Islands, and Australia.

Scolopsides margaritifera Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 337, 1830; Waigi. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 30, 1850. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 139, 1873; China. Bleeker, Atlas Ichth., vol. 7, plate 317, fig. 2, 1873-76.

Scolopsides pectinatus (Kuhl and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 346, 1830; Java.

Scolopsis margaritifera Günther, Cat. Fishes, British Mus., vol. 1, p. 355, 1859; Sea of Batavia; Waigiu. Bleeker, Atlas Ichth., vol. 8, p. 3, 1876-77; 11 East Indian localities. Weber, *Siboga* Exped., vol. 57, Fische, p. 283, 1913; Makassar, Celebes; Banda. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 277, 1931; Limbones Cove, Cavite Province; Port Hamilo and Pagapas Bay, Batangas Province; Port Matalvi, Zambales Province; Mariveles wharf, Bataan Province; Manila market; Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Masamat Bay, Quinalasag Island, Camarines Sur Province, Luzon; Porongpong Island, Palumbanes Islands, off northwest tip of Catanduanes Island; Balkias Bay, Lubang Island; Verde and Maricaban Islands, Verde Island Passage; Puerto Galera and Mansalay, Mindoro; Port Banalakan and Santa Cruz Island, Marinduque; Mompog Island, between Marinduque and Luzon; Romblon Harbor, Romblon; Alimango Bay and Busin Harbor, Burias; San Miguel Harbor, Ticao; Cataingan Bay and Masbate Reef, Masbate; Lode Bay, Destacado Island, and Buang Bay, Talajit Island, between Masbate and Samar; Catbalogan and Biri Channel, Samar; Malapascua Island, east of northern Cebu; Mactan Cover, Mactan Island, Cebu Province; Port Uson, Busuanga Island; Ulugan Bay, Bolalo Bay, Endeavor Strait, Guntao Island and Malcochin Harbor, Palawan; Bugsuk, Candaraman, and Caxisigan Islands, Balabac; Lianga Bay, Generale Island, and Surigao, Surigao Province; Polloc, Cotabato Province; Pujada Bay and Tataibada Point, Davao Province; Little Santa Cruz and Tulnalutan Islands, Zamboanga Province, Mindanao; Simaluc, Taganak, and Tara Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Culion; Dumaguete. Herre, Fishes 1933-34 Pacific Exped.; Cebu, Cebu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 328, 1936; 18 East Indian localities; Philippines.

Scolopsis macrophthalmus Ramsay and Ogilby, Proc. Linn. Soc. New South Wales, vol. 7, p. 238, 1882; New Guinea. Ramsey and Ogilby, *ibid.*, Ser. 2, vol. 10, 1886; Port Moresby, New Guinea.

Scolopsis margaritifera Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Bacon and Bulan, Sorsogon Province, Luzon.

1063. *Scolopsis monogramma* (Cuvier and Valenciennes).

East Indies, Philippines, Formosa, New Hebrides, and Fiji; marine.

Scolopsis monogramma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 338, 1830; Batavia, Java. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.

Scolopsis monogramma Günther, Cat. Fishes British Mus., vol. 1, p. 358, 1859; Moluccas, Amboina. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 369, 1873. Bleeker, Atlas Ichth., vol. 8, p. 11, pl. 335, fig. 3, 1876-77. Günther, Report Voy. *Challenger*. Zoology, vol. 1, Shore Fishes, p. 52, 1880; Philippines. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 188, 1909; Keerun and Giram, Formosa. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 286, 1931; Santa Maria, Ilokos Sur Province; off Corregidor Light, Manila Bay; Alibijaban Island, Ragay Gulf, Tayabas Province; Nato, Albay Province; Luzon, Tilig, Lubang Island, northwest corner of Mindoro. Taganak Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Linapacan Island, between Palawan and Culion. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 345, 1936; 16 East Indian localities; Philippines. Herre, Fishes 1936-37 Exped.; Manila Bay, Luzon.

1064. *Scolopsis personatus* (Cuvier and Valenciennes).

Mauritius, East Indies, Philippines, Australia.

Scolopsides personatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 344, 1830; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 575, 1852; Sumatra. Bleeker, Verh. Akad. Amsterdam, vol. 18, Contrib. Ichth. l'île Maurice, p. 1, 1879; Mauritius.

Scolopsis personatus Günther, Cat. Fishes British Mus., vol. 1, p. 360, 1859; Seas of Java and Sumatra. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 364, 1873; Bleeker, Atlas Ichth., vol. 8, p. 9, pl. 341, fig. 4, 1876-77; Sumatra; Singapore; Java; Celebes; Ternate; Amboina. Macleay,

Descript. Cat. Australian Fishes, vol. 1, p. 82, 1881. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 281, 1931; Maagnas, Lagonoy Gulf, Albay Province; Bulan, Langao Point, Sorsogon Province; and Luzon, Cataingan Bay, Masbate; Busin Harbor, Burias Island. Mahinog, Camiguin Island, off north coast of Mindanao; Generale Island, Surigao Province, and Malanipa Island, Zamboanga Province, Mindanao; Doc Can, Siasi, and Taganak Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Cullion. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 333, 1936; 11 East Indian localities; also Mauritius, Thursday Island, and Port Darwin, Australia. Herre, Fishes 1940-41 Oriental Exped.; Ragay Gulf, Luzon.

1065. *Scolopsis phaeops* (Bennett).

Tropical Indian Ocean to the Philippines and Great Toba Island, Buton Strait, East Indies.

Scolopsides phaeops Bennett, Proc. Zool. Soc. London, p. 165, 1831; Mauritius.

Scolopsis phaeops Günther, Cat. Fishes British Mus., vol. 1, p. 358, 1859; Mauritius. Day, Fishes India, p. 85, pl. 22, fig. 2, 1878. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 282, 1931; Endeavor Strait, Palawan; Great Toba Island, Buton Strait, off Celebes, Dutch East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 346, 1936; compiled.

Scolopsis nototaenia Playfair and Günther, Fishes Zanzibar, p. 29, 1866; Aden.

Scolopsis nototaenia Playfair, *ibid.*, pl. 5, fig. 2, 1866; misprint.

Scolopsides phoeops Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 176, pl. 6, fig. 2, 1891; Réunion; Seychelles; Madagascar.

1066. *Scolopsis taeniopterus* (Cuvier and Valenciennes). Tagisang lawin.

East Indies, Philippines, and Malay Peninsula.

Scolopsides taeniopterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 345, 1830; Java. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 29, 1850.

Scolopsis taeniopterus Bleeker, Atlas Ichth., vol. 8, p. 10, pl. 343, fig. 5, 1876-77; Banka; Java. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 280, 1931; Java. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 335, 1936; Singapore; Banka; Batavia, Java; east coast of Malay Peninsula. Umali, Edible Fishes Manila, p. 150, fig. 115, 1936; Manila Bay and Ragay Gulf, Luzon. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

1067. *Scolopsis temporalis* (Cuvier and Valenciennes).

East Indies, the Philippines, Formosa, Solomon Islands, Queensland, Australia, and Fiji; marine.

Scolopsides temporalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 341, 1830; Waigi, New Guinea; Vanikolo. Lesson, Voy. Coquille, Zool., vol. 2, p. 197, pl. 26, 1831; Offack Bay, Waigi.

Scolopsis temporalis Günther, Cat. Fishes British Mus., vol. 1, p. 360, 1859; Louisiade Archipelago. Seale, Occas. Papers Bishop Mus., vol. 4, p. 45, 1906; Shortland Island, Solomon Islands. De Beaufort, Bijdr. Dierk. Afl., vol. 19, p. 122, 1913; Amboina. McCulloch, Proc. Linn. Soc. New South Wales, vol. 46, p. 469, pl. 40, fig. 3, 1921; Palm Islands. Herre, Philippine Bureau Science Collections, 1922-28; Calapan and Puerto Galera, Mindoro; Sibuyan Island; Jolo, Bungau, and Sitbutu Islands, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 296, 1931; Canmahala Bay, Luzon; Varadero Bay and Mansalay, Mindoro; Matbalogan, Samar; Danawan and Si Amil Islands, near International Boundary, off British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 342, fig. 71, 1936; 12 East Indian localities; Philippines.

1068. *Scolopsis trilineatus* Kner.

East Indies, Philippines, Fiji, and Samoa.

Scolopsis trilineatus Kner, Sitzungsber. Akad. Wiss. Wien, vol. 57, pp. 27, 30, pl. 2, fig. 5, 1868; Savay, Samoa. Günther, Fische der Südsee, p. 31, pl. 25, fig. A, 1873-75; Samoa and Fiji. Bleeker, Atlas Ichth., vol. 8, p. 5, pl. 331, fig. 2, 1876-77; Ternate; Amboina. Fowler, Bull.

100, U. S. Nat. Mus., vol. 11, p. 290, 1931; Bugsuk and Candaraman Islands, Balabac; Cebu market, Cebu; Pandanon Island, coast of Bohol; Jolo, Pangasinan, Tonquil, Tataan, and Doc Can Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 331, 1936; Batavia, Java; Borneo; Ternate; Amboina; Timor; Kei Islands; New Guinea; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Estancia, Iloilo Province, Panay; Sitankai, Sulu Province.

1069. *Scolopsis vosmeri* (Bloch).

Japan, China, Formosa, the Philippines, East Indies, tropical Indian Ocean. Marine and entering rivers.

Anthias vosmeri Bloch, Naturges. Ausländ, Fische, vol. 6, p. 120, pl. 321, 1792; Japan Sea.

Anthias vosmaeri Forster, Fauna Indica, p. 16, 1795.

Perca aurata Park, Trans. Linn. Soc., vol. 3, p. 35, 1797; Sumatra.

Lutianus auratus Bloch and Schneider, Syst. Ichth., p. 328, 1801; Sumatra.

Lutjanus Vosmaeri Lacépède, Hist. Nat. Poissons, vol. 4, pp. 179, 213, 1802; Japan.

Pomacentrus enneadactylus Lacépède, Hist. Nat. Poissons, vol. 5, pp. 505 and 508, 1802.

Scolopsides torquatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 335, 1830; Batavia, Java. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Bleeker, Atlas Ichth., vol. 7, pl. 318, fig. 1, 1873-76.

Scolopsides Vosmeri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 333, 1830; Japan; Java; Sumatra. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 27, 1850.

Scolopsis aurata Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1063; 1850; Pinang.

Scolopsis auratus Günther, Cat. Fishes British Mus., vol. 1, p. 356, 1859; Seas of Java, Sumatra, and Pinang.

Scolopsis torquatus Günther, Cat. Fishes British Mus., vol. 1, p. 356, 1859; Moluccas; India. Kner, Reise Novara, Fische, p. 59, 1865; Hong Kong. Bleeker, Atlas Ichth., vol. 8, p. 8, 1876-77; Sumatra, Java, Celebes.

Scolopsides collaris Günther, Cat. Fishes British Mus., vol. 1, p. 356, 1859; Moluccas; name in text.

Scolopsides auratus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 150, 1874; China.

Scolopsis Vosmaeri Bleeker, Atlas Ichth., vol. 8, p. 8, pl. 339, fig. 5, 1876-77; Sumatra; Pinang; Singapore; Banka; Duizend Islands; Java; Celebes; Sumbawa.

Scolopsis vosmeri Day, Fishes of India, p. 87, pl. 23, figs. 1-3, 1878. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 22, 1907; Cavite, Cavite Province, and Manila, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 280, 1927; Orion, Bataan Province, Luzon, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 298, 1931; Mariveles wharf, Bataan Province; Cavite, Cavite Province; Manila, Luzon; Cebu market, Cebu; Jolo market, Sulu Province. Also Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Manila, Luzon. Herre, Fishes 1936-37 and 1940-41 Expeds.; Manila Bay, Luzon; Kabili River, British North Borneo; market, Singapore.

Scolopsis vosmaeri Seale, Phil. Jour. Sci., vol. 5, Sect. D, p. 276, 1910; Sandakan, British North Borneo; Philippines. Weber and de Beaufort, Indo-Australian Arch., vol. 7, p. 341, 1936; 15 East Indian localities; Philippines.

1070. *Scolopsis xenochrous* Günther.

East Indies and Philippines.

Scolopsis xenochrous Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 5, p. 423, 1872; Misol, Moluccas. Günther, in Brenchley, Cruise Curacao, p. 420, pl. 31, 1873. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 276, 1931; Bulan, Sorsogon Province, Luzon; Jolo market, Jolo, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Jolo, Sulu Province.

- Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 338, 1936; Misol; Flores; Philippines.
- Scolopsis ghanam* Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 387, 1876; Flores.
- Scolopsis bulanensis* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 85, fig. 5, 1907; Bulan, Sorsogon Province, Luzon. Herre, Fishes 1940-41 Exped.; Jolo, Sulu Province.

Family 127. THERAPONIDÆ

Genus 369. THERAPON Cuvier.

- Marine and fresh-water fishes of the tropical Indo-Pacific.
- Therapon* Cuvier, Règne Animal, ed. 1, vol. 2, p. 295, 1817; type, *Holocentrus serrus* Bloch; printed *Terapon*, a misprint for *Therapon*.
- Günther, Cat. Fishes British Mus., vol. 1, p. 274, 1859. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 140, 1931.
- Pterapon* Gray, illustrations Indian Zoology, vol. 2, pl. 88, fig. 1, 1833; type, *P. trivittatus* Gray=*Sciaena jarbua* Forskål.
- Mesopristes* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 527, 1845; type, *M. macracanthus* Bleeker.
- Therapon* sub-genus *Datnia* Bleeker, Atlas Ichth., vol. 7, p. 110, 1873-76.
- Autisthes* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 398, 1884; type, *A. argenteus* de Vis.
- Hephaestus* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 399, 1884; type *H. tulliensis* de Vis=*Therapon fuliginosus* Macleay.
- Eutherapon* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 527, 1904; type, *Therapon theraps* Cuvier.
- Terapon* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 325, 1931.

1071. *Therapon argenteus* (Cuvier and Valenciennes). Silver therapon; Arad-ad.

- The East Indies, Philippines, China, Melanesia, and Queensland. Marine and entering rivers.
- Datnia argentea* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 139, pl. 54, 1829; Java. Day, Fishes India, p. 71, pl. 18, fig. 7, 1878.
- Mesopristes macracanthus* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 523, 1845; Batavia, Java.
- Datnia cancellatoides* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 247, 1853; Priaman, Sumatra, in sea; Amboina, in rivers.
- Therapon argenteus* Günther, Cat. Fishes British Mus., vol. 1, p. 283, 1859; Amboina; not India and Cape Seas. Martens, Preuss. Exped. Ost-Asien, p. 386, 1876; Manila, Luzon. Bleeker, Atlas Ichth., vol. 8, pl. 326, fig. 1, 1876-77. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Laguna de Bay, Luzon. Weber, Zool. Ergebnisse Reise Ned. Ost-Ind., vol. 3, p. 407, 1894; Amparang River, Celebes. Herre, Philippine Jour. Sci., vol. 38, p. 495, 1929; Philippine bangos ponds. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 150, 1931; 14 East Indian localities; the Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser. vol. 21, p. 194, 1936; fresh water stream, Suva Harbor, Viti Levu Island, Fiji.
- Therapon (Datnia) argenteus* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 382, 1873. Bleeker, Atlas Ichth., vol. 7, p. 114, 1873-76; Java; Sumatra; Amboina, Bleeker, *ibid.*, vol. 8, pl. 339, fig. 4, 1876-77. Ogilby and McCulloch, Mem. Queensland Mus., vol. 5, p. 115, 1916; Port Moresby, New Guinea; Normanby Island, in fresh water. Santo and Eromango, New Hebrides; Queensland.
- Therapon nasutus* Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 258, 1882; Normanby Island, fresh water.
- Therapon chalybeus* Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 259, 1884; fresh water, Normanby Island.
- Therapon acutirostris* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 398, 1884; Queensland.
- Therapon argenteus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 347, 1931; Pukot River, Bataan Province; Basud River, Camarines Norte Province; Maagnas and stream, Lagonoy Gulf, and Yaua River, Legaspi. Albay Province, Luzon. Varadero Bay, Mindoro, Iwahig River and tributaries, near Puerto Princesa, Palawan. Malaga River and stream at San Roque, Leyte. Nonukan River, Camp Overton,

Lanao Province, and Generale Island, Surigao Province, Mindanao. Tumindao Reef, Sulu Province.

- 1072. *Therapon cancellatus*** (Cuvier and Valenciennes). Cross-barred grunt; Cross-barred bagaong.
The East Indies, Philippines, Formosa, and Solomon Islands. Marine and entering freshwater.
Datnia cancellata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 144, 1829. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 4, 1849. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 438, 1855; Celebes.
Therapon cancellatus Günther, Cat. Fishes British Mus., vol. 1, p. 276, 1859; Seas of Java and Celebes. Bleeker, Atlas Ichth., vol. 7, pl. 310, fig. 4, 1873-76. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 258, 1908; Mindoro. Herre, Philippine Jour. Sci., vol. 34, p. 303, 1927; Lake Naujan, Mindoro. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 151, fig. 27, 1931; Java; Celebes; Batjan; Ceram; Amboina; Timor; North and South New Guinea; Mindoro, Philippines. In sea and rivers. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 8, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 52, 1934; Dumaguete. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 194, 1936; fresh water creek, Anki, Malaita Island, Solomon Islands. Herre, Fishes 1940-41 Expedition; Cagayan River, Misamis Oriental Province, Mindanao. Herre, 1948 Coll.; Mantagil River, 40 km. from Sea, Zambales Province.
Datnia rosenbergii Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, p. 237, 1861; Ceram.
Therapon (Datnia) cancellatus Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Loquilocun, Samar; Burauen River, Leyte. Bleeker, Atlas Ichth., vol. 7, p. 116, 1873-76; Java; Celebes; Amboina; Philippines.
Therapon (Datnia) rosenbergii Bleeker, Ned. Tijds. Dierk., vol. 4, p. 387, 1873.
Therapon interruptus Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 258, 1883; fresh water, Normanby Island, New Guinea.
Therapon (Datnia) interruptus Ogilby and McCulloch, Mem. Queensland Mus., vol. 5, p. 114, pl. 10, fig. 2, 1916; from the types.
Terapon cancellatus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 345, fig. 27, 1931; Port Matalvi, Zambales Province; Pukot River, Manila Bay, Bataan Province; Basud River, Camarines Norte Province; Yaua River, Legaspi, Albay Province, Luzon. Malaga River and stream at San Roque, Leyte. Nonukan River, Camp Overton, Lanao Province, Mindanao. Mahingon River, Camiguin Island, north coast of Mindanao. Varadero Bay, Mindoro. Isabela River, Basilan.
- 1073. *Therapon jarbua*** (Forskål). Jarbua; Bagaong; Baraongan; Bongao; Bungaug; Gongong; Langaat; Ma-ga-ong; Malabansi; Totot; Siran banlaonon.
Tropical Indo-Pacific from Africa east to Fiji and Samoa, north to Japan, south to Australia. Marine and entering rivers.
Sciæna jarbua Forskål, Descript. Animal., p. 50, 1775; Djedda, Red Sea.
Holocentrus servus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 80, pl. 238, fig. 1, 1790; Japan.
Grammistes servus Bloch and Schneider, Syst. Ichth., p. 185, 1801; Japan.
Holocentrus jarbua Lacépède, Hist. Nat. Poissons, vol. 3, pl. 30, fig. 3, 1802. Lacépède. *ibid.*, vol. 4, pp. 329, 348, 1803; on Forskål.
Coius trivittatus Hamilton [né Buchanan], Fishes Ganges, pp. 92, and 370, 1822; mouths of the Ganges.
Therapon servus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 125, 1829; Seychelles; Timor; Pondicherry; Moluccas; Malabar. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 479, 1831; Seychelles; Bombay. Günther, Cat. Fishes British Mus., vol. 1, p. 278, 1859; Port Essington; Cape York; Moluccas; Amboina; China; Madras; Ceylon; Red Sea; Cape Seas; India. Bleeker, Atlas Ichth., vol. 7, pl. 312, fig. 2, 1873-76. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Manila Bay, Luzon. Cebu, Cebu. Also Menado, Celebes, and Rubi, New Guinea. Jordan and Thompson,

- Proc. U. S. Nat. Mus., vol. 41, p. 536, fig. 1, 1912; Manila; Cavite, Cavite Province and San Fabian, Pangasinan Province, Luzon; Kagoshima, Izu, and Miyakojima, Japan; Formosa; Swatow, China; Samoa; Australia; Arabia.
- Pterapon trivittatus* Gray, Illustration Indian Zoology, vol. 2, pl. 88, fig. 1, 1833-34.
- Therapon trivittatus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1001, 1850; Pinang; Singapore; Malay Peninsula.
- Therapon jarbua* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 729, 1870; Koseir, Red Sea. Day, Fishes India, p. 69, pl. 18, fig. 4, 1878. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 349, 1879; Port Darwin, Port Denison, Endeavour River, Australia. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 258, 1908; Calayan Island, Babuyan Islands north of Luzon. Manila, Luzon. Ticao island. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province; Orani and Orion, Bataan Province, Luzon. Philippines. Herre, Philippine Bureau Science Collection; Manila Bay; Pansipit River and Layla. Batangas Province; Gulf of Lingayen, Pangasinan Province, Luzon. Calapan, Mindoro; Bais, Negros Oriental, Cebu, Cebu, and Mactan, Cebu Prov. Cagayan, Misamis Oriental Province, and Zamboanga, Mindanao. Iwahig, Palawan. Jolo, Sibutu, Sitankai, and Pearl Bank, Sulu Province. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 297, Lake Bombon (Taal) Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Herre, Philippine Jour. Sci., vol. 38, p. 495, 1929; Philippine baños ponds. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 147, fig. 26, 1931; 68 East Indian localities; Philippines, and 26 other Indo-Pacific localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 8, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Curimao, Ilokos Norte Province; Bauang Sur, La Union Province; Pasay, Rizal Province; Manila Bay; Lemery, Batangas Province, Luzon. Culion. Dumaguete; Jolo and Sitankai, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 155, fig. 120, 1936; Manila Bay, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga, Mindanao. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao. Herre, Fishes 1936-37 and 1940-41 Expeds.; Navotas and Malabon, Rizal Province, and Nasugbu, Batangas Province, Luzon. Hacienda Waterous, Mangarin, Mindoro. Coron, Busuanga. Estancia and Miagao, Iloilo Province, and Capiz, Capiz Province, Panay. Murcielagos Bay, Misamis Occidental Province, Mindanao.
- Therapon (Datnia) jarbua* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 377, 1873. Bleeker, Atlas Ichth., vol. 7, p. 112, 1873-76; 23 East Indian Islands.
- Therapon jarbua* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province. Smith and Seale, Proc. Biol. Soc. Wash., vol. 19, p. 78, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao; San Fabian, Pangasinan Province, Luzon. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 507, 1906; Manila, Luzon. Jordan and Seale, Bull., U. S. Bur. Fisheries, vol. 26, p. 23, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; San Fabian, Pangasinan Province, and Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Weber, *Siboga*-Exped., vol. 57, Fische, p. 254, figs. 64, 65, 1913; numerous East Indian localities. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 330, figs. 25 and 26, 1931; Port Matalvi, and Subic Bay, Zambales Province; Mariveles Bay, Bataan Province; Manila Bay; Cavite market, Cavite Province; Nasugbu, Bay and Batangas Bay, Batangas Province; Nato River, Albay Province; Basud River, Camarines Norte Province; Bulan, Sorsogon, and Matnog Bay, Sorsogon Province, Luzon; Tilic, Lubang Island; Mansalay, Sablayan Bay, and Paluan Bay, Mindoro. Ticao Island. Abuyog and Hinanungan Beach, Leyte. Pandanon Island, coast of Bohol. East side of channel,

Tagbilaran, Bohol. Southern Negros; Cebu market, Cebu. Iloilo market, Panay. Nakoda Bay and Verde del Sur Island, Palawan; Mahinog, Camiguin Island, north coast of Mindanao. Cotabato and Parang, Cotabato Province; Murcielagos Bay, and Inanucan Bay, Misamis Occidental Province; Gulf of Davao, Davao Province; Nonucan River, Lanao Province; Panabutan Bay and Zamboanga, Zamboanga Province, Mindanao. Jolo market, Jolo, and Simulac Island, Sulu Province, Cagayan, Philippines. Langao Point, southern Luzon.

1074. *Therapon puta* Cuvier and Valenciennes. Grunt; Babansi; Dakosan. Tropical Indian Ocean to the Philippines, Indo-China, East Indies; New Britain, and Australia. Marine and entering rivers.

Therapon puta Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 131, 1829; Pondicherry; Mahé. Griffith, in Cuvier, Animal Kingdom, vol. 10, pl. 15, fig. 1, 1834. Valenciennes, in Cuvier, Régne Animal, Poissons, Illus. ed., pl. 12, fig. 2, 1839. Day, Fishes India, p. 68, pl. 18, fig. 3, 1878. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 255, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 277, 1910; Sandakan, British North Borneo and the Philippines. Ogilby and McCulloch, Mem. Queensland Mus., vol. 5, p. 103, 1916; Manila, Philippines; also type of *Autisthes argenteus* de Vis. Fowler, Copeia, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Orani and Orion, Bataan Province, Luzon. Fowler, Jour. Bombay Nat. Hist. Soc., p. 113, 1928; Bombay, India; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 642, 1929; Bacon, Sorsogon Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 143, 1931; 13 East Indian localities; the Philippines and 12 Indo-Pacific localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Curimao, Ilokos Norte Province; Bauang Sur, La Union Province; Manila; Lemery, Batangas Province, Luzon; Capiz, Capiz Province, Panay. Umali, Edible Fishes Manila, p. 154, fig. 119, 1936; Manila Bay and environs, Luzon. Herre, Fishes 1940-41 Exped.; Gulf of Ragay, Luzon.

Therapon ghebul Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 133, 1829; Red Sea.

Therapon trivittatus Günther, Cat. Fishes British Mus., vol. 1, p. 280, 1859; India, Ceylon; Singapore; Moluccas; not *Coius trivittatus* Hamilton [né Buchanan]. Kner, Reise Novara Fische, p. 45, 1865; Java, Martens, Preuss. Exped. Ost-Asien, p. 386, 1876; Manila; Luzon.

Therapon (Datnia) puta Bleeker, Atlas Ichth., vol. 7, p. 112, 1873-76; Singapore; Bintang; Banka; Java; Celebes. Bleeker, *ibid.*, vol. 8, pl. 340, fig. 2, 1876-77.

Therapon (Datnia) trivittatus Bleeker, Atlas Ichth., vol. 8, pl. 340, fig. 2, 1876-77.

Autisthes argenteus de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 398, 1885; Queensland, Australia.

Therapon puta Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 266, 1906. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 24, 1907; Manila; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; San Fabian, Pangasinan Province; Bulan, Sorsogon Province, Luzon. McCulloch, Check List Fishes Australia, p. 160, 1929; Queensland; the Philippines. Fowler, Bull. 100, U. S. Nat. Mus., p. 328, 1931; Manila; Bacoor, Rizal Province; San Fabian, Pangasinan Province; Bulan, Sorsogon Province, Luzon. Tacloban market, Leyte. Iloilo, Iloilo Province, Panay.

1075. *Therapon theraps* Cuvier and Valenciennes. Grunt; Babansi; Dakosan. Tropical Indian Ocean, the East Indies, Philippines, Indo-China, China, Formosa, Yap, and Australia.

Therapon theraps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 129, pl. 53, 1829; Java; Mahé. Günther, Cat. Fishes British Mus., vol. 1, p. 274, 1859; India; East Indies; Singapore; Malacca; China; China Seas; False Bay; Philippines. Bleeker, Atlas Ichth. vol. 8, pl. 8, pl. 321, fig. 1, 1878-77. Day, Fishes India, p. 70, pl. 18, fig. 6, 1878. Günther, Rept. Voy. Challenger, Zool., vol. 1, Shore Fishes, p. 52, 1880; Philippines. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 255, fig. 64, 1-4, 1913; Kangeang I.; Bali Sea; Makassar and Buton Strait, Celebes;

Jedan Island, Aru Group; South Timor; Rotti. Fowler, Copela, No. 58, p. 63, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 145, fig. 26, 1-4, 1931; Philippines and 44 East Indian localities; also 16 Indo-Pacific localities. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Bauang Sur, La Union Province, Luzon. Herre, Fishes 1936-37 Exped.; Manila Bay, Luzon. Umali, Edible Fishes Manila, p. 156, fig. 121, 1936; Manila Bay, Luzon.

Therapon obscurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 135, 1829; Sea of the Indies. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1002, 1850; Pinang.

Therapon squalidus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 136, 1829; Indian Ocean; Sea of the Indies.

Therapon transversus Cuvier and Valenciennes, *ibid.*, p. 137; Malabar.

Therapon cinereus Cuvier and Valenciennes, *ibid.*, p. 138; Sea of the Indies. Günther, Cat. Fishes British Mus., vol. 1, p. 276, 1859; India.

Therapon rubricatus Richardson, Ann. Mag. Nat. Hist., vol. 9, p. 127, 1842; northwest coast of Australia.

Perca argentea Günther, Cat. Fishes British Mus., vol. 1, p. 277, 1859; India; name in text.

Therapon (Datnia) theraps Bleeker, Atlas Ichth., vol. 7, 113, 1873-76; Philippines, Singapore; Pinang; Sumatra; Java; Sumbawa; Celebes; Buru.

Therapon nigripinnis Macleay, Proc. Linn. Soc., New South Wales, vol. 5, p. 366, 1881; Rockingham Bay.

Therapon theraps Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 24, 1907; Iloilo, Iloilo Province, Panay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 337, 1931; Dagupan, and Dasol Bay, Pangasinan Province, Luzon; Port Uson, Busuanga Island; Busin Harbor, Burias Island. Zamboanga, Zamboanga Province, Mindanao.

Genus 370. DATNIA Cuvier.

Datnia Cuvier, Règne Animal, ed. 2, vol. 2, p. 147, 1829. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 138, 1829; type, *Cotus datnia* Hamilton [né Buchanan] = *Datnia argentea* Cuvier and Valenciennes.

1076. *Datnia plumbea* Kner. Ayuñgin.

Fresh waters of Luzon.

Datnia plumbea Kner, Reise Novara, Fische, p. 48, pl. 3, fig. 2, 1865; "Java" by error. Herre, Copela, p. 76, Sept. 30, 1930; Laguna de Bay; rivers of Luzon. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Laguna de Bay; Bauang Sur, La Union Province; San Fabian, Pangasinan Province; Unisan, Tayabas Province, Luzon.

Therapon brevispinis Peters, Monatsber. Akad. Wiss. Berlin, p. 256, 1868; Quingoa River, Bulacan Province, Luzon; not of Steindachner. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Laguna de Bay, Luzon.

Therapon brachycentrus Peters, Monatsber. Akad. Wiss. Berlin, p. 704, 1869; on Peters, 1868.

Therapon (Datnia) brachycentrus Bleeker, Atlas Ichth., vol. 7, p. 115, 1873-76; after Peters.

Therapon (Datnia) plumbeus Bleeker, Atlas Ichth., vol. 7, p. 115, 1873-76; on Kner.

?*Therapon bidyanus* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Laguna de Bay, Luzon; not *T. bidyana* Mitchell, a fish of Australian rivers.

Mesopristes plumbeus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 36, 1918; Philippines. Fowler, Copela, No. 58, p. 63, 1918; Philippines.

Therapon plumbeus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Bangui, Ilokos Norte Province; Santa Maria, Ilokos Sur Province; San Fernando, La Union Province; Orani, Bataan Province, Luzon.

Therapon plumbeus Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 357, 1931; head of Pasig River, Laguna de Bay, Rizal Province; Santa Cruz

River, Laguna Province; Manila market; Malabon, Rizal Province; near Dangalil, Bulacan Province (?); Luzon.

Genus 371. PELATES Cuvier.

India, China, Japan, Philippines, East Indies, and Australia.

Pelates Cuvier, Règne Animal, ed. 2, vol. 2, p. 148, 1829; type, *Pelates quadrilineatus* Cuvier and Valenciennes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 358, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 160, 1931.

1077. *Pelates quadrilineatus* (Bloch). Four-barred grunt; four-lined theraponid; Agaak; Babansi; Dakoson.
East Coast of Africa, to Japan, Philippines, and Australia. Marine, and in brackish and fresh water.
Holocentrus quadrilineatus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 82, pl. 238, fig. 2, 1790; the Orient. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 339 and 380, 1802; East Indies.
Pristipoma seolineatum Quoy and Gaimard, Voy. Uranie, Zool., Poiss., p. 32, 1824.
Pelates seolineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 149, 1829; "Hawaiian Islands," not Port Jackson specimen.
Therapon quadrilineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 134, 1829. Richardson, Ichth., China Japan, p. 239, 1846; China Sea. Kner, Reise, Novara, Fische, p. 46, 1865; Manila, Luzon; Java; Singapore; and Madras. Martens, Preuss. Exped. Ost-Asien, p. 386, 1876; Manila, Philippines. Day, Fishes India, p. 70, pl. 18, fig. 5, 1878. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 258, 1908; Aparri, Cagayan Province, Luzon; Lubang Island, off northwest corner of Mindoro; Cuyo Islands, Sulu Sea; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 277, 1910; Sandakan, British North Borneo and the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Bulan, Sorsogon Province, Luzon.
Pelates quadrilineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 146, pl. 55, 1829; Port Jackson, Australia. Griffith, in Cuvier Animal Kingdom, vol. 10, pl. 15, fig. 2, 1834. Valenciennes, in Cuvier, Règne Animal, Poissons, Illustr. ed., pl. 12, fig. 1, 1839. Guérin, Iconographie Règne Animal de G. Cuvier, Poissons, vol. 1, pl. 7, fig. 2, 1844. Herre, Philippine Bureau Science Collection; Bauang Sur and Alaminos, Pangasinan Province; Iba, Zambales Province; mouth of Pansipit River, Batangas Province; Luzon. Cebu, Cebu. Cagayan, Misamis Oriental Province, and Dapitan, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 642, 1929; Bulan, Sorsogon Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 358, fig. 29, 1931; off Corregidor Light, Manila Bay; Port Hamilo and Cavite market, Cavite Province; Santiago River, Batangas Province; river at Pasacao, Camarines Sur Province; San Fabian, Pangasinan Province, and Canmahala Bay, Luzon. Mansalay and Varadero Bay, Mindoro. Cataingan Bay, Masbate. Port Palapag, Samar, San Roque, Leyte. Cebu market, Cebu. Sirinao Island, Nakoda Bay and Ulugan Bay, Palawan. Below mouth of Rio Grande, Cotabato Province, and Surigao, Surigao Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 161, 1931; 25 East Indian localities; Philippines and 14 Indo-Pacific localities. Herre, 1931 Philippine Exped., p. 53, 1934; Curimao, Ilokos Norte Province; San Juan, La Union Province; Manila; Cavite, Cavite Province; and Lemery, Batangas, Province, Luzon. Alabat Island. Cebu, Cebu. Culion; Sitankai, Sulu Province. Umali, Edible Fishes Manila, p. 154, fig. 118, 1936; Manila Bay, Luzon. Herre, Fishes 1936-37 and 1940-41 Expeds.; Manila Bay and Gulf of Ragay, Luzon. Estancia and Iloilo, Iloilo Prov., Panay; Kolambugan, Lanao Province, Mindanao.
Therapon xanthurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 135, 1829; Java.
Pelates quinquelineatus Lesson, Voy. Coquille, Zool., vol. 2, p. 223, 1831; Port Jackson.
Helotes polytaenia Bleeker, Nat. Tijds. Ned-Ind., vol. 6, p. 53, 1854; Sindangole, Halmahera. Bleeker, Atlas Ichth., vol. 7, pl. 292, fig. 2, 1873-76.
Therapon cuvieri Bleeker, Nat. Tijds. Ned-Ind., vol. 6, p. 211, 1854; Koepang, Timor. Günther, Cat. Fishes British Mus., vol. 1, p. 282,

1859; New South Wales, Port Jackson, Sydney, and Port Essington, Australia. Bleeker, Atlas Ichth., vol. 7, pl. 315, fig. 2, 1873-76. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 13, 1885; Ternate.

Therapon (Pelates) quadrilineatus Bleeker, Atlas Ichth., vol. 7, p. 117, 1873-76; Sumatra; Singapore; Bintang; Banka, Billiton; Java; Celebes; Halmaheira; Ceram; Timor; Philippines.

Terapon quadrilineatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 24, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; San Fabian, Pangasinan Province, and Bulan, Sorsogon Province, Luzon. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 450, 1917; Ceylon; Philippines; Formosa; Queensland, Australia.

Genus 372. HELOTES Cuvier.

An Indo-Australian genus. Marine and in rivers.

Helotes Cuvier, Règne Animal, ed. 2, vol. 2, p. 148, 1829; type *Therapon sexlineatus* Quoy and Gaimard. Günther, Cat. Fishes British Mus., vol. 1, p. 384, 1859. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 164, 1931.

1078. *Helotes sexlineatus* (Quoy and Gaimard). Six-lined grunt.

The Philippines, East Indies, Indo-China, Formosa, and Australia; marine.

Terapon sexlineatus Quoy and Gaimard, Voy. Uranie, Zoologie, Poissons, p. 340, pl. 60, fig. 1, 1825; Shark Bay, Australia.

Helotes 6-lineatus Cuvier, Règne Animal, ed. 2, vol. 2, p. 144, 1829.

Helotes sexlineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, pl. 56, 1829; Australia and Shark Bay.

Pelates sexlineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 149, 1829; Sandwich Islands; not Port Jackson specimen.

Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Philippines.

Helotes sexlineatus Günther, Cat. Fishes British Mus., vol. 1, p. 285, 1859; Australian coasts. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Kner, Reise Novara, Fische, p. 46, pl. 3, fig. 1, 1865; Java; Manila, Philippines. Pellégrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonkin. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 258, 1908; Manila, Luzon. Fowler, Copeia, No. 58, p. 63, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 642, 1929; the Philippines; Melbourne, Australia. Fowler, Bull. 100, U. S. Nat. Mus., vol. 11, p. 365, 1931; Cavite market, Cavite Province, Luzon; Kowloon market, China. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 166, fig. 32 A, 1931; Singapore; Bintang, Riouw Archipelago; Billiton; Nias; Wahi, Ceram; Aru Islands; the Philippines; Tonkin; Formosa; Thursday Island, Australia. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; San Juan, La Union Province; Manila, Luzon.

Therapon (Helotes) sexlineatus Bleeker, Atlas Ichth., vol. 7, p. 118, 1873-76; Singapore; Bintang; Billiton; Java (?); Ceram; Philippines. Bleeker, *ibid.*, vol. 8, pl. 342, fig. 5, 1876-77.

Family 128. LETHRINIDÆ

Genus 373. LETHRINUS Cuvier. Porgy; Kutambak; Sapingan; Bakutut.

Tropical Indo-Pacific, with one species on the west coast of Africa. Marine.

Lethrinus Cuvier, Règne Animal, ed. 2, vol. p. 1829, type *Sparus choerorhynchus* Bloch and Schneider. Herre, Phil. Jour. Sci., vol. 33, p. 398, 1927. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 4, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 430, 1936.

1079. *Lethrinus amboinensis* Bleeker. Amboina porgy; Kutambak.

The East Indies, Philippines, and Pelew Islands.

Lethrinus amboinensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 490, 1854; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 455, 1859; Amboina. Kner, Reise Novara, Fische, p. 80, 1865; Nicobar Islands. Günther, Fische der Südsee, vol. 1, p. 63, 1873-75; Pelew Islands. Bleeker, Atlas Ichth., vol. 7, pl. 311, fig. 3, 1873-76. Bleeker, *ibid.*,

vol. 8, p. 116, 1876-77; Amboina; Flores; Ceram. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 24, 1907; Cavite, Cavite Province, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 277, 1910; Sandakan, British North Borneo; Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 32, p. 500, 1912; Okinawa, RiuKiu Islands. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 404, pl. 2, fig. 1, 1927; Orani, Bataan Province; Manila; Bacon, Sorsogon Province; Concepcion, Busuanga; Dipolog, Zamboanga Province, Mindanao. Schmidt, Trans. Pac. Comm. Acad. Science U. S. S. R., vol. 1, p. 49, 1930; Kominato, RiuKiu Islands. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 44, p. 65, 1931; New Pomerania. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 13, 1933; after Bleeker. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Manila and Atimonan, Tayabas Province, Luzon. Dumaguete. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

Lethrinus jagorii Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; Paracale, Camarines Norte Province, Luzon. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 332, 1874.

Lethrinus reticulatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 438, 1936; East Indies and Philippines; in part.

1080. *Lethrinus atkinsoni* Seale. Kutambak.

A Philippine species.

Lethrinus atkinsoni Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 515, pl. 11, 1907; Balabac Island. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 412, 1927; from the type. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 27, 1933; after Seale. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

1081. *Lethrinus cutambi* Seale. Kutambak.

A Philippine fish.

Lethrinus cutambi Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 514, pl. 10, 1909; Sitankai, Sulu Province. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 407, 1927; on the type. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Calapan, Mindoro; Culion; Cebu, Cebu; Dumaguete. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. Herre, 1948 Coll.; Situag Island, Sulu Province.

1082. *Lethrinus haematopterus* Schlegel.

Japan, the Philippines, and East Indies.

Lethrinus haematopterus Schlegel, Fauna Japonica, Poissons, p. 74, pl. 38, 1842. Richardson, *Voyage Sulphur*, Fishes, p. 144, pl. 64, figs. 1-3, 1844; China Seas; Japan; Canton; Hong Kong. Kner, Reise *Novara*, Fische, p. 80, 1865; Manila, Philippines. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 323, 1873; Luzon; Amboina; Kiusiu. Bleeker, Atlas Ichth., vol. 8, p. 112, pl. 331, fig. 4, 1876-77; Amboina; Manila, Philippines. Weber, *Siboga*-Exped., Fische, vol. 57, p. 288, 1913; Saleyer; Indo-Australian Archipelago; Philippines; Japan. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 416, pl. 3, fig. 3, 1927; Subic Bay, Zambales Province, Luzon. Calapan, Mindoro; Bantayan Island, Cebu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 43, 1933; Gubat, Sorsogon Province, Luzon. Alimango Bay, Burias Island. Zamboanga, Zamboanga Province, Mindanao. Doc Can Island, Sulu Province Malcochin Harbor, Linapacan Island. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Culion. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 440, 1936; Java; Borneo; North Celebes; Amboina; New Guinea; Philippines; in part. Herre, Fishes 1940-41 Philippine Exped.; Puerto Galera, Mindoro.

Lethrinus haematopterus Schlegel, Fauna Japonica, Pisces, p. 74, 1842; southwest coast of Japan.

†*Lethrinus richardsoni* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 86, 1906; Bacon, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Zamboanga Province, Mindanao.

†*Lethrinus richardsoni* Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 405, pl. 2, fig. 2, 1927; Iba, Zambales Province; Manila Bay;

Bacon, Sorsogon Province, Luzon. Calapan, Mindoro; Concepcion, Busuanga Island; Canigaran, Palawan; Estancia, Iloilo Province, Panay; Bantayan Island, Cebu Province; Dumaguete, Negros Oriental Province; Loay, Bohol; Carigara, Leyte; Surigao, Surigao Province; Cagayan, Misamis Occidental Province; Sapal Island, Davao Gulf, Davao Province; and Caldera Bay, Zamboanga Province, Mindanao; Balabac Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Dumaguete; Sitankai, Sulu Province.

1083. *Lethrinus hypselopterus* Bleeker. Kutambak.

The East Indies, Philippines, and Solomon Islands.

Lethrinus hypselopterus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 326, 1873; Sumatra; Singapore; Java; Obi Major; Solor; Waigiu. Bleeker, Atlas Ichth., vol. 8, p. 114, pl. 330, fig. 3, 1876-77; same localities. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 86, 1907; Philippine Islands. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 419, pl. 4, fig. 1, 1927; Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Bungau and Tambagaan Islands, Sulu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 282, 1927; Santa Maria, Ilokos Sur Province; Calapan, Mindoro. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 14, 1933; Palau Island, Cagayan Province; Port Matalvi, Zambales Province; Pagapas Bay, and Port Hamilo, Batangas Province; Alibijaban Island, Ragay Gulf and Capulaan Bay, Pagbilao Island, Tayabas Province; Quinalasag Island, Camarines Sur Province; Caracaran, Batan Island, Albay Province, Luzon. Tilic and Balikias Bay, Lubang Island. Puerto Galera, Varadero Bay, also Mansalay, Mindoro. Mompog Island, between Marinduque and Luzon. Alimango Bay and Busin Harbor, Burias, Cataingan Bay, Masbate. Port Banalacan and Santa Cruz Island, Marinduque. Romblon Harbor, Romblon. San Miguel Harbor and Island, Ticao Island. Catbalogan, Port Palapag, Biri Channel, and Quinapundan Bay, Samar. Malapascua Island, off Cebu. Quijulugan, east coast Negros. Iloilo market, Iloilo Province, Panay; Port Caltom and Port Uson, Busuanga Island. Bolalo Bay, Malamaya Sound, Endeavor Strait, Ulugan Bay, Guntao Island, and Observatory Island, Palawan. Caxisigan, Bugsuk and Candaraman Islands, Balabac. Surigao and Generale Island, Surigao Province; Polloc, Cotabato Province; Tataidago Point, Davao Province; Bulukbaluk and Little Santa Cruz Islands and Zamboanga market, Zamboanga Province, Mindanao. Cagayan Sulu, Simaluc, Sulade, Taganak, and Tara Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Taal, Batangas Province, Luzon. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 199, 1936; Tenibuli, Ysabel Island, Solomon Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 443, 1936; 15 East Indian localities; the Philippines; Solomon Islands.

1084. *Lethrinus insulindicus* Bleeker.

The East Indies, Philippines, and Formosa.

Lethrinus insulindicus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 334, 1873; Java; Celebes; Amboina; Timor; Philippines. Bleeker, Atlas Ichth. vol. 7, pl. 38, fig. 3, 1873-76. Bleeker, Atlas Ichth., vol. 8, p. 117, 1876-77. Jordan and Richardson, Mem. Carnegie Mus., vol. 1, p. 189, 1909; Takao, Formosa. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 424, pl. 5, fig. 1, 1927; Zamboanga, Mindanao.

1085. *Lethrinus kallopterus* Bleeker.

East Indies, Philippines, Hong Kong, and Samoa.

Lethrinus kallopterus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vissehen Menado, p. 47, 1856. Bleeker, Atlas Ichth., vol. 8, p. 113, pl. 351, fig. 3, 1876-77; Celebes; Batjan; New Guinea. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 408, pl. 2, fig. 3, 1927; Tablas Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 30, fig. 3, 1933; Quinapundan Bay, Samar. Murcielagos Bay, Misamis Occidental Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Dumaguete. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 432, fig. 85, 1936; 11 East Indian localities. Philippines; Hong Kong; Samoa.

1086. *Lethrinus leutjanus* Bleeker.

Aden to the Philippines, Formosa, and Samoa.

?*Bodianus leutjanus* Lacépède, Hist. Nat. Poissons, vol. 4, p. 281, 1802.

?*Lethrinus sordidus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 298, 1830; New Guinea.

?*Lethrinus leutjanus* Cuvier and Valenciennes, *ibid.*, p. 309, 1830.

Lethrinus leutjanus Bleeker, Nat. Tijds. Ned.-Ind., vol. 23, Sparioden, p. 14, 1850. Günther, Cat. Fishes British Mus., vol. 1, p. 461, 1859; west coast of Sumatra. Kner, Reise *Novara*, Fische, p. 82, 1865; Madras. Bleeker, Atlas Ichth., vol. 8, p. 120, pl. 354, fig. 5, 1876-77; Java; Amboina; Sumatra. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 350, 1902; Formosa. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 421, pl. 4, fig. 2, 1927; Banaran and Sitankai Islands, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 57, 1933; Dasol Bay, Pangasinan Province; Limbones Cove, Manila Bay, Cavite Province; Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Butaunan Island, Camarines Sur Province; San Miguel Island, Tabaco Bay and Maagnas, Lagonoy Gulf, Albay Province; Gubat Bay, Sorsogon Province; and Langao Point, Luzon. Tilic, Lubang Island. Verde and Maricaban Islands, Verde Island Passage. Puerto Galera, Mindoro. Port Busin, Burias Island. Calangaman Island and Malapascua Island, Cebu Province. Bugsuk and Candaraman Islands, Balabac. Endeavor Strait and Makesi Island, Palawan. Mahinog, Camiguin Island, north coast of Mindanao. Murcielagos Bay, Misamis Occidental Province, Little Santa Cruz Island, Zamboanga Province, and Malabang market. Lanao Province, Mindanao. Bulan, Siasi, Simaluc Sibi, Simonor, Doc Can, Taganak, Tapiantana, Tara, Tictauan and Sibutu Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Lemery, Batangas Province, Luzon; Jolo and Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 451, 1936; 17 East Indian localities; Sulu Islands; the Philippines; in part. Herre, Fishes 1940-41 Exped.; Gulf of Ragay, Luzon; Miagao, Iloilo Province, Panay. Puerto Galera, Mindoro.

Lethrinus cocosensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 40, 1854; Nova-Selma, Cocos-Keeling Islands. Bleeker, Atlas Ichth., vol. 8, p. 121, pl. 296, fig. 1, 1876-77; Cocos; Celebes; Halmahera; New Guinea.

Lethrinus nebulosus Day, Fauna British India, vol. 2, p. 39, 1889; not of Forskål.

1087. *Lethrinus mahsena* (Forskål). Striped-snout porgy; Kutambak.

Tropical Indo-Pacific, from Africa to the Tuamotus.

Sciaena mahsena Forskål, Descript. Animal., p. 52, 1775; Arabia.

Sparus mahsena Lacépède, Hist. Nat. Poissons, vol. 4, pp. 34, 111, 1802; Arabia.

Lethrinus mahsena Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 313, 1830. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 119, pl. 29, fig. 4, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 1, p. 463, 1859; Red Sea. Günther, Fische der Südsee, vol. 1, p. 65, pl. 48, 1873-75; Seychelles; Philippines; Pelew, Fiji, Hervey and Paumotu Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 19, 1885; Cebu, Cebu; also Kordo, Mysore Island, New Guinea. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 205, pl. 25, figs. 2 and 2a, 1891. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 270, 1906; Apia, Samoa. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 417, pl. 8, fig. 1, 1927; Subic Bay, Zambales Province; Tayabas Province; Bantayan Island, Cebu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; the Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 53, 1933; Dasol Bay, Pangasinan Province; Grande Island Reef, Subic Bay, Bataan Province; Manila market; Cavite market, Cavite Province; Nasagbu, Port Hamlio, and Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island, and off Daet, Camarines Norte Province; Lahuy Island, and Saboon Island, Ragay Gulf, Camarines Sur Province; Batan and Rapurapu Islands and Maagnas, Lagonoy Gulf,

Albay Province; Gubat Bay and Matnog Bay, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon. Tilic, Lubang Island. Varadero Bay, Puerto Galera Bay, and Mansalay, Mindoro. Alimango Bay and Busin Harbor, Burias Island. Masbate Reef, Port Banalacan, Marinduque. Romblon Harbor, Biri Channel, north of Samar. San Roque, Leyte. Cebu market, Cebu. Chase Head, Endeavor Strait, Bolalo Bay, Puerto Princesa, Rasa Island, Mantaquin Bay, and Malcochin Harbor, Linapacan Island, Palawan Province. Bugsuk Island, and Port Ciego, Balabac. Polloc, Cotabato Province, Baganga Bay, Davao Province, Generale Island, Surigao Province, Murcielagos Bay, Misamis Occidental Province, and Zamboanga, Zamboanga Province, Mindanao. Mahinog, Camiguin Island, off north coast of Mindanao. Jolo market and Balukbaluk, Jolo, Sulade, Tara, and Doc Can Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Culion; Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 444, 1936; Celebes; Buru; Tomahu; and Mysore Islands; Philippines. Herre, Exped. 1940-41; Murcielagos Bay, Misamis Occidental Province, Mindanao.

Lethrinus bungus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 279, 1830; Indian Ocean; Suez; Massaua.

Lethrinus abbreviatus Cuvier and Valenciennes, *ibid.*, p. 312, 1830; Red Sea. Peters, Archiv Naturges., p. 243, 1855; Mozambique.

1088. *Lethrinus microdon* Cuvier and Valenciennes.

Tropical Indian Ocean to the Philippines and East Indies.

Lethrinus microdon Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 295, 1830; Buru. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 198, pl. 25, figs. 1-a, 1891; on the type. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 61, 1933; after Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 436, fig. 87, 1936; Makassar, Celebes; Buru; Philippines; India; Red Sea; Zanzibar.

Lethrinus ramak Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 752, 1870; not of Forskäl.

Lethrinus rostratus Day, Fishes India, p. 134, 1878; Bombay; not of Cuvier and Valenciennes.

Lethrinus miniatus Day, Fishes British India, vol. 2, p. 37, 1889; not of Bloch and Schneider.

Lethrinus acutus Pfeffer, Jahrbuch Wiss. Anstalt, Hamburg, vol. 10, p. 138, 1893. Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 133, 1902; Sokotra.

Lethrinus genivittatus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 42, fig. 6, 1933; Pandanon Island, north coast of Bohol; also Delagoa Bay, Portuguese East Africa.

1089. *Lethrinus miniatus* (Forster). Long-snouted porgy; Kutampak; Kutambi.

Tropical Indo-Pacific from the African coast to the Tuamotus Islands, north of Japan; marine, and entering rivers.

Sparus miniatus (Forster) Bloch and Schneider, Syst. Ichth., p. 281, 1801; Pacific Ocean. Lichtenstein, Descript. Animal Forster, p. 289, 1844; New Caledonia.

Lethrinus miniatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 315, 1830. Bleeker, Atlas Ichth., vol. 8, p. 121, 1876-77; Java; Bali; Celebes; Batjan; Ceram; Banda; Amboina; Waigiu; New Guinea. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1385, 1906; Upolu, Samoa. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Zamboanga Province, Mindanao. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 402, pt. 1, fig. 3, 1927; Subic Bay, Zambales Province, and Manila, Luzon. Calapan, Mindoro. Polillo Island. Tabias Island. Bantayan Island, Cebu Province. Agutaya Island, Cuyo Islands. Dipolog and Zamboanga, Zamboanga Province, Mindanao. Tandubas Island, Sulu Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 8, fig. 1, 1933; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Port Hamilp, Batangas Province; Saboon Island, Ragay Gulf, Camarines Sur Province; Atulayan Bay, Lagonoy Gulf, Rapurapu Island, and Nato River, Albay Province; Matnog Bay, Sorsogon Province, and Canmahala Bay, Ragay Gulf, Luzon. Cataingan Bay, Masbate. River at Port Dupon, Leyte. Biri

Channel, Samar. Iloilo market, Iloilo Province, Panay. Pangauron River, Port Caltom, Busuanga. Makes Island and Malcochin Harbor, Linapacan Island, Palawan Province. Little Santa Cruz and Tunalutan Islands, and Zamboanga, Zamboanga Province, Mindanao. Siasi market, Tonquil Island, and Jolo market, Sulu Province; not synonymy. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 445, fig. 89, 1936; 21 East Indian localities; Philippines.

Lethrinus rostratus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 296, 1830; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 13, 1850. Günther, Cat. Fishes British Mus., vol. 1, p. 454, 1859; Moluccas; Amboyna; Ceram; Ceylon. Bleeker, Atlas Ichth., vol. 8, pl. 309, fig. 3, 1876-77. Saville-Kent, Great Barrier Reef, pp. 286 and 369, pl. 15, fig. 3, 1893; Wide Bay District.

Lethrinus olivaceus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 295, 1830; Anjer, Sunda Straits, Java. Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 198, pl. 23, figs. 3 a-b, 1891; Madagascar; Seychelles; types of *L. olivaceus* and *L. waigiensis*. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 61, 1933; after Sauvage.

Lethrinella miniata Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 270, 1906; Apia, Samoa.

1090. *Lethrinus nematacanthus* Bleeker.

Japan to Philippines, East Indies, Louisiade Archipelago, and Australia.

Lethrinus nematacanthus Bleeker, Nat. Tijds. Ned-Ind., vol. 6, p. 403, 1854; Nagasaki and Japan. Günther, Cat. Fishes British Mus., vol. 1, p. 456, 1859; Louisiade Archipelago. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 327, 1873; Amboina; Kiusiu; Japan. Bleeker, Atlas Ichth., vol. 8, p. 114, pl. 337, fig. 3, 1876-77; Amboyna. Meyer, An. Soc. España. Hist. Nat. Madrid, vol. 14, p. 18, 1885; Cebu, Cebu Province, Philippines; North Celebes. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 86, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 559, 1912; Wakonoura and Tokyo, Japan; Bulan, Sorsogon Province, Philippines; Moreton Bay, Australia. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 281, 1927; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 401, pl. 1, fig. 2, 1927; Subic Bay, Zambales Province, and Bulan, Sorsogon Province, Luzon. Dicuayan Island, Busuanga. Calapan, Mindoro. Estancia, Iloilo Province, Panay. Bantayan Island, Cebu Province. Siqujor Island. Cagayan, Misamis Oriental Province, and Dipolog, Zamboanga Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 11, 1933; Cataingan Bay, Masbate; Cebu market, Cebu. Calapan, Mindoro. Surigao and Generale Island, Surigao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Dumaguete; Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 433, fig. 86, 1936; Karimata Islands; Makassar and North Celebes; Amboina; Philippines.

1091. *Lethrinus nebulosus* (Forskål). Pearl-spotted porgy; Kirawan; Bagangan; Bitilla; Sampok.

Tropical Indo-Pacific from Africa to Fiji.

Sciaena nebulosa Forskål, Descript. Animal., p. 52, 1775; Arabia.

Lethrinus nebulosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 284, 1830; Massaua. Günther, Cat. Fishes British Mus., vol. 1, p. 460, 1859; Red Sea. Bleeker, Atlas Ichth., vol. 8, p. 119, 1876-77. Day, Fishes India, p. 136, pl. 33, fig. 4, 1878; Aden; Sind. Klunzinger, Fische Rothen Meeres, vol. 1, p. 40, pl. 6, fig. 1, 1884. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 33, fig. 4, 1933; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Port Matalvi, Zambales Province; Manila market; Port Hamilo and Santiago River, Pagapas Bay, Batangas Province; Cavite, and San Roque markets, Cavite Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Ragay Bay, Ragay Gulf, Camarines Sur Province; Butaanan Island and Atulayan Bay, Albay Province; Matnog Bay and Sorsogon market, Sorsogon Province; Cammahala Bay, Ragay Gulf, Luzon. Pratas Reef, China Sea. Tilic, Lubang Island. Mansalay and Varadero Bay; Cataingan Bay, Masbate. Romblon Harbor, Romblon. Catbalogan, Samar. San

Roque, and San Juanico Strait, Leyte. Guijulganan Beach, Tanon Strait, Negros Oriental Province; Malapascu Island, Observatory Island, and Sirinao Island, Nakoda Bay, Palawan. Port Ciego, Balabac. Cotabato, Cotabato Province; Malabang market, Lanao Province; Silino Island and the Zamboanga market, Zamboanga Province, Mindanao. Jolo market and Taganak and Tictauan Islands, Sulu Province; synonymy in part. Weber and de Beaufort, Fishes Indo-Austr. Arch., vol. 7, p. 453, fig. 4, 1936; 34 East Indian localities; the Philippines, and 16 other Indo-Pacific localities. Herre, Fishes 1940-41 Exped.; Zamboanga market and Sengali, Zamboanga Province, Mindanao.

Lethrinus Gothofredi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 286, 1830; Suez.

Lethrinus opercularis Cuvier and Valenciennes, *ibid.*, p. 289, 1830; Trinqueemale, Ceylon. Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 14, 1850. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 117, 1873; China. Bleeker, Atlas Ichth., vol. 8, p. 119, pl. 335, fig. 5, 1876-77; 18 East Indian Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 291, 1913. McCulloch, Mem. 5, Australian Mus., Check-List Fishes Australia, p. 226, 1929. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 420, pl. 9, fig. 3, 1927; Subic Bay, Zambales Province, and Manila Bay, Luzon, Calapan, Mindoro. Tacloban, Leyte. Zamboanga, Zamboanga Province, Mindanao. Jolo and Sitankai, Sulu Province. Herre, Jour. Pan. Pacific Research Inst., vol. 8, 1933; p. 4, Sandakan, British North Borneo; p. 9, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Calapan, Mindoro; Capiz, Capiz Province; Panay; Culion; Cebu, Cebu Province; Dumaguete; Sitankai, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 160, fig. 125, 1936; Aloneros and Ragay Gulf, Tayabas Province; Visayan Islands and Mindanao. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.

Lethrinus centurio Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 301, 1830; Seychelles. Peters, Monatsber. Akad. Wiss. Berlin, p. 435, 1855; Mozambique. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 203, pl. 20, fig. 1, pl. 24, fig. 3, 1891.

Lethrinus esculentus Cuvier and Valenciennes, Hist. Nat. Poissons, pl. 158, 1830.

Lethrinus karwa Day, Proc. Zool. Soc. London, p. 558, 1867; Madras. Day, Fishes India, p. 135, pl. 33, fig. 2, 1878; Madras. Thurston, Madras Government Mus. Bull. 3, p. 135, 1895.

Lethrinus scoparius Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 168, 1908; Natal, South Africa.

Lethrinus carinatus Weber, *Siboga*-Exped., vol. 57, Fische, p. 289, pl. 2, fig. 1, and text fig. 68, 1913; Seget, Galewo Straits, New Guinea; Tual, Lower Kei Island. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 52, 1933; Maculabo Island, Camarines Norte Province, Luzon. Bulan Island, Sulu Province.

1092. *Lethrinus ornatus* Cuvier and Valenciennes. Sapingan.

Lethrinus ornatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 231, 1830; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 198, 1858; Goram Archipelago. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 335, 1873. Bleeker, Atlas Ichth., p. 118, pl. 350, fig. 3, 1876-77; 13 East Indian islands. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 247, 1882. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; Bulan, Sorsogon Province, Luzon. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 422, pl. 9, fig. 1, 1927; Luna, La Union Province, and Manila Bay, Luzon. Calapan, Mindoro. Halsey Harbor, Culion. Bantayan Island, Cebu Province. Zamboanguita, Negros Oriental Province; Malangas, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Culion. Herre, Fishes 1936-37 Exped.; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 447, fig. 90, 1936; 22 East Indian localities; Philippines; synonymy in part.

Lethrinus xanthothenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 176, 1851; West Sumatra. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus.,

vol. 12, p. 49, 1933; Langoa Point, Luzon (Langoa Point, Sorsogon Province)?; Zamboanga, Zamboanga Province, Mindanao.

1093. *Lethrinus ramak* (Forskål). Yellow-banded porgy.

East coast of Africa to the Philippines, East Indies, Pelew Islands, and Samoa.

Sciaena ramak Forskål, *Descript. Animal.*, p. 52, 1775; Arabia.

Sparus ramak Lacépède, *Hist. Nat. Poissons*, vol. 4, p. 34, 1802.

Lethrinus flavescens Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 6, p. 299, 1830; Tongatabu.

Lethrinus ehrenbergi Cuvier and Valenciennes, *ibid.*, p. 312, 1830; Mas-saua, Red Sea.

Lethrinus ramak Rüppell, *Neue Wirbelt., Fische Rothen Meeres*, pp. 117 and 120, pl. 28, fig. 3, 1835; Djedda, Red Sea. Günther, *Cat. Fishes*, *British Mus.*, vol. 1, p. 459, 1859; Red Sea; Ceylon. Günther, *Fische der Südsee*, vol. 1, p. 64, pl. 46, fig. B, 1874; Samoa, Pelew and Gilbert (Kingsmill) Islands. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 19, 1885; Cebu, Cebu Province; also North Celebes and Ternate. Herre and Montalban, *Philippine Jour. Sci.*, vol. 33, p. 411, pl. 9, fig. 2, 1927; Tablas Island; Bennett Island, west of Masbate Island. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 47, 1933; Langoa Point, Luzon (Langoa Point, Sorsogon Province?). Herre, *Fishes 1931 Philippine Exped.*, p. 54, 1934; Cebu, Cebu Province; Jolo and Sitankai, Sulu Province. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 455, 1936; North Celebes, Kait Point, and Libani Bay, Celebes; Ternate; Philippines.

1094. *Lethrinus reticulatus* Cuvier and Valenciennes.

East coast of Africa to the Philippines, RiuKiu Islands, and east to the Tuamotu Islands.

Lethrinus reticulatus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 6, p. 298, 1830; New Guinea. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 6, p. 96, 1854; Banda Islands. Bleeker, *Atlas Ichth.*, vol. 8, p. 116, pl. 330, fig. 1, 1876-77; Celebes; Ternate; Batjan; Amboina; Banda; New Guinea. Weber, *Siboga-Exped.*, vol. 57, *Fische*, p. 287, 1913; Sanguisapo, Sulu Islands, Philippines; in part. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 79, p. 281, 1927; San Fernando, La Union Province; Orion, Bataan Province; Philippines. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 18, 1933; Mansalay, Mindoro; Endeavor Strait, Palawan; Caxisigan and Candaraman Islands, Balabac, Surigao, Surigao Province; Inamucan Bay, Misamis Occidental Province; and Zamboanga market, Zamboanga Province, Mindanao. Doc Can Island, Sulu Province. Orion, Bataan Province, Luzon. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 438, fig. 88, 1936; 16 East Indian localities; Sulu Islands, Philippines; synonymy in part. Herre, *Fishes 1936-37 and 1940-41 Expeds.*; Puerto Galera, Mindoro; Sitankai, Sulu Province.

Lethrinus moensi Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 9, p. 435, 1855; Obi Major; Batjan. Bleeker, *Atlas Ichth.*, vol. 8, p. 115, pl. 297, fig. 3, 1876-77; Batjan; Obi Major; Timor.

Lethrinus moensii Günther, *Cat. Fishes British Mus.*, vol. 1, p. 455, 1859; Copang; Louisiade Archipelago. Günther, *Fische der Südsee*, vol. 1, p. 64, pl. 46, fig. A, 1873-75; Tuamotu, Society, Friendly, Samoa, Hervey, Gilbert (Kingsmill), Pelew, Louisiades, and Molucca Islands. Evermann and Seale, *Proc. U. S. Nat. Mus.*, vol. 31, p. 509, 1906; Jolo, Sulu Province. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 86, 1907; Bacon, Sorsogon Province. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 259, 1908; Calayan, Babuyan Islands, north of Luzon. Fowler, *Copeia*, No. 58, p. 64, 1918; the Philippines.

Lethrinus moensi Bleeker, *Nat. Tijds. Dierk.*, vol. 4, p. 328, 1873; Batjan; Obi Major, Timor. Herre and Montalban, *Philippine Jour. Sci.*, vol. 33, p. 400, pl. 1, fig. 1, 1927; Legaspi, Albay Province, Luzon; Calapan and Bulalacao Bay, Mindoro; Tablas Island; Romblon, Romblon Island; Dumaguete, Negros Oriental Province; Balabac Island; Zamboanga, Zamboanga Province, Mindanao. Herre, *Fishes 1931 Philippine Exped.*, p. 54, 1934; Cebu, Cebu Province.

1095. *Lethrinus rhodopterus* Bleeker. Bakutut.

India to the Philippines, East Indies, Caroline Islands, Australia, Tongan and Samoan Islands.

- Lethrinus Harak* Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 15, 1850; not of Forskål.
- Lethrinus rhodopterus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 65, 1852; Singapore. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 233, 1863; Ternate. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 450, 1936; 26 East Indian localities; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Dumaguete, Negros Oriental Province; Kolambugan, Lanao Province, Mindanao.
- Lethrinus bonhamensis* Günther, Fische der Südsee, vol. 1, p. 65, 1873-75; Bonham or Jaluit Island. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 782, 1905; Bais, Negros Oriental Province.
- Lethrinus banhamensis* Günther, Fische der Südsee, vol. 1, pl. 47, 1873-75.
- Lethrinus papuensis* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 276, pl. 8, fig. 1, 1877; Hall Sound, New Guinea.
- Lethrinus harak* Bleeker, Atlas Ichth., vol. 8, p. 119, pl. 327, fig. 3, 1876-77; Sumatra; Singapore; Java; Bawean; Obi Major; Banda; Solor; Ceram; Waigi; not of Forskål. Day, Fishes India, p. 137, pl. 33, fig. 3, 1878; not of Forskål. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 86, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Jolo, Sulu Province; not of Forskål. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Zamboanga Province, Mindanao; not of Forskål. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 40, 1922; Zamboanga, Zamboanga Province, Mindanao; not of Forskål. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 413, pl. 3, fig. 2, 1927; Luna, La Union Province; Subic Bay, and Iba, Zambales Province; Manila Bay; Bacon, Sorsogon Province, Luzon. Puerto Galera, Calapan, and Pinamalayan, Mindoro, Dumaguete, Negros Oriental Province; Cebu and Bantayan Island, Cebu Province. Canigao Island, Leyte. Cagayan, Misamis Oriental Province, Zamboanga, Zamboanga Province; Davao and Samal Island, Davao Province, Mindanao. Canigaran, Palawan. Balabac Island. Tawi Tawi Island, Sulu Province; not of Forskål. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Calapan, Mindoro; Culion, Cebu, Cebu Dumaguete; not of Forskål. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 21, 1933; Sabtang Island, Batanes Province; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon; Palau Island, Cagayan Province; Bolinao Bay, Pangasinan Province; Port Matalvi and Subic Bay, Zambales Province; Mariveles Bay, Bataan Province; Port Hamilo and Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Cavite and San Roque markets, Cavite Province; Maculabo Island, Camarines Norte Province; river at Pasacao, Camarines Sur Province; Atulayan Bay, near Palag Bay, and between Paron and Jesus Points, Albay Gulf, Albay Province; Bacon, Gubat Bay, and Matnog Bay, Ragay Gulf, and Langoa Point, Luzon. Tilic and Balikias Bay, Lubang Island. Maricaban Island, Verde Island Passage. Paluan Bay, Calapan, Sablayan Bay, and Varadero Bay, Mindoro. Romblon Harbor, Romblon. Port Busin, Burias Island. San Miguel Harbor, Ticao Island. Santa Cruz Island, off Marinduque. Buang Bay, Talajit Island between Samar and Masbate. Cataingan Bay, and Lode Bay, Destacado Island, Masbate, Iloilo market, Iloilo Prov., Panay. Cuyo Harbor, Cuyo I., Cuyo Islands. Near Chase Head, Endeavour Strait, Dalaganem Islands, Mantaquin Bay, and Verde del Sur Island, Palawan. Caxisigan Island, Balabac. Cotabato, Cotabato Prov., Baganga Bay and Davao, Davao Prov., Generale Island and Surigao, Surigao Province, Inamkua Bay and Murcielagos Bay, Misamis Occidental Province, Malabang market, Lanao Province, Panabutan Bay, Little Santa Cruz Island, and Zamboanga market, Zamboanga Province, Mindanao. Mahinog, Camiguin Island, off north coast of Mindanao. Off Jolo light and Jolo market, Pangasinan, Siminor, Sulade, Teomabal, Usada, and Cagayan Sulu Islands, Sulu Province; not of Forskål.
- Lethrinus Bleekeri* Klunzinger, Fische Rothen Meeres, p. 41, 1884; Red Sea. Weber, Siboga-Exped., vol. 57, Fische, p. 287, 1913.

1096. *Lethrinus variegatus* Cuvier and Valenciennes.

Tropical Indian Ocean, East Indies, Philippines, and Tahiti.

Lethrinus variegatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 287, 1830. Massaua; Suez. Bleeker, Atlas Ichth., vol. 7, pl. 317,

1873-76. Bleeker, *ibid.*, vol. 8, p. 117, pl. 328, fig. 3, and pl. 330, fig. 2, 1876-77; Celebes; Flores; Timor; Halmahera; Ternate; Buru; Ceram; Amboina; Goram; Banda. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar, Poissons*, p. 201, pl. 21, figs. 2 a-b, pl. 25, fig. 4, 1891. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 86, 1907; San Fabian, Pangasinan Province, Luzon. Herre and Montalban, *Philippine Jour. Sci.*, vol. 33, p. 409, pl. 3, fig. 1, 1927; Calapan, Mindoro; Canigao, Leyte; Samal Island, Davao Gulf, Davao Province, Mindanao. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 39, fig. 5, 1933; Canmahala Bay, Ragay Gulf, Luzon. Cataingan Bay, Masbate, Puerto Galera, Mindoro. Pandanon Island, north coast of Bohol. Cagayan Sulu Island, Sulu Province. Herre, *Fishes 1931 Philippine Exped.*, p. 54, 1934; Balayan Bay, Batangas Province, Luzon. Herre, *Field Mus. Nat. Hist., Zool. Ser.*, vol. 21, p. 197, 1936; Papeete, Tahiti. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 435, 1936; 15 East Indian localities; Philippines. Herre, *Fishes 1940-41 Exped.*; Puerto Galera, Mindoro.

Lethrinus elongatus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 6, p. 289, 1830.

Lethrinus semicinctus Cuvier and Valenciennes, *ibid.*, p. 294, 1830; Buru. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar, Poissons*, p. 202, pl. 19, fig. 3, a-b, 1891.

Lethrinus latifrons Rüppell, *Neue Wirbelt.*, *Fische Rothen Meeres*, p. 118, pl. 28, fig. 1, 1835; Mohila, Red Sea. Playfair and Günther, *Fishes Zanzibar*, p. 44, 1866.

Lethrinus amboinensis Weber, *Siboga-Exped.*, vol. 57, *Fische*, p. 288, 1913; not of Bleeker.

Genus 374. MONOTAXIS Bennett. Big-eye; Malaking mata; Lagao; Gapas-gapas.

Only one species known.

Monotaxis Bennett, *Life of Raffles*, p. 688, 1830; type, *Monotaxis indica* Bennett. Herre, *Philippine Jour. Sci.*, vol. 33, p. 425, 1927. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 134, 1933. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 134, 1936.

Sphaerodon Rüppell, *Neue Wirbelt.*, *Fische Rothen Meeres*, p. 112, 1835; type, *Sciaena grandoculis* Forskål.

1097. Monotaxis grandoculis (Forskål). Big-eye; Malaking mata; Lagao; Gapas-gapas.

Occurs from the coast of Africa to Hawaii, the Society Islands, and Australia.

Sciaena grandoculis Forskål, *Descript. Animal.*, p. 53, 1775; Djedda, Red Sea.

Sparus grandoculis Bloch and Schneider, *Syst. Ichth.*, p. 276, 1801; on Forskål.

Chrysophrys grandoculis Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 6, p. 134, 1830.

Monotaxis indica Bennett, *Life of Raffles*, p. 688, 1830; Sumatra.

Sphaerodon grandoculis Rüppell, *Neue Wirbelt.*, *Fische*, p. 113, pl. 28, fig. 3, 1835; Djedda. Günther, *Fische der Südsee*, vol. 1, p. 67, 1873-75; Hawaiian, Society, Friendly, Samoan, Gilbert (Kingsmill), Hervey, and Pelew Islands.

Monotaxis grandoculis Bleeker, *Atlas Ichth.*, vol. 7, pl. 299, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 105, 1876-77; Sumatra; Batu; Celebes; Halmahera; Obi Major; Amboina. Jordan and Evermann, *Bull. U. S. Fish. Comm.*, vol. 23, Part 1, p. 243, fig. 101, 1905; Honolulu, Kailua, and Hoopuloa, Hawaii. Herre and Montalban, *Philippine Jour. Sci.*, vol. 33, p. 425, pl. 5, figs. 2-3, 1927; Olongapo, Zambales Province, Luzon. Ambil Island, Lubang Islands. Gaspar Island, Marinduque, Simara Island, Romblon Province Agutaya, one of the Cuyo Islands. Samal Island, Davao Gulf, Davao Province, Mindanao. Tango and Gungao Islands, Sulu Province. Borodin, *Bull. Vanderbilt Marine Mus.*, vol. 1, p. 52, 1930; Philippines. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 134, 1933; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon. Port Matalvi, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo and Pagapas Bay, Batangas Province; off Corregidor Light, China Sea; Alibijaban Island, Ragay Gulf, and Capulaan Bay, Pagbilao Chica Island, Tayabas Province; Palag Bay,

Sorsogon Province; and Canmahala Bay, Ragay Gulf, Luzon. Maricaban Island and Verde Island, Verde Island Passage. Puerto Galera and Sablayan, Mindoro. Tilic, Lubang Island, China Sea. Mompog Island, between Marinduque and Luzon. Port Banalacan, Marinduque; Alimango Bay, Burias; San Miguel Harbor, Ticao Island, Calangaman Island, between Leyte and Cebu. Pandanon Island, north of Bohol. Surigao, Surigao Province, Mindanao. Bugsuk, Candaraman, and Caxisigan Islands, Balabac. Endeavour Strait, Palawan. Jolo market. Siasi market, and Tumindao Island, Sulu Province. Herre, Proc. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 54, 1934; Taytay, Palawan; Jolo and Tawi Tawi, Sulu Province. Umali, Edible Fishes Manila, p. 161, fig. 126; 1936; Aloneros and Ragay Gulf, Tayabas Province, Luzon; Visayan Islands; Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 350, fig. 73, 1936; 15 East Indian localities; Philippines. Herre, Fishes 1940-41 Philippine Exped.; Coron, Busuanga Island.

Genus 375. PENTAPUS Cuvier and Valenciennes.

Tropical Indo-Pacific, RiuKiu Islands to Australia, and east to the Gilbert and Samoan Islands.

Pentapus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 258, 1830; type, *Sparus vittatus* Bloch. Günther, Cat. Fishes British Mus., vol. 1, p. 380, 1859. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 380, 1936.

Heterodon Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 523, 1845; nomen nudem; preoccupied.

Heterognathodon Bleeker, Jour. Indian Archipelago, vol. 2, No. 9, p. 636, 1848.

Pentapodus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 69, 1933; in part.

1098. *Pentapus caninus* (Cuvier and Valenciennes). Besugo.

Tropical Indian Ocean to the Philippines, East Indies, and Solomon Islands.

Scolopsides caninus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 354, 1830; Doreh, New Guinea.

Pentapus vittatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 260, 1830; Moluccas. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, ser. 2, vol. 12, p. 145, 1866; Madagascar. Seale, Occa. Papers Bishop Mus., vol. 4, p. 46, 1906; Shortland Island, Solomon Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 23, 1907; Philippines.

Heterodon zonatus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 523, 1845; nomen nudem.

Heterognathodon bifasciatus Bleeker, Jour. Indian Archipelago, vol. 2, p. 636, 1848; Sumbawa.

Heterognathodon wanthopleura Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 101, 1850; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 365, 1859; Amboyna.

Scolopsis caninus Günther, Cat. Fishes British Mus., vol. 1, p. 364, 1859; New Guinea.

Pentapus wanthopleura Kner, Reise Novara, Fische, p. 60, 1865; Madras. Steindachner, Sitzungber. Akad. Wiss. Wien, vol. 60, Part 1, p. 559, 1870; Singapore. Bleeker, Atlas Ichth., vol. 7, pl. 310, fig. 3, 1873-76.

Pentapus caninus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 43, 1873. Bleeker, Atlas Ichth., vol. 8, p. 103, 1876-77; 14 East Indian Islands. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 259, 1908; Cuyo, Cuyo Islands, Sulu Sea. Fowler, Copeia, No. 58, p. 64, 1918; the Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 38, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 283, 1927; Philippines. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Manila, Luzon; Culion; Cebu, Cebu; Sitankal, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 382, 1936; 24 East Indian localities; Philippines. Herre, Fishes 1940-41 Philippine Exped.; Estancia, Iloilo Province, Panay. Bungau and Sitankal, Sulu Province.

Heterognathodon bifasciatum Schmeltz, Cat. Mus. Godeffroy, no. 7, p. 40, 1879; Pelew Islands.

- Scolopsis elongatus* Weber, *Siboga* Exped., vol. 57, Fische, p. 281, fig. 67; 1913; Elat, Great Kei Island. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 122, 1913. Herre, Fishes 1931 Philippine Exped. p. 51, 1934; Dumaguete, Negros Oriental Province.
- Pentapus trivittatus* Fowler, Mem. Bishop Mus., vol. 10, p. 217, 1928; Shortland Island, Solomon Islands.
- Pentapodus xanthopleura* Fowler, Mem. Bishop Mus., vol. 11, p. 335, 1931; Solomon Islands.
- Pentapodus caninus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 80, 1933; Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; Langao (?) Point, Luzon. Sombbrero Island, Verde Island Passage; Alimango Bay and Busin Harbor, Burias Island. Port Banalacan and Santa Cruz Island, Marinduque. Cataingan Bay, Masbate. San Miguel Harbor, Ticao Island. Catbalogan, Quinapundan Bay, and Nabatas Point, Samar. Pandanon Island, north coast of Bohol. Malcochin Harbor, Linapacan Island, Palawan Province. Chase Head, Endeavor Strait, Ulugan Bay, Bololo Bay, Puerto Princesa, and Beach near Caiholo River mouth, Palawan. Candaraman Island, Balabac. Jolo and Siasi markets, Usada, Simulac, Tictuan, and Cagayan Sulu Islands, Sulu Province; not synonymy.
- 1099. *Pentapus hellmuthi* (Bleeker).**
The East Indies and Philippines.
Heterognathodon Hellmuthii Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 75, 1853; Lawajong, Solor.
Pentapus Hellmuthi Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Dentex, p. 57, 1873. Bleeker, Atlas Ichth., vol. 8, p. 102, pl. 345, fig. 1, 1876-77; Banka; Solor.
Pentapus hellmuthii Fowler, Mem. Bishop Mus., vol. 10, p. 218, 1928; after Bleeker.
Pentapodus hellmuthii Fowler, Mem. Bishop Mus., vol. 12, p. 335, 1931. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 73, 1933; after Bleeker.
Pentapus hellmuthi Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 388, 1936; Banka; Solor; Manokwari, New Guinea. Herre, Fishes 1936-37 Exped.; Jolo, Sulu Province.
- 1100. *Pentapus lineoscapularis* (Fowler).**
Pentapodus lineoscapularis Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 63, fig. 10, 1943; Iloilo, Iloilo Province, Panay.
- 1101. *Pentapus macrurus* (Bleeker).** Big-tailed besugo.
The East Indies, Philippines, and RiuKiu Islands.
Heterognathodon macrurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 101, 1850; Batavia, Java.
Pentapus macrurus Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Dentex, p. 60, 1873. Bleeker, Atlas Ichth., vol. 8, p. 103, pl. 340, fig. 4, 1876-77; Java. Weber, *Siboga*-Exped., vol. 57, Fische, p. 276, 1913; Rotti. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Manila, Luzon; Culion; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 387, 1936; Batavia, Java; Paternoster Islands; Rotti; Philippines. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro.
Pentapus formosulus Snyder, Proc. U. S. Nat. Mus., vol. 40, p. 531, 1911; Naha, Okinawa; after Fowler.
Pentapodus macrurus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 72, 1933; Alibijaban Island, Ragay Gulf, Tayabas Province, Luzon. Polloc, Cotabato Province, and Murcielagos Bay, Misamis Occidental Province, Mindanao. Cagayan Sulu Island, Sulu Province.
- 1102. *Pentapus microdon* (Bleeker).**
Heterognathodon microdon Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 464, 1853; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 366, 1859; Amboina; Louisiade Archipelago.
Pentapus microdon Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision Dentex, p. 56, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 298 fig. 1, 1873-76. Bleeker, Atlas Ichth., vol. 8, p. 101, 1876-77; Java; Amboina. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Port Hamilo, Batangas Province, Luzon.
Heterognathodon caninus Günther, Fische der Südsee, vol. 1, p. 32, 1873-75; Gilbert Islands; not of Cuvier and Valenciennes.

1103. *Pentapus nemurus* (Bleeker). Golden-banded besugo.
Heterognathodon nemurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 754, 1852; Makassar and Tanawanko, Celebes. Günther, Cat. Fishes British Mus., vol. 1, p. 365, 1859; Sea of Makassar.
- Pentapus nemurus* Bleeker, Verh. Akad. Amsterdam, vol. 13; Révision *Dentex*, p. 58, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 294, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 102, 1876-77; Celebes; Timor; Amboina; Aru Islands. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 244, 1907; Zamboanga, Zamboanga Province, Mindanao. Weber, *Siboga*-Exped., vol. 57, Fische, p. 276, 1913; Sanguisiapo Island and Sulu, Sulu Province, Philippines. Fowler, Copela, No. 53, p. 64, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 39, 1922; Zamboanga; Cebu, Cebu. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 283, 1927; Philippines. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Cullion; Dumaguete, Negros Oriental Province; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 386, 1936; Celebes; Amboina; Timor; Aru Islands; Waigiu; Sulu Islands, Sulu Province, and Philippines. Herre, Fishes 1936-37 Exped.; Jolo, Sulu Province.
- Pentapodus nemurus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 13, p. 74, 1933; Maculabo Island, Camarines Norte Province, Luzon. Busin Harbor, Buriyas Island. Porongpong Island, Palumbanes Group, west of Catanduanes Island. Cebu market, Cebu. Caxisigan anchorage, off Balabac. Dalanganem Island, Cuyo Islands, Sulu Sea. Lampanigan Island and Zamboanga, Zamboanga Province, Mindanao. Balukbaluk Island, Jolo market, Simaluc and Singaan Islands, Sulu Province.
1104. *Pentapus setosus* Cuvier and Valenciennes. Bakuttut.
 India to the Philippines, East Indies, Indo-China, and Australia.
- Pentapus setosus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 270, 1830; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 478, 1851; Biliton. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 175, 1851. Kner, Reise *Novara*, Fische, p. 60, 1865; Madras; Singapore. Bleeker, Atlas Ichth., vol. 8, p. 101, pl. 324, fig. 1, 1876-77; 9 East Indian Islands. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 84, 1907; Bulan, Sorsogon Province, Luzon. Jolo, Sulu Province. Herre, Fishes 1930-31 Philippine Exped.; Estancia and Miagao, Iloilo Province, Panay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 384, 1936; 12 East Indian localities; Philippines.
- Pentapus paradiseus* Günther, Cat. Fishes British Mus., vol. 1, p. 383, 1859; Sumatra; Australia; Moreton Island; Louisiade Archipelago.
- Dentex filifer* Castelnau, Researches Fishes Australia; Official Record Philadelphia Centennial Exhibition, p. 12, 1875; Queensland. Saville-Kent, Great Barrier Reef, p. 283, 1893; Queensland, Australia.
- Pentapodus setosus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 78, 1933; Cebu market, Cebu.

Family 129. NEMIPTERIDÆ

Genus 376. NEMIPTERUS Swainson. Besugo.

Tropical Indian and western Pacific Oceans

Nemipterus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 223, 1839; type, *Dentex famentosus* Cuvier. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 352, 1936.

Synagris Günther, Cat. Fishes British Mus., vol. 1, p. 373, 1859; type, *Dentex furcosus* Cuvier and Valenciennes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 84, 1933.

Dentex Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 40, 1873; not of Cuvier.

Anemura Fowler, Jour. Acad. Nat. Sci. Phila. ser. 2, vol. 12, p. 527, 1904; type, *Dentex notatus* Day.

Odontoglyphis Fowler, loc. cit.; type, *Dentex tolu* Cuvier and Valenciennes.

Euthyopteroma Fowler, loc. cit.; type, *Dentex blochii* Bleeker.

1105. *Nemipterus bathybius* Snyder.

Japan to the Philippines; marine.

Nemipterus bathybius Snyder, Proc. U. S. Nat. Mus., vol. 40, p. 532, and vol. 41, fig. 6, 1911; Kagoshima, Japan.

Euthyopteroma bathybius Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 566, fig. 6, 1912.

Euthyopteroma bathybius Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 240, 1925; Kagoshima Bay. Schmidt, Trans. Pacific Comm. Acad. Sci., U. S. S. R., vol. 2, p. 68, 1931; Kagoshima. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, 1933; Batangas market, Batangas Province, Luzon.

1106. *Nemipterus celebicus* (Bleeker)

Tropical Indian Ocean to China, the Philippines, East Indies, and Louisiade Archipelago; marine.

Dentex celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 245, 1854; Makassar, Celebes. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision *Dentex*, p. 19, 1873. Bleeker, Atlas Ichth., vol. 8, p. 88, pl. 332, fig. 2, 1876-77; Celebes.

Synagris celebicus Günther, Cat. Fishes British Mus., vol. 1, p. 377, 1859; Louisiade Archipelago. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 105, 1881; Swatow, China. Klunzinger, Fische Rothen Meeres, vol. 1, p. 36, 1884; Red Sea. Pfeffer, Jahrbuch Wiss. Anstalt Hamburg, vol. 10, p. 6, 1893. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 93, 1933; after Bleeker.

Nemipterus celebicus Herre, Fishes 1931 Philippine Exped., p. 55, 1934; La Paz, Iloilo Province, Panay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 362, 1936; Makassar, Celebes; Philippines.

1107. *Nemipterus filiformis* (Seale).

A Philippine fish.

Dentex filiformis Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 512, pl. 9, 1909; Surigao, Surigao Province, Mindanao. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 96, 1933; after Seale.

1108. *Nemipterus flaviventris* (Steindachner).

Zanzibar to China and the Philippines.

Heterognathodon flaviventris Steindachner, Verh. Zool.-Bot. Gesell. Wien, vol. 16, p. 778, pl. 13, fig. 6, 1866; Zanzibar. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 94, 1933; off San Fernando Point Light, La Union Province; off Corregidor Light, Manila Bay; Manila market, Luzon. Tacloban market, Leyte Province.

1109. *Nemipterus hexodon* (Quoy and Gaimard). Baga.

Tropical Indian and western Pacific Oceans.

Dentex hexodon Quoy and Gaimard, Voy. Uranie, Zoologie, p. 301, 1824; Timor. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 243, 1830; Timor. Bleeker, Atlas Ichth., vol. 8, p. 84, 1876-77.

Dentex taeniopterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 246, 1830. Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 4, 1850. Bleeker, Atlas Ichth., vol. 8, p. 83, pl. 334, fig. 5, 1876-77; Sumatra, Singapore, Java, Celebes, Batjan, Amboina, Timor.

Dentex ruber Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 247, 1830; Waigu. Lesson, Voy. Coquille, Poissons, p. 187, pl. 31, fig. 2, 1831; Waigu.

Synagris hexodon Günther, Cat. Fishes British Mus., vol. 1, p. 376, 1859. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 87, 1933.

Synagris taeniopterus Günther, Cat. Fishes British Mus., vol. 1, p. 374, 1859; Australia; Molucca Sea. Kner, Reise Novara, Fische, p. 269, 1865; Madras. Day, Fauna British India, Fishes, vol. 1, p. 29, 1889.

Dentex (Synagris) notatus Day, Proc. Zool. Soc. London, p. 684, 1870.

Dentex isacanthus Bleeker, Verh. Akad. Amsterdam, vol. 13, p. 13, 1873; Batavia, Java; Padang, Sumatra. Bleeker, Atlas Ichth., vol. 8, p. 85, pl. 345, fig. 4, 1876-77; Java, Sumatra. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 284, 1927; Orion, Bataan Province, Luzon.

Synagris isacanthus Boulenger, Proc. Zool. Soc. London, p. 238, 1889; Muscat, Arabia. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 89, 1933; off San Fernando Point Light, La Union Province; Orion, Bataan Province, Luzon. Biri Channel, north coast of Samar. Bais, Negros Oriental Province.

Synagris ruber Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 180, 1891; Masbate, Philippines; Waigu; Zanzibar. De

- Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 122, 1913; Makassar, Celebes. Fowler, Bull. 100 U. S. Nat. Mus., vol. 12, p. 91, 1933; after Lesson.
- Nemipterus isacanthus* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 781, 1905; Bais, Negros Oriental Province.
- Synagris furcosus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 97, 1933; San Fabian, Pangasinan Province; Manila market; Port Hamilo, Batangas Province, Luzon; not of Cuvier and Valenciennes.
- Nemipterus hexodon* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 360, 1936, 21 East Indian localities; the Philippines, and 8 other Indo-Pacific localities. Herre, Fishes 1940-41 Exped.; Balayan Bay, Batangas Province; Ragay Gulf, Tayabas Province, Luzon.
- Nemipterus taenipterus* Umali, Edible Fishes Manila, p. 159, fig. 124, 1936; Manila Bay, Luzon.
- 1110.** *Nemipterus japonicus* (Bloch). Besugo; Besugong bontotan. Japan, China, the Philippines, East Indies, and tropical Indian Ocean. *Sparus japonicus* Bloch, Naturges. Ausländ. Fische, vol. 5, p. 110, 1791. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 39, 127, 1802; Japan.
- Cantharus filamentosus* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 50, pl. 12, fig. 3, 1828; Red Sea.
- Dentex bipunctatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 247, 1830; Djedda, Red Sea.
- Dentex tambulus* Cuvier and Valenciennes, *ibid.*, p. 249, p. 258, 1830; on Bloch.
- Dentex Blochii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 176, 1851; Batavia, Java.
- Synagris japonicus* Günther, Cat. Fishes British Mus., vol. 1, p. 378, 1859; Sea of Batavia; after Bleeker. Day, Fishes India, p. 92, pl. 24, fig. 2, 1878. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 83, 1932; Manila Bay, Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 101, 1933; Santo Domingo de Basco, Batan Island, Batanes Province. Off San Fernando Point Light, La Union Province; San Fabian, Pangasinan Province; off Corregidor Light, Manila Bay; Orion, Bataan Province, Luzon. Escarceo Light, Mindoro.
- Synagris filamentosus* Günther, Cat. Fishes British Mus., vol. 1, p. 378, 1859. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 766, 1870; Koseir, Red Sea.
- Dentex (Heterognathodon) filamentosus* Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 57, p. 976, 1868; Mauritius.
- Dentex Blochi* Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision *Dentex*, p. 27, 1873.
- Dentex blochi* Bleeker, Atlas Ichth., vol. 8, p. 90, pl. 330, fig. 1, 1876-77; Sumatra, Java; Singapore.
- Nemipterus japonicus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 21, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 82, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 258, 1908; Manila, Luzon. Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Manila market, Luzon. Umali, Edible Fishes Manila, p. 158, fig. 123, 1936; Manila Bay, Luzon. Herre, Fishes 1940-41 Philippine Exped.; Mlagao, Iloilo Province, Panay.
- Euthyopteroma blochi* Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Manila, Luzon.
- 1111.** *Nemipterus marginatus* (Cuvier and Valenciennes). Java; Celebes; Vanikolo; Philippines.
- Dentex marginatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 245, 1830; Vanicolo; Java.
- Dentex nematopus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 219, 1851; Bulucomba, Celebes. Bleeker, Atlas Ichth., vol. 8, p. 91, pl. 346, fig. 4, 1876-77; Celebes.
- Synagris nematopus* Günther, Cat. Fishes British Mus., vol. 1, p. 377, 1859; Louisiade Archipelago. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 104, 1933; after Bleeker.

Nemipterus marginatus Whitley, Jour. Pan Pacific Research Inst., vol. 3, p. 12, 1928; Santa Cruz Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 372, 1936; Java; Makassar and Bulukomba, Celebes; Vanikolo, Santa Cruz Islands. Herre and Umali, Collection Motorship *Theodore N. Gill*; outside entrance to Manila Bay, November, 1947; at 35 fathoms.

1112. *Nemipterus metopias* (Bleeker).

Amboina and the Philippines; marine.

Dentex metopias Bleeker, Acta Soc. Sci.-Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 51, 1857. Bleeker, Atlas Ichth., vol. 7, pl. 320, fig. 5, 1873-76. Bleeker, *ibid.*, vol. 8, p. 87, 1876-77; Amboina.

Synagris metopias Günther, Cat. Fishes British Mus., vol. 1, p. 376, 1859; Sea of Amboina. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 89, 1933; Manila market, Luzon.

Nemipterus metopias Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 22, 1907; Cavite, Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 365, 1936; Amboina. Herre, Fishes 1940-41 Philippine Exped.; Dapitan Bay, Zamboanga Province, Mindanao.

1113. *Nemipterus nematophorus* (Bleeker).

East Indies and the Philippines; marine.

Dentex nematophorus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 500, 1853; Padang, Sumatra. Bleeker, *ibid.*, vol. 12, p. 213, 1856-57; Nias. Bleeker, Atlas Ichth., vol. 7, pl. 291, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 90, 1876-77; Sumatra. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 15, 1885; Manila Bay, Luzon; North Celebes.

Synagris nematophorus Günther, Cat. Fishes British Mus., vol. 1, p. 379, 1859; Sea of Padang, Sumatra. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 113, 1933; San Fernando Point Light, La Union Province, Luzon. Turtle Islands, Sulu Province, Philippines. Also Gulf of Boni, Celebes.

Nemipterus nematophorus Herre, Philippine Bureau Science Collection, 1927; Bungau, Sulu Province. Herre, Fishes 1933-34 Exped.; Menado, Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 366, 1936; Sumatra; Nias; Sandakan, British North Borneo; North Celebes; Philippines. Herre and Umali, Motorship *Theodore N. Gill*, Nov. 1947; Manila Bay.

1114. *Nemipterus nemurus* (Bleeker). Thread-finned besugo; Pukit.

The East Indies, Philippines, and Malay Peninsula.

Dentex nemurus Bleeker, Acta Soc. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 49, 1857; Amboina. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 242, 1863; Obi Island. Bleeker, Atlas Ichth., vol. 8, p. 87, pl. 335, fig. 4, 1876-77; Amboina. Fowler, Mem. Bishop Mus., vol. 10, p. 220, 1928; after Bleeker.

Synagris nemurus Günther, Cat. Fishes British Mus., vol. 1, p. 378, 1859; Amboina; after Bleeker.

Teterognathodon nemurus Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 15, 1885; Cebu, Cebu Province.

Nemipterus nemurus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 364, 1936; Singapore; Obi; Amboina; Waigiui; the Philippines; Malay Peninsula. Herre, 1948 Coll. Buto, Leyte.

1115. *Nemipterus oveni* (Bleeker).

The East Indies, Philippines, Formosa; marine.

Dentex Ovenii Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 246, 1854; Makassar, Celebes. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 27, 1860; Celebes. Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision *Dentex*, p. 14, 1873. Bleeker, Atlas Ichth., vol. 8, p. 86, pl. 328, fig. 5, 1876-77; Celebes.

Synagris ovenii Günther, Cat. Fishes British Mus., vol. 1, p. 375, 1859; after Bleeker. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 111, 1933; Balayan Bay, Batangas Province; Cavite, Cavite Province, Luzon. Abuyog and San Roque, Leyte; synonymy only in part.

Nemipterus ovenii Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 21, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 82, 1907; Bulan, Sorsogon Prov-

- ince, Luzon. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 185, 1909; Takao, Formosa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 359, 1936; Makassar, Celebes; Philippines; Formosa.
1116. *Nemipterus ovenioides* (Popta).
In fresh and salt water. Muna, East Indies, and the Philippines.
Nemipterus luteus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 21, fig. 7, 1907; Cavite, Cavite Province, Luzon; not of Bloch and Schneider.
Nemipterus ovenioides Popta, Zool. Med. Rijksmus. Leiden, vol. 6, p. 204, 1921; Muna, in fresh water. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 371, 1936. Muna; Philippines.
Dentex luteus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 283, 1927; Orion, Bataan Province, Luzon, Philippines; not of Bloch and Schneider.
Synagris luteus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 112, 1933; Orion, Bataan Province, Luzon, Philippines; not of Bloch and Schneider.
1117. *Nemipterus peroni* (Cuvier and Valenciennes).
East Indies, Philippines, Indo-China, Malaya, and Australia.
Dentex Peronii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 245, pl. 154, 1830. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 125, 1933; Moluccas; after Cuvier and Valenciennes.
Synagris peronii Günther, Cat. Fishes British Mus., vol. 1, p. 376, 1859; Molucca Sea; after Cuvier and Valenciennes.
Synagris furcosus Günther, Cat. Fishes British Mus., vol. 1, p. 373, 1859; Amboina; Louisiade Archipelago; Damlay (Darnley) Island, Australia; not of Cuvier and Valenciennes. Macleay, Descript. Cat. Australian Fishes, vol. 1, p. 83, 1887; not of Cuvier and Valenciennes.
Dentex hypselognathus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 41, 1873. Bleeker, *ibid.*, vol. 13, p. 9, 1873; Java; Celebes. Bleeker, Atlas Ichth., vol. 8, p. 84, pl. 325, fig. 1, 1876-77; Java; Celebes.
Nemipterus hypselognathus Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Jolo, Sulu Province.
Nemipterus peroni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 357, 1936; 10 East Indian localities; Philippines. Herre and Kaufman, Philippine Fishery Program, Oct. 1947; Manila Bay.
1118. *Nemipterus sumbawensis* (Bleeker).
Sumbawa and the Philippines; marine.
Dentex sumbawensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 439, 1859; Sumbawa. Bleeker, Verh. Akad. Amsterdam, vol. 13, Revision *Dentex*, p. 35, 1873. Bleeker, Atlas Ichth., vol. 8, p. 94, pl. 328, fig. 2, 1876-77; Sumbawa.
Synagris sumbawensis Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 106, 1933; copied from Bleeker.
Euthyopteroma sumbawensis Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Alabat Island, off Tayabas Province, Luzon.
Nemipterus sumbawensis Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 377, 1936; Sumbawa; Philippines.
1119. *Nemipterus tambuloides* (Bleeker).
The East Indies and Philippines; marine.
Dentex tambuloides Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 465, 1853; Batavia, Java. Bleeker, Atlas Ichth., vol. 8, p. 92, pl. 328, fig. 1, 1876-77; Java; Celebes.
Synagris tambuloides Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 105, 1933; after Bleeker.
Nemipterus tambuloides Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 374, 1936; Batavia, Java; Badjoa, Celebes. Herre, Philippine Jour. Sci., vol. 59, p. 367, 1936; southern coast of Luzon, Philippines.
1120. *Nemipterus tolu* (Cuvier and Valenciennes).
From Arabia to the East Indies, Philippines, Siam, China, Formosa, and New Caledonia; marine.

- Dentex tolu* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 249, 1830; Pondicherry, India; New Guinea. Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 13, 185. Bleeker, Verh. Akad. Amsterdam, vol. 13, Revision *Dentex*, p. 30, 1873. Bleeker, Atlas Ichth., vol. 7, pl. 315, fig. 1, 1873-76. Bleeker, *ibid.*, vol. 8, p. 88, 1876-77; Sumatra; Banka; Java; Sumbawa; New Guinea.
- Dentex mulloides* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 576, 1852; Siboga, Sumatra. Bleeker, Atlas Ichth., vol. 8, p. 89, pl. 326, fig. 5, 1876-77; Sumatra.
- Synagris mulloides* Günther, Cat. Fishes British Mus., vol. 1, p. 374, 1859; Sea of Siboga, Sumatra; after Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 15, 1885; North Celebes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 115, 1933; Manila Harbor; Cavite Province; Nato, Albay Province; Sorsogon, Sorsogon Province, Luzon. Hinanungan Bay, Leyte. Parang, Cotabato Province, and Surigao, Surigao Province, Mindanao.
- Synagris tolu* Klunziger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 767, 1870; Red Sea. Day, Fishes India, p. 91, pl. 23, fig. 6, 1878. Day, Fauna British India, vol. 1, p. 528, fig. 159, 1889. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 179, pl. 7, figs. 5-5a, 1891. Weber, *Siboga*-Exped., vol. 57, Fische, p. 283, 1913. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 114, 1933; Padang, Sumatra; Indian Archipelago.
- Nemipterus tolu* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 22, 1907; Cavite, Cavite Province, Luzon, Philippines. Herre, Philippine Bureau Science Coll., 1922-27; Cebu, Cebu; Cagayan Islands, Sulu Sea. Cagayan, Misamis Oriental Province, Mindanao. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 367, 1936; 14 East Indian localities; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds. Manila Bay, Luzon. Dapitan Bay, Zamboanga Province, Mindanao.
- Nemipterus mulloides* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 36, 1922; Takao, Formosa.

1121. *Nemipterus virgatus* (Houttuyn).

- Japan to the Philippines and China; marine.
- Sparus virgatus* Houttuyn, Verh. Holland. Maatsch. Wetenschappen Haarlem, vol. 20, p. 323, 1782; Japan.
- Sparus sinensis* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 46 and 141, 1802; China.
- Dentex scitigerus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 253, 1830; Japan. Schlegel, Fauna Japonica, Pisces, p. 73, pl. 37, fig. 1, 1842; Nagasaki. Richardson, Ichth. China Japan, p. 242, 1846; Canton, China; Japan.
- Synagris sinensis* Günther, Cat. Fishes British Mus., vol. 1, p. 379, 1859; China.
- Dentex sinensis* Bleeker, Verh. Akad. Amsterdam, vol. 13, Revis. *Dentex*, p. 25, 1873; Nagasaki.
- Nemipeterus sinensis* Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 77, 1901; Yokohama; Nagasaki.
- Nemipterus virgatus* Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 346, 1902; Keerun; Formosa.
- Euthyopteroma virgatum* Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 564, fig. 5, 1912; Tokyo; Nagasaki; Keerun. Tanaka, Fishes Japan, vol. 12, p. 200, pl. 53, fig. 205, pl. 54, figs. 206-207, pl. 55, fig. 208, 1913; Tokyo. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 240, 1925; Osaka; Kobe; Mikawa Bay; Fukui; Wakanoura; Miyazu. Fisheries Soc. Japan, Illustrations Japanese Aquatic Plants Animals, vol. 1, pl. 35, fig. 3, 1931. Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Curimao, Ilokos Norte Province; Manila market, Luzon. Cebu. Also specimens in Manila market from Hong Kong.
- Dentex virgatus* Fowler, Proc. Acad. Nat. Sci. Phila., p. 609, 1930; Hong Kong.
- Synagris virgatus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, 1933; Port Binanga, Bataan Province, Luzon. Also China Sea, Hong Kong, and 7 Japanese localities.

1122. *Nemipterus worcesteri* Evermann and Seale.
A Philippine fish.

Nemipterus worcesteri Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, fig. 14, 1907; Bacon, Sorsogon Province, Luzon. Herre and Ablan, 1949 Coll.; 2 specimens from market at Alaminos, Pangasinan Province, Luzon. These are first collected since 1903, when the type and only specimen was obtained.

Synagris worcesteri Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 88, 1933; from the type.

Genus 377. GYMNOCRANIUS Klunzinger.

Western Pacific and tropical Indian Oceans.

Gymnocranius Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 764, 1870; type, *Dentex rivulatus* Rüppell. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 129, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 390, 1936.

1123. *Gymnocranius griseus* (Schlegel). Kulambal; Kutambal. Japan, China, the Philippines, and East Indies to Australia, Ceylon, and East Africa.

Dentex griseus Schlegel, Fauna Japonica, Pisces, p. 72, pl. 36, 1842; southwest coasts of Japan. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 80, 1854; Sumatra. Günther, Cat. Fishes British Mus., vol. 1, p. 372, 1859; Japan. Franz, Abh. Bayer. Akad. Wiss., vol. 4, Suppl. vol. 1, p. 47, pl. 5, fig. 24, 1910.

Dentex xanthopterus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 522, 1845; Batavia, Java.

Dentex lethrinoides Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 11, 1850. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 102, 1850; Batavia, Java.

Lobotes microprion Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 174, 1851.

Dentex microdon Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 219, 1851; Celebes.

Synagris griseus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 138, 1873; China.

Gymnocranius griseus Bleeker, Verh. Akad. Amsterdam, vol. 13, Révision *Dentex*, p. 43, 1873; Java; Japan. Bleeker, Atlas Ichth., vol. 8, p. 96, pl. 352, fig. 4, 1876-77; Java; Japan. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 568, fig. 7, 1912; Wakanoura; Nagasaki; Misaki. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 130, 1933; Port San Pio Quinto, Camiguin Island, Babuyan Islands, Bulan, Sorsogon Province, Luzon. Hinanungan Bay, Leyte. Zamboanga market, Zamboanga Province, Mindanao. Siasi and Tara Islands, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 391, fig. 76, 1936; Sumatra; Java; Bali; Flores; Celebes; Aru Islands. Sulu Islands, Sulu Province, and Philippines.

Gymnocranius lethrinoides Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 42, 1873. Bleeker, Atlas Ichth., vol. 8, p. 196, pl. 332, fig. 1, pl. 334, fig. 3, 1876-77; Java; Sumatra. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 81, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 243, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 36, 1922; Zamboanga, Zamboanga Province, Mindanao. Herre, Fish. 1931 Philippine Exped., p. 55, 1934; Cebu, Cebu Province.

Gymnocranius microdon Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 48, 1873. Bleeker, Atlas Ichth., vol. 8, p. 88, 1876-77; Celebes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 132, 1933; after Bleeker.

Gymnocranius frenatus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 43, 1873. Bleeker, Verh. Akad. Amsterdam, vol. 13, p. 46, 1873; Makassar, Celebes. Bleeker, Atlas Ichth., vol. 8, p. 97, pl. 333, fig. 3, 1876-77; Celebes. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 133, 1933; after Bleeker.

Paradentex microdon Bleeker, Atlas Ichth., vol. 7, pl. 308, fig. 3, 1873-76.

Family 130. SPARIDÆ. Pargos

Genus 378. SPARUS Linnaeus.

Coasts of the Indo-Pacific and Atlantic Oceans.

Sparus Linnaeus, Syst. Nat., ed. 10, p. 277, 1758; type, *Sparus aurata* L. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 145, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 465, 1936.

- 1124. *Sparus berda* Forskål.** Porgy; Bakoko; Bakokong moro; Gaud-gaud. Tropical Indo-Pacific including the East Indies, Philippines, China, Formosa, Japan, New Britain, Solomon Islands, and Australia. Marine and entering rivers.
- Sparus berda* Forskål, Descript. Animal., p. 32, 1775; Arabia. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 350, 1902; Formosa. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 430, pl. 6, fig. 2, 1927; Paraoir, La Union Province; Subic Bay, Zambales Province; Manila, Pasay, and Manila Bay, Luzon; Malum River, Tawi Tawi, Sulu Province; also Sandakan, British North Borneo. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 157, fig. 8, 1933; Manila market and Ragay Island, Ragay Gulf, Luzon. Cabugao Bay, Catanduanes Island. Iloilo market, Iloilo Province, Panay. Palawan Bay, Mindoro. Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 54, 1934; Culion. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 470, fig. 93, 1936; 17 East Indian localities; Philippines. Umali, Edible Fishes Manila, p. 163, fig. 128, 1936; Manila Bay, and its environs, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon. Umali, Philippine Jour. Sci., vol. 65, p. 182, 1938; Ragay Gulf, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.
- Sparus hasta* Bloch and Schneider, Syst. Ichth., p. 275, 1801; Coromandel. Bleeker, Atlas Ichth., vol. 8, p. 108, pl. 345, fig. 3, 1876-77; Sumatra; Pinang; Singapore; Bintang; Java; Madura; Bali; Celebes; Philippines.
- Chrysophrys berda* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 113, 1830; Pondicherry, India. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 120, pl. 27, fig. 4, 1835; Red Sea. Day, Fishes India, p. 140, pl. 34, fig. 2, 1878; Sind; Madras Presidency; Malabar.
- Chrysophrys calamara* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 117, 1830; Java; Malabar. Bleeker, Verh. Bat. Gen., vol. 23, Sparoiden, p. 10, 1850. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1029, 1850; Sea of Pinang. Pellegrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonkin.
- Sparus calamara* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 138, 1872; China. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 86, 1907; Bulan, Sorsogon Province, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 277, 1910; Sandakan, British North Borneo; Philippines.
- 1125. *Sparus datnia* (Hamilton [né Buchanan]).** Bakoko. Indian Ocean to the Philippines.
- Coius datnia* Hamilton-[né Buchanan], Fishes Ganges, pp. 88 and 369, pl. 9, fig. 29, 1822; mouths of the Ganges.
- Chrysophrys hasta* Günther, Cat. Fishes British Mus., vol. 1, p. 490, 1859; not *Sparus hasta* Bloch and Schneider. Kner, Reise Novara, Fische, p. 88, 1865; Manila, Philippines.
- Sparus datnia* Bleeker, Verh. Akad. Amsterdam, ser. 2, vol. 11, p. 5, pl. 2, 1876; Nagasaki; Calcutta. Bleeker, Atlas Ichth., vol. 8, p. 109, pl. 361, fig. 4, 1876-77; Java (?); Manila, Philippines. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 67, 1914; Hong Kong. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 431, pl. 6, fig. 1, 1927; Paraoir, La Union Province, Luzon; Amoy and Hong Kong, China.
- Chrysophrys datnia* Day, Fishes India, p. 140, pl. 134, fig. 1, 1878; Hooghly River at Calcutta. Day, Fauna British India, Fishes, vol. 2, p. 44, fig. 17, 1889. Lloyd, Records Indian Mus., vol. 1, p. 226, 1907; Akyab. Tirant, Service Océanogr. Pêches Indo-Chine, note 6°, p. 168, 1929; Indo-Chine.
- Sparus (Chrysophrys) datnia* Steindachner, Ann. Naturh. Hofmus. Wien, vol. 11, p. 201, 1896; China; India; Manila; in part.
- Chrysophrys datnia* Pellégrin, Ann. Mus. Zool. Univ. Napoli, new ser., vol. 3, p. 6, 1912; Massaua; typographical error.
- Genus 379. ARGYROPS Swainson.**
- East coast of Africa to the Philippines, Formosa, East Indies, and Australia. A single species, marine.
- Argyrops* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 221, 1839; type, *Sparus spinifer* Forskål. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 143, 1933.

Paragyrops Tanaka, Zool. Mag. Tokyo, vol. 28, p. 141, 1916; type, *Paragyrops edita* Tanaka.

1126. *Argyrops spinifer* (Forskål). Red bakoko; Majuana.

Sparus spinifer Forskål, Descript. Animal, p. 32, 1775; Djedda, Arabia. Bleeker, Atlas Ichth., vol. 7, pl. 313, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 8, p. 109, 1876-77; Celebes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 466, 1936; Sumatra; Bulukomba and Makassar, Celebes; the Philippines and 9 other Indo-Pacific localities.

Pagrus spinifer Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 156, 1830; Red Sea; Pondicherry. Günther, Cat. Fishes British Mus., vol. 1, p. 472, 1859; China. Day, Fishes India, p. 138, pl. 33, fig. 5, 1878. Day, Fauna British India, Fishes, vol. 2, p. 42, fig. 16, 1889. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 428, pl. 8, fig. 2, 1927; Manila Bay, Luzon.

Pagrus longifilis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 6, p. 159, 1830; Trincomalee, Ceylon.

Argyrops longifilis Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 189, 1909; Takao, Formosa.

Argyrops spinifer McCulloch, Mem. Queensland Mus., vol. 7, Part 4, p. 242, 1922. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 81, p. 609, 1930; Hong Kong. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 143, 1933; Formosa; Bombay, India; Delagoa Bay, Portuguese East Africa. Umali, Edible Fishes Manila, p. 162, fig. 127, 1936; Manila Bay; Aloneros, Tayabas Province, Luzon.

Genus 380. **TAIUS** Jordan and Thompson. Golden tai.

One species, from southern Japan to China, Formosa, and the Philippines.

Taius Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 570, 1912; type *Chrysophrys tumifrons* Schlegel.

1127. *Taius tumifrons* (Schlegel).

Chrysophrys tumifrons Schlegel, Fauna Japonica Pisces, p. 70, pl. 34, 1842; Nagasaki.

Dentex hypselosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 402, 1854; Nagasaki. Bleeker, Verh. Bat. Gen. vol. 26, p. 89, pl. 4, fig. 2, 1857; Nagasaki.

Pagrus tumifrons Günther, Cat. Fishes British Mus., vol. 1, p. 470, 1859; after Schlegel. Kishinouye, Jour. Fisheries Bureau, Tokyo, vol. 10, p. 38, pl. 3, 5 (figs. 5-8), 7 (fig. 2), 1901; Hondo; Shikoku; Kiushiu; Formosa.

Synagris hypselosoma Bleeker, Atlas Ichth., vol. 7, pl. 314, fig. 2, 1873-76. Bleeker, *ibid.*, vol. 8, p. 98, 1876-77; Japan.

Dentex hypselosomus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 345, fig. 17, 1903; Formosa. Jordan and Richardson, Mem. Carnegie Mus., vol. 4, Fishes Formosa, p. 185, fig. 15, 1909; Takao, Formosa.

Taius tumifrons Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 41, p. 571, fig. 8, 1912; Takao, Formosa. Tanaka, Fishes Japan, vol. 21, p. 374, pl. 102, fig. 314, 1915; south Japan; Formosa; China. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 241, 1925; Tokyo; Kobe; Kagoshima; Misaki; Toyama; Miyazu. Oshima, Japanese Jour. Zool., Translated Abstracts, vol. 1, figs. 2-3, 1927; Keelung, Tong King Bay. Herre, Philippine Bureau Science Collection, 1922-27; Curimao, Ilokos Norte Province; Narvakan, Ilokos Sur Prov.; Bauang Sur and Luna, La Union Province, Luzon. Fisheries Soc. Japan, Illustrations Japanese Aquatic Plants Animals, vol. 1, pl. 36, fig. 4, 1931.

Dentex tumifrons Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 123, 1933; San Fernando, La Union Province, Luzon.

Genus 381. **SYMPHORUS** Günther.

Marine fishes of the western Pacific Ocean.

Symphorus Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 9, p. 439, 1872; *Symphorus taeniolatus* Günther. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 65, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 394, 1936.

1128. *Symphorus spilurus* Günther.

East Indies, Philippines, China, Pelew and Admiralty Islands.

Symphorus spilurus Günther, *Fische der Südsee*, vol. 1, p. 61, pl. 67, 1873-75; Pelew Islands. Herre, *Philippine Bureau Science Collection*, 1922-27; Cebu, Cebu; Jolo and Tonguil Islands, Sulu Province. Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 81, p. 610, 1930; Hong Kong. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 65, fig. 7, 1933; Cebu market, Cebu; Endeavor Strait and Verde del Sur Island, Palawan Province. Herre, *Fishes 1933-34 Exped.*; Menado, Celebes; also island south of Mindanao; length, 538 mm. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 395, fig. 77, 1936; Talisse, and Danawan Islands; Philippines.

Family 131. KYPHOSIDÆ

Two genera in the Philippine area. A third genus, *Girella*, no doubt occurs around the islands north of Luzon. Herbivorous marine fishes in all tropical and subtropical seas.

Genus 382. KYPHOSUS Lacépède.

Kyphosus Lacépède, *Hist. Nat. Poissons*, vol. 3, p. 114, 1802; type, *Kyphosus bigibbus* Lacépède. Herre and Montalban, *Philippine Jour. Sci.*, vol. 33, p. 435, 1927. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 203, 1933. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 222, 1936.

Pimelepterus Lacépède, *Hist. Nat. Poissons*, vol. 4, p. 429, 1802; type, *Pimelepterus bosquii* Lacépède.

1129. *Kyphosus cinerascens* (Forskål). Rudderfish; Hak; Lupak.

Red Sea and Madagascar to the Philippines, Japan, East Indies, Australia, Hawaii, and Easter Island.

Sciaena cinerascens Forskål, *Descript. Animal.*, p. 53, 1775; Arabia.

Pimelepterus indicus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7, p. 270, 1831.

Pimelepterus altipinnis Cuvier and Valenciennes, *ibid.*; New Guinea; Bourbon.

Pimelepterus dussumieri Cuvier and Valenciennes, *ibid.*, p. 273; Gulf of Bengal.

Pimelepterus Raynaldi Cuvier and Valenciennes, *ibid.*, p. 274; Straits of Sunda.

Pimelepterus tahmel Rüppell, *Neue Wirbelt.*, *Fische Rothen Meeres*, p. 35, pl. 10, fig. 4, 1835; Djedda. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 499, 1859; Red Sea; Philippines; Amboyna.

Pachymetopon squamosum Alleyne and Macleay, *Proc. Linn. Soc. New South Wales*, vol. 1, p. 275, pl. 9, fig. 1, 1877; Hall Sound, New Guinea.

Pimelepterus cinerascens Bleeker, *Verh. Akad. Amsterdam*, vol. 18, *Révision Chétodontoides*, p. 12, 1877. Bleeker, *Atlas Ichth.*, vol. 9, p. 15, pl. 364, fig. 4, 1877; Sumatra; Banka; Cocos; Java; Bali; Solor; Flores; Celebes; Timor; Obi Major; Amboyna; Saparua; Papua; the Philippines. Day, *Fishes India*, p. 143, pl. 35, fig. 3, 1878.

Kyphosus cinerascens Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 47, 1906; Shortland Island, Solomon Islands; Faté, New Hebrides. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 260, 1908; Calayan Island, Babuyan Islands, Philippines. Jordan and Thompson, *Mem. Carnegie Mus.*, vol. 6, p. 257, 1914; Misaki, Japan; Calayan; Philippines. Herre and Montalban, *Philippine Jour. Sci.*, vol. 33, p. 436, pl. 7, fig. 3, 1927; Iba and Subic Bay, Zambales Province; Tanon and Tailon Islands, Camarines Norte Province, Luzon. Dumaguete, Negros Oriental Province. Tubigan and Bungau Islands, Sulu Province. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 211, 1933; near Palag Bay, Albay Province, Luzon. Malcochin Harbor, Linapacan Island. Port Ciego and Bugsuk Island, Balabac. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 224, 1936; 20 East Indian localities; Philippines; and 16 Indo-Pacific localities.

Opisthistius squamosus Whitley, *Australian Zoologist*, vol. 6, p. 320, 1931.

1130. *Kyphosus lembus* (Cuvier and Valenciennes). Lembus rudderfish; Damagan; Ilak.

Madagascar and Zanzibar to Japan, Hawaii, and the Solomon Islands. *Pimelepterus lembus* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7,

p. 201, 1831; Vanikolo. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 469, 1853; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 1, p. 498, 1859; Moluccas. Bleeker, Atlas Ichth., vol. 9, p. 15, pl. 364, fig. 1, 1877; Batu; Pinang; Singapore; Java; Celebes; Ternate; Batjan; Amboina.

Pimelepterus ternatensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 604, 1853; Ternate. Günther, Cat. Fishes British Mus., vol. 1, p. 499, 1859; Sea of Ternate.

Kyphosus lembus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 530, 1904; Padang, Sumatra. Herre and Montalban, Philippine Jour. Sci., vol. 33, p. 437, pl. 7, fig. 2, 1927; Iba, Zambales Province, Luzon. Calapan, Mindoro. Tablas Island. Iloilo, Iloilo Province, Panay. Dumaguete, Negros Oriental Province. Zamboanga, Zamboanga Province, Mindanao. Siasi and Sibutu Islands, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 221, 1928; Shortland Island; Faté; Honolulu; Laie stream, Ebon Island. Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Culion; Taytay, Palawan; Jolo, Sulu Province, Umali, Edible Fishes Manila, p. 164, fig. 129, 1936; reefs of the central and southern Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 226, 1936; 12 East Indian localities; Philippines.

?*Kyphosus vaigiensis* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 209, 1933; Busin Harbor, Burias Island; Bugsuk Island, Balabac.

1131. *Kyphosus vaigiensis* (Quoy and Gaimard). Ilak; Pigok-pikog. Melanesia, west to the Red Sea. east to Samoa and Tahiti.

Pimelepterus vaigiensis Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 386, pl. 62, fig. 4, 1824; Iles des Papous.

Pimelepterus marciae Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 267, 1831; Boni, a small island near Papua; Batavia. Bleeker, Jour. Indian Archipelago, vol. 3, p. 66, 1849; Celebes.

?*Pimelepterus oblongior* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 264, 1831. ?Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 72, 1861; after Cantor. ?Bleeker, Atlas Ichth., vol. 9, p. 16, pl. 364, fig. 3, 1877.

Pimelepterus waigiensis Günther, Cat. Fishes British Mus., vol. 1, p. 498, 1859; Amboyna; India. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 283, 1865; Amboina. Bleeker, Atlas Ichth., vol. 9, p. 17, pl. 364, fig. 2, 1877; Java, Celebes; Ternate; Amboina; Waigiui; New Guinea. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 264, 1883; Engineer Group, New Guinea. Klunzinger, Fische Rothen Meeres, p. 65, 1884.

Pimelepterus fuscus Day, Fishes India, p. 143, 1878;=*waigiensis* in Supplement, 1888; not of Lacépède.

Kyphosus waigiensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 271, 1906; Apia, Samoa.

Kyphosus oblongior Weber, *Siboga*-Exped., vol. 57, Fische, p. 194, 1913; on juvenile *K. vaigiensis*. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 208, 1933; after Bleeker.

Kyphosus vaigiensis Fowler, Mem. Bishop Mus., vol. 10, p. 22, 1928; Wiak Island, New Guinea. Herre, Philippine Bureau Science Collection, 1920-30; Lembeh Strait and Menado, Celebes, East Indies. In the Philippines: Taytay, Palawan; Gulf of Davao, Davao Province, and Dapitan, Zamboanga Province, Mindanao; Bungau, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 227, fig. 58, 1936; Singapore; Pinang; Java; Makassar; Celebes; Salibabu Islands; Ternate; Amboina; Waigiui; New Guinea; Philippines.

Genus 383. PROTERACANTHUS Günther.

A single species known.

Proteracanthus Günther, Cat. Fishes British Mus., vol. 1, p. 426, 1859; type, *Crenidens sarissophorus* Cantor. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 199, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 230, 1936.

1132. *Proteracanthus sarissophorus* (Cantor).

The Malay Peninsula, East Indies, and Philippines; marine.

Crenidens sarissophorus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1034; pl. 1, figs. 1-4, 1850; Pinang; Malay Peninsula.

Girella sarissophorus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 64, 1852; Singapore. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 71, 1861; Penang.

Proteracanthus sarissophorus Günther, Cat. Fishes British Mus., vol. 1, p. 427, 1859; after Cantor. Bleeker, Atlas Ichth., vol. 7, pl. 319, fig. 3, 1873-76. Bleeker, *ibid.*, vol. 9, p. 17, 1877; Singapore; Pinang; Malacca. Vinciguerra, Ann. Mus. Storia Nat. Genova, ser. 3, vol. 10, p. 573, 1926; Sarawak, Borneo. Tirant, Service Oceanogr. Pêches Indo-Chine, note 6°, p. 168, 1929; Baria. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 200, 1933; after Bleeker. Herre, Fishes Exped., 1933-37; Menado, Celebes; Frances Reef, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 231, fig. 59, 1936; Singapore; Sumatra; Borneo; Pinang; Malacca.

Family 132. HISTIOPTERIDÆ. Boarfishes

Marine fishes of Japan, Australia, New Zealand, Cape of Good Hope, and Hawaii.

Genus 384. HISTIOPTERUS Schlegel.

Japan, the Philippines, Australia, Hawaii.

Histiopterus Schlegel, Fauna Japonica, p. 86, 1842; type, *Histiopterus typus* Schlegel. Jordan, Proc. U. S. Nat. Mus., vol. 32, p. 236, 1907.

1133. *Histiopterus typus* Schlegel.

Japan, China, and the Philippines.

Histiopterus typus Schlegel, Fauna Japonica, Pisces, p. 86, pl. 45, 1842; Nagasaki. Steindachner and Döderlein, Fische Japans, vol. 2, p. 11, pl. 2, fig. 2, 1883; Tokyo; Yokohama. Jordan, Proc. U. S. Nat. Mus., vol. 32, p. 237, 1907; Misaki, Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 223, pl. 19, fig. A, 1928; Hilo, Hawaiian Islands. Philippine Fishery Program, taken by trawl, Motorship *Theodore N. Gill* in 65 fathoms, west of Fortune Island, off Nasugbu, Batangas Province; also at same depth in entrance to Manila Bay, Luzon.

Family 133. INERMIIDÆ

Indo-Pacific and West Indian waters.

Genus 385. DIPTERYGONOTUS Bleeker.

The East Indies, Philippines, Indo-China, and Ceylon.

Dipterygonotus Bleeker, Jour. Indian Archipelago, vol. 3, p. 71, 1849; type, *Emmelichthys leucogrammicus* Bleeker. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 179, 1931. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 346, 1933.

1134. *Dipterygonotus leucogrammicus* Bleeker.

Range that of the genus.

Dipterygonotus leucogrammicus Bleeker, Jour. Indian Archipelago, vol. 3, p. 71, 1849; Makassar, Celebes. Bleeker, Atlas Ichth., vol. 8, p. 42, 1876-77; Celebes; Buru; Amboina. Chabanaud, Bull. Soc. Zool. France, vol. 49, p. 255, 1924; Annam, Indo-China. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 180, fig. 35, 1931; Lombok; Lamakera; Makassar, Bulucomba, and Palima, Celebes; Saleyer; Buton; Buru; Amboina; Binongka, East Indies; Philippines; also Ceylon and Annam. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 346, 1933; Bacon, Sorsogon Prov., Luzon. Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Dumaguete, Oriental Negros Province. Herre, Fishes 1940-41 Exped.; Lemery, Batangas Province, Luzon. Herre, Spolia Zeylanica, vol. 24, p. 177, 1946; coast south of Colombo, Ceylon.

Emmelichthys leucogrammicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 103, 1850; Celebes. Bleeker, Verh. Bat. Gen., vol. 23, Maenoiden, p. 10, 1850. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 71, 1907; Bacon and Bulan, Sorsogon Province, Luzon.

Erythrichthys leucogrammicus Günther, Cat. Fishes British Mus., vol. 1, p. 396, 1859; Amboyna; Molucca Sea. Bleeker, Atlas Ichth., vol. 7, pl. 294, fig. 2, 1873-76. Johnstone, Report Pearl Oyster Fisheries, Gulf of Manaar, p. 221, pl. 1, fig. 6, 1904; Cheval Paar, in 7 fathoms.

1135. *Dipterygonotus gruvelli* Chabanaud.

Indo-China and the Philippines.

Dipterygonotus gruvelli Chabanaud, Bull. Mus. Hist. Nat. Paris, p. 57, 1924; Annam coast, Indo-China. Chabanaud, Bull. Soc. Zool. France, vol. 49, p. 253, 1924. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 347, 1933; after Chabanaud. Herre, Fishes 1931 Philippine Exped., p. 55, 1934; Dumaguete.

Family 134. MULLIDAE. Surmulletts; Goatfishes; Balaki; Bayabao; Mangentut; Tangbod; Tiao; Timbungan; Tubak; Tuyo

All tropical and warm temperate seas. Marine, some entering fresh water.

Genus 386. MULLOIDICHTHYS Whitley.

In all tropical seas, but mainly Indo-Pacific.

Mulloides Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 6, 1849; type, *Mullus flavolineatus* Lacépède; preoccupied. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 130, 1928.

Mulloidichthys Whitley, Records Australian Mus., vol. 17, p. 122, 1929; to replace *Mulloides* Bleeker, preoccupied. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 373, 1931. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 261, 1933.

1136. *Mulloidichthys auriflamma* (Forskål). Yellow goatfish.

Tropical Indo-Pacific, from Africa to Hawaii and the Marquesas Islands. *Mullus auriflamma* Forskål, Descript. Animal., p. 30, 1775; Djedda, Red Sea.

Mullus flavolineatus Lacépède, Hist. Nat. Poissons, vol. 3, p. 406, 1801. *Upeneus auriflamma* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 339, 1829.

Upeneus flavolineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 456, 1829; Mauritius; Massaua. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 101, pl. 26, fig. 1, 1835; Mohila.

Upeneus zeylonicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 459, 1829; Trinquemale, Ceylon.

Mulloides zeylonicus Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 12, 1849. Günther, Cat. Fishes British Mus., vol. 1, p. 404, 1859; coasts of Trincomale and New Guinea.

Mulloides flavolineatus Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 12, 1849. Günther, Cat. Fishes British Mus., vol. 1, p. 403, 1859; China; Madagascar. Bleeker, Atlas Ichth., vol. 9, pl. 394, fig. 3, 1878. Day, Fishes India, p. 122, pl. 30, fig. 6, 1878; Andaman Islands. Macleay, Descript. Cat. Australian Fishes, vol. 1, p. 104, 1881. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 231, 1891; Red Sea; Mauritius; Réunion; Ternate; Hawaii; Guam; Buru; Bora Bora; Fiji.

Mulloides auriflamma Klunzinger, Abh. Zool.-Bot. Gesell. Wien, vol. 20, p. 742, 1870; Koseir, Red Sea. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 485, 1901; Laysan Island and Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 250, fig. 103, 1905; Honolulu; Hilo. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 782, 1905; Bais, Negros Oriental Province. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 44, 1922; Zamboanga, Zamboanga Province, Mindanao. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 130, pl. 2, fig. 3, 1928; Luna, La Union Province and Monja Island at entrance to Manila Bay, Luzon. Puerto Galera and Calapan, Mindoro. Tablas Island. Dicuayan Island, off Busuanga Island. Bungau and Banaran Islands, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 233, pl. 21, fig. A, 1928; 21 tropical Pacific localities; from the Bonin Islands and Marcus Island to the Marquesas Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province.

Upeneus quckettii Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 168, 1908-11; Inner Harbor, Durban.

Mulloidichthys auriflamma Fowler, Proc. Acad. Nat. Sci. Phila., 1930; p. 610, Hong Kong; p. 649, Honolulu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 376, 1931; 17 East Indian localities; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12,

p. 263, 1933; Santo Domingo de Basco Harbor, Batan Island, Batanes Province. Port Matalvi, Zambales Province, Luzon. Polloc, Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao; not synonymy.

1137. *Mulloidichthys japonicus* (Houttuyn). Japanese goatfish.

Japan to the Philippines.

Mullus japonicus Houttuyn, Verh. Holland. Maatsch. Wetenschappen Haarlem, vol. 20, p. 334, 1782; Japan.

Upeneus japonicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 339, 1829; Japan.

Mulloides japonicus Günther, Cat. Fishes British Mus., vol. 1, p. 404, 1859. Snyder, Proc. U. S. Nat. Mus., vol. 32, p. 96, 1907; Misaki. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 88, 1907; Bulan, Sorsogon Province, Luzon; Japan. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 134, 1928; after Snyder and Evermann and Seale.

1138. *Mulloidichthys samoensis* (Günther). Samoan goatfish; Tubac; Tuyo. The Philippines and East Indies to Hawaii, Samoa, Tahiti, and the Marquesas Islands.

Mulloides samoensis Günther, Fische der Südsee, vol. 1, p. 57, pl. 43, fig. B, 1874; Apia, Samoa. Schmeltz, Cat. Mus. Godeffroy, No. 6, p. 12, 1877; Ponapé. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 253, fig. 105, 1905; Oahu; Hilo. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; San Fabian, Pangasinan Province; Bacon, Sorsogon Province, Luzon. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 132, pl. 3, fig. 4, 1928; Manila; Bacon, Sorsogon Province, Luzon. Romblon. Borongan Samar. Cebu, Cebu. Camaguin Island, Misamis Oriental Prov.; Davao and Samal Island, Davao Province; Caldera Bay and Zamboanga, Zamboanga Province, Mindanao; also Guam. Fowler, Mem. Bishop Mus., vol. 10, p. 234, 1928; 21 tropical Pacific localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 57, 1934; Jolo, Sulu Province.

Mulloidichthys samoensis Fowler, Proc. Acad. Nat. Sci. Phila., p. 649, 1930; Honolulu; Apia. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 574, fig. 76, 1931; Simalur; Amboina; Salibabu Island; Philippines; also the Mariannes; Samoa; Hawaii; Marquesas Islands; Tahiti; New Hebrides; Pleasant Island. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 266, 1933; Santo Domingo de Basco, Batan Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Island, north of Luzon. Port Matalvi, Zambales, Province; Bolinao Bay and San Fabian, Pangasinan Province; San Miguel Island; Albay Province; Ragay Bay; Ragay Gulf, Camarines Sur Province, Luzon. Maricaban Island, Verde Island Passage. Varadero Bay, Mindoro. Alimango Bay, Burias Island. Gigoso Point, Quinapundan Bay, Samar. Mantacao Island, west coast of Bohol. Mahinog, Camiguin Island, north coast of Mindanao. Bais, Negros Oriental Province; Cebu market, Cebu. Port Caltom and Port Uson, Busuanga. Malcochin Harbor, Linapacan Island. Endeavor Strait, Palawan. Candaraman Island and Port Ciego, Balabac Island, Generale Island, Surigao Province; Inamucan Bay, Misamis Occidental Province; Zamboanga, Tictauan Island, and Pilas Island near Basilan, Zamboanga Province, Mindanao. Jolo market, Jolo; Siasi Island; Cagayan Sulu Island; Gondra, Sulade, and Simulac Islands, Sulu Province. Herre, Fishes 1940-41 Exped.; Coron, Busuanga Island.

1139. *Mulloidichthys vanicolensis* (Cuvier and Valenciennes). Vanikolo goatfish.

Philippines, East Indies, east to the Solomon and Santa Cruz Islands, and Hawaii.

Upeneus vanicolensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 521, 1831; Vanicolo. Smith and Swain, Proc. U. S. Nat. Mus., vol. 5, p. 131, 1882; Johnston Island.

Mulloides vanicolensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 601, 1853; Ternate. Bleeker, *ibid.*, vol. 13, p. 371, 1857; Sangi. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision *Mulloides*, p. 14, 1875. Bleeker, Atlas Ichth., vol. 9, pl. 392, fig. 6, 1878. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; Zamboanga, Zamboanga

Province, Mindanao. Weber, *Siboga-Exped.*, vol. 57,, Fische, p. 294, 1913; Siau; Salibabu; Saleyer; Binongka. Herre and Montalban, *Philippine Jour. Sci.*, vol. 36, p. 135, pl. 1, fig. 3, 1928; Zamboanga, Zamboanga Province, Mindanao. Tambagaan Island, Sulu Province. Herre, *Fishes 1931 Philippine Exped.*, p. 57, 1934; Burias Island.

Mulloidichthys vanicolensis Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 375, 1931; Simaluc; Saleyer; Ternate; Salibabu Island; Binongka Island; Siau Island; Sangir Island; Philippines. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 262, 1933; Santo Domingo de Basco Harbor, Batan Island, Batanes Province, Philippines.

Genus 387. PARUPENEUS Bleeker. Goatfishes.

Tropical Indo-Pacific; Marine but some enter river mouths.

Parupeneus Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 342, 1863; type, *Mullus trifasciatus* Lacépède. Bleeker, *Versl. Akad. Amsterdam*, ser. 2, vol. 2, p. 334, 1868. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 378, 1931.

Upeneus Herre and Montalban, *Philippine Jour. Sci.*, vol. 36, p. 107, 1928.

Pseudupeneus Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 271, 1933.

1140. Parupeneus barberinus (Lacépède). Goatfish; Amakan.

Red Sea and East Africa to Japan, and the Hawaiian and Austral Islands.

Mullus barberinus Lacépède, *Hist. Nat. Poissons*, vol. 3, p. 406, 1802; near the Moluccas.

Upeneus barberinus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 3, p. 340, 1829. Rüppell, *Neue Wirbelt.*, Fische, *Rothens Meeres*, p. 101, 1835; Massaua. Günther, *Cat. Fishes British Mus.*, vol. 1, p. 405, 1859; Moluccas; Amboina; India. Günther, *Fische der Südsee*, vol. 1, p. 57, pl. 42, 1873-75; Pelew Islands; Taumotus; Hervey. Society, Gilbert, and Solomon Islands; Upolu. Bleeker, *Verh. Akad. Amsterdam*, vol. 15, p. 25, 1875; 15 East Indian localities. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 16, 1885; Cebu, Cebu; Rubi, New Guinea. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 260, 1908; Cuyo, Cuyo Islands. Fowler and Bean, *Proc. U. S. Nat. Mus.*, vol. 62, p. 44, 1922; Zamboanga, Zamboanga Province, Mindanao. Herre and Montalban, *Philippine Jour. Sci.*, vol. 36, p. 109, pl. 3, fig. 3, 1928; Luna and Balaoan, La Union Province; Subic Bay, Zambales Province; Manila; Bacon, Sorsogon Province, Luzon. Puerto Galera and San Jose, Mindoro. Tablas Island. Cebu and Bantayan Island, Cebu Province. Cuyo Island and Agutaya Island, Cuyo Islands. Negros Island and Dumaguete, Negros Oriental Province. Tacloban, Leyte. Tagbilaran, Bohol. Canigaran and Puerto Princesa, Palawan. Balabac Island. Surigao, Surigao Province, Cagayan, Misamis Oriental Province, Davao, Davao Province, Caldera Bay and Zamboanga, Zamboanga Province, Mindanao. Jolo, Bungau, Sibutu, and Tubigan Islands, Sulu Province. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 56, 1934; Manila, Luzon; Calapan, Mindoro; Culion; Cebu, Cebu. Dumaguete, Jolo, Sulu Province.

Parupeneus barberinus Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 234, 1863. Bleeker, *Atlas Ichth.*, vol. 9, pl. 393, fig. 1, 1877. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 296, 1913; Paternoster Island; Makassar and Menado, Celebes; Biaru; Siau; Karkaralong; Binongka; Amboina. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 6, p. 392, fig. 77, 1931; 31 East Indian localities. Sulu Islands and Cebu, Philippines, also 22 Indo-Pacific localities.

Pseudupeneus barberinus Jordan and Seale, *Proc. U. S. Nat. Mus.*, vol. 28, p. 782, 1905; Bais, Negros Oriental Province. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 25, 1907; Iloilo, Iloilo Province, Panay. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 88, 1907; San Fabian, Pangasinan Province, Bacon, Sorsogon Province, Luzon. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 283, fig. 21, 1933; Port San Vicente, Cagayan Province; Matalvi, Zambales Province; Maculabo Island, Camarines Norte Province; Alibijaban Island, Ragay Gulf; Atulayan Bay, Batan and Rapu Rapu Islands, and Paron Point, Albay Gulf, Albay Province; San Fabian, Pangasinan

Province; Canmahala Bay, Ragay Gulf, and Langao Point, Luzon. Maricaban Island, Verde Island Passage. Mansalay, Puerto Galera, Sablayan and Varadero Bay, Mindoro. Allmango Bay, Burias Island, Mompog Island, between Masbate and Luzon. Tilig, Lubang Island, China Sea. San Miguel Harbor, Ticao Island. Cataingan, Masbate Island. Lode Bay, Destacado Island, Naranjo Islands. Biri Channel and Quinapundan Bay, Samar. Cabugan Island, Hinanungan Bay, Leyte. Pandanon Island, north coast of Bohol. Cebu market, Cebu. Bais, Oriental Negros Province. Iloilo market, Iloilo Province, and Nogas Point, Antique Province, Panay. Port Coltom, Busuanga. Bolalo Bay, Makes Island, Mantaquin Bay, Observatory Island, and Ulugan Bay, Palawan. Bugsuk Island, and Caxisigan Island, Balabac. Davao, Davao Province, Surigao, Surigao Province, Murcielagos Bay, Misamis Occidental Province, Tulnalutan Island and Lampiran Island, Zamboanga Province, Mindanao. Siasi, Cagayan Sulu, Tara, and Tonquil Islands, Jolo market, Tutu Bay, Jolo, Sulu Province.

1141. *Parupeneus barberinoides* (Bleeker).

The East Indies, Philippines, China, RiuKiu Islands, and Tonga.

Upeneus barberinoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 263, 1852; Wahai, northern Ceram. Kner, Reise *Novara*, Fische, p. 70, pl. 3, fig. 4, 1865; Hong Kong. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 501, 1913; Okinawa, RiuKiu Islands. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 120, pl. 4, fig. 3, 1928; Subic Bay, Zambales Province, Luzon; Puerto Galera, and Calapan, Mindoro; Negros; Buenavista, Guimaras Island; Cebu, Cebu Province; Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Calapan, Mindoro; Cebu, Cebu; Dumaguete, Negros Oriental Province; Jolo, Sulu Province.

Parupeneus barberinoides Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 189, 1865; Ceram. Bleeker, *ibid.*, p. 285; Amboina. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 22, 1875; Celebes; Ternate; Amboina, Ceram. Bleeker, Atlas Ichth., vol. 9, pl. 392, fig. 5, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 390, 1931; Makassar and Bulacomba, Celebes; Ternate; Amboina; Ceram; Philippines.

Pseudupeneus barberinoides Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 293, 1911; Vavau, Tonga Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 276, fig. 20, 1933; Port San Vicente, Cagayan Province, and Port Matalvi, Zambales Province, Luzon. Varadero Bay, Mindoro. Pandanon Island, coast of Bohol. Cebu market, Cebu. Observatory Island, Palawan. Candaraman Island, Balabac. Tara Island, Sulu Province.

1142. *Parupeneus bifasciatus* (Lacépède). Pinobugnan.

The tropical Indo-Pacific, north to Marcus Island and Hawaii, east to the Marquesas Islands.

Mullus bifasciatus Lacépède, Hist. Nat. Poissons, vol. 3, p. 404, pl. 14, fig. 2, 1801.

Upeneus bifasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 344, (468), 1829; Bourbon. Günther, Fische der Südsee, vol. 1, p. 59, pl. 44, fig. A, 1873-75; Rarotonga; Savaii; Solomon Islands. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 221, 1891; Bourbon; Marquesas Islands; Carolines; Macao; Ternate; Amboina; Celebes. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 118, pl. 6, fig. 2, 1928; Luna, La Union Province, and Cabusao, Camarines Sur Province, Luzon. South coast of Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 227, 1928; 9 tropical Pacific localities. Herre, Fishes 1931 Philippine Exped., 1934; Taytay, Palawan; Jolo, Sulu Province.

Parupeneus bifasciatus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 345, 1868; Réunion. Bleeker, Recherches faune Madagascar, Poissons, p. 40, pl. 18, fig. 2, 1875.

Pseudupeneus bifasciatus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 456, 1903; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 258, fig. 107, 1905; Honolulu; Hilo; Kailua. Evermann and Seale,

Bull. U. S. Bur. Fisheries, vol. 26, p. 88, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 291, 1933; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province. Palau Island, Cagayan Province; Port Matalvi and Hermano Mayor Island, Zambales Province; Pagapas Bay, and Ligo Point, Balayan Bay, Batangas Province; Alibijaban Island, Ragay Gulf, and near mouth of Tayabas River, Tayabas Province; near Palag Bay, Batan and Rapu Rapu Islands, Atulayan Island, Galvanoy Gulf, and San Miguel Island, Tabaco Bay, Albay Province; Galvanoy Island, Ragay Gulf, Camarines Sur Province, Luzon. Tilic, Lubang Island, northwest of Mindoro. Mansalay, Puerto Galera and Varadero Bay, Mindoro. Verde Island and Port Maricaban, Verde Island Passage. Port Banalacan, Marinduque. Alimango Bay, Burias Island. Port Dupon, Leyte. Maribojoc, Bohol. Mantaquin Bay, and Port Langan, Palawan. Cagayanes Islands, Sulu Sea. Caxisigan Island, Balabac. Mahinog, Camiguin Island, off north coast Mindanao. Murcielagos Bay, Misamis Occidental Province; Tictauan, Tulnalutan, and Little Santa Cruz Islands, Zamboanga Province, Mindanao. Cagayan Sulu and Taganak Islands, Sulu Province.

Parupeneus trifasciatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 295, 1913; in part; Sulu, Sulu Province, Philippines.

1143. *Parupeneus chryserydros* (Lacépède). Timbungan; Ubakan. East coast of Africa to the Philippines, RiuKlu, Hawaiian, and Society Islands.
- Mullus chryserydros* Lacépède, Hist. Nat. Poissons, vol. 3, p. 406, 1802; Mauritius.
- Sciaena ciliata* Lacépède, *ibid.*, vol. 4, p. 312, 1803.
- Mullus radiatus* Shaw, General Zoology, vol. 4, p. 618, 1803; Indian Seas.
- Upeneus chryserydros* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 346 (470), 1829; Mauritius; Hawaii; Coromandel; Bourbon. Bleeker, Verh. Bat. Gen., vol. 25, Percoiden, p. 34, 1853. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 127, pl. 5, fig. 3, 1928; Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 232, 1928; 9 tropical Pacific localities.
- Upeneus oxycephalus* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischsoorten Menado, p. 45, 1856. Günther, Cat. Fishes British Mus., vol. 1, p. 409, 1859; Sea of Menado; Mauritius.
- Parupeneus oxycephalus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 285, 1865.
- Mullus oxycephalus* Playfair and Günther, Fishes Zanzibar, p. 41, 1866; Zanzibar.
- Upeneus chryserythrus* Günther, Fische der Südsee, vol. 1, p. 60, pl. 45, fig. A, 1873-75; Polynesia.
- Parupeneus cherserydros* Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 35, 1875. Bleeker, Atlas Ichth., vol. 9, pl. 393, fig. 3, 1878.
- Parupeneus xanthospilurus* Bleeker, Verh. Akad. Amsterdam, vol. 15, p. 37, 1875; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 293, fig. 5, 1877. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 309, 1933; copied from Bleeker.
- Pseudupeneus chryserydros* Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 454, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm. vol. 23, Part 1, p. 255, fig. 106, 1905; Honolulu; Hilo. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, 1933; after Sauvage.
- Upeneus chryseredros* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Cagayancillo, Cagayan Islands, Sulu Sea.
- Parupeneus chryserydros* Weber, *Siboga-Exped.*, vol. 57, Fische, p. 296, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 404, 1931; Nias; Menado, Celebes; Sangir Islands; Karakelong Island; Batjan; Amboina; Goram; New Guinea; the Philippines and 17 other Indo-Pacific localities; synonymy in part.

1144. *Parupeneus cyclostomus* (Lacépède).

The Indian Ocean, Philippines, and east Samoa,

Mullus cyclostomus Lacépède, Hist. Nat. Poissons, vol. 3, p. 404, pl. 19, fig. 3 (very bad), 1801.

Upeneus cyclostomus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 472, 1829; Seychelles. Sauvage, in Grandidier, Hist. Phys. Nat.

Madagascar, Poissons, p. 226, pl. 26, figs. 4-4A, 1891. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 123, pl. 6, fig. 3, 1928; Tablas Island; Sibuyan Island, Philippines. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Manila, Luzon. Burias Island; Linapacan Island, and Taytay, Palawan, Jolo, Sulu Province.

Parupeneus cyclostomus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 285, 1865; Amboina. Barnard, An. South African Mus., vol. 21, p. 586, 1927; Natal coast.

Pseudupeneus cyclostomus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 275, 1906; PagoPago, Samoa. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 304, 1933; Santo Domingo de Basco, Batan Island, Batanes Province, Dasol Bay, Pangasinan Province, and Port Matalvi, Zambales Province, Luzon. Makesi Island and Ulugan Bay, Palawan. Zamboanga market, and Malanipa and Tictauan Islands, and Point Tagolo Light, Zamboanga Province, Mindanao. Jolo market and Bulan, Sitankai, Sulade, Taganak, and Tonquil Islands, Sulu Province; synonymy only in part.

1145. *Parupeneus dispilurus* (Playfair).

East coast Africa to the Philippines, China, and Japan.

Mullus dispilurus Playfair, in Playfair and Günther, Fishes Zanzibar, p. 41, pl. 5, fig. 4, 1866; Zanzibar; Pemba Island.

Upeneus dispilurus Peters, Monatsber. Akad. Wiss. Berlin, p. 438, 1868; Mauritius. Seale, Philippine Jour. Sci., vol. 9, p. 67, 1914; Hong Kong. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 111, pl. 3, fig. 2, 1928; Manila, Luzon; Calapan, Mindoro; Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Phil. Exped., p. 56, 1934; Dumaguete.

Upeneus displurus Day, Fishes India, p. 125, pl. 31, fig. 3, 1875; Sind; typographical error.

Parupeneus dispilurus Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 486, 1901; Honolulu. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 407, 1931.

Pseudupeneus fraterculus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 302, fig. 25, 1933; Cataingan Bay, Masbate. Jolo market, Jolo, Sulu Province. Synonymy in part.

1146. *Parupeneus indicus* (Shaw). Indian goatfish; Tiao.

East coast of Africa to the Philippines, southern Japan, Samoa, and Tonga Islands. Marine and entering river mouths.

Mullus indicus Shaw, General Zoology, vol. 4, p. 611, 1803; Indian Sea. *Upeneus Russellii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 342 (465), 1829.

Upeneus waigiensis Cuvier and Valenciennes, *ibid.*, p. 466.

Upeneus indicus Günther, Cat. Fishes British Mus., vol. 1, p. 406, 1859; China. Day, Fishes India, p. 126, pl. 31, fig. 4, 1878. Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 35, 1880; Kandavu, Fiji. Pöhl, Cat. Mus. Godeffroy, No. 9, p. 27, 1884; Ponapé. Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 84, 1901; Nagasaki. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 164, 1908-1911; Durban, Natal. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 115, pl. 2, fig. 1, 1928; Luna and Balayan, La Union Province; Subic Bay, Zambales Province; Bacon, Sorsogon Province, Luzon. Calapan and Pinamalayan, Mindoro. Tacloban, Leyte. Cebu and Bantayan Island, Cebu Province. San Juan, Siquijor Island. Puerto Princesa, Palawan. Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao. Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Unisan, Tayabas Province, Luzon; Culion; Dumaguete.

Parupeneus indicus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 148, 1865; Buru. Bleeker, Verh. Akad. Amsterdam, vol. 15, p. 27, 1875; Sumatra; Nias; Batu; Biliton; Java; Bali; Celebes; Timor; Ternate; Batjan; Buru; Ceram; Amboina; Waigi; the Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 394, 1931; 23 East Indian localities. Philippines and 16 Indo-Pacific localities. Herre, Fishes 1936-37 Exped.; Dumaguete, Negros Oriental Province.

- Pseudupeneus indicus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 276, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 25, 1907; Iloilo, Iloilo Province, Panay. Evermann and Seale, *ibid.*, p. 88, 1907; Bacon and Bulan, Sorsogon Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 287, fig. 22, 1933; Pratas Reef, China Sea. Port San Pio Quinto, Camiguin Island, Babuyan islands north of Luzon. Port San Vicente, Cagayan Province; Manila market; Atulayan Bay, Albay Province; Canmahala Bay, Ragay Gulf, Luzon. Mansalay and Varadero Bay, Mindoro. Alimango River, Burias Island. River at Port Dupon, Leyte, Nogas Point, Antique Province, Panay. Observatory Island; beach near Caihoho River, and near Baheli River mouth, Ulugan Bay; Bolalo Bay, and beach near Chase Head, Endeavor Strait, Palawan. Cebu market, Cebu. Iloilo market, Iloilo Province, Panay. Mahinog, Camiguin Island, north coast of Mindanao; Malabang market, Lanao Province, Mindanao. Jolo market, Jolo, Sulu Province. Synonymy in part.
- 1147. *Parupeneus janseni* (Bleeker).**
The East Indies and Philippines.
Upeneus Janseni Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischsoorten Menado, p. 44, 1856; Menado, Celebes. Macleay, Proc. Soc. New South Wales, vol. 7, p. 246, 1882; New Guinea.
Upeneus janseni Günther, Cat. Fishes British Mus., vol. 1, p. 410, 1859; Amboina.
Parupeneus Janseni Bleeker, Ned. Tijds. Dierk., vol. 2, p. 147, 1865; Buru. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 34, 1875; Celebes; Buru; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 392, fig. 4, 1878.
Parupeneus luteus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 89, 1907; Jolo, Sulu Province; not of Cuvier and Valenciennes according to Fowler.
Parupeneus janseni Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 402, 1931; Nias; Menado, Celebes; Buru; Amboina; New Guinea.
Pseudupeneus janseni Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 317, 1933; Jolo, Sulu Province; on Evermann and Seale's specimen.
- 1148. *Parupeneus luteus* (Cuvier and Valenciennes).**
Red Sea and Zanzibar to Philippines, Formosa, the East Indies, and Louisiade Archipelago.
Upeneus luteus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 392, 1831. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden p. 63, 1849; Batavia, Java. Day, Fishes India, p. 125, pl. 31, fig. 2, 1878. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 114, pl. 5, fig. 1, 1928; Dumaguete, Negros Oriental Province; Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Dumaguete.
Mullus luteus Playfair, in Playfair and Günther, Fishes of Zanzibar, p. 41, 1866; Zanzibar; Aden.
Parupeneus luteus Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 32, 1875; Sumatra; Java; Ceram; Amboina; New Guinea. Bleeker, Atlas Ichth., vol. 9, pl. 394, fig. 1, 1878. Weber, Siboga-Exped., vol. 57, Fische, p. 296, 1913; Makassar, Celebes; Sulu Islands, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 401, 1931; Padang, Sumatra; Batavia, Java; Makassar, Celebes; Amboina; Ceram; Mysore; New Guinea; Sulu Archipelago, Philippines. Herre, 1948 Coll.; Siluag Island, Sulu Province.
Pseudupeneus luteus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 313, 1933; after Bleeker.
- 1149. *Parupeneus macronema* (Lacépède).**
Red Sea and east coast of Africa, to the Philippines, Hawaii, and Tahiti.
Mullus macronema Lacépède, Hist. Nat. Poissons, vol. 3, pp. 383 and 404, pl. 13, fig. 2, 1802.
Mullus auriflamma Lacépède, Hist. Nat. Poissons, vol. 3, p. 400, pl. 13, fig. 1, 1802; not of Forskål.

Upeneus lateristriga Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 463, 1829. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 101, 1835; Massaua. Valenciennes, in Cuvier, Règne Animal, ed. de luxe 4, Atlas, pl. 19, fig. 3, 1836.

Upeneus lateristriata Valenciennes, in Cuvier, Règne Animal, ed. de luxe 4, Atlas, text opposite pl. 19, 1836; error.

Upeneus macronemus Günther, Cat. Fishes British Mus., vol. 1, p. 405, 1859; Red Sea; after Rüppell. Day, Fishes India, p. 123, pl. 3, fig. 1, 1878. Day, Fauna British India, Fishes, vol. 2, p. 29, fig. 12, 1889. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 224, 1891; Red Sea; Réunion; Mauritius; Zanzibar; Hawaiian Islands. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Jolo, Sulu Province, Philippines.

Parupeneus macronema Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 24, 1875; Sumatra; Celebes; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 391, fig. 3, 1878. Barnard, Ann. South African Mus., vol. 21, p. 587, 1927; Delagoa Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 388, 1931; 8 East Indian and 13 Indo-Pacific localities. Herre, Fishes 1936-37 Exped.; Balayan Bay, Batangas Province, Luzon. Herre, 1948 Coll.; Saiton, Negros Oriental Province; Zamboanga, Zamboanga Province, Mindanao.

Pseudupeneus macronemus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 279, 1933; Red Sea; Honolulu.

1150. Parupeneus malabaricus (Cuvier and Valenciennes).

Zanzibar and Madagascar to the East Indies, Philippines, Australia, Tonga, and Samoa; marine.

Upeneus malabaricus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 467, 1829; Malabar. Bleeker, Verh. Bat. Gen., vol. 25, Ichth. Bengalen, p. 34, 1853. Günther, Cat. Fishes British Mus., vol. 1, p. 407, 1859; coast of Malabar; the Philippines. Günther, Fische der Südsee, vol. 1, p. 58, pl. 45, fig. 5, 1873-75; Formosa; the Philippines; Zanzibar; Savii; Tonga. McCulloch, Mem. 5, Australian Mus., p. 224, 1929; Philippines; India; Queensland. Herre, Philippine Bureau Science Collection; Basilan, Zamboanga Province, Mindanao.

Mullus malabaricus Playfair, in Playfair and Günther, Fishes Zanzibar, p. 41, 1866; Aden; Zanzibar.

Upeneus griseofrenatus Kner, Sitzungsber. Akad. Wiss. Wien, vol. 58, pp. 27 and 305, pl. 3, fig. 7, 1868; Kandavu, Fiji.

Parupeneus malabaricus Weber, Siboga-Exped., vol. 57, Fische, p. 297, 1913. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 395, 1931; Sumatra; Rotti; Buton; New Guinea.

1151. Parupeneus pleurospilus (Bleeker).

East Indies, Philippines, Japan. Red Sea (?).

Upeneus pleurospilus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 110, 1853; Amboina. Bleeker, Verh. Bat. Gen., vol. 26, p. 69, 1854; Japan. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 16, 1885; Cebu, Cebu Province, Philippines; Menado, Celebes. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 128, pl. 1, fig. 2, 1928; Polillo, Polillo Island; Calapan, Mindoro; Cebu, Cebu; Cagayan, Misamis Oriental Province, and Davao, Davao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 57, 1934; Lake Bombon, Batangas Province, Luzon; Dumaguete.

Parupeneus pleurospilus Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 360, 1864; Saparua. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 31, 1875; Bali; Amboina; Saparua. Bleeker, Atlas Ichth., vol. 9, pl. 391, fig. 5, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 399, 1931; Bali; Makassar, and Menado, Celebes; Amboina; Saparua. Philippines.

Pseudupeneus pleurospilus Seale, Occas. Papers Bishop Mus., vol. 4, p. 51, 1906; Shortland Island, Solomon Islands. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 273, fig. 19, 1933; River at Port Dupon, Leyte; Varadero Bay, Mindoro.

1152. Parupeneus pleurostigma (Bennett).

Zanzibar and Mauritius to the Philippines, Okinawa, Gilbert and Hawaiian Islands, and Tahiti; marine.

Upeneus pleurostigma Bennett, Proc. Zool. Soc. London, p. 59, 1831; Mauritius. Günther, Fische der Südsee, vol. 1, p. 58, 1873-75; Tahiti; Apamama, Gilbert Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 231, pl. 20, fig. C, 1928; Maui; Honolulu; Laysan. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 122, pl. 5, fig. 2, 1928; Zamboanga, Zamboanga Province, Mindanao.

Upeneus Brandesii Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 236, 1851; Banda Neira.

Parupeneus Brandesii Bleeker, Ned. Tijds. Dierk., vol. 2, p. 285, 1865; Amboina.

Parupeneus pleurostigma Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 29; 1875; Amboina; Banda. Bleeker, Atlas Ichth., vol. 9, pl. 393, fig. 3, 1878. Barnard, Ann. South African Mus., vol. 21, p. 590, 1927; Delagoa Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 398, 1931; Banda; Amboina; Philippine Islands. Also 10 more Indo-Pacific localities.

Pseudupeneus pleurostigma Jenkins, Bull. U. S. Fish. Comm., vol. 22, p. 456, 1904; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 260, fig. 108, 1905; Honolulu; Hilo. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 275; Jolo market, Jolo Island, and Doc Can Island, Sulu Province.

1153. *Parupeneus spilurus* (Bleeker).

Japan to the Philippines, New Guinea, and Australia.

Upeneus spilurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 395, 1854; Nagasaki. Bleeker, Verh. Bat. Gen., vol. 26, 1854-57; Nieuwe Nalez ichth. Japan, p. 68, pl. 2, fig. 2. Nagasaki. Bleeker, Versl. Akad. Amsterdam, vol. 15, p. 447, 1863; near Port Jackson, Australia. Tanaka, Fishes Japan, vol. 23, p. 405, pl. 110, fig. 332, 1916; Japan. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 117, 1928; Bulan, Sorsogon Province, Luzon. Herre, Fishes 1931 Philippine Exped.; p. 57, 1934; Jolo, Sulu Province.

Parupeneus spilurus Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 63, 1878; New Guinea. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 10, 1879; Japan. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 397, 1931; New Guinea; the Philippines. Compiled.

Pseudupeneus spilurus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 88, 1907; Bulan, Sorsogon Province, Luzon. Snyder, Proc. U. S. Nat. Mus., vol. 32, p. 91, 1907. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 280, 1933; Bulan, Sorsogon Province, Luzon; Wakanoura, Japan.

1154. *Parupeneus trifasciatus* (Lacépède).

Tropical Indo-Pacific, north to Okinawa, east to the Marquesas Islands
Mullus trifasciatus Lacépède, Hist. Nat. Poissons, vol. 3, p. 404, pl. 15, fig. 1, 1802.

Upeneus trifasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 468, 1829; Carolines. Günther, Cat. Fishes British Mus., vol. 1, p. 407, 1859; China; Amboina; Celebes; Ceylon; India. Kner, Reise Novara, Fische, p. 71, 1865; Tahiti. Günther, Fische der Südsee, vol. 1, p. 59, pl. 44, fig. B, 1873-75; China; Polynesia. Seale, Occas. Papers Bishop Mus., vol. 1, p. 72, 1901; Guam.

Parupeneus trifasciatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate. Weber, *Siboga*-Exped., vol. 57, Fische, p. 295, 1913; Sulu Islands, Philippines; Menado, Celebes; Biarur Karkaralong; Beo; Karakelang; Lirung; Saleyer; Binongka; Banda; in part. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 382, fig. 78, 1931; 20 East Indian localities; Sulu, Sulu Province, Philippines, and 12 other Indo-Pacific localities. Herre, Fishes 1936-37 and 1940-41 Expeds.; Puerto Galera, Mindoro; Sitankai, Sulu Province.

Parupeneus multifasciatus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 346, 1868; Réunion; not of Quoy and Gaimard. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 20, 1875; 12 East Indian localities; not of Quoy and Gaimard. Bleeker, Atlas Ichth., vol. 9, pl. 394, fig. 4, 1878.

Upeneus multifasciatus Day, Fishes India, p. 124, 1878; not of Quoy and Gaimard. Seale, Occas. Papers Bishop Mus., vol. 1, p. 71, 1901; Guam. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 44, 1922;

- Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 295, 1928; 12 Polynesian localities.
- Pseudupeneus moana* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 274, 1906; Apia, Samoa. Evermann and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao.
- Upeneus moana* Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 501, 1912; Okinawa, RiuKiu Islands. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 124, pl. 4, fig. 2, 1928; Santo Domingo de Basco, Batan Island, Batanes Province. Camp Wallace, La Union Province; Subic Bay, Zambales Province; Monja Island near entrance to Manila Bay and Hamilo, Batangas Province, Luzon. Calapan and Puerto Galera, Mindoro. Agutaya Island, Cuyo Islands. Puerto Princesa, Palawan. Sibuyan Island. Bantayan Island, Cebu Province. Guimaras Island. Samal Island, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 57, 1934; Manila, Luzon. Burias Island. Calapan, Mindoro. Taytay, Palawan Province. Dumaguete; Jolo, Sulu Province.
- Pseudupeneus trifasciatus* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, fig. 24, 1933; Port San Pio Quinto, Camaguin Island, Babuyan Islands, north of Luzon. Palaui Island, Cagayan Province; Alibijaban Island; Ragay Gulf, Tayabas Province; Atulayan Island and San Miguel Island, Tabaco Bay, Albay Province; Bacon, Sorsogon Province, Luzon. Port Busin, Burias Island. Port Maricaban, Verde Island Passage. Romblon. Varadero Bay, Mindoro. Biri Channel, north of Samar. Port Dupon and Cabugan Island, Hinanungan Bay, Leyte. Chase Head, Endeavor Strait, Bolalo Bay, Makes and Observatory Islands, Palawan. Candaraman Island, Balabac. Dalanganem Island, west side of Cuyo West Passage. Port Caltom, Busuanga. Mahinog, Camiguin Island, north coast of Mindanao. Inamuacan Bay and Murcielagos Bay, Misamis Occidental Province; Little Santa Cruz Island, Malanipa Island, and Zamboanga, Zamboanga Province, Mindanao. Jolo market, Simalac, Sulade and Teomabal Islands, Sulu Province.

Genus 388. UPENEUS Cuvier and Valenciennes.

Fishes of the tropical and subtropical Indo-Pacific.

- Upeneus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 448, 1829; pro parte; type, *Mullus vittatus* Forskål. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 344, 1868. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 362, 1931. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 318, 1933.
- Hypeneus* Agassiz, Nomenclatoris Zoologici, Index, p. 90, 1846; type, *Mullus vittatus* Forskål.
- Upeneoides* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 64, 1849; type, *Mullus vittatus* Forskål. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 96, 1928.

1155. *Upeneus bensasi* (Schlegel).

Japan to the Philippines.

- Mullus bensasi* Schlegel, Fauna Japonica, Pisces, p. 30, pl. 1, fig. 2, 1842; Bay of Nagasaki.
- Upeneoides bensasi* Bleeker, Verh. Bat. Gen., vol. 25, Nalez. ichth. Japan, p. 4, 1853; Japan. Bleeker, *ibid.*, vol. 26, Nieuwe Nalez. ichth. p. 71, 1854-57; Nagasaki. Day, Fishes India, p. 121, pl. 30, fig. 5, 1876; Madras; Coromandel. Rutter, Proc. Acad. Nat. Sci. Phila., p. 71, 1897; Swatow, China. Pellégrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonquin. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 245, 1925; 12 Japanese localities. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 285, 1927; Orani and Orion, Bataan Province, Luzon.
- Upeneus bensasi* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 142, 1873; China. Barnard, Ann. South African Mus., vol. 21, p. 584, 1927; Delagoa Bay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 321, fig. 27, 1933; Bais, Negros Oriental Province. Cebu market, Cebu. Panabutan Bay and Lampinigan Island, Zamboanga Province, Mindanao. Teomabal Island, Sulu Province.
- Pseudupeneus bensasi*, in Illustrations Japanese Aquatic Plants and Animals, Fisheries Soc. Japan, vol. 1, pl. 22, fig. 5, 1931.

1156. *Upeneus luzonius* Jordan and Seale.

A Philippine species.

Upeneus luzonius Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 25, fig. 9, 1907; Cavite, Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 372, 1931; Philippines; Manila Bay, Luzon; Sandakan, British North Borneo; after Herre and Montalban. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 325, fig. 28, 1933; Orion and Orani, Bataan Province; Manila Harbor and Manila Bay; Cavite, Cavite Province; Bacon and Sorsogon market, Sorsogon Province, Luzon. Catbalogan, Samar. Iloilo market, Iloilo Province, Panay. Pandanon Island, north coast of Bohol. Sandakan Bay, British North Borneo.

Upeneoides luzonius Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Manila, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. 9, p. 279, 1910; Sandakan, British North Borneo; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 97, pl. 1, fig. 1, 1928; Orani, Bataan Province; Manila; Pasay, Rizal Province; Luzon. Port San Miguel, Ticao Island, Capiz, Capiz Province, Panay. San Pedro Bay and Tacloban, Leyte. Cuyo, Cuyo Islands. Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Iba, Zambales Province; Atimonan, Tayabas Province, Luzon.

1157. *Upeneus moluccensis* (Bleeker).

East Indies, Philippines, and south China.

Upeneoides moluccensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 409, 1855; Amboina. Günther, Cat. Fishes British Mus., vol. 1, p. 399, 1859; Sea of Amboina; after Bleeker. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 101, pl. 6, fig. 1, 1928; Manila; Balayan Bay, Batangas Province, Luzon. Pinamalayan, Mindoro; Tagbilaran, Bohol; Larena, Siquijor Island; Hong Kong; misprinted *Upeneoides*. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; San Estaban, Ilokos Sur Province, Luzon; Jolo, Sulu Province.

Upeneoides dubius Kner, Reise Novara Fische, p. 67, 1865-67; Australia; not of Schlegel.

Upeneus moluccensis Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 8, 1875; Celebes; Sumbawa; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 392, fig. 1, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 367, 1931; Nias; Sumatra; Sumbawa; Badjoa, Menado, and Tanwanko, Celebes; Amboina; Philippines; southern China. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 328, fig. 29, 1933; Manila; Sangley Point, Cavite, Cavite Province; Batangas market, Nasugbu, and Balayan Bay, Batangas Province; Nato River, Lagonoy Gulf, Albay Province; Sorsogon market, Sorsogon Province, Luzon. Balukbaluk and Pajumajan Islands, Sulu Province.

1158. *Upeneus sulphureus* Cuvier and Valenciennes. Balaki.

Tropical Indian and western Pacific Oceans to southern Japan and the New Hebrides.

Upeneus sulphureus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 331 (450) 1829; Anjer, Straits of Sunda. Bleeker, Verh. Akad. Amsterdam, v. 15, Rév. Mulloides, p. 4, 1875; Java; Madura; Bali; Sumatra; Singapore; Bintang; Banka; Celebes; Sumbawa; Buru, Amboina; Waigiu. Bleeker, Atlas Ichth., vol. 9, pl. 393, fig. 4, 1878. Jordan and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 26, 1907; Cavite, Cavite Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 364, 1931; 28 East Indian localities; Philippines, and 13 other Indo-Pacific localities. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 330, fig. 30, 1933; Santa Maria, Ilokos Sur Province; Lingayen Gulf, Pangasinan Province; Corregidor Light, Manila Bay and Manila Harbor; Orani and Orion, Bataan Province; Cavite market, and Sangley Point, Cavite Province; Bacoar, Rizal Province; Port Hamilo, Nasugbu, and Balayan Bay, Batangas Province; river at Pasacao, Camarines Sur Province; Atulayan Bay and Nato River at tidewater, Albay Province, Luzon. Tille, Lubang Island, China Sea. Paluan Bay, Mindoro. Catbalogan, Samar. Abuyog, Tacloban market, and Hinunangan Beach, Leyte. Bais, Negros Oriental Province. Iloilo market, Iloilo Province, and Nogas Point, Antique Province, Panay. Mantaquin Bay, Palawan. Cotabato and Parang, Cotabato Province; Davao, Davao Province; Zamboanga, Zamboanga Province,

Mindanao. Herre, Fishes 1936-41 Expeds.: Manila Bay; Balayan Bay, Batangas Province; Ragay Gulf, Tayabas Province; Luzon. Pinang, Straits Settlements.

Upeneus bivittatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 520, 1831; Coromandel. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 64, 1849; not synonymy.

Upeneoides sulphureus Bleeker, Verh. Bat. Gen., vol. 22, Percoiden Malayo-Moluk. Arch., p. 63, 1849; Java. Günther, Cat. Fish. Brit. Mus., v. 1, p. 398, 1859; Red Sea; Amboina; China; New Hebrides. Day, Fishes India, p. 120, pl. 30, fig. 3, 1878. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poiss., p. 217, pl. 27, fig. 1, 1891. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Manila, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 279, 1910; Sandakan, British North Borneo; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 103; pl. 3, fig. 1, 1928; Vigan, Ilokos Sur Province; Damortis and Rabon, La Union Province; Alaminos, Pangasinan Province; Iba, Zambales Province; Orani, Bataan Province; Manila market; Malabon and Pasay, Rizal Province; Cavite, Cavite Province; Manila Bay, between Cavite and San Nicolas; San Miguel Bay, Camarines Sur Province; Bacon, Sorsogon Province, Luzon. Mangarin, Mindoro. Capiz, Capiz Province, and Estancia and Iloilo, Iloilo Province, Panay, Guinobatan, Masbate. Borongan, Samar. San Juanico Strait and Tacloban, Leyte. Tagbilaran and Loay, Bohol. Panacan, Palawan. Butuan Bay and Agusan River, Agusan Province; Gingoog, Misamis Oriental Province; and Zamboanga, Zamboanga Province, Mindanao. Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Bauang Sur, La Union Province; Manila; Unisan, Tayabas Province, Luzon. Alabat Island. Cebu, Cebu Province. Sitankai, Sulu Province. Umali, Edible Fishes Manila, p. 167, fig. 13, 1936; Manila Bay; Aloneros, Tayabas Province, Luzon. The Visayas and Mindanao.

Hypeneus vittatus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1017, 1850; not synonymous; not of Forskål. Sea of Pinang.

Upeneoides sulfureus Kner, Reise Novara, Fische, p. 67, 1865; Java. Martens, Preuss. Exped. Ost-Asien, p. 387, 1876; Manila, Philippines.

Upeneoides fasciolatus Day, Proc. Zool. Soc. London, p. 151, 1868.

Mulloides pinnivittatus Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 62, p. 624, 1870; Nagasaki.

Upeneus sulphurus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 88, 1907; San Fabian, Pangasinan Province, Luzon; typographical error.

Upeneoides belaque Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 40, fig. 16, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 42, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 285, 1927; Santa Maria, Ilokos Sur Province; Orani, and Orion, Bataan Province, Luzon, Philippines.

1159. *Upeneus sundaicus* (Bleeker).

East Indies and Philippines; marine and in river mouths.

Upeneoides sundaicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 411, 1855. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. Amboina, p. 47, 1857. Günther, Cat. Fishes British Mus., vol. 1, p. 399, 1859; East Indian Archipelago. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 60, p. 560, 1870; Singapore. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Manila, Luzon.

Upeneus sundaicus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 147, 1865; Buru. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 10, 1875; Java; Madura; Sumatra; Nias; Singapore; Banka; Celebes; Buru. Bleeker, Atlas Ichth., vol. 9, pl. 394, fig. 2, 1878. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 370, 1931; 13 East Indian localities; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 323, 1933; after Bleeker. Herre, Fishes 1936-37 and 1940-41 Expeds.; Manila Bay; Balayan Bay, Batangas Province; Ragay Gulf, Tayabas Province, Luzon. Singapore, Straits Settlements. Herre, Collection Motorship *Theodore N. Gill*, October 1947; outside entrance to Manila Bay, Luzon, at 38 fathoms.

Upenoides sundaicus Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 98, 1928; Bacon, Sorsogon Province, Luzon; after Bleeker and Evermann and Seale; typographical error.

1160. *Upeneus tragula* Richardson. Bayabao; Timbungan.

Tropical Indian and western Pacific Oceans, north to Japan, south to Australia. Marine and entering rivers.

Upeneus tragula Richardson, Ichth. China Japan, p. 220, 1846; Canton. Bleeker, Verh. Akad. Amsterdam, vol. 15, p. 11, 1875; 17 East Indian localities and Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 392, fig. 2, 1878. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 782, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 26, 1907; Manila, Luzon; Iloilo, Iloilo Province, Panay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 88, 1907; Bacon, Sorsogon Province, Luzon. Barnard, Ann. South African Mus., vol. 21, p. 583, 1927; Natal coast. Fisheries Soc. Japan, Illustrations Japanese Aquatic Plants Animals, vol. 1, pl. 22, fig. 7, 1931. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 368, fig. 75, 1931; 36 East Indian localities; Philippines and 16 other Indo-Pacific localities. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 339, fig. 32, 1933; Port San Vicente, Cagayan Province; Olongapo market, Zambales Province; Manila Harbor; Mariveles Bay, Bataan Province; Cavite, Cavite Province; Santiago River, Pagapas Bay and Taal, Balayan Bay, Batangas Province; river at Pasacao, Camarines Sur Province; San Miguel Island, Tabaco Bay, Albay Province; Sorsogon market and Bacon, Sorsogon Province; Camnahala Bay, Ragay Gulf, Luzon. Tilic, Lubang Island, China Sea. Varadero Bay and Mansalay, Mindoro. Santa Cruz, Marinduque. Cataingan Bay, Mashate. Catbalogan, Samar. Hinunangan Beach and San Roque, Leyte, Pandanon Island, north coast of Bohol. Cebu market, Cebu. Bais, Negros Oriental Province, Negros. Iloilo market, Iloilo Province, Panay. Pangauran River, Port Caltom, Busuanga. Malcochin Harbor, Linapacan Island. Caiholo River, Ulugan Bay, and beach near Chase Head, Endeavor Strait, Palawan. Bugsuk Island and Candaraman Island, Balabac. Cuyo Island, Cuyo Islands. Davao, Davao Province, Surigao, Surigao Province, and Murcielagos Bay, Misamis Occidental Province; Zamboanga, Zamboanga Province, Mindanao. Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga; Estancia, Iloilo Province, Panay; San Carlos, Negros Occidental Province, Negros.

Upeneoides tragula Günther, Cat. Fishes British Mus., vol. 1, p. 398, 1859; Philippines; Amboyna; Canton, China. Day, Fishes India, p. 121, pl. 30, fig. 4, 1878; Andaman Islands. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Cuyo, Cuyo Islands. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 278, 1910; Sandakan, British North Borneo; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 43, 1922; Cebu, Cebu; Zamboanga, Zamboanga Province, Mindanao. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 99, pl. 2, fig. 2, 1928; Luna and Camp Wallace, La Union Province; Alaminos, Pangasinan Province; Alangapo, Zambales Province; Malabon, Rizal Province; Legaspi, Albay Province; Bacon, Sorsogon Province, Luzon. Puerto Galera and Calapan, Mindoro. Dicuayan Island and Concepcion, Busuanga. Cullion. New Washington, Capiz Province, Panay. Catbalogan and Borongan, Samar. Cebu, Cebu. Tagbilaran, Bohol. Dumaguete, Negros Oriental Province. Bantayan Island, Cebu Province. Jordan, Guimaras Island. Cuyo Island, Cuyo Islands. Puerto Princesa, Palawan. Balabac Island. Cagayan, Misamis Oriental Province; Davao, Davao Province; Caldera Bay; Zamboanga, Zamboanga Province, Mindanao. Basilan Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Lingayen, Pangasinan Province; Manila; Unisan, Tayabas Province; Luzon. Cebu, Cebu Province. Cullion. Dumaguete. Jolo, Sulu Province.

1161. *Upeneus vittatus* (Forskål). Tiau.

Tropical Indo-Pacific Ocean, from Africa to Japan, Australia, and the Marquesas Islands.

- Mullus vitatus* Forskål, Descript. Animal., p. 31, 1775; Djedda, Red Sea. Lacépède, Hist. Nat. Poissons, vol. 3, pp. 382, 401, pl. 14, fig. 1, 1802; Arabia.
- Mullus bandi* Shaw, General Zoology, Pisces, vol. 4, p. 615, 1803.
- Upeneus vittatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 448, 1829; Pondicherry, India; Society and Sunda Islands; Nukuhiva; Japan. Bleeker, Verh. Akad. Amsterdam, vol. 15, Révision Mulloides, p. 6, 1875; 16 East Indian localities and the Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 392, fig. 3, 1878. Seale, Occas. Papers Bishop Mus., vol. 4, p. 51, 1906; Tahiti; Nukuhiva, Marquesas Islands. Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 78, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Barnard, Ann. South African Mus., vol. 21, p. 584, pl. 24, fig. 1, 1927; Natal coast and Delagoa Bay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 365, 1931; 41 East Indian localities, the Philippine Islands and 26 other Indo-Pacific localities. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 334, fig. 31, 1933; Port San Vicente, Cagayan Province; Mariveles Bay and Pucot River, Mariveles and Orion, Bataan Province; Santiago River, Pagapas Bay, and Batangas market, Batangas Province; Atulayan Bay, and Nato River, Lagonoy Gulf, Albay Province, Luzon. Hinunangan Bay and San Roque, Leyte. Cebu market, Cebu. Iloilo market, Iloilo Province, Panay. Mansalay, Paluan Bay, and Varadero Bay, Mindoro. Tilic, Lubang Island, China Sea. Davao, Davao Province; Parang, and Rio Grande, Cotabato Province; Point Tagolo Light, and Zamboanga, Zamboanga Province, Mindanao. Jolo market, Jolo; Balukbaluk and Pajumajan Islands, Sulu Province. Lampingan Island, off Basilan Island. Herre, Fishes 1936-37 and 1940-41 Expeds.; Puerto Galera, Mindoro. Murcielagos Bay, Misamis Occidental Province, and Dapitan Bay, Zamboanga Province, Mindanao. Jolo, Sulu Province.
- Upeneoides vittatus* Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 63, 1849. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 42, 1857. Günther, Cat. Fishes British Mus., vol. 1, p. 397, 1859; Philippines; Ceylon; Amboyna; India. Day, Fishes India, p. 120, pl. 30, fig. 2, 1875. Day, Fauna British India, Fishes, vol. 2, p. 25, fig. 10, 1889. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 260, 1908; Lubany Island, off northwest corner of Mindoro. Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 278, 1910; Sandakan, British North Borneo; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 36, p. 105, pl. 4, fig. 1, 1928; Aparri, Cagayan Province; Bangui, Ilokos Norte Province; Damortis and Rabon, La Union Province; Alaminos, Pangasinan Province; Iba, Zambales Province; Orani, Bataan Province; Pasay, Rizal Province; Manila; Nasugbu, Batangas Province, Luzon. Puerto Galera, and Mangarin, Mindoro. Borongan, Samar. Tagbilaran and Loay, Bohol. Cebu and Bantayan Island, Cebu Province. Iloilo, Iloilo Province, and Capiz and New Washington, Capiz Province, Panay. Dumaguete, Negros Oriental Province. Agusan River, Agusan Province; Cagayan, Oriental Misamis Province; Davao, Davao Province; south coast of Cotabato Province; and Zamboanga, Zamboanga Province, Mindanao. Balabac Island. Jolo, Jolo Island, Sulu Province. Sandakan, British North Borneo. Guam. Herre, Fishes 1931 Philippine Exped., p. 56, 1934; Bauang Sur La Union Province; Manila; and Unisan, Tayabas Province, Luzon. Cotabato, Cotabato Province, Mindanao.
- Hypeneus vittatus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1017, 1850; Pinang.
- Upeneoides philippinus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 37, fig. 15, 1918; Philippines. Fowler, *ibid.*, vol. 79, p. 285, 1927; Orion, Bataan Province; also types.
- ?*Upeneus arge* Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 53, 1930; Philippines.

Family 135. SCIÆNIDÆ. Croakers

A large family occurring in most temperate and tropical seas except Oceania; some enter rivers or are even confined to fresh water.

Genus 389. OTOLITHES (Cuvier) Oken.

Tropical and sub-tropical Indian and western Pacific, north to China and Japan. Marine, but some species entering rivers.

Otolithes (Cuvier) Oken, Isis, p. 1182, 1817; type, *Johnius ruber* Bloch; on "Les Otolithes" Cuvier, Règne Animal, vol. 2, p. 299, 1817. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 353, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 487, 1936.

Otolithus Cuvier, Règne Animal, ed. 2, p. 172, 1829; type, *Johnius ruber* Bloch.

1162. *Otolithes argenteus* Cuvier and Valenciennes. Abo.

Africa to China and Australia. In the sea and estuaries.

Otolithus argenteus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 62, 1830; Batavia; Malabar; Malacca. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1043, 1850; Sea and estuaries of Pinang; Malayan Peninsula; Singapore. Günther, Cat. Fishes British Mus., vol. 2, p. 310, 1860; China; Ceylon. Bleeker, Verh. Akad. Amsterdam, vol. 14, Sciencoides, p. 9, 1874; Sumatra; Nias; Pinang; Singapore; Banka; Java; Madura; Borneo; Celebes. Bleeker, Atlas Ichth., vol. 9, pl. 385, fig. 5, 1877. Day, Fishes India, p. 197, pl. 45, fig. 3, 1878. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; Bacon, Sorsogon Province, Luzon

Otolithes argenteus Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 355, 1933; Bacon, Sorsogon Province, Luzon; Catbalogan, Samar. Herre, Fishes 1931 Philippine Exped., p. 57, 1934; Cebu, Cebu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 492, 1936; 16 East Indian localities; Philippines, and 10 other Indo-Pacific places. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Luzon, Philippines.

1163. *Otolithes ruber* (Bloch and Schneider).

South Africa to the East Indies and Philippines. Marine and entering river mouths.

Johnius ruber Bloch and Schneider, Syst. Ichth., p. 75, pl. 17, 1801; Tranquebar, India.

Otolithus ruber Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 60, pl. 102, 1830; Coromandel; Pondicherry; Malabar. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1041, 1850; Pinang; Malay Peninsula; Singapore. Günther, Cat. Fishes British Mus., vol. 2, p. 305, 1860; Malayan Peninsula; Kurrachee, India. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 184, 1908-11. Barnard, Ann. South African Mus., vol. 21, p. 573, 1927; Natal coast; Zululand; Delagoa Bay and Chinde, Mozambique.

Otolithes ruber Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 452, 1917; Ceylon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 285, 1927; Orani and Orion, Bataan Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 356, 1933; Orion, Bataan Province, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 490, 1936; Singapore; Pinang.

1164. *Otolithes dolorosus* Seale.

British North Borneo; Philippines(?).

Otolithus dolorosus Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 280, pl. 3, 1910; Sandakan, British North Borneo; fish actually taken near International Boundary, and no doubt occurring in Philippine waters.

Genus 390. JOHNIUS Bloch.

Indian and western Pacific Oceans, China to Australia, and tropical Atlantic Ocean. Marine and entering rivers.

Johnius Bloch, Naturges. Ausländ. Fische, vol. 7, p. 132, 1793; type, *Johnius carutta* Bloch. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 370, 1933; in part. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 526, 1936.

1165. *Johnius belengeri* (Cuvier and Valenciennes). Ibot.

India, the Philippines, China, and East Indies. Marine, and entering rivers.

Corvina belengerii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 120, 1830; Malabar.

Corvina Kuhlii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 121, 1830; Labouane River, Java.

Corvina lobata Cuvier and Valenciennes, *ibid.*, p. 122, pl. 107, 1830; Malabar.

Corvina Belangerii Valenciennes, in Bélanger, *Voy. Ind. Orient. Zool.*, p. 357, 1834; East Indies.

Johnius belengeri Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, vol. 2, p. 523, 1845; Batavia, Java.

Johnius Belengeri Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1047, 1850; Pinang; Malay Peninsula; Singapore. Bleeker, *Verh. Akad. Amsterdam*, vol. 14, *Sciaenoides*, p. 46, 1874; Sumatra; Nias; Pinang; Singapore; Banka; Java; Borneo; Philippines. Bleeker, *Atlas Ichth.*, vol. 9, pl. 387, fig. 1, 1877. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 87, 1907; San Fabian, Pangasinan Province, Luzon. Herre, *Fishes 1931 Philippine Exped.*, p. 57, 1934; Manila, Luzon. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 533, figs. 98-99 and 104, 1936; 14 East Indian localities; Philippines. Herre, *Fishes 1940-41 Exped.*; Manila Bay, Luzon; Ajuy Bay, Iloilo Province, Panay.

Corvina belangerii Günther, *Cat. Fishes British Mus.*, vol. 2, p. 303, 1860; Sea of Pinang.

Johnius belengeri Kner, *Reise Novara*, *Fische*, p. 133, 1865; Manila, Philippines; Java.

Sciaena (Corvina) belangeri Steindachner, *Verh. Zool.-Bot. Gesell. Wien*, vol. 16, p. 771, 1866; Calcutta.

Corvina belengeri Day, *Proc. Zool. Soc. London*, p. 684, 1870; Andaman Islands.

Corvina belengeri Borodin, *Bull. Vanderbilt Marine Mus.*, vol. 1, p. 53, 1930; "Saigon River, India."

Johnius belengerii Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 382, 1933; Bombay, India. Hardenberg, *Treubia*, vol. 14, p. 309, 1934.

1166. *Johnius semiluctuosus* (Cuvier and Valenciennes).

India, East Indies, and the Philippines.

Corvina semiluctuosa Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 106, 1830; Malabar; Goa; Pondicherry. Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, vol. 2, p. 522, 1845; Batavia, Java. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 304, 1860; China.

Johnius semiluctuosa Kner, *Reise Novara*, *Fische*, p. 124, 1865-67; Java. Bleeker, *Verh. Akad. Amsterdam*, vol. 14, *Sciaenoides*, p. 54, 1874.

Sciacna semiluctuosa Day, *Fishes India*, p. 191, 1878; Bombay; Sind; Baluchistan.

Johnius semiluctuosus Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 404, 1933; compiled; not synonymy. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 535, 1936; Java; Sumatra; the Philippines.

Genus 391. PSEUDOSCIAENA Bleeker.

Indian Ocean, East Indies, Philippines, China, Japan, and south to Australia.

Pseudosciaena Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 142, 1863; type, *Pseudosciaena amblyceps* Bleeker. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 505, 1936.

1167. *Pseudosciaena aneus* (Bloch). Alakaak.

The East Indies, Philippines, China, India, and Ceylon. Marine and entering rivers.

Johnius aneus Bloch, *Naturges. Ausländ. Fische*, vol. 7, p. 135, pl. 257, 1793; Malabar, India. Bloch and Schneider, *Syst. Ichth.*, p. 74, 1801; Tranquebar, India. Fowler, *Bull. 100, U. S. Nat. Mus.*, vol. 12, p. 376, 1933; Aparri, Cagayan Province; Dagupan and San Fabian, Pangasinan Province; Corregidor Light, Manila Bay, and Manila market; Cavite market, Cavite Province; off Daet, Camarines Norte Province, Luzon. Catbalogan, Samar. Tacloban market, Leyte. Herre, *Fishes 1931 Philippine Exped.*, p. 57, 1934; Manila, Luzon; Capiz, Capiz Province, and La Paz, Iloilo, Iloilo Province, Panay. Umali, *Edible Fishes Manila*, p. 170, fig. 134, 1936; Manila Bay. Umali, *Philippine Jour. Sci.*, vol. 63, p. 234, 1937; San Miguel Bay, Luzon.

Labrus aneus Lacépède, *Hist. Nat. Poissons*, vol. 3, pp. 447 and 517, 1802.

Corvina anei Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 131, 1830.

- Otolithus macrophthalmus* Bleeker, Verh. Bat. Gen., vol. 23, Scienoides, p. 16, 1850. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 99, 1850; Batavia; Bantam; Samarang; Pasuruan.
- Sciaena macrophthalmus* Günther, Cat. Fishes British Mus., vol. 2, p. 291, 1860; after Bleeker.
- Johnius anei* Blyth, Jour. Asiatic Soc. Bengal, vol. 19, p. 141, 1861.
- Otolithus aneus* Day, Proc. Zool. Soc. London, p. 939, 1867; Madras. Day, *ibid.*, p. 684, 1870; Andaman Islands.
- Corvina macrophthalmus* Bleeker, Verh. Akad. Amsterdam, vol. 2, p. 292, 1868; Bintang.
- Otolithus leuciscus* Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 398, 1872; Manila Bay, Philippines. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 23, 1885; Manila Bay, Philippines.
- Pseudosciaena aneus* Bleeker, Atlas Ichth., vol. 9, pl. 385, fig. 2, 1877. Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 606, 1912.
- Pseudosciaena anea* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 25, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 261, 1908; Manila, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 280, 1910; Sandakan, British North Borneo; Philippines.
- Argyrosomus aneus* Fowler, Copeia, No. 58, p. 64, 1918; the Philippines.
- Johnius aneus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 285, 1927; Philippines.
- Pseudosciaena aneus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 508, 1936; 12 East Indian localities; the Philippines. Herre, Fishes 1936-37 Exped.; Manila Bay, and Batangas Bay, Luzon.
1168. *Pseudosciaena axillaris* (Cuvier and Valenciennes).
India, Ceylon, China, the Philippines, and Australia. Marine and in river mouths.
- Corvina axillaris* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 113, 1830; Malabar, India. Valenciennes, in Bélanger, Voy. Ind. Orient., Zool., vol. 2, p. 356, 1834; Malabar coast. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 106, 1881; Swatow, China.
- Sciaena axillaris* Day, Fishes India, p. 188, pl. 43, fig. 6, 1878; Orissa; Madras. Hora, Jour. Nat. Hist. Soc. Siam, vol. 6, p. 177, 1923; Notaburi.
- Corvina papuensis* Hase, Jena Zeitsch. Nat., vol. 51, p. 531, figs. 4-6, 1914; Kaiser Wilhelm Land, New Guinea.
- Bola axillaris* Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 451, 1917; Ceylon.
- Johnius axillaris* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 285, 1927; Vigan, Ilokos Sur Province, and Orion, Bataan Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 397, 1933; Vigan, Ilokos Sur Province, and Orion, Bataan Province, Luzon.
- Johnius papuensis* Fowler, Mem. Bishop Mus., vol. 10, p. 235, 1928; after Hase.
- Pseudosciaena axillaris* Herre, Fishes 1931 Philippine Exped., p. 57, 1934; Bauang Sur, La Union Province, Luzon. La Paz, Iloilo Province, Panay. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 511, 1936; Batu Ulu, Java; Kaiser Wilhelm Land, New Guinea; the Philippines.
1169. *Pseudosciaena diacanthus* (Lacépède).
India to the East Indies, Philippines, and China. Marine and in river mouths.
- Lutjanus diacanthus* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 195 and 240, 1802.
- Johnius diacanthus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1049, 1850; Pinang; Malay Peninsula; Singapore. Kner, Réise Novara, Fische, p. 133, 1865; Madras and 50 miles off Ceylon. Fowler, Jour. Bombay Nat. Hist. Soc., vol. 30, p. 777, 1926; Bombay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 374, 1933; Bombay; Philippines. Herre, Fishes 1931 Philippine Exped., p. 57, 1934; Batangas Province, Luzon.
- Sciaena diacanthus* Günther, Cat. Fishes British Mus., vol. 2, p. 290, 1860; China; Bay of Bengal; Malayan Peninsula; Calcutta. Vinciguerra, Ann. Mus. Civ. Storia Nat. Genova, ser. 3, vol. 10, p. 578, 1926; Sarawak. Pillay, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 366, 1929.

Pseudosciaena diacanthus Bleeker, Verh. Akad. Amsterdam, vol. 14, Révision Scienoides, p. 27, 1874; Singapore; Pinang; Banka; Java; Madura. Bleeker, Atlas Ichth., vol. 9, pl. 388, fig. 2, 1877. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 279, 1910; Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Weber and de Beaufort, Fishes, Indo-Australian Archipelago, vol. 7, p. 515, 1936; Singapore; Pinang; Banka; Batavia; Java; Madura; Sandakan, British North Borneo; Sarawak, Borneo; Philippines. Herre, Fishes 1936-37 Exped.; Zamboanga, Zamboanga Province, Mindanao; Sandakan, British North Borneo; Pinang, Straits Settlements.

1170. *Pseudosciaena goldmanni* (Bleeker).

East Indies and the Philippines.

Corvina Goldmanni Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 371, 1854; Batjan.

Johnius Goldmanni Bleeker, *ibid.*, vol. 17, p. 145, 1858-59; Bali.

Sciaena goldmanni Günther, Cat. Fishes British Mus., vol. 2, p. 293, 1860; Batjan; after Bleeker.

Otolithus Goldmanni Bleeker, Ned. Tijds. Dierk., vol. 2, p. 285, 1865; Amboina.

Pseudosciaena Goldmani Bleeker, Verh. Akad. Amsterdam, vol. 14, Scienoides, p. 33, 1874; Bali; Batjan; Amboina; New Guinea.

Argyrosomus goldmani Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 43, 1918; Philippines. Fowler, Copeia, No. 58, p. 64, 1918; the Philippines.

Johnius goldmanni Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 286, 1927; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 387, 1933; the Philippines.

Pseudosciaena goldmanni Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 4, 1933; Sandakan, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 507, 1936; Bali; Batjan; Amboina; Doreh, New Guinea; Philippines. Herre, Fishes 1940-41 Exped.; Miagao, Iloilo Province, Panay.

1171. *Pseudosciaena sina* (Cuvier and Valenciennes).

Indian Ocean, and western Pacific to the Philippines, China, and Japan. Marine and in river mouths and estuaries.

Corvina sina Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 122, 1830; Pondicherry; Malabar; Japan. Valenciennes, in Bélanger, Voy. Ind. Orient., Zool., vol. 2, p. 359, 1834; Malabar; Pondicherry. Richardson, Ichth. China Japan, p. 225, 1846; China. Bleeker, Verh. Bat. Gen., vol. 25, Nalez. ichth. fauna Bengalen, p. 36, 1853; Bengal. Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 29, p. 254, 1911.

Otolithis Vogleri Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 253, 1853; Benculen, Sumatra.

Sciaena vogleri Günther, Cat. Fishes British Mus., vol. 2, p. 294, 1860; Sea of Sumatra; after Bleeker. Day, Fishes India, p. 186, pl. 45, fig. 1, 1878. Norman, Ann. Mag. Nat. Hist., ser. 9, vol. 9, p. 321, 1922; Natal. Vinciguerra, Ann. Mus. Civ. Storia Nat. Genova, ser. 3, vol. 10, p. 577, 1926; Sarawak. Hardenberg, Treubia, vol. 13, p. 130, 1931; Rokan Mouth, Sumatra.

Sciaena sina Günther, Cat. Fishes British Mus., vol. 2, p. 292, 1860; Pondicherry; coast of Malabar; Japanese Sea. Day, Fishes India, p. 186, pl. 44, fig. 2, 1878; Bombay; Sind. Martens, Preuss. Exped. Ost-Asien, p. 390, 1876; Yokohama; Yeddo; Manila, Philippines. Zugmayer, Abh. Bayerisch Akad. Wiss., vol. 26, p. 12, 1913; Mekran; Oman. Herre and Myers, Lingnan Sci. Jour., vol. 10, p. 251, 1931; Hong Kong.

Johnius sina Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 141, 1860; Sitang River. Fowler, Proc. Acad. Nat. Sci. Phila., p. 247, 1925; Delagoa Bay. Fowler, Jour. Bombay Nat. Hist. Soc., vol. 33, p. 115, 1928; Bombay. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 388, 1933; off San Fernando Point Light, La Union Province, Luzon.

Pseudosciaena vogleri Bleeker, Verh. Akad. Amsterdam, vol. 14, Mem. Scienoides, p. 35, 1874; Sumatra; Celebes. Bleeker, Atlas Ichth., vol. 9, pl. 386, fig. 4, 1877.

Johnius vogleri Seale, Philippine Jour. Sci., vol. 5, sec. 9, p. 280, 1910; Sandakan, British North Borneo.

- Sciaena parva* Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 183, 1908-11; in 24 fathoms, South Head Tugela River.
- Sciaena marleyi* Norman, Ann. Mag. Nat. Hist., ser. 9, vol. 9, p. 321, 1922; Natal.
- Johnius parvus* Fowler, Proc. Acad. Nat. Sci. Phila., p. 247, 1925; Delagoa Bay; Natal.
- Johnius marleyi* Fowler, Proc. Acad. Nat. Sci. Phila., p. 247, 1925; Natal.
- Johnius diacanthus* (in part) Fowler, Jour. Bombay Nat. Hist. Soc., vol. 30, p. 9, 1926; lapsus.
- Pseudosciaena sina* Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 7, p. 513, 1936; Singapore; Sumatra; Borneo; Celebes, Philippines; east coast of Africa from Zanzibar to Natal, Madagascar, Arabia, Baluchistan, India, Ceylon, Southern China, and Japan. Herre, 1948 Coll.; Manila Bay, Luzon.
1172. *Pseudosciaena soldado* (Lacépède).
Indian and western Pacific Oceans from China and the Philippines to Queensland, Australia.
- Holocentrus soldado* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 344, 389, 1802.
- Corvina soldado* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1052, 1850; Pinang.
- Johnius soldado* Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 145, 1858-59; Bali. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 392, 1933; Philippines; also Sebatic Island, British North Borneo; river at Makassar, Celebes; and off Bombay.
- Sciaena soldado* Ogilby, Mem. Queensland Mus., vol. 6, p. 81, pl. 24, 1918; Dunk Island. Barnard, Ann. South African Mus., vol. 21, p. 570, 1927; Quillimane, Portuguese East Africa.
- Pseudosciaena soldado* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 520, fig. 102, 1936; 13 East Indian localities; Philippines and 8 other Indo-Pacific places.
- Genus 392. **SCIAENA** Linnaeus. Ibot; Pagotpot.
In the tropical Indian and western Pacific Oceans; in the sea and entering rivers.
- Sciaena* Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 288, 1758; type, *Sciaena cirrosa* L. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 407, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 541, 1936.
- Umbrina* Cuvier, Règne Animal, vol. 2, p. 297, 1817; type *Sciaena cirrosa* L. Günther, Cat. Fishes British Mus., vol. 2, p. 273, 1860.
- Attilus* Gistel, Naturges. Thierreichs, p. 109, 1848; type *Sciaena cirrosa* L.
- Ctenosciaena* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 63, p. 15, 1923; type, *Sciaena dubia* Fowler.
1173. *Sciaena dussumieri* (Cuvier and Valenciennes). Bitilla; Ibot; Kabang; Manangin.
Madagascar to the Philippines, Formosa, and China.
- Umbrina dussumieri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 481, 1833; Coromandel, India. Bleeker, Nat. Geneesk. Arch. Ned. Ind., vol. 2, p. 523, 1845; Batavia, Java. Day, Fishes India, p. 183, pl. 43, figs. 2 and 3, 1878. Pellegrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonquin. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 25, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 261, 1908; Manila, Luzon. Pellegrin, Bull. Soc. Zool. France, vol. 39, p. 224, 1914; Fort Dauphin, Madagascar. Herre, Fishes 1931 Philippine Exped., p. 57, 1934; San Estaban, Ilokos Sur Province, Luzon.
- Umbrina amblycephalus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 412, 1855; Amboina. Kner, Sitzungsber. Akad. Wiss. Wien, vol. 58, p. 320, 1868; Formosa.
- Sciaena Dussumieri* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 142, 1872; China. Bleeker, Verh. Akad. Amsterdam, vol. 14, Scienoides, p. 56, 1874; Sumatra; Singapore; Banka; Java; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 387, fig. 4, 1877.

Sciaena dussumieri Fowler, Copeia, No. 58, p. 64, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 43, 1918; the Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 63, p. 17, 1923; the Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 412, 1933; Dapugan and San Fabian, Pangasinan Province; Manila Bay; Orion, Bataan Province; off Daet, Camarines Norte Province, Luzon. Tacloban market, Leyte. Zamboanga, Zamboanga Province, Mindanao. Umali, Edible Fishes Manila, p. 169, fig. 132, 1936; Manila Bay, Luzon; also Hong Kong. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 542, 1936; Singapore; Banka; Sumatra (3 places); Java (4 places); Bali; Amboina; the Philippines. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1936-37 and 1940-41 Expeds.; Puerto Galera, and Mangarin, Mindoro; Iloilo, Iloilo Province, Panay; Dapitan, Mindanao; also Singapore.

1174. *Sciaena russelli* (Cuvier and Valenciennes). Kabang. India, the East Indies, Philippines, and Ceylon to southern China. *Labrus* species, Russell, Fishes Vizagapatam, p. 13, pl. 118, 1803. *Umbrina Russelli* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 178, 1830; Coromandel. Lay and Bennett, Fishes, Zool. Capt. Beechey's Voyage, p. 51, 1839; Macao. Richardson, Ichth. China Japan, p. 226, 1846; China Seas; Canton. *Umbrina Kuhl*i Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 179, 1830; Java; *U. kuhli*=*Sciaena indica* Cuvier and Valenciennes. *Umbrina Kuhl*i Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 523, 1845; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 23, Sciaenoiden, p. 19, 1850. *Umbrina russelli* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1053, 1850; Pinang; Malay Peninsula; Singapore. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 25, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; San Fabian, Pangasinan Province, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 279, 1910; Sandakan, British North Borneo; the Philippines. *Umbrina russellii* Günther, Cat. Fishes British Mus., vol. 1, p. 278, 1859; Malayan Peninsula. Kner, Reise Novara, Fische, p. 131, 1865; Ceylon. Day, Fishes India, p. 183, pl. 43, fig. 4, 1878. Tirant, Service Océanogr. Pêches Indo-Chine, note 6, pp. 9, 16, 1929; Hué River. *Sciaena russelli* Bleeker, Verh. Akad. Amsterdam, vol. 14, Révision Scienoides, p. 58, 1874; Singapore; Bintang; Kanka; Java; Madura; Celebes. Bleeker, Atlas Ichth., vol. 9, pl. 386, fig. 2, 1877. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 286, 1927; the Philippines. Herre, Fishes, 1931 Philippine Exped., p. 57, 1934; Manila; Atimonan, Tayabas Province, Luzon. Weber and de Beaufort, Fishes, Indo-Australian Archipelago, vol. 7, p. 544, 1936; 14 East Indian localities; the Philippines. Herre, 1940 Exped., Dagat-Dagatan Exper. Sta., Navotas, Rizal Province. *Umbrina indica* Chaudhuri, Mem. Indian Mus., vol. 5, p. 725, 1923. *Sciaena indica* Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 410, 1933; Manila market; Caringo Island, Camarines Norte Province; Sorsogon market, Sorsogon Province; San Fabian, Pangasinan Province, Luzon; also Sandakan Market, British North Borneo. Umali, Edible Fishes Manila, p. 169, fig. 170, 1936; Manila Bay, Luzon

Family 136. SILLAGINIDÆ

Marine fishes of the tropical Indian and western Pacific oceans, Japan, China, the Philippine and Solomon Islands, and Australia.

Genus 393. *SILLAGO* Cuvier. Asohos; Asoos.

Sillago Cuvier, Règne Animal, vol. 2, p. 258, 1817; type, *Sillago acuta* Cuvier. Bleeker, Verh. Akad. Amsterdam, vol. 14, Mém. Scienoides et Sillaginoides, p. 63, 1874. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 169, 1931. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 415, 1933. Martin and Montalban, Philippine Jour. Sci., vol. 55, p. 221, 1934.

1175. *Sillago argentifasciata* Martin and Montalban.
A Philippine species.
Sillago argentifasciata Martin and Montalban, Philippine Jour. Sci.,
vol. 55, p. 226, pl. 1, fig. 3, 1934; Lumbukan Island, off Balabac.
1176. *Sillago chondropus* Bleeker.
The East Indies and Philippines.
Sillago chondropus Bleeker, Verh. Bat. Gen., vol. 22, 1849; Percoiden
Malayo-Molukschen Arch., p. 61; Batavia, Java. Günther, Cat.
Fishes British Mus., vol. 2, p. 246, 1860; Molucca Sea. Bleeker, Verh.
Akad. Amsterdam, vol. 14, Mém. Sciénoïdes et Sillaginoïdes, p. 65,
1874; Java. Bleeker, Atlas Ichth., vol. 9, pl. 389, fig. 2, 1877. Weber
and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 176,
fig. 34, 1931; Batavia, Java, Nias. Fowler, Bull. 100, U. S. Nat. Mus.,
vol. 12, p. 430, 1933; Daet, Camarines Norte, Luzon; Abuyog, Leyte.
1177. *Sillago japonica* Schlegel.
Formosa, Japan, the Philippines, and East Indies.
Sillago japonica Schlegel, Fauna Japonica, Pisces p. 33, pl. 10, fig. 1, 1842;
Nagasaki. Richardson, Ichth. China Japan, p. 223, 1846; Canton.
Bleeker, Verh. Bat. Gen., vol. 25, Ichth. Japan, p. 28, 1853. Bleeker,
Verh. Akad. Amsterdam, vol. 14, Mém. Sciénoïdes et Sillaginoïdes, p.
69, 1874; Java; Amboina, Bleeker, Atlas Ichth., vol. 9, pl. 389,
fig. 6, 1877. Jordan and Snyder, Proc. U. S. Nat. Mus., vol.
24, p. 487, 1902; 12 places in Japan. Jordan and Hubbs, Mem.
Carnegie Mus., vol. 10, p. 248, 1925; 10 places in Japan. Fowler, Hong
Kong Nat., vol. 2, p. 302, 1931; Hong Kong. Weber and de Beaufort,
Fishes Indo-Australian Archipelago, vol. 6, p. 174, 1931; Batavia,
Java; Amboina; also Formosa. Fowler, Bull. 100, U. S. Nat. Mus., vol.
12, p. 425, 1933; 9 Japanese localities; Takao, Formosa; Nanking and
Foochow, China. Herre, Fishes 1931 Philippine Exped., p. 57, 1934;
Cotabato, Cotabato Province, Mindanao; Jolo, Sulu Province.
1178. *Sillago macrolepis* Bleeker. Daing gusong.
East Indies and the Philippines.
Sillago macrolepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 166, 1858-
59; Bali; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 2,
p. 246, 1860; after Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 14,
Mém. Sciénoïdes et Sillaginoïdes, p. 72, 1874; Java; Bali. Bleeker,
Atlas Ichth., vol. 9, pl. 389, fig. 1, 1877. Meyer, An. Soc. España Hist.
Nat. Madrid, vol. 14, p. 28, 1885; Menado, Celebes. Evermann and
Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 87, 1907; Bulan, Sorsogon
Province, Luzon. De Beaufort, Bijdr. Dierk., Leiden, vol. 19, p. 120,
1913; Saonek, Waigiu; Amboina. Weber and de Beaufort, Fishes Indo-
Australian Archipelago, vol. 6, p. 171, 1931; Batavia, Java, Bali; Am-
boina; Menado, Celebes; Saonek, Waigiu; Philippines. Fowler, Bull.
100, U. S. Nat. Mus., vol. 12, p. 416, 1933; Zamboanga, Zamboanga
Province Mindanao. Herre, Fishes 1931 Philippine Exped., p. 58, 1934;
Lemery, Batangas Province, Luzon.
1179. *Sillago maculata* Quoy and Gaimard. Spotted asohos.
East Africa to the Philippines, China, East Indies, Australia, and
Tasmania.
Sillago maculata Quoy and Gaimard, Voy. Uranie, Zoologie, p. 261, pl. 5,
fig. 2, 1824; Sydney and Port Jackson, Australia. Cuvier and Valen-
ciennes, Hist. Nat. Poissons, vol. 3, p. 411, 1829; Port Jackson. Kner,
Reise Novara, Fische, p. 127, 1865; Java; Manila, Luzon. Bleeker,
Verh. Akad. Amsterdam, vol. 14, Mém. Sciénoïdes et Sillaginoïdes, p.
71, 1874; Singapore; Bintang; Lepar; Java; Celebes; Philippines.
Bleeker, Atlas Ichth., vol. 9, pl. 389, fig. 5, 1877. Day, Fishes India,
p. 265, 1878. Woods, Fish and Fisheries New South Wales, p. 65, pl.
23, 1882. Pellegrin, Bull. Soc. Zool. France, vol. 30, p. 83, 1905; Baie
d'Along, Tonkin. Stead, Fishes Australia, p. 109, fig. 41, 1906; New
South Wales, Queensland, Western Australia. Fowler, Proc., Acad.
New South Wales, ed. 2, p. 51, pl. 21, fig. 184b, 1927. Bernard, Ann.
South Africa Mus., vol. 21, p. 508, 1927; Delagoa Bay. Weber and de
Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 174, 1931;
Singapore; Bintang; Banka; Lepar; Batavia; Java; Makassar and
Tanette, Celebes; Philippines. Fowler, Bull. 100, U. S. Nat. Mus., vol.

12, p. 423, 1933; Manila market, and Manila Harbor; Cavite market, Cavite Province; Mariveles, Bataan Province; Ragay River, Camarines Sur Province; Bulan and Sorsogon market, Sorsogon Province, Luzon. Catbalogan, Samar. Cebu market. Verde del Sur Island, Palawan. Martin and Montalban, Philippine Jour. Sci., vol. 55, p. 224, pl. 1, fig. 2, 1934; Manila, Luzon; Tacloban, Leyte Province, Leyte. Estancia, Iloilo Province, Panay. Panacan, Palawan. Herre, Fishes 1936-37 Exped.; Malabon, Rizal Province; Ragay Gulf, Luzon. Capiz, Capiz Province, and Astancia and Iloilo, Iloilo Province, Panay.

Sillago burrus Richardson, Ann. Mag. Nat. Hist., vol. 9, p. 128, 1842; northwest coast of Australia.

Sillago gracilis Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 279, pl. 6, fig. 2, 1876. Whitley, Great Barrier Reef Exped., vol. 4, p. 284, 1932; Low Isles.

1180. *Sillago sihama* (Forskål). Common asohos.

Red Sea and east coast of Africa to the East Indies, Philippines, China, Korea, Japan, Formosa, Solomon Islands, and Australia. Marine and in estuaries and river mouths.

Atherina sihama Forskål, Descript. Animal., p. 70, 1775; Red Sea.

Platycephalus sihamus Bloch and Schneider, Syst. Ichth., p. 60, 1801; Red Sea.

Sillago sihama Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 9, pl. 3, fig. 1, 1828; Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 243, 1860; Philippines; China; Amboyna; Canton; Malayan Peninsula; Ceylon; Red Sea; Nepal is, of course, an error. Bleeker, Verh. Akad. Amsterdam, vol. 14, Mém. Sciénoïdes et Sillaginoides, p. 67, 1874; 20 East Indian localities. Peters, Monatsber. Akad. Wiss. Berlin, p. 836, 1877; Bougainville, Solomon Islands. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 369, 1879; Australia. Steindachner and Döderlein, Denkschr. Akad. Wiss. Wien, vol. 49, p. 192, 1885; Japan. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 782, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 25, 1907; Cavite, Cavite Province, Luzon. Seale Philippine Jour. Sci., vol. 5, sec. D, p. 281, 1910; Sandakan, British North Borneo; Philippines. Jordan and Metz, Mem. Carnegie Mus., vol. 6, p. 41, 1913; Chinnamp and Fusan, Korea; Japan; Swatow and Hong Kong, China; Formosa; Philippines. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 455, 1917; Ceylon; Takao, Formosa; Cavite, Cavite Province, Luzon. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 68, 1922; Cebu, Cebu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 286, 1927; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province; Orani and Orion, Bataan Province, Luzon, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 172, fig. 33, 1931; 39 East Indian localities; Philippines and 32 other Indo-Pacific localities. Fowler, Bull. 100, U. S. Nat. Mus., vol. 12, p. 417, 1933; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. San Vicente Harbor, Palau Island, and Aparri, Cagayan Province; Santa Maria and Vigan, Ilokos Sur Province; San Fernando, La Union Province; Dagupan, and Lingayen Gulf, Pangasinan Province; Subig Bay, Olongapo, Zambales Province; Manila Harbor and Manila market; Balayan Bay; Batangas Province; Orani, Bataan Province; Cavite market, Cavite Province; Daet, and Caringo Island, Camarines Norte Province; Ragay River, Ragay Gulf, Camarines Sur Province; Nato River, Lagonoy Gulf and Yaua River, Albay Gulf, Albay Province; Matnog Bay, Sorsogon Province; also Dumaca River, Luzon. Tillic, Lubang Island, northwest corner of Mindoro. Sablayan Bay and Paluan Bay, Mindoro. Catbalogan, Samar. Abuyog and Malaga River, Hinunangan Bay, Leyte. Bais, Negros Oriental Province, Negros. Iloilo market, and Iloilo River, Iloilo Province, Panay. Buena Vista, Guimaras Island; Malampaya, Endeavor Strait, Montaguin Bay, and Verde del Sur Island, Palawan. Palang and Cotabato and below mouth of Rio Grande, Cotabato Province; Davao, Davao Province; Panabutan Bay, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 53, 1934; Bauang Sur, La Union Province; Dagupan, Pangasinan Province; Iba, Zambales Province; Bulacan, Bulacan Province; Manila Bay; Batangas, Batangas Province; Luzon. Cotabato, Cotabato Province, Mindanao. Sitankai, Sulu Province. Martin and

Montalban, Philippine Jour. Sci., vol. 55, p. 222, pl. 1, fig. 1, 1934; Abuyog, Cagayan Province; Bangui, Ilocos Norte Province; Vigan, Ilokos Sur Province; Iba, and Subic, Zambales Province; Macabebe, Pampanga Province; Paombong, Bulacan Province; Manila; Pasay, Rizal Province; Nasugbu and Balayan Bay, Batangas Province; Sibubu, San Miguel Bay, Camarines Sur Province; Legaspi, Albay Province, Luzon. Pinamalayan, Mindoro Province. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934, southwestern Samar. Umali, Edible Fishes Manila, p. 171, fig. 135, 1935; Manila Bay. Villadolid, Philippine Jour. Sci., vol. 63, p. 216, 1937; Balayan Bay, Batangas Province, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 507, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1936-37 and 1940-41 Expeds.; Balayan Bay, Batangas Province, Luzon. South Natuna Island, South China Sea. Iloilo and Miagao, Iloilo Province, Panay. Murcielagos Bay, Misamis Occidental Province, Mindanao.

Family 137. MALACANTHIDÆ

Genus 394. MALACANTHUS Cuvier.

Tropical Indo-Pacific and West Indies.

Malacanthus Cuvier, Règne Animal, ed. 2, vol. 2, p. 264, 1829; type, *Coryphaena plumieri* Bloch. Günther, Cat. Fishes British Mus., vol. 3, p. 359, 1861. Herre, Philippine Jour. Sci., vol. 31, p. 219, 1926. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 548, 1936.

Oceanops Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 277, 1906; type, *Malacanthus latovittatus* Lacépède.

1181. *Malacanthus hoedti* Bleeker. Quakerfish; Teuay.

Tropical Indo-Pacific.

Malacanthus Hoedtii Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Bijdr. vischfauna New Guinea, p. 18, 1859.

Malacanthus hoedti Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 53, 1859-60; New Guinea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 549, 1936; Pulu Weh; Padang, Sumatra; Ternate; Doreh, New Guinea; Philippines.

Malacanthus hoedtii Günther, Cat. Fishes British Mus., vol. 3, p. 361, 1861; Louisiade Archipelago; Mauritius. Günther, Fische der Südsee, vol. 2, p. 160, pl. 98, fig. B, 1876; Tahiti; Yap; Hawaii; Louisiades. Herre, Philippine Jour. Sci., vol. 31, p. 221, 1926; Santo Domingo de Basco, Batan Island, Batanes Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 236, pl. 21, fig. B, 1928; Hawaiian Islands.

Malacanthus parripinnis Vaillant and Sauvage, Revue Mag. Zool., ser. 3, vol. 3, p. 283, 1875; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 275, fig. 118, 1905; Honolulu, Hilo, and Maui, Hawaiian Islands.

1182. *Malacanthus latovittatus* (Lacépède). Eye of the sea; Matangdagat; Nalagalep.

Tropical Indo-Pacific.

Labrus latovittatus Lacépède, Hist. Nat. Poissons, vol. 3, p. 527, pl. 28, fig. 2, 1798; "Great Equatorial Ocean"; [Mauritius]. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 701, pl. 20, fig. 3, 1835; Port Dorey, New Guinea.

Malacanthus taeniatus Cuvier and Valenciennes, Hist. Nat. Poiss., vol. 13, p. 239, pl. 381, 1839; Doreh Harbor, New Guinea.

Malacanthus latovittatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 5, 1859; Doreh, New Guinea. Günther, Cat. Fishes British Mus., vol. 3, p. 360, 1861; Mauritius; New Guinea. Günther, Fische der Südsee, vol. 2, p. 160, 1876; Pelew Islands. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 266, 1883; Goldie River, New Guinea. Herre, Philippine Jour. Sci., vol. 31, p. 220, 1926; Santo Domingo de Basco, Batan Island, Batanes Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Dumaguete; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 551, fig. 105, 1936; Sinalur; Padang, Sumatra; Bulucomba, Celebes;

Flores; Amboina; Ternate; Batjan; New Guinea; Philippines. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao. *Malacanthus urichthys* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 549, pl. 16, lower figure, 1904; Padang, Sumatra. *Oceanops latovittata* Jordan and Seale, U. S. Bur. Fisheries, vol. 25, p. 277, pl. 39, 1906; PagoPago, Samoa.

Family 138. BRANCHIOSTEGIDÆ

Tropical and temperate seas; the Indian Ocean, East Indies, and Philippines.

Genus 395. BRANCHIOSTEGUS Rafinesque.

The East Indies and Philippines to Japan; marine; species few.

Branchiostegus Rafinesque, Analyse Nature, p. 86, 1815. Herre, Philippine Jour. Sci., vol. 31, p. 535, 1926.

Latilus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 368, 1830; type, *Latilus argentatus* Cuvier and Valenciennes = *Coryphaena japonica* Houttuyn. Günther, Cat. Fishes British Mus., vol. 2, p. 252, 1860. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 488, 1902.

1183. *Branchiostegus ilocanus* Herre.

A Philippine species.

Branchiostegus ilocanus Herre, Philippine Jour. Sci., vol. 35, p. 32, 1928; Narvacan, Ilokos Sur Province, Luzon.

1184. *Branchiostegus japonicus* (Houttuyn).

Japan to the Philippines.

Coryphaena japonica Houttuyn, Actae Harlemensis, vol. 20, Part 2, p. 311, 1782; southern Japan.

Coryphaenoides houttuyni Lacépède, Hist. Nat. Poissons, vol. 3, p. 176, 1802; after Houttuyn.

Latilus argentatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 369, 1830; Japan. Schlegel, Fauna Japonica, Pisces, p. 63, pl. 28, fig. 2, 1842; Nagasaki. Bleeker, Verh. Bat. Gen. vol. 26, Ichth. Japan, p. 85, 1854-57. Günther, Cat. Fishes British Mus., vol. 2, p. 252, 1860; China. Nyström, Svenska Vet. Akad. Handlingar, Part 4, vol. 13, p. 29, 1887; Nagasaki. Ishikawa, Preliminary Cat. Fishes, p. 45, 1897; Tagato; Nagato.

Coryphaena sinensis Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 369, 1901; Tokyo.

Latilus japonicus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 489, 1902; Nagasaki, Wakanoura and Tokyo, Japan; Giran, Formosa.

Branchiostegus japonicus Chu, Index Piscium Sinensium, p. 137, 1931; Shanghai; Seas of China. Herre, Fishes 1940-41 Exped.; Naujan, Mindoro.

1185. *Branchiostegus vittatus* Herre.

A Philippine species.

Branchiostegus vittatus Herre, Philippine Jour. Sci., vol. 31, p. 535, 1926; Manila market.

Family 139. LABRACOGLOSSIDÆ

Genus 396. LABRACOGLOSSA Peters.

Labracoglossa Peters, Monatsber. Akad. Wiss. Berlin, p. 513, 1866; type, *Labracoglossa argentiventris* Peters, Ibid., p. 513, 1866. Babuyan Is., Philippine Fishery Program. 1947—A Japanese fish.

Family 140. CEPOLIDÆ

Marine fishes of the tropical and temperate Indian and western Pacific Oceans, the Mediterranean Sea, and European Atlantic Ocean.

Genus 397. ACANTHOCEPOLA Bleeker.

India, East Indies, Philippines, China and Japan.

Acanthocepola Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 8, p. 369, 1874; type, *Cepola krusensterni* Schlegel. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 700, 1903. Herre, Philippine Jour. Sci., vol. 34, p. 281, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 553, 1936.

1186. *Acanthocephala abbreviata* (Cuvier and Valenciennes).
 India, Philippines, East Indies and China.
Cepola abbreviata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 298, 1835; after a drawing. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 178, 1850; Pinang. Günther, Cat. Fishes, British Mus., vol. 3, p. 488, 1861; Sea of Pinang; China; Molucca Sea. Day, Fishes India, p. 324, pl. 68, fig. 4, 1878.
Acanthocephala abbreviata Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 27, 1907; Cavite, Cavite Province, Luzon. Weber, Siboga-Exped., vol. 57, Fische, p. 266, 1913; Saleyer. Herre, Philippine Jour. Sci., vol. 34, p. 282, pl. 1, 1927; Manila Bay, and Manila markets, Luzon. Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Manila Bay, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 553, 1936; Singapore; Pinang; Sumatra; Java; Saleyer. Collection A. F. Umali, June, 1947, by beam trawlers; Manila Bay, Luzon.
1187. *Acanthocephala krusensterni* (Schlegel).
 Japan to the Philippines.
Cepola krusensternii Schlegel, Fauna Japonica, Pisces, p. 130 (not figure), 1845; Nagasaki. Bleeker, Verh. Bat. Gen., vol. 25, Ichth. Japan, p. 39, 1853; Japan. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, pl. 2, fig. 1, 1859; Japan. Günther, Cat. Fishes, British Mus., vol. 3, p. 488, 1861; Sea of Nagasaki, Japan.
Acanthocephala krusensterni Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 700, 1903; Tokyo, Misaki, Wakanoura, Onomichi, Nagasaki, Mogi, and Obama, Japan. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 69, 1914; Hong Kong. Herre, Philippine Jour. Sci., vol. 34, p. 283, 1927; Manila Bay, Luzon; Puerto Galera, Mindoro. Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Manila Bay.

Family 141. HENICICHTHYIDÆ

A small group of little fishes of uncertain relationship. Some authors have placed them in the gobies—a very dubious arrangement without sound basis.

Genus 398. HENICICHTHYS Tanaka.

Two species known, one from Japan and one from the Philippines; both marine.

Henicichthys Tanaka, Zool. Mag., vol. 27, p. 568, 1915; type, *Henicichthys foraminosus* Tanaka.

1188. *Henicichthys philippinus* Herre.

A Philippine fish.

Henicichthys philippinus Herre, Copeia, No. 4, p. 200, 1939; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province, Philippines. Herre, 1948 Coll., Layia, Batangas Province, Siaton, Negros Oriental Province.

Family 142. CIRRHITIDÆ

Tropical and subtropical Indian and Pacific Oceans; marine.

Genus 399. CIRRHITUS Lacépède.

Only one Indo-Pacific species known.

Cirrhitus Lacépède, Hist. Nat. Poissons, vol. 5, p. 2, 1803; type, *Cirrhitus maculatus* Lacépède. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 451, 1905. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 452, 1927. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 2, 1940.

Cirrhites Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 66, 1829. Günther, Cat. Fishes British Mus., vol. 2, p. 71, 1860.

1189. *Cirrhitus pinnulatus* (Bloch and Schneider).

East coast of Africa to the Philippines, southern Japan, East Indies, and east to Marcus Island, Hawaii, and Tahiti.

Labrus pinnulatus Bloch and Schneider, Syst. Ichth., p. 264, 1801; Tahiti; on Forster. Forster, Descript. Animal. Lichtenstein ed., p. 186, 1844; Tahiti.

- Labrus marmoratus* Lacépède, Hist. Nat. Poissons, vol. 3, pp. 438, 493, pl. 5, fig. 3, 1802; "Great Equatorial Ocean."
- Cirrhitus maculatus* Lacépède, Hist. Nat. Poissons, vol. 5, p. 2, 1803; on Commerson.
- Cirrhitus maculosus* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 13, pl. 4, fig. 1, 1828; Red Sea.
- Cirrhitus maculosus* Bennett, Zool. Journey, vol. 4, p. 38, 1828; Hawaiian Islands.
- Cirrhitichthys marmoratus* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 76, 1860.
- Cirrhitichthys maculatus* Günther, Cat. Fishes British Mus., vol. 2, p. 74, 1860; Polynesia; India; Hawaiian Island; Red Sea; Île de France.
- Cirrhitus marmoratus* Gill, Proc. Acad. Nat. Sci. Phila., p. 107, 1862; Hawaiian Islands. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 131, 1903; Marcus Island. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 452, pl. 70, 1905; Honolulu, Puako Bay, Hilo, and Kailua, Hawaiian Islands. Jordan and Starks, Proc. U. S. Nat. Mus., p. 699, 1906; Yaku Island, southern Japan. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 452, 1927; Natal coast. Schmidt, Trans. Pac. Comm. Acad. Sci., U. S. S. R., vol. 1, p. 61, 1930; RiuKiu Islands. Herre, Philippine Jour. Sci., vol. 59, p. 367, 1936; coast of Batangas Province, Luzon.
- Cirrhitus maculatus* Günther, Fische der Südsee, vol. 1, p. 71, pl. 51, fig. A, 1874; Hawaiian, Society, and Cook Islands. Waite, Records Australian Mus., vol. 5, p. 3, 1903; Nauru or Pleasant Island and the Marshall Islands.
- Cirrhitus marmoratus* Bleeker, Atlas Ichth., vol. 8, p. 142, pl. 344, fig. 5, 1876-77; Sumatra; Amboina. Klunzinger, Fische Rothen Meeres, p. 67, 1884; Red Sea. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 209, 1891.
- Cirrhitus pinnulatus* Fowler, Mem. Bishop Mus., vol. 10, p. 237, 1928; Oahu, Maui, Kauai, and Honolulu, Hawaiian Islands; Marcus Island; Nihoa, Necker, Laysan, Guam, and Rarotonga Islands; Samoa; Society, Gilbert (Kingsmill) and Marshall Islands. Fowler, *ibid.*, vol. 11, no. 6, p. 422, 1934; New Hebrides; Ellice Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8 p. 2, fig. 1, 1940; Sumatra; Bali; Talaut Islands; Halmahera; Amboina, the Philippines, and 20 Indo-Pacific localities.

Genus 400. CIRRHITICHTHYS Bleeker.

Red Sea and east coast of Africa to the Philippine, RiuKiu, Marshall, and Society Islands, and Australia.

Cirrhitichthys Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 39, 1857; orthotype, *Cirrhitus graphidopterus* Bleeker = *Cirrhitus aprinus* Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 2, p. 73, 1860. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 9, 1940.

Amblycirrhitus Gill, Proc. Acad. Nat. Sci. Phila., p. 105, 1862; orthotype, *Cirrhitus fasciatus* Cuvier and Valenciennes.

Cirrhitopsis Gill, *ibid.*, p. 109, 1862; orthotype, *Cirrhitopsis aureus* Schlegel.

1190. Cirrhitichthys analis Fowler.

Sulu Archipelago.

Cirrhitichthys analis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 48, fig. 18, 1938; off Jolo Light, Jolo, Sulu Province, in 23 fathoms.

1191. Cirrhitichthys aprinus (Cuvier and Valenciennes).

Distribution that of the genus.

Cirrhitus aprinus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 76, 1829; Timor. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 4, 1849. Klunzinger, Fische Rothen Meeres, vol. 1, p. 67, 1884; Red Sea.

Cirrhitus fasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 76, 1829; Pondicherry, India. Day, Fishes India, p. 145, 1878.

Cirrhitus graphidopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, Derde Bijdr. Ichth. fauna Amboina, p. 106, 1853.

Cirrhitus oxycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 408, 1855; Amboina. Günther, Fische der Südsee, vol. 1, 1873-75; Bonham Island and Marshall Island.

- Cirrhichthys graphidopterus* Bleeker, *ibid.*, vol. 14, p. 450, 1857; Batavia, Günther, *Cat. Fishes British Mus.*, vol. 2, p. 74, 1860; Amboina. Steindachner, *Verh. Zool.-Bot. Gesell. Wien*, vol. 11, p. 75, 1861.
- Cirrhichthys oxycephalus* Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 15, p. 299, 1858; Goram Archipelago. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 75, 1860; Sea of Amboina; after Bleeker. Barnard, *Ann. South African Mus.*, vol. 21, Part 2, p. 453, 1927; Durban Natal. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 238, 1928; after Bleeker.
- Cirrhichthys oarhynchos* Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 15, p. 205, 1858; Goram Archipelago.
- Cirrhichthys aprinus* Bleeker, *Recherches faune Madagascar*, Poissons, p. 93, 1875. Bleeker, *Verh. Akad. Amsterdam*, vol. 15, *Cirrhiteoides*, p. 12, 1875. Bleeker, *Atlas Ichth.*, vol. 8, p. 146, pl. 303, fig. 1, 1876-77. Ramsay and Ogilby, *Proc. Linn. Soc. New South Wales*, vol. 10, p. 575, 1886. Barnard, *Ann. South African Mus.*, vol. 21, Part 2, p. 453, 1927; Natal coast. Schmidt, *Trans. Pacific Comm. Acad. Sci. U. S. S. R.*, vol. 1, p. 60, 1939; RiuKiu Islands. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 58, 1934; Dumaguete. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 9, fig. 3, 1940; 17 East Indian localities; Philippines, and 17 other Indo-Pacific localities.
- Cirrhichthys fasciatus* Day, *Fishes India*, Supplement, p. 788, 1888.
- Cirrhichthys calliurus* Regan, *Jour. Bombay Nat. Hist. Soc.*, vol. 16, p. 322, 1905.
- Cirrhichthys aureus* Fowler, *Hong Kong Nat.*, p. 306, 1931.
- Amblycirrhitus indicus* Fowler, *Proc. U. S. Nat. Mus.*, vol. 85, p. 49, 1938; India.
- Acanthocirrhitis oxycephalus* Fowler, *ibid.*, p. 50, 1938.

Genus 401. OXYCIRRHITES Bleeker.

East Indies, Philippines, Hawaiian Islands, and Mauritius.

Oxycirrhites Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 2, *Achtste Bijdr. vischfauna Amboina*, p. 39, 1857. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 75, 1860. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 13, 1940.

1192. Oxycirrhites morrisi Fowler.

A Philippine species.

Oxycirrhites morrisi Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 85, p. 359, fig. 109, 1933; Calandagan (Corandagos) Island, Cuyo Group, Sulu Sea.

Genus 402. PARACIRRHITES Bleeker.

Tropical Indo-Pacific.

Paracirrhites Bleeker, *Verh. Akad. Amsterdam*, vol. 15, *Cirrhiteoides*, p. 5, 1875. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 5, 1940.

1193. Paracirrhites forsteri (Bloch and Schneider).

From the African coast to the Philippines, East Indies, RiuKiu, Hawaiian and Marquesas Islands; marine.

Grammistes Forsteri Bloch and Schneider, *Syst. Ichth.*, p. 191, 1801; Waitaho, Marquesas Islands.

Sparus pantherinus Lacépède, *Hist. Nat. Poissons*, vol. 4, p. 160, pl. 6, fig. 1, 1803; South Seas.

Cirrhites pantherinus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 3, p. 70, 1829; Ile de France. Lesson, *Voy. Coquille*, *Poissons*, p. 225, pl. 22, fig. 1, 1830. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 2, p. 232, 1851; Banda.

Cirrhites forsteri Günther, *Cat. Fishes British Mus.*, vol. 2, p. 71, 1860; Mauritius; Cape Seas; India. Bleeker, *Ned. Tijds. Dierk.*, vol. 2, p. 283, 1865; Amboina. Günther, *Fische der Südsee*, vol. 1, p. 69, pl. 49, fig. A, 1874; Indian Archipelago; east coast of Africa; Red Sea; Polynesia; Tahiti; Hawaiian Islands.

Amblycirrhitus pantherinus Bleeker, *Ned. Tijds. Dierk.*, vol. 3, p. 175, 1866.

Paracirrhites Forsteri Bleeker, *Recherches Faune Madagascar*, Poissons, p. 93, 1875. Bleeker, *Atlas Ichth.*, vol. 8, p. 144, pl. 349, fig. 5, 1876-77; Waigiou.

Cirrhitès Forsteri Day, Fishes India, p. 144, pl. 35, fig. 4, 1878; Andamans. *Paracirrhitès forsteri* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 450, pl. 67, 1905; Honolulu; Hilo. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 450, 1927; Cape Seas. Fowler, Mem. Bishop Mus., vol. 10, p. 239, 1928; Hawaiian Islands; Marcus Island; Ocean Island; Guam; Fiji; Nukuhiva, Marquesas Islands; Society Islands; Ebon Island, Marshall Islands. Fowler, Mem. Bishop Mus., vol. 11, p. 339, 1931; Honolulu. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, fig. 2, p. 5, 1940; Pulu Weh; Java; Celebes; Sangir Islands; Ternate; Amboina; Banda; Waigi; Port Moresby and Manokwari, New Guinea; the Philippine Islands and 17 other Indo-Pacific localities. Herre and Herald, Collection of Motorship *Spencer F. Baird*, January 1, 1948; Baguan Island, Turtle Islands, Sulu Province, Philippines.

Family 143. CAPROIDÆ

All tropical and warm temperate seas.

Genus 403. ANTIGONIA Lowe.

All tropical and subtropical seas.

Antigonia Lowe, Proc. Zool. Soc. London, vol. 2, p. 85, 1843; type, *Antigonia capros* Lowe. Günther, Cat. Fishes British Mus., vol. 2, p. 497, 1860. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 361, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 3, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 265, 1929.

Hypsinothus Schlegel, Fauna Japonica, Pisces, p. 84, pl. 42, fig. 2, 1844; type, *Hypsinothus rubescens* Günther.

Caprophonos Müller and Troschel, Horae Ichth., vol. 3, p. 28, 1845; type, *Caprophonos aurora* Müller and Troschel.

1194. *Antigonia malayanus* Weber.

East Indies and Philippines.

Antigonia malayanus Weber, *Siboga*-Exped., vol. 57, Fische, p. 299, 1913; Arafura Sea. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 267, fig. 71, 1929; Arafura Sea. Collection Motorship *Theodore N. Gill*, October, 1947, at 65 fathoms; (1) China Sea, off entrance to Manila Bay; (2) 8 miles west of Corregidor; and (3) 5 miles north-west of Fortune Island off the coast of Batangas Province, Luzon.

1195. *Antigonia rubescens* (Günther).

Japan, Philippines, East Indies, Ceylon, India, and Natal.

Hypsinothus sp., Schlegel, Fauna Japonica, Pisces, p. 84, pl. 42, fig. 2, 1844; Nagasaki.

Hypsinothus rubescens Günther, Cat. Fishes British Mus., vol. 2, p. 63, 1860; Sea of Japan.

Antigonia rubescens Günther, Report Voy. *Challenger*, Zoology, vol. 1, part 6, Shore Fishes, p. 44, 1880; Ki Islands; Japan. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 523, fig. 2, 1902; Suruga Bay, Totomi Bay, and Misaki, Japan. Weber, *Siboga*-Exped., vol. 57, Fische, p. 299, 1913; Arafura Sea. Barnard, Ann. South African Mus., vol. 21, Part 1, p. 380, pl. 16, fig. 2, 1925; Natal. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 5, p. 266, 1929; Menado, Celebes; Arafura Sea near the Kei Islands; coast of Japan; off Ceylon; Trincomali and Malabar coast, India; Natal coast.

Antigonia capros Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 3, 1929; off Corregidor Light, Manila Bay; Tayabas Light, Tayabas Province, Luzon. Balikias Bay, Lubang Island, and Malavatun Island, off northwest corner of Mindoro. Romblon Light, Romblon. Capitancillo Light, off Cebu Island. Observation Island, Palawan. Cape Melville Light, Balabac. Point Tagolo Light, Zamboanga Province, and Macabalan Point Light, Misamis Oriental Province, Mindanao. Louis Point Light, and Panalangan Point, Talahit Island, Philippines; the author is unable to locate these places; not synonymy.

Family 144. MONODACTYLIDÆ

Tropical Indo-Pacific fishes, with 1 species in Australia and 1 from the coast of tropical West Africa; occur in the sea, brackish river mouths, in fresh-water rivers and lakes.

Genus 404. MONODACTYLUS Lacépède.

Distribution as for the family.

Monodactylus Lacépède, Hist. Nat. Poissons, vol. 3, p. 131, 1802; type, *Monodactylus falciformis* Lacépède. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 12, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 207, 1936.

Centropodus Lacépède, Hist. Nat. Poissons, vol. 3, p. 303, 1802; type *Scomber rhombeus* Forskål.

Acanthopodus Lacépède, Hist. Nat. Poissons, vol. 4, p. 558, 1803; type, *Acanthopodus argenteus* Lacépède.

Psettus Cuvier, Règne Animal, ed. 2, p. 193, 1829; type, *Chaetodon rhombeus* Bloch and Schneider.

Stromatoidea Castelnau, Mem. Poissons Afrique Australe, p. 44, 1861; type, *Stromatoidea layardi* Castelnau.

Psettias (Jordan) Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 236, 1906; type, *Psettus sebae* Cuvier and Valenciennes.

1196. *Monodactylus argenteus* (Linnaeus). Silver batfish; Muray-buray.

Indo-Pacific from Africa to the Philippines, China, East Indies, Australia, Melanesia, and east to Samoa.

Chaetodon argenteus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 272, 1758; "Indies."

Scomber rhombeus Forskål, Descript. Animal., p. 58, 1775; Djedda, Red Sea.

Centrogaster rhombeus Gmelin, in Linnaeus, Syst. Nat., vol. 1, pp. 13 and 38, 1789; Red Sea; on Forskål.

Centropodus rhombeus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 303-304, 1802; Red Sea.

Acanthopodus argenteus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 558-559, 1802; Sea of Indies.

Psettus rhombeus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 245, 1831; Pondicherry; Mauritius; Massaua; Red Sea. Cuvier, Règne Animal, Illustr. ed. pl. 42, fig. 2, 1839. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 521, 1845; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 23, Chaetodontoiden, p. 29, 1850.

Psettus argenteus Richardson, Voy. *Erebus* and *Terror*, Ichth., p. 57, pl. 35, figs. 1-3, 1844-48; Sydney, Australia. Richardson, Ichth. China Japan, p. 246, 1846; Canton, China; Norfolk Island, Pacific Ocean. Günther, Cat. Fishes British Mus., vol. 2, p. 487, 1860; Moluccas; Amboyna; Malay Peninsula; Ceylon; Australia. Day, Fishes India, p. 235, pl. 51 B, fig. 5, 1878. Day, Fauna British India, vol. 2, p. 180, fig. 62, 1888. Boulenger, Cat. Fresh-water Fishes Africa, vol. 3, p. 121, fig. 90, 1915; Zanzibar; Zambesi River mouth; Rodriguez Island. McCulloch, Australian Zoologist, vol. 2, p. 89, pl. 25, fig. 225a, 1922. New South Wales.

Monodactylus rhombeus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1154, 1850; Pinang; Malaysia; Singapore.

Monodactylus argenteus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 242, 1863; Obi. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 32, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 71, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Calayan Island, Babuyan Islands, north of Luzon; Aparri, Cagayan Province, Luzon; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 282, 1910; Sandakan, British North Borneo; numerous places in the Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 21, 1922; Cebu, Cebu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 286, 1927; Vigan, Ilokos Sur Province, and Orion, Bataan Province, Luzon. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 640, pl. 26, fig. 3, 1927; Kynsna and Natal. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 13, 1929; Calayan Island, north of Luzon and Port San Pio Quinto, Camiguin Island, Babuyan Islands. Grande Island Reef, Subig Bay,

and Mariveles Bay, Bataan Province; Manila market; Santiago River, Pagapas Bay, Batangas Province; Cavite, Cavite Province; near mouth of Tayabas River, Tayabas Province; Basud River, Camarines Norte Province; Galvaney Island, and river at Pasacao, Ragay Gulf, Camarines Sur Province; Bulan, Sorsogon Province; also Canmahala Bay, Ragay Gulf; Luzon. Catbalogan, Samar. Port Dupon, Leyte. Cebu market, Cebu. Iloilo market, Iloilo Province, Panay. Paluan Bay, Mindoro. Baganga Bay, Davao Province; Nonucan River, Camp Overton, Lanao Province; and Panabutan Bay, Zamboanga Province, Mindanao. Bulan Island, and Jolo market, Jolo, Sulu Province. Nakoda Bay, Palawan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Manila, Luzon; Cullion; Capiz, Capiz Province, Panay; Dumaguete; Catabato, Cotabato Province, Mindanao; Jolo and Sitankal, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 371, 1934; southwestern Samar. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 7, p. 207, fig. 54, 1936; 23 East Indian localities; Philippines; 20 Indo-Pacific localities. Herre, Fishes 1936-37 and 1940-41 Expeds.; Calatagan, Batangas Province, Luzon; Estancia, Iloilo Province, Panay.

Family 145. PLATACIDÆ

A single genus of marine fishes, confined to the tropical Indo-Pacific.

Genus 405. PLATAX Cuvier.

Platax Cuvier, Règne Animal, vol. 2, p. 334, 1817; type *Chaetodon teira* Forskål. Günther, Cat. Fishes British Mus., vol. 2, p. 489, 1860. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 104, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 17, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 183, 1936.

1197. *Platax orbicularis* (Forskål). Leaf-fish; Buna; Dahon gabi; Dayapugan; Darapogan; Paras; Talcogon.

From the Red Sea and east coast of Africa to the East Indies, Philippines, China, Japan, and Australia, and east to the Marshall Islands and Tahiti. Reaches a length of 500 mm. Marine, but entering river mouths. Observation of living material at all stages from very young to specimens known to be 14 years old, over a period of nearly ten years, has compelled me to unite all Philippine material under a single name. That there is more than one species in the genus is doubtful.

Chaetodon orbicularis (Forskål), Descript. Animal., p. 59, 1775; Djedda, Red Sea.

Chaetodon teira Forskål, Descript. Animal., p. 60, 1775; Lohaja. Bloch, Ichnologie, vol. 6, p. 47, pl. 199, fig. 1, 1788; Arabian and East Indian Seas.

Chaetodon vespertilio Bloch, Ichnologie, vol. 6, p. 49, pl. 199, fig. 2, 1788; East Indies. Bennett, Fishes Ceylon, p. 5, pl. 5, 1834.

Lacépède, Hist. Nat. Poissons, vol. 4, pp. 450 and 490, 1803; Japan.

Platax vespertilio Cuvier, Règne Animal, ed. 1, vol. 2, p. 334, 1817. Rüppel, Atlas Reise Nördl. Afrika, Fische, p. 143, 1828; Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 489, 1860; Amboina; Singapore; Sea of Pinang; Philippines; China. Bleeker, Verh. Akad. Amsterdam, vol. 17, Chetodontoides, p. 160, 1877. Bleeker, Atlas Ichth., vol. 9, p. 74, pl. 379, fig. 1, and pl. 380, figs. 2 and 3, 1877; 24 East Indian localities; Philippines. Day, Fishes India, p. 236, pl. 51A, fig. 5, 1878; Andaman Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 25, 1885; Cebu, Cebu Province, Philippines; Manado, Celebes; Mysore, New Guinea.

Platax teira Cuvier, Règne Animal, vol. 2, p. 334, 1817. Rüppel, Atlas Reise Nördl. Afrika, Fische, p. 68, 1828; Djedda. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 226, 1831; Malabar. Canton, Jour. Asiatic Soc. Bengal, vol. 18, p. 1150, 1850; Pinang, Malay Peninsula; Singapore. Günther, Cat. Fishes British Mus., vol. 2, p. 492, 1860; Moluccas; Borneo; Ceram; China; Brice's Point; Sea of Pinang. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Playfair and Günther, Fishes Zanzibar, p. 65, 1866; Aden; Zanzibar. Bleeker, Verh. Akad. Amsterdam, vol. 17, Chetodontoides, p. 160, 1877;

Atlas Ichth., vol. 9, p. 73, pl. 379, fig. 2, 1877; 20 East Indian localities. Day, Fishes India, p. 235, pl. 51 B, fig. 4, 1878. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 526, 1902; Mijako, Tokyo, Kagoshima; Bonin Islands; Okinawa; Kezeu, and Formosa. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 188, 1908; Natal. Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 227, 1914; Mohambo, Madagascar. McCulloch, Australian Zoologist, vol. 2, p. 90, pl. 27, 1922; New South Wales. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 55, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 241, 1928; Kusaie, Caroline Islands; Samoa; BoraBora. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 185, figs. 49a, 50, and 51, 1936; 33 East Indian localities, and 19 Indo-Pacific places.

Platax orbicularis Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 67, pl. 18, fig. 3, 1828; Red Sea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 81, 1854; Sumatra. Günther, Cat. Fishes British Mus., vol. 2, p. 490, 1860; Port Essington, Australia. Günther, Fische der Südsee, vol. 1, p. 140, 1876; Society and Samoa Islands. Klunzinger, Fische Rothen Meeres, p. 113, 1884; Red Sea. Macleay, Descript. Cat. Australian Fish, vol. 1, p. 181, 1881. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 32, 1907; Iloilo, Iloilo Province, Panay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 97, 1907; Jolo, Sulu Province, Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 246, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 268, 1908; Ticao Island; Cagayancillo, Cagayan Islands, Sulu Sea. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 283, 1910; Sandakan, British North Borneo; "common in the Philippines." Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 105, pl. 24, 1927; Manila; Monja Island, Manila Bay entrance; Hamilo and Nasugbu, Batangas Province; San Miguel Bay, and Cabusao, Camarines Sur Province; Calapan; Mindoro; Concepcion, Busuanga Island; Culion Island; Estancia and Dumangas, Iloilo Province, Panay; Dulag and Tacloban, Leyte; Inabanga, Bohol; Guimaras Island; Puerto Princesa, Palawan; Butuan and Agusan River, Agusan Province, and Caldera Bay, Zamboanga Province, Mindanao; Tubigan, Jolo, Sibutu and Sitankai Islands, Sulu Province. Sandakan, British North Bornea. Fowler, Mem. Bishop Mus., vol. 10, p. 241, 1928; Shortland Island, Solomon Islands; Guam; Borabora and Society Islands; Tongatabu, Tonga Islands; Marshall Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 21, 1929; Mariveles Bay, Bataan Province; Manila market; Alibijaban Island, Ragay Gulf, Tayabas Province; Butauanan Islands, Camarines Sur Province, Luzon. Mansalay, Mindoro. Cebu market, Cebu. Iloilo market, Iloilo Province, Panay, Cagayancillo, Cagayan Islands, Sulu Sea. Polloc, Cotabato Province, Zamboanga, Zamboanga Province; and Opol, Mindanao. Lampingan Island, off Basilan Island. Jolo and Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Manila Bay, Luzon; Calapan, Mindoro; Culion; Dumaguete; Cebu, Cebu; Linapacan Island, Palawan Province; Jolo, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 189, figs. 49 and 51, 1936; 44 East Indian localities; Philippines, and 25 other Indo-Pacific localities. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province; Singapore, Straits Settlements. Umali, Edible Fishes Manila, p. 173, fig. 137, 1936; Busuanga; Linapacan Island, Palawan Province. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 98, 1940; Zamboanga Province, Mindanao.

Platax vespertilio japonicus Schlegel, Fauna Japonica, Pisces, p. 183, pl. 43, 1846; Nagasaki.

Platax pinnatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 18, 1929; Port Matalvi, Zambales Province; Maculabo Island, Canarrines Norte Province; between Paron Point and Jesus Point, Albay Province, Luzon. Alimango Bay, Burias Island. Cebu market, Cebu. Rivers at Port Dupon, Leyte. Murcielagos Bay, Misamis Occidental Province, and Zamboanga market, Zamboanga Province, Mindanao. Busbus

Point, Siasi, Lampinigan Island, Sitankai Wharf, and Teomabal Island, Sulu Province. Rasa Island, Palawan.

Family 146. EPHIPPIDÆ

Two genera, one in the tropical Atlantic, the other in the tropical Indo-Pacific.

Genus 406. EPHIPPUS Cuvier.

India, Ceylon, East Indies, the Philippines, China, and Formosa. A single marine species.

Ephippus Cuvier, Règne Animal, vol. 2, p. 335, 1817; type, *Chaetodon orbis* Bloch. Fowler, Bull. 100, U. S. Nat. Mus., vol. 8, p. 25, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 176, 1936.

Ilarches Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1142, 1850; type, *Chaetodon orbis* Bloch.

1198. *Ephippus orbis* (Bloch). Orbfish.

Chaetodon orbis Bloch, Ichthyologie, vol. 6, p. 59, pl. 202, fig. 2, 1788; East Indies.

Ephippus orbis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 96, 1831; Pondicherry; Malabar; East Indies. Guérin, Iconographie Règne Animal de G. Cuvier, vol. 1, pl. 22, fig. 2; 1829-44; Guérin, *ibid.*, vol. 3, p. 18, 1829-44; Tranquebar; Malabar; East Indies. Richardson, Ichth., China Japan, p. 245, 1846; China. Günther, Cat. Fishes British Mus., vol. 2, p. 62, 1860; Sumatra, Ceylon. Day, Fishes India, p. 115, pl. 29, fig. 4, 1878. Pellegrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonkin. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 282, 1910; Sandakan, British North Borneo. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 11, pl. 2, fig. 1, 1927; Sandakan, British North Borneo. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 25, 1929; Sandakan market, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 177, fig. 46, 1936; Pinang; Singapore; Pulo Tioman; Banka; Priaman, Sumatra; Batavia, Java; Sandakan, British North Borneo; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Sitankai, Sulu Province and Turtle Islands, Sulu Sea, Philippines; Rangoon, Burma; Vizagapatam, India.

Ephippus melanopus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java.

Ilarches orbis Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1142, 1850; Pinang; Malay Peninsula; Singapore, Bleeker, Ned. Tijds. Dierk., vol. 4, p. 140, 1872; China. Bleeker, Verh. Akad. Amsterdam, vol. 17, Chétodontoides, p. 24, 1877. Bleeker, Atlas Ichth., vol. 9, p. 20, pl. 365, fig. 5, 1878; Sumatra; Pinang; Singapore; Banka; Java.

Chaetodipterus orbis Barnard, Ann. South African Mus., vol. 21, Part 2, p. 604, pl. 26, fig. 5, 1927; Natal.

Family 147. DREPANIDÆ

A single genus and 2 species of the Indian Ocean and western Pacific; marine and in brackish water; rarely entering rivers and lakes.

Genus 407. DREPANE Cuvier and Valenciennes.

Drepane Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 97, 1831; type, *Chaetodon punctatus* Linnaeus. Günther, Cat. Fishes British Mus., vol. 2, p. 62, 1860. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 26, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 179, 1936.

1199. *Drepane longimana* (Bloch and Schneider). Banded drepane; Bayang; Mayang; Riring.

Coasts of Africa to the Philippines and Australia. West coast of Africa (?).

Chaetodon longimanus Bloch and Schneider, Syst. Ichth., p. 229, 1801; Tranquebar, India.

Drepane longimana Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 101, 1831; Pondicherry and Mahé, India; Java. Richardson, Ichth. China Japan, p. 245, 1846; Canton, China. Bleeker, Verh. Bat. Gen., vol. 23, Révision Chétodontoides, p. 23, 1850. Lele, Jour. Asiatic

Soc. Bengal, new ser., vol. 20, p. 286, pl. 12, fig. 2, and 6 text figs., 1925; this work has been overlooked by most recent writers. The dissection of numerous specimens in conjunction with a study of this paper showed that *D. longimana* is a valid species. Cuvier and Valenciennes' statement quoted by Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 182, 1936, was not based on numerous dissections and the latter workers did not make extensive observations themselves. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 5, pl. 1, fig. 2, 1927; Estancia and Barotac Nuevo, Iloilo Province, Panay. Herre, Fishes 1931 Philippine Exped.; Manila Bay, Luzon; Cebu, Cebu; Cotabato, Cotabato Province, Mindanao. Herre, Fishes 1936-37 and 1940-41 Expeds.; Iloilo, Iloilo Province, Panay; Malabon, Rizal Province, and Manila market, Luzon. Pinang, Straits Settlements.

Harpochirus longimanus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1145, 1850; Pinang; Malay Peninsula; Singapore. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 544, pl. 23, upper figure, 1904; Padang, Sumatra.

Drepane punctata var. *longimanus* Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 227, 1927; Nossi Be, Madagascar.

1200. *Drepane punctata* (Linnaeus). Spotted drepane; Ariring; Calcubao; Bayang; Mayang; Ririn; Sapisapi.

East coast of Africa to China, Formosa, the Philippines, Australia, and Samoa (?); also on west coast of tropical Africa. Reaches half a meter in length.

Chaetodon punctatus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 273, 1758; Asia.

Drepane punctata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 99 (132), pl. 179, 1831; Malabar; Java; China; New Guinea; Australia; Canton; Endeavor Strait, Australia. Günther, Cat. Fishes British Mus., vol. 2, p. 62, 1860; Philippines. Day, Fishes India, p. 116, pl. 29, fig. 5, 1878. Day, Fauna British India, vol. 2, p. 21, fig. 8, 1888. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 33, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 268, 1908; Manila, Luzon; Lubang Island, Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 282, 1910; Sandakan, British North Borneo; from numerous places in the Philippines. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Lele, Jour. Asiatic Soc. Bengal, new ser., vol. 20, p. 285, pl. 12, fig. 1, and 6 text figures, 1925. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 3, pl. 1, fig. 1, 1927; Manila Bay; Malabon, Rizal Province; San Miguel Bay, Camarines Sur Province, Luzon, Tacligan and Mangarin, Mindoro, Iloilo, Iloilo Province, Panay. Bantayan Island, Cebu Province, Catbalogan, Samar. Misamis, Misamis Occidental Province, and Davao, Davao Province, Mindanao. Hoihow, Hainan, and Hong Kong, China. Sandakan, British North Borneo. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 27, 1929; Cavite, Cavite Province; Manila Bay and Manila market; Port San Vicente, Cagayan Province; San Miguel Bay, Luzon. Lubang Island. Abuyog, Leyte. Iloilo market and Guimaras Island, Iloilo Province, Panay. Mouth of Malampaya River and Verde del Sur Island, Palawan. Davao, Davao Province, Mindanao; (description and synonymy only in part). Herre, Fishes 1931 Philippine Exped., p. 58, 1934; Manila; Laguna de Bay, Laguna Province; Magallanes, Sorsogon Province, Luzon. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 180, fig. 47, 1936; 45 East Indian localities; the Philippines and 20 Indo-Pacific localities, and the west coast of Africa; description and synonymy in part only. Umali, Edible Fishes Manila, p. 176, fig. 138, 1936; Manila Bay, Bataan Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 235, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao.

Harpochirus punctatus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1144, 1850; Pinang; Malay Peninsula; Singapore. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 148, 1865; Buru. Bleeker, Atlas Ichth., vol. 9, p. 19, pl. 365, fig. 4, 1878; Philippines and 17 East Indian localities; text and synonymy in part.

Family 148. TOXOTIDÆ. Archerfishes; Blow-gun fishes

Indo-Pacific coastal fishes, entering rivers and lakes. One genus with 5 species.

Genus 408. *TOXOTES* Cuvier. Archerfish; Blow-gun; Ataba; Ama mañgpañg; Kataba; Isdang sumpit.

India, the Philippines, Pelew and Solomon Islands, New Hebrides, and Australia.

Toxotes Cuvier, Règne Animal, vol. 2, p. 338, 1817; type, *Sciaena jaculatrix* Pallas. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 30, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 195, 1936.

1201. *Toxotes jaculator* (Pallas).

Distribution that of the genus. In the sea, in mangrove swamps and estuaries, and in fresh water rivers and lakes 40 kilometers or more from the sea; sometimes breeding in fresh water.

Sciaena jaculatrix Pallas, Philos. Trans. Roy. Soc. London, vol. 56, p. 186, pl. 8, fig. 6, 1766; Batavia, Java.

Labrus jaculatrix Lacépède, Hist. Nat. Poissons, vol. 3, pp. 425, 464, 1803.

Labrus jaculator Shaw, General Zoology, vol. 4, p. 485, pl. 68, 1804.

Toxotes jaculator Cuvier, Règne Animal, vol. 2, p. 338, 1817. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 314, fig. 192, 1831; Ganges River; Dorey Harbor, New Guinea. Guérin, Iconographie Règne Animal de G. Cuvier, Poissons, vol. 1, pl. 26, fig. 3, 1829-44. Guérin, *ibid.*, vol. 3, p. 19, 1829-44; India and China. Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; Basey River, Calbigan, Samar. Castelnau, Proc. Zool. Acclimat. Soc. Victoria, vol. 2, p. 84, 1873; Port Darwin, North Australia. Vaillant, Nouv. Arch. Mus. Nat. Hist. Paris, vol. 5, p. 57, 1873; Palawan. Bleeker, Atlas Ichth., vol. 9, p. 4, pl. 363, fig. 4, 1878; the Philippines and 18 East Indian localities. Kent, Great Barrier Reef, p. 284, pl. 45, fig. 4, 1893; Endeavor Estuary, Norman River, Queensland. Seale, Occas. Papers Bishop Mus., vol. 4, p. 63, 1906; Shortland Island, Solomon Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 286, 1927; Orani, Bataan Province, Luzon. Fowler, Bull. 100, U. S. Nat. Mus., vol. 8, p. 30, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Port San Vicente, Palau Island, Cagayan Province; San Fernando, La Union Province; Basut River, Camarines Norte Province; Nato River, Albay Province; fresh water, Ragay River, Ragay Gulf, Tayabas Province; and Dumaca River, Luzon. Pangauran River, Port Caltom, Busuanga Island. Baheli River and Caiholo River, Ulugan Bay, Iwahig River and tributaries, Puerto Princesa, Malampaya River, and Nakoda Bay, Palawan. Paluan River, Mindoro. Busin Harbor, Burias Island. Buenavista, Guimaras Island. Nonucan River, Camp Overton, Lanao Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Ambulong, Lake Bombon, Batangas Province, Luzon; Culion; Cebu, Cebu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 199, fig. 53D, 1936; 50 East Indian localities; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu and Calatagan, Batangas Province, Luzon; Mangarin, Mindoro; Capiz, Capiz Province, Panay; Busuanga Island; TawiTawi, Sulu Province; Tawau, British North Borneo. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Domantay, Philippine Jour. Sci., vol. 72, p. 379, 1940; Margosatubig, Zamboanga Province, Mindanao.

Toxotes jaculatrix Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 268, 1908; Mindoro. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 282, 1910; "common in streams of Borneo," Sandakan, British North Borneo; the Philippines. Herre, Fishery Resources Philippines, p. 49, 1927; the Philippines. Herre, Philippine Jour. Sci., vol. 34, 1927; p. 297, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro.

1202. *Toxotes chatareus* (Hamilton [né Buchanan]).
 India to Siam, the Philippines, East Indies, and Australia; in fresh and brackish water.
Coius chatareus Hamilton [né Buchanan], *Fishes Ganges*, pp. 191, 370, 1822; mouths of the Ganges.
Toxotes jaculator Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7, p. 314, 1831; Malacca; in part. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 67, 1860; in part.
Toxotes chatareus Day, *Fishes India*, p. 117, pl. 29, fig. 6, 1878; Irawaddi River, Burma. Bleeker, *Atlas Ichth.*, vol. 9, p. 2, pl. 363, fig. 5, 1878, Pinang; Singapore; Borneo. Klunzinger, *Sitzungsber. Akad. Wiss. Wien*, vol. 80, p. 364, 1880; Queensland and Cleveland Bay, Australia. Weber, *Nova Guinea*, vol. 5, p. 244, 1908. Weber, *ibid.*, vol. 9, p. 571, fig. 29, 1913; several localities in New Guinea. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 33, 1929; after Bleeker. Herre, *Fishes 1931 Philippine Exped.*, p. 59, 1934; Pansipit River, Lemery; Lake Bombon at Ambulong, Batangas Province, Luzon. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 203, fig. 53, A, B, and C, 1936; 10 East Indian localities. Herre, *Fishes 1933-41 Expeds.*; Pansipit River, Batangas Province, Luzon; Tawi Tawi, Sulu Province, Philippines. Kabili River, British North Borneo; Pinang, Straits Settlements, Malaya. Rangoon, Burma.
1203. *Toxotes oligolepis* Bleeker.
 The East Indies and Philippines.
Toxotes oligolepis Bleeker, *Versl. Akad. Amsterdam*, ser. 2, vol. 9, p. 162, 1875; Moluccas; Buru (?). Bleeker, *Atlas Ichth.*, vol. 9, p. 3, pl. 363, fig. 3, 1877; Buru (?). Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 32, 1929; after Bleeker. Herre, *Fishes 1933-34 Exped.*; Pansipit River, Batangas Province, Luzon. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 205, 1936; after Bleeker.

Family 149. SCATOPHAGIDÆ

A small family with one genus and three species in the Indo-Australasian region; marine and entering rivers and lakes.

Genus 409. SCATOPHAGUS Cuvier and Valenciennes.

Indian Ocean to the Philippines, China, Formosa, Australia, and Melanesia, to Fiji, and (?) Tahiti.

Scatophagus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7, p. 136, 1831; type, *Chaetodon argus* L. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 57, 1860. Herre, *Philippine Jour. Sci.*, vol. 34, p. 7, 1927. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 34, 1929. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 6, 1936.

Cacodozus Cantor, *Jour. Asiatic Soc. Bengal*, vol. 18, p. 1145, 1850; type, *Chaetodon argus* L.

1204. *Scatophagus argus* (Linnaeus). Spadefish; Kitang; Kikilo; Kikiro; Malaga; Bayang; Ngi-ni-ngisi; Pingao.

The Philippines, East Indies, and China, west to India and Ceylon, south-east to the New Hebrides, New Caledonia, and Australia. In the sea and in rivers and lakes.

Chaetodon argus Linnaeus, *Syst. Nat.*, ed. 12, vol. 1, p. 464, 1766; India. Bloch, *Ichthyologie*, vol. 6, p. 63, pl. 204, fig. 1, 1788; East Indies.

Ehippus argus Cuvier, *Règne Animal*, vol. 2, p. 335, 1817. Bleeker, *Atlas Ichth.*, vol. 9, p. 21, pl. 361, fig. 2, 1877; Luzon and 17-East Indian Islands. Jordan and Seale, *Proc. U. S. Nat. Mus.*, vol. 28, p. 789, 1905; Bais, Negros Oriental Province. Smith and Seale, *Proc. Biol. Soc. Washington*, vol. 19, p. 78, 1906; Cotabato, Cotabato Province, Mindanao. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 32, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 97, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 268, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay.

Chaetodon pairatalis Hamilton [né Buchanan], *Fishes Ganges*, pp. 122 and 372, pl. 14, fig. 41, 1822; Ganges River.

Scatophagus bougainvillii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 142, 1831.

Scatophagus ornatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 143, pl. 180, 1831; in fresh water, Amboina. Richardson, Ichth., China Japan, p. 245, 1846; China.

Scatophagus purpurascens Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 144, pl. 180, 1831; East Indies.

Scatophagus argus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 136, 1831; Ganges River; Malabar; Pondicherry; Bengal. Richardson, Ichth. China Japan, p. 245, 1846; Canton. Günther, Cat. Fishes British Mus., vol. 2, p. 58, 1860; Singapore; Amboyna; Ceram; Malacca; China; India. Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; Quingoa River at Calumpit, Bulacan Province, and Bikol River, Camarines Sur Province, Luzon; Singapore; Malacca. Day, Fishes India, p. 114, pl. 29, fig. 3, 1878. Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 5, p. 105, 1881; Swatow, China. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 18, 1885; Manila Bay, Luzon; Cebu, Cebu Province, also Menado, Celebes. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 246, fig. 8, 1907; Zamboanga, Zamboanga Province, Mindanao. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 282, 1910; Sandakan, British North Borneo; the Philippines. Weber, Siboga-Exped., vol. 57, Fische, p. 302, pl. 10, figs. 1-5, 1913; Lombok; Makassar; Saleyer. Fowler, Copeia, No. 58, p. 64, 1918; the Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 8, pl. 2, fig. 2, and pl. 12, fig. 2, 1927; Buguey, Cagayan Province; Vigan, Ilokos Sur Province; Barrio Nalva, Luna, La Union Province; Alaminos, Pangasinan Province; Manila markets, and Pasig River, Manila; Molawin creek, Laguna Province; Bikol River, Camarines Sur Province; and Bacon, Sorsogon Province—all from Luzon. Calapan, Mindoro. Bintolan, Busuanga. Catarman, Samar. Cabalian, Leyte. Inabanga, Bohol. Bantayan Island, Cebu Province. Iloilo and Estancia, Iloilo Province, Panay, Taytay, Palawan. Balabac Island. Agusan River, Butuan, Agusan Province; Malabang, Lanao Province, and Davao, Davao Province, Mindanao. Tubigan Island, Sulu Province. Herre, Fishery Resources Philippines, pp. 34 and 57, 1927; the Philippines. Herre, Philippine Jour. Sci., vol. 34, 1927; pp. 294 and 297, Pansipit River and Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 35, fig. 1, 1929; San Fernando, La Union Province; Manila Bay; Pucot River, Mariveles, Bataan Province; Cavite market, Cavite Province; Bacoor, Rizal Province; Joni, Yervi, and Tayabas Rivers, Tayabas Province; Basud River, Camarines Norte Province; Ragay River, Ragay Gulf, Camarines Sur Province; Nato River and stream at Maagnas, Lagonoy Gulf, Albay Province; Bacon, Sorsogon Province; Dumaca River, Luzon. River at Port Dupon, and Abuyog, Leyte. Cebu dock, Cebu. Iloilo market, and Anilao River, Passi, Iloilo Province, Panay. Bais, Negros Oriental Province. Pangauran River, Port Caltom, Busuanga. Pancol, river at Nakoda Bay, Malampaya and Iwahig Rivers, Palawan. Nonucan River, Camp Overton, Lanao Province; Cotabato market and Rio Grande, Cotabato Province; Zamboanga market, Zamboanga Province; Pucot River, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Bulacan Province; Lake Bombon, Batangas Province, Luzon. Capiz, Capiz Province, and La Paz, Iloilo Province, Panay. Dumaguete. Cebu, Cebu Province. Sitankai, Sulu Province. Umali, Philippine Jour. Sci., vol. 54, p. 370, 1934; southwestern Samar. Umali, Edible Fishes Manila, p. 176, fig. 139, 1936; Manila Bay, Luzon. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 6, figs. 2, 3 (a, b, c, d), and 5, 1936; 55 East Indian localities; the Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 219, 1936; fresh water stream at Bushman's Bay, Malekula Island, New Hebrides. Herre, Fishes 1936-37 Exped.; Calatagan, Batangas Province, Luzon; Singapore and Pinang, Straits Settlements. Villadolid, Philippine Jour. Sci., vol. 63, pp. 192-193, 205, 214, and 216, 1937; Balayan Bay, Pansipit River, and Lake Bombon, Batangas Province, Luzon. Umali, Philippine Jour. Sci., vol. 63, p. 234, 1937; San Miguel Bay, Camarines Sur Province, Luzon. Manacop, Philippine Jour. Sci.,

vol. 64, p. 343, 1938; Lake Mainit, Surigao Province, Mindanao. Umali, Philippine Jour. Sci., vol. 66, p. 182, 1938; Ragay Gulf, Luzon. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Domantay, Philippine Jour. Sci., vol. 71, p. 99, 1940; Zamboanga Province, Mindanao. Herre, Fishes 1940-41 Exped.; Dagat-Dagatan Experiment Station, Rizal Province; Lemery, Batangas Province, Luzon. Capiz, Capiz Province, Panay. Dumaguete, Negros Oriental Province, Cagayan, Misamis Oriental Province, Mindanao. Vizagapatan and Ennur Fisheries Station, Madras Presidency, India. *Chaetodon atromaculatus* Bennett, Fishes Ceylon, p. 18, pl. 18, 1834; Ceylon.

Scatophagus macronotus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java; monstrosity.

Cacodoxus argus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1145, 1850; Pinang; Singapore, Malay Peninsula. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.

Sargus maculatus Gray, in Cat. Fishes described by Gronow, p. 65, 1854; Indian Ocean.

Scatophagus quadranus de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 455, 1885, Queensland coast, Australia.

1205. *Scatophagus tetracanthus* (Lacépède).

East coast of Africa to the Philippines, East Indies, New Guinea, and Australia. Marine, and in rivers and lakes.

Chaetodon tetracanthus Lacépède, Hist. Nat. Poissons, vol. 3, pl. 25, fig. 2, and vol. 4, p. 726, 1802; on Commerson.

Scatophagus tetracanthus Günther, Cat. Fishes British Mus., vol. 2, p. 60, 1860. Playfair, in Playfair and Günther, Fishes Zanzibar, p. 39, 1866. Macleay, Proc. Linn. Soc. New South Wales, vol. 2, p. 353, 1878. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 516, 1891. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 40, 1929; New Guinea; not synonymy. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Pansipit River, at Lemery; Lake Bombon at Ambulong, Batangas Province, Luzon.

Cacodoxus tetracanthus Bleeker, Recherches faune Madagascar, Poissons, p. 94, 1875.

Ephippus tetracanthus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 77, p. 250, 1925; Delagoa Bay, East Africa.

Scatophagus argus var. *tetracanthus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 9, 1936; "eastern part" and "western part of the Archipelago"; also Celebes.

Family 150. CHÆTODONTIDÆ. Butterflyfishes.

Tropical reef fishes.

Genus 410. CHELMON Cloquet.

East coast of Africa to China, the Philippines, East Indies, and Australia.

Chelmon Cloquet, Dict. Sci. Nat., vol. 8, p. 370, 1817; on Cuvier, Règne Animal, vol. 2, p. 334, 1817; type *Chaetodon rostratus* L. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 65 (86), 1831. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 14, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 18, 1936.

Chelmo Schinz, Das Thierreich, vol. 2, p. 532, 1822. Günther, Cat. Fishes British Mus., vol. 2, p. 35, 1860. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 42, 1929.

1206. *Chelmon rostratus* (Linnaeus).

Distribution that of the genus.

Chaetodon rostratus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 273, 1758; East Indies. Bloch, Ichthyologie, vol. 6, p. 57, pl. 202, fig. 1, 1788; East Indies.

Chaetodon rostratus Bonnaterre, Tableau Encyclop. Ichth., p. 83, pl. 45, fig. 170, 1788; East Indies.

Chelmon rostratus Cuvier, Règne Animal, ed. 1, vol. 2, p. 190, 1817. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 66 (87), 1831. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Peters, Monatsber. Akad. Wiss. Berlin, p. 257, 1868; coral reef at Para-

cale, Camarines Norte Province, Luzon. Day, Fishes India, p. 110, pl. 28, fig. 3, 1878. Bleeker, Atlas Ichth., vol. 9, p. 22, pl. 369, fig. 2, 1878; the Philippines, and 11 East Indian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 33, 1907; Cavite, Cavite Province, Luzon. McCulloch, Australian Zoologist, vol. 2, p. 91, pl. 27, fig. 231a, 1922; Iuka, New South Wales. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 56, 1922; Cebu, Cebu Province. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 12, 1923; Paracale, Camarines Norte Province, Luzon; Singapore; Indian Ocean; New Guinea. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 14, pl. 3, fig. 1, 1927; Manila Bay, Luzon. Bantayan Island and Cebu, Cebu Province. Dumangas and Estancia, Iloilo Province, Panay. Inabanga, Bohol. Tawi Tawi and Sitankai, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Culion; Cebu, Cebu Province; Sitankai, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Arch., vol. 7, p. 20, fig. 8, 1936; 20 East Indian localities; the Philippines. Herre, Fishes 1936-37 Exped.; Calatagan, Batangas Province, Luzon; Singapore.

Chelmo rostratus Valenciennes, in Cuvier, Règne Animal, Illustrated ed., pl. 40, figs. 1-1a, 1839. Günther, Cat. Fishes British Mus., vol. 2, p. 36, 1860; Celebes; Singapore; India; Port Essington. Kner, Reise Novara, Fische, p. 103, 1865; Madras, India. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 42, 1929; Cavite, Cavite Province; Alibijaban Island, and Capulaan Bay, Pagbilao Island, Tayabas Province; Maculabo Island, Camarines Norte Province; Butaanan Island, Galvaney Island, and Masamat Bay, Quinalasag Island, Camarines Sur Province; also Cammahala Bay, Luzon. Catbalogan and Nabatas Point, Samar. San Juanico Strait, between Samar and Leyte. Cataingan Bay, Masbate. Cebu market, and Mactan Island, Cebu. Port Uson, Busuanga. Murcielagos Bay, Misamis Occidental Province, and Port Capunuyugan, Mindanao. Endeavor Strait, Palawan.

Genus 411. FORCIPIGER Jordan and McGregor.

One species. East Africa to the Philippines, Hawaii, the Tuamotu Islands, and east to the Revillagigedo Islands off the coast of Mexico; marine.

Forcipiger Jordan and McGregor, Report U. S. Fish Comm., vol. 24, p. 279, 1898; Clarion Island, Revillagigedo Archipelago; type *Chaetodon longirostris* Broussonet. Jordan and McGregor, in Jordan and Evermann, Fishes North and Middle America, vol. 2, p. 1671, 1898. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 336, 1906. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 16, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 45, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 16, 1936.

1207. Forcipiger longirostris (Broussonet). Long-beaked butterflyfish.

Distribution that of the genus.

Chaetodon longirostris Broussonet, Ichthyologia, vol. 1, p. 6, pl. 7, 1782; Pacific Ocean, near the Society and Hawaiian Islands.

Chaetodon longirostris Bonnaterre, Tableau Encyclop. Ichth., p. 86, pl. 47, fig. 176, 1788; Pacific Ocean.

Chelmon longirostris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 89, pl. 175, 1831; Society Islands; Hawaii; East Indies; Mauritius. Bleeker, Verh. Bat. Gen., vol. 23, Révision Chétodontoides, p. 20, 1850.

Chelmo longirostris Günther, Cat. Fishes British Mus., vol. 2, p. 38, 1860; Amboina. Günther, Fische der Südsee, vol. 2, p. 48, 1874; Hawaii; Society Islands; Paumotos; Friendly Islands; Gilbert Islands. Bleeker, Recherches faune Madagascar, Poissons, p. 95, 1875.

Prognathodus longirostris Bleeker, Atlas Ichth., vol. 9, p. 23, pl. 366, fig. 5, 1878; Ternate; Amboina; Ceram; Nusa Laut; Banda.

Forcipiger flavissimus Jordan and McGregor, Rept. U. S. Fish Comm., vol. 24, p. 279, 1898; Clarion Island, Revillagigedo Archipelago.

Forcipiger longirostris Fowler, Proc. Acad. Nat. Sci. Phila., p. 512, 1900; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 363, pl. 46, 1905; Honolulu; Apia, Samoa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 8, 1923; several Polynesian localities. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 16, pl. 3, fig. 2, 1927; Port Hamilo, Batangas Province, Luzon. Tagapula Island, Samar. Fowler, Mem. Bishop Mus., vol. 10, p. 259, pl. 28 B,

1928; Maui and Honolulu, Hawaiian Islands; Wake Island; Apia, Samoa; Fakarava and Raiatea, Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 45, fig. 2, 1929; Port Matalvi, Zamboales Province; Caracaran, Batan Island, Albay Province, Luzon. Paluan Bay and Sablayan, Mindoro. Port Palapag, Samar. Cagayanes Islands, northern part of Sulu Sea. Banganga Bay, Davao Province, Mindanao. Danawan and Si Amil Islands, near international boundary line, British North Borneo. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 17, fig. 7, 1936; 13 East Indian localities; Philippines.

Genus 412. PARACHAETODON Bleeker.

The East Indies, Philippines, south China, India, and Australia. Marine reef fishes.

Parachaetodon Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 8, p. 371, 1874; type, *Chaetodon oligacanthus* Bleeker=*Platax ocellatus* Cuvier and Valenciennes. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 18, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 51, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 32, 1936.

1208. Parachaetodon ocellatus (Cuvier and Valenciennes).

Distribution that of the genus.

Platax ocellatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 229, 1831.

Chaetodon oligacanthus Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 2, p. 34, 1860; the Philippines; Singapore. Kner, Reise *Novara*, Fische, p. 102, 1865; Madras. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 17, 1885; Cebu, Cebu.

Sarathrodus oligacanthus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Halmahera.

Tetragonopterus oligacanthus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.

Parachaetodon ocellatus Bleeker, Atlas Ichth., vol. 9, p. 24, pl. 377, fig. 4, 1878; the Philippines and 12 East Indian localities. Klunzinger, Sitzungsber. Akad. Wiss. Wien, p. 360, 1880. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 789, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 33, 1907; Cavite, Cavite Province, Luzon. McCulloch, Biological Results *Endeavour*, vol. 4, p. 190, 1916; Manila, Luzon; Batavia, Java; Queensland and Sydney, Australia. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, Chaetodontidae, p. 18, 1923; Amboina; Celebes; Singapore. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 18, 1927; Lucena, Tayabas Province, Luzon. Polillo Island. Calapan, Mindoro. Estancia, Iloilo Province, Panay. Buehavista, Guimaras Island. Tagbitaran, Bohol. Calbayog, Samar. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 51, 1929; Manila market, Cavite, Cavite Province, and Canmahala Bay, Luzon. Port Dupon, Leyte. Iloilo market, Iloilo Province, Panay. Bais, Negros Oriental Province. Endeavor Strait, Palawan. Below mouth of Mindanao River, Cotabato Province, Mindanao. Jolo market and Bubuan Island, Sulu Province. Buang Bay, Tala-jit Island. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Unisan, Tayabas Province, and Magallanes, Sorsogon Province, Luzon. Culion. Cebu, Cebu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 33, 1936; 20 East Indian localities; Philippines. Herre, Fishes 1940-41 Exped., Estancia, Iloilo Province, Panay.

Genus 413. CORADION Kaup.

The East Indies, Philippines, southern China and Japan, east to the Bismarck Archipelago; marine.

Coradion Kaup, Wiegmann's Archiv Naturges., vol. 26, Part I, pp. 137 and 146, 1860; type, *Chaetodon chrysozonus* Cuvier and Valenciennes; after Kuhl and van Hasselt. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 69, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 27, 1936.

1209. Coradion chrysozonus (Cuvier and Valenciennes).

Distribution that of the genus.

Chaetodon chrysozonus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 62 (82), 1831; Java; after Kuhl and van Hasselt. Günther, Cat. Fishes, British Mus., vol. 2, p. 34, 1860; Amboina; China. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 55, 1922; Cebu, Cebu Province.

Chaetodon labiatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 63, (83), 1831, Java; with Kuhl and Van Hasselt.

Coradion chrysozonus Kaup, Archiv Naturges., vol. 26, p. 146, 1860; Java. Bleeker, Atlas Ichth., vol. 9, p. 25, pl. 376, fig. 5, 1878; Java; Celebes; Amboina. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 40, 1923; Ralum and Java. Herre and Montalban, Philippine Journal. Sci., vol. 34, p. 70, 1927; Manila market, Luzon. Bulalacao Bay and Calapan, Mindoro. New Washington, Capiz Province, and Estancia, Iloilo Province, Panay. Bantayan Island. Masbate Island. Tagapula Island, Samar. Gigantangan Island, Leyte. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 49, 1929; Jolo market and Tutu Bay, Jolo Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Cullion; Dumaguete; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 28, fig. 11, 1936; the Philippines and 10 East Indian localities.

Genus 414. CHAETODON Linnaeus. Butterflyfishes; Alibangbang; Bebang; Isda kaba-kaba; Kolibangbang; Paroparo; Tapay-tapay.

A large group of coral reef-fishes of tropical and subtropical seas, mostly in the Indo-Pacific. A few species carried north to southern Japan.

Chaetodon Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 272, 1758; type, *Chaetodon capistratus* L. Cuvier, Règne Animal, ed. 2, 189, 1829. Günther, Cat. Fishes British Mus., vol. 2, p. 3, 1860. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 363, 1905. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, Chaetodontidae, p. 44, 1923. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 19, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 53, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 52, 1936.

Tetragonopterus Walbaum, Artedi Piscium, vol. 3, p. 583, 1792; type, *Chaetodon striatus* L.

Rabdophorus Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 211, 1839; type *Chaetodon ephippium* Cuvier and Valenciennes. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 53, 1936.

Megaprotodon Guichenot, Revue Zoologique, vol. 11, p. 12, 1848; type, *Chaetodon bifascialis* Cuvier and Valenciennes. Bleeker, Arch. Neerl. Sci. Nat., vol. 11, Part 2, p. 306, 1876. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 50, 1936.

Citharoedus Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 136, 1860; type, *Chaetodon meyeri* Bloch. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 54, 1936.

Eteira Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 137, 1860; type, *Chaetodon triangularis* Rüppell.

Linophora Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 155, 1860; type, *Chaetodon auriga* Forskål. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, pp. 95 and 103, 1936.

Sarothrodus Gill, Proc. Acad. Nat. Sci. Phila., p. 238, 1862; type, *Chaetodon striatus* L.

Tholichthys Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 1, p. 457, 1868; type, *Tholichthys osseus* Günther; larval form.

Hemichaetodon Bleeker, Arch. Neerl. Sci. Nat. Haarlem, vol. 11, p. 305, 1876; type, *Chaetodon capistratus* Bloch.

Chaetodontops Bleeker, *ibid.*; type, *Chaetodon collare* Bloch. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, pp. 55 and 83, 1936.

Lepidochaetodon Bleeker, Arch. Neerl. Sci. Nat. Haarlem, vol. 11, p. 306, 1876; type, *Chaetodon unimaculatus* Bloch. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, pp. 95 and 97, 1936.

Oxychaetodon Bleeker, Arch. Neerl. Sci. Nat. Haarlem, vol. 11, p. 306, 1876; type, *Chaetodon lineolatus* Cuvier and Valenciennes.

Gonochaetodon Bleeker, Arch. Neerl. Sci. Nat. Haarlem, vol. 11, p. 306, 1876; type, *Chaetodon triangulum* Cuvier and Valenciennes. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 25, 1927. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 47, 1936. *Anisochaetodon* Klunzinger, Fische Rothen Meeres, p. 54, 1884; type *Chaetodon auriga* Forskål. Weber and de Beaufort, Fish. Indo-Australian Archipelago, vol. 7, p. 94, 1936. *Tifa* Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 60, 1922; type, *Chaetodon corallicola* Snyder.

1210. *Chaetodon adiergastos* Seale.

A Philippine species.

Chaetodon adiergastos Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 116, pl. 1, fig. 2, 1910; Bantayan Island, Cebu Province, Philippines. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 50, 1927; Mariveles, Bataan Province, Hamilo, Batangas Province, and San Miguel Bay, Camarines Sur Province, Luzon. Calapan, Mindoro. Gigantangan and Carnasa Islands, Leyte. Inabanga and Guindulman, Bohol. Bantayan Island, Cebu Province. Buenavista, Guimaras Island. Bungau Island, Sulu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 286, 1927; the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 99, fig. 6, 1929; Limbong Cove, Cavite Province; Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, and Capulaan, Tayabas Province; Refugio Island, Camarines Sur Province; Atulayan Island, Lagonoy Gulf, and Rapurapu Island and Strait, Albay Province; Canmahala Bay, Ragay Gulf, Luzon. Maricaban Island, Verde Island Passage, between Luzon and Mindoro. Puerto Galera, Mansalay, and Varadero Bay, Mindoro. Mompog Island and Port Banalacan, Marinduque. Masbate Reef, Masbate. Alimango Bay and Busin Harbor, Burias Island. Iloilo market, Iloilo Province, Panay. Cebu market and Mactan Cove, Cebu Province. Caxisigan Island and Port Ciego, Balabac. Little Santa Cruz Island, Zamboanga Province, Mindanao. Tutu Bay, Jolo and Taganak Islands, Sulu Province. Buang Bay, Talajit Island, Philippines. Herre, Fishes 1940-41 Exped.; Calapan, Mindoro. Cagayan, Misamis Oriental Province, Mindanao.

1211. *Chaetodon argentatus* Smith and Radcliffe.

A Philippine species.

Chaetodon argentatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 40, p. 319, fig. 1, 1911; Agojo Point, Catanduanes Island; Port San Pio Quinto, Camaguin Island, Babuyan Islands, north of Luzon. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 33, pl. 4, fig. 2, 1927; after Smith and Radcliffe. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 129, 1929; on same specimens.

1213. *Chaetodon auriga* Forskål.

East coast of Africa to the East Indies, China, RiuKiu Islands, the Hawaiian Islands, Australia, Samoa, Rarotonga, Kusaie, BoraBora, and Tahiti.

Chaetodon auriga Forskål, Descript. Animal., p. 60, 1775; Djedda and Lohaja, Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 79, 1831; Massaua. Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 156, 1860; Africa; Moluccas. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Copeia, No. 58, p. 64, 1918; the Philippines. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 147, 1923; 17 Indo-Pacific localities. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 29, pl. 7, fig. 2, 1927; Currimaos, Ilokos Norte Province; Luna and Balaan, La Union Province; Mariveles, Bataan Province; Aloneros, Tayabas Province; and Batangas Province, Luzon. Calapan, Mindoro. Elefante Island, Marinduque Province. Simara Island, Romblon Province. San Juan, Siquijor Island. Capul Island, Samar Province. Canigaran, Palawan. Zamboanga, Zamboanga Province, Mindanao. Bilatan, Tawi Tawi and Sibutu Islands, Sulu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 288, 1927; the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 116, 1929; Sabtang Island, Batan Islands, Batanes Province. Port Matalvi, Zambales Province; Port Binanga, Subic Bay, Bataan Province; Port Hamilo

and Pagapas Bay, Batangas Province; Maculabo Island, Camarines Norte Province; Refugio Island, near Pasacao, Ragay Gulf, Camarines Sur Province; Batan Island, Albay Province, Luzon. Port Maricaban, Verde Island Passage. Lubang Island, north west of Mindoro. Medio Island, Puerto Galera, Sablayan, and Varadero, Mindoro. Mompog Island, between Marinduque and Luzon. Port Banalacan, Marinduque. Biri Channel and Quinapundan Bay, Samar. Pujada Bay, Davao Province, Sacoi Island, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Mahinog, Camaguin Island, north coast of Mindanao. Makesi Island, Ulugan Bay near Rita Island, and Endeavor Strait, Palawan. Bugsuk, Candaraman, and Caxisigan Islands, and Port Ciego, Balabac. Taganak, Tara, and Tataan Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Lingayan, Pangasinan Province, Luzon. Dumaguete; Culion; Capiz, Capiz Province, Panay; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 223, 1936; BoraBora and Moorea, Society Islands. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Sitankai, Sulu Province.

Chaetodon setifer Bloch, Ichthyologie, vol. 12, p. 99, pl. 425, fig. 1, 1747. Lesson, Voy. *Coquille*, Zool., Poiss., vol. 2, p. 175, 1830; pl. 29, fig. 2, 1826; Bora Bora. Valenciennes, in Cuvier, Règne Animal, Illustrat. ed., Poissons, pl. 38, fig. 1, 1839; Mauritius. Günther, Fische der Südsee, vol. 1, p. 36, pl. 26, fig. B, 1873-75; Hawaii. Vaillant, Nouv. Arch. Mus. Paris, ser. 3, vol. 3, p. 57, 1893; Palawan. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Cagayan-cillo, Cagayan Islands, Sulu Sea. McCulloch, Records Australian Mus., vol. 15, p. 35, 1926; 9 tropical Pacific localities. Barnard, Ann. South African Mus., vol. 21, p. 609, pl. 26, fig. 6, 1927; Natal; Zululand; Mozambique.

Pomacentrus flamentosus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 457 and 484, 1804; on Bloch.

Chaetodon sebanus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 74, 1831; East Indies; Timor; Guam; Tonga; Mauritius; Batavia.

Chaetodon auriga var. *setifer* Day, Fishes India, p. 106, pl. 27, fig. 3, 1878; Nicobar Islands.

Tetragonopterus (Linophora) auriga Bleeker, Atlas Ichth., vol. 9, p. 47, pl. 375, fig. 4, 1878; 16 East Indian localities.

Anisochaetodon (Linophora) auriga Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, 103, 1936; 29 East Indian localities; the Philippines and 20 other Indo-Pacific regions.

1214. *Chaetodon bennetti* Cuvier and Valenciennes.

Zanzibar to the Philippines, East Indies, and the Solomons, Society, and Tuamotu Islands.

Chaetodon Bennettii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 64, 1831; Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 467, 1853; Batavia, Java.

Chaetodon vinctus Lay and Bennett, Fishes, Zoology Capt. Beechey's Voyage, p. 62, pl. 17, fig. 1, 1839; Byam Martin Island, Tuamotus (Paumotus).

Chaetodon bennetti Günther, Cat. Fishes British Mus., vol. 2, p. 12, 1860; Amboina. Ahl. Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 73, 1923; German New Guinea; Mikindani, East Africa; Apaman Island. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 65, pl. 8, fig. 2, 1927; southern coast of Batangas Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 73, 1929; Santo Domingo de Basco, Batan Island, Batanes Province. Palau Island, Cagayan Province, Luzon. Mactan Island, Cebu Province. Mahinog, Camiguin Island, off coast of Misamis Oriental Province, Mindanao. Simaluc Island and Tataan, Sulu Province. "Casogoran, Malhon Island." Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Culion; Linapacan Island, Palawan Province.

Coradion bennetti Kaup, Archiv Naturges., vol. 26, p. 147, 1860; Sumatra. *Sarothrodus Bennettii* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Halmahera.

Tetragonopterus Bennettii Bleeker, Ned. Tijds. Dierk., vol. 2, p. 286, 1865; Amboina.

- Chaetodon bennetti* Günther, Fische der Südsee, vol. 1, p. 37, pl. 29, fig. A, 1874; Tuamotus (Paumotus), Society Islands, Gilbert Islands (Kingsmill).
- Tetragonopterus (Rabdophorus) Bennetti* Bleeker, Verh. Akad. Amsterdam, vol. 17, p. 60, 1877. Bleeker, Atlas Ichth., vol. 9, p. 34, pl. 376, fig. 2, 1878; Sumatra; Java; Halmahera; Amboina.
- Chaetodon (Rabdophorus) bennetti* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 62, 1936; Batavia, Java; Priaman, Sumatra; Celebes and some neighboring islands; Amboina; Banda Sea; Halmahera; Misol; New Guinea; the Philippines.
- 1215. *Chaetodon carens* Seale.**
A Philippine species.
Chaetodon carens Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 115, pl. 1, fig. 1, 1910; Bantayan Island, Philippines. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 77, 1923; after Seale. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 55, pl. 15, fig. 2, 1927; after the type. Fowler and Bean, Bull. 100, U. S. Nat. Mus., p. 82, 1929; as synonym of *Chaetodon nippon* Steindachner and Döderlein.
- 1216. *Chaetodon chrysurus* Desjardins.**
Tropical Indo-Pacific, from the Red Sea and Madagascar to the East Indies and the Philippines.
Chaetodon chrysurus Desjardins, Proc. Zool. Soc. London, p. 117, 1833; Mauritius. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 53, 1857; Amboina. Day, Fishes British India, vol. 2, p. 6, 1889. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 161, Mauritius. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 35, pl. 8, fig. 1, 1927; Puerto Galera, Mindoro.
Chaetodon xanthurus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 53, 1857; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 515, 1860; Aneiteum. De Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 457, 1883; Api, New Britain.
Tetragonopterus xanthurus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 287, 1865; Amboina.
Tetragonopterus (Linophora) xanthurus Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 99, 1877. Bleeker, Atlas Ichth., vol. 9, pl. 378, fig. 3, 1878.
Tetragonopterus (Linophora) mertensi Bleeker, Atlas Ichth., vol. 9, p. 50, 1878; Amboina.
Chaetodon mertensi Day, Fishes India, p. 105, 1878; not of Cuvier and Valenciennes.
Chaetodon mertensi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 127, 1929; in part only. Port Matalvi, Zambales Province.; near Palag Bay and Atulayan Island, Albay Province, Luzon. Puerto Galera, Mindoro. Verde Island, Verde Island Passage. Tilig and Bilikias Bay, Lubang Island, northwest of Mindoro. Busin Harbor, Burias Island. Port Banalacan, Marinduque. Romblon. San Miguel Bay and Harbor, Ticao Island. Guinauyan Island. Ulugan Bay, Palawan. Murcielagos Bay, Misamis Occidental Province; Opol, Mindanao; Maribojoc Bay, Bohol.
Anisochaetodon (Linophora) chrysurus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 111, fig. 28, 1936; east coast of Sumatra; Amboyna; the Philippines; Madagascar; Mauritius; Ceylon.
- 1217. *Chaetodon citrinellus* Broussonet.**
The East Indies, Philippines, Formosa, Okinawa, Hawaii, Australia, and east to the Tuamotus.
Chaetodon citrinellus Broussonet, in Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 27, 1831; Guam; Tahiti. Cuvier, Règne Animal, Poissons, Illustr. ed. pl. 39, fig. 1, 1817. Günther, Cat. Fishes British Mus., vol. 2, p. 33, 1860; Amboyna; Fiji. Günther, Fische der Südsee, vol. 1, p. 47, pl. 35, fig. B, 1873; Tuamotu and Society Islands; Bonham Island; Samoa; Fiji. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 357, 1902; Kotosho, Formosa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 344, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Weber, Siboga-Exped., vol. 57, Fische, p. 306, 1913; Karkaralang Island; Beo, Kara-

kelang; Salibabu, Dutch East Indies. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 104, 1923; New Guinea; Jaluit, Marshall Islands; New Hanover, Bismarck Archipelago; Amboina. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 68, pl. 14, fig. 1, 1927; Luna and Paraor, La Union Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 86, 1929; Nasugbu Bay, Batangas Province, Luzon. Maricaban Island, Verde Island Passage. Sablayan, Mindoro. Momog Island, between Marinduque and Luzon. Biri Channel, Bali-cuatro Island, and Port Palapag, Samar. Cabugao Bay and Agojo Point, Catanduanes Island. San Roque and Cabugao Island, Hinunangan, Leyte. Murcielagos Bay, Misamis Occidental Province, and Malanipa Island, Zamboanga Province, Mindanao. Sulade and Teomal Islands, Sulu Province.

Tetragonoptrus citrinellus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

Tetragonoptrus miliaris Bleeker, Atlas Ichth., vol. 9, p. 39, pl. 377, fig. 3, 1878; 9 East Indian islands; not of Quoy and Gaimard.

Chaetodon nigripes de Vis, Proc. Linn. Soc. New South Wales, vol. 3, p. 453, 1885; Queensland, Australia.

Chaetodon (Tetragonoptrus) miliaris Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 259, 1891; in part.

Chaetodon citrinellus var. *semipunctatus* Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 104, 1923; on *Chaetodon citrinellus* var. Günther, Fische der Südsee, vol. 1, p. 47, pl. 35, fig. 5, 1874.

Chaetodon citrinellus subspecies *nigripes* Ahl, *ibid.*, p. 105, 1923.

Chaetodon citrinellus nigripes Whitley, Mem. Queensland Mus., vol. 10, p. 17, 1930.

Chaetodon (Tetragonoptrus) citrinellus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 76, fig. 23, 1936; 17 East Indian localities; the Philippines and tropical Pacific Ocean localities.

1218. *Chaetodon collare* Bloch.

Tropical Indian Ocean, East Indies, and the Philippines.

Chaetodon collare Bloch, Ichtyologie, vol. 6, p. 87, pl. 216, fig. 1, 1787; Japan; no doubt an error in locality, such as occur in several instances in Bloch's work. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 53, 1831. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, 1923. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 41, 1927; Calapan, Mindoro. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 104, 1929; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands, and Palau Island, Cagayan Province, Luzon. Not synonymy.

Chaetodon viridis Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java.

Chaetodon praetextatus Cantor, Jour. Asiatic Soc. Bengal, vol. 8, p. 156, pl. 3, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 22, 1860; Sea of Pinang.

Chaetodon collaris Günther, Cat. Fishes, British Mus., vol. 2, p. 21, 1860; Japan (?). Kner, Reise Novara, Fische, p. 99, 1865; Java. Day, Fishes India, p. 107, 1878. Boulenger, Proc. Zool. Soc. London, p. 657, 1887; Muscat, Arabia. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 151, 1904. Pillay, Bombay Nat. Hist. Soc., vol. 33, p. 368, 1929.

Tetragonoptrus collaris Bleeker, Ned. Tijds. Dierk., vol. 4, p. 140, 1872; China.

Tetragonoptrus (Chaetodontops) collaris Bleeker, Atlas Ichth., vol. 9, p. 42, pl. 373, fig. 2, 1878; Sumatra; Nias, Pinang; Java; Celebes.

Chaetodon (Chaetodontops) collare Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 91, 1936; Sea of Pinang; Sabang Bay, Pulu Weh; Kauer, Sumatra; Nias; Bay of Batavia, Java; Menado, Celebes; Amboina; Philippines.

1219. *Chaetodon ephippium* Cuvier and Valenciennes.

The East Indies and Philippines to China, Hawaii, Australia, and the Society Islands.

Chaetodon ephippium Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 61 (80), pl. 174, 1831; Moluccas. Lesson, Voy. Coquille, Zool., vol. 2, p. 174, 1831. Lesson, Atlas Poissons, pl. 29, fig. 1, 1826; Bora Bora. Günther, Cat. Fishes, British Mus., vol. 2, p. 7, 1860; Amboina; Fiji.

Günther, *Fische der Südsee*, vol. 1, p. 36, pl. 27, figs. A-B, 1873-75; Tonga; Society Islands. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 269, 1908; Cagayancillo, Cagayan Islands, Sulu Province. Ahl, *Archiv Naturges.*, vol. 89, Abt. A, Heft 5, 1923; New Guinea; Bougainville Island; Jaluit; Samoa; Ceram, Ralum; New Pomerania; Tsingtau. Herre and Montalban, *Philippine Jour. Sci.*, vol. 34, p. 56, 1927; Santo Domingo de Basco, Batanes Province; southern coast of Batangas Province, Luzon. Tubigan Island, Sulu Province. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 70, 1929; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands. Port Hamilo, Batangas Province; near Palag Bay, and between Paron and Jesus Points, Albay Gulf, and RapuRapu Island, Albay Province; Quinalasag Island, Camarines Sur Province; Langao Point, Luzon. Maricaban Island, Verde Island Passage. Medio Island, Puerto Galera and Pandan Island, near Sablayan Bay, Mindoro. Mompog Island, between Luzon and Marinduque. Siasi, Cagayan Sulu, Doc Can, Taganak, and Tataan Islands, Sulu Province. Endeavor Strait, Palawan. Candaraman Island, Balabac. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 59, 1934; Cullion; Dumaguete; Jolo and Sitankai, Sulu Province.

Chaetodon garnoti Lesson, *Voy. Coquille, Zool.*, vol. 2, p. 174, 1831.

Chaetodon mulsanti Thiollière, *Fauna Woodlark*, p. 163, 1857; Woodlark Island.

Tetragonopterus ephippium Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 234, 1863; Ternate.

Rabdophorus ephippium Bleeker, *Arch. Neerl. Sci. Nat.*, vol. 11, p. 305, 1876.

Tetragonopterus (Rabdophorus) ephippium Bleeker, *Verh. Akad. Amsterdam*, vol. 17, p. 65, 1877. Bleeker, *Atlas Ichth.*, vol. 9, p. 36, pl. 378, fig. 2, 1878; Cocos; Java; Celebes; Flores; Timor; Ternate; Amboina; Ceram; Harucu; Goram; New Guinea.

Chaetodon (Rabdophorus) ephippium Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, vol. 7, p. 59, fig. 19, 1936; 17 East Indian localities; Philippines.

1220. *Chaetodon falcula* Bloch.

Tropical Indian Ocean, East Indies, and the Philippines.

Chaetodon falcula Bloch, *Naturges. Ausländ. Fische*, vol. 7, p. 102, pl. 325, fig. 2, 1793. Bloch, *ibid.*, vol. 9, p. 102, pl. 405, fig. 2, 1795. Bleeker, *Verh. Bat. Gen.*, vol. 25, Nalez. ichth. Benaglen, p. 40, 1853; Bengal, Hindostan. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 8, p. 311, 1855; Batu Island. Kaup, *Archiv Naturges.*, vol. 26, p. 151, 1860; Coromandel; Mozambique. Günther, *Cat. Fishes, British Mus.*, vol. 2, p. 17, 1860; Sea of Batu. Day, *Fishes India*, p. 104, pl. 26, fig. 5, 1878; Nicobar Islands. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 96, 1907; Bacon, Sorsogon Province, Luzon. Ahl, *Archiv Naturges.*, vol. 89, Abt. A, Heft 5, p. 170, 1923; type; Mozambique. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 134, 1929; near Palag Bay, Atulayan Island, and Paron Point, Albay Gulf, Albay Province; Bacon, Sorsogon Province, Luzon. Puerto Galera, Mindoro. Mompog Island, between Marinduque and Luzon. Quinapundan Bay and Port Palapag, Samar. Port Dupon, Leyte. Cebu market, Cebu, Ulugan Bay, Palawan. Candaraman and Caxisigan Islands, Balabac. Murcielagos Bay, Misamis Occidental Province; Little Santa Cruz and Pilas Islands, Zamboanga Province, Mindanao. Simaluc, Singaan, Tara, and Tataan Islands, Sulu Province. Synonymy in part.

Pomacentrus falcula Lacépède, *Hist. Nat. Poissons*, vol. 4, pp. 506, 511, and 513, 1802.

Chaetodon dixoster Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 7, p. 527, 1831; Mauritius. Cuvier, *Règne Animal, Poissons, Illustr. ed.*, pl. 39, fig. 2, 1839. Günther, *Cat. Fishes British Mus.*, vol. 2, p. 17, 1860; after Cuvier and Valenciennes. Ahl, *Archiv Naturges.*, vol. 89, p. 169, 1923.

Tetragonopterus falcula Bleeker, *Ned. Tijds. Dierk.*, vol. 1, p. 234, 1863; Ternate.

Tetragonopterus (Oxychaetodon) falcula Bleeker, Verh. Akad. Amsterdam, vol. 17, Chétodontoides, p. 104, 1877. Bleeker, Atlas Ichth., vol. 9, p. 52, pl. 373, fig. 1, 1878; Batu, Ternate, and Amboina Islands.

Anisochaetodon (Oxychaetodon) falcula Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 116, 1936; Batu Island; Pulu Weh; Flores; Amboina; Ternate; New Guinea; Philippines; in part.

1221. *Chaetodon lunula* (Lacépède).

The tropical Indo-Pacific, from Natal to Hawaii, and southern Japan, to Queensland and the Marquesas Islands.

Pomacentrus lunula Lacépède, Hist. Nat. Poissons, vol. 4, pp. 507, 511, and 513, 1803; on Commerson.

Chaetodon lunulatus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 381, 1825; Hawaiian Islands.

Chaetodon lunula Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 59, pl. 173, 1831; East Indies; Mauritius; Prince of Wales Island. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 57, 1854; Halmahera. Günther, Cat. Fishes British Mus., vol. 2, p. 25, 1860; Prince's Island; Amboina. Capello, Jour. Soc. Sci. Lisboa, p. 200, 1871; Mozambique. Günther, Fische der Südsee, vol. 1, p. 42, pl. 33, 1873-75; Hawaiian Islands. Day, Fishes India, p. 108, 1878. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 366, pl. 54 and fig. 160, 1905; Oahu, and Hawaii, Hawaiian Islands; Samoa. Ahl. Archiv. Naturges., vol. 89, Abt. A, Heft 5, p. 114, 1923; Jaluit, Marshall Islands; Gilbert Islands; Amboina; Mauritius; East Africa. McCulloch, Records Australian Mus., vol. 14, p. 4, 1923; Amboina; New Hebrides; Queensland, Australia. Fowler, Proc. Acad. Nat. Sci. Phila., p. 286, 1927; Vigan, Ilokos Sur Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 248, 1928; 20 localities in the tropical Pacific. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 96, 1929; Port Hamilo, Pagapas Bay, and Nasugbu Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Galvaney Island, Ragay Gulf, and Masamat, Quinalasag Island, Camarines Sur Province; near Palag Bay, Albay Province, Luzon. Mansalay, Varadero Bay, and Sablayan Bay, and Puerto Galera, Mindoro. Alimango Bay, Burias Island. Pandanon Island, Bohol. Mactan Island, Cebu Province. Chase Head, Endeavor Strait, Palawan. Surigao, Surigao Province, and Tatabado Point, Davao Province, Mindanao. Silino, Tara, Usada, Tataan, and Taganak Islands, Sulu Province. Synonymy in part.

Chaetodon biocellatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 62, 1831; Oualan—Kusaie Island. Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 403, 1856; Buru.

Chaetodon ocellatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 212, 1854; Koepang, Timor; not of Bloch.

Chaetodon fasciatus Kaup, Archiv Naturges., vol. 26, p. 150, 1860; not of Forskål. Day, Fishes India, Supplement, p. 786, 1888; not of Forskål. Day, Fauna British India, Fishes, vol. 2, p. 8, 1889. Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 357, 1903; Katosho, Formosa; Honolulu; not of Forskål. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 52, pl. 9, fig. 2, 1927; Currimao, Ilokos Norte Province; Balaoan, La Union Province; Manila Bay; Monja Island, off entrance to Manila Bay; southern coast, Batangas Province, Luzon. Calapan, Mindoro. Cebu, Cebu Province. Southern coast of Cotabato Province, Mindanao. Not of Forskål. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 59, 1934; Capiz, Capiz Province, Panay; Culion; Dumaguete. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon. Bungau, Sulu Province; also Singapore.

Tetragonopterus fasciatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate; not of Forskål.

Chaetodon wiebeli Kaup, Ned. Tijds. Dierk., vol. 1, p. 127, 1863; Canton, China.

Tetragonopterus biocellatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 269, 1863; Timor.

Tetragonopterus biocellatus Bleeker, Recherches faune Madagascar, Poissons, p. 95, 1875.

Tetragonopterus (Chaetodontops) fasciatus Bleeker, Atlas Ichth., vol. 9, p. 41, pl. 374, fig. 2, 1878; 12 East Indian Islands.
Chaetodon ocellatus Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 283, 1910; Sandakan, British North Borneo; one locality in the Philippines.
Chaetodon (Chaetodontops) lunula Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 83, 1936; 23 East Indian localities; the Philippines and 18 other Indo-Pacific localities.

1222. *Chaetodon kleini* Bloch.

East coast of Africa to the Philippines, East Indies, China, Australia, Marshall Islands, and Solomon Islands.

Chaetodon kleinii Bloch, Naturges. Ausländ. Fische, vol. 4, p. 7, pl. 218, fig. 2, 1790; East Indies. Günther, Cat. Fishes British Mus., vol. 2, p. 22, 1860; Amboina; Java; Mauritius. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 17, 1885; Celebes and Sangi. Weber, *Siboga-Expéd.*, vol. 57, Fische, p. 305, 1913; Karakelang; Binongka; Nusa Laut; Banda; Tiur; Postillion Islands.

Chaetodon melastomus Bloch and Schneider, Syst. Ichth., p. 224, 1801; Tranquebar, India.

Chaetodon melanomyx Bloch and Schneider, loc. cit.; no locality.

Chaetodon virescens Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 30, 1831; Timor; Mauritius.

Chaetodon flavescens Bennett, Proc. Zool. Soc. London, vol. 1, p. 61, 1831; Mauritius.

Tetragonopterus melastomus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

Tetragonopterus kleini Bleeker, Versl. Akad. Amsterdam, vol. 2, p. 287, 1868; Solor.

Tetragonopterus kleini Bleeker, Ned. Tijds. Dierk., vol. 4, p. 140, 1873; China.

Tetragonopterus (Lepidochaetodon) kleini Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 88, 1877. Bleeker, Atlas Ichth., vol. 9, p. 45, pl. 373, fig. 3, 1878; 14 East Indian islands.

Chaetodon (Tetragonopterus) kleinii Sauvage, in Grandidier, Hist. Phys. Nat., Madagascar, Poissons, p. 258, 1891.

Chaetodon kleini Steindachner, Abh. Senckenberg. Naturf. Gesell., vol. 25, p. 420, 1900; Ternate. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Manila, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Cagayancillo, Cagayan Island, Sulu Sea. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 144, 1923; Ralum; Amboina; Mozambique; New Britain. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 58, pl. 13, fig. 2, 1927; Luna, La Union Province; Olongapo, Zambales Province; Sisiman and Mariveles, Bataan Province; Hamilo, Batangas Province, Luzon. Calapan and Bulalacao Bay, Mindoro. Gigantangan Island, Leyte. Quiminatin Island, Cuyo Islands, Sulu Sea. Samal Island, Gulf of Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Sibutu Island, Sulu Province. Barnard, Ann. South African Mus., vol. 21, p. 614, 1927; Natal, South Africa; Mozambique. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 113, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Palag Bay and Paron Point, Albay Gulf, Albay Province; Refugio Island, Ragay Gulf, Pasacao, Camarines Sur Province; Gubat Bay, Sorsogon Province; Langao Point, Luzon. Puerto Galera, Mindoro. Maricaban Island and about Verde Island Passage. Destacado Island and Bagacay Bay, Escarpada Island, Naranjo Islands between Masbate and Samar. Biri Channel and Port Palapag, Samar. Cebu market, Cebu. Cagayan Islands, northern Sulu Sea. Bugsuk, Candaraman, and Caxisigan Islands, off Balabac. Inamucan Bay and Murcielagos Bay, Misamis Occidental Province; Pujada Bay, Davao Province; Little Santa Cruz, Malanipa, Jolo, and Silino Islands, Zamboanga Province, Mindanao. Jolo, Tapiantana, Siminul, Sitankai, Tataan, and Doc Can Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Burias Island, Culion; Dumaguete.

Anisochaetodon (Lepidochaetodon) kleini Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 99, 1936; 28 East Indian localities; the Philippines, and 14 East Indian localities.

1223. *Chaetodon lineolatus* Quoy and Gaimard.

Tropical Indo-Pacific from Africa to the Hawaiian, Society, and Tuamotu Islands, south to Australia.

Chaetodon lineolatus Quoy and Gaimard, in Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 31, 1831; Mauritius. Quoy and Gaimard, Voy. *Astrolabe*, Zool., p. 381, 1835; Mauritius. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 323, 1854; Flores. Günther, Cat. Fishes, British Mus., vol. 2, p. 30, 1860; Red Sea. Günther, Fische der Südsee, vol. 1, p. 45, pl. 34, fig. A, 1873-75; Paumotus (Tuamotus), Society Islands; Samoa; Kingsmill (Gilbert) Islands; Hawaii. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 365, fig. 159, 1905; Honolulu; Samoa. Pellégrin, Ann. Mus. Zool. Napoli, new ser., vol. 3, p. 6, 1912; Simon Bay, Cape of Good Hope. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 167, 1923; Red Sea; Mauritius; Seychelles; New Hanover. McCulloch, Records, Australian Mus., vol. 14, p. 4, 1923; Whitsunday Island, Queensland, Australia. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 47, pl. 10, fig. 2, 1927; southern coast of Batangas Province, Luzon; Ambil Island, China Sea off northwest corner of Mindoro; Calapan and Bulalacao Bay, Mindoro; Elefante Island, Marinduque; Maricaban Island, Verde Island Passage; Bennett Island, off Masbate; Tagapula Island, Samar; Gigantangan Island, Leyte; Cebu, Cebu Province; Quiminatin Island, Cuyo Islands, north end of Sulu Sea; Sibutu and Sitankai Islands, Sulu Prov. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 130, 1929; Port Binanga, Bataan Province; Maculabo Island, Camarines Norte Province; Quinalasag Island, Masamat Bay, Camarines Sur Province, Luzon. Mansalay and Varadero Bay, Mindoro. Alimango Bay, Burias Island. Port Banalacan, Marinduque, Cataingan, Masbate. Cabugan Island, Leyte. Bagacay Bay, Escarpada Island, Naranjo Islands. Porongpong Island, Palumbanes Islands, northwest of Catanduanes. Endeavor Strait, Palawan. Candaraman Island, Balabac. Little Santa Cruz Island, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Culion; Linapacan Island, Palawan Province; Jobo, Sulu Province.

Chaetodon ocycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 603, 1853; Ternate. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 132, 1929; between Paron and Jesus Points, Albay Gulf, and Palag Bay, Albay Province, Luzon. Makesi Island, Palawan. Tataan Island, Sulu Province.

Tetragonopterus lineolatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 251, 1863; Flores.

Tetragonopterus lineolatus Bleeker, Recherches faune, Poissons de Madagascar, p. 95, 1875.

Tetragonopterus (Oxychaetodon) lineolatus Bleeker, Atlas Ichth., vol. 9, p. 51, pl. 377, fig. 2, 1878; Cocos, Sumbawa; Flores; Amboina; Banda; Ternate.

Chaetodon (Anisochaetodon) lineolatus Klunzinger, Fische Rothen Meeres, p. 57, 1884; Red Sea.

Anisochaetodon (Oxychaetodon) lineolatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 114, fig. 29, 1936; Sumatra; Java; Cocos Island; Sumbawa; Flores; Ternate; Amboina; Banda; New Guinea; the Philippines and 12 other Indo-Pacific localities.

1224. *Chaetodon melannotus* Bloch and Schneider.

The Red Sea to China, the East Indies and the Philippines, Pelew Islands, Queensland, Fiji, Samoa, and Tonga Islands.

Chaetodon melannotus Bloch and Schneider, Syst. Ichth., p. 224, 1801; Tranquebar, India. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 341, 1906; Apia and Pago Pago, Samoa. Fowler, Proc. Acad. Nat. Sci. Phila., p. 42, 1923; Madagascar. McCulloch, Records Australian Mus., vol. 14, p. 3, 1923; Murray Island, Queensland, Australia; Port Moresby, New Guinea; Solomon Islands; Admiralty Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 101, 1929; Sabtang Island, Batanes Province. Balayan Bay and Pagapas Bay, Batangas Province. Maagnas, Lagonoy Gulf, Atulayan Island, Caracaran, Bataan Island, near Palag Bay, and Rapu Rapu Island, Albay Prov.; Butaanan Island, and Quinalasag Island, Masamat Bay, Camarines Sur Province; Matnog Bay, Sorsogon Province, Luzon.

Tilig, Lubang Island, in China Sea, northwest of Mindoro. Varadero Harbor, Sablayan and Puerto Galera, Mindoro. Agojo Point, Catanduanes Island. Santa Cruz Island, Marinduque. Alimango Bay and Busin Harbor, Burias Island. Catbalogan and Port Palapag, Samar. Cabugan Island, Hinunangan, Leyte. Cebu market, Calangaman Island, Mactan Cove, and Malapascua Island, Cebu Province. Cagayanes Islands, Sulu Sea. Dalaganem Island, Cuyo Islands, north of Sulu Sea. Candaraman Island, Balabac. Baganga Bay, Davao Province; Little Santa Cruz Island, and Silino Island, Zamboanga Province; Surigao, Surigao Province, Mindanao. Market, Siasi Island; Simaluc, Taganak, Tara, Tapiantana, and Tumindao Islands, Sulu Province.

- Chaetodon dorsalis* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 41, pl. 9, fig. 2, 1828; Mohila, Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 70, 1831; Moluccas; Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 28, 1860; Amboina; Fiji Islands.
- Chaetodon marginatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 57, 1831; Massaua, Red Sea. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 28, 1835.
- Chaetodon abhortani* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 58, 1831; Mauritius.
- Chaetodon melanotus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 71, 1831; Tranquebar, India. Günther, Fische der Südsee, vol. 1, p. 44, 1873-75; Samoa; Fiji. Day, Fishes India, p. 108, pl. 28, fig. 1, 1878; India. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 128, 1923; Indian Ocean; Red Sea; Mauritius; Mozambique; Samoa; Ralum; New Guinea; Bougainville; Pelew Islands; Caroline Islands. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 44, pl. 11, fig. 2, 1927; Mariveles, Bataan Province, and Balayan Bay, southern coast of Batangas Province, Luzon. Calapan, Mindoro. Tagapula Island, Samar; Gigantangan Island, Leyte. Cebu and Bantayan Island, Cebu Province. New Washington, Capiz Province, Panay. Agutaya and Quiminatin Islands, Cuyo Islands, north of the Sulu Sea. Zamboanga, Zamboanga Province, Mindanao. Sibutu Island, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 250, 1928; Apia and PagoPago, Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Burias Island; Culion; Dumaguete; Linapacan Island, Palawan Province; Jolo and Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Calapan, Mindoro.
- Chaetodon Abhortani* Peters, Monatsber. Akad. Wiss. Berlin, p. 438, 1855.
- Chaetodon (Chaetodontops) melanotus* Bleeker, Atlas Ichth., vol. 9, p. 43, pl. 376, fig. 1, 1878; Batu; Celebes; Flores; Timor; Ternate; Ceram; Amboina; Goram; Banda. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 87, 1936; 21 East Indian localities; the Philippines, and 15 other Indo-Pacific localities.

1225. *Chaetodon meyeri* Bloch and Schneider.

- From East Africa to the East Indies, Philippines, and Marshall Islands.
- Chaetodon meyeri* Bloch and Schneider, Syst. Ichth., p. 223, 1801; Moluccas. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 19, 1831; Moluccas. Valenciennes, in Cuvier, Règne Animal, Poissons, Illustr. ed., p. 106, pl. 37, fig. 2, 1839. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 37, 1856; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 13, 1860; Celebes; Amboina; Java; Moluccas. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 49, 1923; Ralum; Jaluit; East Indies; Mikindani, East Africa. Fowler, Proc. Acad. Nat. Sci. Phila., p. 42, 1923; Madagascar. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 60, figs. 3-4, 1929; Danawan Island, British North Borneo; this island is 11 or 12 kilometers from the International Boundary Line between the Philippines and Borneo Territory; also 12 other East Indian localities southward to Celebes and Buru.
- Holacanthus flavo-niger* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 529 and 535, 1803.
- Citharoedus meyeri* Kaup, Archiv Naturges., vol. 26, p. 141, 1860; Moluccas.

Tetragonopterus meyeri Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

Tetragonopterus (Citharoedus) meyeri Bleeker, Atlas Ichth., vol. 9, p. 32, pl. 373, fig. 5, 1878; Java; Celebes; Amboina; Ceram; New Guinea.

Chaetodon (Citharoedus) meyeri Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 69, fig. 20, 1936; 16 East Indian localities; the Philippines; East Africa; Mauritius; Bismarck Archipelago; Marshall Islands.

1226. *Chaetodon octofasciatus* Bloch.

India, the East Indies, Philippines, and southeast to the Solomon Islands.

Chaetodon octofasciatus Bloch, Naturges. Ausländ. Fische, vol. 3, p. 113, pl. 215, fig. 1, 1787; East Indies. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 460 and 491, 1803; East Indies. Günther, Cat. Fishes British Mus., vol. 2, p. 17, 1860; Singapore. Kner, Reise *Novara*, Fische, p. 98, 1865; Java. Pellégrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonkin, Indo-China. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Bacon, Sorsogon Province, Luzon. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 84, 1923; East Indies; New Guinea; Indian Ocean; Mysol; Zanzibar; Bougainville Island, Solomon Islands; New Pomerania. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 39, 1927; Sisiman, Bataan Province, Luzon; Estancia, Iloilo Province, Panay; Basbas Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 93, 1929; Port Matalvi, Zambales Province, Limbones Cove, Cavite Province; Pagapas Bay, Batangas Province; Masamat Bay, Quinalasag Island, Ragay Bay, Canmahala Bay and Butaanan Island, Camarines Sur Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Canimo Island, near Daet, and Maculabo Island, Camarines Norte Province; Bacon and Palag Bay, Sorsogon Province; Rapu Rapu Island, Albay Province, Luzon. Mansalay Bay and Puerto Galera, Mindoro. Alimango Bay and Busin Harbor, Burias Island. Masbate Reef and Cataingan Bay, Masbate. San Miguel Harbor, Ticao Island. Biri Channel, Catbalogan, and Nabatas Point, Samar. San Juanico Strait. San Roque, Leyte. Mantacao Island, west of Bohol. Cebu market, Cebu. Port Caltom and Port Uson, Busuanga. Ulugan Bay, Bolalo Bay, and Endeavor Strait, Palawan. Surigao, Surigao Province, Polloc, Cotabato Province, and Santa Cruz Island, Zamboanga Province, Mindanao. Tutu Bay, Jolo Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Cullion; Cebu, Cebu Province. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. Singapore.

Chaetodon octolineatus Gray, in Cat. Fishes described by Gronow, vol. 2, p. 69, 1854; Indian Ocean.

Citharoedus octofasciatus Kaup, Archiv Naturges., vol. 26, p. 142, 1860.

Tetragonopterus octofasciatus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 189, 1865; Ceram. Bleeker, *ibid.*, p. 286; Amboina.

Tetragonopterus (Tetragonopterus) octofasciatus Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 70, 1877. Bleeker, Atlas Ichth., vol. 9, p. 38, pl. 376, fig. 3, 1878; Singapore, Banka, Java, Duizend Islands, Bawean, Sumbawa, Celebes, Amboina, Ceram.

Chaetodon (Tetragonopterus) octofasciatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 72, figs. 21-22, 1936; 16 East Indian localities; the Philippines.

1227. *Chaetodon ornatissimus* Cuvier and Valenciennes.

The East Indies and Philippines to Hawaii, Samoa, and Tahiti.

Chaetodon ornatissimus (Solander) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 17, 1831; Tahiti. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 179, pl. 30, fig. 1, 1831; Matavai Bay, Tahiti. Günther, Cat. Fishes British Mus., vol. 2, p. 15, 1860; Amboyna. Günther, Fische der Südsee, vol. 1, p. 38, pl. 30, fig. B, 1873-75; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 373, pl. 53, 1905; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 33, 1907; Manila, Luzon. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa, RiuKiu Islands. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 51, 1923. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 42, pl. 9, fig. 1, 1927; Balinakan, Marinduque; Bennett Island, Masbate; Quiminatin Island, Cuyo Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 63, fig. 5, 1929; Sabtang Island, Batanes

Province. Bolinao Bay, Pangasinan Province; Lahuy Island, Camarines Sur Province, Luzon. Agojo Port, Catanduanes Island. Port Palapag, Samar. Cabugan Island, Hinunangan, Leyte. Maricaban and Verde Island, Verde Island Passage. Pandan Island near Sablayan Bay, Mindoro. Port Caltom, Busuanga Island. Cebu market, Cebu. Tulnalutan Island, Zamboanga Province, Mindanao. Simaluc Island, Sulu Province.

Citharoedus ornatissimus Kaup, Archiv Naturges., vol. 26, p. 142, 1860; Tahiti.

Tetragonopterus (Citharoedus) ornatissimus Bleeker, Atlas Ichth., vol. 9, p. 32, pl. 375, fig. 2, 1878; Amboina; New Guinea.

Chaetodon (Citharoedus) ornatissimus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 71, 1936; Pulu Weh; Celebes; Tidore; Amboina; Nusa Laut; three places in New Guinea; the Philippines.

1228. *Chaetodon plebeius* Cuvier and Valenciennes.

The Philippines, Formosa, Andaman Islands, New Guinea, Torres Strait, Queensland, and Fiji Islands.

Chaetodon plebeius Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 68, 1831; South Sea; after Broussonet. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 28, pl. 6, fig. 1, 1927; Tablas Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 78, 1929. Herre, Mem. Indian Mus., vol. 13, p. 369, 1941; Andaman Islands; the Philippines; Fiji; Queensland.

Chaetodon plebeius Günther, Cat. Fishes, British Mus., vol. 2, p. 5, 1860. Günther, Fische der Südsee, p. 35, pl. 32, fig. B, 1873-75; South Sea. Day, Fishes India, p. 104, pl. 26, fig. 3, 1878; on Broussonet's specimen from the Andaman Islands. Macleay, Proc. Linn. Soc. New South Wales, vol. 5; p. 390, 1881; Sue Island, Torres Strait, Queensland. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 54, 1923; Viti Island, Fiji; New Guinea.

Megaprotodon maculiceps Ogilby, Proc. Royal Soc. Queensland, vol. 23, p. 14, 1910; Moreton Bay, Australia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 77, 1929; Maculabo Island, Camarines Norte Province; Palag Bay, Albay Province, Luzon. Puerto Galera, Mindoro. Porongpong Island, Palumbanes Islands, west of Catanduanes Island, Philippines. Nan Wan, Formosa.

Megaprotodon plebeius Whitley, Great Barrier Reef Exped., vol. 4, No. 9, p. 228, 1932; Batt Reef, Australia.

Chaetodon (Tetrachaetodon) plebeius Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 56, fig. 18, 1936; New Guinea; the Philippines.

1229. *Chaetodon punctato-fasciatus* Cuvier and Valenciennes.

The Philippines, East Indies, and Hawaiian Islands.

Chaetodon punctato-fasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 28, 1831. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 238, 1851; Banda Islands. Günther, Cat. Fishes British Mus., vol. 2, p. 27, 1860; Sea of Banda. Martens, Preuss. Exped. Ost-Asien, p. 388, 1876; Amboina. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 369, fig. 162, 1905; Honolulu, Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Manila, Luzon. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 56, 1922; Cebu, Cebu Province. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 100, 1923; Amboina. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 60, pl. 12, fig. 1, 1927; Batangas Bay, Batangas Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 89, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Dasol Bay, Pangasinan Province, Port Matalvi, Zambales Province, and Ligpo Point, Balayan Bay, Batangas Province, Luzon. Port Maricaban, Maricaban Island, and northwest of Verde Island, Verde Island Passage. Paluan Bay, Puerto Galera, Sablayan, and Varadero Bay, Mindoro. Masbate Reef, Masbate. Biri Channel and Port Palapag, Samar. Port Dupon, Leyte. Maribojoc Bay, Bohol. Cebu market and Mactan Island, Cebu Province. Cagayanes Islands, northern part of Sulu Sea. Mahinog, Camiguin Island, off northern coast of Misamis Oriental Province; Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province,

Mindanao. Tapiantana Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Dumaguete, Negros Oriental Province.

Oitharoeodus punctato-fasciatus Kaup, Archiv Naturges., vol. 25, p. 144, 1860; Amboina.

Tetragonopterus punctato-fasciatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 242, 1863; Obi Island.

Tetragonopterus (Tetragonopterus) punctato-fasciatus Bleeker, Atlas Ichth., vol. 9, p. 40, pl. 374, fig. 3, 1878; Buru; Obi; Solor; Amboina; Banda.

Chaetodon (Tetragonopterus) punctato-fasciatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 75, 1936; Celebes; Buru; Obi; Amboina; Banda; Solor; Timor; Misol; New Guinea; the Philippines; Hawaiian Islands.

1230. *Chaetodon rafflesi* Bennett.

The East Indies, Philippines, Pelew Islands, Bismarck Archipelago, to the Fiji Islands and Samoa. Marine, but rarely entering fresh water.

Chaetodon rafflesi Bennett, Life Raffles, p. 689, 1830; Sumatra. Günther, Cat. Fishes British Mus., vol. 2, p. 27, 1860; Sumatra; Amboina. Günther, Fische der Südsee, vol. 2, p. 44, pl. 35, fig. C, 1877-81; Pelew Islands; Fiji. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 125, 1929; Port Matalvi and Hermana Mayor Island, Zambales Province; Grande Island Reef, Bataan Province; Port Hamilo, Ligo Point in Balayan Bay, and Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, and Pagbilao, Capulaan Bay, Tayabas Province; Galvaney Island, Camarines Sur Province; Caracaran, Batan Island, and near Palag Bay, Albay Province, Luzon. Port Maricaban, Verde Island Passage. Galera Bay, Mansalay, and Varadero Bay, Mindoro. Mompog Island, between Masbate and Luzon. Alimango Bay, Burias. Masbate Reef, Masbate Island. San Miguel Harbor, Ticao Island. Pandanon Island, on north coast, and Maribojoc Bay, Bohol. Cebu, Cebu. Candaraman Island, Balabac. Pujada Bay, Davao Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Tara, Simaluc, and Usada Islands, Sulu Province, the Philippines.

Chaetodon sebae Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 52, 1831; New Guinea.

Chaetodon princeps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 25, 1831; New Ireland. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 177, 1831; Port Praslin, New Ireland.

Sarothrodus princeps Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Halmahera.

Tetragonopterus rafflesi Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

Tetragonopterus (Linophora) rafflesi Bleeker, Atlas Ichth., vol. 9, p. 49, 1878; 15 East Indian localities; the Philippines.

Chaetodon rafflesi Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 339, 1906; Apia and Pago Pago, Samoa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 158, 1923; Amboina; New Pomerania; New Hanover; Pitatuki Buka; Thalassia; New Guinea; Ralum; Sipora; Matupi. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 36, pl. 6, fig. 2, 1927; Aloneros, Tayabas Province, Luzon. Calapan, Mindoro. Canigaran, Palawan. Tagbilaran, Bohol. Southern coast of Cotabato Province, Mindanao. Tubigan Island, Sulu Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; La Paz, Iloilo Province, Panay. Jolo and Sitankai, Sulu Province.

Anisochaetodon (Linophora) rafflesi Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 109, 1936; 22 East Indian localities; the Philippines.

1231. *Chaetodon reticulatus* Cuvier and Valenciennes.

Polynesia and the Philippines.

Chaetodon reticulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 32, pl. 171, 1831; Tahiti and Ulea, Caroline Islands. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 178, pl. 30, fig. 2, 1831; Tahiti. Seale, Occas. Papers Bishop Mus., vol. 4, p. 65, 1906; Raiatea, Society Islands; Rarotonga, Cook Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol.

25, p. 342, 1906; Apia and PagoPago, Samoa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 139, 1923; Samoa and Jaluit, Marshall Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 249, 1928; Apia, Samoa; Rarotonga; Raiatea; Guam; Honolulu; Wake Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 106, 1929; Port Palapag, Samar, Philippines; Apia, Samoa.

Chaetodon superbus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 32, 1831; Ulea.

Citharoedus collaris Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 141, 1860; Tahiti; not of Bloch.

Chaetodon collaris Günther, Fische der Südsee, vol. 2, p. 40, pl. 31, fig. A, 1874; Paumotu=Tuamotu Islands; not of Bloch. Pellégrin, Bull. Mus. Hist. Nat. Paris, vol. 4, p. 220, 1898; Saipan and Guam, Marianas. Fowler, Occas. Papers Bishop Mus., vol. 8, p. 384, 1923; Honolulu.

1232. *Chaetodon selene* Bleeker.

The East Indies and Philippines, north to Japan, west to Arabia.

Chaetodon selene Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 76, 1853; Lawajong, Solor. Günther, Cat. Fishes British Mus., vol. 2, p. 30, 1860; Amboina. Martens, Preuss. Exped. Ost-Asien, pp. 323, 388, 1876; Yokohama, Japan. Boulenger, Proc. Zool. Soc. London, p. 657, 1887; Muscat, Arabia. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Bulan, Sorsogon Province, Luzon. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 119, 1923. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 54, pl. 10, fig. 1, 1927; Puerto Galera and Bulalacao Bay, Mindoro. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 108, 1929; Bulan, Sorsogon Province, Luzon. Cebu market and Malapascua Island, off north end of Cebu Island, off Basilan Island. Doc Can Island and Singaan Island, Sulu Province, the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Dumaguete; Jolo, Sulu.

Tetragonopterus (Chaetodontops) selene Bleeker, Atlas Ichth., vol. 9, p. 44, pl. 377, fig. 5, 1878; Celebes; Solor; Amboina.

Chaetodon (Chaetodontops) selene Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 90, 1936; Makassar, Celebes; Solor; Amboina; New Guinea; the Philippines; Gulf of Oman; and Yokohama.

1233. *Chaetodon semeion* Bleeker.

The East Indies, Philippines, and east to the Caroline and Society Islands.

Chaetodon semeion Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 450, 1855; Cocos-Keeling Islands, Indian Ocean. Günther, Cat. Fishes British Mus., vol. 2, p. 7, 1860; after Bleeker. Günther, Fische der Südsee, vol. 1, p. 37, pl. 28, 1873-75; Samoa; Society Islands. Fowler, Proc. Acad. Nat. Sci. Phila., p. 492, 1899; Thornton Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 343, 1906; Apia, Samoa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 69, 1923; Samoa; New Pomerania; New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 246, 1928; Shortland Island, Solomon Islands; Wake Island; Thornton Island; Apia; Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 79, 1929; Butauanan Island, Camarines Sur Province; Langao Point, Albay Province, Luzon. Galera Bay, and Varadero Bay, Mindoro. Balicuatro Island, Biri Channel, north coast of Samar. Mahinog, Camiguin Island, north coast of Mindanao. Tulnalutan Island, Zamboanga Province, Mindanao. Simaluc and Singaan Islands, Sulu Province, the Philippines.

Chaetodon (Rhabdophorus) semeion Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 61, 1936; Cocos Island; Menado; BukaBuka Island, and Sadaa Island, Celebes; Tidore Island; Goram Island; New Guinea; the Philippines.

1234. *Chaetodon speculum* Cuvier and Valenciennes.

The East Indies, Philippines, Formosa, and the Bismarck Archipelago.

Chaetodon speculum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 73, 1831; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 242, 1851; Banda. Weber, Siboga-Exped., vol. 57, Fische, p. 304, 1913; Buton Straits and Tual. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 75, 1923; Matupi and New Pomerania. Herre and Montal-

ban, Philippine Jour. Sci., vol. 34, p. 66, pl. 34, fig. 2, 1927; southern coast of Batangas Province, Luzon. Calapan, Mindoro. Masbate Island. Gigantangan Island, Leyte. Quiminatan Island, Cuyo Islands, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 75, 1929; Santa Domingo de Basco, Batan Island, Batanes Province. Port San Pio Quinto, Camiguin Island, and Palau Island, north of Luzon, Cagayan Province; Langao Point, Albay Province; Matnog Bay, Sorsogon Province, Luzon. Puerto Galera, Medio Island, Mindoro. Port Banalacan, Marinduque. Port Maricaban, Verde Island Passage. Biri Channel, north coast of Samar. Malapascua Island, off north end of Cebu. Port Langcan and Bolalo Bay, Palawan. Bugsuk Island, Balabac. Murcielagos Bay, Misamis Occidental Province; Little Santa Cruz I., Tulnalutan Island, and Pilas Island off Basilan, Zamboanga Province, Mindanao. Jolo market, Taganak Island, Simaluc Island, and Teomabal Island, Sulu Province, Philippines. Gilolo Island and Formosa. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Burias Island; Capiz, Capiz Province; Panay; Cullion; Jolo and Sitankai, Sulu Province, Philippines. Herre, Fishes 1940-41 Exped.; Calapan, Mindoro.

Chaetodon spiloptera Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 74, 1831; Mollucques.

Tetragonopterus speculum Bleeker, Ned. Tijds. Dierk., vol. 2, p. 189, 1865; Ceram.

Tetragonopterus (Rhabdophorus) speculum Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 62, 1877. Bleeker, Atlas Ichth., vol. 9, p. 34, pl. 375, fig. 3, 1878; Java; Bawean; Amboina; Ceram; Banda.

Chaetodon (Rhabdophorus) speculum Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 64, 1936; Java; Bawean; Menado, Celebes; Halmahera; Ceram; Amboina; Banda; Buton Strait, Tual, Kei Islands; New Guinea; the Philippines.

1235. *Chaetodon strigangulus* Gmelin.

From the Red Sea, Zanzibar, and Mauritius to the Philippines, East Indies, RiuKiu Islands, Marshall Islands, Society, and Tuamotu Islands.

Chaetodon strigangulus Gmelin, Syst. Nat., ed. 13, p. 1269, 1788; with Solander. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 42, pl. 172, 1831; Tahiti. Lay and Bennett, Fishes, Zoology, Capt. Beechey's Voyage, p. 60, pl. 17, fig. 2, 1839; Tahiti and Byam Martin Islands. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 239, 1851; Banda. Rüppell, Verzeich. Senckenb. Mus. Gesell. Sammlunger, p. 9, 1852; Red Sea. Günther, Cat. Fishes, British Mus., vol. 2, p. 4, 1860; Amboina. Günther, Fische der Südsee, vol. 1, p. 35, 1873-75; Polynesia. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 241, 1882; New Guinea. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 575, 1891. Weber, Siboga-Exped., vol. 57, Fische, p. 308, 1913; Beo. Karakelang Island, Dutch East Indies. Ahl. Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 179, 1923; Jaluit, Marshall Islands; Samoa; Mauritius; Zanzibar. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Jolo, Sulu Province, Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 222, 1936; BoraBora, Society Islands.

Chaetodon trifascialis Quoy and Gaimard, Voy. Uranic, Zoologie, p. 379, pl. 62, fig. 5, 1825; Guam. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 313, 1855; Batu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 139, 1929; Hermana Mayor Island, Zambales Province; Port Binanga, Bataan Province; Ligpo Point, Balayan Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Canmahala Bay, Ragay Gulf, Camarines Sur Province; Langao Point, Albay Province; Matnog Bay, Sorsogon Province, Luzon. Tilik, Lubang Island, Port Maricaban, Verde Island Passage. Alimango Bay, Burias Island. Port Palapag, and Biri Channel on north coast Samar. San Roque, Leyte. Cuyo and Bisucay Islands, Cuyo Islands, north end of Sulu Sea. Caxisigan Island, Balabac. Mahinog, Camiguin Island, off coast of Misamis Oriental Province, Mindanao. Little Santa Cruz Island, Tulnalutan and Tapiantana Islands, off Basilan, Zamboanga Province, Mindanao. Jolo, Tonquil, Sulade and Sitankai Islands, Sulu Province, Philippines.

Chaetodon triangularis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 42, pl. 9, fig. 3, 1828; Tor, Red Sea.

Chaetodon bifascialis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 48, 1831; Guam.

Chaetodon leachii Cuvier and Valenciennes, *ibid.*, p. 49, 1831.

Eteira triangularis Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 147, 1860.

Megaprotodon strigangulus Bleeker, Arch. Néerl. Sci. Nat., vol. 11, Systema Percarum, vol. 11, p. 307, 1876. Bleeker; Verh. Akad. Amsterdam, vol. 17, Chétodontöides, p. 119; 1877. Bleeker, Atlas Ichth., vol. 9, p. 54, pl. 375, fig. 1, 1878; Batu; Java; Celebes; Timor; Halmahera; Obi; Amboina; Ceram; Banda. Fowler, Mem. Bishop Mus., vol. 10, p. 256, 1928; PagoPago; Apia; Guam; Raiatea and Fakarava, Society Islands. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 51, fig. 17, 1936; 13 East Indian localities; the Philippines and 10 other Indo-Pacific localities.

Chaetodon (Megaprotodon) strigangulus Klunzinger, Fische Rothen Meeres, p. 58, 1884; Koseir, Red Sea. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 24, pl. 4, fig. 1, 1927; Calapan, Mindoro; Tambagaan Island, Sulu Province.

Megaprotodon trifascialis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 336, pl. 50, fig. 1, 1906; Apia and PagoPago, Samoa.

1236. Chaetodon triangulum Cuvier and Valenciennes.

The Andaman Islands, East Indies and Philippines, south to Australia, New Caledonia, and the New Hebrides; marine.

Chaetodon triangulum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 34 (44), 1831; Batavia, Java. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 16, 1885; North Celebes; Mysore, Schouten Islands. Alcock, Jour. Asiatic Soc. Bengal, vol. 65, p. 312, 1896; Andaman Islands. Steindachner, Abh. Senckenberg. Naturf. Gesell., vol. 25, p. 420, 1900; Ternate. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 308, 1913; Banda. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 174, pl. 1, fig. 4, 1923; Padang and Sipora, Sumatra. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 136, 1929; Sabtang Island, Batanes Province. Palaui Island, Cagayan Province; Bolinao, Pangasinan Province; Port Matalvi, Zambales Province; Grande Island Reef, Subig Bay, and Port Binanga, Bataan Province; Limbones Cove, Cavite Province; Nasugbu, Ligpo Point, Balayan Bay, and Pagapas Bay, Batangas Province; Alibijaban Island, Tayabas Province; Canimo Island near Daet, and Maculabo Island, Camarines Norte Province; Galvaney, Camarines Sur Province; Langao Point, Paron Point, Albay Gulf, RapuRapu Island, and Batan Island, Albay Province, Luzon. Port Tiliik and Balikias Bay, Lubang Island, off north-west corner of Mindoro. Maricaban Island and Verde Island, Verde Island Passage. Sablayan, Mansalay, Paluan Bay, and Galera Bay, Mindoro. Santa Cruz Island, Marinduque. Alimango Bay and Busin Harbor, Burias Island. Masbate Reef, Masbate Island. San Miguel Harbor, Ticao Island. Lode Bay, Destacado Island, between Masbate and Samar. Agojo Point, Catanduanes Island, and Porongpong Island, Palumbanes Group. Port Dupon, Leyte. Bolalo Bay, and Ulugan Bay, Palawan. Bugsuk, Candaraman and Caxisigan Islands, Balabac. Cebu market, Mactan Island, and Malapascua Island, Cebu Province. Mahinog, Camiguin Island, north of Misamis Oriental Province, Mindanao. Polloc, Cotabato Province; Pujada Bay, Davao Province; Surigao, Surigao Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Taganak, Tara, and Simaluc Islands, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete; Cebu, Cebu Province. Herre, Fishes 1940-41 Exped.; Calapan and Puerto Galera, Mindoro; Cagayan, Misamis Oriental Province, Mindanao.

Chaetodon baronessa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 34 (45), 1831. Günther, Cat. Fishes British Mus., vol. 2, p. 31, 1860; Moulucca Sea; Amboina; Ceram; Java.

Citharoedus triangulum Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 143; 1860; Java; Africa.

Tetragonopterus (Gonochaetodon) triangulum Bleeker, Verh. Akad. Amsterdam, vol. 17, 1877, Révision Chétodontöides, p. 107; 15 East Indian localities. Bleeker, Atlas Ichth., vol. 9, p. 53, pl. 374, fig. 1, 1878.

- Gonochaetodon triangulum* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 33, 1907; the Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. McCulloch, Records Australian Mus., vol. 15, p. 36, 1926; Pearl Reef, Queensland, Australia; Papua, New Guinea; New Hebrides and Solomon Islands; New Britain. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 48, 1936; 25 East Indian localities; Palawan; Philippines.
- Chaetodon triangulum* subspecies *baronessa* Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 175, pl. 2, fig. 11, 1923; Ralum, New Guinea; New Pomerania; Bougainville; Amboina.
- Chaetodon* (*Gonochaetodon*) *triangulum* Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 26, pl. 5, fig. 1, 1926; Maricaban Island, Verde Island Passage, Batangas Province, Luzon. Calapan, Mindoro. Capul Island, Samar. Gigantangan Island, Leyte. Quiminatin Island, Cuyo Islands. Balabac Island. Tubigan Island, Sulu Province.
- Gonochaetodon baronessa* Fowler, Proc. Acad. Nat. Sci. Phila., p. 287, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 257, 1928; New Guinea.

1237. *Chaetodon trifasciatus* Mungo Park.

- The Red Sea to Madagascar and Mozambique, east to the East Indies, Philippines, and Hawaiian Islands, the Gilberts, Society, and Tuamotu Islands, north to Formosa and Okinawa, south to Australia; marine.
- Chaetodon trifasciatus* Park, Trans. Linn. Soc. London, vol. 3, p. 34, 1797; Sumatra. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 462, 495, 1803; Sumatra. Playfair and Günther, Fishes Zanzibar, p. 34, 1866; Zanzibar. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 372, pl. 52, 1903; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 33, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Cagayancillo, Cagayan Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa, RiuKiu Islands. Fowler, Copeia, No. 58, p. 64, 1918; the Philippines. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 56, 1923; 11 localities in the tropical Pacific. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 63, pl. 13, fig. 1, 1927; Mariveles, Bataan Province, Luzon. Aloneros, Tayabas Province, Luzon. Calapan and Bulalacao Bay, Mindoro. Tablas Island; Bantayan Island. Quiminatin Island, Cuyo Islands. Puerto Princesa, Palawan. Balabac Island. Cagayan, Misamis Oriental Province, Mindanao. Basbas, Bungau, Sibutu, Sitankai, and Tawi Tawi Islands, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 65, 1929; Sabtang Island, Bataan Province. Port Matalvi, Zambales Province, Grande Island Reef, Subic Bay, Bataan Province; Limbones Cove, Cavite Province; Nasugbu and Pagapas Bay, Batangas Province; Albijaban Island, Tayabas Province; Maculabo Island, Camarines Norte Province; Caracaran, Batan Island, Langao Point, RapuRapu Island, and near Palag Bay, Albay Province; Gubat, Sorsogon Province, Luzon. Maricaban Island and northwest of Verde Island, Verde Island Passage. Balikias, Lubang Island, northwest of Mindoro. Puerto Galera, Paluan Bay, Sablayan, Mansalay Bay, and Varadero Bay, Mindoro. Santa Cruz Island, Marinduque. Almango Bay and Busin Harbor, Burias Island. San Miguel Harbor, Ticao Island. Romblon. Port Uson and Masbate Reef, Masbate Island. Bagacay Bay, Escarpada Island, and Lode Bay, Destacado Island, Naranjo Islands between Samar and Masbate. Port Palapag, Samar. Port Dupon and Hinunangan, Cagayan Island, Leyte. Cebu market and Mactan Island, Cebu Province. Port Caltom, Busuanga. Bolalo Bay, Endeavor Strait, Makesi Island, and Ulugan Bay, Palawan. Caxisigan Island and Candaraman Island, off Balabac. Parang and Polloc, Cotabato Province; Surigao, Surigao Province; Panabutan Bay, Little Santa Cruz Island, and Sacol Island, Zamboanga Province, Mindanao. Bubuan, Sanguisiapo, Taganak, Tara, Singaan, Tumindao, and Simaluc Islands, Sulu Province, Philippines.
- Chaetodon vittatus* Bloch and Schneider, Syst. Ichth., p. 227, 1801; Sumatra; on Park. Bennett, Proc. Zool. Soc. London, p. 61, 1831; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 26 (34), 1831; Tahiti; Guam; Oualan (Kusafe); Bourbon; Madagascar;

Mauritius; East Indies. Lay and Bennett, Fishes, Zoology, Capt. Beechey's Voyage, p. 61, pl. 17, fig. 3, 1839; Byam Martin Island, Tuamotus (Paumotus). Günther, Cat. Fishes British Mus., vol. 2, p. 23, 1860; Ceram; Amboina. Day, Fishes India, p. 107, pl. 27, fig. 5, 1878. Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 227, 1914; Diego Suarez; Madagascar.

Chaetodon tau-nigrum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 29 (38), 1831; Guam.

Chaetodon austriacus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 30, pl. 9, fig. 2, 1835; Djedda, Red Sea.

Chaetodon bellus Lay and Bennett, Fishes, Zoology, Capt. Beechey's Voyage, p. 61, 1839; name only, after Solander.

Chaetodon Layardi Blyth, in Kelaart, Prodromus faunae Zeylanicae, Appendix, p. 50, 1852; Ceylon.

Chaetodon ovalis Thoiillière, Fauna Woodlark, p. 164, 1857; Woodlark Island.

Chaetodon pepeki (Montrouzier) Thoiillière, loc. cit.

Citharoedus taunigrum Kaup, Archiv Naturges., vol. 26, p. 142, 1860.

Citharoedus vittatus Kaup, Archiv Naturges., vol. 26, p. 142, 1860.

Sarothrodus vittatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Halmahera.

Tetragonopterus vittatus Bleeker, *ibid.*, p. 234, 1863; Ternate.

Tetragonopterus (Tetragonopterus) trifasciatus Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 63, 1877; 18 East Indian localities. Bleeker, Atlas Ichth., vol. 9, p. 35, pl. 377, fig. 1, 1878.

Chaetodon trifasciatus var. *austriacus* Klunzinger, Fische Rothen Meeres, p. 55, 1884.

Chaetodon (Tetragonopterus) trifasciatus Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 254, 1891.

Chaetodon trifasciatus var. *arabica* Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 138, pl. 2, fig. 3, 1902; Makalla, South Arabia.

Chaetodon trifasciatus subspecies *austriacus* Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 57, 1923; Red Sea.

Chaetodon trifasciatus subspecies *arabica* Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 58, 1923.

Chaetodon trifasciatus subspecies *caudifasciatus* Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 57, 1923; Padang; Siporab; Madagascar; Mozambique, German East Africa.

Chaetodon (Rhabdophorus) trifasciatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 66, 1936; 30 East Indian localities; Sanguisiapo, Sulu Province, Philippines; also 16 Indo-Pacific localities.

1238. *Chaetodon ulietensis* Cuvier and Valenciennes.

The Philippines and Moluccas north to Okinawa, eastward to the Marshall and Tuamotu Islands; marine.

Chaetodon ulietensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 30 (39), 1831; Ulietea, Society Islands. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Moluksche Archipelago, p. 38, 1856; Amboina; Ternate. Günther, Cat. Fishes British Mus., vol. 2, p. 18, 1860; after Bleeker. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 340, 1906; Apia and Pago Pago, Samoa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 171, 1923; Jaluit, Marshall Islands; Samoa. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 46; 1927; Olongapo, Zambales Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 227, 1936; Takaroa, Tuamotu Islands; Tahiti and Bora Bora, Society Islands.

Tetragonopterus ulietensis Bleeker, Ned. Tijds. Dierk., vol. 2, p. 286, 1865; Amboina.

Chaetodon falcula (not of Bloch) Günther, Fische der Südsee, vol. 1, page 39, pl. 27, fig. C, 1873-74; Paumotus (Tuamotu) Islands; Society Islands; Hervey Islands; Kingsmill (Gilbert) Islands; Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Bacon, Sorsogon Province, Luzon.

1239. *Chaetodon unimaculatus* Bloch.

Zanzibar and Madagascar to the East Indies and Philippines, north to Japan and east to the Hawaiian and Society Islands, marine.

Chaetodon unimaculatus Bloch; Naturges. Ausländ. Fische, vol. 3, p. 75, pl. 201, fig. 1, 1787; East Indian collection. Gmelin, in Linnaeus, Syst. Nat., vol. 1, p. 1258, 1789; India. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 55 (72), 1831; Tahiti. Cuvier, Règne Animal, Poissons, Illustr. ed., pl. 39, fig. 3, 1839. Günther, Cat. Fishes, British Mus., vol. 2, p. 11, 1860; Amboyna. Günther, Fische der Südsee, vol. 1, p. 37, 1873-75; Bonham Island; Tahiti; Samoa. Peters, Monatsber. Akad. Wiss. Berlin, p. 437, 1876; Mauritius. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 368, pl. 50, fig. 161, 1905; Honolulu; Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 83, 1907; Bacon, Sorsogon Province, Luzon. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 61, pl. 11, fig. 1, 1927; Santo Domingo de Basco, Batan Island, Batanes Province. Mariveles, Bataan Province; southern coast of Batangas Province, Luzon. Simara Island, Romblon Province. New Washington, Capiz Province, Panay. Tagapula Island, Samar. Quiminatin Island, Cuyo Islands, Sulu Sea. Jolo and Sitankai, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 251, pl. 25, fig. B, 1928; Honolulu and Hilo, Hawaiian Islands; Faté, New Hebrides; Johnston Island; Apia, Samoa; Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 110, 1929; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province. Bolinao, Pangasinan Province; Port Matalvi, Zambales Province; between Paron and Jesus Points, Albay Gulf, Langao Point, RapuRapu Island, and Maagnas, Lagunoy Gulf, Albay Province; Bacon, Sorsogon Province, Luzon. Guinauanay Island, south coast of Masbate. Port Palapag, Samar. Malcochin Island, Linapacan Island, Palawan Province. Caxisigan Island, Balabac. Tapiantana Island, Sulu Province, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 6, p. 12, 1931; New Hebrides. Herre, Fishes 1931 Philippine Exped., p. 60, 1934; Burias Island; Cullion; Linapacan Island, Palawan Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 229, 1936; Maraa, Tahiti; Vila, Efaté Island, Wala and Malo Islands, New Hebrides.

Chetodon unimaculatus Bonnaterre, Tableau Encyclop. Ichth., page 88, pl. 94, fig. 387, 1788; Japan.

Citharoedus unimaculatus Kaup, Archiv Naturges., vol. 26, p. 145, 1860.

Tetragonopterus unimaculatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

Tetragonopterus (Lepidochaetodon) unimaculatus Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chetodontoidae, p. 87, 1877. Bleeker Atlas Ichth, vol. 9, p. 45, pl. 375, fig. 5, 1878; Java; Solor; Timor; Ternate; Buru; Amboina; Ceram; Banda.

Chaetodon sphenospilus Jenkins, Bull. U. S. Fish Comm., vol. 19, p. 395, fig. 8, 1901; Honolulu.

Anisochaetodon (Lepidochaetodon) unimaculatus de Beaufort, in Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 97, 1936; Java; Sumatra; Solor; Timor; Makassar; Celebes; Buru; Ambon; Ceram; Banda; New Guinea; also the Philippines and 11 other Indo-Pacific localities.

1240. *Chaetodon vagabundus* Linnaeus.

Red Sea to Natal, and eastward in the Indo-Pacific to Tahiti, north to Japan and Marcus Island, south to Queensland, Australia.

Chaetodon vagabundus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 465, 1758; East Indies. Bloch, Naturges. Ausländ. Fische, vol. 3, p. 88, pl. 204, fig. 2, 1787; East Indies. Bennett, Fishes Ceylon, pl. 7, 1828. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 50, 1831; Mauritius; Vanicolo; Moluccas; Amboina; Tahiti. Günther, Cat. Fishes British Mus., vol. 2, p. 25, 1860; Mauritius; Amboina. Day, Fishes India, p. 105, pl. 27, fig. 1, 1878; Andaman Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 17, 1885; Cebu, Philippines; Manado, Celebes; Ternate Island. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 532, 1902; Okinawa, RiuKiu Islands. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Bacon, Sorsogon Province, Luzon. Gilchrist and Thompson, Ann. South African Mus., vol. 11, p. 34, 1911; Natal, South Africa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 153, 1923; Indian Ocean; Ralum, New Guinea; Matupi, German New Guinea; New Pomerania; South

Sea; Samoa; French Island; Amboina; East Indies; Mauritius; Takao, Formosa. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 32, pl. 5, fig. 2, 1927; Currimaio, Ilokos Norte Province; Balaocan, La Union Province; Iba, Zambales Province; Mariveles, Bataan Province; Aloneros, Tayabas Province, Luzon. Calapan, Mindoro. Gigantangan Island, Leyte. Tagbilaran, Bohol. Clarendon Bay, Balabac. Zamboanga, Zamboanga Province, Mindanao. Pearl Bank, Basbas, Bungau, Bilatan, Sibutu, and Sitankai Islands, Sulu Province, Philippines. Barnard, Ann. South African Mus., vol. 21, p. 611, 1927. Natal and Zululand coasts; Delagoa Bay, Mozambique. Fowler, Mem. Bishop Mus., vol. 10, p. 253, 1928; Apia, Samoa; Shortland Island, Solomon Islands; Faté, New Hebrides; Marcus Island; Raiatea, Society Islands; Apia, Samoa; New Guinea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 120, 1929; Santo Domingo de Basco, Batan Island and Sabtang Island, Batanes Province. Palau Island, Cagayan Province; Port Matalvi, Zambales Province; Grande Island Reef, Subic Bay, Bataan Province; Ligpo Point, Port Hamilo, Nasugbu Cove, and Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island and Canimo Island near Daet, Camarines Norte Province; Caracaran, Batan Island, RapuRapu, and near Palag, Albay Province; Bacon, Sorsogon Province, Luzon. Agojo Point, Catanduanes Island, east of southeastern Luzon. Tilik, Lubang Island, northwest corner of Mindoro. Port Maricaban, Verde Island Passage. Mansalay, Sablayan, Varadero Bay, Paluan Bay, and Galera Bay, Mindoro. Mompong Island, between Marinduque and Luzon. Romblon. Alimango Bay, Burias Island. San Miguel Harbor, Ticao Island. Masbate Reef, Masbate. Lode Bay, Destacado Island, between Masbate and Samar. Nabatas Point, and Port Palapag, Samar. Pandanon Island, Bohol. Cebu market, Calangaman and Mactan Islands, Cebu. Endeavor Strait and Chase Islands, Palawan. Bugsuk Island, off Balabac. Cagayanes Islands, Sulu Sea. Pujada Bay, Davao Province; Parang and Polloc, Cotabato Province; Murcielagos Bay, Misamis Occidental Province; Surigao, Surigao Province; Little Santa Cruz Island and Panabutan Bay, Zamboanga Province, Mindanao. Cagayan Sulu Island, Jolo market, Jolo, Sanguisiapo Island, Tataan, Simaluc Island and Usada Island, Sulu Province, the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Alabat Island; Calapan, Mindoro; Dumaguete; Jolo and Sitankai, Sulu Province, Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 224, 1936; Maraa, Tahiti, Moorea, and Bora Bora, Society Islands. Suva, Fiji. Tenibuli, Ysabel Island, Solomon Islands. Herre, Fishes 1940-41 Exped.; Calapan, Mindoro; Cagayan, Misamis Oriental Province, Mindanao.

Chaetodon pictus Forskål, Descript. Animal., p. 65, 1775; Mocha, Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 55, 1831. Günther, Cat. Fishes British Mus., vol. 2, p. 25, 1860; Madras, India. Day, Fishes India, p. 105, pl. 26, fig. 2, 1878; Andaman Islands. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 458, 1917; Ceylon. Ahl, Archiv Naturges., vol. 89, p. 182, 1923.

Chaetodon decussatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 54, 1831; Pondicherry, India. Bleeker, Verh. Bat. Gen., vol. 23, Chaetodontidae p. 19, 1850; Sunda-Molucca Archipelago. Ahl, Archiv Naturges., vol. 89, p. 152, 1923.

Chaetodon neso-gallicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 63, 1831; Mauritius. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 240, 1851; Banda. Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 27, 1880; Botany Bay, New South Wales, Australia.

Sarothrodus vagabundus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Batjan.

Tetragonopterus vagabundus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

Tetragonoptrus (Linophora) vagabundus Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 94, 1877. Bleeker, Atlas Ichth., vol. 9, p. 48, pl. 378, fig. 1, 1878; 18 East Indian localities.

Chaetodon (Anisochaetodon) vagabundus var. *pictus* Klunzinger, Fische Rothen Meeres, p. 56, 1884.

Anisochaetodon (Linophora) vagabundus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 106, 1936; 36 East-Indian localities; the Philippines and 24 other Indo-Pacific localities.

Genus 415. HEMITAURICHTHYS Bleeker.

Hemitaurichthys Bleeker, Arch. Neerl. Sci. Nat., vol. 11, p. 304, 1876; type, *Chaetodon polylepis* Bleeker. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 73, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 142, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 24, 1936.

1241. Hemitaurichthys zoster (Bennett).

Mauritius to the East Indies, Philippines, and Hawaiian Islands; marine. *Chaetodon zoster* Bennett, Proc. Zool. Soc. London, vol. 1, p. 61, 1831; Mauritius. Günther, Cat. Fishes British Mus., vol. 2, p. 33, 1860; after Bennett.

Chaetodon polylepis Bleeker, Acta Soc. Sci., Indo-Neerl., vol. 2, p. 54, 1857; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 35, 1860; Sea of Amboina.

Tetragonopterus polylepis Bleeker, Ned. Tijds. Dierk., vol. 1, p. 270, 1863; Timor.

Hemitaurichthys polylepis Bleeker, Arch. Neerl. Sci. Nat., vol. 11, p. 304, 1876. Bleeker, Atlas Ichth., vol. 9, p. 31, pl. 378, fig. 4, 1878; Amboina; Timor. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 37, 1923; New Guinea. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 73, 1934; Sulu Sea at Quiminatin Island, Cuyo Islands.

Hemitaurichthys zoster Bleeker, Verh. Akad. Amsterdam, vol. 18, Faune Ichth. l'île Maurice, p. 14, 1878. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 38, pl. 2, fig. 7, 1923; New Guinea; Mauritius. Fowler, Mem. Bishop Mus., vol. 10, p. 257, pl. 27, fig. A, 1928; Honolulu, Hawaiian Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 142, 1929; Cagayan Islands, Sulu Sea; Caxisigan Island, off Balabac; Celebes, Dutch East Indies. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 25, fig. 10, 1936; Pulo Weh; Amboina; Timor; New Guinea; Philippines; Mauritius; Hawaii.

Genus 416. HENIOCHUS Cuvier. Kabubu.

Marine fishes of the tropical Indo-Pacific.

Heniochus Cuvier, Règne Animal, vol. 2, p. 335, 1817; type, *Chaetodon macrolepidotus* L. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 75, 1927. Fowler, Bull. 100, U. S. Nat. Mus., vol. 8, p. 146, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 35, 1936.

Taurichthys Cuvier, Règne Animal, ed. 2, vol. 2, p. 192, 1829; type, *Taurichthys varius* Cuvier.

Diphreutes Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1141, 1850.

1242. Heniochus acuminatus (Linnaeus). White-plumed kabubu.

East coast of Africa to East Indies, Philippines, China, Japan, Hawaiian Islands, Australia, Samoan and Gilbert Islands.

Chaetodon acuminatus Linnaeus, Syst. Nat., ed. 10, p. 272, 1758; Indies. Bloch and Schneider, Syst. Ichth., pp. 229 and 232, 1801; India.

Chaetodon macrolepidotus Linnaeus, Syst. Nat., ed. 10, p. 274, 1758; Indies. Bloch, Naturges. Auslând. Fische, vol. 3, p. 69, pl. 100, fig. 1, 1787; East Indies. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 455 and 479, pl. 12, fig. 1, 1802; East Indies.

Chetodon macrolepidotus Bonnaterre, Tableau Encyclop. Ichth., p. 85, pl. 46, fig. 175, 1788; India.

Chetodon acuminatus Bonnaterre, Tableau Encyclop. Ichth., p. 80, 1788; Indies.

Chaetodon bifasciatus Shaw, General Zoology, vol. 4, p. 342, 1803; Indian Seas.

Heniochus acuminatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 98, 1831. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 376, pl. 55, 1905; Honolulu, Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 346, 1906; Apia, Samoa; Hawaii. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 97, 1907; Bulan, Sorsogon Province, Luzon, Philippines. McCulloch, Australian Zoologist, vol. 2, p. 91, pl. 27, fig. 232, 1922; New South Wales, Australia. Herre and Montalban, Philippine Jour.

Sci., vol. 34, p. 76, pl. 19, fig. 2, 1927; Subic Bay, Zambales Province, Luzon; Calapan and Puerto Galera, Mindoro; Gaspar Island, Marinduque; Bennett Island, west of Masbate; Cebu and Gato Island, Cebu Province; Buenavista, Guimaras Island, east coast of Panay; Jolo, Sulu Province; the Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 154, 1929; San Fabian, Pangasinan Province; Subic Bay, Zambales Province; Mariveles Bay, Bataan Province; Canmahala Bay, Ragay Gulf, in small stream; Galvaney Island, Ragay Gulf, Camarines Sur Province; Bacon, Sorsogon Province, Luzon. Cebu market, Cebu. Pandanon Island, Bohol. Jolo market and Doc Can Island, Sulu Province, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Buriat Island; Culion; Cebu, Cebu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 37, 1936; 28 East Indian localities; the Philippines and 26 Indo-Pacific localities. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro; Cagayan, Misamis Oriental Province, Mindanao.

Heniochus macrolepidotus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 93, 1831; Manila, Luzon; Mauritius; Celebes; New Guinea; Trinqueemale. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 36, 1835; Red Sea. Schlegel, Fauna Japonica, Pisces, p. 82, pl. 44, fig. 1, 1844; Nagasaki, Japan. Günther, Cat. Fishes British Mus., vol. 2, p. 39, 1860; Ceylon; Amboina; Port Essington, Australia. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay. Day, Fishes India, p. 110, pl. 8, fig. 3, 1878. Klunzinger, Fische Rothen Meeres, p. 58, pl. 8, fig. 3, 1884. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 17, 1885; Cebu, Philippines; Menado, Celebes. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 542, 1902; Wakanoura and Nagasaki, Japan. Barnard, Ann. South African Mus., vol. 21, p. 607, 1927; Natal; Delagoa Bay, Mozambique.

Diphreutes macrolepidotus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1141, 1850; Pinang; Singapore; Malay Peninsula.

Taurichthys macrolepidotus Bleeker, Recherches faune Madagascar, Poissons, p. 96 1875. Bleeker, Atlas Ichth., vol. 9, p. 29, pl. 367, fig. 1, 1878; by error *Taurichthys microlepidotus* on plate; 17 East Indian localities and Luzon, Philippines.

1243. *Heniochus monoceros* Cuvier and Valenciennes. Unicorn kabubu.

The Indo-Pacific from Mauritius to Java, the Philippines, RiuKiu Islands, and southeast to Samoa, Tahiti, and the Tuamotu Islands; also Hawaii.

Heniochus monoceros Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 100, pl. 176, 1831; Mauritius. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., ser. 3, vol. 2, p. 520, 1845; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 2, p. 41, 1860; Sea of Mauritius. Günther, Fische de Südsée, vol. 1, p. 49, pl. 48, 1873-75; Samoa; Tahiti. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 515, 1891. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 143, 1912; Rikitea, Mangareva Island, Gambier Islands, Tuamotu Archipelago. Fowler, Mem. Bishop Mus., vol. 10, p. 258, 1928; Rikitea, Mangareva Island, Hawaii. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 149, 1929; Calangaman Island, Cebu Province; Santo Domingo de Basco, Batan Island, Batanes Province. South Lagoon, Tumindao Island, Sulu Province, Philippines; also Hawaii and Mangareva. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 41, 1936; Batavia, Java; the Philippines.

Taurichthys monoceros Bleeker, Recherches faune Madagascar, Poissons, p. 96, 1875. Bleeker, Atlas Ichth., vol. 9, p. 28, pl. 365, fig. 3, 1878.

1244. *Heniochus permutatus* Cuvier and Valenciennes. Bennett's kabubu.

The Indo-Pacific from Madagascar to the Philippines, East Indies, Guam, Hawaii, Samoa, Gilbert and Society Islands.

Heniochus permutatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 99, 1831; (with Bennett). Seale, Occas. Papers Bishop Mus., vol. 4, p. 65, 1906; Raiatea, Society Islands; Faté, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 346, 1906; Apia and PagoPago, Samoa. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 80, pl. 22, fig. 2, 1927; Romblon, Romblon Island.

Bungau and Tubigan Islands, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 258, 1928; Guam; Hawaii; Faté, New Hebrides; Raiatea, Society Islands; Gilbert (Kingsmill) Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 151, 1929; Subic Bay, Zambales Province; Palag Bay, Albay Province; Gubat Bay, Sorsogon Province, Luzon. Medio Island, Puerto Galera, Mindoro. Port Maricaban, Verde Island Passage. Catbalogan, Port Palapag, and Biri Channel, Samar. Pandanon Island, Bohol. Calangaman Island, Cebu Province. Endeavor Strait, Palawan. Tataidaga Bay, Davao Province; Silino, Little Santa Cruz, and Malanipa Islands, Zamboanga Province, Mindanao. Candaraman Island, Balabac. Tutu Bay and Jolo market, Jolo; Simaluc and Tataan Islands, Sulu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 40, 1936; 12 East Indian localities; the Philippines.

Heniochus chrysostomus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 99, 1831; Tahiti. Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 40, fig. 2, 1839. Lay and Bennett, Fishes, Zoology Capt. Beechey's Voyage, p. 62, pl. 18, fig. 1, 1839; Tahiti. Günther, Fische der Südsee, vol. 1, p. 49, pl. 39, fig. A, 1873-75; Tuamotu (Paumotu) and Society Islands. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 102, p. 226, pl. 2, fig. 1, 1893; Tjilatjap, Java. Weber, *Siboga*-Exped., vol. 57, Fische, p. 310, 1913; Saleyer, Dutch East Indies. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 30, 1930; Ralum, Tilenius Harbor, New Guinea; Samoa; Madras.

Heniochus melanistion Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 98, 1854; Banda Neira.

Heniochus drepanoides Montrouzier, Ann. Sc. Phys. Soc. d'Agricult. Lyon, ser. 2, vol. 8, p. 444, 1856. Thiollière, Fauna Woodlark, p. 166, 1857; Woodlark Island.

Heniochus chrysostoma Günther, Cat. Fishes British Mus., vol. 2, p. 41, 1860; Amboina. Seale, Occas. Papers Bishop Mus., vol. 1, p. 102, 1901; Guam.

Taurichthys chrysostomus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 10, p. 315, 1876. Bleeker, Atlas Ichth., vol. 9, p. 29, pl. 366, fig. 2, 1878; Flores; Ternate; Ceram; Amboina; Banda; Goram; New Guinea.

1245. *Heniochus singularis* Smith and Radcliffe. Philippine kabubu.

Philippines, Formosa, and East Indies.

Heniochus singularis Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 40, p. 321, fig. 2, 1911; Alibijaban Island, Ragay Gulf, Tayabas Province; Galvaney Island, Camarines Sur Province; Bataan and Rapu-Rapu Island, Lagonoy Gulf, Albay Province, Luzon. Port Dupon, Leyte, Ulugan Bay, Palawan. Murcielagos Bay, Misamis Occidental Province, Mindanao. Si Amil Island, east coast of British North Borneo. Binang Ulang Island, Gulf of Tomini, Celebes; Gane Road, (Gilolo) Halmahera Island. Soo Wan, Formosa. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 77, pl. 18, fig. 2, 1927; south coast of Batangas Province, Luzon. Quiminatin Island, Cuyo Islands, Sulu Sea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 152, 1929; same specimens and localities already given by Smith and Radcliffe. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Balabac Island. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 45, fig. 15, 1936; Batavia, Java; Si Amil Island, British North Borneo; eastern Borneo; Gulf of Tomini, Celebes; Halmahera. Also Philippines and Formosa.

1246. *Heniochus varius* (Cuvier). Variable kabubu.

Madagascar, the East Indies, Philippines, Bismarck Archipelago, Australia, Fiji, and Samoa.

Taurichthys varius Cuvier, Règne Animal, ed. 2, vol. 2, p. 128, 1829; East Indies; on Renard, Poissons, Moluques, vol. 1, pl. 30, fig. 164, 1718, and vol. 2, pl. 10, fig. 149. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 111 (148), pl. 181, 1831. Cuvier, Règne Animal, Disciples ed., vol. 7, Poissons, p. 109, pl. 41, fig. 2, 1836. Bleeker, Atlas Ichth., vol. 9, p. 27, pl. 365, fig. 2, 1878; Batu; Java; Celebes; Timor; Amboina; Ceram; Banda. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 515, 1891. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 97, 1907; Bacon, Sorsogon Province, Luzon.

- Taurichthys viridis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 114, 1831; Amboina.
- Heniochus varius* Günther, Cat. Fishes, British Mus., vol. 2, p. 41, 1860; Molucca Sea; Amboina. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 270, 1863; Timor. Günther, in Brenchley, Cruise of the *Curaçao*, p. 410, 1870; Misol, Moluccas. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 347, 1906; Apia, Samoa. Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 24, 1923; Misol; New Guinea; Talassia and Tilenius Harbor, New Pomerania; Ralum. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 79, pl. 20, fig. 2, 1927; southern coast of Batangas Province, Luzon. Calapan and Bulalacao Bay, Mindoro. Guindulman, Bohol. Cagayan, Misamis Oriental Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 257, 1928; New Guinea; Apia, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 147, 1929; Port Matalvi, Zambales Province; Bolinao, Pangasinan Province; Pagapas Bay, Port Hamilo, and Ligo Point, Balayan Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Batan Island, Langao Point, near Palag Bay, between Paron and Jesus Points, and San Miguel Island, Tabaco Bay, Albay Gulf, Albay Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Matnog Bay, Sorsogon Province, Luzon. Tilik and Balikias Bay, Lubang Island, off northwest corner of Mindoro. Maricaban Island, Verde Island Passage. Varadero Bay and Mansalay, and Medio Island, Galera Bay, Mindoro. Santa Cruz, Marinduque. Alimango Bay and Busin Harbor, Burias Island. Port Palapag, Samar. Port Dupon, Leyte. Cebu market and Mactan Island, Cebu. Maribojoc Bay, Bohol. Endeavor Strait, Palawan. Polloc, Cotabato Province, Mindanao. Jolo market, Jolo and Tataan Bay, Simaluc Island, Sulu Province. Also Celebes, Halmahera, Talisse and Tidore Islands, Dutch East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Culion; Dumaguete; Jolo, Sulu Province. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 42, figs. 13-14, 1936; 17 East Indian localities; the Philippines. Herre, Fishes 1940-41 Exped.; Calapan and Puerto Galera, Mindoro; Cagayan, Misamis Oriental Province, Mindanao.
- Taurichthys bleekeri* Castelnau, Researches Fishes Australia, Official Record Philadelphia Centennial Exhibit, p. 15, 1875; Cape York, Queensland, Australia.
- Heniochus (Taurichthys) varius* Steindachner, Abh. Senckenb. Naturf. Gesell., vol. 25, p. 420, 1900; Ternate.
- Heniochus varius* Fowler, Copeia, No. 58, p. 64, 1918; the Philippines.
- Heniochus pleurotaenia* Ahl, Archiv Naturges., vol. 89, Abt. A, Heft 5, p. 24, pl. 1, fig. 5, 1923; Padang, Sumatra.

Subfamily POMACANTHINÆ

- Genus 417. HOLACANTHUS** Lacépède. Angelfishes. Visayan names: Alibang-bang; Boray-boray; Tapay-tapay. Samal: Kabulu; Tejro. Authors have variously divided this genus. In this list the genera of the latest authors have been treated as subgenera. Coral-reef fishes of small to rather large size and usually of great beauty, in all tropical seas.
- Holacanthus* Lacépède, Hist. Nat. Poissons, vol. 4, p. 525, 1803; type, *Chaetodon tricolor* Bloch. Günther, Cat. Fishes, British Mus., vol. 2, p. 42, 1860. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 377, 1905. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 347, 1906. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 81, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 156, 1929.
- Pomacanthus* Lacépède, Hist. Nat. Poissons, vol. 4, p. 517, 1803; type, *Chaetodon arcuatus* L. Brunner, Proc. Zool. Soc. London, p. 554, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 129, 1936.
- Genicanthus* Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 212, 1839; type, *Holacanthus lamarck* Lacépède. Brunner, Proc. Zool. Soc. London, p. 573, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 150, 1936.

- Centropyge* Kaup, Archiv Naturges., vol. 26, Abt. 1, p. 138, 1860; type, *Holacanthus tibicen* Cuvier and Valenciennes. Brunner, Proc. Zool. Soc. London, p. 588, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 159, 1936.
- Chaetodontopus* Bleeker, Arch. Néerl. Sci. Nat., vol. 11, p. 307, 1876; type, *Holacanthus septentrionalis* Schlegel. Brunner, Proc. Zool. Soc. London, p. 548, 1933. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 122, 1936.
- Acanthochaetodon* Bleeker, Arch. Néerl. Sci. Nat., vol. 12, p. 308, 1876; type, *Holacanthus annularis* Lacépède.
- Angelichthys* Jordan and Evermann, Rep. U. S. Fish Comm., vol. 21, p. 420, 1896; type, *Chaetodon ciliaris* Lacépède.
- Xiphyops* Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 64, 1922; type, *Holacanthus fisheri* Snyder.
- Pygoplites* Brunner, Proc. Zool. Soc. London, p. 587, 1933; type, *Chaetodon diacanthus* Boddaert. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 156, 1936.
- Euxiphyops* Brunner, Copeia, No. 4, p. 192, 1934; type, *Holacanthus aanthometopon* Bleeker. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 145, 1936.
- Heteropyge* Brunner, Proc. Zool. Soc. London, p. 569, 1933; type, *Holacanthus aanthometopon* Bleeker; preoccupied in *Myriopoda*.

1247. *Holacanthus trimaculatus* Cuvier and Valenciennes.

The Indo-Pacific from Zanzibar and Mauritius to the Philippines and the East Indies, to New Guinea.

Holacanthus trimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 196, pl. 182, 1831; Moluccas. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 242, 1851; Banda Islands. Günther, Cat. Fishes British Mus., vol. 2, p. 50, 1860; Amboyna; Moluccas. Playfair, in Playfair and Günther, Fishes Zanzibar, p. 38, 1866; Zanzibar. Bleeker, Atlas Ichth., vol. 9, p. 63, pl. 373, fig. 5, 1878; Java; Amboina; Banda. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 516, 1891. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 94, pl. 21, fig. 1, 1927; Maricaban Island, off south coast of Batangas Province, Luzon; Sayan Island, Samar; Jolo, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 166, 1929; Mabul Island; Kait Point, Celebes. Brunner, Proc. Zool. Soc. London, p. 579, text figure 20, 1933; Zanzibar; Seychelles; Mauritius; Amboina. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Burias Island; Jolo and Sitankai, Sulu Province.

Holacanthus (Apolemichthys) trimaculatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 155, 1936; Pulu Weh; Java; Celebes; Banda; Amboina; Doreh, New Guinea; the Philippines.

Subgenus CENTROPYGE Kaup.

1248. *Holacanthus bicolor* (Bloch).

The East Indies, Philippines, New Guinea, Solomon Islands, Samoa, Gilbert and Hawaiian Islands.

Chaetodon bicolor Bloch, Naturges, Ausländ. Fische, vol. 3, p. 94, pl. 206, fig. 1, 1787; both Indies.

Chaetodon bicolor Bonnaterre, Tableau Encyclop. Ichth., p. 93, pl. 97, fig. 396, 1788; East Indies.

Holacanthus bicolor Lacépède, Hist. Nat. Poissons, vol. 4, pp. 527, 535, 1803; East Indies. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 167, 1831; East Indies. Günther, Fische der Südsee, vol. 1, p. 51, pl. 39, fig. B, 1873-75; Samoa; Solomon Islands; Hawaii. Bleeker, Atlas Ichth., vol. 9, p. 61, pl. 369, fig. 3, 1878; Sumatra; Flores; Solor; Ternate; Ceram; Amboina; Saparua; Banda; Aru; New Guinea. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 244, 1882; New Guinea. DeVis, Proc. Linn. Soc. New South Wales, vol. 9, p. 457, 1884; Queensland, Australia. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 348, 1906; Apia and Pago Pago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Manila, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Weber, *Siboga*-Exped., vol. 57, Fische, p. 312, 1913; Banda. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 91, 1927; Bato Bato, Tawi-Tawi Island, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 261, 1928;

Apia and Pago Pago, Samoa; New Guinea; Gilbert (Kingsmill) Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 172, 1929; Port Maricaban, Verde Island Passage, between Luzon and Mindoro. Refugio, Pasacao, Camarines Sur Province, Luzon. Port Palapag, Samar. Murcielagos Bay, Misamis Bay, Misamis Occidental Province, Mindanao, Teomabal, Tara, and Sitankai Islands, Sulu Province, Philippines. Also Danawan and Si Amil Islands, British North Borneo, and several Dutch East Indian Islands. Brunner, Proc. Zool. Soc. London, p. 589, text fig. 26, 1933; Ceram; Amboina; Pelew Islands; Solomon Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Dumaguete. Herre, Fishes 1933-34 Exped.; Romblon; Jolo, Sulu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 161, 1936; Sumatra; Flores; Solor; Kisser; Celebes; Talisse Island; Makian Island; Ternate; Ceram; Amboina; Saparua; Banda; Aru Islands; Moreton Bay and Doreh, New Guinea; Philippines.

1249. *Holacanthus (Centropyge) bispinosus* (Günther).

The East Indies, Philippines, Madagascar, New Hebrides, Samoa, Tahiti, and Hawaii.

Holacanthus diacanthus Bleeker, Acta. Soc. Sci. Indo-Neerl., vol. 2, Achste Bijdr. vischfauna Amboina, p. 57, 1857; Amboina; not of Boddaert.

Holacanthus bispinosus Günther, Cat. Fishes British Mus., vol. 2, p. 48, 1860; Sea of Amboyna; p. 516; Aneiteum, New Hebrides. Günther, Fische der Südsee, vol. 1, p. 51, pl. 56, fig. C, 1873-75; Amboina; Aneiteum; Hawaiian Islands; Tahiti. Steindachner, Abh. Senckenberg. Naturf. Gesell., vol. 25, p. 421, 1900; Ternate. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 378, pl. 56, 1905; Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 348, 1906; Pago Pago; Tutuila; Samoa. Weber, *Siboga*-Exped., vol. 57, Fische, p. 311, 1913; Banda. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 181, 1929; Limbones Cove, Cavite Province, and Port Matalvi, Zambales Province, Luzon. Paluan Bay, Mindoro. Maribojoc Bay, Bohol, Tutu Bay, Jolo Island, and Tapiantana Island, Sulu Province. Also Danawan and Si Amil Islands, east coast British North Borneo; seven islands near Celebes and the Moluccas. Montalban, Philippine Jour. Sci., vol. 41, p. 283, pl. 1, 1930; Lumbian Island, Sulu Province.

Holacanthus loriculus Günther, Fische der Südsee, vol. 1, p. 53, pl. 40, fig. C, 1873-75; Society Islands.

Holacanthus zebra Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 263, pl. 32, fig. 2, 1891.

Centropyge bispinosus Brunner, Proc. Zool. Soc. London, p. 592, 1933; Amboina; New Hebrides; Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 165, 1936, Celebes; Talisse Island; Amboina; Tidore; Ternate; Banda; Philippines.

1250. *Holacanthus (Centropyge) multifasciatus* (Smith and Radcliffe).

The Philippines and East Indies.

Holacanthus multifasciatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 40, p. 342, fig. 3, 1911; Puerto Galera, Mindoro; Romblon Harbor, Romblon Island, Philippines. Mabul Island, Borneo; BukaBuka, Dodepo, Pasejogo, and Binang Unang Islands on the coast of Celebes; Buru and Talisse Islands, Dutch East Indies. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 86, pl. 17, fig. 2, 1927; after Smith and Radcliffe. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 179, 1929; on Smith and Radcliffe's specimen. Brunner, Proc. Zool. Soc. London, p. 594, 1933; after Fowler and Bean. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 161, 1936; copied.

1251. *Holacanthus (Centropyge) nox* Bleeker.

The East Indies, Philippines, China, RiuKiu Islands, Japan, New Guinea, and the Great Barrier Reef.

Holacanthus nox Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 338, 1853; Amboina. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 200, 1858; Goram Archipelago. Günther, Cat. Fishes British Mus., vol. 2, p. 51, 1860; Sea of Amboina; after Bleeker. Bleeker, Atlas Ichth., vol. 9, p. 62, pl. 368, fig. 3, 1878; Amboina and Goram. Macleay, Proc. Linn. Soc.

New South Wales, vol. 7, p. 244, 1882; New Guinea. Ogilby, Mem. Queensland Mus., vol. 5, p. 178, 1916; Great Barrier Reef. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 175, 1929; Pasacao, and Refugio Island, Ragay Gulf, Camarines Sur Province; Canmahala Bay, Ragay Gulf; RapuRapu Island, and San Miguel Island, Tabaco Bay, Albay Province, Luzon. Romblon Harbor, Romblon, Masbate Reef, Masbate. Inamucan Bay and Murcielagos Bay, Misamis Occidental Province, Mindanao. Tutu Bay, Jolo Island, Sulu Province. Also Tomahu Island, Limbe Strait and Gulf of Boni, Celebes, and Halmahera (Gilolo), Dutch East Indies. Hong Kong market, China; Nafa, Okinawa, RiuKiu Islands; and Misaki, Sagami, Japan. Brunner, Proc. Zool. Soc. London, p. 592, 1933; after Fowler and Bean. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 164, 1936; Pulu Weh; Gulf of Boni and Limbe Strait, Celebes; Amboina; Banda; Halmahera; Goram; Philippines; China; Japan.

1252. *Holacanthus (Centropyge) tibicen* Cuvier and Valenciennes.

The East Indies, Philippines, RiuKiu Islands, Pelew Islands, New Hebrides, and Lord Howe Island.

Holacanthus tibicen Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 130 (173), 1831. Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 129, 1877. Bleeker, Atlas Ichth., vol. 9, p. 62, pl. 370, fig. 4, 1878; Celebes; Flores; Solor; Ternate; Amboina; Ceram. Waite, Records Australian Mus., vol. 3, p. 203, 1900; Lord Howe Island. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 547, 1902; Nafa, RiuKiu Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 312, 1913; Banda. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 90, pl. 20, fig. 1, 1927; Jolo, Sibutu, Sitankai, and Tubigan Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 174, 1929; Puerto Galera, Mindoro; Port Palapag, Samar. Malapascua Island, Cebu Province. Candaraman Island, Balabac. Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz and Malanipa Islands, Zamboanga Province, Mindanao. Pilas Island, off Basilan Island. Tapa, Sanguisiapo, Sitankai, Sulade, Tapiantana, and Tumindao Islands, Tutu Bay, Jolo Island, and South Lagoon, Tumindao, Sulu Province; Danawan and Si Amil Islands, British North Borneo; Makyan, Tomahu and Libani Islands and Limbe Strait, Celebes. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Jolo, Sulu Province.

Centropyge tibicen Brunner, Proc. Zool. Soc. London, p. 591, 1933; Amboina; Misol Island; Pelew Islands; Lord Howe Island; New Hebrides. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 163, 1936; Flores; Solor; Makian; Celebes; Ternate; Ceram; Amboina; Banda; Misol; New Guinea; Philippines; Lord Howe Island; New Hebrides; Pelew Islands.

1253. *Holacanthus (Centropyge) vroliki* Bleeker

The Red Sea, East Indies, Philippines, Formosa, and the Solomon Islands.

Holacanthus vroliki Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 339, 1853; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 51, 1860; Amboina; Ceram. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 787, 1870; Red Sea.

Holacanthus vroliki Bleeker, Atlas Ichth., vol. 9, p. 63, pl. 371, fig. 1, 1878; Flores; Timor; Ternate; Buru; Obi Major; Ceram; Amboina. Steindachner, Abh. Senckenb. Naturf. Gesell., vol. 25, p. 421, 1900; Batjan. Weber, *Siboga*-Exped., vol. 57, Fische, p. 312, 1913; Banda. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 92, pl. 22, fig. 1, 1927; Calapan, Mindoro; Cagayan, Misamis Oriental Province, Mindanao; and Tambagaan and Bungau, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 164, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Port Matalvi, Zambales Province; Grande Island Reef, Subig Bay, Bataan Province; Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Refugio Island, Pasacao, Camarines Sur Province; RapuRapu and Batan Islands, and Magnas, Lagonoy Gulf, Albay Province; near Palag Bay, Sorsogon Province; also Canmahala Bay, Ragay Gulf, Luzon. Port Tilig, Lubang Island, northwest corner of Mindoro. Maricaban Island, Verde Island Pas-

sage. Sablayan and Paluan Bay, Mindoro. Mompog Island, between Marinduque and Luzon. Alimango Bay and Busin Harbor, Burias Island. Cataingan Bay, Masbate. Port Palapag, Samar. Cebu market, Mactan and Malapascua Islands, Cebu Province. Port Caltom and Port Uson, Busuanga Island. Puerto Princesa, Palawan. Caxisigan Island, Balabac. Cagayanes Islands, Sulu Sea. Dalaganem Island, Cuyo Islands. Murcielagos Bay, Misamis Occidental Province; Polloc, Cotabato Province; Tunalutan Island, Zamboanga Province, Mindanao. Jolo, Pangasinan, Simaluc, Singaan, Sitankai, Tonguil, Simalac, Tibi, Tapiantana, Tataan, Tulayan, Usada, and Doc Can Islands, Sulu Province; also numerous East Indian localities and one in Formosa. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 236, 1936; Tenibuli, Ysabel Island, Solomon Islands.

Centropyge vrolicki Brunner, Proc. Zool. Soc. London, p. 593, 1933; Ceram; Amboina; Solomon Islands; China Sea; Mortlock Islands.

Centropyge vrolicki Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 167, 1936; 15 East Indian localities; Philippines.

Subgenus CHAETODONTOPLUS Bleeker.

1254. *Holacanthus (Chaetodontoplus) melanosoma* (Bleeker).

The East Indies and Philippines.

Holacanthus melanosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 78, 1853; Lawajong, Solor. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 12, 1860; Amboina. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 288, 1868; Solor. Günther, Cat. Fishes British Mus., vol. 2, p. 53, 1860; Solor; after Bleeker. Günther, in Brechley, Cruise of the *Curaçao*, p. 410, 1873; Misol, Moluccas. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 195, 1929; Jolo market, Jolo, and Doc Can Island, Sulu Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Cebu, Cebu; Jolo, Sulu Province.

Holacanthus dimidiatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 11, 1860; Amboina.

Chaetodontoplus melanosoma Bleeker, Verh. Akad. Amsterdam, vol. 17, p. 117, 1877. Bleeker, Atlas Ichth., vol. 9, p. 57, pl. 369, fig. 1, 1878; Solor. Brunner, Proc. Zool. Soc. London, p. 551, 1933; Misol Island; Jolo, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 126, 1936; Solor; Amboina; Misol; Philippines.

Chaetodontoplus dimidiatus Bleeker, Atlas Ichth., vol. 9, p. 57, pl. 369, fig. 4, 1878; Amboina. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 195, 1929.

1255. *Holacanthus (Chaetodontoplus) mesoleucus* (Bloch).

The East Indies, Philippines, and Bismarck Archipelago.

Chaetodon mesoleucus Bloch, Naturges. Ausländ. Fische, vol. 3, p. 117, pl. 216, fig. 2, 1787; Japan; error in locality.

Chaetodon mesomelas Gmelin, in Linnaeus, Syst. Nat., vol. 1, p. 1263, 1789; on Bloch.

Holacanthus mesoleucus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 528, 535, 1802; Japan; error. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 127 (170), 1831; Moluccas; Java. Günther, Cat. Fishes British Mus., vol. 2, p. 54, 1860; Makassar, Celebes; Moluccas. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 151, 1904; Singapore. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 101, pl. 7, fig. 1, 1927; Puerto Galera, Mindoro, Masbate. Gigantangan Island, Leyte, Estancia, Iloilo Province, Panay. Zamboanga, Zamboanga Province, Mindanao. BatoBato, TawiTawi Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 191, 1929; Port Matalvi, Zambales Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Tayabas Province; Galvaney Island and Ragay Bay, Ragay Gulf, Butuanan Island, and Masamat Bay, Quinalasag Island, Camarines Sur Province; Langao Point, Albay Province; Canmahala Bay, Ragay Gulf, Luzon. Port Tilik, Lubang Island. Santa Cruz, Marinduque. Romblon Island. Alimango Bay and Busin Harbor, Burias Island. San Miguel Harbor, Ticao Island. Cataingan Bay, and Masbate Reef, Masbate. Bagacay Bay, Escarpada Island and Lode Bay. Destacado Island, Naranja Islands, between Masbate and Samar. Nabatas Point and Biri Channel, Samar. San Juanico Strait, between Samar and Leyte. Pandanon Island, Bohol. Cebu market, Cebu. Port Caltom and Port Uson, Busuanga Island. Makes Island,

Ulugan Bay, and Endeavor Strait, Palawan, Polloc, Cotabato Province, Surigao, Surigao Province, and Little Santa Cruz Island, Zamboanga, Zamboanga Province, Mindanao. Isabela, Basilan Island, Tara Island, Sulu Province. Kayoa, Togian, and Halmahera Islands, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Culion; Cebu, Cebu Province; Jolo, Sulu Province.

Chaetodon atratus Gray, Cat. Fishes, described by Gronow, vol. 2, p. 54, 1854; India.

Chaetodontoplus mesoleucus Bleeker, Atlas Ichth., vol. 9, p. 56, pl. 369, fig. 5, 1878; Batu; Singapore; Duizend Islands; Java; Celebes; Halmahera; Batan; Oblo Major; Ceram. Brunner, Proc. Zool. Soc. London, p. 549, 1923 Singapore; Macassar and Menado, Celebes; Jolo, Philippines; New Britain. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 123, fig. 31, 1936; Singapore; Batu Island; Batavia, Java; Duizend Islands; Borneo; Makassar and Menado, Celebes; Togian Island; Ceram; Batjan; Obi Major; Halmahera; Philippines; New Britain.

Subgenus EUXIPHIPOPS Brunner.

1256. *Holacanthus* (*Euxiphipops*) *navarchus* (Cuvier and Valenciennes).

The East Indies and Philippines.

Holacanthus navarchus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 171, 1831; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 99, 1854; Banda. Günther, Cat. Fishes British Mus., vol. 2, p. 49, 1860; Amboina. Günther, in Brenchley, Cruise of the *Curaçao*, p. 410, 1873; Misol, Moluccas. Bleeker, Atlas Ichth., vol. 9, p. 65, pl. 371, fig. 3, 1878; Java; Flores; Amboina; Banda. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 263, 1883; New Guinea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 167, 1929; Batan Island and between Paron and Jesus Points, Albay Gulf, Albay Province, Luzon. Port Dupon, Leyte. Cebu market, Cebu. Also four East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Zamboanga, Zamboanga Province, Mindanao.

Heteropyge navarchus Brunner, Proc. Zool. Soc. London, p. 571, fig. 14, 1933; Amboina; Ceram; Misol. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 149, 1936; Batavia, Java; Flores; Amboina; Banda; Ceram; Misol.

1257. *Holacanthus* (*Euxiphipops*) *sexstriatus* (Cuvier and Valenciennes).

East Indies, Philippines, Pelew Islands, Solomon Islands, and Australia.

Holacanthus sexstriatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 194, 1831; Java. Bleeker, Nat. Gen. Arch. Ned.-Ind., vol. 2, p. 520, 1845; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 2, p. 49, 1860; Molucca Sea. Martens, Preuss. Exped. Ost-Asien, p. 388, 1876; Singapore. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 277, 1876; Cape Grenville, Queensland. Bleeker, Atlas Ichth., vol. 9, p. 66, pl. 372, fig. 4, 1878; Singapore; Java; Celebes; Amboina. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 84, 1927; Ambil Island, northwest of Mindoro. Tagapula Island, Samar. Bantayan Island, Cebu. Tandubas island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 177, 1929; Canmahala Bay, Ragay Gulf, Luzon; Busin Harbor, Burias Island; Cataingan Bay, Masbate Island; Catbalogan, and Biri Channel, and Quinapundan Bay, Samar; Cebu market, Cebu; Port Caltom, Busuanga, Makes Island and Endeavor Strait, Palawan; Caxisigan Island, Balabac; Lianga Bay, Surigao Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao; Labuan Blanda and Tambul Sigambul Islands, Dutch East Indies; Japan. Herre, Fishes, 1933-36-37 and 1940-41 Expeds.; Zamboanga, Zamboanga Province, Mindanao; Marsilia, Busuanga Island; Singapore.

Chaetodon resimus Gray, in Cat. Fishes described by Gronow, vol. 2, p. 71, 1854; Indian Ocean.

Heteropyge sexstriatus Brunner, Proc. Zool. Soc. London, p. 569, text fig. 12, 1933; Singapore; Makassar; Pelew Islands; Northwest Australia.

Euxiphipops sexstriatus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 146, fig. 38, 1936; Singapore; Batavia, Java; Makassar, Celebes; Amboina; Port Moresby, New Guinea; Philippines.

1258. *Holacanthus (Euxiphipops) xanthometopon* (Bleeker).

The East Indies, Philippines, Andaman Islands, and Caroline Islands.
Holacanthus xanthometopon Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 258, 1853; Telokbetong, Sumatra. Bleeker, *ibid.*, vol. 15, p. 200, 1858; Goram Archip. Günther, Cat. Fishes, vol. 2, p. 51, 1860; after Bleeker. Day, Fishes India, p. 114, 1878; Andaman Islands. Bleeker, Atlas Ichth., vol. 9, p. 64, pl. 371, fig. 2, 1878; Sumatra; Goram; Waigiu. Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 244, 1882; New Guinea. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 95, 1927; Cebu market, Cebu; Quiminatin Island, Cuyo Islands, Sulu Sea. Fowler and Bean, Bull. 100, U. S. Mus., vol. 8, p. 163, 1929; Port Masinloc, Zambales Province; Alibijaban Island, Tayabas Province; Batan, Rosa and RapuRapu Islands. Albay Province, Luzon. Port Maricaban, Maricaban Island, between Luzon and Maricaban. Cebu market, Cebu. Pandanon Island, Bohol. Endeavor Strait, Palawan. Camp Overton, Lanao Province, Mindanao. Sulade Island, Sulu Province; also Limbe Strait, Celebes. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Culion; Sitankai, Sulu Province. Herre, Mem. Indian Mus., vol. 13, p. 370, 1941; Andaman Islands; Philippines; New Guinea; Ponapé.

Heteropyge xanthometopon Brunner, Proc. Zool. Soc. London, p. 570, text fig. 13, 1933; Pelew Islands; Ponapé.

Euxiphipops xanthometopon Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 148, 1936; Sumatra; Celebes; Goram Archipelago; Waigiu; New Guinea; also Andaman Islands; Pelew Islands; Ponapé.

Subgenus **GENICANTHUS** Swainson.

1259. *Holacanthus (Genicanthus) chapmani* (Herre).

The Philippines and RiuKiu Islands.

Holacanthus chapmani Herre, Copeia, No. 1, p. 19, 1933; Dumaguete, Negros Oriental Province; reef between Burias and Ticao Islands; Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; reef near Burias; Dumaguete; Jolo, Sulu Province.

Genicanthus lamarck var. *amboinensis* Brunner, Proc. Zool. Soc. London, p. 575, text fig. 18C, 1933; Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 151, fig. 151, 1936; in footnote, p. 153, name changed to var. *chapmani* Herre.

1260. *Holacanthus (Genicanthus) lamarck* (Lacépède).

The East Indies, Philippines, RiuKiu Islands.

Holacanthus lamarck Lacépède, Hist. Nat. Poissons, vol. 4, pp. 526, 532, 1798. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 148, (198), pl. 184, 1831; East Indies.

Genicanthus lamarckii Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 212, 1839; on Lacépède.

Holacanthus lamarckii Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 100, 1854; Banda. Günther, Cat. Fishes British Mus., vol. 2, p. 44, 1860; Sea of Banda Neira; after Bleeker.

Holacanthus lamarcki Bleeker, Atlas Ichth., vol. 9, p. 59, pl. 371, fig. 4, 1878; Buru; Amboina; Ceram; Nusa Laut; Banda. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 83, pl. 16, 1927; Tablas Island.

Holacanthus lamarck Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 161, 1929; Galvaney Island and Refugio Island, Pasacao, Camarines Sur Province, Luzon. Busin Harbor, Burias Island.

Genicanthus lamarck Brunner, Proc. Zool. Soc. London, p. 575, text figure 18, 1933; Amboina; Misol; in part. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 151, 1936; Amboina; Nusa Laut; Buru; Ceram; Banda; Misol; Philippines; in part.

Subgenus **POMACANTHUS** Lacépède.

1261. *Holacanthus (Pomacanthus) chrysurus* (Cuvier and Valenciennes).

Zanzibar and the Philippines.

Holacanthus chrysurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 188, 1931; on Gaimard. Günther, Cat. Fishes British Mus., vol. 2, p. 54, 1860; after Cuvier and Valenciennes. Playfair and

Günther, Fishes Zanzibar, p. 38, 1866; Aden and Zanzibar. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 262, pl. 34, fig. 1, 1891. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 188, 1929; after Cuvier and Valenciennes.

Holacanthus semicirculatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 186, upper right hand example in fig. 9, 1929; Philippines. Named by A. Fraser-Brunner, Proc. Zool. Soc. London, p. 558, 1933.

Pomacanthus chrysurus Brunner, Proc. Zool. Soc. London, text fig. 6, p. 558, 1933; Zanzibar.

Pomacanthus (Pomacanthodes) chrysurus Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 139, fig. 35, 1936; near Elat, Kei Islands.

1262. *Holacanthus (Pomacanthus) imperator* (Bloch).

The Indo-Pacific from the Red Sea, Mozambique, and Madagascar to China, Japan, Guam, Queensland, and the Society and Tuamotu Islands.

Chaetodon imperator Bloch, Naturges. Ausländ. Fische, vol. 3, p. 51, pl. 194, 1787; Moluccas; Japan.

Chaetodon imperator Bonnat, Tableau Encyclop. Ichth., p. 92, pl. 93, fig. 384, 1788; Japan.

Chaetodon nicobariensis Bloch and Schneider, Syst. Ichth., p. 219, pl. 50, 1801; Nicobar Islands.

Holacanthus imperator Lacépède, Hist. Nat. Poissons, vol. 4, pp. 527 and 534, pl. 4, fig. 3, 1803. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 180, 1831; Moluccas; Mauritius. Günther, Cat. Fishes British Mus., vol. 2, p. 52, 1860; Ceylon; Amboyna. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 787, 1870; Red Sea. Günther, Fische der Südsee, vol. 1, p. 53, pl. 41, fig. A, 1873-75; Society Islands; Tuamotus (Paumotus). Bleeker, Ned. Tijds. Dierk., vol. 4, p. 117, 1874; China. Day, Fishes India, p. 112, pl. 28, fig. 5, 1878. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 515, 1891. Ogilby, Mem. Queensland Mus., vol. 3, p. 108, 1915; Raine Island. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 97, pl. 23, fig. 2, 1927; Calapan and Puerto Galero, Mindoro; southern coast of Batangas Province, Luzon; Basbas Island, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 263, 1928; Guam; Suva, Fiji; Tahiti, Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 189, 1929; Medio Island, Puerto Galera, Mindoro. Alimango Bay, Burias Island. Puerto Princesa Bay and Verde del Sur Island, Palawan. Bulan Island, Sulu Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Cullion.

Holacanthus geometricus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 528 and 535, pl. 13, fig. 1, 1803; on *Douwing formose* Renard, Poissons, Moluques, vol. 1, pl. 5, fig. 34, 1718-19; Moluccas.

Holacanthus nicobariensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 413, 1855; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 52, 1860; East Indian Archipelago. Günther, Fische der Südsee, vol. 1, p. 54, pl. 41, fig. B, 1873-75; Samoa; Society Islands. Peters, Monatsber. Akad. Wiss. Berlin, p. 438, 1876; Mauritius. Day, Fishes India, p. 112, pl. 28, fig. 6, 1878. Vaillant, Nouv. Arch. Mus. Nat. Hist. Paris, ser. 3, vol. 5, p. 57, 1893; Palawan, Philippines. Weber, *Siboga*-Exped., vol. 57, Fische, p. 311; Banda. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 98, 1927; Calapan, Mindoro; Guam. Barnard, Ann. South African Mus., vol. 21, p. 615, 1927; Mozambique; not synonymy. Fowler, Mem. Bishop Mus., vol. 10, p. 262, 1928; Guam; Pago Pago, Samoa; Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 188, fig. 9, uppermost left figure, 1929. Herre, Jour. Pan Pacific Research Inst., vol. 6, p. 13, 1931; New Hebrides. *Acanthochaetodon imperator* Bleeker, Atlas Ichth., vol. 9, p. 70, pl. 367, fig. 2, and pl. 374, fig. 4, 1878; Celebes; Amboina; New Guinea. *Acanthochaetodon nicobariensis* Bleeker, Atlas Ichth., vol. 9, p. 69, pl. 365, fig. 1, 1878; Timor; Amboina; Ceram; Waigiu.

Holacanthus marianus Seale, Occas. Papers Bishop Mus., vol. 1, p. 104, 1901; Guam. Jordan and Dickerson, Proc. U. S. Nat. Mus., vol. 34, p. 615, fig. 6, 1908; Suva, Fiji.

Pomacanthus imperator Brunner, Proc. Zool. Soc. London, p. 556, pl. 1, 1933; Muscat; Zanzibar; Mombasa; Ceylon; Seychelles; Amboina; Misol; Menado, Celebes; Rotuma; Samoa; New Britain; Hinapou.
Pomacanthus (Pomacanthodes) imperator Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 132, figs. 132-133, 1936; 13 East Indian localities; the Philippines, and 17 other Indo-Pacific localities.

1263. *Holacanthus (Pomacanthus) semicirculatus* (Cuvier and Valenciennes). The tropical Indo-Pacific, from the East Coast of Africa to the Philippines, China, RiuKiu Islands, Queensland, Australia, Melanesia, and Samoa.
- Holacanthus semicirculatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 143 (191), pl. 183, 1831; Timor; Buru; Waigi; Port Praslin, New Ireland. Lesson, Voy. *Coquille*, Poissons, vol. 2, p. 173, pl. 30, fig. 3, 1831; Port Praslin, New Ireland, Offack Bay, Waigi; Cajeli Bay, Buru. Günther, Cat. Fishes British Mus., vol. 2, p. 53, 1860; Fiji Islands; Amboyna. Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 227, 1914; Diego Suarez, Madagascar. Ogilby, Mem. Queensland Mus., vol. 3, p. 110, 1915; Queensland, Australia. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 100, pl. 19, fig. 1, 1927; Palawan, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 185, fig. 9, middle right hand and two lower examples only, 1929; Nasugbu, Batangas Province, Batan Island, Albay Province, and Gubat Bay, Sorsogon Province, Luzon; Sablayan, Mindoro; Hinunangan Bay, Cabugan Island, Leyte; Puerto Princesa Bay, Palawan; Lampinigan Island, off Basilan; Singaan Island, Sulu Province; Mauritius; Samoa; synonymy in part only. Herre, Jour. PanPacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 237, 1936; Wala Island, New Hebrides.
- Holacanthus alternans* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 193, 1831; Madagascar. Günther, Cat. Fishes British Mus., vol. 2, p. 53, 1860; after Cuvier and Valenciennes. Playfair, in Playfair and Günther, Fishes Zanzibar, p. 38, 1866; Zanzibar; Aden. Bleeker, Recherches faune Madagascar, Poissons, p. 96, 1875. Peters, Monatsber. Akad. Wiss. Berlin, p. 832, 1876; New Britain. Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 227, 1914; Fort Dauphin, Madagascar.
- Holacanthus coeruleus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 194, 1831; Massaua, Red Sea.
- Chaetodon microlepis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 257, 1853; Cauer, Sumatra.
- Holacanthus lepidolepis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 468, 1853; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 2 p. 47, 1860; after Bleeker. Lunel, Mem. Soc. Phys. Nat. Madagascar, Poissons, p. 271, 1881. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 515, 1891. Steindachner, Denks. Akad. Wien, vol. 71, p. 139, 1902; Samoa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa, RiuKiu Islands. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 103, pl. 23, fig. 1, 1927; Ambil Island, off northwest corner of Mindoro; BatoBato, TawiTawi Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 184, 1929; Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Maculabo Island, Camarines Norte Province, and Atulayan Island, Lagonoy Gulf, Albay Province. San Roque, Leyte. Makes Island, Palawan. Singaan Island, Sulu Province, Philippines. Libani Bay, Celebes; Soo Wan, Formosa. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Marsilia, Busuanga Island.
- Holacanthus iburu* Montrouzier, Ann. Sci. Phys. Soc. d'Agriculture, Lyon, ser. 2, vol. 8, p. 447, 1856.
- Holacanthus ignatius* Playfair, Proc. Zool. Soc. London, p. 852, pl. 41, 1867; Seychelles.
- Holacanthus poecilus* Peters, Monatsber. Akad. Wiss. Berlin, p. 454, 1868; Zanzibar.
- Holacanthus caeruleus* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 790, 1870; Red Sea.

- Acanthochaetodon semicirculatus* Bleeker, Verh. Akad. Amsterdam, vol. 17, Révision Chétodontoides, p. 146, 1877. Bleeker, Atlas Ichth., vol. 9, p. 69, pl. 370, fig. 5, 1878; Sumatra; Java; Celebes; Timor; Buru; Ceram; Amboina; Goram; Waigi.
- Holacanthus nicobariensis* var. *semicirculatus* Day, Fishes India, p. 112, pl. 28, fig. 6, 1878.
- Holacanthus* (*Acanthochaetodon*) *semicirculatus* Whitley, Great Barrier Reef Exped. Sci. Reports, vol. 4, p. 288, 1932; Low Isles, Queensland, Australia.
- Pomacanthus semicirculatus* Brunner, Proc. Zool. Soc. London, p. 563, text fig. 10, 1933; Zanzibar; Mombasa; Ceylon; Seychelles; Rodriguez; Amboina; Fiji.
- Pomacanthus* (*Pomacanthodes*) *semicirculatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 141, figs. 36-37, 1936; 24 East Indian localities; the Philippines, and 20 other Indo-Pacific localities.

1264. *Holacanthus* (*Pomacanthus*) *striatus* (Rüppell).

The East Indies and Philippines, to the east coast of Africa.

Holacanthus striatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 32, pl. 10; fig. 2, 1835; Red Sea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 414, 1855; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 53, 1860; Red Sea. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons p. 516, 1891. Barnard, Ann. South African Mus., vol. 21, p. 616, 1927; Natal Coast.

Acanthochaetodon striatus Bleeker, Verh. Akad. Amsterdam, vol. 17, p. 145, 1877. Bleeker, Atlas Ichth., vol. 9, p. 68, pl. 370, fig. 3, 1878.

Holacanthus rhomboides Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 161, 1908; Natal, South Africa.

Holacanthus semicirculatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 186, middle left hand example in fig. 9, 1929; Philippines; determined by Fraser-Brunner, Proc. Zool. Soc. London, p. 560, 1933.

Pomacanthus striatus Brunner, Proc. Zool. Soc. London, p. 560, text figure 8, 1933; Red Sea; Wasim, East Africa; Durban, Natal.

Pomacanthus (*Pomacanthodes*) *striatus* Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 137, 1936; Singapore; Banka; Sumatra; Borneo; Amboina.

Subgenus PYGOPLITES Brunner.

1265. *Holacanthus* (*Pygoplites*) *diacanthus* (Boddaert).

The Indo-Pacific from Africa to the Society Islands and the Tuamotus.

Chaetodon diacanthus Boddaert, Epistola Chaetodonte Amstel., pl. 19, 1772; Amboina; Moluccas.

Chaetodon fasciatus Bloch, Naturges. Ausländ. Fische, vol. 3, p. 53, pl. 195, 1787; East Indies.

Chaetodon fasciatus Bonnaterre, Tableau Encyclop. Ichth., p. 92, pl. 92, fig. 382, 1788; East Indies.

Chaetodon boddaerti Gmelin, in Linnaeus, Syst. Nat., vol. 1, p. 1243, 1789; on Boddaert, 1772.

Chaetodon dua Gmelin, *ibid.*, p. 1255; India.

Acanthopodus boddaerti Lacépède, Hist. Nat. Poissons, vol. 4, pp. 558, 559, 1802; Sea of the Indies.

Holacanthus dua Lacépède, *ibid.*, pp. 52, 534; Japan; error in locality. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 184, 1831; Dorey Harbor, New Guinea. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 37, 1835; Red Sea.

Holacanthus diacanthus Günther, Cat. Fishes British Mus., vol. 2, p. 48, 1860; Mauritius; Java; Amboina; Ceram. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 786, 1870; Koseir, Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 117, 1874; China. Günther, Fische der Südsee, vol. 1, p. 50, pl. 40, fig. 5, 1873-75; Samoa; Society Islands; Tuamotus (Paumotus). Bleeker, Recherches faune Madagascar, Poissons, p. 96, 1875. Bleeker, Atlas Ichth., vol. 9, p. 65, pl. 363, fig. 5, 1877; Celebes; Flores; Timor; Ceram; Amboina; Banda; New Guinea; Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 266, pl. 33, fig. 3, 1891. Seale, Occas. Papers Bishop Mus., vol. 4, p. 66, 1906; Raiatea, Society Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 347, 1906; Apia and Pago Pago, Samoa.

Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Manila, Luzon. Herre and Montalban, Philippine Jour. Sci., vol. 34, p. 88, pl. 21, fig. 2, 1927; Romblon, Romblon. Bantayan Island, Cebu Province, Banganga, Davao Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 259, 1928; Samoa; Ebon Island; Raiatea, Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 169, fig. 170, 1929; Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; near Palag Bay, Albay Province; Alibijaban Island Tayabas Province; Luzon. Tilig, Lubang Island. Port Maricaban, Verde Island Passage. Puerto Galera, Mindoro. Alimango Bay and Busin Harbor, Burias Island. Port Dupon, Leyte. Port Palapag, Samar. Cebu market, Cebu. Caxisigan Island, Balabac. Parang, Cotabato Province; Murcielagos Bay, Misamis Occidental Province; Panabutan Bay, Zamboanga Province, Mindanao. Jolo market and Tutu Bay, Jolo Island, Taganak, and Tataan Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Cullion.

Pygoplites diacanthus Brunner, Proc. Zool. Soc. London, p. 587, text figure 25, 1933; Mombasa; Zanzibar; Java; Misol Island; Ceram; Amboina; Duke of York Island; Samoa. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 157, fig. 41, 1936; 14 East Indian localities; and the Philippines.

Family 151. ZANCLIDÆ

Small marine fishes of the tropical Indo-Pacific, north to Japan. Only one genus; on coral reefs and pelagic.

Genus 418. ZANCLUS Cuvier and Valenciennes.

But 2 species known; distribution as for the family.

Zanclus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 102, 1831; type, *Chaetodon cornutus* L. Günther, Cat. Fishes British Mus., vol. 2, p. 492, 1860. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 549, 1902. Herre, Philippine Jour. Sci., vol. 34, p. 471, 1927. Barnard, Ann. South African Mus., vol. 21, p. 782, 1927; Fowler, and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 196, 1929. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 169, 1936.

1266. *Zanclus canescens* (Linnaeus).

Tropical Indo-Pacific, eastward to Hawaii and Tahiti.

Chaetodon canescens Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 272, 1758; East Indies.

Chetodon canescens Bonnaterre, Tableau Encyclop. Ichth., p. 80, pl. 43, fig. 166, 1788; East Indies.

Pomacanthus canescens Lacépède, Hist. Nat. Poissons, vol. 4, p. 517, 1803.

Zanclus centrognathus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 397 (528), 1831; from the stomach of a fish, 1° N. lat., 75° E. long., in Indian Ocean.

Zanclus Montrouzieri Thiolliere, in Montrouzier, Ann. Sci. Phys. Soc. d'Agriculture, Lyon, ser. 2, vol. 7, p. 446, 1856.

Zanclus canescens Günther, Cat. Fishes British Mus., vol. 2, p. 493, 1860; Sea of Vanicolo; also in stomach of a *Coryphaena* caught in 1° N. lat., 75° E. long., Paris Meridian. Bleeker, Verh. Akad. Amsterdam, vol. 17, 1877, Révision Chétodontoides, p. 169. Bleeker, Atlas Ichth., vol. 9, p. 78, pl. 366, fig. 3, 1878; Celebes; Amboina. Weber, *Siboga*-Exped., vol. 57, Fische, p. 325, 1913; Karkaralong Island; Rotti. Barnard, Ann. South African Mus., vol. 21, p. 782, 1927; Mossel Bay, South Africa; in part. Herre, Philippine Jour. Sci., vol. 34, p. 472, pl. 8, 1927; Manila market and Legaspi, Albay Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, (1927) 1928; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 263, 1928; in small part only. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 196, 1929; in small part only. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 238, 1936; Tahiti. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 272, fig. 45, 1936; Flores; Menado, Celebes; Karkaralong Islands; Ceram; Amboina; Rotti Islands; New Guinea; Philippines. Herre and Kaufmann, motor vessel *Theodore N. Gill*, April 1943; near Pilas Island, west of Basilan Island, Sulu Sea.

Gnathocentrum centrognathum Guichenot, Ann. Soc. Maine Loire, vol. 9, p. 4, 1866.

1267. *Zanclus cornutus* (Linnaeus). Kalmin-kalmin.

East coast of Africa to the islands off the coast of Mexico, north to Japan and the Hawaiian Islands.

Chaetodon cornutus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 273, 1758; East Indies. Bloch, Naturges. Ausländ. Fische, vol. 3, p. 72, pl. 200, fig. 2, 1787; East Indies. Lacépède, Hist. Nat. Poissons, vol. 4, pp. 453 and 471, pl. 11, fig. 1, 1802; East Indies; Indo-Pacific; (?) New Guinea.

Chetodon cornutus Bonnaterre, Tableau Encyclop. Ichth., p. 80. pl. 44, fig. 168, 1788; Indies.

Zanclus cornutus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 7, p. 102, pl. 177, 1831; Tahiti; Carolines; Hawaii; Tongatabu; Vanicolo; Celebes. Günther, Cat. Fishes British Mus., vol. 2, p. 493, 1860; Amboina; Ceram; Hawaiian Islands. Capello, Jour. Sci. Soc. Lisboa, p. 280, 1871; Mozambique. Peters, Monatsber. Akad. Wiss. Berlin, p. 438, 1855; Mauritius. Günther, Fische der Südsee, vol. 2, p. 142, pl. 92, 1876; Hawaii; Samoa. Bleeker, Atlas Ichth., vol. 9, p. 77, pl. 366, figs. 1-2, 1878; Sumatra; Batu; Cocos; Java; Celebes; Flores; Timor; Halmahera; Ternate; Batjan; Ceram; Amboina; Haruko; Banda; Goram; Waigiu, New Guinea. Day, Fishes India, p. 111, pl. 28, fig. 4, 1878. Day, Fauna British India, vol. 2, p. 13, fig. 4, 1889. Ishikawa and Matsuura, Preliminary Cat. Fishes, Mus., Tokyo, p. 41, 1897. Jordan and Evermann, Fishes North and Middle America, vol. 2, p. 1687, 1898. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 269, 1908; Fuga Island, Babuyan Islands, north of Luzon. Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Herre, Philippine Jour. Sci., vol. 34, p. 473, pls. 9-10, 1927; Santo Domingo de Basco, Batan Island, Batanes Province; Olongapo, Zambales Province; Monja Island, at entrance to Manila Bay; Mariveles Bay, Bataan Province, Luzon. Calapan and Bulalacao Bay, Mindoro. Elefante Island, Marinduque. Simara Island, between Tablas and Marinduque Islands. New Washington, Capiz Province, and Estancia, Iloilo Province, Panay. Tagapula Island, between Masbate and Samar. Carnasa Island, north of Cebu. Clarendon Bay, Balabac, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Dumaguete; Culion; Linapacan Island, Palawan Province; Balabac Island; Jolo and Sitankai, Sulu Province, Philippines. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 170, figs. 43 and 44, 1936: 31 East Indian localities; the Philippines and 17 other Indo-Pacific localities. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 239, 1936; Takaroa, Tuamotu Archipelago; Papeete and Maara, Tahiti. and Bora Bora, Society Islands; Suva, Fiji; Vila, Efaté Island, New Hebrides. Herre, Fishes of 1928-29, 1933-34, 1936-37 and 1940-41 Expeds.; Taruna, Sangi Islands, Sangir Islands. Reefs on north coast of British North Borneo. Puerto Galera, Mindoro; Cebu, Cebu; Bungau. Siasi, Sibutu, and Sitankai, Sulu Province, Zamboanga, Zamboanga Province, Mindano. Singapore.

Zanclus canescens Seale, Occas. Papers, Bishop Mus. vol. 1, p. 102, 1901; Guam; not of Linnaeus. Jordan and Fowler, Proc., U. S. Nat. Mus., vol. 25, p. 549, 1902; Misaki, Japan; not of Linnaeus. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 382, pl. 57, 1905; Hilo; Honolulu; not of Linnaeus. Barnard, Ann. South African Mus., vol. 21, p. 782, 1927; Natal coast; Delagoa Bay; in part. Fowler, Mem. Bishop Mus., vol. 10, p. 263, 1928; in part. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 196, 1929; Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Maculabo Island, Camarines Norte Province; Atulayan, Lagonoy Gulf, and Nato River, tide water, Albay Province, Luzon. Tillig, Lubang Island, northwest of Mindoro, Varadero Bay, Sablayan, Pandan Island near Sablayan Bay, and Medio Island, Galera Bay, Mindoro. Port Maricaban and northwest of Verde Island, Verde Island Passage. Romblon Harbor, Romblon. Alimango Bay, and Busin Harbor, Burias Island. Biri Channel, Samar. Calangaman Island, Cebu Province. Cabugan Bay, Hinunangan Bay, Leyte. Bolalo Bay, Oyster Inlet, Ulugan Bay and

Endeavor Strait, Palawan. Bugsuk, Caxisigan and Candaraman Islands, Balabac. Inamucan and Murcielagos Bays, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Taganak, Sanguisapo, Simaluc, Tara, and Tumindao Islands, Sulu Province; not synonymy.

Family 152. ACANTHURIDAE

Doctorfishes; Lancetfish; Surgeonfish; Tangs. Herbivorous fishes, found in all warm seas, especially on coral reefs. Important food fishes in the Philippines.

Genus 419. ACANTHURUS Forskål. Lancetfish; Surgeonfish; Tang; Dorong; Indangan; Kumay; Labahita; Mungkit; Salias; Samaral; Sorohan.

In all tropical seas.

Hepatus Gronow, Zoophylaceum, p. 113, 1763; type, *Teuthis hepatus* L.; inadmissible; non-binomial. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 383, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 207, 1929.

Acanthurus Forskål Descript. Animal., p. 59, 1775; type, *Chaetodon sohal* Forskål. Günther, Cat. Fishes British Mus., vol. 3, p. 325, 1861. Herre Philippine Jour. Sci., vol. 34, p. 405, 1927.

Rhombotides Klein, Neuer Schauptz, vol. 1, p. 922, 1775; type, *Chaetodon caeruleus* Bloch; inadmissible.

Harpurus Forster, Enchiridion, p. 84, 1788; type, *Harpurus fasciatus* Forster.

Aspisurus Lacépède, Hist. Nat. Poissons, vol. 4, p. 556, 1803; type, *Chaetodon sohar* Forskål.

Ctenodon Swainson, Nat. Hist., Animals, Fishes, vol. 2, p. 256, 1839; type, *Ctenodon Ruppellii* Swainson=*Chaetodon sohal* Forskål, not *Ctenodon* Bonnatere or *Ctenodon* Ehrenberg.

Acronurus Günther, Cat. Fishes, British Mus., vol. 3, p. 345, 1861; type, *Acronurus argenteus* Quoy and Gaimard; larval form.

1268. *Acanthurus achilles* Shaw.

Acanthurus achilles Shaw, General Zoology, vol. 3, p. 383, 1803. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 160 (218), 1835. Günther, Cat. Fishes, British Mus., vol. 3, p. 340, 1861; China. Günther, Fische der Südsee, vol. 1, p. 115, pl. 71, fig. B, 1873-75; Samoa; Polynesia. Stieudachner, Denks. Akad. Wiss. Wien., vol. 70, p. 493, 1900; Honolulu. Herre, Philippine Jour. Sci., vol. 34, p. 414, pl. 2, fig. 1, 1927; China Sea, Philippines; Guam.

Teuthis achilles Fowler, Proc. Acad. Nat. Sci. Phila., p. 513, 1900; Thornton Island. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 134, 1903; Marcus Island.

Hepatus achilles Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 384, pl. 58, 1905; Honolulu, Oahu; Puako Bay, Hawaii; Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 273, 1928; Honolulu, Hawaiian Islands; Thornton Island; Marcus Island; Wake Island; Apia, Samoa; Fanning Island; Johnston Island; Society Islands; Makatea, Tuamotu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 247, 1929; Philippines; China; Honolulu and Hawaii, Hawaiian Islands; Fanning Island; Apia, Samoa.

1269. *Acanthurus atramentatus* (Jordan and Evermann).

Hawaiian Islands, Marcus Island, the Philippines, Samoan and Society Islands.

Acanthurus lineolatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, 1854; Banda Islands. Günther, Cat. Fishes, British Mus., vol. 3, p. 336, 1861; coasts of Banda and Amboina. Günther, Fische der Südsee, vol. 1, p. 112, pl. 73, fig. A, 1873-75; Raiatea, Society Islands. Stieudachner, Denks. Akad. Wiss. Wien, vol. 70, p. 493, 1900; Honolulu.

Teuthis atrimentatus (misprint for *atramentatus*) Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 198, 1903; Honolulu.

Hepatus atramentatus Jordan and Evermann, Bull. U. S. Fish. Comm. vol. 23, Part 1, p. 393, fig. 171, 1905; Honolulu; Laysan Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 352, 1906; Samoa.

Hepatus lineolatus Fowler, Bishop Mus., Bull. 22, pp. 28, 34, 1925; Honolulu; Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 270, 1928;

Honolulu; Hilo; Hawaii; Marcus Island; Tubuai; Laysan and Johnston Islands; French Frigate Shoal; Apia, Samoa; Truk; Ebon Island, Marshall Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 228, 1929; Sabtang Island, Batanes Province. Palau Island, Cagayan Province; Port Matalvi, Zambales Province; Grande Island Reef, Subic Bay, Bataan Province; Maculabo Island, Camarines Norte Province; Pocket Bay, Basot Island, Butauanan Island, Camarines Sur Province; Matnog Bay, Gubat, and Langao Point, Catanduanes Island, Bagacay Bay, Escarpada Island, Naranjos Islands, between Masbate and Samar. Cuyo and Dalanganem Islands, Cuyo Islands. Rita Island, Ulugan Bay, Palawan. Pujada Bay, and Baganga Bay, Davao Province; Malanipa and Tictauan Islands, Zamboanga Province, Mindanao. Doc Can and Simaluc Islands, Siasi Island market, reef of South Lagoon, Tumindao Island, and Sitankal Reef, Sulu Province, Philippines.

Acanthurus atramentatus Herre, Philippine Jour. Sci., vol. 34, p. 422, pl. 3, fig. 1, 1937; Sialat Point, Catanduanes Island; Puerto Galera, Mindoro, Sulu Province.

1270. *Acanthurus bariene* Lesson.

New Guinea, the Philippines, Celebes, and Waigiu.

Acanthurus bariene Lesson, Voy. *Coquille*, Zoology, vol. 2, p. 150, 1830; Offack Bay, Waigiu. Herre, Philippine Jour. Sci., vol. 34, p. 409, pl. 1, fig. 2, 1927; Ambil Island, Lubang Islands, northwest of Mindoro. Maricaban Island, Verde Island Passage. Tablas Island. Ibabay, Capiz Province, Panay. Bantayan Island, Cebu Province. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Burias Island; coast of Balabac Island. Herre, Collections of 1929 and 1933-34; Lembe Strait, Celebes; Pasacao, Camarines Sur Province, Luzon.

Acanthurus nummifer Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 172 (234), 1835; Waigu. Günther, Cat. Fishes British Mus., vol. 3, p. 338, 1861; after Cuvier and Valenciennes.

Hepatus bariene Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 222, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon; Refugio Island, Pasacao, Camarines Sur Province, and RapuRapu Island, Albay Province, Luzon. Sacol Island, Zamboanga Province, Mindanao. Taganak Island, Sulu Province. Verde del Sur, Palawan; not synonymy and specimens only in part.

1271. *Acanthurus bleekeri* Günther. Blue-lined surgeonfish. Labahita.

The East Indies and Philippines, west to the Red Sea, east to the Tuamotu Archipelago.

Acanthurus mata Bleeker (not of Cuvier and Valenciennes), Nat. Tijds. Ned.-Ind., vol. 7, p. 432, 1854; Batavia, Java. Bleeker, *ibid.*, vol. 8, p. 393, 1855; Amboina. Bleeker, *ibid.*, vol. 9, p. 283, 1855; Manado, Celebes. Thurston, Pearl Fisheries Manaar Gulf, Mus. Madras, p. 92, 1890; Tuticorin, Pambas, India.

Acanthurus bleekeri Günther, Cat. Fishes, British Mus., vol. 3, p. 335, 1861; Java; on *Acanthurus mata* Bleeker, not of Cuvier and Valenciennes.

Acanthurus Bleekeri Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Galela, Halmahera.

Acanthurus bleekeri Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 509, 1871; Red Sea. Weber, *Siboga*-Exped., vol. 57, Fische, p. 318, 1913; Makassar, Celebes. Herre, Philippine Jour. Sci., vol. 34, p. 423, pl. 14, fig. 2, 1927; Mariveles, Bataan Province, and Subic Bay, Zambales Province, Luzon; Antique Province, Panay; Agutaya, Cuyo Islands, Sulu Sea; Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; reef near Burias Island; Taytay, Palawan; Jolo, Sulu Province. Umali, Edible Fishes Manila, p. 178, fig. 140, 1936; on coral reefs. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro.

Teuthis mata Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 310, 1911; Rangiroa and Fakarava, Tuamotu (Paumotu) Islands.

Hepatus bleekeri Fowler, Mem. Bishop Mus., vol. 10, p. 270, 1928; Fakarava, Tuamotu Archipelago. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 220, 1929; Galvaney I., Ragay Gulf, Camarines Sur Province; Maculabo Island, Camarines Norte Province; Bulan Island,

Albay Province, Luzon. Santa Cruz Island, Marinduque. Siasi Island, Masbate. Endeavor Strait, Malampaya Sound, Palawan. Inamucan and Murcielagos Bays, Misamis Occidental Province; Parang and Polloc, Cotabato Province; Sacol Island, and Balukbaluk Island, off Basilan, Zamboanga Province, Mindanao. Sulade, Simaluc, and Singaan Islands, Sulu Province. Si Ami Island, east coast of British North Borneo.

1272. *Acanthurus celebicus* Bleeker.

- The East Indies, Philippines, Solomon Islands, and Tahiti.
Acanthurus celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 761, 1852; Makassar, Celebes. Bleeker, *ibid.*, vol. 10, p. 360, 1856; Ternate. Günther, Cat. Fishes, British Mus., vol. 3, p. 339, 1861; after Bleeker. Günther, Fische der Südsee, vol. 1, p. 115, pl. 73, fig. B, 1873-1875; Celebes; Ternate; Solomon Islands; Tahiti. Herre, Philippine Jour. Sci., vol. 34, p. 417, pl. 13, fig. 1, 1927; Calapan, Mindoro. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Burias Island; Cebu, Cebu Province; Jolo, Sulu Province.
Rhombotides celebicus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Bleeker, *ibid.*, vol. 2, p. 288, 1865; Amboina. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 51, 1878; New Guinea.
Hepatus celebicus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 97, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao.
Hepatus leucosternon Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 243, fig. 14, 1929; Sabtang Island, Batanes Province; Calayan, Babuyan Islands, north of Luzon. Palau Island, Cagayan Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Pasacao and Refugio Island, Ragay Gulf, Camarines Sur Province; RapuRapu Island, Albay Province; Bulan Sorsogon Province, Luzon. Paluan Bay, Mindoro. Port Banalacan, Marinduque. Port Palapag, Samar. Port Dupon, Leyte. Cebu market, Malapascua Island, and Calangaman Island, Cebu Province. Camp Overton, Lanao Province; Zamboanga and Tulnalutan Island, Zamboanga Province, Mindanao. Cagayanes Islands, Sulu Sea. Simaluc Island, Sulu Province. Not of Bennett; synonymy in part.

1273. *Acanthurus dussumieri* Cuvier and Valenciennes. Dussumier's surgeonfish. Indongan; Samara.

Mauritius, the Philippines, and Hawaiian Islands.

- Acanthurus dussumieri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 147 (201), 1835; Mauritius. Günther, Cat. Fishes British Mus., vol. 3, p. 335, 1861; after Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 1, p. 112, pl. 72, 1873-75; Hawaii. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 266, 1883; Milford Harbor, New Guinea. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 490, 1901; Honolulu. Herre, Philippine Jour. Sci., vol. 34, p. 425, pl. 14, fig. 3, 1927; Olongapo, Bataan Province, and Manila market, Luzon. Agutaya Island, Cuyo Islands; Linacapan Island, Palawan Province. Iloilo market, Iloilo Province, Panay. Sibuyan, Masbate, Tablas, and Bantayan Islands. Sitankai, Sulu Province.
Teuthis dussumieri Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 477, 1903; Honolulu.
Hepatus dussumieri Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 390, fig. 169, 1905; Honolulu; Hilo.
Hepatus variene Fowler, Mem. Bishop Mus., vol. 10, p. 270, pl. 31, fig. C, 1928; Honolulu, Hawaiian Islands; Society Islands; Gilbert (Kingsmill) Islands; in part. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 222, 1929; Sabtang I., Batanes Province, north of Luzon. Pagapas Bay, Batangas Province; Rapu-Rapu Island, Albay Province; Butaanan Island, Camarines Sur Province; Gubat Bay and Matnog Bay, Sorsogon Province; Maculabo Island, Caniarianes Norte Province, Luzon. Mansalay, Mindoro. Candaraman Island, and Bugsuk Island, Balabac, Murcielagos Bay, Misamis Occidental Province, Mindanao. Malapascua Island, Cebu Province, in part only, both synonymy and specimens.
Hepatus grammoptilus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol.

8, p. 225, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Palau Island, Cagayan Province; Daet Point and Maculabo Island, Camarines Norte Province, Luzon. Inamucan Bay and Mansalay, Mindoro. Batag Island and Gigoso Point, Samar. Makesi Island, Palawan. Bugsuk Island, Balabac. Camp Overton, Lanao Province, Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Jolo market and Tutu Bay, Jolo Island, Siasi Island, and Simaluc Sibi Island, Sulu Province, Philippines. Sandakan Bay, British North Borneo; Lembe Strait and Talisse Island, Celebes; Nan Wan, Formosa (not of Richardson or McCulloch).

1274. *Acanthurus elongatus* (Lacépède).

The East Indies, Philippines, Pelews, the Caroline, Hawaiian, Samoan, Tuamotu, and New Hebrides Islands.

Chaetodon elongatus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 454, 473, pl. 6, fig. 2, 1802; Indo-Pacific.

Acanthurus nigroris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 152 (208), 1835; Hawaiian Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 317, 1913; Karkaralong; Beo, Karakelang, and 3 other East Indian localities. Herre, *Philippine Jour. Sci.*, vol. 34, p. 428, pl. 4, fig. 1, 1927; Hamilo, Batangas Province, Luzon; Guam. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 62, 1934; Dumaguete, Sitankai, Sulu Province.

Acanthurus nigros Günther, *Cat. Fishes British Mus.*, vol. 3, p. 332, 1861; Aneiteum, New Hebrides. Günther, *Fische der Südsee*, vol. 1, p. 110, 1873-75; Aneiteum; Pelew Islands; Tahiti.

Hepatus elongatus Jordan and Evermann, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 389, 1905; Honolulu; Hooken, Kona; Puako Bay; Hawaii; Molokai. Steindachner, *Sitzungsber. Akad. Wiss. Wien*, vol. 115, p. 1393, 1906; Upolu, Samoa. Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 66, 1906; Tubuai; Faté, New Hebrides. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 352, 1906; Samoa; Hawaii. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 270, 1908; Calayan, Babuyan Islands, north of Luzon. Aparri, Cagayan Province, Luzon. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 267, 1928; Wake Island; Hawaii; Apia, Samoa; Truk. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 213, 1929; Hawaiian Islands; Truk Island; Apia, Samoa. Herre, *Field Mus. Nat. Hist., Zool. Ser.*, vol. 21, p. 246, 1936; Efaté Island, New Hebrides; Makatea, Tuamotu Archipelago.

1275. *Acanthurus glaucopareius* (Bloch and Schneider).

The Red Sea and Mauritius to the East Indies, Philippines, Hawaiian Islands, Tahiti, Marquesas Islands, and the islands off the coasts of Central America and Mexico.

Harpurus glaucopareius Bloch and Schneider, *Syst. Ichth.*, p. 212, 1801; Tahiti.

Acanthurus aliata Lesson, *Voy. Coquille, Zoology*, vol. 2, p. 150, 1830; Kusaie (Oualan), Caroline Islands. Herre, *Philippine Jour. Sci.*, vol. 34, p. 416, pl. 2, fig. 2, 1927; New Washington, Capiz Province, Panay. Herre, *Field Mus. Nat. Hist., Zool. Ser.*, vol. 21, p. 241, 1936; Cocos Island, Costa Rica; Atuona, Hiva Oa Island and Nukahiva Island. Marquesas Islands; Takarao, Tuamotu Island; Tahiti and Moorea Islands, Society Islands.

Acanthurus glaucopareius Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 10, p. 190, 1835; Kusaie (Oualan) Island; Moluccas. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 1, p. 47, 1856; Amboina. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 339, 1861; Amboyna; type locality, Tahiti. Günther, *Fische der Südsee*, vol. 1, p. 114, pl. 71, fig. A, 1873-75; Polynesia; East Indies. Macleay, *Proc. Linn. Soc. New South Wales*, vol. 8, p. 265, 1883; Hood Bay, New Guinea.

Teuthis aliata Jordan and McGregor, *Report U. S. Fish Comm.*, Part 24, p. 280, 1899; Clarion and Socorro Islands, west coast of Mexico. Seale, *Occas. Papers Bishop Mus.*, vol. 1, p. 109, 1900; Agaña, Guam.

Hepatus aliata Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 350, 1906; Apia, and Pago Pago, Samoa.

Hepatus glaucopareius Fowler, *Bull. 38, Bishop Mus.*, p. 20, 1927; Fanning and Jarvis Islands. Fowler and Bean, *Bull. 100, U. S. Nat.*

Mus., vol. 8, p. 246, 1929; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province; Atulayan and Rapu Rapu Islands, and between Paron and Jesus Points, Albay Gulf, Albay Province; Gubat, Sorsogon Province, Luzon. Cabugan Island, Hinunangan Bay, Leyte. Buena Vista, Guimaras Island, Iloilo Province. Caxisigan, Balabac. Jolo, Sulu Province, Philippines. Guam; Honolulu; Apia, Samoa.

1276. *Acanthurus guttatus* Bloch and Schneider.

The Indo-Pacific, from Mauritius to the Hawaiian, Gilbert and Society Islands.

Acanthurus guttatus Bloch and Schneider, Syst. Ichth., p. 215, 1801; Tahiti. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 195, 1835; Mauritius; Friendly Islands. Günther, Cat. Fishes British Mus., vol. 3, p. 329, 1861; Tahiti; Aneiteum; Mauritius. Günther, Fische der Südsee, vol. 1, p. 109, pl. 69, fig. A, 1873-75; Mauritius; New Hebrides; Society Islands; Samoa; Gilbert Islands; Pelew Islands; Hawaii.

Harpurus guttatus Forster, Descript. Animal., Lichtenstein ed., p. 218, 1844; Tahiti.

Teuthis guttatus Fowler, Proc. Acad. Nat. Sci. Phila., p. 513, 1900; Hawaiian (Sandwich) Islands. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 479, 1903; Honolulu. Snyder, *ibid.*, p. 533, 1904; Puako Bay, Hawaii.

Hepatus guttatus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 392, fig. 170, 1905; Honolulu, Oahu; Puako Bay, Hawaii; Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 248, 1929; Buang Bay, Talajit Island, Philippines; Apia, Samoa; Mauritius; TariTari, Gilbert Islands.

1277. *Acanthurus leucocheilus* Herre.

The Philippines and adjacent waters, Celebes, Borneo, Formosa.

Acanthurus leucocheilus Herre, Philippine Jour. Sci., vol. 34, p. 419, pl. 12, fig. 3, 1927; Cebu and Bantayan Island, Cebu Province. Agutaya Island, Cuyo Islands, Sulu Sea. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Linapacan Island, Palawan Province.

1278. *Acanthurus leucopareius* (Jenkins).

Hawaiian Islands to the Philippines, Marcus Island, Samoa, and Tubuai. *Teuthis bishopi* Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 134, 1902 (1904); Marcus Islands.

Teuthis leucopareius Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 476, fig. 28, 1903; Honolulu.

Teuthis umbra Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 477, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, pl. 47, 1905. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 144, 1912; Cook Bay, Easter Island; Hawaii.

Hepatus leucopareius Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 386, fig. 167, 1903; Honolulu; Hilo. Fowler, Bull. 22, Bishop Mus., pp. 12, 78, 1925; Guam; Honolulu. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 214, 1929; Apia, Samoa; Puako Bay, Honolulu; Hawaii; Cook Bay, Easter Island.

Hepatus umbra Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 387, 1905; Honolulu; Puako Bay, Hawaii.

Hepatus celebicus Fowler, Copeia, No. 58, p. 64, 1918; Philippines; not of Bleeker.

Acanthurus leucopareius Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 65, 1922; Honolulu.

Acanthurus umbra Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 65, 1922; Hawaii.

1279. *Acanthurus lineatus* (Linnaeus). Saging-saging.

The East Indies and Philippines, west to Zanzibar, east to Guam, the Marshall Islands, Samoa, Tahiti, and the Marquesas.

Chaetodon lineatus Linnaeus, Syst. Nat., ed. 10, p. 274, 1758; East Indies.

Chetodon lineatus Bonnaterre, Tableau Encyclop. Ichth., p. 84, pl. 45, fig. 172, 1788; East Indies.

Acanthurus lineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 223, 1835; Waigiui; Oualan. Bleeker, Nat. Tijds. Ned.-Ind.,

vol. 4, p. 263, 1853; Priaman and Cauer, Java. Günther, Cat. Fishes British Mus., vol. 3, p. 333, 1861; Philippines; Amboina; Malay Archipelago. Kner, Reise *Novara*, Fische, p. 210, 1865; Tahiti. Günther, Fische der Südsee, vol. 1, p. 111, pl. 70, 1873-75; Zanzibar; Samoa; Tahiti. Day, Fishes India, p. 203, 1878; Andaman Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 317, 1913; Karakelang, Gisser, Binongka, Nusa Laut, Tuir, and Rotti, Dutch East Indies. Herre, Philippine Jour. Sci., vol. 34, p. 420, pl. 14, fig. 1, 1927; Paoay, Ilokos Norte Province; Paraor, La Union Province; southern coast of Batangas Province; and Manila, Luzon. Sibutu, Sulu Province, Philippines: Guam. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Culion; Cebu, Cebu Province; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 242, 1936; BoraBora, Society Islands; Mala Island, Bushman Bay, Malekula Island, and Tenebuli, Ysabel Island, New Hebrides.

Otenodon lineatus Swainson, Nat. Hist. Animal, vol. 2, Fishes, p. 333, 1838.

Harpurus lineatus Lichtenstein, ed., Forster, Descript. Animal., p. 216, 1844; Indies.

Rhomboides lineatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Bleeker, *ibid.*, p. 270, Atapupu, Timor.

Teuthis lineatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 108, 1901; Guam. Waite, Records Australian Mus., vol. 5, p. 3, 1903; Nauru or Pleasant Island; Marshall Islands.

Hepatus lineatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 351, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 270, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Mem. Bishop Mus., vol. 10, p. 269, 1928; excluding *Acanthurus striatus* and *Hepatus striatus*. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 217, fig. 12, 1929; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Palaui Island, Cagayan Province; Hermano Mayor Island, Zambales Province; Grande Island Reef, Bataan Province; Limbones Cove, Cavite Province; Port Hamilo, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Canimo Island, Camarines Norte Province; RapuRapu Island, Albay Province, Luzon. Balikias Bay and Tilik, Lubang Island, China Sea, northwest of Mindoro. Abuyog, Leyte. Cagayan Islands, Sulu Sea. Malcochin Harbor, Linapacan Island, Palawan Province. Panabutan Bay and Little Santa Cruz Island, Zamboanga Province, Mindanao. Jolo, Jolo Island, Doc Can, Cagayan Sulu, Tara, and Taganak Islands, Sulu Province, Philippines; also Apia, Samoa, and the Solomon Islands.

1280. *Acanthurus maculiceps* (Ahl).

The East Indies and Philippines, east to the Bismarck Archipelago.

Hepatus maculiceps Ahl, Mitt. Zool. Mus. Berlin, vol. 11, p. 36, fig. 4, 1924; Talassia, New Pomerania, Bismarck Archipelago. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 240, fig. 13, 1929; Santo Domingo de Basco, Batan Island, and west coast of Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon. Daet Point, Camarines Norte Province. RapuRapu Island and Atulayan Island, Lagonoy Gulf, Albay Province, Luzon. Also the coasts of Borneo and Celebes.

1281. *Acanthurus marginatus* Cuvier and Valenciennes.

Caroline Islands and the Philippines.

Acanthurus guttatus Kittlitz, Mus. Senckenb., Frankfurt, vol. 1, p. 194, pl. 13, fig. 4, 1834; Luganor, Caroline Islands; not of Bloch and Schneider.

Acanthurus marginatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 162 (221), 1835. Günther, Cat. Fishes British Mus., vol. 3, p. 333, 1861; Island of Luganor, Caroline Islands. Herre, Philippine Jour. Sci., vol. 34, p. 427, pl. 3, fig. 2, 1927; China Sea, at entrance to Manila Bay, near Mariveles Point.

Hepatus marginatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 214, 1929.

1282. *Acanthurus matoides* Cuvier and Valenciennes.

Tropical Indo-Pacific, from the east coast of Africa to the Philippines, East Indies, Hawaiian Islands, Australia, Society and Marquesas Islands.

Acanthurus matoides Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 150, 1835; Kusaie (Oualan) Island. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 161, 1852; Koepang, Timor. Bleeker, *ibid.* p. 740; Makassar, Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 330, 1861; Pinang; Amboina; Fiji Islands. Kner, Reise *Novara* Fische, p. 210, 1865; Madras, India. Peters, Monatsber. Akad. Wiss. Berlin, p. 439, 1876; Mauritius. Day, Fishes India, p. 205, 1878; Madras. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 24, 1885; Cebu, Philippines; Sangi Island; North Celebes and Makassar, Celebes. Pfeffer, Jahrbuch Wiss. Anstalt, Hamburg, vol. 6, p. 22, 1889; Zanzibar. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 340, 1891. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 185, 1908; Natal. Herre, Philippine Jour. Sci., vol. 34, p. 430, pl. 16, fig. 3, 1927; Mission, Cagayan Province; Paraour, La Union Province; Hundred Island, Pangasinan Province; Subic Bay, Bataan Province; San Miguel Bay, Camarines Sur Province; Manila Bay, and Manila, Luzon. Calapan, Mindoro; Bantayan Island, Cebu Province; Guimaras Island, Iloilo Province; Zamboanga, Zamboanga Province, Mindanao. Tubigan, Sibutu, Sitankai, and Pearl Bank Islands, Sulu Province. Also Sandakan, British North Borneo and Honolulu, Hawaiian Islands. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Alabat Island; Culion; Cebu, Cebu; Balabac Island, Jolo and Sitankai, Sulu Province, Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Dumaguete, Negros Oriental Province; Nasugbu, Batangas Province, Luzon; Santa Maria, Zamboanga Province, Mindanao. Herre, Mem. Indian Mus., vol. 13, p. 370, 1941; Andaman Islands; Red Sea, east coast of Africa; the Philippines; Australia; Marquesas and Hawaiian Islands.

Acanthurus annularis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 153 (209), 1835; Mauritius. Castelnau, Researches Fishes Australia, Official Records Philadelphia Exposition, p. 29, 1875; Cape York, Queensland, Australia.

Acanthurus blochi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 153 (209), 1835; Mauritius and Seychelles; on Bloch, pl. 203; not of Bennett. Günther, Fische der Südsee, vol. 1, p. 109, pl. 69, fig. B, 1873-75; Red Sea; East Africa; India; North Australia; Carolines; Society Islands; Samoa; Pelew Islands; Gilbert Islands (Kingsmill). Weber, *Siboga*-Exped., vol. 57, Fische, p. 316, 1913; Rotti; Siau; Celebes.

Rhombotides matoides Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Bleeker, *ibid.* p. 271; Atapupu, Timor. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 302, 1868; Sangir Islands.

Hepatus güntheri Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 477, fig. 29, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 388, fig. 168, 1905; Honolulu; Hilo, Hawaii.

Hepatus matoides Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 387, 1905; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 352, 1906; Apia, Samoa; Hawaii. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 509, 1906; Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Iloilo, Iloilo Province, Panay. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 270, 1908; Calayan Island, Babuyan Islands, and Aparri, Cagayan Province, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 283, 1910; Sandakan, British North Borneo; the Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 57, 1922; Cebu, Cebu.

Hepatus fuliginosus Fowler, Mem. Bishop Mus., vol. 10, p. 266, 1928; in part only. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 211, 1929; in part only; no Philippine specimens.

1283. *Acanthurus mindorensis* Herre.

A Philippine species.

Acanthurus mindorensis Herre, Philippine Jour. Sci., vol. 34, p. 433, pl. 4, fig. 2, 1927; Calapan, Mindoro; Bantayan Island, Cebu Province.

Hepatus mindorensis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 213, 1929; after Herre.

1284. *Acanthurus nigricans* (Linnaeus).

Tropical Indo-Pacific, from the Red Sea and Mauritius to the East Indies, the Philippines, and the Solomon, Samoan, Gilbert, Society, and Tuamotu Islands.

Chaetodon nigricans Linnaeus, Syst. Nat., ed. 10, p. 274; 1758; Red Sea. Bonnaterre, Tableau Ichth. Encyclop., p. 83, pl. 45, fig. 171, 1789; Red Sea.

Chaetodon gahn Forskål, Descript. Animal., p. 64, 1775; Red Sea.

Harpurus nigricans Forster, Fauna Indica, p. 15, 1795.

Acanthus nigricans Suckow, Naturgeschichte, vol. 4, p. 375, 1799.

Acanthurus gahn Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 58, 1829; Djedda; Massaua. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 160, (219) 1835; Red Sea; Mauritius. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 8, 1858; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 338, 1861; Red Sea; Mauritius; Celebes. Günther, Fische der Südsee, vol. 1, p. 113, pl. 74, 1873-75; Society Islands, Tuamotu (Paumotu), Samoa, Hervey, and Gilbert Islands. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 338, 1891. Weber, Siboga-Exped., vol. 57, Fische, p. 318, 1913; Saleyer Island. Herre, Philippine Jour. Sci., vol. 34, p. 411, pl. 12, fig. 2, 1927; Calapan, Mindoro. Tablas Island. Bantayan Island, Cebu Province. Samal Island, Davao Gulf, Davao Province, Mindanao. Basbas and Bungau Islands, Sulu Province. Clarendon Bay, Balabac. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; reef near Burias Island; Culion, Linapacan Island, Palawan Province; Cotabato, Cotabato Province, Mindanao.

Rhombotides gahn Bleeker, Ned. Tijds. Dierk., vol. 2, p. 288, 1865; Amboina.

Acanthurus (Rhombotides) gahn Klunzinger, Fische Rothen Meeres, p. 84, 1884; Red Sea.

Hepatus nigricans Seale, Occas. Papers Bishop Mus., vol. 4, p. 66, 1906; Tahiti; Faté; Shortland Island, Solomon Islands; Raiatea, Society Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 351, 1906; Apia and Pago Pago, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 272, 1928; Honolulu, Johnston and Wake Islands; New Guinea; Suva, Fiji; Apia, Samoa; Shortland Island; Faté; Tahiti and Raiatea, Society Islands; Gilbert Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 233, 1929; Sabtang Island, Batanes Province. Palau Island, Cagayan Province; Bolinao, Pangasinan Province; Port Matalvi and Masinloc Bay, Zambales Province; Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Daet Point and Maculabo Island, Camarines Norte Province; Butauanan Island and Galvaney Island, Ragay Gulf, Camarines Sur Province; Batan and RapuRapu Islands, and Atulayan Island, Lagonoy Gulf, Albay Province; Gubat, Sorsogon Province, Luzon. Port Agojo, Catanduanes Island, Tilik, Lubang Island, northwest of Mindoro. Port Maricaban and Verde Island, Verde Island Passage. Mansalay, Sablayan, and Varadero Bay, Mindoro. Port Banalacan, Marinduque. Mompog Island, between Marinduque and Luzon. Busin Harbor, Burias Island. Lode Bay Destacado Island, between Masbate and Samar. Cabugan Chico Island, Leyte. Cebu market, and Malapascua Island, and Mactan Reef, Mactan Island, Cebu Province. Endeavor Strait, Malcochin Harbor at Linapacan Island, and Ulugan Bay, Palawan. Bugsuk, Candaraman and Caxisigan Islands, Balabac. Surigao, Surigao Province; Tataidaga Point, Davao Province; Tictauan and Little Santa Cruz Islands, Zamboanga Province, Mindanao. Cagayan Sulu, Tara, Sanguisiapo, Simonor and Sitankai Islands, Sulu Province. Celebes, Dutch East Indies, and Soo Wan, Formosa.

1285. *Acanthurus nigrofuscus* (Forskål).
Tropical Indian Ocean, East Indies, Philippines, and Queensland, Australia.
Chaetodon nigrofuscus Forskål, *Descript. Animal.*, p. 64, 1775; Djedda, Red Sea.
Acanthurus nigro-fuscus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 10, p. 214, 1835; Bourbon Island; Red Sea. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 331, 1861; Ceylon; Amboina. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 24, 1885; Sangi and Siao Islands; Menado, Celebes. Boulenger, *Proc. Zool. Soc. London*, p. 660, 1887; Muscat, Arabia. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar*, Poissons, p. 338, 1891.
Rhombotides nigro-fuscus Bleeker, *Ned. Tijds. Dierk.*, vol. 2, p. 288, 1865; Amboina.
Acanthurus (Rhombotides) nigrofuscus Klunzinger, *Fische Rothen Meeres*, p. 84, 1884; Red Sea.
Teuthis nigrofuscus Ogilby, *Proc. Royal Soc. Queensland*, vol. 21, p. 23, 1908; Dunk Islands.
Hepatus nigrofuscus Fowler, *Bull. 38, Bishop Mus.*, p. 20, 1927; Christmas Island. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 8, p. 237, 1929; Port San Pio Quinto, Camiguin I., Babuyan I., north of Luzon. Capulaan Bay, Pagbilao Island, Tayabas Province; Galvaney Island, Ragay Gulf, and Quinalasag Island, Camarines Sur Province; Maculabo Island, Camarines Norte Province; Atulayan Island, Lagonoy Gulf, between Paron Point and Jesus Point, and RapuRapu Island, Albay Province; Pucot River, Mariveles, Bataan Province, Luzon. Point Agojo, Catanduanes Island. Puerto Galera, Medio Island, Galera Bay, and Mansalay, Mindoro. Port Maricaban, Verde Island Passage. Mompog Island, between Marinduque and Luzon. Romblon Island. San Pascual, Burias Island. Cebu market and Malapascua Island, Cebu Province. Pandanon Island, and Maribojoc Bay, Bohol. Buang Bay, Talajit Island, between Masbate and Samar. Lampanigan Island, beach near Caiholo River, Ulugan Bay, and Verde del Sur Island, Palawan. Mahinog, Camiguin Island, off north-coast of Mindanao. Inamucan Bay and Murcielagos Bay, Misamis Occidental Province; Malanipa Island, Zamboanga Province, Mindanao. Jolo market, and Sulade Island, Sulu Province. Also several stations on the coasts of Borneo and Celebes.
1286. *Acanthurus olivaceus* (Bloch and Schneider).
Tahiti and the Hawaiian Islands to Formosa, the Philippines and East Indies; (?) Mauritius.
Acanthurus olivaceus Bloch and Schneider, *Syst. Ichth.*, p. 213, 1801; Tahiti; after Forster. Kittlitz, *Mus. Senckenb. Frankfurt*, vol. 1, p. 192, pl. 12, fig. 1, 1834; Caroline Islands. Günther, *Cat. Fishes British Mus.*, vol. 3, p. 336, 1861; Tahiti; Fiji Islands. Günther, *Fische der Südsee*, vol. 1, p. 113, 1873-75; East Indies, Society Islands, Tuamotu (Paumotu), Samoa, Pelew Islands, Hawaiian Islands. Weber, *Siboga-Exped.*, vol. 57, *Fische*, p. 318, 1913; Banda. Herre, *Philippine Jour. Sci.*, vol. 34, p. 413, pl. 12, fig. 1, 1927; Subic Bay, Olongapo, Zambales Province, Luzon. Ambil Island, China Sea, northwest of Mindoro. Agutaya Island, Cuyo Islands, Jolo, Sulu Province. Herre, *Fishes 1931 Philippine Exped.*, p. 62, 1934; Linapacan Island, Palawan Province.
Acanthurus eparai Lesson, *Voy. Coquille, Zoology*, vol. 2, p. 147, 1830; Atlas Poissons, pl. 27, fig. 1, 1826; Tahiti.
Acanthurus humeralis Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 10, p. 170 (231); 1835; Caroline Islands; Tahiti. Eydoux and Souleyet, *Voy. Bonite*, vol. 1, p. 169, pl. 2, 1849; Hawaiian Islands. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 3, p. 762, 1850; Makassar, Celebes. Bleeker, *ibid.*, vol. 15, p. 200, 1858; Goram Archipelago. Bleeker, *Acta Soc. Sci. Indo-Neerl.*, vol. 8, 1860; Celebes.
Rhombotides olivaceus Bleeker, *Ned. Tijds. Dierk.*, vol. 2, p. 288, 1865; Amboina. Bleeker, *Arch. Neerl. Sci. Nat.*, vol. 13, p. 51, 1878; New Guinea.
Teuthis olivaceus Jordan and Evermann, *Proc. U. S. Nat. Mus.*, vol. 25, p. 358, fig. 23, 1903; Formosa.

Hepatus olivaceus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 385, fig. 166, 1905; Honolulu; Puako Bay, Hawaii. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 350, 1906; Apia, Samoa; Hawaii. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 270, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa, RiuKiu Islands. McCulloch, Mem. Queensland Mus., vol. 7, p. 243, 1922; Capricorn Group. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 231, 1929; Cebu market, Cebu. Jolo Island, and Doc Can Island, Sulu Province. Cagayancillo, Cagayan Islands, Sulu Sea. Also Okinawa, Samoa, and the Hawaiian Islands.

1287. *Acanthurus philippinus* Herre.

The Philippines and East Indies.

Acanthurus philippinus Herre, Philippine Jour. Sci., vol. 34, p. 434, pl. 5, fig. 1, 1927; Calapan, Mindoro. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Taytay, Palawan.

Hepatus philippinus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 215, fig. 11, 1929; Masamat Bay, Quinalasag Island, Camarines Sur Province; stream at Maagnas, Lagonoy Gulf, Albay Province, Luzon. Busin Harbor, Burias Island, Cebu market, Cebu. Cagayanes Islands, Sulu Sea. Tulnalutan Island, Zamboanga Province, Mindanao. Also Danawan and Si Amil Islands, just over the boundary line of British North Borneo; 10 East Indian localities around the coast of Celebes; Tidore Island.

1288. *Acanthurus pyroferus* Kittlitz.

Caroline Islands; specimens listed from the Philippines and East Indies are of uncertain validity. According to Fowler and Bean their specimens "Are likely the *Acanthurus pyroferus* Kittlitz."

Acanthurus pyroferus Kittlitz, Mus. Senckenb., Frankfurt, vol. 1, p. 193, pl. 12, fig. 2, 1834; Ulea Island, Caroline Islands. Günther, Cat. Fishes, vol. 3, p. 337, 1861; after Kittlitz. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 232, 1929; between Paron and Jesus Points, Lagonoy Gulf, and Batan Island, Albay Province; Alibijaban Island, Ragay Gulf, Tayabas Province, Luzon. Medio Island, Puerto Galera, Mindoro. Port Busin, Burias Island, Malapascua Island, Cebu Province, Philippines. Also Gomomo, Maltara, and Buka Buka Islands, Celebes, Dutch East Indies.

1289. *Acanthurus triostegus* (Linnaeus). Kabkabalán; Kulaban; Ray tapis.
Tropical Indo-Pacific, from Africa to the Revillagigedos off the coast of Mexico, north to Japan, south to Australia.

Chaetodon triostegus Linnaeus, Syst. Nat., ed. 10, p. 274, 1758; East Indies.

Chaetodon zebra Lacépède, Hist. Nat. Poissons, vol. 3, pl. 25, fig. 3, 1798.

Acanthurus zebra Lacépède, Hist. Nat. Poissons, vol. 4, p. 546, pl. 6, fig. 3, 1798; East Indies.

Acanthurus triostegus Bloch and Schneider, Syst. Ichth., p. 215, 1801; Indian and Pacific Oceans. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 197, 1835; Hawaii; Mauritius; Seychelles; Tahiti; Mariannes; New Zealand (?); Kusaie (Oualan); Society Islands. Bleeker, Verh. Bat. Gen., vol. 23, Bijdr. kennis Teuthident, p. 13, 1850; Sunda-Moluccan Arch. Günther, Cat. Fishes, vol. 3, p. 327, 1861; Amboina; Celebes; Malayan Archipelago; Hawaiian Islands; Aneiteum, west coast of Australia. Playfair and Günther, Fishes Zanzibar, p. 56, 1866; Mozambique. Day, Fishes India, p. 204, pl. 48, fig. 2, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 24, 1885; North Celebes and Makassar, Celebes; Ternate, Siao, and Sangi Islands, Dutch East Indies. Weber, Siboga-Exped., vol. 57, Fische, p. 316, 1913; Karakelang and Salibabu Islands and 9 other East Indian localities. Herre, Philippine Jour. Sci., vol. 34, p. 407, pl. 1, fig. 1, 1927; Paraoir and Paoay, Ilokos Norte Province; Iba, Zambales Province; Nasugbu, Batangas Province; Tailon Island, Camarines Norte Province, Luzon. Calapan and Puerto Galera, Mindoro. Balabac Island, Tubigan and Pearl Bank, Sulu Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 62, 1934; Calapan, Mindoro; Cullion; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 240, 1936; Cocos Island, Costa Rica; Hiva Oa and Nukahiva Islands;

Marquesas Islands; Makatea, Tuamotu Archipelago; Tahiti; Ovalau Island, Nukulau Island, and Suva, Fiji; Wala Island, New Hebrides. Herre, Fishes 1936-37 and 1940-41 Expeds.; Dumaguete, Negros Oriental Province; Puerto Galera, Mindoro; Nasugbu, Batangas Province, Luzon.

Harpurus fasciatus Bloch and Schneider, Syst. Ichth., p. 215, 1801; Huahaine, Society Islands.

Teuthis australis Gray, in King, Narr. Survey Coasts Australia, vol. 2, p. 435, 1827; west coast of Australia.

Acanthurus hirudo Bennett, Fishes of Ceylon, p. 11, pl. 11, 1834.

Acanthurus subarmatus Bennett, Whaling Voyage, vol. 2, p. 278, 1840; Society Islands.

Rhombotides triostegus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate.

Acanthurus triostegus var. *sandvicensus* Streets, Bull. U. S. Nat. Mus., No. 7, p. 67, 1877; Honolulu.

Teuthis triostegus Jordan and Evermann, Fishes North and Middle America, vol. 2, p. 1690, 1898; Clarion and Socorro Islands, off west coast of Mexico. Fowler, Proc. Acad. Nat. Sci. Phila., p. 513, 1900; Oahu, Hawaiian Islands. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 552, 1902; Okinawa, RiuKiu Islands; Misaki, Japan. Barnard, Ann. Mus. South Africa, vol. 21, p. 778, pl. 31, fig. 5, 1927; Natal.

Teuthis sandvicensis Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 479, 1903; Honolulu.

Hepatus sandvicensis Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 394, fig. 172, 1905; Honolulu and Waialua Bay, Oahu; Hanalei Bay, Kauai; Hilo and Kailua, Hawaii; Necker Island; Laysan Island.

Hepatus triostegus Steindachner, Sitzbungsber. Akad. Wiss. Wien, vol. 115, p. 1392, 1906; Upolu and Savaii, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 66, 1906; Tahiti; Nukuhiva, Marquesas; Rarotonga; Faté; New Hebrides. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 270, 1908; Calayan and Fuga Islands, Babuyan Islands, north of Luzon; Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Mem. Bishop Mus., vol. 10, p. 264, pl. 31, fig. A, 1928; 35 localities in Polynesia, Micronesia, and Melanesia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 249, 1929; Sabtang Island, Batanes Province. Langao Point, Sorsogon Province, Luzon, Sablayan, Mindoro. San Roque and Cabugan Island, Hinunangan Bay, Leyte, Nugas Point, Antique Province, Panay. Ulugan Bay, Palawan. Camiguin Island, off north coast of Misamis Oriental Province, Mindanao. Silino Island, Zamboanga Province, Mindanao. Fuga Island, Babuyan Islands, north of Luzon, Cagayancillo, Cagayan Islands. Also many Polynesian localities; Mauritius, New Guinea, and Indian Archipelago.

Acanthurus sandvicensis Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 66, 1922; Hawaii.

Teuthis thoughtoni Whitley, Records Australian Mus., vol. 16, p. 233, pl. 16, fig. 1, 1928; Vanikoro, Santa Cruz Islands.

Genus 420. CTENOCHAETUS Gill.

Two species known. These have been greatly confused by authors.

Ctenodon Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 255, 1839; type, *Ctenodon ruppelli* Swainson.

Ctenochaetus Gill, Proc. U. S. Nat. Mus., vol. 7, p. 277, 1884; type, *Acanthurus strigosus* Bennett. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 398, 1905. Herre, Philippine Jour. Sci., vol. 34, p. 437, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 200, 1929.

1290. *Ctenochaetus striatus* (Quoy and Gaimard).

The Philippines to Guam and the Tuamotu Archipelago.

Acanthurus striatus Quoy and Gaimard, Voy. Uranie, Zoologie, vol. 2, p. 373, 1824. Quoy and Gaimard, Atlas, pl. 63, fig. 3, 1824; Guam. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 168 (229), 1835; "Sandwich Islands." Günther, Cat. Fishes British Mus., vol. 3, p. 334, 1861; Borneo; Marianes. Herre, Philippine Jour. Sci., vol. 34, p. 437, pl. 13, fig. 2, 1927; Mangarin, Mindoro, Philippines; Guam. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 246, 1936; Makatea, Tuamotu Archipelago; Moorea, Society Islands.

1291. *Ctenochaetus strigosus* (Bennett). Sallao.

From the Red Sea and coast of Africa to the Philippines, East Indies, Japan, Hawaiian and Tuamotu Islands.

Acanthurus strigosus Bennett, Zool. Jour., vol. 4, p. 41, 1828; Hawaiian Islands. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 243, 1835; New Guinea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 264, 1853; Sumatra. Günther, Fische der Südsee, vol. 1, p. 116, pl. 79, fig. B, 1873-75; Red Sea; East Africa; Hawaii; Polynesia. Day, Fishes India, p. 207, pl. 47, fig. 2, 1878; Andaman Islands.

Acanthurus ctenodon Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 241, pl. 289, 1835; Caroline Islands; New Guinea. Günther, Cat. Fishes British Mus., vol. 3, p. 342, 1861; Ceylon; Amboina; Ceram; Aneiteum. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Halmahera. Guichenot, Mém. Soc. Sci. Nat. Cherbourg, vol. 2, p. 146, 1866; Madagascar. Klunzinger, Verh. Zool.-Bot. Gesell., Wien., vol. 21, p. 509, 1871; Koseir, Red Sea.

Acanthurus (Ctenodon) strigosus Klunzinger, Fische Rothen Meeres, p. 85, 1884; Red Sea. Steindachner, Abh. Senckenb. Naturf. Gesell., vol. 25, p. 427, 1900; Batjan and Ternate, Dutch East Indies.

Ctenochaetus strigosus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 480, 1903; Honolulu. Herre, Philippine Jour. Sci., vol. 34, p. 438, pl. 15, figs. 2-3, 1927; Manila; Nasugbu, Batangas Province; Sibubu, Camarines Sur Province, Luzon. Calapan and Puerto Galera, Mindoro. Point Sialat, Catanduanes Island. Canigaran, Palawan. Tubigan, Sibutu, and Sitankai Islands, Sulu Province, Philippines. Also Guam. Fowler, Bull. 100, U. S. Nat. Mus., vol. 8, p. 200, 1929; Sabtang Island, Batanes Province. Palaui Island, Cagayan Province; Port Matalvi, Zambales Province; Grande Island Reef and Port Binanga, Subic Bay, Bataan Province; Limbones Cove, Cavite Province; Pagapas Bay, Port Hamilo, Batangas Province; Capulaan Bay, Pagbilao Chico Island, Alibijaban Island, Gulf of Ragay, Tayabas Province; Maculabo Island, Camarines Norte Province; Atulayan Island, between Paron Point and Jesus Point, and Maagnas, Gulf of Lagonoy, near Palag Bay, RapuRapu and Batan Islands, Albay Province; Langao Point, Sorsogon Province, Luzon. Tilik, Lubang Island, northwest of Mindoro. Varadero Bay, Sablayan, Paluan Bay, Mansalay, and Puerto Galera, Mindoro. Port Maricaban and Maricaban Islands, Verde Island Passage. Alimango Bay and Busin Harbor, Burias Island. Santa Cruz Island, Marinduque. Masbate Reef, Masbate. Lode Bay, Destacado Island, between Samar and Masbate. Port Palapag, Samar. Port Dupon, Leyte. Cebu market, Cebu. Port Caltom, Busuanga. Bolalo Bay, Endeavor Strait, Observatory Island, and Ulugan Bay, Palawan. Caxisigan Island, Candaraman Island, and Bugsuk Island, Balabac. Murcielagos Bay, Misamis Occidental Province; Zamboanga, Little Santa Cruz Island and Panabutan Bay, Zamboanga Province, Mindanao. Bubuan, Cagayan Sulu, Simaluc Sibi, Tara, and Tulayan Islands, and Tutu Bay, Jolo Island, Sulu Province, Philippines. Five Celebes localities; Tomahu and Gomomo Islands, Dutch East Indies; Formosa, Guam, and 10 other tropical Pacific localities; synonymy in part only.

Ctenodon ctenodon Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 545, 1904; Padang, Sumatra.

Ctenochaetus striatus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 398, fig. 174, 1905; Honolulu, Kailua, Hilo, Napoopoo, Hawaii; synonymy in part. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 97, 1907; Zamboanga, Zamboanga Province, Mindanao. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 423, 1912; Misaki, Japan. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 57, 1922; Zamboanga, Zamboanga Province, Mindanao.

Ctenochetes striatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 75, p. 42, 1923; Madagascar.

Teuthis striatus Barnard, Ann. South African Mus., vol. 21, p. 780, 1927; Zululand coast.

Genus 421. **PARACANTHURUS** Bleeker.

One species; marine.

Paracanthurus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 254, 1863; type, *Teuthis hepatus* Schneider. Herre, Philippine Jour. Sci., vol. 34, p.

435, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 205, 1929. Note on *Paracanthurus* Bleeker. Fowler, Copeia, No. 155, p. 139, June 24, 1926.

Colocopus Gill, Proc. U. S. Nat. Mus., vol. 7, p. 279, 1885; type, *Colocopus lambdurus* Gill.

1292. *Paracanthurus theuthis* (Lacépède). Umayi.

Mauritius, East Indies, Philippines, Bismarck Archipelago, and Gilbert Islands.

Acanthurus theuthis Lacépède, Hist. Nat. Poissons, vol. 4, pp. 547, 549, 1802; Amboina. Fowler, Mem. Bishop Mus., vol. 10, p. 273, 1928; Gilbert Islands (Kingsmill). Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 205, fig. 10, 1929; Port Maricaban, Verde Island Passage, Silino Island, Zamboanga Province, Mindanao. Doc Can and Sulade Islands and Sitankai Reef, Sulu Province. Also Gomomo Island, Lembe Strait, Celebes, and Tidore Island, Dutch East Indies.

Acanthurus hepatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 134, (183), pl. 288, 1835; Mauritius; New Guinea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 325, 1854; Larantuka, Flores. Günther, Cat. Fishes British Mus., vol. 3, p. 341, 1861; Amboina. Günther, Fische der Südsee, vol. 1, p. 115, pl. 75, 1873-75; Gilbert Islands (Kingsmill). Günther, Report voy. *Challenger*, Zoology, vol. 1, part 6, Shore Fishes, p. 52, 1880; Zamboanga, Mindanao.

Colocopus lambdurus Gill, Proc. U. S. Nat. Mus., vol. 7, p. 279, 1885; on Günther, Fische der Südsee, 1875.

Acanthurus teuthis Weber, *Siboga-Exped.*, vol. 57, Fische, p. 318, 1913; Banda.

Paracanthurus lambdurus Herre, Philippine Jour. Sci., vol. 34, p. 435, pl. 12, fig. 3, 1927; Elefante Island, south coast of Marinduque Island; Simara and Tablas Islands, Sibuyan Sea; Jolo, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Burias Island; Culion; Linapacan Island, Palawan Province; Sitankai, Sulu Province.

Genus 422. *ZEBRASOMA* Swainson.

A small group of Indo-Pacific fishes.

Zebbrasoma Swainson, Nat. Hist. Animals, vol. 2, p. 256, 1839; type *Acanthurus velifer* Bloch. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 395, 1905. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 355, 1906. Herre, Philippine Jour. Sci., vol. 34, p. 441, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 255, 1929.

1293. *Zebbrasoma flavescens* (Bennett). Katol-katol.

Tropical Indo-Pacific, from Madagascar and Mauritius to the Philippines, East Indies, RiuKiu Islands, Caroline Islands, Hawaiian and Society Islands.

Acanthurus flavescens Bennett, Zool. Jour., vol. 4, p. 40, 1828; Oahu, Hawaiian Islands. Bennett, Proc. Zool. Soc. London, p. 61, 1831; Mauritius. Günther, Fische der Südsee, vol. 1, p. 116, pl. 76, 1873-75; Tahiti, Society Islands; Samoa; Hawaii; New Hebrides. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 342, 1891.

Acanthurus rhombeus Kittlitz, Mus. Senckenb., vol. 1, p. 196, pl. 13, fig. 6, 1834; Ulea, Caroline Islands. Günther, Cat. Fishes British Mus., vol. 3, p. 342, 1861; Ceram; Hawaiian Islands; Aneiteum. Playfair, in Playfair and Günther, Fishes Zanzibar, p. 57, 1866; Zanzibar. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 24, 1885; Ternate.

Acanthurus scopas Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 180 (245), pl. 290, 1835; Dorey Harbor, New Guinea; Mauritius; Ulea, Caroline Islands. Bleeker, Nat. Tijds. Ned. Ind., vol. 2, p. 348, 1851; Solor. Bleeker, *ibid.*, vol. 12, p. 233, 1856-57; Batu Islands.

Acanthurus altivelas Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 183 (249), 1835; East Indies; Mauritius.

Harpurus rhombeus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate. Bleeker, *ibid.*, p. 252, Flores. Bleeker, *ibid.*, p. 271; Timor. Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 365, 1864; Nusa Laut, Moluccas.

Acanthurus virgatus Vaillant and Sauvage, Ann. Sci. Nat., p. 283, 1875; Honolulu.

Zebbrasoma agaña Seale, Occas. Papers Bishop Mus., vol. 1, p. 110, 1901; Agaña, Guam.

Zebrasoma flavescens Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 555, 1902; Okinawa, RiuKiu Islands; Hawaii. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 134, 1903; Marcus Island. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 397, pl. 59, 1905; Kailua and Honolulu, Oahu, Hawaii. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1393, 1906; Upolu, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 67, 1906; Raiatea, Society Islands. Herre, Philippine Jour. Sci., vol. 34, p. 441, 1927; Calapan and Bulalacao Bay, Mindoro; New Washington, Capiz Province, and Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Sibutu and Tubigan Island, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 274, pl. 32A, 1928; Honolulu; Marcus Island; Apia, Samoa; Raiatea; Laysan; Johnston Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 258, 1929; Sabtang Island, Batanes Province. Palau Island, Cagayan Province; Dasol Bay, Pangasinan Province; Port Matalvi, Zambales. Port Hamilo and Pagapas Bay, Batangas Province; Capalaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Galvaney Island and Pasacao, Ragay Gulf, Camarines Sur Province; Maculabo Island, Camarines Norte Province; Palag Bay. RapuRapu Island, and San Miguel Island, Albay Province; Gubat and Langao Point, Sorsogon Province, Luzon, Tilik, Lubang Island, China Sea northwest of Mindoro. Port Maricaban and Maricaban Island, Verde Island Passage. Mansalay, Paluan Bay and Sablayan, Mindoro. Romblon, Romblon. Alimango Bay and Busin Harbor, Burias Island. Masbate reef, Masbate. Biri Channel, north of Samar. San Roque and Port Dupon, Leyte. Mantacao Island and Pandanon Island, Bohol. Cebu market and Mactan Island, Cebu Province. Port Caltom, Busuanga. Bolalo Bay, Palawan. Bugsuk Island and Caxisigan Island, Balabac; Cagayan Islands, Sulu Sea. Polloc and Parang, Cotabato Province; Inamucan Bay and Murcielagos Bay, Misamis Occidental Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Tutu Bay, Jolo, Sanguisiapo, Tara, Sinaluc, and Tataan Islands, Sulu Province. Also 13 East Indian and 5 Polynesian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; reef near Burias Island; Calapan, Mindoro; Linapacan Island, Palawan; Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 248, 1936; Tahiti and Bora Bora, Society Islands; Malo and Efaté Islands, New Hebrides; Hathorn Sound, New Georgia Island, Solomon Islands.

Zebrasoma rhombeum Jordan and Seale, Bull. U. S. Bur. Fisheries, Bull. 25, p. 355, 1906; Apia and PagoPago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 34, 1907; Panay. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 270, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Calapan, Mindoro.

1294. *Zebrasoma veliferum* (Bloch).

Tropical Indo-Pacific, from Africa to the Hawaiian Islands, south to Australia, east to the Gilbert and Society Islands.

Acanthurus velifer Bloch, Naturges. Ausländ. Fische, vol. 9, p. 106, pl. 427, fig. 1, 1795. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 58, pl. 15, fig. 2, 1828; Mohila. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 184 (251), 1835; Mauritius; East Indies; Red Sea. Bleeker, Verh. Bat. Gen., vol. 25, Nalez. Ichth. fauna Bengalen en Hindostan, p. 166, 1854; Bengal. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 42, 1854; Cocos Island. Bleeker, *ibid.*, vol. 8, p. 315; Batu Islands. Günther, Cat. Fishes British Mus., vol. 3, p. 344, 1861; Fiji Islands. Playfair, in Playfair and Günther, Fishes Zanzibar, p. 57, 1866; Zanzibar. Day, Fishes India, p. 207, 1878.

Acanthurus suillus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 254, 1835; Mauritius; on a drawing. Günther, Cat. Fishes British Mus., vol. 3, p. 345, 1861; after Cuvier and Valenciennes.

Acanthurus blochii Bennett, Proc. Zool. Soc. London, p. 207, 1835; Tranquebar; on *Acanthurus velifer* Bloch.

Acanthurus rüppelli Bennett, *ibid.*, on *Acanthurus velifer* Rüppell. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 316, 1855; Batu Islands. Günther, Cat. Fishes British Mus., vol. 3, p. 345, 1861; Red Sea.

- Acanthurus desjardini* Bennett, Proc. Zool. Soc. London, p. 207, 1835; Mauritius. Günther, Cat. Fishes British Mus., vol. 3, p. 344, 1861; Mauritius.
- Acanthurus hypselopterus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 327, 1854; Larantuka, Flores. Günther, Cat. Fishes British Mus., vol. 3, p. 344, 1861; after Bleeker. Günther, Fische der Südsee, vol. 1, p. 117, 1873-75; Samoa; Misol; Pelew Islands; Fiji. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 494, pl. 4, fig. 1, 1902; Honolulu.
- Harpurus rüppelli* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 235, 1863; Ternate.
- Acanthurus (Harpurus) velifer* Klunzinger, Fische Rothen Meeres, p. 85, 1884; Red Sea.
- Naseus strigatus* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 539, 1885; Queensland coast, Australia.
- Zebbrasoma hypselopterus* Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 479, 1903; Honolulu. Ogilby, Mem. Queensland Mus., vol. 3, p. 135, 1915; Raine Island.
- Zebbrasoma veliferum* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 396, fig. 173, 1905; Honolulu; Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 356, 1906; Apia and Pago-Pago, Samoa; Honolulu. Herre, Philippine Jour. Sci., vol. 34, p. 443, pl. 11, 1927; Olongapo, Zambales Province, Luzon; Balanacan and Elefante Island, Marinduque; Tablas Island; Cebu and Bantayan Island, Cebu Province; Agutaya Island, Cuyo Islands, Sulu Sea; Jolo, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 275, pl. 32 B, 1928; New Guinea; Honolulu and Maui, Hawaiian Islands; Tahaa, Tahiti, and Raiatea, Society Islands; Apia, Samoa; Gilbert Islands; Ebon Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 255, 1929; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province; Palau Island, Cagayan Province; Masinloc Bay, Zambales Province; Atulayan and Rosa Islands, Lagonoy Gulf, and Yaua River, Batan Island, Albay Province. Paluan Bay, and Sablayan Bay, Mindoro. Romblon Reef, Alimango Bay and Busin Harbor, Burias Island. Cebu market, Cebu. Chase Head, Endeavor Strait, Palawan. Candaraman Island, Balabac. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Dumaguete; Cullon; Linapacan, Palawan Province; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 249, 1936; Tenibuli, Ysabel Island; Solomon Islands.

Genus 423. NASO Lacépède. Nosefishes; Kumai tullong.

Herbivorous tropical Indo-Pacific fishes, some of bizarre or grotesque appearance; most of them are formidably armed with knife-like spines on the tail.

Monoceros Bloch and Schneider, Syst. Ichth., p. 180, 1801; type, *Monoceros biaculeatus* Bloch and Schneider; name preoccupied.

Naso Lacépède, Hist. Nat. Poissons, vol. 3, p. 105, 1802; type, *Naso fronticornis* L. Herre, Philippine Jour. Sci., vol. 34, p. 445, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 263, 1929.

Naseus Lacépède, Hist. Nat. Poissons, vol. 3, p. 105, 1802; type, *Naseus fronticornis fuscus* (Commerson) Lacépède; on Commerson. Günther, Cat. Fishes British Mus., vol. 3, p. 347, 1861.

Nasonus Rafinesque, Analyse Nature, p. 83, 1815.

Priodon (Cuvier) Quoy and Gaimard, Voy. Uranie, Zoologie, p. 377, 1825; type, *Priodon annulatus* Quoy and Gaimard.

Axinurus Cuvier, Règne Animal, ed. 2, vol. 2, p. 225, 1829; type, *Axinurus thynnoides* Cuvier.

Priodontichthys Bonaparte, Prosp. Systema Ittiol. Gen., p. 109, 1831; type, *Priodon annulatus* Quoy and Gaimard.

Keris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 304, 1835; type, *Keris anguinus* Cuvier and Valenciennes; the young of *Naso* Lacépède.

Ceris Günther, Zool. Record, vol. 2, Pisces, p. 187, 1865; type, *Keris anguinus* Cuvier and Valenciennes.

Acanthurus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 399, 1905.

- 1295. *Naso annulatus* (Quoy and Gaimard).**
Tropical Indo-Pacific, Mauritius to the Philippines, Hawaiian Islands, Queensland, Fiji, and Samoa.
- Prionodon annulatus* Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 377, 1825; Timor.
- Naseus marginatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 207 (280), 1835; Tongatabu (Friendly), Hōnga Islands. Günther, Fische der Südsee, vol. 1, p. 122, pl. 83, 1873-75; Pelew Islands, Aneiteum; Fiji.
- Prionodon annularis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 223 (302), pl. 294, 1835; on Quoy and Gaimard. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 93, 1853; Amboina.
- Prionodon annularis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 558, 1852; Amboina.
- Naseus annulatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 304, 1855; Makassar, Celebes. Later, Bleeker recorded it from Sumatra, Java, Bali, Batol, Timor, Buru, Amboina, Ceram and Goram. Günther, Cat. Fishes, vol. 3, p. 352, 1861; Aneiteum. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 339, 1876; Cape Grenville, Queensland, Australia. Klunzinger, Fische Rothen Meeres, p. 87, 1884.
- Acanthurus marginatus* Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao.
- Acanthurus annulatus* Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 57, 1922; Cebu, Cebu; name misprinted.
- Naso annulatus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 277, pl. 33, fig. 5, 1928; Agaña, Guam. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 271, fig. 18, 1929; Galvaney Island, Ragay Gulf, Camarines Sur Province; Gubat and Langao Point, Sorsogon Province, Luzon. Cabugan Island, Hinunangan Bay, Leyte. Cagayan Islands, Sulu Sea. Dalanganem Island, Cupo Islands. Bolalo Bay, Endeavor Strait, Malam-paya Sound, Palawan. Caxisigan Island, Balabac. Cebu market, Cebu. Inamucan Bay and Murcielagos Bay, Misamis Oriental Province; Polloc, Cotabato Province, Mindanao. Jolo, Sulu Province.
- Naso marginatus* Herre, Philippine Jour. Sci., vol. 34, p. 452, text fig. 1 and pl. 6, fig. 2, 1927; Calapan, Mindoro; Gato Isle, Cebu Province; Zamboanga, Zamboanga Province, Mindanao; Jolo, Bungau, and Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Culion; Dumaguete; Sitankai, Sulu Province.
- 1296. *Naso brachycentron* (Cuvier and Valenciennes).**
The East Indies and Philippines.
- Naseus brachycentron* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 203 (275), 1835; Waigiū Island. Günther, Cat. Fishes British Mus., vol. 3, p. 349, 1861; after Cuvier and Valenciennes. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 297, 1868; Waigiū. Herre, Philippine Jour. Sci., vol. 34, p. 448, pl. 5, fig. 2, 1927; Bennett Island, west of Masbate; Bantayan Island, Cebu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 268, 1929; on Cuvier and Valenciennes.
- 1297. *Naso brevisrostris* (Cuvier and Valenciennes).**
Tropical Indo-Pacific from the Red Sea and Mauritius to the Philippines, Hawaiian, Gilbert, and Tuamotu Islands.
- Naseus brevisrostris* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 277, 1835; Moluccas; Mauritius; New Guinea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 165, 1853; Makassar, Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 349, 1861; Ceylon; Makassar, Celebes; Amboina; Tanna, New Hebrides; Aneiteum. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 511, 1871; Kosier, Red Sea. Günther, Fische der Südsee, vol. 1, p. 121, pl. 79, fig. A, 1873-75; Tahiti; Gilbert Islands. Day, Fauna British India, vol. 2, p. 146, fig. 55, 1889. Day, Fishes India, p. 209, pl. 48, fig. 4, 1878.
- Naseus Höedtii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 339, 1853; Amboina.

Naso brevirostris Herre, Philippine Jour. Sci., vol. 34, p. 450, 1927; Olongapo, Zambales Province, Luzon. Calapan and Bulalacao Bay, Mindoro. Romblon Islands. Tablas Island. Sibuyan Island. Tagapulapa Island, Samar Province. Bantayan Island, Cebu Province. Zamboanga, Zamboanga Province, Mindanao. Sitankai, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 277, pl. 33, fig. C, 1928; Honolulu, Hawaiian Islands; Tuamotu Islands; Ebon Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 268, fig. 17, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Between Paron and Jesus Joints, Albay Province, Luzon. Busin Harbor, Burias Island; Cataingan, Masbate Island. Biri Channel, north coast of Samar. Cabugan, Hinunangan Bay, Leyte. Pandanon Island, Bohol. Cebu, Cebu Province. Ulugan Bay, Palawan. Caxisigan and Bugsuk Islands, Balabac. Little Santa Cruz Island, Zamboanga Province, Mindanao. Jolo market, Jolo, Pangasinan and Tara Islands, Sulu Province. Also Formosa, Hawaiian Islands, and Tuamotus. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; reef near Burias Island; Cullion; Linapacan, Palawan Province; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 250, 1936; Takaroa, Tuamotu Archipelago. Herre, 1948 Coll.; Manila Bay.

1298. *Naso genimarginatus* Herre.

A Philippine species

Naso genimarginatus Herre, Philippine Jour. Sci., vol. 32, p. 461, pl. 16, fig. 2, 1927; Subic Bay, Olongapo, Zambales Province, Luzon; Ibahay and New Washington, Capiz Province, Panay; Sibuyan Island; Bantayan Island, Cebu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 282, 1929; after Herre. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Linapacan Island, Palawan Province; Cebu, Cebu; Jolo and Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Iloilo, Iloilo Province, Panay.

1299. *Naso hexacanthus* (Bleeker).

The East Indies and Philippines to Guam and the Hawaiian Islands.

Prionon hexacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 421, 1855; Amboina.

Nascus hexacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 233, 1856-57; Batu Islands. Günther, Cat. Fishes British Mus., vol. 3, p. 355, 1861; after Bleeker.

Callicanthus metoposophron Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 481, fig. 31, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 405, fig. 178, 1905; Honolulu.

Acanthurus metoprosophron Fowler, Bull. 22, Bishop Mus., p. 13, 1925; Guam.

Naso hexacanthus Herre, Philippine Jour. Sci., vol. 34, p. 463, pl. 7, fig. 1, 1927; Mariveles, Bataan Province, Luzon. Cuyo, Cuyo Islands, Sulu Sea. Bantayan Island, Cebu Province. Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 278, pl. 34, fig. A, 1928; Honolulu; Guam. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 280, fig. 21, 1929; Galvaney Island, Ragay Gulf, Camarines Sur Province; Paron Point, Albay Gulf, Albay Province; Langoa Point, Sorsogon Province, Luzon. Port Busin, Burias Island. Cebu market and Calangaman Island, Cebu Province. Endeavor Strait and Lampingan Island, Palawan. Zamboanga, Zamboanga Province, Mindanao. Balukbaluk Island, off Basilan. Simaluc Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Jolo, Sulu Province.

1300. *Naso lituratus* (Forster).

The Red Sea, East Africa, and Mauritius to the Philippines, East Indies, Hawaiian, Gilbert, and Society Islands.

Harpurus lituratus (Forster) Bloch and Schneider, Syst. Ichth., p. 216, 1801; in synonymy.

Acanthurus lituratus Bloch and Schneider, Syst. Ichth., p. 216, 1801; on Forster. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao.

Aspisurus elegans Rüppell, Atlas Reise Nördl. Afrika, Fische, p. 61, pl. 16, fig. 2, 1828; Red Sea.

Naseus lituratus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 282, 1835; Tahiti; New Ireland; Ulea; Gulf of Suez; Red Sea; Mauritius. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 763, 1852; Makassar, Celebes. Bleeker, *ibid.*, vol. 13, p. 372, 1857; Sangi Island. Günther, Cat. Fishes, British Mus., vol. 3, p. 353, 1861; Tahiti; Aneiteum; Malay Archipelago: Red Sea. Kner, Reise *Novara*, Fische, p. 213, 1865; Australia. Günther, Fische der Südsee, vol. 1, p. 124, pl. 82, 1875; Red Sea; East Africa; Hawaii; Society Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 358, 1906; Apia, Samoa; Hawaii.

Aspisurus lituratus Rüppell, Neue Wirbelt. Fische Rothen Meeres, p. 130, 1835.

Naseus (Aspisurus) lituratus Klunzinger, Fische Rothen Meeres, p. 87, 1884.

Monoceros garretti Seale, Occas. Papers Bishop Mus., vol. 1, p. 112, 1900; Guam.

Monoceros lituratus Seale, Occas. Papers Bishop Mus., vol. 1, p. 113, 1901; Guam.

Callicanthus lituratus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 481, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 404, pl. 60 and fig. 177, 1905; Honolulu, Hilo, Kona, Honu-
apo, and Puako Bay, Hawaiian Islands. Johnston Island.

Acanthurus garretti Seale, Occas. Papers Bishop Mus., vol. 4, p. 67, 1906; Tahiti; Raiatea; Rarotonga.

Naso lituratus Herre, Philippine Jour. Sci., vol. 34, p. 464, pl. 16, fig. 1, 1927; Olongapo, Zambales Province; Balayan Bay, Batangas Province; Manila market, Luzon. Bulalacao Bay, Mindoro. Elefante Island, Marinduque. Tablas Island. Sibuyan Island. Ibahay, Capiz Province, Panay. Bantayan Island, Cebu Province. Throughout central and southern Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 276, pl. 33, fig. A, 1928; Honolulu, Hawaiian Islands; Guam; Johnston and Wake Islands; Apia, Samoa; Raiatea and Tahiti, Society Islands; Rarotonga, Ascension Island; Gilbert (Kingsmill) Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 278, 1929; west coast of Palau Island, Cagayan Province; Masinloc Bay, Zambales Province; Palapag Bay, Batangas Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Maagnas, Lagonoy Gulf, and Caracaran, Batan Island, Albay Province; Gubat and Langoa Point, Sorsogon Province, Luzon. Tilik, Lubang Island, China Sea off Mindoro. Mansalay, Sablayan Bay, and Medio Island, Puerto Galera, Mindoro. Alimango Bay, Burias Island. Biri Channel, north of Samar. Point Agojo, Catanduanes Island. Cebu market, Cebu. Port Caltom, Busuanga Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Culion; Linapacan, Palawan Province; Cebu, Cebu; Dumaguete; Jolo, Sulu Province.

1301. *Naso lopezi* Herre.

A Philippine species.

Naso lopezi Herre, Philippine Jour. Sci., vol. 34, pl. 7, fig. 2, 1927; Ambil Island, China Sea off northwest corner of Mindoro; Bantayan Island, Cebu Province; Bulalacao Bay, Mindoro. Herre, Fishes 1931 Philippine Exped., p. 63, 1934; Balabac Island; Jolo, Sulu Province. Myers, Copeia, No. 2, p. 143, 1940. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Naso vomer Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 282, fig. 22, 1929; Sabtang Island, Batanes Province, Philippines; (not of Klunzinger).

1302. *Naso tapeinosoma* (Bleeker).

The East Indies and Philippines.

Naseus tapeinosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 494, 1854; Amboina. Bleeker, *ibid.*, vol. 9, p. 306, 1855; Celebes. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 321, 1913; Menado, Celebes; Banda.

Priodon tapeinosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 494, 1854; Amboina.

Naso tapeinosoma Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 283, fig. 23, 1929; Bugsuk Island, Balabac; Zamboanga, Zamboanga

Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 63, 1934; Dumaguete; reef between Burias and Ticao; Jolo, Sulu Province.

1303. *Naso thynnoides* (Cuvier and Valenciennes).

The East Indies and Philippines.

Axinurus thynnoides Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 221 (299), pl. 293, 1835; Dorey Harbor, New Guinea. Cuvier, Règne Animal, Disciples ed., vol. 8, pl. 74, fig. 3, 1839.

Naseus thynnoides Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 61, 1857. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 52, 1878; New Guinea. Günther, Cat. Fishes British Mus., vol. 3, p. 355, 1861; Amboina.

Naso thynnoides Herre, Philippine Jour. Sci., vol. 34, p. 469, pl. 7, fig. 3, 1927; Mariveles Bay, Bataan Province, Luzon; Bulalacao Bay, Mindoro; Tablas Island; Ibahay, Capiz Province, Panay; Dumaguete, Negros Oriental Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 285, fig. 24, 1929; Inamucan Bay, Misamis Occidental Province, and Zamboanga market, Zamboanga Province, Mindanao. Simaluc Island, Sulu Province. Also 3 localities off Celebes, and Soo Wan, Formosa.

1304. *Naso tuberosus* Lacépède.

Tropical Indo-Pacific, from Zanzibar and Mauritius to the Philippines, East Indies, Australia, and the RiuKiu, Caroline, Gilbert, and Tonga Islands.

Naso tuberosus Lacépède, Hist. Nat. Poissons, vol. 3, p. 111, pl. 7, fig. 3, 1802; after Commerson. Herre, Philippine Jour. Sci., vol. 34, p. 458, 1927. Fowler, Mem. Bishop Mus., vol. 10, p. 276, 1928; New Guinea; Gilbert Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 273, fig. 19, 1929; Santo Domingo de Basco, Batan Island, Batanes Province. Port San Pio Quinto. Camiguin Island, Babuyan Islands. Bolinao, Pangasinan Province; Maculabo Island, Camarines Norte Province; Pocket Bay, Basot, Lahuy and Quinalasag Islands, Camarines Sur Province; Atulayan Island, Albay Province; Langao Point and Matnog Bay, Sorsogon Province, Luzon. Cabugan, Hinunangan Bay, Leyte. Also New Guinea and Mauritius.

Aspisurus carolinarum Quoy and Gaimard, Voy. Uranie, Zoologie, p. 375, pl. 63, fig. 1, 1825; Carolines; Guam.

Naseus tonganus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 292, 1835; Tongatabu.

Naseus tuberosus Günther, Cat. Fishes British Mus., vol. 3, p. 353, 1861; Ceylon; Ceram; Aneiteum; synonymy in part. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 252, 1863; Flores Island. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 190, 1865; Ceram. Günther, Fische der Südsee, vol. 1, p. 123, pl. 80, 1873-75; Zanzibar; Mauritius; Aneiteum.

Naseus tuber Guichenot, Notes l'île Réunion, vol. 2, p. 27, 1862.

Acanthurus tuberosus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao.

Monoceros tuberosus Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa; RiuKiu Islands.

1305. *Naso unicornis* (Forskål). Nosefish; Bakwak; Tudlo-an.

Red Sea and Mauritius to the East Indies, Philippines, Japan, Guam, Hawaiian, Samoan, and Society Islands, south to Australia.

Chaetodon unicornis Forskål, Descript. Animal., p. 63, 1775; Djedda, Red Sea.

Chetodon unicornis Bonnaterre, Tableau Encyclop. Ichth., p. 82, pl. 95, fig. 39, 1788; Red Sea.

Naso fronticornis Lacépède, Hist. Nat. Poissons, vol. 3, pp. 104, 105, pl. 7, fig. 2, 1802; Red Sea.

Acanthurus unicornis Shaw, General Zoology, vol. 4, p. 374, pl. 50, 1803. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 559, 1902; Nagasaki, Kiusiu, and Misaki, Japan; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 402, 1905; Honolulu, Oahu; Hilo and Puako Bay, Hawaii. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 357, 1906; Apia, Samoa; Hawaii. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, 1907; San Fabian, Pangasinan Province, Luzon.

Aspisurus unicornis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 60, 1828; Red Sea.

Naseus fronticornis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 191 (259), 1835; Mauritius; Guam; Waigiü; Hawaii; Red Sea; Tahiti. Cuvier, Règne Animal, Disciples ed., vol. 8, pl. 72, fig. 2, 1836. Schlegel, Fauna Japonica, Pisces, p. 129, pl. 69, 1842; Nagasaki, Japan. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 238, 1856; Batu Island.

Keris anginosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 304, pl. 295, 1835; no locality.

Naseus olivaceus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 288, 1835; Tahiti. Günther, Cat. Fishes, British Mus., vol. 3, p. 352, 1861; Philippines, Tahiti.

Prionodon anginosus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 492, 1854; Amboina.

Naseus anginosus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860; Dertiende Bijdr. vischfauna Celebes, p. 37.

Naseus unicornis Günther, Cat. Fishes, British Mus., vol. 3, p. 348, 1861; Ceylon; Frankland Island; Red Sea; Aneiteum; New Hebrides. Günther, Fische der Südsee, vol. 1, p. 118, pl. 78 and 4 text figures, 1875; Huahine and Tahiti. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 339, 1876; Bramble Bay. Pellégrin, Bull. Mus. Hist. Nat. Paris, vol. 13, p. 203, 1907; Tulear, Madagascar.

Monoceros unicornis Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 510, 1912; Okinawa, RiuKiu Islands.

Naso unicornis Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Herre, Philippine Jour. Sci., vol. 34, p. 455, pl. 6, fig. 1 and text fig. 2, 1927; Bantayan Island, Cebu Province; Bungau and Tandubas Islands, Sulu Province; Honolulu, Hawaiian Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 277, 1928; Honolulu, Oahu, Hawaiian Islands; Guam; Samoa; Rarotonga, Raiatea, and Tahiti, Society Islands; Tubuai. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 264, fig. 16, 1929; Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Pocket Bay, Basot Island, Palag Bay, and between Paron and Jesus Points, Albay Province; Langao Point, Sorsogon Province; Port Hamilo, Batangas Province; San Fabian, Pangasinan Province, Luzon. Tilik Bay, Lubang Island, northwest of Mindoro. Mansalay and Sablayan Bay, Mindoro. Biri Channel and Quinapundan Bay, Samar. Mantacao Island and Pandanon Island, Bohol. Cebu market, Cebu. Makes Island and Ulugan Bay, Palawan. Polloc, Cotabato Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Jolo, Jolo Island, Cagayan Sulu Island, and Siasi, Sulu Province. Also Celebes, Guam, Formosa, Japan, Samoa, Honolulu, Hilo, and Okinawa. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province.

1306. *Naso vlamingii* (Cuvier and Valenciennes).

The East Indies and Philippines, east to the Marshall Islands, New Hebrides, and Tuamotu Archipelago.

Naseus vlamingii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 293, 1835; Moluccas. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 472, 1853; Batavia, Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 37; 1860, Makassar. Günther, Fische der Südsee, vol. 1, p. 123, pl. 181, 1875; Bonham Island; Aneiteum; Ebon Island; Ceram. Alcock, Jour. Asiatic Soc. Bengal, vol. 65, p. 315, 1896; off Minnikoy Island, Laccadives. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 320, 1913; Nusa Laut.

Monoceros vlamingii Fowler, Proc. Acad. Nat. Sci. Phila., p. 493, 1899; Thornton Island.

Acanthurus vlamingii Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 313, 1911; Rangiroa, Tuamotus (Paumotus).

Naso vlamingii Herre, Philippine Jour. Sci., vol. 34, p. 359, pl. 15, fig. 1, 1927; Puerto Galera, Mindoro; Sibuyan Island; Culion; Zamboanga, Zamboanga Province, Mindanao. Sibutu Island, Sulu Province.

Naso eoume Fowler, Mem. Bishop Mus., vol. 10, p. 276, 1928; Thornton Island; Tuamotus (Paumotus). Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 275, fig. 20, 1929; Ligpo Point, Balayan Bay, Batangas Province; Alibjaban Island, Ragay Gulf, Tayabas Province; Galvaney Island, Ragay Gulf, Carmarines Sur Province; Gubat and Langoa Point, Sorsogon Province, Luzon. Biri Channel, Samar. Port

Dupon, Leyte. Cebu market, Cebu. Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Balukbaluk Island, off Basilan. Simaluc, Sulu Province. Also 7 localities on the coast of Boreno and Celebes; Nan Wan, Formosa; Rangiroa.

Family 153. TEUTHIDIDÆ (Siganidæ)

Tropical Indo-Pacific, north to Japan. Herbivorous marine fishes living on reefs.

Genus 424. TEUTHIS Linnaeus.

Siganid; Barangan; Batawayi; Bellong; Dangit; Dayagbagu; Indongan; Layap; Malaga; Mandalada; Samaral; Tayog; Turus. Fry: Kuyug; Padas.

Teuthis Linnaeus, Syst. Nat., ed. 12, vol. 1, p. 507, 1766; type, *Chaetodon caeruleus* Bloch; see Opinion 93, Internat. Comm. Zool. Nomenclature. Günther, Cat. Fishes, British Mus., vol. 3, p. 313, 1861. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 152, 1928.

Siganus Forskål, Descript. Animal., pp. X and 25, 1775; type, *Scarus rivulatus* Forskål. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 288, 1929.

Centrogaster Houttuyn, Verh. Holland. Maatsch. Wetenschappen Haarlem, vol. 20, p. 333, 1782; type, *Centrogaster fuscescens* Houttuyn.

Amphacanthus Bloch and Schneider, Syst. Ichth., p. 206, 1801; type, *Amphacanthus guttatus* Bloch.

Buro Lacépède, Hist. Nat. Poissons, vol. 5, p. 421, 1803; type *Bruno brunneus* Lacépède; on Commerson.

Buronus Rafinesque, Analyse Nature, p. 88, 1815; substitute for *Buro* Lacépède.

Amphiscarus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 227, 1839; type *Siganus fuscus* Grfflith.

Siganites Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 546, 1904; type, *Chaetodon canaliculatus* Mungo Park.

1307. *Teuthis concatenata* (Cuvier and Valenciennes).

The East Indies, Philippines, Indo-China, Andaman and Pelew Islands, and New Caledonia. Said to enter river mouths.

Amphacanthus concatenatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 93 (127), 1835; Batavia, Java; Buru. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, 1856, Vischfauna Amboina, p. 46. Weber, *Siboga*-Exped., vol. 57, Fische, p. 330, 1913; Saleyer.

Teuthis concatenata Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1190, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 3, p. 316, 1861; Amboina; Singapore; Pinang. Günther, Fische der Südsee, vol. 1, p. 88, 1875; Pelew Islands. Day, Fishes India, p. 167, pl. 40, fig. 4, 1878; Andaman Islands. Pellégrin, Bull. Soc. Zool. France, vol. 30, p. 84, 1905; Baie d'Along, Tonkin, Indo-China. Herre and Mont-

alban, Philippine Jour. Sci., vol. 35, p. 156, pl. 4, fig. 1, 1928; Buguey, Cagayan Province; Luna, La Union; Agno River, Bolinao, and Hundred Islands, Pangasinan Province; Iba, Zambales Province; Manila; Nasugbu, Batangas Province; Bulan, Sorsogon Province, Luzon. Puerto Galera and Mangarin, Mindoro. Guinobatan, Masbate Province. Catbalogan, Samar. Bantayan Island, Cebu Province. Dumaguete, Negros Oriental Province. Cagayan, Misamis Oriental Province; Caldera Bay, Zamboanga Province, Mindanao. Also Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Nasugbu, Batangas Province, Luzon. Calapan, Mindoro. Dumaguete. Herre, Fishes 1936-37 and 1940-41 Expeds.; Calatagan, Batangas Province, Luzon; Puerto Galera, Mindoro; Estancia, Iloilo Province, Panay; Cagayan, Misamis Oriental Province; Murcielagos Bay, Misamis Occidental Province, Mindanao.

Siganus concatenatus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 789, 1905; Bais, Negros Oriental Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 293, 1929; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Bolinao Bay, Pangasinan

nan Province; Masinloc Bay, Zambales Province; Mariveles Bay, Bataan Province; Manila market; Santiago River, Pagapas Bay and Port Hamilo, Batangas Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Maculabo Island, Camarines Norte Province; Nato River, San Miguel Island, and RapuRapu Island, Albay Province; Bulan, Sorsogon Province, Luzon. Tilik, Lubang Island, northwest of Mindoro. Mansalay, Sablayan Bay, and Varadero Bay, Mindoro. Port Banalacan, Marinduque Island, Busin Harbor and San Pascual, Burias Island. Romblon Harbor, Romblon. Catbalogan and Nabatas Point, Samar. Cabugao Bay, Catanduanes Island. Port Dupon, Leyte. Cebu market, Cebu. Bais, Negros Oriental Province; Buena Vista, Guimaras Island. Bolalo Bay, Endeavor Strait, Malampaya Sound, Ulugan Bay, and Linapacan Island, Palawan Province. Parang and the mouth of Mindanao River, Cotabato Prov.; Generale Island off Capungan, Surigao and Lianga Bay, Surigao Province, Mindanao. Siasi, Taganak, and Simulac Islands, Sulu Province.

Siganus lineatus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, 1907; Bacon and Bulan, Sorsogon Province, Luzon; not of Cuvier and Valenciennes. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Aparri, Cagayan Province; Cuyo, Cuyo Islands, Sulu Sea; not of Cuvier and Valenciennes.

Siganus hexagonatus Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 284, 1910; Sandakan, British North Borneo; Philippines.

1308. *Teuthis corallina* (Cuvier and Valenciennes).

The East Indies, Philippines, Pelew Islands, RiuKiu Islands, and Seychelles.

Amphacanthus corallinus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 101 (139) 1835; Java; Seychelles. Schlegel and Müller, Verh. Nat. Gesch. Ned. Zool. Leiden, vol. 2, p. 10, pl. 2, fig. 2, 1844; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 23, Bijdr. kennis Teuthiden, p. 11, 1850. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 233, 1856-57; Batu Island. Weber, *Siboga*-Exped., vol. 57, Fische, p. 326, 1913; Lombok; Makassar; Gisser.

Teuthis corallina Günther, Cat. Fishes British Mus., vol. 3, p. 316, 1861; Molucca Sea. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 287, 1865; Amboina. Günther, Fische der Südsee, vol. 1, p. 88, 1875; Pelew Islands. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 159, pl. 1, fig. 2, 1928; Olongapo, Zambales Province, Luzon; Ambil Island, Lubang Islands, off Mindoro; Sibuyan Island, Tagapula Island, Samar Province; Dulag, Leyte; Cebu and Bantayan Island, Cebu; Cullion; Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Cullion. Herre, Fishes 1940-41 Exped.; Marsilea, Busuanga Island.

Siganus corallinus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 511, 1912; Okinawa, RiuKiu Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 69, 1918; Philippines; Padang. Fowler, Copeia, No. 53, p. 64, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 58, 1922; Zamboanga, Zamboanga Province, Mindanao; also a Sumatran example. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 301, 1929; Masinloc, Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; Atulayan Island, and near Palag Bay, Albay Province; Maculabo Island, Camarines Norte Province; Quinalasag Island, Camarines Sur Province, Luzon. Balikias Bay and Medio Island, Puerto Galera, Mindoro. Port Maricaban, Verde Island Passage. Port Banalacan, Marinduque. Romblon Reef, Romblon. Cataingan Bay, Masbate. Alimango Bay and Busin Harbor, Burias Island. San Miguel Harbor, Ticao; Buang Bay, Talajit Island, between Samar and Masbate. Gigoso Point, Quinapundan Bay, and Biri Channel, Lode Bay, Destacado Island, between Samar and Masbate. San Roque and Caguban Island, Hinunangan Bay, Leyte. Cebu market, Cebu. Port Caltom, Busuanga Island. Cuyo Harbor, Cuyo Island. Endeavor Strait, Guntao Island and Ulugan Bay, Palawan. Candaraman and Caxisigan Islands, off Balabac. Parang, Cotabato Province; Surigao, Surigao

Province; Tataidaga Point, Davao Province; and Zamboanga, Zamboanga Province, Mindanao. Tataan Island, Sulu Province. Also 15 East Indian localities.

1309. *Teuthis doliata* (Cuvier).

The East Indies, Philippines, Pelew Islands, Carolines, New Hebrides, and the Fiji and Society Islands.

Siganus doliatus Cuvier, in Guerin, Iconographie Règne Animal de G. Cuvier, vol. 4, pl. 36, fig. 1, 1830; Buru. Seale, Occas. Papers Bishop Mus., vol. 4, p. 6, 1906; Faté, New Hebrides. Fowler, Mem. Bishop Mus., vol. 10, p. 284, 1928; Faté, New Hebrides; New Guinea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 324, 1929; Makyan, Talisse, Tidore, and Halmahera Islands, Dutch East Indies; New Guinea.

Amphacanthus doliatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 132, 1835; Buru and Vanicolo. Cuvier, Règne Animal, Disciples ed., vol. 8, pl. 71, fig. 1, 1836; Moluccas. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 605, 1853; Ternate.

Teuthis doliata Günther, Cat. Fishes, British Mus., vol. 3, p. 323, 1861. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 108, 1862; Batjan. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 270, 1863; Timor. Günther, Fische der Südsee, vol. 1, p. 90, 1875; Pelew Islands; Ponapé; New Hebrides; Fiji. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 173, pl. 2, fig. 3, 1928; Puerto Princesa, Palawan.

1310. *Teuthis fuscescens* (Houttuyn). Palit.

Japan, China, the Philippines, Marcus Island, Guam, Caroline Islands, and New Guinea. Marine, but entering rivers and lakes.

Sparus fuscescens Houttuyn, Acta Soc. Haarlem, vol. 20, p. 333, 1782; Japan.

Amphacanthus fuscescens Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 115 (156), 1835; Japan. Schlegel, Fauna Japonica, Pisces, p. 127, pl. 68, fig. 1, 1842; Nagasaki, Japan. Richardson, Ichth. China Japan, p. 244, 1846; Canton.

Teuthis fuscescens Günther, Cat. Fishes, British Mus., vol. 3, p. 321, 1861; coast of Nagasaki. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon, Philippines. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 393, 1879; Queensland, Australia. Jordan and Metz, Mem. Carnegie Mus., vol. 6, p. 44, 1913; Fusan, Korea. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 154, pl. 1, fig. 1, 1928; Higad and San Miguel Bay, Camarines Sur Province; Bacon, Sorsogon Province, Luzon. Bantayan Island, Cebu Province. Dumaguete, Negros Oriental Province; Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Curimao, Ilokos Norte Province; Lake Bombon, Batangas Province, Luzon; Culion; Dumaguete; Jolo, Sulu Province.

Siganus fuscescens Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 560, 1902; 9 Japanese localities. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Cavite, Cavite Province, Luzon; Panay. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, 1907; San Fabian, Pangasinan Province; Cavite, Cavite Province, Luzon. Panay. Jolo, Sulu Province. Japan. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 284, 1910; Sandakan, British North Borneo; Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 511, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 58, 1922; Cebu, Cebu, Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Santa Maria and Vigan, Ilokos Sur Province; Calapan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 282, 1928; Marcus Island; Guam; New Guinea; Kusaie, Caroline Islands; in part. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 314, 1929; San Fernando Port, La Union Province; Pört Matalvi, Zambales Province; Subic Bay, Bataan Province; Bacoor, Cavite and San Roque markets, Cavite Province; Manila Bay, and Manila market; Santiago River, Papagas Bay, Taal Anchorage and Port Hamilo, Batangas Province; Galvaney Island, Ragay Bay, Refugio Island and river at Pasacao, and Quinalasag Island, Masamat Bay, Camarines Sur Province; San Miguel Bay, Atulayan Bay, and Batan Island, Albay Province; Bacon, Sorsogon Province, Luzon. Mansalay, Puerto Ga-

lera, and Varadero Bay, Mindoro. Busin Harbor, Burias Island. Cataingan Bay, Masbate. Santa Cruz Island, Marinduque. Catbalogan and Nabatas Point, Samar. Tacloban market and San Roque market, Leyte. San Juanico Strait, between Samar and Leyte. Bohol and Pandanon Islands and Tagbilaran Strait, Bhol. Cebu market, Mactan Island, and Malanipa Island, Cebu. Guihulugan and Port Bais, Negros. Port Caltom, Busuanga Island. Linapacan Island, Mantaquin Bay, Endeavor Strait, Bolalo Bay, Sirinao Island, and Ulugan Bay, Palawan. Surigao, Surigao Province, near mouth of Mindanao River, Cotabato and Parang, Cotabato Prov.; Davao, Davao Province; Murcielagos Bay, Misamis Occidental Province; Little Santa Cruz and Zamboanga market, Zamboanga Province, Mindanao. Cagayan Sulu Island, Jolo market, Sulade Island, Teomabal Island, and Tutu Bay, Jolo Island, Sulu Province.

1311. *Teuthis hexagonata* (Bleeker).

Cocos Island, the East Indies, Philippines, Fiji and Samoan Islands. *Amphacanthus hexagonatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 41, 1854; Cocos-Keeling Islands. Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 437, 1859; Sumbawa. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 51, 1861; Singapore. Weber, *Siboga*-Exped., vol. 57, Fische, p. 328, 1913, Sailusketjil; Gisser; Saleyer; Rotti.

Teuthis hexagonata Günther, Cat. Fishes, British Mus., vol. 3, p. 320, 1861; Fiji Islands. Günther, Fische der Südsee, vol. 1, p. 89, 1873; Fiji and Samoa. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 162, pl. 2, fig. 1, 1928; Bolinao, Pangasinan Province; Olongapo, Zambales Province; Lucena, Tayabas Province. Calabanga, Camarines Sur Province, Luzon. Cuyo Island, Cuyo Islands. Calapan, Mindoro. Estancia, Iloilo Province, Panay; Bantayan Island, Cebu Province; Dumaguete, Negros Oriental Province; Samal Island, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Pabalbag Island and Sitankai, Sulu Province, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; reef near Burias Island; Cullion; Dumaguete; Cebu, Cebu; Balabac Island; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 253, 1936; Tenibuli, Ysabel Island, Solomon Islands.

Stiganus hexagonatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 111, 1900; Guam. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 284, 1910; Sandakan, British North Borneo; Philippines.

Stiganus punctatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 360, 1906; Apia and Pago Pago, Samoa; synonymy in part. Fowler, Mem. Bishop Mus., vol. 10, p. 231, 1928; Guam; Apia, Samoa; New Guinea; synonymy in part. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 312, 1929; New Guinea; Apia, Samoa.

1312. *Teuthis javus* Linnaeus. Samaral.

Indo-Pacific, from Ceylon to the East Indies and Philippines, south to Australia. Marine and entering rivers and lakes.

Teuthis javus Linnaeus, Syst. Nat., ed. 12, vol. 1, p. 507, 1766; Java. Günther, Cat. Fishes, British Mus., vol. 3, p. 315, 1861; Ceylon; Pinang; Singapore; Amboina; Hobson Bay, Australia. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon. Meyer, An. Soc. Española Hist. Nat. Madrid, vol. 14, p. 22, 1885; Manila Bay, Luzon; Cebu, Cebu. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 175, pl. 5, fig. 3, 1928; Olongapo, Zambales Province; Malabon, Rizal Province; San Miguel Bay and Calabanga, Camarines Sur Province, Luzon. Pinamalayan, Mindoro. Catbalogan, Samar. Estancia, Panay. Dulag, Leyte. Dumaguete, Negros Oriental Province, Balabac Island. Also Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Curimaos, Ilokos Norte Province; Nasugbu, and Lake Bombon, Batangas Province, Luzon; Cullion. Umali, Edible Fishes Manila, p. 180, text fig. 141, 1936; Orion, Bataan Province; Naic and Salinas, Cavite Province, and Manila Bay, Luzon. Also Visayas and Mindanao. Herre, Fishes 1936-37 and 1940-41 Expeds.; Ragay Gulf, Tayabas Province, Luzon; Capiz, Capiz Province, Panay, Philippines; Singapore.

Amphacanthus javus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 86 (118), 1835; Pondicherry; Batavia; Malacca. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 515, 1845; Batavia, Java. Weber, Siboga-Exped., vol. 57, Fische, p. 326, 1913; Macassar, Celebes.

Teuthis java Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1189, 1850; Malay Peninsula and Islands. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 288, 1865; Amboina. Day, Fishes India, p. 165, pl. 40, fig. 1, 1878.

Amphacanthus javanus Castelnau, Research Fishes Australia, Victoria Record, Philadelphia Exposition, p. 29, 1875; Cape York, Queensland.

Siganus javus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Cavite, Cavite Province, Luzon, Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, 1907; Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 283, 1910; Sandakan, British North Borneo; Philippines. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 57, 1922; Cebu, Cebu, Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Vigan, Ilokos Sur Province; Orion, Bataan Province; Manila, Luzon, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 291, 1929; Subig Bay, Zambales Province; Bacoor market and Cavite market, Cavite Province; Manila market; river at Pasacao, and Refugio Island, Ragay Gulf, Camarines Sur Province; Bulan, Sorsogon Province, Luzon. Mansalay, Mindoro. Busin Harbor, Burias Island. Catbalogan and Nabatas Point, Samar. San Juncico Strait, Tacloban market, and San Roque, Leyte, Mactan Island, Cebu Province. Iloilo, Iloilo Province, Panay. Bolalo Bay, Mantaquin Bay, Malcochin Harbor. Linapacan Island and Malampaya Sound, Palawan. Below the mouth of Mindanao River, Cotabato Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Sibutu Island, Sulu Province.

1313. *Teuthis lineata* (Cuvier and Valenciennes).

The Philippines, Santa Cruz Islands, New Guinea, Solomon Islands, Australia, and Okinawa, RiuKiu Islands.

Amphacanthus lineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 95 (130), pl. 286, 1835; Vanicolo, Santa Cruz Islands; New Guinea. Whitley, Records Australian Mus., vol. 16, p. 231, 1928; Moreton Bay, Murray Island, Thursday Island, Pelew Group, Australia; Vanikoro, Santa Cruz Island.

Teuthis lineata Günther, Cat. Fishes British Mus., vol. 3, p. 322, 1861; after Cuvier and Valenciennes. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 176, 1928; Manila, Luzon. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Lingayen, Pangasinan Province; Nasugbu, Batangas Province, Luzon. Capiz, Capiz Province, Panay. Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 257, 1936; Tenibuli, Ysabel Island, Solomon Islands.

Teuthis flava de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 469, 1885. Kent, Great Barrier Reef, p. 286, 1893; Queensland, Australia.

Siganus lineatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Manila, Luzon. ? Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Aparri, Cagayan Province, Luzon; Cuyo, Cuyo Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 511, 1902; Okinawa, RiuKiu Islands. McCulloch, Mem. 5, Australian Mus., p. 269, 1929; Queensland and Northern Territory, Australia; New Guinea; East Indies; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 319, 1929; no locality, likely Philippines (?).

Siganus aurolineatus Ogilby, Mem. Queensland Mus., vol. 1, p. 56, 1912; North Queensland, Australia.

1314. *Teuthis oramin* (Bloch and Schneider). White-spotted spinefoot; Titang. India, the East Indies, Philippines, China, Japan and Pelews. Marine, but entering rivers.

Amphacanthus guttatus var. *oramin* Bloch and Schneider, Syst. Ichth., p. 207, pl. 48, 1801; Tranquebar, India.

Amphacanthus dorsalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 143, 1835; Batavia, Java. Schlegel and Müller, Verh. Nat. Gesch. Leiden, pp. 10, 13, pl. 2, fig. 1, 1844; Batavia. Bleeker, Nat.

- Geneesk. Arch. Ned.-Ind., vol. 2, p. 515, 1845; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 332, 335, 1857; Batavia, Bantam, Anjer, and Samarang, Java; Nias; Sumatra; Batu; Banka; Celebes; Ternate; Batjan; Amboina; Ceram; Timor.
- Amphacanthus albopunctatus* Schlegel, Fauna Japonica, Pisces, p. 128, 1842; Nagasaki Bay, Japan. Kner. Reise Novara Fische, p. 206, 1865; Manila, Luzon, Philippines; Java.
- Teuthis dorsalis* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1191, 1850; Pinang. Günther, Cat. Fishes, vol. 3, p. 318, 1861; Pinang; Java.
- Teuthis oramin* Günther, Cat. Fishes British Mus., vol. 3, p. 318, 1861; after Bloch and Schneider. Day, Fishes India, p. 168, pl. 40, fig. 6, 1878. Steindachner, Abh. Senckenb. Naturf. Gesell., vol. 25, p. 425, 1900; Patani River, Halmahera; Ternate. Pellégrin, Bull. Soc. Zool. France, vol. 39, p. 227, 1911; Diégo Suarez, Mahambo, and Fort Dauphin, Madagascar. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 165, pl. 5, fig. 1, 1928; Burgos, Ilokos Norte Province; Anda and Bolinao, Pangasinan Province, Iba, Zambales Province; Orani, Bataan Province; Manila; Cavite, Cavite Province; Nasugbu, Bantangas Province; San Miguel Bay, Camarines Sur Province, Luzon. Calapan and Puerto Galera, Mindoro. Concepcion, Busuanga. Despujols, Tablas Island. Dumaguete, Negros Oriental Province; Cebu and Bantayan Island, Cebu Province. Inabanga, Bohol. Borongan, Samar. Cuyo, Cuyo Islands. Canigaran, Palawan. Surigao, Surigao Province; Cagayan, Misamis Oriental Province; Misamis, Misamis Occidental Province; Caldera Bay and Zamboanga, Zamboanga Province; Davao and Samal Island, Davao Province, Mindanao. Bato-Bato, TawiTawi Island, and Tubigan Island, Sulu Province; Balabac Island, Philippines. Also Sandakan, British North Borneo; Hoihow, Hainan Island; Hong Kong and Amoy, China; Shimizu, Japan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 165, pl. 5, fig. 1, 1934; Cullion; Cebu, Cebu Prov.; Dumaguete; Jolo, Sulu Prov. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay; Kolambugan, Lanao Province, Mindanao.
- Teuthis albopunctatus* Günther, Cat. Fishes British Mus., vol. 3, p. 318, 1861; Philippines; Amoy, China.
- Siganus oramin* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 789, 1905; Bais, Negros Oriental Province. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Aparri, Cagayan Province, and Cavite, Cavite Province, Luzon; southern Negros. Barnard, Ann. South African Mus., vol. 21, p. 785, pl. 31, fig. 4, 1927; Natal and Zululand coast. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 307, 1929; Pagapas Bay, Batangas Province; Atulayan Island, Albay Province; Bulan Island, Langoa Point, and Palag Bay, Sorsogon Province, Luzon. Murcielagos Bay, Misamis Oriental Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Isabela River, Basilan Island, Cagayan Sulu Island, Jolo and Tutu Bay, Jolo Island, Siasi Island and Tulnalutan Island, Sulu Province; also Si Amil Island, British North Borneo, and Celebes.
- Siganus albopunctatus* Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 284, 1910; Sandakan, British North Borneo; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 281, 1928; Ponapé, Caroline Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 297; Philippines; Red Sea; China; Japan; Queensland; Micronesia; after Günther.
- Amphacanthus oramin* Weber, Siboga-Exped., vol. 57, Fische, p. 329, 1913; Flores; Obi Major.
- 1315. *Teuthis puella* (Schlegel).**
The East Indies, Philippines, Pelew, Gilbert, and Solomon Islands.
Amphacanthus puellus Schlegel, Bijdr. Dierk., vol. 1, p. 39, fig. 2, 1852; East Indies. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 32, 1860; Celebes.
Amphacanthus cyanotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 606, 1853; Amboina; Ternate.
Teuthis puella Günther, Cat. Fishes, vol. 3, p. 323, 1861; East Indian Archipelago. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 156, 1863; Halmahera. Günther, Fische der Südsee, vol. 1, p. 91, 1873-75; Apamama; Pelew Islands. Herre and Montalban, Philippine Jour. Sci., vol. 35, p.

169, pl. 4, fig. 2, 1928; Calapan, Mindoro; Simara Island, Romblon Province; Dulag, Leyte; Cebu, Cebu; Zamboanga, Zamboanga Province, Mindanao; Bungau and TawiTawi Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; reef near Burias Island; Linapacan Island, Palawan Province; Cebu, Cebu; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Coron, Busuanga.

Siganus zoniceps Seale, Occas. Papers Bishop Mus., vol. 4, p. 69, fig. 18, 1906; Shortland Island, Solomon Islands.

Siganus puellas Fowler, Mem. Bishop Mus., vol. 10, p. 284, 1928; Ebon Island, Marshall Islands.

1316. *Teuthis rostrata* (Cuvier and Valenciennes).

Red Sea to the Philippines, Pelew, Gilbert and Samoan Islands, Australia and the Society Islands.

Amphacanthus rostratus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 116, 1835; Massaua, Red Sea.

Teuthis rostrata Playfair, in Playfair and Günther, Fishes Zanzibar, p. 50, pl. 10, fig. 2, 1866; Zanzibar. Günther, Fische der Südsee, vol. 1, p. 89, pl. 60, 1873-75; Pelew, Gilbert, and Society Islands; Zanzibar. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 1161, pl. 1, fig. 2, 1928; Balabac Island; Samal Island, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Burias Island; Culion; Linapacan Island; Palawan Province; Dumaguete; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 252, 1936; Tenibuli, Ysabel Island, Solomon Islands. Herre, Fishes 1940-41 Exped.; Murcielagos Bay, Misamis Occidental Province, Mindanao.

Siganus rostrata Seale, Occas. Papers Bishop Mus., vol. 1, p. 111, 1901; Guam.

Siganus rostratus Seale, Occas. Papers Bishop Mus., vol. 4, p. 67, 1906; Tubuai, Austral Islands; Raiatea, Society Islands; Faté, New Hebrides; Shortland Island, Solomon Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 360, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Fuga, Babuyan Islands, Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 511, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 58, 1922; Zamboanga, Zamboanga Province, Mindanao. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 75, p. 42, 1923; Madagascar. Fowler, Mem. Bishop Mus., vol. 10, p. 283, 1928; Society Islands; Austral Islands; Tuamotus; Samoa; Guam; Fiji; Kusaie. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 310, 1929; Pandanon Island, Bohol; Zamboanga and Little Santa Cruz Island, Zamboanga Province, Mindanao; Jolo, Jolo Island, Sulu Province.

Siganus fuscescens Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao; (not of Houttuyn).

1317. *Teuthis striolata* Günther.

The Philippines and East Indies eastward to the Society Islands.

Teuthis striolata Günther, Cat. Fishes British Mus., vol. 3, p. 319, 1861; Aneiteum, New Hebrides. Günther, Fische der Südsee, vol. 1, p. 89, 1873-75; text only; New Hebrides; Solomon Islands. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 125, 1913. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 177, pl. 5, fig. 2, 1928; Luna, Nalvo, and Paraoir, La Union Province; Bolinao, Pangasinan Province, Luzon. Calapan and Pinamalayan, Mindoro. Bantayan Island, Cebu Province. Tacloban, Leyte. Dumaguete, Negros Oriental Province. Canigaran, Palawan. Zamboanga, Zamboanga Province, Mindanao. Also Guam. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Cebu, Cebu Province; Jolo and Sitankai, Sulu Province, Philippines. Herre, Fishes, 1936-37 and 1940-41 Exped.; Calatagan and Nasugbu, Batangas Province, Luzon; Mercedes, Samar.

Siganus striolatus Seale, Occas. Papers Bishop Mus., vol. 4, p. 69, 1906; Raiatea, Society Islands.

Siganus marmoratus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Manila, Luzon. Jordan and Richardson, Bull. U. S.

Bur. Fisheries, vol. 27, p. 271, 1908; Calayan, Babuyan Islands, Philippines. Fowler, Copeia, No. 58, p. 64, 1918; Philippines.

Amphacanthus striolatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 329, 1913.

Siganus spinus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 320, 1929; Olongapo and Subig Bay, Zambales Province; Nasugbu, Batangas Province; Maculabo Island, Camarines Norte Province; Atulayan Bay, Albay Province, Luzon. Puerto Galera, and Mansalay, Mindoro. Bolalo Bay, and Ulugan Bay, Palawan. Port Caltom, Busuanga Island. Cebu market, and reef opposite Cebu, Cebu. Cabugan Island, Hinunangan Bay, Leyte. Inamucan Bay, Misamis Oriental Province; Zamboanga and Little Santa Cruz Island, Zamboanga Province, Mindanao. Tara and Teomabal Islands, Sulu Province. Not of Linnaeus; not synonymy.

1318. *Teuthis sutor* (Cuvier and Valenciennes).

Tropical Indian Ocean, East Indies and the Philippines.

Amphacanthus sutor Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 148, 1835; Seychelles; Bourbon Island; Malabar, India. Bleeker, Verh. Bat. Gen., vol. 25, p. 481, 1853; Bengal.

Teuthis sutor Günther, Cat. Fishes British Mus., vol. 3, p. 317, 1861; after Cuvier and Valenciennes. Day, Fishes India, p. 167, 1875. Bleeker, Recherches faune Madagascar, Poissons, p. 96, 1875. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 168, pl. 2, fig. 2, 1928; Guitacan and Bantayan Islands, Cebu Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Jolo, Sulu Province.

Siganus sutor Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, 1929; Port San Vicente, Cagayan Province; Port Matalvi, Zambales Province; Port Hamilo and Pagapas Bay, Batangas Province; Maculabo Island, Camarines Norte Province; Quinalasag Island and Butuanan Island, Camarines Sur Province; Atulayan Island and RapuRapu Island, Albay Province, Luzon. Balikias Bay, Lubang Island, northwest of Mindoro. Port Maricaban, Verde Island Passage. Medio Island, Puerto Galera, Mansalay, and Varadero Bay, Mindoro. Ali-mango Bay, and Busin Harbor, Burias Island, Romblon, Romblon Province. Masbate Reef, Masbate. Lode Bay, Destacado Island, between Masbate and Samar. Biri Channel, Samar, Bisucay Island, Cuyo Islands. Port Caltom, Busuanga Island. Bolalo Bay, Makesi Island, and Endeavor Strait, Malampaya Sound, Palawan. Bugsuk Island, Balabac. Cebu, Cebu. Port Capungan, Surigao Province, Mindanao. Cagayan Sulu, Taganak, Tara, Tumindao, and Tataan Islands, Sulu Province.

Siganus punctatissimus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 298, fig. 25, 1929; Masinloc Bay, Zambales Province; Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Albay Gulf, Albay Province, Luzon. Agojo Point, Catanduanes Island. Romblon Harbor, Romblon. San Miguel Harbor, Ticao Island. Masbate Reef, Masbate. Port Uson, Busuanga Island. Pujada Bay, Davao Province, Mindanao. Sacol Island and Tulnalutan Island and Sitankai, Sulu Province. Also Celebes, Halmahera (Gillolo), and Talisse Islands.

1319. *Teuthis tetrazona* (Bleeker).

The East Indies and Philippines.

Amphacanthus tetrazona Bleeker, Nat. Tijds. Ned-Ind., vol. 8, p. 441, 1855; Manado, Celebes.

Teuthis tetrazona Günther, Cat. Fishes British Mus., vol. 3, p. 323, 1861; after Bleeker. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 173, 1928. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Dumaguete, Negros Oriental Province.

Siganus tetrazonus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Cavite, Cavite Province, and Manila, Luzon, Philippines.

1320. *Teuthis vermiculata* (Cuvier and Valenciennes).

Marine, but often entering rivers. From Mauritius through the Philippines and East Indies to the Marshall and Society Islands.

Amphacanthus vermiculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 92 (126), 1835; New Guinea; Java; Mauritius.

Schlegel and Müller, Verh. Nat. Gesch. Leiden, vol. 2, p. 11, pl. 3, fig. 2, 1844; Java Sea. Bleeker, Verh. Bat. Gen., vol. 23, Teuthiden, p. 11, 1850. Weber, *Siboga* Exped., vol. 57, Fische, p. 326, 1913; Ternate. *Teuthis vermiculata* Günther, Cat. Fishes British Mus., vol. 3, p. 317, 1861; Philippines; Amboina. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 152, Batjan; p. 270, 1863; Atapupu, Timor. Day, Fishes India, p. 166, pl. 40, fig. 1, 1878. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 179, pl. 3, fig. 1, 1928; Burgos, Ilokos Norte Province; Luna, La Union Province; Agno River, Pangasinan Province; Biga-a River and Legaspi, Legaspi Province, Luzon. Jordan, Guimaras Island. Cabalian, Leyte. Loay, Bohol. Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Also Sandakan, British North Borneo. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 229, 1936; BoraBora, Society Islands.

Teuthis vermiculatus Fowler, Jour. Acad. Nat. Sci., Phila., ser. 2, vol. 12, p. 546, 1904; Padang, Sumatra.

Siganus vermiculatus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, 1907; Philippines; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Zamboanga, Zamboanga Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Mindanao. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 283, 1910; Sandakan, British North Borneo; Philippines. Fowler, Copela, No. 58, p. 64, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 279, 1928; Marshall Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 299, 1929; San Fabian, Pangasinan Province; Mariveles and Pucot Rivers, Mariveles, Bataan Province; Cavite and San Roque markets, Cavite Province; Subig Bay, Zambales Province; Santiago River and Pagapas Bay, Batangas Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Nato River, stream at Maagnas, Lagonoy Gulf, San Miguel Island and Atulayan Island, Albay Province, Luzon. Bagaong River, 4 miles from mouth and Estero, Sablayan Bay, Mindoro. Buena Vista, Guimaras Island. Off the mouth of Mindanao River, Cotabato Province; Nonucan River, Camp Overton, Lanao Province; and Zamboanga, Zamboanga Province; Mindanao. Sandakan Bay, British North Borneo.

1321. *Teuthis virgata* (Cuvier and Valenciennes). Mandalada.

The Andaman Islands, East Indies, Philippines, and China.

Amphacanthus virgatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 10, p. 97 (133), 1835; Java. Schlegel and Müller, Verh. Natur. Gesch. Leiden, p. 11, pl. 3, fig. 1, 1844; Buru; Timor; Vanikoro. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 515, 1845; Batavia, Java.

Teuthis virgata Günther, Cat. Fishes British Mus., vol. 3, p. 323, 1861; Philippines; China. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 292, 1868; Rio, Bintang. Day, Fishes India, p. 166, pl. 40, fig. 3, 1878; Andaman Islands. Herre, Fishery Resources Philippine Islands, p. 36, pl. 25, fig. 1, 1927. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 171, pl. 4, fig. 3, 1928; Balaoan, La Union Province; Bolinao, Pangasinan Province; Olongapo, Zambales Province; Monja Island, mouth of Manila Bay; Calabanga, Camarines Sur Province, Luzon. Bulalacao Bay, Calapan and Puerto Galera, Mindoro. Masbate Island. Cebu and Bantayan Island, Cebu. Inabanga, Bohol. Dumaguete, Negros Oriental Province. Cuyo Island, Cuyo Islands. Puerto Princesa, Palawan. Balabac Island. Samal Island, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Bungau, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Calapan, Mindoro; Culion; Dumaguete; Cebu, Cebu. Sitan-kai, Sulu Province. Herre, Fishes, 1940-41 Exped.; Coron, Busuanga Island; Murcielagos Bay, Misamis Occidental Province, Mindanao. Herre, Mem. Indian Mus., vol. 13, p. 372, 1941; Andaman Islands; Philippines; China; East Indies.

Theutis virgata Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 60, p. 565, 1870; Singapore.

Teuthis virgatus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 546, 1904; Padang, Sumatra.

Siganus virgatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Manila, Luzon; Panay, Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, 1907; Bacon, Sorsogon Province. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 247, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 271, 1908; Cuyo, Cuyo Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Calapan, Mindoro. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 327, 1929; Sabtang Island, Batanes Province. Port San Pio Quinto, Camiguin Island, Babuyan Islands, Palau Island and Port San Vicente, Cagayan Province; Port Matalvi and Masinloc Bay, Zambales Province; Grande Island Reef, Subig Bay, and Pucot River, Mariveles, Bataan Province; Pagapas Bay, and Port Hamilo, Batangas Province; Capulaan Bay, Pagbilao Island and Alibijaban Island, Ragay Gulf, Tayabas Province; Canimo Island and Maculabo Island, Camarines Norte Province; Galvaney Island, Ragay Gulf and Lahuy Island, Camarines Sur Province; Bacon, Gubat, Matnog Bay and Langaog Point, Sorsogon Province, Luzon. Tilik, Lubang Island, Varadero Bay, Mansalay, Sablayan, and Paluan Bay, Mindoro. Port Banalacan, Marinduque Island. Romblon Harbor, Romblon Island. Busin Harbor and Alimango Bay, Burias Island. Cataingan Bay, Masbate Reef, and San Miguel Harbor, Masbate Island. Lode Bay, Destacado Island, between Masbate and Samar. Nabatas Point, Samar. Port Dupon and San Roque, Leyte. Calangaman Island, Cebu, and Mactan Island, Cebu Province. Iloilo, Iloilo Province, Panay. Port Caltom, Busuanga. Ulugan Bay, Bolalo Bay, Guntao Island, and Malcochin Harbor, Linapacan Island, Palawan. Port Ciego and Bugsuk Island, Balabac. Surigao, Lianga Bay, and Port Capungan, Surigao Province; Zamboanga, Zamboanga Province, Mindanao. Cagayan Sulu Island, Siasi, Simaluc Sibi, Tumindao, Taganak, Tara, and Tataan Islands, Sulu Province.

Genus 425. LO Seale.

The East Indies, Philippines, Pelew, Caroline, and Solomon Islands.

Lo Seale, Occas. Pap. Bishop Mus., vol. 4, p. 71, 1906; type *Siganus vulpinus* (Schlegel and Müller). Herre, Philippine Jour. Sci., vol. 35, p. 181, 1928.

1322. Lo unimaculatus Evermann and Seale.

A Philippine and Malayan species.

Lo unimaculatus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 98, fig. 19, 1907; Bacon, Sorsogon Province, Luzon. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 181, pl. 3, fig. 2, 1928; Elefante Island, Marinduque Province; Tagapula Island, Samar. Cebu, Cebu. Herre, Fishes, 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao, Philippines.

Siganus vulpinus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8; synonymy in part and specimens listed under 1, p. 333 and first 2 lines, p. 334, 1929; Maculabo Island, Camarines Norte Province; Atulayan Island, Palag Bay, Batan Island, RapuRapu Island, and Paron Point, Albay Gulf, Albay Province, Luzon. Pandanon Island, Bohol. Cebu market, Cebu. Polloc, Cotabato Province; Pujada, Davao Province; and Point Capungan, Surigao Province, Mindanao.

1323. Lo vulpinus (Schlegel and Müller).

The East Indies, Philippines, Pelew, Caroline, and Solomon Islands.

Amphacanthus vulpinus Schlegel and Müller, Verh. Natur. Gesch. Leiden., vol. 2, p. 13, 1844; Moluccas; Celebes. Bleeker, Jour. Indian Archipelago, vol. 3, pp. 67, 68, 1849; Celebes. Schlegel, Bijdr. Dierk., vol. 1, p. 38, fig. 1, 1852; East Indies. Weber, *Siboga*-Exped., vol. 57, Fische, p. 330, 1913; Gisser.

Teuthis vulpina Günther, Cat. Fishes British Mus., vol. 3, p. 324, 1861; Celebes. Günther, Fische der Südsee, vol. 1, p. 91, 1873; East Indies; Solomon and Pelew Islands. Meyer, Ann. Soc. España Hist. Nat. Madrid, vol. 14, p. 22, 1885; Manado and Macassar, Celebes.

Lo vulpinus Seale, Occas. Papers Bishop Mus., vol. 4, p. 71, fig. 19, 1906; Alu Island, Solomon Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 361, fig. 67, 1906; Alu Island, Solomon Islands. Herre and Montalban, Philippine Jour. Sci., vol. 35, p. 182, pl. 6, 1928; Cala-

pan and Bulalacao Bay, Mindoro. Sibuyan Island. Bennett Island, Masbate Province. Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Calapan, Mindoro; Culion; Jolo, Sulu Province, Philippines. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 259, 1936; Tenibuli, Ysabel Island, Solomon Islands. Herre, Fishes, 1936-37 Exped.; Singapore, Malaya. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Siganus vulpinus Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 59, 1922; Zamboanga, Zamboanga Province, Mindanao, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 285, 1928; Alu, Solomon Islands; Ponapé, Caroline Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 332, 1929; synonymy in part and specimens listed under 2, p. 334: Port Matalvi, Zambales Province; Port Hamilo, and Pagapas Bay, Batangas Province; Paron Point, Albay Gulf, Albay Province; Matnog Bay, Sorsogon Province, Luzon. Mansalay, Mindoro; Allmango Bay, Burias Island; Port Caltom, and Port Uson, Busuanga Island. Ulugan Bay and Endeavor Strait, Palawan. Caxisigan Island, Balabac. Murcielagos Bay, Misamis Occidental Province; Parang and Polloc, Cotabato Province; Zamboanga, Zamboanga Province, Mindanao. South Lagoon, Tumindao Island, and Tara Island, Sulu Province, Philippines. Also 8 East Indian localities.

Order Z. CATAPHRACTI

Family 154. SCORPÆNIDÆ

A large family, mostly of small- to medium-sized marine fishes, usually armed with venomous spines with which its members inflict very painful wounds. The larger scorpion fishes are desirable food fishes, and many in more northern waters are valuable market fishes. Some species enter rivers.

Most of the Philippine scorpaenids are reef dwellers along shore but some live at depths from 25 meters to more than 650 meters. Intensive study of the catches made by both beam and otter trawlers in various parts of the Islands will show that many now known from a single Philippine specimen are rather common. It will undoubtedly, also reveal the presence of other species as yet unknown in Philippine waters, or even new to science.

Genus 426. *AMBLYAPISTUS* Bleeker.

The East Indies and Philippines.

Amblyapistus Bleeker. Acad. Royale Neerlandaise Sciences, vol. 16, p. 70, 1876; type, *Apistus taenianotus* Cuvier and Valenciennes.

1324. *Amblyapistus crista-galli* (Günther).

A Philippine species.

Apistus taenianotus Richardson, Zoology, Voy. Samarang, Fishes, p. 5, pl. 4, figs. 1 and 2, 1848.

Tetraroge crista-galli Günther, Cat. Fishes British Mus., vol. 2, p. 134, 1860; Philippines.

Amblyapistus crista-galli Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Dumaguete.

1325. *Amblyapistus macracanthus* (Bleeker).

The East Indies, Philippines, and Andaman Islands; marine.

Apistus macracanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 267, 1852; Wahai, Ceram. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 107, 1862; Batjan.

Tetraroge macracanthus Günther, Cat. Fishes British Mus., vol. 2, p. 133, 1860; Sea of Wahai, North Ceram; after Bleeker.

Amblyapistus macracanthus Day, Fishes India, p. 158, pl. 38, fig. 3, 1875 (1878); Andaman Islands. Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 73, pl. 1, fig. 1, 1876; Batjan; Wahai, Ceram. Herre and Herald, 1948; near Corregidor, Manila Bay, Luzon; taken by beam trawl.

1326. *Amblyapistus taenianotus* (Cuvier and Valenciennes).

The East Indies and Philippines.

Apistus taenianotus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 257, 1829. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 557, 1852; Amboina.

Platypterus taenianotus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 265, 1839.

Tetraroge taenianotus Günther, Cat. Fishes British Mus., vol. 2, p. 136, 1860; (?) Japan; Madras, India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 21, 1885; Cebu, Cebu.

Amblyapistus taenianotus Weber, *Siboga*-Exped., vol. 57, Fische, p. 498, 1913; Philippines. Herre, Fishes 1940-41 Exped.; Dumaguete.

Genus 427. APISTUS Cuvier, emended.

Small fishes on the reefs of the Indo-Pacific, from India to Japan, Australia, and South Africa.

Apistus Cuvier, Règne Animal, vol. 2, p. 167, 1829; type, *Apistus alatus* Cuvier. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 58, 1876. Day, Fishes India, p. 154, 1878. Matsubara, Trans. Sigen Kagaku Kenkyusho, No. 2, p. 395, 1943.

Pterichthys Swainson, Nat. Hist., Animals, Fishes, vol. 2, p. 265, 1839; type, *Scorpaena carinata* Bloch and Schneider.

Polemus Kaup, Archiv Naturges., vol. 24, p. 333, 1858; type, *Apistus alatus* Cuvier and Valenciennes.

1327. Apistus alatus Cuvier and Valenciennes.

Known from the coasts of India, Java, the Philippines, China, and Japan. A number of species have been described, but Day and Matsubara reduce them all to synonyms of *Apistus carinatus* (Bloch and Schneider). A comparison of the types is necessary to verify such identification, and until that is done it appears desirable to retain *A. alatus* as there is no doubt of its type. The synonymy involving *A. carinatus* and other described forms is, therefore, omitted.

Apistus alatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 289 (392), 1829. Schlegel, Fauna Japonica, Pisces, p. 49, pl. 22, fig. 2, 1843; Nagasaki. Günther, Cat. Fishes British Mus., vol. 2, p. 131, 1860; Madras. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 59, pl. 3, fig. 5, 1876; Batavia, Java; Kiusiu Island, Japan. Bleeker, Atlas Ichth., vol. 9, pl. 412, fig. 6, 1878. Ishikawa and Matsuura, Cat. Fishes, p. 50, 1897; Sagami Bay, Japan. Herre and Herald, Collections of Philippine Fishery Program, October 1947; China Sea, west coast of Cavite Province, Luzon.

Genus 428. BRACHYPTEROIS Fowler.

The Philippines and Bay of Bengal.

Brachypterois Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 79, 1938; type, *Brachypterois serrulifer* Fowler.

1328. Brachypterois serrulifer Fowler.

The Philippines and Bay of Bengal.

Brachypterois serrulifer Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 79, fig. 35, 1938; off San Fernando Point Light, La Union Province, Luzon, Philippines. Herre, Indian Zool. Survey, 1941; abundant at mouth of Hugli River; off Arakan; and off Gopalpur, all in the Bay of Bengal, India. Herre, Fishes 1940-41 Exped.; Manila Bay and Ragay Gulf, Luzon. Herre, 1948 Collection; Manila Bay, Luzon.

Genus 429. DENDROCHIRUS Swainson. Zebra fishes.

Tropical Indo-Pacific, from Africa to the Hawaiian Islands, Gilbert, Fiji, and Samoan Islands.

Dendrochirus Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 180, 1839; type *Pterois zebra* Cuvier and Valenciennes.

1329. Dendrochirus brachypterus (Cuvier and Valenciennes).

East coast of Africa to the Philippines, East Indies, Australia, and the Hawaiian and Samoan Islands.

Pterois brachypterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 70, 1829. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 265, 1852; Amboina; Ceram. Günther, Cat. Fishes British Mus., vol. 2, p. 126, 1860; Amboina. Klunzinger, Synopsis Fische Rothen Meeres, Verh. Zool.-Bot. Ges. Wien, vol. 20, p. 808, 1870; Red Sea. Günther, Fische der Südsee, vol. 1, p. 82, 1874; Samoa; Pelew Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 497, 1913; Pearl Bank, Sulu Archipelago, Philippines.

Pseudomonopterus brachypterus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 148, 1865; Buru.

- Pseudomonopterus (Dendrochirus) brachypterus* Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 53, pl. 3, fig. 3, 1876; Celebes; Solor; Ceram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 415, fig. 3, 1877.
- Dendrochirus brachypterus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 378, 1906. Fowler, Mem. Bishop Mus., vol. 10, p. 295, 1928; Hawaiian Islands; synonymy in part (?). Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Dumaguete; Sitankai, Sulu Province. Herre, Philippine Collection 1948; Puerto Galera, Mindoro.
- Pterois brachyptera* Barnard, Ann. South African Mus., vol. 21, p. 914, 1927; Natal coast, South Africa.

1830. *Dendrochirus zebra* (Cuvier and Valenciennes).

- Tropical Indo-Pacific, from Natal and Mauritius to the East Indies, Philippines, China, Guam, Fiji, and Gilbert Islands; Luzon, Cebu, Oriental Negros, and Sulu Province in the Philippines.
- Pterois zebra* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 270, 1829; Mauritius. Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 329, 1825; Koepang Bay, Timor. Cuvier, Règne Animal, Poissons, pl. 24, fig. 1, 1829. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 692, pl. 11, fig. 6, 1834; New Guinea. Bleeker, Jour. Indian Archipelago, vol. 3, pp. 66 and 68, 1849; Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 265, 1852; Amboina; Ceram. Günther, Cat. Fishes British Mus., vol. 2, p. 126, 1860; Amboina; China; Madagascar. Günther, Fische der Südsee, vol. 1, p. 82, 1873-75; Pelew Islands. Garman, Bull. Mus. Comp. Zool., vol. 39, p. 239, 1903; Suva, Fiji. Barnard, Ann. South African Mus., vol. 21, p. 915, 1927; Natal coast.
- Pseudomonopterus zebra* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.
- Pseudomonopterus (Dendrochirus) zebra* Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 50, 1876; Sumatra; Batu; Nias; Bali; Celebes; Timor, Ternate; Buru; Ceram; Amboina; Banda Neira; Aru; Wai-giu; Rawak. Bleeker, Atlas Ichth., vol. 9, pl. 411, fig. 1, 1878.
- Dendrochirus zebra* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 378, 1906. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 103, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 294, 1928; Guam; Gilbert Islands; Fiji. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Dumaguete. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. Herre, Mem. Indian Mus., vol. 13, p. 272, 1941; Madagascar; Philippines; Pelews; Guam; Fiji. Herre, Philippine Collection 1948; Cebu.

Genus 430. GYMNAPISTES Swainson.

India, the East Indies, and Philippines.

Gymnapistes Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 265, 1839; type, *Apistus marmoratus* Cuvier and Valenciennes.

Gymnapistus Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 83, 1876.

1831. *Gymnapistes leucogaster* (Richardson).

A small stinging fish ranging from the coast of China to the Philippines, East Indies, and westward in the Indian Ocean to Zanzibar.

Apistus leucogaster Richardson, Zoology, Voy. *Samarang*, Fishes, p. 5, pl. 5, figs. 1-2, 1848; Sea of China. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 111, 1853; Amboina.

Prosopodasys leucogaster Günther, Cat. Fishes British Mus., vol. 2, p. 141, 1860; China. Kner and Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 58, p. 309, 1868. Playfair, Proc. Zool. Soc. London, p. 240, 1869; Zanzibar.

Gymnapistus leucogaster Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 88, pl. 4, fig. 1, 1876; Amboina; Ceram; Timor. Weber, *Siboga*-Exped., vol. 57, Fische, p. 502, 1913; Lombok.

Gymnapistes leucogaster Herre, Philippine Collection 1948; Manila Bay, Luzon.

1332. *Gymnapistes niger* (Cuvier and Valenciennes).

India, East Indies, Andaman Islands, and Philippines.

Aptistus niger Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 305 (415), 1829; mouth of Ariancoupang River, Pondicherry, India.
Prosopodasys niger Günther, Cat. Fishes British Mus., vol. 2, p. 141, 1860; Amboina.

Gymnapistus niger Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 86, 1876; Sumatra; Nias; Bali; Celebes; Buru; Amboina. Weber, Nova Guinea, vol. 5, p. 263, 1908; Klipong River, north New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 297, 1928; after Günther. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; vicinity of Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 65, 1934; Nasugbu, Batangas Province, and Unisan, Tayabas Province, Luzon. Tanjay River, Negros Oriental Province. Herre, Mem. Indian Mus., vol. 13, p. 372, 1914; India; East Indies; Philippines. Herre, Fishes 1940-41 Exped.; Old Ayukitan, Negros Oriental Province; Cagayan River, Cagayan, Misamis Oriental Province, Mindanao. Herre, 1948 Philippine Collection; Bangan Labad River, Villar, Zambales Province, Luzon, 42 kilometers from the sea; collected by Robert Fox, anthropologist, Philippine National Museum.

Genus 431. **HIPPOSCORPAENA** Fowler.

A Philippine genus with one species.

Hipposcorpaena Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 71, 1938; type, *Hipposcorpaena filamentosa* Fowler.

1333. *Hipposcorpaena filamentosa* Fowler.

Hipposcorpaena filamentosa Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 72, fig. 31, 1938; Linao Point, Gulf of Davao, Davao Province, Mindanao.

Genus 432. **HYPOMACRUS** Evermann and Seale.

A Philippine genus with one known species.

Hypomacrus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 101, 1907; type *Hypomacrus albaiensis* Evermann and Seale.

1334. *Hypomacrus albaiensis* Evermann and Seale.

Hypomacrus albaiensis Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 102, fig. 20, 1907; Bacon, Sorsogon Province, Luzon.

Genus 433. **MACROSCORPIUS** Fowler.

A Philippine genus with one known species.

Macroscorpius Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 75, 1938; type *Macroscorpius pallidus* Fowler.

1335. *Macroscorpius pallidus* Fowler.

Macroscorpius pallidus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 76, fig. 33, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao.

Genus 434. **MERINTHE** Snyder.

Hawaiian Islands to the Philippines.

Merinthe Snyder, Bull. U. S. Fish Commission, vol. 22, p. 535, 1902; *Merinthe macrocephala* (Sauvage).

1336. *Merinthe nematophthalma* (Günther).

This is a West Indian fish, and Dr. Günther's record should be considered doubtful, pending a re-examination of his specimen. At the same time it must be recognized that Philippine scorpaenid fishes living at a depth of 25 meters or more are imperfectly known.

Sebastes nematophthalmus Günther, Cat. Fishes, British Mus., vol. 2, p. 99, 1860; West Indies; Ile de France(?). Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 52, 1880; Station 201, Philippines, at 82 fathoms.

Genus 435. **NEMAPONTINUS** Fowler.

A Philippine genus with one species.

Nemapontinus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 73, 1938; type, *Nemapontinus tentacularis* Fowler.

1337. *Nemapontinus tentacularis* Fowler.

Nemapontinus tentacularis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 73, fig. 32, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao; Malavatuan Island, Lubang Islands, off northwest corner of Mindoro.

Genus 436. NEMAPTEROIS Fowler.

A Philippine genus with one known species.

Nemapterois Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 81, 1938; type, *Nemapterois biocellatus* Fowler.

1338. *Nemapterois biocellatus* Fowler.

Nemapterois biocellatus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 81, fig. 36, 1938; off Jolo Light, Jolo, Sulu Province.

Genus 437. PARACENTROPOGON Bleeker.

China, the Philippines, East Indies, India, and Ceylon.

Paracentropogon Bleeker Verh. Akad. Amsterdam, vol. 16, p. 66, 1876; type, *Paracentropogon longispinis* (Cuvier and Valenciennes).

1339. *Paracentropogon indicus* (Day).

Centropogon indicus Day, Fishes India, p. 155, pl. 38, fig. 2, 1878; Madras. *Paracentropogon indicus* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 280, 1908; Cuyo, Cuyo Islands, the Philippines.

1340. *Paracentropogon longispinis* (Cuvier and Valenciennes).

Apistus longispinis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 408, 1829. Quoy and Gaimard, Voy. *Astrolabe*, Poissons, p. 694, pl. 11, fig. 4, 1834.

Apistus fuscovirens Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 301 (409), 1829. Quoy and Gaimard, Voy. *Astrolabe*, Poissons, p. 695, pl. 11, fig. 5, 1834. Bleeker, Nat. Tijds, Ned.-Ind., vol. 3, p. 269, 1852; Amboina; Ceram.

Platypterus fusco-virens Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 265, 1839.

Apistes multicolor Richardson, Zoology, Voy. *Samarang*, Fishes, p. 3, pl. 4, figs. 3 and 4, 1848.

Apistus hypselopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 238, 1851; Banda Islands.

Tetraoge longispinis Günther, Cat. Fishes British Mus., vol. 2, p. 134, 1860; Borneo; Amboina; Bengal, India; Ceylon. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 52, 1880; Philippines.

Centropogon fuscovirens Günther, Cat. Fishes British Mus., vol. 2, p. 130, 1860; after Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 21, 1885; Cebu, Cebu.

Gymnapistus hypselopterus Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 360, 1864; Saparua.

Paracentropogon longispinus Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 67, 1876; Singapore; Celebes; Borneo; Buru; Ceram; Amboina; Saparua; Banda Neira. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 230, 1908; Cuyo, Cuyo Islands, Philippines. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Unisan, Tayabas Province, Luzon. Herre, 1948 Philippine Collection; near Corregidor, Manila Bay, Luzon.

? *Centropogon robustus* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 20, 1885; Cebu, Cebu. This is an Australian fish and its occurrence in the Philippines is improbable.

Genus 438. PARASCORPAENA Bleeker.

The East Indies, Philippines, Solomon Islands, Samoa, and Marianas.

Parascorpaena Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 23, 1876; type, *Scorpaena picta* Kuhl and Van Hasselt.

1341. *Parascorpaena bandanensis* (Bleeker).

The East Indies and Philippines to the Marianas, Fiji and Samoan Islands, and Australia.

Scorpaena Bandanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 237, 1851; Banda Neira. Weber, *Siboga*-Exped., vol. 57, Fische, p. 495, 1913; Sanguisapo, Sulu Archipelago.

Scorpaena aplodactylus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 698, 1859; Ceram.

Scorpaena haplodactylus Günther, Cat. Fishes British Mus., vol. 2, p. 117, 1860; Fiji Islands (?); not of Day. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 56, p. 311, 1867; Cape York, Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 20, 1885; Cebu, Cebu.

Parascorpaena bandanensis Bleeker, Verh. Akad. Amsterdam, vol. 16,

p. 26, pl. 2, fig. 2, 1876; 18 East Indian localities. Fowler, Mem. Bishop Mus., vol. 10, p. 285, 1928; after Bleeker.

Scorpaena mcadamasi Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 60, fig. 24, 1938; off Jolo Light, Jolo, Sulu Province; Linao Pt., Gulf of Davao, Davao Province, Mindanao.

1342. *Parascorpaena picta* (Cuvier and Valenciennes).

The East Indies and Philippines.

Scorpaena picta Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 236 (321), 1829; Java; after Kuhl and Van Hasselt. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1022, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 2, p. 114, 1860; Celebes; Pinang. Bleeker, Verh. Akad. Amsterdam, vol. 12, p. 31, 1861; Singapore.

Scorpaena polyprion Bleeker, Verh. Bat. Gen., vol. 22, Scleroparei, Sunda-Molukschen Archipelago p. 7, 1849. Günther, Cat. Fishes British Mus., vol. 2, p. 115, 1860; Amboina, Borneo; Ceylon.

Parascorpaena picta Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 25, pl. 2, fig. 4, 1876; 25 East Indian localities. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 287, 1927; Vigan, Ilokos Sur Province, Luzon.

Genus 439. **PHENACOSCORPIUS** Fowler.

Phenacoscorpius Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 69, 1938; type, *Phenacoscorpius megalops* Fowler.

1343. *Phenacoscorpius megalops* Fowler.

Phenacoscorpius megalops Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 70, fig. 30, 1938; Bagatao Island Outer Light, entrance to Sorsogon Bay, Sorsogon Province, Luzon.

Genus 440. **PTEROIS** (Cuvier) Oken. Zebrafishes; Lionfishes.

Beautiful but dangerous coral-reef fishes of the tropical Indo-Pacific.

Pterois (Cuvier) Oken, Isis, p. 1183, 1817; type, *Scorpaena volitans* Bloch. Günther, Cat. Fishes British Mus., vol. 2, p. 122, 1860; in part. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 141, 1904. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 463, 1905. Barnard, Ann. South African Mus., vol. 21, p. 911, 1927; omitting *Dendrochirus* Swainson.

Macrochyrus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 264, 1839; type, *Scorpaena miles* Bennett.

Pteroleptus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 264, 1839; type, *Pteroleptus longicauda* Swainson.

Pteropterus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 265, 1839; type, *Pterois radiatus* Cuvier and Valenciennes.

Pseudomonopterus Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 40, 1876; omitting *Dendrochirus* Swainson.

1344. *Pterois antennata* (Bloch).

Tropical Indo-Pacific from Mauritius to the Philippines, China, and Guam, and through Polynesia to the Tuamotu and Marquesas Islands. *Scorpaena antennata* Bloch, Naturges. Ausländ. Fische, vol. 3, p. 21, pl. 185, 1787.

Pterois antennata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 265 (361), 1829; Waigi. Lesson, Voy. *Coquille*, Poissons, vol. 2, p. 212, 1830; Offack Bay, Waigi. Bleeker, Verh. Bat. Gen., vol. 22, Scleroparei, p. 4, 1849. Günther, Cat. Fishes British Mus., vol. 2, p. 124, 1860; Cochín-China; China; Amboina; Pearl Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 497, 1913; Sanguisiapo, Sulu Province, Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 288, 1927; Calapan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 292, 1928; Guam; Ebon Island, Marshall Islands; Makatea, Tuamotu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 64, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 264; 1936; Tenibuli, Ysabel Island, Solomon Islands. Herre, 1948 Philippine Collection; Layia, Batangas Province, Luzon; Dumaguete, Negros Oriental Province.

Pseudomonopterus antennatus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.

- Pseudomonopterus (Pterois) antennatus* Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 368, 1864; Aru Islands. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 48, 1876; 14 East Indian localities. Bleeker, Atlas Ichth., vol. 9, pl. 413, fig. 5, 1878.
- 1345. *Pterois lunulata* Schlegel.**
Japan to the Philippines and Singapore.
Pterois lunulata Schlegel, Fauna Japonica, Pisces, p. 46, pl. 15, 1842; Nagasaki. Richardson, Ichth. China Japan, p. 213, 1846; Canton, China. Günther, Cat. Fishes British Mus., vol. 2, p. 124, 1860; Japan. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 60, p. 561, 1870; Singapore. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 142, 1904; Tokyo, Misaki, Yokohama, and Wakanoura, Japan. Herre, Fishes 1940-41 Exped.; Brooke's Point, Palawan, Philippines.
Pseudomonopterus (Pterois) lunulata Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 47, 1876; Singapore; Japan.
- 1346. *Pterois russelli* (Bennett).**
From the east coast of Africa to India, the East Indies and the Philippines, and southeast to Australia.
Kodipungi Russell, Fishes of Coromandel, vol. 2, p. 25, pl. 133, 1803; Vizagapatam, India.
Pterois Russellii Bennett, Proc. Zool. Soc. London, vol. 1, p. 128, 1831; Mauritius.
Pterois kodipungi Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 350, 1852; Banka. Günther, Cat. Fishes British Mus., vol. 2, p. 124, 1860; Australia. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon, Philippines. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 913, 1927; Natal coast, South Africa.
Pseudomonopterus (Pterois) kodipungi Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 45, 1876; Sumatra; Batu; Nias; Singapore; Banka; Java; Celebes.
Pterois russellii Day, Fishes India, p. 152, pl. 36, fig. 5, 1878; Madras.
Pterois russelli Herre, 1940-41 Philippine Exped.; Iloilo, Iloilo Province, Panay, Philippines. Herre, 1948 Philippine Collection; Manila Bay, Luzon.
- 1347. *Pterois volitans* (Linnaeus).** Tandang; Lolong.
East Coast of Africa through the East Indies and Philippines to the Riu Kiu, Bonin, and Pelew Islands, Australia, and the Marshall, Society, and Marquesas Islands.
Gasterosteus volitans Linnaeus, Syst. Nat., ed. 10, p. 296, 1758; Amboina.
Scorpaena volitans Bloch, Naturges. Ausländ. Fische, vol. 3, p. 18, pl. 184, 1787. Bennett, Fishes Ceylon, pl. 1, 1830; Ceylon.
Pterois volitans Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 258, fig. 88, 1829. Rüppell, Neue Wirbel, Fische Rothen Meeres, p. 107, 1835; Red Sea. Günther, Cat. Fishes, vol. 2, p. 122, 1860; Egypt; South Africa; Cape of Good Hope; Madras; China; Amboina; Sydney, Australia. Günther, Fische der Südsee, vol. 1, p. 81, 1873-75; Society Islands; Pelew Islands. Day, Fishes India, p. 153, pl. 37, figs. 1, 2, 1878; Madras. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 379, pl. 51, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 103, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Copeia, No. 53, p. 65, 1918; Philippines. Herre, Philippine Bureau Science Collection; 1921-28; Calapan and Puerto Galera, Mindoro; Sibuyan Island; Bantayan Island, Cebu Province, Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 202, 1928; Jaluit and Ebon Island, Marshall Islands; Apia, Samoa; Nukahiva, Marquesas Islands; Kusaie, Caroline Islands; Guam. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Culion; Dumaguete; Jolo and Sitankal, Sulu Province.
Pseudomonopterus volitans Bleeker, Ned. Tijds. Dierk., vol. 1, p. 234, 1863; Ternate.
Pseudomonopterus (Pterois) volitans Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 42, 1876; 30 East Indian localities.

Genus 441. SCORPAENA Linnaeus.

In all warm seas.

Scorpaena Linnaeus, Syst. Nat., ed. 10, p. 266, 1758; type *Scorpaena porcus* L. Günther, Cat. Fishes, vol. 2, p. 107, 1860; in part. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 131; 1904. Fowler, Marine Fishes West Africa, p. 918, 1936; in part.

1348. *Scorpaena amplisquamiceps* Fowler.

A Philippine species.

Scorpaena amplisquamiceps Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 55, fig. 21, 1938; Matoco Point, Batangas Bay, Batangas Province, Luzon; Verde Island Passage; Philippine Seas.

1349. *Scorpaena gibbifrons* Fowler.

A Philippine species.

Scorpaena gibbifrons Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 58, fig. 23, 1938; Cabugan Grande Island, east coast of Leyte.

1350. *Scorpaena hemilepidota* Fowler.

A Philippine species.

Scorpaena hemilepidota Fowler, Proc. U. S. Nat. Mus., vol. 85, fig. 26, 1938; 5 miles northeast of Tubig Point, between Samar and Masbate.

1351. *Scorpaena kaufmani* Herre.

A Philippine species.

Scorpaena kaufmani Herre, Philippine Collection 1948; taken by native trawler in Manila Bay, Luzon.

1352. *Scorpaena megalepis* Fowler.

A Philippine species.

Scorpaena megalepis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 56, fig. 22, 1938; type from the China Sea near Hong Kong; paratypes from the China Sea and the Philippines.

1353. *Scorpaena pallidimacula* Fowler.

Scorpaena pallidimacula Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 61, fig. 25, 1938; Uanivan Island, Pujada Bay, Davao Province, Mindanao.

1354. *Scorpaena taeniophrys* Fowler.

A Philippine species.

Scorpaena taeniophrys Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 66, fig. 12, 1943; Cammahana (?) Bay, Luzon.

Genus 442. SCORPAENODES Bleeker.

Small scorpionfishes of the tropical Indo-Pacific, West African coast, west coast of Mexico, and South America.

Scorpaenodes Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 371, 1857; type *Scorpaenodes polylepis* Bleeker = *S. guamensis* Quoy and Gaimard. Fowler, Marine Fishes West Africa, p. 1307, 1936. Matsubara, Trans. Sigenk. Kenkyusho, No. 2, p. 274, 1943.

Sebastes Gill, Proc. Acad. Nat. Sci. Phila., p. 278, 1862; type *Sebastes polylepis* Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 21, 1876.

1355. *Scorpaenodes guamensis* (Quoy and Gaimard). Guam stinging fish.

Red Sea to the Philippines, East Indies, Australia, Guam, Carolines, Pelew, Fiji, Samoan, and Society Islands. Occurs throughout the Philippines.

Scorpaena guamensis Quoy and Gaimard. Voy. Uranie, Zoologie, p. 326, 1824; Guam. Günther, Fische der Südsee, vol. 1, p. 74, pl. 56, fig. B., 1873-75; Carolines; Samoa; Tonga; Pelew Islands; Society Islands.

Sebastes minutus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 255, 1829; Moluccas; Marianas; Society Islands.

Scorpaena polylepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 173, 1851.

Scorpaenichthys polylepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 232, 1856-1857; Batu Islands.

Scorpaenodes polylepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 371, 1857; Sangi Island, Sangir Islands.

Scorpaenopsis polylepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 353, 1859; Bawean.

Sebastes polylepis Günther, Cat. Fishes British Mus., vol. 2, p. 106, 1860; Amboina; East Indies. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 20, 1885; Cebu, Cebu.

Sebastes polylepis Gill, Proc. Acad. Nat. Sci. Phila., p. 278, 1862. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 21, pl. 4, fig. 2, 1876;

- Manado and Gorontalo, Celebes; Sangi Island, between Celebes and Mindanao; Ternate; Buru; Ceram; Amboina; Goram; Aru.
- Sebastopsis guamensis* Streets, Bull. U. S. Nat. Mus., vol. 7, p. 76, 1877; Samoa. Fowler, Proc. Acad. Nat. Sci. Phila., p. 521, 1900; Tahiti. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 374, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 279, 1908; Calayan, Babuyan Islands, north of Luzon. McCulloch, Records Australian Mus., vol. 9, p. 388, 1913; Samoa; New Hebrides; Tongatabu; Bougainville Island; Duke of York Island. Fowler, Copeia, No. 58, p. 65, 1918; Philippines.
- Sebastopsis erinacea* Garman, Bull. Mus. Comp. Zool., vol. 39, p. 231, pl. 1, fig. 2, 1903; Viti Levu, Fiji.
- Sebastapistes guamensis* Seale, Occas. Papers Bishop Mus., vol. 4, p. 80, 1906; Tahiti; Nukahiva, Marquesas Islands; Faté, New Hebrides; Shortland Island, Solomon Islands.
- Sebastis guamensis* Weber, *Siboga*-Exped., vol. 57, Fische, p. 490, 1913; Sanguisiapo, Sulu Archipelago.
- Sebastes (Sebastopsis) guamensis* de Beaufort, Bidjr. Dierk. Amsterdam, vol. 19, p. 148, 1913; Saonek, New Guinea.
- Scorpaenodes guamensis* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 288, 1927; Philippines; Padang, Sumatra. Herre, Philippine Bureau Science Collection 1922-26; Puerto Galera, Mindoro; Tubigan and Sibutu, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 289, 1928; Tahiti; Apia and PagoPago, Samoa; Shortland Island; Faté; Guam. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Culion; Nasugbu, Batangas Province, Luzon; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 261, 1936; Wala Island and Malo Island, New Hebrides; Maraa, Tahiti. Herre, Fishes, 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province.
- 1356. *Scorpaenodes scabra* (Ramsay and Ogilby).**
Australia to the Philippines, Caroline and Marshall Islands, and east to BoraBora and Tahiti.
Sebastes scaber Ramsey and Ogilby, Proc. Linn. Soc. New South Wales, vol. 10, p. 577, 1885; Shark Reef, Australia.
Sebastopsis scabra Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 791, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 374, fig. 71, 1906; Apia and PagoPago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Cavite, Cavite Province, Luzon; Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 102, 1907; Bacon, Sorsogon Province, Luzon. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 314, 1911; BoraBora, Society Islands; Kusaie, Caroline Islands.
Scorpaenodes scabra Fowler, Mem. Bishop Mus., vol. 10, p. 290, 1928; Apia, Samoa; Kusaie and Ponapé, Carolines; Ebon Island, Marshall Islands; Tahiti; Guam; Faté. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 65, 1934; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 262, 1936; Tahiti; Ovalau and Nukulan Islands, Fiji; Malo Island, New Hebrides. Herre, 1948 Coll.; Bojelebung Channel, Basilan Island; also Siliuag Island, Sulu Province.
- Genus 443. SCORPAENOPSELLA Fowler.**
A Philippine genus with one species.
Scorpaenopsella Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 67, 1938; type, *Scorpaenopsella armata* Fowler.
- 1357. *Scorpaenopsella armata* Fowler.**
Scorpaenopsella armata Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 68, fig. 29, 1938; Sombrero Island in Verde Island Passage, and Balayan Bay, Batangas Province, Luzon.
- Genus 444. SCORPAENOPSIS Heckel.**
Tropical and warm temperate Indo-Pacific.
Scorpaenopsis Heckel, Ann. Wiener Mus., vol. 2, p. 158, 1837; type *Scorpaena nesogallica* Cuvier and Valenciennes. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 28, 1876. Jordan and Fowler, Proc. U. S. Nat.

Mus., vol. 27, p. 136, 1904. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 467, 1905. Barnard, Ann. South African Mus., p. 904, 1927.

1358. *Scorpaenopsis cirrhosa* (Thunberg). Tamalingking.

Southern Japan to the Philippines, East Indies, Red Sea, and Natal coast; east in the Pacific to the Society Islands.

Perca cirrhosa Thunberg, Svenska Vet. Akad. Handlingar Stockholm, vol. 14, p. 199, pl. 7, lower figure, 1793; near Nagasaki, Japan.

Scorpaena cirrhosa Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 233 (318), 1829; Japan; Malabar, India. Schlegel, Fauna Japonica, Pisces, p. 42, pl. 17, figs. 2-3, 1842; Nagasaki. Günther, Cat. Fishes British Mus., vol. 2, p. 120, 1860; China; Japan; Amboina; Raoul Island. Günther, Fische der Südsee, vol. 1, p. 78, text figure, pl. 54, 1873-75; Tahiti, Society Islands.

Scorpaena oxycephalus Bleeker, Verh. Bat. Gen., vol. 22, p. 7, 1849.

Scorpaenichthys cirrhosus Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 402, 1856; Buru.

Scorpaenopsis oxycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 145, 1858-59; Bali. Bleeker, Nat. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon, Philippines.

Scorpaenopsis cirrhosus Bleeker, Acta Soc. Sci. Ind.-Neerl., vol. 6, p. 41, 1859. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 32, 1876; Singapore; Buru; Ternate; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 413, fig. 6, 1878. Fowler, Mem. Bishop Mus., vol. 10, p. 285, 1928; after Bleeker. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Dumaguete.

Scorpaenopsis oxycephala Sauvage, Nouv. Arch. Mus. Hist. Nat. Paris, vol. 8, p. 52, pl. 6, figs. 3 and 3a, 1873; Mariveles at the entrance to Manila Bay, Bataan Province, Luzon; also Seas of China.

Scorpaenopsis cirrhosa Day, Fishes India, p. 150, 1878. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 136, 1904; Wakanoura and Yokohama, Japan. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Panay, Philippines. Matsubara, Trans. Sigen Kagaku Kenkyusho, No. 2, p. 320, fig. 112, 1943; Numazu, Kobe, Simono-seki, and Nagasaki, Japan; Itoman, Okinawa. Herre, 1948 Philippine Collection; Siluag Island, Sulu Province; specimen very large, 255 mm. long.

Scorpaenopsis cirrosa Barnard, Ann. South African Mus., vol. 21, p. 905, 1927; Natal coast, South Africa.

1359. *Scorpaenopsis cotticeps* (Fowler).

A Philippine species.

Scorpaena cotticeps Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 65, fig. 27, 1938; Tingata (Tinaka) Island, north coast of TawiTawi, Sulu Province, Philippines.

1360. *Scorpaenopsis gibbosa* (Bloch and Schneider).

The East Indies, Philippines, Pelew Islands, Honolulu, east to Tahiti, west to Mauritius.

Scorpaena gibbosa Bloch and Schneider, Syst. Ichth., p. 192, pl. 44, 1801. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 31, 1856; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 119, 1860; after Bleeker.

Scorpaena nesogallica Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 232, 1829; Mauritius. Guerin, Iconographie Règne Animal de G. Cuvier, Poissons, pl. 13, fig. 2, 1829-1844. Günther, Cat. Fishes British Mus., vol. 2, p. 119, 1860; Mauritius.

Scorpaenopsis nesogallica Heckel, Ann. Wiener Mus., vol. 2, p. 159, 1840.

Scorpaenopsis gibbosus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 24, 1860; Sumatra. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 38, pl. 2, fig. 1, 1876; Sumatra; Nias; Celebes; Timor; Batjan; Ceram; Amboina; Banda Neira; Aru Islands. Bleeker, Atlas Ichth., vol. 9, pl. 411, fig. 5, and pl. 416, fig. 4, 1878. Fowler, Mem. Bishop Mus., vol. 10, p. 286, 1928; Gilbert, Marshall, Tuamotu, Society, and Marquesas Islands; Honolulu; Guam.

Scorpaena diabolus Kner, Reise Novara, Fische, p. 117, pl. 6, fig. 1, 1865; (not of Cuvier and Valenciennes).

- Scorpaenopsis catocala* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 201, 1903; Honolulu; Hilo. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, pl. 56, 1905.
- Scorpaenopsis gibbosa* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 468, pl. 56 and fig. 206, 1905; Honolulu, Oahu; Hilo; Hawaii. Barnard, Ann. South African Mus., vol. 21, p. 906, 1907; Natal coast. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 272, 1925; Kagoshima Bay, Japan. Herre, Fishes 1933-34 and 1936-37 Expeds.; Puerto Galera, Mindoro; Dumaguete, Negros Oriental Province. Herre, 1948 Collection; Cebu; Cuyo Island; Siluag Island, Sulu Province.
- 1361. Scorpaenopsis novae-guineae (Cuvier and Valenciennes).**
The East Indies, Philippines, and southeast to Samoa.
Scorpaena novae-guineae Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 235, 1829; New Guinea. Quoy and Gaimard, Voy. *Astrolabe*, Poissons, vol. 3, p. 687, pl. 11, fig. 1, 1834; Port Dorey, New Guinea.
Scorpaenopsis Novae-Guineae Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 34, pl. 4, fig. 3, 1876; Sumatra; Celebes; Ceram; Amboina; Waigiú; Rawak; New Guinea.
Scorpaenopsis novae-guineae Sauvage, Nouv. Arch., Mus. Hist. Nat. Paris, ser. 6, vol. 1, p. 129, 1878. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 792, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 375, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 38, 1907; Cavite, Cavite Province, Luzon; also Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 285, 1928; Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 65, 1934; Dumaguete. Herre, Fishes, 1940-41 Exped.; Kolambugan, Lanao Province, Mindanao.
- 1362. Scorpaenopsis stigma** Fowler.
A Philippine species.
Scorpaenopsis stigma Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 66, fig. 28, 1938; off Point Tagolo Light, northwest coast of Zamboanga Province, Mindanao.
- Genus 445. SEBASTAPISTES GILL.**
Small stinging fishes of the tropical Indo-Pacific.
Sebastapistes Gill, in Streets, Bull. U. S. Nat. Mus., vol. 7, p. 62, 1878; type, *Sebastes strongia* Cuvier and Valenciennes. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 455, 1905.
- 1363. Sebastapistes nivifer** Jordan and Seale.
A Philippine species.
Sebastapistes nivifer Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 791, fig. 10, 1905; Bais, Negros Oriental Province, Philippines. Herre, Philippine Bureau Science Collection, 1924-28; Iloilo, Panay; Kolambugan, Lanao Province, Mindanao; Cebu, Cebu.
- 1364. Sebastapistes nuchalis (Günther).**
Known from Honolulu, Rarotonga, Rotuma, and the Philippines.
Scorpaena nuchalis Günther, Fische der Südsee, vol. 1, p. 76, text figure, 1874; Rarotonga. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 59, 1890; Honolulu. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 373, 1897; Rotuma. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 279, 1908; Calayan Island, Babuyan Islands, north of Luzon, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 288, 1928; after Günther.
- 1365. Sebastapistes tristis (Klunzinger).**
Red Sea to the Philippines, Guam, and the Society Islands.
Scorpaena tristis Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 20, p. 802, 1870; Red Sea. Günther, Fische der Südsee, vol. 1, p. 77, text figures, 1874; Rarotonga. Peters, Monatsber. Akad. Wiss. Berlin, p. 834, 1877; Fiji.
Scorpaena bakeri Seale, Occas. Papers Bishop Mus., vol. 1, p. 120, 1900; Guam.
Sebastapistes tristis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 377, 1906; Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Panay, Philippines. Evermann and Seale,

Bull. U. S. Bur. Fisheries, vol. 26, p. 102, 1907; Bacon, Sorsogon Province, Luzon; misprinted as *Sebastopistes*. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Unisan, Tayabas Province, Luzon; Alabat Island; Culion; Dumaguete. Herre, Fishes 1940-41 Exped.; Dumaguete; Kolambugan, Lanao Province, Mindanao.

Genus 446. SEBASTISCUS Jordan and Starks.

Two species common on the coasts of China, Korea, and Japan, and one ranging southward to the northern Philippines.

Sebastiscus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 124; 1904; type, *Sebastiscus marmoratus* (Cuvier and Valenciennes). Matsubara, Trans. Sigen Kagaku Kenkyusho, No. 2, p. 252, 1943.

1366. *Sebastiscus marmoratus* (Cuvier and Valenciennes).

Abundant from Hong Kong northward to Hakodate, Japan; probably common along the Ilokan coast and in the islands north of Luzon. *Sebastes marmoratus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 345, 1829; Japan. Schlegel, Fauna Japonica, Pisces, p. 46, pl. 21, figs. 1-2, 1843; Nagasaki. Günther, Cat. Fishes British Mus., vol. 2, p. 104, 1860; Japan; China. Kner, Reise Novara, Fische, vol. 1, p. 114; 1865; Manila, Luzon, Philippines.

Helicolenus marmoratus Jordan and Snyder, Check List Fishes Japan, p. 98, 1901; Hakodate.

Sebastiscus marmoratus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 124, 1904; 11 Japanese locations. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 427, 1912; Hakodate; Tokyo; Misaki; Nanao; Kagoshima; Nagasaki. Schmidt, Bull. Acad. Sci. L'URSS, p. 116, 1931; Nagasaki; Obama; Hong Kong. Herre, Hong Kong Nat., Supplement to No. 3, 1934, p. 33; Hong Kong. Matsubara, Trans. Sigen Kagaku Kenkyusho, No. 2, p. 254, fig. 85, 1943; 28 Japanese localities; also Chusan and Hong Kong, China.

Scorpaena marmorata Tortonese, Bull. Mus. Zool. Anat. Comp., Univ. Torino, vol. 47, ser. 3, p. 181, 1939; Yokohama.

Genus 447. SETARCHES Johnson.

Pelagic or abyssal fishes of the Atlantic and Indo-Pacific; species few. *Setarches* Johnson, Proc. Zool. Soc. London, p. 177, 1862; type, *Setarches güntheri* Johnson. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 461, 1903. Weber, *Siboga*-Exped., vol. 57, Fische, p. 491, 1913.

Lioscorpius Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 40, 1880; type *Lioscorpius longiceps* Günther.

1367. *Setarches güntheri* Johnson.

The Atlantic and Pacific Oceans.

Setarches güntheri Johnson, Proc. Zool. Soc. London, p. 178, 1862; Madeira, Atlantic Ocean. Goode and Bean, Oceanic Ichthyology, p. 263, 1895; Madeira. Weber, *Siboga*-Exped., vol. 57, Fische, p. 492, 1913; Bali Sea; Makassar Strait; Molucca Strait; Arafura Sea; Kei Islands; Flores Sea; Philippines. Fowler, Marine Fishes West Africa, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 929, 1936; Madeira.

Lioscorpius longiceps Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 40, fig. C, 1880; Station 204, near Siluyan Island, and west and south of Romblon, Philippines; Ki Islands.

Genus 448. TETRAROGE Günther.

The East Indies and Philippines.

Tetraroge Günther, Cat. Fishes British Mus., vol. 2, p. 132, 1860; type, *Apistus barbatus* Cuvier and Valenciennes.

1368. *Tetraroge barbata* (Cuvier and Valenciennes).

East Indies and Philippines; marine, but entering fresh water. Reaches a length of 101 mm.

Apistus barbatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 143, 1829. Bleeker, Acta Soc. Ind.-Neerl., vol. 1, p. 36, 1856; Amboina.

Apistus melas Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 26, 1851. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 270, 1852; Amboina.

Tetraroge barbata Günther, Cat. Fishes British Mus., vol. 2, p. 133, 1860; Molucca Sea. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 280, 1908; Aparri, Cagayan Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Cotabato, Cotabato Province, Mindanao. Herre, Fishes, 1940-41 Exped.; Cagayan River, near Cagayan, Misamis Oriental Province, Mindanao; 16 kilometers from the sea.

Gymnapistus barbatus Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 85, pl. 4, fig. 5, 1876; Sumatra; Java; Celebes; Amboina.

Genus 449. VESPICULA Jordan and Richardson.

Small stinging fishes of the Philippines, China, Malaya, and the East Indies.

Vespacula Jordan and Richardson, Check List Fishes Philippine Archipelago, p. 52, 1910; type, *Prosopodasys gogorzae* Jordan and Seale.

1369. Vespacula depressifrons (Richardson).

The East Indies and Philippines.

Apistus depressifrons Richardson, Zoology, Voy. Samarang, Fishes, p. 5, pl. 3, figs. 1-2, 1848; Java; Sea of Japan by error.

Prosopodasys depressifrons Günther, Cat. Fishes British Mus., vol. 2, p. 140; 1860; Java. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 80, pl. 3, fig. 2, 1876; Sumatra; Nias; Java; Celebes; Batjan; Buro; Amboina.

Vespacula depressifrons Herre, Fishes 1931 Philippine Exped., p. 65, 1934; Cotabato, Cotabato Province, Mindanao.

1370. Vespacula gogorzae (Jordan and Seale).

Prosopodasys gogorzae Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 792, 1905; Bais, Negros Oriental Province, Philippines.

Vespacula gogorzae Jordan and Richardson, Check List Fishes Philippine Archipelago, p. 52, 1910; Bais, Negros Oriental Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; vicinity of Dumaguete, Negros Oriental Province.

Genus 450. APLOACTOIDES Fowler.

A Philippine genus with one species known.

Aploactoides Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 88, 1938; type, *Aploactoides philippinus* Fowler.

1371. Aploactoides philippinus Fowler.

Aploactoides philippinus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 88, fig. 40, 1938; Macabalan Point, near Cagayan, Misamis Oriental Province, Mindanao.

Genus 451. COCOTROPUS Kaup.

Small scorpaenoid fishes, obscure and little known, living amid coralline algae. Species, 5 or 6 in number, ranging from South Africa to Japan; two are known from the Philippines.

Cocotropus Kaup, Archiv Naturges., vol. 24, 333, 1858; orthotype, *Corythobatus echinatus* Cantor. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 90, 1876. Day, Fishes India, p. 159, 178. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 918, 1927. Matsubara, Trans. Sigenkagaku Kenkyusho, No. 2, p. 465, 1943.

1372. Cocotropus dermacanthus (Bleeker).

The East Indies and Philippines.

Apistus dermacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 268, 1852; Wahai, Ceram.

Tetraroge dermacanthus Günther, Cat. Fishes British Mus., vol. 2, p. 136, 1860; after Bleeker.

Aploactis dermacanthus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 189, 1865; Ceram.

Cocotropus dermacanthus Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 9, pl. 5, fig. 6, 1876; sea at Wahai, Ceram. Bleeker, Atlas Ichth., vol. 9, pl. 411, fig. 2, 1878.

Cocotropus dermacanthus Weber, Siboga-Exped., vol. 57, Fische, p. 503, 1913; North Ubian, Sulu Archipelago, Philippines.

1373. *Cocotropus obbesi* Weber.

A Philippine species.

Cocotropus Obbesi Weber, *Siboga-Exped.*, vol. 57, Fische, p. 503, figs. 104-105, 1913; North Ubian, Sulu Archipelago, Philippines. Only the type is known.

Genus 452. PROSOPODASYS Cantor.

A genus of uncertain status, with several East Indian, Malayan, and Philippine species. Listed here after Fowler.

Prosopodasys Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 241, 1849. Günther, Cat. Fishes British Mus., vol. 2, p. 139, 1860; in part. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 76, 1876.

1374. *Prosopodasys cypho* Fowler.

A Philippine species of uncertain generic status. Placed here after Fowler.

Prosopodasys cypho Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 86, fig. 39, 1938; Davao, Mindanao.

1375. *Prosopodasys zonatus* Weber.

An obscure little fish of the Philippines and East Indies.

Prosopodasys zonatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 502, pl. 10, fig. 8, 1913.

One specimen 52 mm. long from North Ubian, an isle of the Sulu Archipelago, Philippines, and one of 35 mm. from the Postillon Islands, south of Celebes, in the East Indies.

Family 155. SYNANCEIIDÆ

Highly venomous and very dangerous reef fishes of the tropical Indo-Pacific, north to Japan, south to Australia and Natal, South Africa.

Genus 453. CHORIDACTYLUS Richardson.

One species, known from China, the Philippines, and India.

Choridactylus Richardson, Zoology, Voy. *Samarang*, Fishes, p. 8, 1848; type, *Choridactylus multibarbis* Richardson. Day, Fishes India, p. 161, 1878.

Chorismodactylus Günther, Cat. Fishes British Mus., vol. 2, p. 151, 1860; amended spelling.

1376. *Choridactylus multibarbis* Richardson.

Choridactylus multibarbis Richardson, Zoology, Voy. *Samarang*, Fishes, p. 8, pl. 2, figs. 1-3, 1848; China Sea. Day, Fishes India, p. 161, pl. 39, fig. 2, 1878; Madras; Coromandel Coast of India; China. Herre, 1949; trawler catch, Manila Bay, Luzon.

Chorismodactylus multibarbis Günther, Cat. Fishes British Mus., vol. 2, p. 151, 1860; China; Madras, India.

Genus 454. DECTERIAS Jordan and Starks.

Japan to the Philippines.

Decterias Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 154, 1904; type, *Decterias pusillus* (Schlegel).

1377. *Decterias pusillus* (Schlegel).

Minous pusillus Schlegel, Fauna Japonica, Pisces, p. 50, 1842; Nagasaki, Japan. Günther, Cat. Fishes British Mus., vol. 2, p. 149, 1860; after Schlegel. Steindachner and Döderlein, Fische Japans, Part III, p. 297, 1884; Kagoshima, Japan.

Decterias pusillus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 154, fig. 15, 1904; Wakanoura. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 38, 1907; Panay, Philippines.

Genus 455. INIMICUS Jordan and Starks.

Japan, the Philippines, and East Indies.

Inimicus Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 158, 1904; type, *Pelor japonicum* Cuvier and Valenciennes.

1378. *Inimicus bifilis* Fowler.

A Philippine species.

Inimicus bifilis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 85, fig. 38, 1938; Canmahala Bay, Ragay Gulf, Luzon, Philippines.

1379. *Inimicus cuvieri* (Gray).

India, the East Indies, Philippines, and China.

Pelor cuvieri Gray, Illustrations Indian Zoology, vol. 2, pl. 90, fig. 2, 1835. Richardson, Ichth. China Japan, p. 212, 1846; Canton, China. Günther, Cat. Fishes British Mus., vol. 2, p. 150, 1860; India; China. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 8, pl. 3, fig. 1, and pl. 2, fig. 3, 1874; Priaman, Sumatra.

Inimicus cuvieri Herre, Fishes 1940-41 Exped.; Murcielagos Bay, Misamis Occidental Province, Mindanao. Herre and Herald; Manila Bay, Luzon, near Corregidor.

1380. *Inimicus didactylus* (Pallas).

The East Indies, Philippines, Malaya, and east to the New Hebrides.

Scorpaena didactyla Pallas, Spicilegia Zoologica, vol. 7, p. 26, pl. 4, figs. 1-3, 1769; Indian Ocean.

Pelor didactylum Günther, Cat. Fishes British Mus., vol. 2, p. 150, 1860; Ceram; New Ireland. Fowler, Mem. Bishop Mus., vol. 10, p. 298, 1928; Faté, New Hebrides.

Pelor didactylus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 7, pl. 4, figs. 1-1a, 1874; Singapore, Celebes; Batjan; Ceram; Amboina; Nusa Laut; Waigiu.

Inimicus didactylus Fowler, Copeia, No. 58, p. 65, 1918; the Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 288, 1927; the Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 66, 1934; Culion; Dumaguete. Herre, 1940-41 Exped.; Cagayan, Misamis Oriental Province, Mindanao.

Genus 456. MINOUS Cuvier and Valenciennes.

Tropical Indian Ocean, East Indies, Philippines, China, and Japan.

Minous Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 420, 1829;

Minous woorra Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 2, p. 148, 1860. Bleeker, Verh. Akad. Amsterdam, ser. 2, vol. 9, p. 298, 1876. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 27, p. 150, 1904.

1381. *Minous inermis* Alcock.

From the coasts of India to the Philippines and Japan.

Minous inermis Alcock, Jour. Asiatic Soc. Bengal., vol. 58, p. 299, pl. 22, fig. 4, 1889; Bay of Bengal. Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 10, p. 207, 1892; Bay of Bengal. Alcock, Jour. Asiatic Soc. Bengal, vol. 63, p. 116, 1894. Alcock and McGilchrist, Illustrations Zoology Investigator, Part 2, pl. 18, fig. 3, 1895. Goode and Beane, Oceanic Ichthyology, p. 524, 1895; Bay of Bengal. Alcock, Cat. Deep-Sea Fishes, collected by the Investigator, p. 30, 1899; off Coromandel coast; off Malabar coast. Franz and Stechow, Zool. Anzeiger, vol. 32, p. 753, 1908. Matsubara, Trans. Sigen. Kagaku Kenkyusho, No. 2, p. 406, fig. 139, 1943; Kumano-Nada, and Nagasaki, Japan. Herre, 1948 Philippine Collection; Manila Bay, Luzon.

1382. *Minous trachycephalus* (Bleeker).

The East Indies and Philippines.

Aploactis trachycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 451, 1854; Manado, Celebes.

Minous trachycephalus Günther, Cat. Fishes British Mus., vol. 2, p. 149, 1860; after Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 62, pl. 2, fig. 3, 1876; Manado, Celebes; Amboina; Nias. Herre, Philippine Jour. Sci., vol. 59, p. 367, 1936; Subic Bay, Zambales Province, Luzon. Herre, 1948 Philippine Collection; Manila Bay, Luzon.

Genus 457. SYNANCEIA Bloch and Schneider. Lumpfish; Poison fish; Lupo.

The species of this genus are the largest and most dangerous of the venomous fishes. Tropical Indo-Pacific.

Synanceia Bloch and Schneider, Syst. Ichth., p. 194, 1801; type, *Scorpaena horrida* L. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 440, 1829. Günther, Cat. Fishes British Mus., vol. 2, p. 146, 1860. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 10, 1874. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 379, 1906.

Synancidium Müller, Wiegmann's Archiv Naturges., p. 302, 1843.

- 1983. *Synanceia horrida* (Linnaeus).** Gatasan; Samulapao. The East Indies, Philippines, China, India, and Australia.
Scorpaena horrida Linnaeus, Syst. Nat., ed. 12, p. 453, 1766; East Indies. Bloch. Naturges. Ausländ. Fische, pl. 183, 1787. Lacépède, Hist. Nat. Poissons, vol. 3, p. 261, vol. 2, pl. 17, fig. 2, 1802.
Synanceia horrida Bloch and Schneider, Syst. Ichth., p. 194, 1801. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 12, 1874; Sumatra; Singapore, Bintang; Banka; Billiton; Java; Celebes; Ternate; Buru; Ceram; Amboina. Herre, Fishery Resources Philippine Islands. pl. 39, 1927. Herre, Bur. Sci. Coll., 1920-27; Puerto Galera, Mindoro; Bantayan Islands; Zamboanga, Mindanao; Jolo, Sulu Prov. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Prov. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Culion; Dumaguete. Herre, Fishes 1936-37 and 1940-41 Expeds.; Ragay Gulf, Luzon, and Sitankai, Sulu Province, Philippines.
Synacidium horridum Müller, Abh. Akad. Wiss. Berlin, p. 163, 1844. Günther, Cat. Fishes British Mus., vol. 2, p. 144, 1860; Australia; China; India. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 297, 1928.
- 1984. *Synanceia verrucosa* Bloch and Schneider.**
 The Red Sea to the East Indies, Philippines, Marshall, Fiji, Samoan, Society, and Tuamotu Islands; Australia.
Synanceia verrucosa Bloch and Schneider, Syst. Ichth., p. 195, pl. 45, 1801; India. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 109, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 146, 1860; Mauritius. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 15, pl. 2, fig. 2, 1874; Batu; Cocos; Bintang; Java; Celebes; Timor; Halmahera; Ceram; Amboina; Banda Neira; Waigiu; New Guinea. Günther, Fische der Südsee, vol. 1, p. 84, text fig., 1875; Society Islands. Seale, Occas. Papers Bishop Mus., vol. 4, p. 81, 1906; Tubuai, Austral Islands. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 316, 1911; Jaluit, Marshall Islands. Herre, Philippine Bur. Science Collection, 1928; Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Phil. Exped., p. 66, 1934; Atimonan, Tayabas Province, Luzon; Dumaguete; Bilatan Island and Sitankai, Sulu Province, Philippines.
Scorpaena brachio Lacépède, Hist. Nat. Poissons, vol. 3, pp. 259 and 272, pl. 12, fig. 1, 1802.
Scorpaena brachiata Shaw, General Zoology, vol. 4, p. 274, 1803.
Synanceia brachio Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 328 (447), 1829; Mauritius; Waigiu; Kusaie (Strong Island); Bora Bora. Cuvier, Règne Animal, Disciples ed., Poissons, pl. 25, fig. 3, 1836.
Synanceia thersites Seale, Occas. Papers Bishop Mus., vol. 1, p. 121, 1901; Guam; Mariannas.
Synanceia verrucosa Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 379, 1906; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 297, 1928; New Guinea; Samoa; Guam; Jaluit, Marshall Islands; Tubuai, Austral Islands; Caroline Islands; Ebon Island, Marshall Islands.

Family 156. CARACANTHIDÆ

Coral-reef fishes of the tropical Indo-Pacific.

Genus 458. CARACANTHUS Kröyer.

Small deep-bodied fishes, feeble swimmers living in coral heads of the tropical Indo-Pacific.

Micropus Gray, Zoological Miscellany, p. (20) 139, 1831; type, *Micropus maculatus* Gray; preoccupied. Günther, Cat. Fishes British Mus., vol. 2, p. 147, 1860.

Caracanthus Kröyer, Naturhistorisk Tidsskrift, vol. 1, p. 267, 1845; type, *Caracanthus typicus* Kröyer=*Micropus maculatus* Gray, preoccupied.

- Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 95, 1876. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 453, 1905.
- Amphiprionichthys* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 172, 1854; type, *Micropus unipinna* Gray.
- Centropus* Kner, Sitzungsber. Akad. Wiss. Wien, vol. 39, p. 531, 1860; type, *Centropus staurophorus* Kner.
- Crossoderma* Guichenot, Nouv. Arch. Mus. Nat. Hist. Paris, vol. 5, p. 194, 1870; type, *Centropus madagascariense* Guichenot.

1385. Caracanthus unipinna (Gray).

On coral reefs of the tropical Indo-Pacific.

Micropus unipinna Gray, Zoological Miscellany, p. 20, 1831; Pacific Sea. Günther, Cat. Fishes British Mus., vol. 2, pp. 147 and 521, 1860; Fiji Islands. Günther, Fische der Südsee, vol. 1, p. 86, 1873-75; Hawaiian Islands; Tahiti; Vavau, Fiji; Pelew Islands; Maduro.

Amphiprionichthys apistus Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 173, 1855; Cocos Island; Indian Ocean. Kner, Sitzungsber. Akad. Wiss. Wien, vol. 58, pl. 3, fig. 8, 1868; Kandavu Island, Fiji Islands. Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 96, pl. 5, fig. 2, 1876; Cocos; Buro; Ceram.

Centropus staurophorus Kner, Sitzungsber. Akad. Wiss. Wien, vol. 39, p. 531, plate, fig. 1, 1860.

Caracanthus unipinna Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 454, 1905; Makemo, Tuamotu Islands. Regan, Trans. Linn. Soc., London, ser. 2, vol. 12, p. 237, 1908; Chagos Archipelago; Salomon, Indian Ocean. Regan, Proc. Zool. Soc. London, p. 404, 1909; Christmas Island; Indian Ocean. Fowler, Mem. Bishop Mus., vol. 10, p. 299, 1928; Palmyra and Wake Islands; Apia, Samoa; Makemo, Tuamotu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Dumaguete.

Amphiprionichthys unipinna Kendall and Goldsborough, Mem. Mus. Comp. Zool. vol. 26, p. 316, 1911; Makemo, Tuamotu Islands.

Family 157. PLATYCEPHALIDÆ. Flathead fishes; Isdang buaya

Indo-Pacific, from Africa to Tahiti and from Japan and China to Australia.

Genus 459. COCIUS Jordan and Hubbs.

Cocius Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 286, 1925; type, *Platycephalus crocodilus* Tilesius.

1386. Cocius crocodilus (Tilesius).

From southern Japan to the Philippines and India.

Platycephalus crocodilus Tilesius, Krusenstern's Reise, pl. 59, fig. 2, 1812; Nagasaki, Japan. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 256, 1829; after Tilesius.

Platycephalus punctatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 243, 1829; Hindustan. Bleeker, Nat. Tijds. Ned. Ind., vol. 1, p. 25, 1851. Günther, Cat. Fishes British Mus., vol. 2, p. 180, 1860; Coast of Trincomale, Ceylon; Sea of Batavia, Java; Vanicolo Island. Day, Fishes India, p. 277, pl. 60, fig. 3, 1878; Indian seas. Sauvage, in Grandidier, Hist. Phys. Nat. Poiss. Madagascar, p. 307, pl. 36, figs. 5, and 5a, 1891. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 38, 1907; Cavite, Cavite Province, Luzon.

Platycephalus fasciatus Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 397, 1872; Manila Bay, Luzon, Philippines. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 21, 1885; Manila Bay, Luzon.

Thysanophrys crocodilus Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 638, fig. 4, 1908; Tokyo, Onomichi, Hiroshima, Nagasaki, and Wakanoura, Japan. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 289, 1927; Philippines.

Cocius crocodilus Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 287, 1925; Tokyo, Kobe, Toba, Mikawa Bay, Fukuoka, Miyazu, and Noo, Japan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Manila Bay, and Atimonan, Tayabas Province, Luzon; Cebu, Cebu; Dumaguete.

Genus 460. ELATES Jordan and Seale.

Known from the Philippines and Singapore; no doubt in the East Indies also.

Elates Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 39, 1907; type, *Elates thompsoni* Jordan and Seale.

1387. *Elates ransonnetti* (Steindachner).

Manila Bay and Singapore.

Platycephalus ransonnetti Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 74, p. 209, 1876; Singapore.

Elates thompsoni Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 39, fig. 12, 1907; Manila, Luzon. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 289, 1927; Philippines. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 59, 1930; Manila Bay, Philippines.

Elates ransonnetti Herre, Fishes 1936-37 Exped.; Manila Bay, Luzon; Singapore Harbor, Singapore. Herre, Bull. Raffles Mus., No. 16, p. 49, 1940; reef at Singapore.

Suggrundus ransonnetti Fowler, Malaya Federated States Fisheries Bull. No. 1, List of Fishes from Malaya, p. 206, 1938; Singapore.

Genus 461. INEGOCIA Jordan and Thompson.

Japan to the Philippines and East Indies.

Inegocia Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 56, p. 70, 1913; type, *Platycephalus macrolepis* Bleeker.

1388. *Inegocia bataviensis* (Bleeker).

East Indies and the Philippines.

Platycephalus bataviensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 460, 1853; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 2, p. 188, 1860; after Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 21, 1879.

Thysanophrys bataviensis Fowler, Copeia, No. 58, p. 65, 1918; Philippines. *Inegocia bataviensis* Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Cebu, Cebu. Herre, Fishes 1940-41 Exped.; Gulf of Ragay, Tayabas Province, Luzon; Iloilo, Iloilo Province, Panay.

Genus 462. INSIDIATOR Jordan and Snyder.

East Indies and the Philippines.

Insidiator Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 368, 1900; type, *Platycephalus rudis* Günther=*Platycephalus meerdervoorti* Bleeker.

1389. *Insidiator macracanthus* (Bleeker). Cacabit.

East Indies, Malaya, the Philippines, and Queensland, Australia.

Platycephalus macracanthus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 253, 1869; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 419, fig. 1, 1878. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 22, 1879. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 38, 1907; Manila, Luzon. Jordan and Evermann, Bull. U. S. Bur. Fisheries, vol. 26, p. 103, 1907; San Fabian, Pangasinan Province, Luzon.

Insidiator macracanthus Herre, Philippine Bureau Science Collection, 1922-28; Cebu, Cebu; Gulf of Lingayen, Pangasinan Province, Luzon; Catbalogan, Samar. McCulloch, Mem. 5, Australian Mus. p. 403, 1929; Philippines; East Indies; Queensland, Australia. Herre, Fishes 1940-41 Exped.; Manila Bay, and Gulf of Ragay, Luzon; Iloilo, Iloilo Province, Panay.

Repotrudis macracanthus Fowler, Malaya Federated States Fisheries Bulletin No. 1, List Fishes known from Malaya, p. 205, 1938.

Genus 463. PLATYCEPHALUS Bloch. Flathead; Isdang buaya.

Platycephalus Bloch. Naturges. Auslând. Fische, vol. 9, p. 96, 1795; type *Platycephalus spathula* Bloch=*Cottus insidiator* Forskål=*Callionymus indicus* L.; in part. Günther, Cat. Fishes British Mus., vol. 2, p. 176, 1860; in part. Jordan and Richardson, Bull. U. S. Nat. Mus., vol. 33, p. 640, 1902; in part. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 286, 1925.

Cymbacephalus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 90, 1938; type, *Cymbacephalus armatus* Fowler.

1390. *Platycephalus armatus* (Fowler).

A Philippine species.

Cymbacephalus armatus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 90, fig. 41, 1938; Sirum (not Siran) Island, Sulu Province.

- 1391. *Platycephalus bosschei* Bleeker.**
East Indies and the Philippines.
Platycephalus bosschei Bleeker, Nat. Tijds. Ned.-Ind., vol. 21, p. 140, 1860; Banka. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 16, 1879.
Platycephalus bosschei Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Cullion. Herre, Fishes 1936-37 Exped.; Singapore Harbor.
- 1392. *Platycephalus celebicus* Bleeker.**
East Indies and the Philippines.
Platycephalus celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 450, 1854; Celebes. Günther, Cat. Fishes British Mus., vol. 2, p. 184, 1860; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 291, 1865; Amboina. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 30, 1879. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Dumaguete.
- 1393. *Platycephalus indicus* (Linnaeus).** Lakoy; Kamang; Sunog; Uram-uram.
India, the Philippines, East Indies, Australia, China, Japan, Red Sea, Madagascar, and Natal.
Callionymus indicus Linnaeus, Syst. Nat., ed. 10, p. 250, 1758; Asia.
Calliomorus indicus Lacépède, Hist. Nat. Poissons, vol. 2, p. 343, 1800.
Batrachus indicus Bloch and Schneider, Syst. Ichth., p. 43, 1801.
Platycephalus insidiator Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 227, 1829; Pondicherry, India; Moluccas. Schlegel, Fauna Japonica, Pisces, p. 39, pl. 15, fig. 1, 1842; Nagasaki. Richardson, Ichth. China Japan, p. 216, 1846; Canton. Bleeker, Nat. Geneesk Arch. Ned.-Ind., vol. 2, p. 524, 1854; Batavia, Java; also about 25 other localities in later papers. Günther, Cat. Fishes British Mus., vol. 2, p. 177, 1860; Ganges and Calcutta, India; China; Japan; Ceylon; Malayan Peninsula; Moluccas; Amboina; Cape York, West and north-western Australia; Red Sea; Port Natal; Cape of Good Hope. Meyer, An. Soc. Española Hist. Nat. Madrid, vol. 14, p. 21, 1885; Manila Bay, Luzon. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 794, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 38, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 103, 1907; San Fabian, Pangasinan Province, Luzon. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 510, 1907; Manila, Luzon.
Platycephalus indicus Bleeker, Atlas Ichth. vol. 9, pl. 1, fig. 3, 1878. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 49, 1878; New Guinea. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 12, 1879; Japan. Bleeker, *ibid.*, vol. 19, p. 8, 1879; New Guinea. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 641, 1902; Nagasaki, Wakanoura, Tsuruga, Tokyo, Misaki, Kobe, Hiroshima, and Onomichi, Japan. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 280, 1908; Manila, Luzon. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 286, 1910; Sandakan, British North Borneo; numerous places in the Philippines. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 289, 1927; Orion and Orani, Bataan Province, Luzon, Philippines. Herre, Philippine Bureau Science Collection 1921-28; Manila Bay, Lingayen Gulf and Ragay Gulf, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Manila, and Atimonan, Tayabas Province, Luzon; Cullion; Capiz, Capiz Province, Panay; Cebu, Cebu. Umali, Edible Fishes Manila, p. 181, fig. 142, 1936; Manila Bay.
- 1394. *Platycephalus isacanthus* Cuvier and Valenciennes.**
East Indies and the Philippines.
Platycephalus isacanthus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 180 (246), 1829; Indies; Waigiu; Buru. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 214, 1830; Waigiu. Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 22, fig. 3, 1839. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 481, 1851; Riouw. Günther, Cat. Fishes British Mus., vol. 2, p. 183, 1860; after Cuvier and Valenciennes. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 20, 1879; Riouw; Singapore; Batu; Celebes; Morotai; Ternate; Buru; Bintang; Waigiu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 38, 1907; Cavite, Cavite Province, Luzon.

Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Manila, Luzon; Cebu, Cebu.

Thysanophrys isacanthus Fowler, Mem. Bishop Mus., vol. 10, p. 301, 1928; after Bleeker.

Insidiator isacanthus McCulloch, Mem. 5, Australian Mus., p. 404, 1929.

Levanaora isacanthus Roxas and Martin, Check List Philippine Fishes, p. 183, 1936.

1395. *Platycephalus malayanus* Bleeker.

East Indies and the Philippines.

Platycephalus malayanus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 498, 1853; Padang, Sumatra. Bleeker, *ibid.*, vol. 19, p. 333, 1859; south coast of Java. Günther, Cat. Fishes British Mus., vol. 2, p. 184, 1860; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 291, 1865; Amboina. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 49, 1878; New Guinea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 66, 1934; Dumaguete. Herre, Bull. Raffles Mus., p. 49, 1940; Sandakan, British North Borneo. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Thysanophrys malayanus Fowler, Mem. Bishop Mus., vol. 10, p. 301, 1928; after Bleeker.

Suggrundus malayanus Roxas and Martin, Check List of Philippine Fishes, p. 183, 1936.

Genus 464. *ROGADIUS* Jordan and Richardson.

Japan, the Philippines, and East Indies.

Rogadius Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 630, 1908; type *Rogadius asper* (Cuvier and Valenciennes).

1396. *Rogadius asper* (Cuvier and Valenciennes).

Southern Japan, China, and the Philippines.

Platycephalus asper Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 257, 1829; Japan. Schlegel, Fauna Japonica, Pisces, p. 40, pl. 16, figs. 4-5, 1842; after Cuvier and Valenciennes. Richardson, Ichth. China Japan, p. 217, 1846; Canton. Günther, Cat. Fishes British Mus., vol. 2, p. 190, 1860; China. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 127, 1873; China. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 12, 1879; Japan. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 59, 1930; Manila, Philippines; a doubtful record.

Rogadius asper Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 3, p. 630, fig. 1, 1908; Swatow, China. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 288, 1925; Kagoshima, Japan.

1397. *Rogadius polyodon* (Bleeker).

East Indies and the Philippines.

Platycephalus polyodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 462, 1853; Batavia, Java. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, p. 42, 1860; Celebes. Günther, Cat. Fishes British Mus. vol. 2, p. 183, 1860; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 191, 1865; Ceram. Bleeker, *ibid.*, p. 291, 1865; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 1878. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 25, 1879.

Rogadius polyodon Herre, Philippine Jour. Sci., vol. 59, p. 367, 1936; Batangas Bay, Batangas Province, Luzon.

1398. *Rogadius pristiger* (Cuvier and Valenciennes).

East Indies, the Philippines, and Singapore.

Platycephalus pristiger Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 191 (260), 1829; New Guinea; Celebes. Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 685, pl. 10, fig. 5, 1834; Port Dorey, New Guinea. Bleeker, Jour. Indian Archipelago, vol. 3, pp. 66, 68, 1849; Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 205, 1856-57; Ternate. Bleeker, *ibid.*, vol. 17, p. 145, 1858-59; Bali. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 55, 1861; Singapore. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 42, 1880; south of New Guinea.

Rogadius pristiger Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 67, 1934; Manila Bay, Luzon; Dumaguete. Herre, Fishes 1940-41 Philippine Exped., Puerto Galera, Mindoro.

Genus 465. THYSANOPHREYS Ogilby.

Australia, East Indies, the Philippines, and Japan.

Thysanophrys Ogilby, Proc. Linn. Soc. New South Wales, vol. 23, p. 40, 1898; type, *Thysanophrys citronasus* Richardson; in part. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 631, 1908; in part.

1399. *Thysanophrys nematophthalmus* (Günther).

Australia, the Philippines, and East Indies.

Platycephalus nematophthalmus Günther, Cat. Fishes, British Mus., vol. 2, p. 184, 1860; Port Essington and Victoria River, Australia. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 60, p. 561, 1870; Singapore. Günther, Fische der Südsee, vol. 2, p. 166, pl. 107, fig. C, 1876-1881; East Indies; New Guinea. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 10, 1879; Singapore.

Thysanophrys tentaculatus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 280, 1908; Cuyo, Cuyo Islands, Sulu Sea, Philippines. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 286, 1910; Sandakan, British North Borneo; Cuyo, Philippines.

Thysanophrys nematophthalmus Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 64, 1922; Cebu, Cebu; Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 300, 1928; after Günther. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 9, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 67, 1934; Lamon Bay, Tayabas Province, Luzon; Culion; Dumaguete; Cebu, Cebu; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Estancia and Iloilo, Iloilo Province, Panay; Sandakan, British North Borneo; Singapore. Herre, Bull. Raffles Mus., No. 13, p. 34, 1937; abundant on reefs about Singapore.

1400. *Thysanophrys quoyi* (Bleeker).

East Indies and the Philippines.

Platycephalus quoyi Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 206, 1856-57; Ternate. Günther, Cat. Fishes, British Mus., vol. 2, p. 180, 1860; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 152, 1863; Batjan. Bleeker, *ibid.*, p. 271; Timor. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 291, 1865; Amboina. Bleeker, Verh. Akad. Amsterdam, vol. 19, p. 11, 1879.

Thysanophrys quoyi Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 289, 1927; Philippines. Herre, Fishes 1931 Philippine Exped., p. 67, 1934; Atimonan, Tayabas Province, Luzon; Culion. Herre, Fishes 1933-34 Exped.; Jolo, Sulu Province.

1401. *Thysanophrys tentaculatus* (Rüppell).

Red Sea to the Philippines.

Platycephalus tentaculatus Rüppell, Neue Wirbelt., Fische-Rothen Meeres, p. 104, pl. 26, fig. 2, 1835; Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 184, 1860; after Rüppell. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 21, 1885; Cebu, Cebu.

Thysanophrys tentaculatus Herre, Fishes 1931 Philippine Exped., p. 67, 1934; Culion; Jolo, Sulu Province, Philippines.

Genus 466. SORSOGONA Herre.

The Philippines and Singapore.

Sorsogona Herre, Fishes 1931 Philippine Exped., p. 67, 1934; type *Sorsogona serrulata* Herre.

1402. *Sorsogona serrulata* Herre.

Sorsogona serrulata Herre, Fishes 1931 Philippine Exped., p. 67, 1934; Magallanes, Sorsogon Province, Luzon. Herre, Bull. Raffles Mus., No. 16, p. 49, 1940; Singapore.

Family 158. BEMBRIDÆ

Indo-Pacific fishes.

Genus 467. BRACHYBEMBRAS Fowler.

A Philippine genus.

Brachybembras Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 94, 1938; type, *Brachybembras aschemeieri* Fowler.

1403. *Brachybembras aschemeieri* Fowler.

A Philippine species with one species known.

Brachybembras aschemeieri Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 94, fig. 43, 1938; near Jolo Light, vicinity of Jolo, Sulu Province, in 318 fathoms.

Family 159. HOPLICHTHYIDÆ

Japan to the Philippines and Hawaii.

Genus 468. ACANTHOPLICHTHYS Fowler.

A Philippine genus with one species.

Acanthoplichthys Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 72, 1943; type, *Acanthoplichthys pectoralis* Fowler.

1404. *Acanthoplichthys pectoralis* Fowler.

Acanthoplichthys pectoralis Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, part 2, p. 72, fig. 15, 1943; off San Fernando Point Light, La Union Province, Luzon, in 172 fathoms.

Genus 469. MONHOPLICHTHYS Fowler.

Ranges from the Philippines to Japan; four species known.

Monhoplichthys Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 95, 1938; type, *Monhoplichthys gregoryi* Fowler.

1405. *Monhoplichthys gregoryi* Fowler.

Monhoplichthys gregoryi Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 96, fig. 44, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao.

1406. *Monhoplichthys prosemion* Fowler.

Monhoplichthys prosemion Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 97, fig. 45, 1938; Sombrero Island, Balayan Bay, and Verde Island Passage, Batangas Province, Luzon.

Family 160. PERISTEDIIDÆ. Sea robins

Gurnards of all warm and temperate seas; mostly in deep water.

Genus 470. ACANTHOSTEDION Fowler.

A Philippine genus with one species known.

Acanthostedion Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 75, 1943; type, *Acanthostedion rugosum* Fowler.

1407. *Acanthostedion rugosum* Fowler.

Acanthostedion rugosum Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 76, fig. 17, 1943; off Malabrigo Light, south coast of Luzon, Batangas Province, Luzon.

Genus 471. GARGARISCUS Smith.

A Philippine genus.

Gargariscus Smith, Proc. Biol. Soc. Washington, vol. 30, p. 145, 1917; type, *Gargariscus semidentatus* Smith.

1408. *Gargariscus undulatus* Weber.

Arafura Sea, the Philippines, and Japan.

Peristedion undulatum Weber, *Siboga-Exped.*, vol. 57, Fische, p. 513, pl. 2, figs. 5-5a, and pl. 9, fig. 4, 1913; Arafura Sea, East Indies.

Gargariscus semidentatus Smith, Proc. Biol. Soc. Washington, vol. 30, p. 146, 1917; Mindanao Sea, off northern Mindanao, and Verde Island Passage, Philippines.

Peristedion undulatum Kamohara, *Annot. Zool. Japan.*, vol. 15, p. 441, pl. 30, fig. 8, 1936; off Tosa, Japan.

Gargariscus prionocephalus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 121, 1938; on *G. semidentatus* Smith; not *Peristethidion prionocephalum*. Duméril, *Nouv. Arch. Mus. Nat. Hist. Paris*, vol. 4, p. 115, 1868; "mer des Indes."

Genus 472. HEMINODUS Smith.

A Philippine genus.

Heminodus Smith, Proc. Biol. Soc. Washington, vol. 30, p. 146, 1917; type, *Heminodus philippinus* Smith.

1409. *Heminodus philippinus* Smith.

Heminodus philippinus Smith, Proc. Biol. Soc. Washington, vol. 30, p. 146, 1917; off Tawi-Tawi, Sulu Province.

Genus 473. NEMAPERISTEDION Fowler.

One species known from the Philippines, Formosa, and East Indies.

Nemaperistedion Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 126, 1938; type, *Nemaperistedion orientale* Fowler.

1410. *Nemaperistedion orientale* Fowler.

Nemaperistedion orientale Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 127, fig. 61, 1938; San Andreas Light, between Marinduque and Luzon; off Point Tagolo Light, Zamboanga Province, Mindanao; China Sea, near Formosa; Makyau and Kayoa Islands on the coast of Halmahera, Dutch East Indies; Mabul Island, Sibuko Bay, British North Borneo.

Genus 474. PERISTEDION Lacépède.

In all tropical and temperate seas.

Peristedion Lacépède, Hist. Nat. Poissons, vol. 3, p. 368, 1802; type, *Peristedion malarmat* Lacépède=*Trigla cataphracta* L. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 659, 1908. Herre, Philippine Jour. Sci., vol. 27, p. 292, 1925. Kamohara, Annot. Zool. Japon., vol. 15, p. 436, 1936.

Peristethus Kaup, Proc. Zool. Soc. London, p. 103, 1859; amended spelling. Günther, Cat. Fishes British Mus., vol. 2, p. 216, 1860.

1411. *Peristedion amblygenys* Fowler.

A Philippine species.

Peristedion amblygenys Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 122, fig. 58, 1938; off San Fernando Point Light, La Union Province, Luzon.

1412. *Peristedion longiceps* Fowler.

A Philippine species.

Peristedion longiceps Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 74, fig. 16, 1943; off Tayabas Light, between Luzon and Marinduque, in 190 fathoms.

1413. *Peristedion murrayi* (Günther).

Philippines, Sea of Banda, and the Andaman Islands.

Peristethus murrayi Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 52, 1880; Philippines.

Peristethus murrayi Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 28, 1891; Andaman Sea.

1414. *Peristedion nierstraszi* Weber.

East Indies, Philippines, and Japan.

Peristedion nierstraszi Weber, *Siboga*-Exped., vol. 57, Fische, p. 514, pl. 5, figs. 1, 1a and 1b, 1913; Flores Sea. Herre, Fishes 1931 Philippine Exped., p. 68, 1934; Dumaguete, Negros Oriental Province. Kamohara, Annot. Zool. Japon., vol. 15, p. 437, pl. 29, fig. 1, 1936; off Tosa, Japan.

1415. *Peristedion welchi* Herre.

The Philippines and Japan.

Peristedion welchi Herre, Philippine Jour. Sci., vol. 27, p. 292, pl. 1, 1925; Dumaguete, Negros Oriental Province. Kamohara, Annot. Zool. Japon., vol. 15, p. 440, pl. 30, fig. 5, 1936; Philippines; off Tosa, Japan. Herre, motorship *Theodore N. Gill*, October 1947; 8 kilometers northwest of Fortune Island, Batangas Province, Luzon; in 65 fathoms.

Genus 475. SATYRICHTHYS Kaup.

Probably of not more than subgeneric rank. The Philippines and East Indies.

Satyrichthys Kaup, Archiv Naturges., vol. 39, p. 82, 1873; type, *Peristethus rieffeli* Kaup.

1416. *Satyrichthys clavilapis* Fowler.

A Philippine species.

Satyrichthys clavilapis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 123, fig. 59, 1938; Sombrero Island, Balayan Bay, Batangas Province, and Verde Island Passage, Luzon.

1417. *Satyrichthys piercei* Fowler.

Satyrichthys piercei Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 125, fig. 60, 1938; China Sea, west of the Batanes Islands, Batanes Province, Philippines, in 159 fathoms.

In all warm seas, some in rather deep water.

Genus 476. BOVITRIGLA Fowler.

A Philippine genus with one species known.

Bovitrigla Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 112, 1938; type *Bovitrigla acanthomoplate* Fowler.

1418. Bovitrigla acanthomoplate Fowler.

Bovitrigla acanthomoplate Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 113, fig. 54, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao, in 182 fathoms.

Genus 477. DIXIPHICHTHYS Fowler.

A Philippine genus with one species known.

Dixiphichthys Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 119, 1938; type, *Dixiphichthys hoplites* Fowler.

1419. Dixiphichthys hoplites Fowler.

Dixiphichthys hoplites Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 120, fig. 57, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao, in 175 fathoms; Lavis Point Light, Mactan Island, Cebu Province.

Genus 478. DIXIPHISTES Fowler.

A Philippine genus with one species known.

Dixiphistes Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 117, 1938; type, *Dixiphistes macrorhynchus* Fowler.

1420. Dixiphistes macrorhynchus Fowler.

Dixiphistes macrorhynchus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 118, fig. 56, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao, in 182 fathoms.

Genus 479. DIXIPHISTOPS Fowler.

A Philippine genus; only one species known.

Dixiphistops Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 115, 1938; type, *Dixiphistops megalops* Fowler.

1421. Dixiphistops megalops Fowler.

Dixiphistops megalops Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 116, fig. 56, 1938; off San Fernando Point Light, La Union Province, Luzon, in 186 fathoms.

Genus 480. LEPIDOTRIGLA Günther.

Species numerous and widely distributed; some are important food fishes; occurs in the Mediterranean Sea, eastern Atlantic Ocean and the Indo-Pacific, from Natal, South Africa, to the Philippines, Japan, and Australia.

Lepidotrigla Günther, Cat. Fishes British Mus., vol. 2, p. 196, 1860; type, *Trigla aspera* Cuvier and Valenciennes=*Trigla cavillone* Lacépède. Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 649, 1908. Barnard, Ann. South African Mus., vol. 21, p. 938, 1927. Fowler, Bull. American Mus. Nat. Hist., vol. 70, p. 936, 1936.

1422. Lepidotrigla argyrosoma Fowler.

A Philippine species.

Lepidotrigla argyrosoma Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 105, fig. 50, 1938; off San Fernando Point Light, La Union Province, Luzon, in 45 fathoms.

1423. Lepidotrigla eydouxi Sauvage.

A Philippine species.

Lepidotrigla eydouxi Sauvage, Nouv. Arch. Mus. Nat. Hist. Paris, ser. 2, vol. 1, p. 156, 1878; Manila, Luzon.

1424. Lepidotrigla macrobrachium Fowler.

A Philippine species.

Lepidotrigla macrobrachium Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 109, fig. 52, 1938; Corandagos Island, east coast of Palawan, in 51 fathoms.

1425. *Lepidotrigla pectoralis* Fowler.
A Philippine species.
Lepidotrigla pectoralis Fowler, Proc. U. S. Nat. Mus., vol. 185, p. 104, fig. 49, 1938; off Point Tagolo Light, Zamboanga Province, Mindanao, in 169 fathoms.
1426. *Lepidotrigla punctipectoralis* Fowler.
A Philippine species.
Lepidotrigla punctipectoralis Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 107, fig. 51, 1938; off Jolo Light, Jolo Island, Sulu Province, in 161 fathoms; Tubig Point, between Samar and Masbate, in 135 fathoms.
1427. *Lepidotrigla venusta* Fowler.
A Philippine species.
Lepidotrigla venusta Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 103, fig. 48, 1938; off San Fernando Point Light, La Union Province, Luzon, in 45 fathoms. Herre, 1948 Coll.; south approach to Manila Bay, near Corregidor.

Family 162. DACTYLOPTERIDÆ. Flying gurnards

In all warm seas.

Genus 481. EBISINUS Jordan and Richardson.

East Indies and Philippines; but one species known.

Ebisinus Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 664, 1908; type, *Ebisinus cheirophthalmus* (Bleeker).

1428. *Ebisinus cheirophthalmus* (Bleeker).

Dactylopterus cheirophthalmus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 494, 1854; Banda Neira. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 42, 1860; Celebes.

Dactylopterus macracanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 449, 1854; Makassar, Celebes. Günther, Cat. Fishes British Mus., vol. 2, p. 223, 1860; Molucca Sea.

Dactylopterus cheirophthalmus Günther, Cat. Fishes British Mus., vol. 2, p. 223, 1860; Sea of Banda-Neira; after Bleeker; amended spelling.

Cephalacanthus macracanthus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 40, 1907; Cavite, Cavite Province, and Manila, Luzon; Panay.

Ebisinus cheirophthalmus Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 665, fig. 8, 1908; Molucca and Philippine Seas.

Genus 482. DACTYLOPTENA Jordan and Richardson.

Japan, China, the Philippines, East Indies, and the Solomon, Hawaiian, Society, and Tuamotu Islands. Only one species known.

Dactyloptena Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 665, 1908; type, *Dactyloptena orientalis* (Cuvier and Valenciennes).

1429. *Dactyloptena orientalis* (Cuvier and Valenciennes). Flying gurnard.
Distribution that of the genus.

Dactylopterus orientalis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 4, p. 98 (134), pl. 76, 1829; Mauritius; Waigiu. Schlegel, Fauna Japonica, Pisces, p. 37, pl. 15 A, 1842; Seas of Japan and China. Richardson, Ichth. China Japan, p. 218, 1846; Japanese and Chinese Seas. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 226, 1851; Banda. Bleeker, *ibid.*, vol. 3, p. 264, 1852; Amboina. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Vischfauna, Sumatra, p. 25, 1860. Günther, Cat. Fishes British Mus., vol. 2, p. 222, 1860; Japan; China; Amboina; Cape Seas. Kner, Reise *Novara*, Fische, vol. 1, p. 125, 1865; Tahiti. Günther, Fische der Südsee, vol. 2, p. 169, 1877; Hawaii; Society Islands; Tuamotus (Paumotus).

Cephalacanthus orientalis Fowler, Proc. Acad. Nat. Sci. Phila., p. 516, 1900; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 473, fig. 208, 1905; Hilo; Honolulu; Molokai. Seale, Occas. Papers Bishop Mus., vol. 4, p. 83, 1906; Tahiti. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 59, 1930; Manila, Philippines.

Dactyloptena orientalis Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 666, 1908; Nagasaki and Wakanoura, Japan; Hilo, Hawaiian Islands. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 57, 1925; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 302, pl. 35 B, 1928;

Waikiki, Honolulu, and Hilo, Hawaiian Islands; Tahiti, Society Islands; Vavau, Tonga Islands. Herre, Philippine Bureau Science Collection 1923-27; Bantayan Island, Cebu Province; Jolo, Bongao, and Sitankal, Sulu Province. Herre, Jour. Pan Pacific Research Inst., p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 68, 1934; Dumaguete. Herre, 1948 Coll.; entrance to Manila Bay; Zamboanga, Zamboanga Province, Mindanao.

Order AA. CHROMIDES

Family 163. POMACENTRIDÆ. Coralfishes; Damsel-fishes; Sea-anemone-fishes; Aroro baybay; Baro-baro; Pa-at; Paiata; Palata; Puyong dagat; Ulan-ulan; Laslas; Tibu; Tibuk.

Marine fishes, rarely entering fresh-water streams. Fishes of the tropical Indo-Pacific and West Indian regions, a few reaching Japan and the Mediterranean Sea. Common on coral reefs; some species very abundant; of no direct economic importance.

Genus 483. AMPHIPRION Bloch and Schneider. Anemone fish.

Small, brilliantly colored fishes living in certain large sea anemones, occurring throughout most of the tropical Indo-Pacific, north to Japan and south to Australia.

Amphiprion Bloch and Schneider, Syst. Ichth., p. 200, 1801; type *Lutjanus ephippium* Bloch. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 596, 1902. Montalban, Pomacentridae Philippine Islands, Monograph 24, Philippine Bureau Science, p. 9, 1928. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 6, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 330, 1940.

Prochilus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, No. 6, p. 20, 1877; on Klein, 1775, non-binomial; type, *Lutjanus ephippium* Bloch.

Actinocola Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 533, 1904; type, *Lutjanus percula* Lacépède.

Phalerebus Whitley, Mem. Queensland Mus., vol. 9, Part 3, p. 216, 1929.

1430. Amphiprion akallopis Bleeker.

The Philippines, East Indies, and Andaman Islands.

Amphiprion akallopis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 281, 1853; Priaman, Sumatra. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monogr. 24, p. 17, 1928; Calapan, Mindoro.

Amphiprion akallopis Günther, Cat. Fishes British Mus., vol. 4, p. 10, 1862; Sea of Priaman, Sumatra. Day, Fishes India, p. 380, 1878; Andaman Islands. Herre, Fishes 1936-37 Exped.; Dumaguete, Negros Oriental Province; reefs in South Lagoon, Tumindao, Sulu Province. De Beaufort Fishes Indo-Australian Archipelago, vol. 8, p. 333, 1940; Ulakan, Priaman, and Padang, Sumatra; Pulu Weh; Poppoh Bay, Java; Buru; Ceram; Amboina; Philippines; Andaman Islands. Herre, Mem. Indian Mus., vol. 13, p. 376, 1941; Andaman Islands; Amboina; Philippines.

1431. Amphiprion bicinctus Rüppell.

From the coast of Africa to the East Indies, Philippines, China, Japan, Caroline Islands, Australia, Melanesia, and Polynesia to the Society Islands.

Anthia polymus Bloch. Naturges. Ausländ, Fische, vol. 6, p. 103, pl. 316, fig. 1, 1792; East Indies; not *Perca polymna* L.

Amphiprion polymus Bloch and Schneider, Syst. Ichth., p. 203, 1801; East Indies; Moluccas; Coromandel, India. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 396, 1830. Steindachner, Verh. Zool.-Bot. Gesell. Wien, vol. 11, p. 79, 1861; not of Linnaeus. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 598, 1902; Nagasaki; Kii Province; not of Linnaeus. Jordan and Seale, Proc. Davenport Acad. Sci., vol. 10, p. 13, pl. 7, 1907; Hong Kong; not of Linnaeus. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 278, 1906; Samoa; not of Linnaeus; Northwest Isle. Montalban, Pomacentridae Philippine Islands, Monogr. 24, pl. 1, fig. 1, p. 10, 1927; Caplapan, Mindoro. Tablas Island; Guindulman, Bohol. Dumaguete, Negros Oriental Province. Cagayan, Misamis Oriental Province, and Zamboanga,

Zamboanga Province, Mindanao. Bungau, Sitankai, Sibutu, and Tango Islands, Sulu Province; not of Linnaeus. Fowler, Memoirs Bishop Mus., vol. 10, p. 303, 1928; Apiang, Gilbert Islands. Fowler and Bean (not of Linnaeus), Bull. 100, U. S. Nat. Mus., vol. 7, p. 6, 1928; Port Hamilo, Batangas Province; Rapu Rapu Island, Albay Province, Luzon. San Miguel Harbor, Ticao Island. San Roque, Leyte. Pandanon Island, off Bohol. Cebu Market, Cebu, and Mactan Island, Cebu Province, Little Santa Cruz Island, Zamboanga Province, Mindanao. Simaluc, Sitankai, and Tumindao Islands, Sulu Province. Herre, Jour. Pan Pacific Res. Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes of 1931 Philippine Exped., p. 68, 1934; Calapan, Mindoro; Cebu, Cebu; Dumaguete, Negros Oriental Province; Jolo and Sitankai, Sulu Province.

Amphiprion bicinctus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 139, pl. 35, fig. 1, 1828; Red Sea. Günther, Cat. Fishes British Mus., vol. 4, p. 8, 1862; Red Sea. Seale, Occas. Papers Bishop Mus., vol. 1, p. 82, 1901; Guam. Fowler, Mem. Bishop Mus., vol. 10, p. 304, 1928; Guam. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 338, 1940; 23 East Indian localities; the Philippines, and 25 other Indo-Pacific localities. Herre, Fishes 1936-37 and 1940-41 Expeds.; Manila Bay, Luzon; Sitankai, Sulu Province.

Anthias clarkii Bennett, Fishes Ceylon, pl. 29, 1830.

Amphiprion xanthurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 402, 1830; Mauritius. Bleeker Nat. Tijds. Ned.-Ind., vol. 3, p. 560, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 5, 1862; Batavia, Java. Sauvage, Poissons Madagascar, p. 85, 1878.

Amphiprion clarkii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 504, 1833; on Bennett.

Amphiprion chrysopterus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 401, 1836. Günther, Cat. Fishes British Mus., vol. 4, p. 8, 1860.

Amphiprion chrysgargurus Bleeker, Nat. Tijds. Ned.-Ind. vol. 3, p. 644, 1852; Banda Neira.

Amphiprion clarkii Günther, Cat. Fishes British Mus., vol. 4, p. 5, 1862; Amboina; Singapore; Mozambique; China. Kner, Reise Novara Fische, p. 240, 1865; Java; Hong Kong.

Amphiprion boholensis Cartier, Verh. Phys. Med. Würzburg, vol. 5, p. 96, 1874; Bohol.

Prochilus polynnus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 27, 1877; Philippines; Sumatra; Nias; Singapore; Bangkok; Java; Celebes; Flores; Solor; Amboina; Ceram; Haruko; Banda, Goram; Buru; New Guinea. Bleeker, Atlas Ichth., vol. 9, pl. 400, figs. 7-8, 1878.

Prochilus xanthurus Bleeker, Recherches faune Madagascar, Poissons, p. 85, 1878.

1432. *Amphiprion frenatus* Brevoort.

RiuKiu Islands, Japan, the Philippines, Moluccas, and Pelew Islands.

Amphiprion frenatus Brevoort, in Narr. Perry's Exped. China Seas and Japan, Nat. Hist., vol. 2, p. 263, pl. 6, fig. 3, 1856; Nafa, Okinawa, RiuKiu Islands. Gill, Proc. Acad. Nat. Sci. Phila., vol. 11, p. 148, 1860; Japan. Day, Fishes India, p. 378, pl. 80, fig. 2, 1878. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 22, p. 752, 1901. Jordan and Snyder, *ibid.*, vol. 24, p. 597, 1902; Okinawa and Shimoda, RiuKiu Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 504, 1912; Okinawa. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 12, pl. 2, fig. 1, 1927; San Fernando, La Union Province, Luzon; Calapan, Mindoro; synonymy in part. Herre, Copeia, p. 167, 1936; Dumaguete, Negros Oriental Province. Herre, Fishes 1936-37 Exped., Sitankai, Sulu Province.

Amphiprion tricolor Ishikawa and Matsuura, Preliminary Cat. Fishes, Imperial Mus. Tokyo, p. 31, 1897; Japan not of Günther.

Amphiprion polytepis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 9, 1928; Sabtang Island, Batanes Province. Port Hamilo, Batangas Province; Butauanan Island, Camarines Sur Province, and Batan Island, Albay Province, Luzon. Busin Harbor, Burias Island. Cataingan Bay, Masbate. Catbalogan, and Biri Channel, Balicuatro Island,

Samar Province. Pandanon Island, Bohol. Dalanganem Island, Cuyo Group, Sulu Sea. Puerto Princesa, Palawan. Mahinog, Camiguin Island, off north coast of Mindanao. Cagayan, Misamis Oriental Province; Murcielagos Bay, Misamis Occidental Province; Silino Island and Little Santa Cruz Island, Zamboanga Province, Mindanao, Sitankai reef and Taganak Island, Sulu Province; synonymy in part.

1433. *Amphiprion percula* (Lacépède). Harlequin fish.

Indo-Pacific from India to the Society Islands, and from China and the Philippines to Australia.

Lutjanus percula Lacépède, Hist. Nat. Poissons, vol. 4, pp. 194 and 239, 1802; Port Praslin, New Britain.

Amphiprion percula Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 298 (397), 1830; Port Praslin; Doreh, New Guinea; BoraBora; Vanicolo. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., p. 19, 1839-44; Indian Ocean; west Sumatra; Java Sea; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 6, 1862; China Sea; Sumatra; Amboina. Day, Fishes India, p. 379, pl. 80, fig. 4, 1878; Andaman Islands. Günther, Fische der Südsee, vol. 2, p. 225, pl. 124, fig. A, 1876-1881; East Indies; Solomon Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 335, 1913; Sanguisiapo, Sulu Archipelago; and 8 East Indian localities. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 14, pl. 2, fig. 2, 1927; Balayan Bay, Batangas Province, Luzon. Calapan, Mindoro. Bantayan Island, Cebu Province. Surigao, Surigao Province; Samal Island, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Basilan Island. Jolo and Sitankai, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 11, 1928; Bolinao Harbor (Bolina Bay), Pangasinan Province, Luzon; Catbalogan and Nabatas Point, Samar, Port Caltom, Busuanga. Cebu. Mompog Island, between Marinduque and Luzon. Endeavor Strait and Rasa Island. Mantaquin Bay, Palawan. Celebes and Sumatra, Dutch East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fish 1931 Philippine Exped., p. 68, 1934; Cullion; Dumaguete; Calapan, Mindoro; Sitankai, Sulu Province. Herre, Copeia, No. 2, p. 167, 1936; Dumaguete, Negros Oriental Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Estancia, Iloilo Province, Panay; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 345, fig. 43, 1940; 48 East Indian localities; Sulu Islands, Sulu Province; Philippines, and 16 other Indo-Pacific localities.

Amphiprion tunicatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 399, pl. 132, 1830; Vanicolo. Lesson, Voy. *Coquille*, Poissons, vol. 2, p. 192, pl. 25, fig. 3, 1830; Praslin, New Britain; Doreh, New Guinea.

Amphiprion ocellaris Cuvier and Valenciennes, Hist. Nat. Poissons, p. 399, 1830; Sumatra.

Amphiprion melanurus Cuvier and Valenciennes, *ibid.*, p. 400; Sumatra.

Prochilus percula Bleeker, Ned. Tijds. Dierk., vol. 1, p. 240, 1863; Obi Major. Bleeker, Atlas Ichth., vol. 9, pl. 400, fig. 2, 1878; 19 East Indian localities.

Amphiprion bicolor Castelnau, Proc. Zool. Acclimat. Soc. Victoria, vol. 2, p. 92, 1873; Port Darwin, Australia.

1434. *Amphiprion perideraion* Bleeker.

The East Indies, Philippines, and Pelew Islands.

Amphiprion perideraion Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 437, 1855; Obi Major. Günther, Cat. Fishes British Mus., vol. 4, p. 9, 1862; Amboina. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 16, pl. 4, fig. 1, 1928; Calapan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 305, 1928; after Bleeker. Herre, Copeia, No. 3, p. 167, 1936; Dumaguete, Negros Oriental Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 332, 1940; Obi Major; Amboina; Haruko; Ceram; Banda; Goram; Misol; Philippines; Pelew Islands. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao; Siluag Island, Sulu Province.

Prochilus perideraion Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 37, 1877.

1435. *Amphiprion polymnus* (Linnaeus).

The East Indies, Philippines, China, Indo-China, Andaman Islands, New Guinea, and Australia.

Perca polymna Linnaeus, Syst. Nat., ed. 10, p. 291, 1758; India.

Anthias bifasciatus Bloch, Naturges. Ausländ. Fische, vol. 6, p. 108, pl. 316, fig. 2, 1792.

Amphiprion bifasciatus Bloch and Schneider, Syst. Ichth., p. 204, 1801.

Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 302, 1830.

Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 282, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 3, 1862; Amboina; East Indies.

Day, Fishes India, p. 379, 1878; Supplement, p. 800, 1888. Montalban, Pomacentridae Philippine Islands, Bureau Sci. Monograph 24, p. 15,

pl. 3, fig. 1, 1928; Bauang Sur, La Union Province, and Atimonan, Tayabas Province, Luzon; Calapan, Mindoro; Estancia, Iloilo, Iloilo

Province, Panay; Cebu, Cebu; Corregidor, Manila Bay, Luzon.

Holocentrus bifasciatus Bloch and Schneider, Syst. Ichth., p. 567, 1801.

Lutjanus jourdin Lacépède, Hist. Nat. Poissons, vol. 4, pp. 191 and 235, 1803.

Amphiprion laticlavus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 296 (394), pl. 132, fig. 1, 1830.

Amphiprion intermedius Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, Overzigt. *Amphiprion* p. 18, 1839-41. Günther, Cat.

Fishes British Mus., vol. 4, p. 4, 1862; Molucca Sea.

Prochilus bifasciatus Bleeker, Verh. Akad. Amsterdam, vol. 16, p. 360, 1864; Saparua. Bleeker, Atlas Ichth., vol. 9, pl. 400, figs. 4, 5, and 6,

1878.

Amphiprion polymnus Löhnberg, Bihang Svenska Vet.-Akad., vol. 22, p. 43, 1896; on Linnaeus's type. Herre, Copeia, p. 167, 1936; Dumaguete, Negros Oriental Province. Herre, Fishes 1936-37 Exped.; Sitankai,

Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago,

vol. 8, p. 342, 1940; 16 East Indian localities; Philippines; Andaman

Islands; Annam; China; Darnley Island, Queensland.

Amphiprion unimaculatus Whitley, Mem. Queensland Mus., vol. 9, p. 233, 1929.

Amphiprion bifasciatus annamensis Chevey, Travaux Inst. Oceanogr. Indo-chine, 4^e Memoire, p. 99, 1932.

Genus 484. *PREMNAS* Cuvier.

Mauritius to the Philippines, East Indies, southeast to the New Hebrides and Queensland, Australia. Only one species known; marine.

Premnas Cuvier, Règne Animal, vol. 1, p. 345, 1817; type, *Chaetodon biaculeatus* Bloch. Günther, Cat. Fishes British Mus., vol. 4, p. 10, 1862. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 18, 1928. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 4, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 327, 1940.

1436. *Premnas biaculeatus* (Bloch).

Distribution that of the genus.

Chaetodon biaculeatus Bloch, Naturges. Ausländ. Fische, vol. 4, p. 11, pl. 219, fig. 2, 1790; East Indies.

Lutjanus trifasciatus Bloch and Schneider, Syst. Ichth., p. 568, 1801; on Koelreuter, Nov. Comm. Acad. Petropol., vol. 10, p. 346, pl. 8, fig. 5, 1763; Moluccas.

Scorpaena aculeata Lacépède, Hist. Nat. Poissons, vol. 3, pp. 258 and 268, 1802.

Holacanthus biaculeatus Lacépède, Hist. Nat. Poissons, vol. 4, p. 535, 1803; East Indies.

Holocentrus sonnerat Lacépède, Hist. Nat. Poissons, vol. 4, pp. 344 and 391, 1803; Mauritius.

Premnas trifasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 304 (405), 1830; Banda. Valenciennes, in Cuvier, Règne Animal, Illustr. ed., pl. 32, fig. 2, 1839. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, p. 19, pl. 6, 1839-41; Batavia, Java.

Premnas leucodesmus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 307 (409), 1830; Java.

Premnas semicinctus Cuvier and Valenciennes, *ibid.*, p. 307 (409), pl. 133, fig. 1, 1830.

Premnas unicolor Cuvier and Valenciennes, *ibid.*, p. 410, 1830; on *Scorpaena aculeata* Lacépède.

Premnas biaculeatus Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 6, p. 105, 1854; Banda. Günther, *Cat. Fishes British Mus.*, vol. 4, p. 10, 1862; Philippines; Ceram; Amboyna. De Crespigny, *Proc. Zool. Soc. London*, p. 248, 1869; commensal with *Actinia crasiacornis*. Day, *Fishes India*, p. 380, pl. 80, fig. 5, 1878; Malay Archipelago. Bleeker, *Atlas Ichth.*, vol. 9, pl. 402, figs. 7 and 9, 1878; the Philippines and 18 East Indian Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 334, 1913; Damar, Saleyer, and Tual, Dutch East Indies. Ahl, *Blätter für Aquarienkunde und Terrarienkunde*, vol. 37, No. 15, 1926. Montalban, *Pomacentridae Philippine Islands*, Monograph 24, Philippine Bureau Science, p. 18, 1928; Calapan, Mindoro; Bantayan Island, Cebu Province; Inabanga, Bohol; Surigao, Surigao Province, Mindanao; Bungao, Sitankai, and Tango Islands, Sulu Province. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 4, 1928; Malabon Market, Rizal Province, Luzon. Santa Cruz, Marinduque Island. Catbalogan, Samar. Simaluc Island and Tapiantana Island, Sulu Province, Philippines; also Celebes and Sumatra. McCulloch, *Mem. 5, Australian Mus.*, p. 292, 1929; Philippines. Herre, *Fishes 1931 Philippine Exped.*, p. 69, 1934; Sitankai, Sulu Province. Herre, *Copeia*, p. 167, 1936; Dumaguete, Negros Oriental Province. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 329, figs. 41-42, 1940; 30 East Indian localities; Philippines. *Sargus ensifer* Gray, *Cat. Fishes described by Gronow*, vol. 2, p. 66, 1854; Indian Sea.

Premnas epigrammata Fowler, *Jour. Acad. Nat. Sci. Phila.*, ser. 2, vol. 12, p. 532, pl. 19, lower right figure, 1904; Padang, Sumatra.

Genus 485. ABUDEFDUF Forskål. Damselfishes; Coral beauties; Coral fishes.

Tropical and subtropical Indo-Pacific and Atlantic Oceans; marine, but some species entering fresh water.

Abudefduf Forskål, *Descript. Animal.*, p. 59, 1775; type, *Chaetodon sordidus* Forskål. Montalban, *Pomacentridae Philippines*, Philippine Bureau Science Monograph 24, p. 76, 1928. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 121, 1928. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 393, 1940; excluding *Hemiglyphidodon* Bleeker.

Glyphisodon Lacépède, *Hist. Nat. Poissons*, vol. 4, p. 542, 1803; type, *Glyphisodon moucharra* Lacépède=*Chaetodon marginatus* Bloch=*Chaetodon sawatilis* L.; in part.

Glyphisodon Duméril, *Zoologie Analytique*, p. 336, 1806; type, *Chaetodon marginatus* Bloch.

Chrysiptera Swainson, *Nat. Hist. Animals*, vol. 2, p. 216, 1839; type, *Glyphisodon azureus* Cuvier and Valenciennes.

Stegastes Jenyns, *Voy. Beagle, Fishes*, p. 63, 1842; type, *Stegastes imbricatus* Jenyns.

Glyphidodon Gill, *Proc. Acad. Nat. Sci. Phila.*, pp. 45 and 147, 1862; type, *Chaetodon marginatus* Bloch.

Euchistodus Gill, *Proc. Acad. Nat. Sci. Phila.*, p. 145, 1862; type, *Euchistodus declivifrons* Gill.

Amblyglyphidodon Bleeker, *Verh. Holl. Maatsch. Wetenschappen*, ser. 3, vol. 2, p. 92, 1877; type, *Glyphisodon aureus* Cuvier and Valenciennes.

Paraglyphidodon Bleeker, *ibid.*, p. 116, 1877; type, *Paraglyphidodon oocycephalus* Bleeker.

Glyphidodontops Bleeker, *ibid.*, p. 128, 1877; type, *Glyphisodon azureus* Cuvier and Valenciennes.

1437. *Abudefduf anabatoides* (Bleeker).

East Indies and the Philippines.

Glyphisodon anabatoides Bleeker, *Verh. Bat. Gen.*, vol. 21, Labroid. ctenoid., p. 28, 1847; Batavia; Java.

Glyphidodon anabatoides Günther, *Cat. Fishes British Mus.*, vol. 4, p. 54, 1862; Java.

Pomacentrus (Pomacentrus) anabatoides Bleeker, *Verh. Holland. Maatsch. Wetenschappen*, ser. 3, vol. 2, p. 51, 1877; Java; Bawean. Bleeker, *Atlas Ichth.*, vol. 9, pl. 408, fig. 7, 1878. Fowler and Bean, *Bul. 100, U. S. N. M.*, vol. 7, p. 183, 1928; Balayan Bay and Nasugbu, Batangas Province, Luzon; Mansalay Island, Mindoro; Busin Harbor,

Burias Island; Cataingan Bay, Masbate; Catbalogan, Samar; Surigao, Surigao Province, Mindanao; Bolalo Bay, Endeavor Strait, and Rasa Island; Mantaquin Bay, Palawan. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 412, 1940; Pulu Weh; Singapore; Padang, Sumatra; Batavia, Java; Bali; Port Moresby, New Guinea; Philippines; synonymy in part. Herre, Collection of St. Paul's College, Dumaguete; Old Ayukitan, Negros Oriental Province, 1947. Herre, 1948 Coll.; Caldera Bay, Zamboanga Province, Mindanao.

1438. *Abudefduf assimilis* (Günther).

The Philippines and East Indies.

Glyphisodon uniozellatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, 119, 1853; Amboina; not of Quoy and Gaimard.

Glyphidodon assimilis Günther, Cat. Fishes British Mus., vol. 4, p. 52, 1862; Philippines; Borneo. Peters, Monatsber. Akad. Wiss. Berlin, p. 271, 1868; Paracali, Camarines Norte Province, Luzon.

Glyphidodontopsis uniozellatus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 133, 1877. Bleeker, Atlas Ichth., vol. 9, pl. 410, fig. 5, 1878; Philippines; Borneo; Letti; Timor; Batjan; Amboina; Haruku; Goram; not of Quoy and Gaimard.

Abudefduf sapphirus Jordan and Richardson, Bull. U. S. Bur. Fisheries., vol. 27, p. 264, fig. 10, 1908; Ticao Island, Philippines.

Abudefduf assimilis Weber, Siboga-Exped., vol. 57, Fische, p. 351, 1913; Sulu Islands, Philippines; and various East Indian localities. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 431, 1940; Sulu Islands, Sulu Province; Philippines; also 17 East Indian localities; Pelew, Solomon, and Fiji Islands; in part.

Chrysiptera assimilis Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 102, pl. 10, fig. 1, 1928; Barrio Navo, Luna, La Union Province, Luzon; Calapan, Mindoro; Apo Reef, west of Mindoro; Ticao Island; Bantayan Island; Cebu Province; Canigaran Palawan; Sibutu and Sitankai Islands, Sulu Province, Philippines.

1439. *Abudefduf aureus* (Cuvier and Valenciennes).

East Indies and the Philippines.

Glyphisodon aureus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 353 (472), 1830; Java. Valenciennes, in Cuvier, Règne Animal, Illustr. ed., pl. 33, fig. 1, 1839. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, Overzigt. *Amphiprion*, p. 22, pl. 5, fig. 1, 1839-41; Batavia, Java. Bleeker, Verh. Bat. Gen., vol. 21, Labroid, ctenoid, p. 21, 1847.

Glyphidodon aureus Günther, Cat. Fishes British Mus., vol. 4, p. 46, 1862; Amboina.

Glyphidodon (Amblyglyphidodon) aureus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 109, 1877; Java; Celebes, Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 405, fig. 4, 1878.

Adudefduf aureus Weber, Siboga-Exped., vol. 57, Fische, p. 348, 1913; Banda. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 87, 1928; Calapan, Mindoro; Gaspar Island, Marinduque; Tablas Island; Tagapula Island, Samar; New Washington, Capiz Province, Panay; Cabalian, Leyte. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 142, 1928; Port Matalvi, Zambales Province; Pasacao and Butauanan Island, Camarines Sur Province, Luzon. Port Maricaban; Verde Island Passage. Puerto Galera, Paluan Bay, and Mansalay, Mindoro. Santa Cruz, Marinduque Island. Romblon Harbor, Romblon. Busin Harbor, Burias Island. San Miguel Harbor, Ticao Island. Biri Channel, north of Samar. Bolalo Bay, Endeavor Strait, Makesi Island, Oysler Inlet, Ulugan Bay, Rasa Island in Mantaquin Bay, Palawan. Candaraman Island, Balabac. Port Caltom and Port Uson, Busuanga Island. Maribojoc Bay, Maribojoc, and Pandanon Island, north coast of Bohol. Parang, Cotabato Province, Pujada Bay, Davao Province, Inamucan Bay, Misamis Occidental Province, and Sacol and Tulnalutan Islands, Zamboanga Province, Mindanao. Isabela, Basilan Island. Tutu Bay, Jolo, Simaluc, Tara, Tataan, and Tumindao Islands, Sulu Province.

De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 418, 1940; 15 East Indian localities; Sulu Islands, Sulu Province, Philippines. Herre, 1948 Coll.; Siluag Island, Sulu Province.

1440. *Abudefduf azurepunctatus* Fowler and Bean.

This may prove to be *Abudefduf lacrymatus* (Quoy and Gaimard), altered by preservative.

The Philippines and Dutch East Indies. In the sea and in fresh water. *Glyphisodon lacrymatus* Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 6, 1878; (not of Quoy and Gaimard). Günther, Fische der Südsee, vol. 2, p. 232, pl. 125, fig. D, 1876-1881; Howland Island.

Abudefduf azurepunctatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 149, 1928; Port Matalvi, Zambales Province, Luzon. Bolalo Bay, Endeavor Strait, Makes Island, river at Nakoda Bay, and Ulugan Bay north of Oyster Inlet, Palawan. Candaraman Island, Balabac. Port Uson, Busuanga Island. Romblon Harbor, Romblon Island. Santa Cruz Island, Marinduque. Busin Harbor, Burias Island. San Miguel Harbor, Ticao Island. Mantacao Island, west coast of Bohol. Pujada Bay, Surigao Province, and Sacol Island, Zamboanga Province, Mindanao.

Abudefduf azurepunctatus de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 445, 1940; Sulu Islands, Sulu Province, Philippines; Danawan and Si Amil Islands, near international boundary line, British North Borneo; Talisse, Great Tobeia, and Batjan Islands, Dutch East Indies.

1441. *Abudefduf azysron* (Bleeker).

East Indies and the Philippines; marine.

Pomacentrus (Pomacentrus) azysron Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 50, 1877; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 410, fig. 1, 1878.

Abudefduf azysron Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 181, 1928; Quinalasag Island, Masamat Bay, Camarines Sur Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 425, 1940; Amboina; Philippines. Herre, 1948 Coll.; Siluag Island, Sulu Province.

1442. *Abudefduf bankieri* (Richardson).

China, the Philippines, East Indies, Solomon Islands, and Australia; marine.

Glyphisodon bankieri Richardson, Ichth. China Japan, p. 253, 1846; Hong Kong; China Seas.

Glyphisodon nemurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 73, 1857; Buru.

Glyphisodon bankieri Günther, Cat. Fishes British Mus., vol. 4, p. 54, 1862; China; Buru. AHeyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 343, 1876; Cape Grenville, Queensland, Australia.

Parapomacentrus bankieri Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 67, 1877; Buru; Ceram; Timor; Amboina.

Parapomacentrus bankieri Bleeker, Atlas Ichth., vol. 9, pl. 408, fig. 8, 1878. McCulloch, Mem. 5, Australian Mus., p. 297, 1929; Queensland; East Indies; Philippines; China.

Abudefduf Bankieri Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 92, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 181, 1928; Port Hamilo and Nasugbu, Batangas Province; Caracaran, Batan Island, Albay Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 326, 1928. De Beaufort, Fishes Indo-Australian Archipelago., vol. 8, p. 411, 1940; Padang, Sumatra; Bawean; Talaut Islands; Buru; Ceram; Amboina; Timor; Port Moresby, New Guinea; Philippines. Herre, Fishes 1940-41 Exped.; Santa Maria, Zamboanga Province, Mindanao; Coron, Busuanga Island.

Chromis wanthurus Weber, Siboga-Exped., vol. 57, Fische, p. 359, 1913; not of Bleeker.

Pomacentrus bankieri Montalban, Pomacentridae Philippines, Philippine Bureau Science, Monograph 24, p. 45, 1928; Bacon, Sorsogon Province, Luzon. Larena, Siquijor Island. Cagayan, Misamis Oriental Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 281, 1936; Tenibull, Ysabel Island, Solomon Islands.

1443. *Abudefduf behni* (Bleeker).

- East Indies, Philippines, Formosa, and Solomon Islands; marine.
Glyphisodon Behnii Bleeker, Verh. Bat. Gen., vol. 21, Labroid. etenoid. p. 25, 1847; Batavia, Java.
Glyphisodon xanthurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 345, 1853; Amboina.
Glyphidodon xanthurus Günther, Cat. Fishes British Mus., vol. 4, p. 47, 1862; Ceram; coasts of Flores, Sangi, and Amboyna.
Glyphidodon behnii Günther, Cat. Fishes British Mus., vol. 4, p. 48, 1862; Java.
Paraglyphidodon Behnii Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 12, 1877; Batavia, Java. Bleeker, Atlas Ichth., vol. 9, pl. 405, fig. 7, 1878.
Paraglyphidodon xanthurus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 122, 1877; Flores; Sangi; Obi Major; Ceram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 405, fig. 3, 1878.
Abudefduf xanthurus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 92, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 155, 1928; Port Matalvi, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo, Ligo Point, Balayan Bay, Nasugbu Cove, and Pagapas Bay, Batangas Province; Alibijaban Bay, Ragay Gulf, Tayabas Province; Canimo Island near Daet, Camarines Norte Province, Quinalasag Island, Masamat Bay, Butauanan and Maculabo Islands, and Galvaney Island, Camarines Sur Province; Caracaran, Batan Island, Agojo Point on Catanduanes Island, Porongpong Island, Palumbanes Group, Albay Province; Gubat, Bacon, and Matnog Bay, Sorsogon Province, Luzon. Balikias Bay and Tilik, Lubank Island. Mansalay, Sablayan, and Paluan Bay, Mindoro. Mompog Island, between Luzon and Minduque. Romblon Island. Alimango Bay, and Busin Harbor, Burias Island. Cataingan Bay, Masbate. Port Palapag and Biri Channel, north coast of Samar. San Roque, Leyte. Dalaganem Islands, Cuyo Group. Port Caltom, Busuanga Island. Malcochin Harbor, Linapacan Island, Bolalo Bay, Endeavor Strait, Port Langao, Rasa Island in Mantaquin Bay, and Ulugan Bay, Palawan. Bugsuk, Candaraman, Caxisigan Island and Port Ciego, Balabac. Lianga Bay, Surigao Province; Polloc, Cotabato Province; Inamucan Bay, and Mucielagos Bay, Misamis Occidental Province; and Little Santa Cruz and Tulnalutan Islands, Zamboanga Province, Mindanao. Jolo, Singaan, Tapiantana, Tara, and Tataan Islands, and Sitankai Reef, Sulu Province.
Chrysiptera xanthura Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 96, 1928; Bacon, Sorsogon Province, Luzon.
Abudefduf behnii Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 3, p. 160, 1928; after Bleeker; synonymy in part. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Sitankai, Sulu Province.
Abudefduf behni de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 422, 1940; 15 East Indian localities; Sulu Islands, Sulu Province, Philippines.

1444. *Abudefduf bengalensis* (Bloch).

- Bay of Bengal, Andaman Islands, East Indies, the Philippines, Indo-China, China, Japan, the Pelew, Solomon, Ellice, and Samoan Islands; marine; and entering river mouths.
Chaetodon bengalensis Bloch, Naturges. Ausländ. Fische, vol. 3, p. 110, pl. 213, fig. 2, 1787; Bengal.
Glyphisodon bengalensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 458, 1830; Vanicolo, Massaua, Red Sea, East Indies, Coromandel. Schlegel and Müller, Verh. Nat. Gesch. Ned. Zool., vol. 2, Overzigt. *Amphiprion*, p. 22, 1839-41; Java; Celebes. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.
Glyphidodon bengalensis Günther, Cat. Fishes British Mus., vol. 4, p. 41, 1862; Amboina. Kner, Reise Novara, Fische, vol. 1, p. 244, 1865; Java; Singapore; Hong Kong. Day, Fishes India, p. 387, 1878; not pl. 83, fig. 3; Andaman Islands. Bleeker, Atlas Ichth., vol. 9, pl. 407, fig. 4, 1878.

Glyphidodon affinis Günther, Cat. Fishes British Mus., vol. 4, p. 41, 1862; China.

Glyphidodon (Glyphidodon) bengalensis Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 99, 1877; Singapore; Bintang; Banka; Java; Sumbawa; Celebes; Sangi; Amboina; New Guinea.

Abudefduf bengalensis Weber, Siboga-Exped., vol. 57, Fische, p. 344, 1913. Montalban, Pomacentridae Philippines, Philippine Bureau Science, Monograph 24, p. 80, pl. 16, fig. 2, 1928; Taiton and Tanao Islands, Camarines Norte Province, and San Miguel Bay, Camarines Sur Province, Luzon; Halsey Harbor, Culion; Puerto Princessa, Palawan; Placer, Surigao Province, and Cagayan, Misamis Oriental Province, Mindanao; Sitankai Island, Sulu Province; Hong Kong, China. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 128, 1928; Catbalogan and Nabatas Point, Samar; San Miguel Harbor, Ticao Island; San Roque, Leyte; Sablayan, Mindoro; Pangauran River, Port Caltom, Busuanga Island; Malcochin Harbor, Linapacan Island; Endeavor Strait, Palawan; Port Ciego, Balabac; Zamboanga, Zamboanga Province, Mindanao. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 403, 1940; 18 East Indian localities; Philippines. Herre, Fishes 1940-41 Exped.; Nasugbu, Batangas Province, Luzon. Herre, Mem. Indian Mus., vol. 13, p. 375, 1941; Red Sea and Mozambique to the Andaman Islands, Philippines, and China.

Abudefduf seafasciatus Chevey, Travaux. Inst. Oceanogr. Indo-chine, Mem. 4, p. 103, 1932; Nhatrang, Annam, Indo-China; not of Lacépède.

1445. *Abudefduf biocellatus* (Quoy and Gaimard).

The Indo-Pacific, from the African coast to Australia, the Marshall and Tuamotu Islands, and north to Japan; marine.

Glyphisodon biocellatus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 389, 1825; Guam. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 482, 1830; Java; Guam; Kusale; New Hebrides. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., Overzigt. *Amphiprion*, p. 24, pl. 6, fig. 4, 1839-41; Java.

Chaetodon brownriggi Bennett, Fishes of Ceylon, pl. 8, 1828; Ceylon.

Glyphisodon brownriggi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 362, 1830. Barnard, Ann. South African Mus., vol. 21, p. 739, 1927; Natal coast.

Glyphisodon antjerius Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 481, 1830; Anjer, Java.

Glyphisodon punctulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 484, 1830; Guam.

Glyphisodon addjerinus Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, Overzigt. *Amphiprion*, p. 24, pl. 6, fig. 3, 1839-41; Anjer.

Glyphisodon balinensis Bleeker, Verh. Bat. Gen., vol. 22, Ichth. Bali, p. 9, 1849; Boleling, Bali.

Glyphisodon Rossi Bleeker, Nat. Tijds. Ned. Ind., vol. 7, p. 48, 1854; Nova Selma, Cocos Island.

Glyphidodon antjerius Günther, Cat. Fishes British Mus., vol. 4, p. 50, 1862; Amboyna; Borneo. Day, Fishes India, p. 387, pl. 81, figs. 4 and 5, 1878; Andaman Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 34, 1885; Cebu, Cebu Province, Philippines. Sangi, Sangir Islands, and Mysore, New Guinea.

Glyphidodon brownriggi Kner, Reise Novara, Fische, p. 244, 1865; Nicobar Islands. Günther, Fische der Südsee, vol. 2, p. 232, pl. 127, figs. B, C, E, 1877. Waite, Proc. Linn. Soc. New South Wales, ser. 2, vol. 9, p. 219, 1894; Maroubra and Port Jackson, Australia; Lord Howe Island.

Glyphidodon anjerius Peters, Monatsber. Akad. Wiss. Berlin, p. 271, 1868; Lauang, Samar, Philippines.

Chaetodon antjerius var. *biocellatus* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 2, p. 528, 1871; Koseir, Red Sea.

Glyphidodontops antjerius Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 131, 1877; the Philippines and 15 East Indian localities. Bleeker, Atlas Ichth., vol. 9, pl. 410, fig. 2, 1878.

Abudefduf antjerius Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 287, pl. 42, fig. 2, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 93, 1907; Bacon, Sorsogon Province,

Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 264, 1908; Calayan Island, Babuyan Islands, north of Luzon; Ticao Island. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 297, 1911; Arhoo Atoll, Marshall Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 419, 1912; Tanegashima, Japan.

Abudefduf brownriggi Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 264, 1908; Ticao Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Cullion; Cebu, Cebu Province; Dumaguete, Negros Oriental Province; Punta Flecha, Zamboanga Province, Mindanao; Sitankai, Sulu Province.

Abudefduf brownriggi Weber, *Siboga*-Exped., vol. 57, Fische, p. 352, 1913; Sanguislapo, Sulu Province, Philippines, and 12 East Indian localities.

Chrysiptera brownriggi Montalban, Pomacentridae, Philippine Islands, Philippine Bureau Science Monograph 24, p. 105, 1928; Curimao, Ilokos Norte Province; Barrio Nalvo, Luna, and Paraor, La Union Province; Nasugbu, Batangas Province; and Bacon, Sorsogon Province, Luzon; Polillo Island, east of Luzon; Puerto Galera and Calapan, Mindoro; Despujols, Tablas Island; Cabalian and Canigao Islands, Leyte, San Juan, Siquijor Island; Canigaran, Palawan; Balabac Island; south coast of Cotabato Province, Mindanao; not synonymy.

Abudefduf biocellatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 166, 1928; Canimo Island near Daet, Camarines Norte Province; Maculabo Island, Camarines Sur Province; Batan Island, Albay Province; Gubat Bay, Sorsogon Province, Luzon. Sablayan Island, Mindoro; San Pascual, Burias Island; Ticao Island; Port Palapag, Samar. Bugsuk Island, Balabac Reef, Cebu, Cebu Province. Zamboanga and Silino Island, Zamboanga Province, Mindanao. Pilas Island, off Basilan. Simaluc and Tara Islands, Sulu Province. Danawan and Si Amil Islands, just south of Philippine boundary in British North Boreno. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 436, 1940; 54 East Indian localities; Sulu Islands, Sulu Province; Philippines; also many other Indo-Pacific localities; synonymy in part. Herre, Fishes 136-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga Island; Dumaguete, Negros Oriental Province; Kolambugan, Lanao Province, Mindanao; Sitankai, Sulu Province; Philippines.

1446. *Abudefduf bleekeri* Fowler and Bean.

A Philippine species, no doubt occurring in the East Indies also; marine. *Abudefduf bleekeri* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 165, pl. 15, 1928; Jolo, Jolo Island, Pangasinan Island, and Tinakta Light, Sulu Province, Philippines; not synonymy. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 433, 1940; Sulu Islands; Philippines; after Fowler and Bean.

Iredaleichthys bleekeri Roxas and Martin, Check List Philippine Fishes, p. 195, 1937.

1447. *Abudefduf bonang* (Bleeker).

The East Indies, Philippines, Samoa, and Japan, to India. Marine. *Glyphisodon bonang* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 583, 1852; Padang, Sumatra.

Glyphidodon bonang Günther, Cat. Fishes British Mus., vol. 4, p. 45, 1862; coasts of Java and Sumatra. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 34, 1885; North Celebes.

Glyphidodon mutabilis Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 100, 1874; Cebu, Cebu.

Paraglyphidodon bonang Bleeker. Verh. Holland. Maatsch Wetenschappen, ser. 3, vol. 2, p. 118, 1877; Sumatra; Java. Bleeker, Atlas Ichth., vol. 9, pl. 403, fig. 1, 1878.

Chrysiptera bonang Franz, Abh. Bayerisch. Akad. Wiss., p. 58, 1910; Aburatsubo, Japan.

Abudefduf bonang Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 154, 1928; Caracaran, Batan Island, Albay Province. Port Banalacan, Marinduque Island, Mahinog, Camiguin Island, north coast of Misamis Oriental Province, and Murcielagos Bay, Misamis Occidental

Province, Mindanao. Danawan and Si Amil Islands, east coast of British North Borneo, just south of the Philippine boundary line. Tidore Island in the Moluccas, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 320, 1928; Samoa. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 420, 1940; Java; Sumatra; Maqura Strait; North Celebes; Tidore; Philippines; Travancore, India; Japan; Samoa.

1448. *Abudefduf coelestinus* (Cuvier and Valenciennes).

East coast of Africa to the East Indies, Philippines, Japan, and Australia, and east to the Tuamotu Islands. In the sea and in brackish water.

?*Labrus seofasciatus* Lacépède, Hist. Nat. Poissons, vol. 3, p. 430, pl. 19, fig. 2, 1802; "The Great Ocean."

Glyphisodon coelestinus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 464, pl. 348, 1830; Sea of the Indies; Mauritius; Malabar; Ulitea; Society Islands. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 9, p. 508, 1833; Seychelles. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool. 1839-41; Overzigt. *Amphiprion*, p. 22; Batavia, Java; Manado, Celebes. Richardson, Ichth. China Japan, p. 253, 1846; China. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, ser. 2, vol. 2, p. 145, 1866; Madagascar. Whitley, Australian Zoologist, vol. 4, p. 230, 1926; 5 Australian localities; the Philippines; New Hebrides; Amboina; Samoa; Friendly Islands.

Glyphidodon coelestinus Günther, Cat. Fishes British Mus., vol. 4, p. 38, 1862; Hong Kong; Pinang; China; Amboyna; in part. Peters, Monatsber. Akad. Wiss. Berlin, p. 271, 1868; south coast (Albay Province) Luzon, Philippines. Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 101, 1877; Philippines and 23 East Indian localities; in part. Günther, Fische der Südsee, vol. 2, p. 229, pl. 126, fig. B, 1881.

Abudefduf coelestinus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 285, pl. 41, fig. 1, 1906; Apia and Pago Pago, Samoa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 505, 1912; Okinawa, Riu Kiu Islands. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 48, 1922; Cebu, Cebu Province, Philippines. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 83, pl. 8, fig. 1, 1928; Barrio Nalvo, Luna, La Union Province, and San Miguel Bay, Camarines Sur Province, Luzon. Calapan, Mindoro. Masbate. Halsey Harbor, Culion. Bogo, Cebu Province. Cabalian, Leyte. Canigaran, near Puerto Princesa, Palawan. Placer, Surigao Province; Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao. Bungau Sibutu, and TawiTawi Islands, Sulu Province. Also Guam. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 409, 1940; 13 East Indian localities; Philippines. Herre, Fishes 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga Island; Santa Maria, Zamboanga Province, Mindanao.

Abudefduf seofasciatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 129, 1928; Santo Domingo de Basco, Batan Island, Batanes Province. Palau Island, Cagayan Province, off north coast of Luzon. Limbones Cove, Cavite Province; Canmahala Bay, Ragay Gulf, and Capulaan Bay, Pagilao Island, Tayabas Province; Quinalasag Island, Masamat Bay, and Butauanan Island, Camarines Sur Province; Batan Reef, Albay Province, Luzon. Alimango Bay and Busin Harbor, Burias Island. Sablayan, Mindoro. Mompog Island, between Marinduque and Luzon. Porongpong Island, Palumbanes Group, west of northern part of Catanduanes Island. Romblon Island. San Miguel Harbor. Ticao Island. Biri Channel on north coast, and Catbalogan, Samar. Port Dupon, Leyte. Cebu, Cebu. Port Caltom, Busuanga Island. Makesi Island, Observatory Inlet, Port Langcan, Bolalo Bay, and Endeavor Strait, Palawan. Candaraman Island, Balabac.

1449. *Abudefduf coracinus* Seale.

A Philippine species; very close to *A. behni* (Bleeker).

Abudefduf coracinus Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 521, pl. 13, 1909; Sitankai, Sulu Province. Montalban, Pomacentridae Philippines, Philippine Bureau Science, Monograph 24, p. 89, pl. 13, fig. 1, 1928; Sitankai and Sibutu Islands, Sulu Province.

1450. *Abudefduf curacao* (Bloch).

East Indies, Philippines, RiuKiu Islands, east to the Marshall Islands, south to the New Hebrides and Queensland, Australia, and east to Fiji and Samoa; marine.

Chaetodon curacao Bloch, *Ichthyologie*, vol. 5, p. 106, pl. 212, fig. 1, 1787; "Southern America, Curaçao Island"; locality erroneous.

Glyphisodon curassao Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 352 (471), 1830.

Glyphisodon trifasciatus Bleeker, *Verh. Bat. Gen.*, vol. 21, Labroid. Ctenoid., p. 19; 1847; Java.

Glyphisodon Schlegelii Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 4, p. 138, 1853; Ternate.

Glyphisodon ternatensis Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 4, p. 137, 1853; Ternate.

Glyphidodon trifasciatus Günther, *Cat. Fishes British Mus.*, vol. 4, p. 42, 1862; Amboyna; Ceram. Günther, *Fische der Südsee*, vol. 2, p. 231, 1881; East Indies and Ponapé, Caroline Islands.

Glyphidodon Scheleglii Günther, *Cat. Fishes British Mus.*, vol. 4, p. 40, 1862; coasts of Ternate, Celebes, and Goram.

Glyphidodon (Amblyglyphidodon) trifasciatus Bleeker, *Verh. Holland. Maatsch. Wetenschappen*, ser. 3, vol. 2, p. 105, 1877; Batu; Nias; Java; Celebes; Flores; Ternate; Ceram; Amboina. Bleeker, *Atlas Ichth.*, vol. 9, pl. 410, fig. 3, 1878.

Glyphidodon (Amblyglyphidodon) ternatensis Bleeker, *Verh. Holland. Maatsch. Westenschappen*, ser. 3, vol. 2, p. 106, 1877. Bleeker, *Atlas Ichth.*, vol. 9, pl. 404, fig. 1, 1878.

Glyphidodon nigrifrons Macleay, *Proc. Linn. Soc. New South Wales*, vol. 8, p. 271, 1883; southeast of New Guinea.

Glyphisodon leucogaster Fowler, *Jour. Acad. Nat. Sci. Phila.*, ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra; not of Bleeker.

Chromis analis Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 292, 1906; Apia, Samoa; not of Cuvier and Valenciennes.

Abudefduf curacao Evermann and Seale, *Bull. U. S. Bureau Fisheries*, vol. 26, p. 93, 1907; Bacon Sorsogon Province, Luzon. Weber, *Siboga-Exped.*, vol. 57, *Fische*, p. 347, 1913; Elat and Koepang, Timor. Fowler and Bean, *Proc. U. S. Nat. Mus.*, vol. 62, p. 48, 1922; Zamboanga, Zamboanga Province, Mindanao. Montalban, *Pomacentridae Philippines*, Philippine Bureau Science Monograph 24, p. 85, pl. 17, fig. 1, 1928; Bacon, Sorsogon Province, Luzon. Sialat Point, Catanduanes Island. Calapan and Puerto Galera, Mindoro. Bantayan Island and Bogo, Cebu. Cabalian, Leyte. Bungau, Sibutu, and Tawi-Tawi Islands, Sulu Province. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 71, 1934; Culion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, *Fishes 1940-41 Exped.*; Puerto Galera, Mindoro; Jolo, Sulu Province.

Glyphisodon nigrifrons McCulloch, *Records Australian Mus.*, vol. 11, p. 182, 1917.

Abudefduf philippinus Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 70, p. 54, fig. 21, 1918; Philippine Islands. Montalban, *Pomacentridae Philippines*, Philippine Bureau Science Monograph 24, p. 89, 1928; after Fowler.

Glyphisodon leucogaster Fowler and Bean, *Proc. U. S. Nat. Mus.*, vol. 62, p. 48, 1922; Zamboanga, Zamboanga Province, Mindanao.

Abudefduf curacao Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 138, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Port Matalvi, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo, Pagapas Bay, and Ligo Point, Balayan Bay, Batangas Province; Capulaan Bay, Pagbilao Island, Canmahata Bay, Ragy Gulf, and Albijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Quinalasag Island, Masamat Bay, and Butaanan Island, Camarines Sur Province; Maagnas, Lagonoy Gulf, Paron Point, Albay Gulf, and RapuRapu Island, Albay Province; Langao Point, and Matnog Bay, Sorsogon Province, Luzon. Tilik, Lubang Island, China Sea, off Mindoro. Varadero Bay, Puerto Galera, Sablayan, and Mansalay, Mindoro. Maricaban and northwest of Verde Island, Verde Island Passage. Port Banala-

can, Marinduque. Romblon Harbor, Romblon. San Miguel Harbor, Ticao Island. Alimango Bay and Busin Harbor, Burias Island, Biri Channel, Port Palapag, Catbalogan, Samar. Port Dupon and San Roque, Leyte. Pandanon Island, Mantacao, and Maribojoc Bay, Maribojoc, Bohol. Mactan Cove, Mactan Island, and Calangaman Island, Cebu Province. Port Caltom and Port Uson, Busuanga. Cagayan I., northern Sulu Sea. Port Langean Rasa Island in Mantaquin Bay, Ulugan Bay, Makesi Island, Malcochin Harbor, Linapacan Islands, and Jolo, Sulu Province. De Beaufort, Fishes Indo-Austral-suk, and Candarman Islands, Balabac. Parang and Polloc, Cotabato Province; Pujada Bay, Davao Province; Surigao, Surigao Province, Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province; Zamboanga and Little Santa Cruz Island, Zamboanga Province, Mindanao. Tara, Taganak, Tapiantana, Tonquil, Simulac and Tulaylan Islands, and Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 414, 1940; 20 East Indian localities; the Philippines, and 10 more tropical Pacific places.

Amblyglyphidodon curacao Whitley, Mem. Queensland Mus., vol. 9, p. 241, 1929.

Abudefduf ternatensis Giltay, Mem. Mus. Hist. Nat., vol. 5, p. 75, 1933; Weeim Island, north of Misol.

1451. *Abudefduf cyaneus* (Quoy and Gaimard).

The East Indies, Philippines, RiuKiu Islands, Marianas, New Hebrides, and Samoa; marine.

Glyphisodon cyaneus Quoy and Gaimard, Voy. *Uranie*, Zoologie, vol. 2, p. 392, pl. 64; fig. 3, 1824.

Glyphisodon azureus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 359 (479), 1830; Timor; Friendly Islands; on Quoy and Gaimard. Günther, Cat. Fishes British Mus., vol. 4, p. 53, 1862; Timor; Friendly Islands.

Abudefduf cyaneus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 92, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 168, 1928; Grande Island Reef, Subig Bay, Bataan Province, and Bacon, Sorsogon Province, Luzon; Biri Channel, north of Samar; Cebu market, Cebu; not synonymy. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Dumaguete; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 432, 1940; Timor; New Guinea; Philippines. Synonymy in part. Herre, 1948 Coll.; Layia, Batangas Province, Luzon.

Chrysiptera cyanea Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 101, 1928; Bacon, Sorsogon Province, Luzon; southern coast of Cotabato Province, Mindanao. Synonymy in part.

1452. *Abudefduf dicki* (Liénard).

Mauritius to the Philippines, East Indies, Samoa, and the Society Islands; marine.

Glyphisodon dickii Liénard, Soc. Hist. Nat. Maurice, Dix Rap., p. 35, 1839; Mauritius.

Glyphidodon Dickii Bleeker, Ned. Tijds. Dierk., vol. 1, p. 274, 1863. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 432, 1891.

Glyphidodon (Stegastes) Dickii Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 115, 1877; Timor; Ceram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 409, fig. 7, 1878.

Glyphidodon dicki Günther, Fische der Südsee, vol. 12, p. 232, pl. 125, fig. C, 1881; Mauritius; East Indies; Samoa; Ponapé.

Abudefduf dicki Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 285, pl. 41, fig. 2, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 294, 1936; BoraBora, Society Islands; Tenibuli, Ysabel island, Solomon Islands.

Abudefduf dickii Montalban, Pomacentridae Philippines, Philippine Bureau Science, Monograph 24, p. 91, 1928; Cagayancillo, Cagayan Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 147,

1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Cuyo, Cuyo Islands, north end of Sulu Sea. San Roque, Leyte. Silino Island, Zamboanga Province, Mindanao. Sipadan, Usada Island, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 442, 1940; Borneo Bank, Flores, Timor, Banda, Amboina, Ceram, and Buru, in Dutch East Indies; Sulu Islands, Sulu Province; Philippines; Mauritius, Guam; Ponape; Solomon Islands; Rotuma; Samoa; Society Islands; Palmyra Island.

Negostegastes dickii Roxas and Martin, Check List Philippine Fishes, p. 196, 1937.

1453. *Abudefduf glaucus* (Cuvier and Valenciennes).

Guam to Samoa and the Tuamotu Islands, Riu Kiu Islands, Philippines, East Indies, and India; marine.

Glyphisodon glaucus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 475, 1830; Guam.

Glyphidodon modestus Schlegel and Müller, Nat. Gesch. Ned. Zool., vol. 2, p. 23, pl. 6, fig. 2, 1839-41; Java Sea; north Java; south Borneo; west Sumatra. Günther, Cat. Fishes, British Mus., vol. 4, p. 55, 1862; Amboyna; China Seas. Day, Fishes India, p. 388, pl. 81, fig. 6, 1878; Andaman Islands.

Glyphidodontops modestus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 131, 1877; Sumatra; Nias; Java; Bali; Borneo; Buru, Amboina. Bleeker, Atlas Ichth., vol. 9, p. 403, fig. 9, 1878.

Abudefduf glaucus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 286, 1906. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 93, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 264, 1908; Ticao Island; Cagayancillo, Cagayan Islands, Sulu Sea. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 419, 1912; Misaki and Tanegashima, Japan; Okinawa, Riu Kiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 169, 1928; Batan Island, RapuRapu Strait, Albay Province, and Gubat Bay, Sorsogon Province, Luzon. Mansalay Island and Sablayan, Mindoro. Port Caltom, Busuanga Island. Cataingan Bay, Masbate. Nogas Point, Panay. Simaluc Island and Sitankai, Sulu Province. Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Mem. Bishop Mus., vol. 10, p. 322, 1928; Apia and PagoPago, Samoa; Makatea, Makemo, Fakarava, and Mangareva, Tuamotu Islands; Johnston and Wake Islands; Rarotonga Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 302, 1936; Suva, Fiji; Wala Island, New Hebrides. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. Herre, 1948 Coll.; Dumaguete and Siaton, Negros Oriental Province; Siluag Island, Sulu Province.

Abudefduf modestus Weber, *Siboga*-Exped., vol. 57, Fische, p. 350, 1913; Lucipara Reef.

Abudefduf zonatus Fowler and Silvester, (not of Cuvier and Valenciennes), Pub. No. 312, Carnegie Inst., Washington, p. 120, 1922; Pago-Pago, Samoa.

Chrysiptera glauca Montalban. Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 111, 1928; Bacon, Sorsogon Province, Luzon; Ticao Island; Cagayancillo, Cagayan Islands, Sulu Sea.

Iredaleichthys glaucus Roxas and Martin, Check List Philippine Fishes, p. 195, 1937.

1454. *Abudefduf hemicyaneus* Weber.

East Indies and Philippines.

Glyphidodon cyaneus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 273, 1863; Timor; not of Quoy and Gaimard.

Glyphidodontops cyaneus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 130, 1877; Timor; not of Quoy and Gaimard. Bleeker, Atlas Ichth., vol. 9, pl. 400, fig. 2, 1878; not of Quoy and Gaimard.

Abudefduf hemicyaneus Weber, *Siboga*-Exped., vol. 57, Fische, p. 351, 1913; Kei Islands. De Beaufort, Fishes Indo-Australian Archipelago,

vol. 8, p. 430, 1940; Timor; Kei Islands; Philippines. Herre, Fishes 1940-41 Exped.; Jolo, Sulu Province, Philippines.

Abudefduf parasema Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 56, fig. 22, 1918; Philippines.

Chrysiptera parasema Montalban, Pomacentridae Philippines, Philippine Bureau Science, Monograph 24, p. 100, pl. 19, fig. 1, 1928; Bungau and TawiTawi Islands, Sulu Province, Philippines.

Abudefduf sapphirus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 8, p. 175, 1928; Port Matalvi, Zambales Province; Canimo Island, near Daet, Camarines Norte Province; Ragay Bay, Ragay Gulf, and Butaanan Island, Camarines Sur Province; Batan Island, and RapuRapu Island, Albay Province; Gubat Bay, Sorsogon Province, Luzon. Busin Harbor, Burias Island; Romblon; Cataingan Bay, Masbate; Port Palapag and Biri Channel, Balicuatro Islands, north of Samar; Bolalo Bay, Endeavor Strait, Makesi Island, and Ulugan Bay, Palawan; Port Uson, Busuanga Island; Mantacao Island, Bohol. Sacol Island, Zamboanga Province, Mindanao. Tataan Island, Sulu Province. Not of Jordan and Richardson.

Iredaleichthys sapphirus Roxas and Martin, Check List Philippine Fishes, p. 195, 1937.

1455. *Abudefduf lacrymatus* (Quoy and Gaimard).

Red Sea to the East Indies, Philippines, Marianas, Solomon Islands, New Hebrides, Samoa, and Tahiti; marine.

Glyphisodon lacrymatus Quoy and Gaimard, Voy. *Uranie*, Zoologie, vol. 2, p. 388, pl. 62, fig. 7, 1824; Guam. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 478, 1830; Guam. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 303, 1855; Ternate.

Glyphidodon lacrymatus Günther, Cat. Fishes British Mus., vol. 4, p. 49, 1862; coasts of Java; Sangi; Ternate; Guam; after Bleeker. Klunzinger, Verh. Zool.-bot. Gesell. Wien, vol. 21, p. 527, 1871; Koseir, Red Sea; in part. Günther, Fische der Südsee, vol. 2, p. 232, pl. 125, fig. D, 1876-1881; Howland Island; Guam; Yap.

Glyphidodon (Stegastes) lacrymatus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 111, 1877; Sumatra; Java; Timor; Sangi; Ternate; Ceram. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 6, 1878.

Abudefduf lacrymatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 83, 1901; Guam. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 285, 1906; Apia, Samoa. Montalban, Pomacentridae Philippines, Bureau Science Monograph 24, p. 93, pl. 7, fig. 1, 1928; Tagbilaran, Bohol; Canigaran, Palawan; Bungau, Sitankai, South Ubian, and Tambagaan Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 151, 1928; Palau Island, Cagayan Province; Port Matalvi, Zambales Province; Ligo Point, Balayan Bay, and Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province. Canimo Island, near Daet, Camarines Norte Province. Quinalasag Island, Masamat Bay, Maculabo Island, and Butaanan Island, Camarines Sur Province, Bataan Island, Langao Point, Maagnas, Lagonoy Gulf, Paron Point in Albay Gulf, and RapuRapu Island, Albay Province, Luzon. Lubang Island, off northwest coast of Mindanao. Port Maricaban, Verde Island Passage. Sablayan, Mansalay, and Galera Bay, Mindoro. Mompog Island, between Marinduque and Luzon. Santa Cruz Island, Marinduque. San Miguel Harbor, Ticao Island. Parongpong Island, Palumbanes Group, west of north end of Catanduanes Island. Biri Channel, north coast of Samar. Port Dupon, Leyte; Calangaman Island, between Leyte and Cebu. Maribojoc Bay, Maribojoc, Bohol. Malapascua Island and Mactan Island, Cebu Province; Port Langean, Bolalo Bay, and Oyster Inlet, Ulugan Bay, Palawan. Cuyo and Dalanganem, Cuyo Islands. Port Ciego, Bugsuk Island and Candaraman Island, Balabac. Pujada Bay, Davao Province; Murcielagos Bay, Misamis Occidental Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Jolo, Tara Island, and Simaluc Island, Sulu Province, Philippines. Synonymy in part. Fowler, Mem. Bishop Mus., vol. 10, p. 320, 1928; Nukuhiva, Marquesas Islands; Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Dumaguete; Calapan, Min-

doro. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 295, 1936; Ugi Island and Tenibuli, Ysabel Island, Solomon Islands. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 439, 1940; 15 East Indian localities; Sulu Islands, Sulu Province; Philippines.
Megostegastes lacrymatus Roxas and Martin, Check List. Philippine, Fishes, p. 196, 1937.

1456. *Abudefduf leucogaster* (Bleeker).

From the Red Sea to the Society Islands, north of the RiuKiu Islands, and south to Queensland, Australia; marine.

Glyphisodon leucogaster Bleeker, Verh. Bat. Gen., vol. 21, 1847; Java.

Glyphidodon leucogaster Günther, Cat. Fishes, British Mus., vol. 4, p. 46, 1862; Amboyna; Java; Banda. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 523, 1871; Koseir, Red Sea. Day, Fishes India, p. 388, pl. 81, fig. 3, 1878.

Glyphidodon (Amblyglyphidodon) leucogaster Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 108-1877; Java; Duizend Islands; Timor; Buru; Ceram; Amboina; Banda. Bleeker, Atlas Ichth., vol. 9, pl. 407, fig. 6, 1878.

Abudefduf leucogaster Weber, Siboga-Exped., vol. 57, Fische, p. 348, 1913; Amboina and Banda. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 88, 1928; Calapan, Mindoro; Cabalian, Leyte; Bungau, Jolo, and Sibutu Islands, Sulu Province; omitting citation from Fowler and Bean. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 171, 1928; Ligo Point, Balayan Bay, Batangas Province; Quinalasag Island, Masamat Bay, Canmahala Bay and Pasacao, Ragay Gulf, Camarines Sur Province; RapuRapu Island, Tabaco Bay, and Caracaran, Batan Island, Albay Province, Luzon. Port Maricaban and northwest of Verde Island, Verde Island Passage, between Mindoro and Luzon. Galera Bay, Mansalay, and Sablayan, Mindoro, Busin Harbor, Burias Island. San Miguel Harbor, Ticao Island, Maribojoc Bay, Port Palapag and Biri Channel, Samar. Maribojoc Bay, Maribojoc and Mantacao Island, Bohol. Port Dupon, Leyte. Mactan Island and Malapascua Island, Cebu Province. Bolalo Boy, Palawan. Port Caltom, Busuanga Island. Polloc, Cotabato Province; Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province; and Capunuyugan, Mindanao. Tutu Bay, Jolo, Tapiantama and Tara Islands, Sulu Province. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 69, 1930; Riukiu Islands. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Taytay, Palawan Province. Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 416, 1940; 13 East Indian localities; Sulu Islands, Sulu Province, Philippines. Herre, 1948 Coll.; Manila Bay.

1457. *Abudefduf leucozona* (Bleeker).

East coast of Africa to the East Indies, Philippines, Guam, Pelews, Australia, and from Polynesia to the Marquesas Islands; marine.

Glyphisodon leucozona Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 338, 1859; Karangbollong, Java. Waite, Records Australian Mus., vol. 5, p. 235, 1904; coast of New South Wales. Barnard, Ann. South African Mus., vol. 21, p. 741, 1925-27; Natal coast.

Glyphidodon leucozona Günther, Cat. Fishes British Mus., vol. 4, p. 49, 1862; Java. Kner, Sitzungsber. Akad. Wiss., Wien, vol. 58, p. 350, 1868; Savay, Samoa. Regan, Ann. Durban Mus., vol. 2, p. 76, 1917-20; Natal.

Glyphidodon cingulum Klunzinger, Verh. Zool.-Bot. Gesell. Wien, p. 526, 1871; Red Sea.

Glyphidodon cingulatus Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 101, 1874; Ubay, Bohol.

Glyphidodon (Stegastes) leucozona Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 112, 1877; Java; Solor. Bleeker, Atlas Ichth., vol. 9, pl. 407, fig. 2, 1878.

Abudefduf leucozona Weber, Siboga-Exped. vol. 57, Fische, p. 349, 1913; Savu. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 92, pl. 18, fig. 2, 1928; Balabac Island, Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 295, 1936; Nuka-Hiva Island, Marquesas; Viti Levu and Ovalau Islands, Fiji Islands; Wala Island, New Hebrides. De Beaufort, Fishes Indo-

Australlan Archipelago, vol. 8, p. 440, 1940; Pulu Weh; Karangbollong, Java; Solor; Sumba; the Philippines and 9 other Indo-Pacific localities.

Abudefduf leucozonus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 149, 1928; after Bleeker.

1458. *Abudefduf melanocarpus* Fowler and Bean.

A Philippine fish; marine.

Abudefduf melanocarpus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 182, 1928; Cabugao Bay, Catanduanes Island, and Lianga Bay, Surigao Province, Mindanao.

1459. *Abudefduf melas* (Cuvier and Valenciennes),

East coast of Africa to the Philippines, East Indies, RiuKiu Islands, and east to the Hawaiian and Marquesas Islands; marine, but occasionally entering fresh water.

Glyphisodon melas Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 472, 1830; Java. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, Overzigt. *Amphiprion*, p. 23, 1839-41; Java; Manado; Amboina.

Glyphisodon ater Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 473, 1830; Massauah, Red Sea.

Glyphisodon violaceus Brevoort, Exp. Japan, vol. 2, p. 264, 1856; RiuKiu Islands.

Glyphidodon melas Günther, Cat. Fishes British Mus., vol. 4, p. 45, 1862; Ceram; Aneiteum, New Hebrides. Günther, in Playfair and Günther, Fishes Zanzibar, p. 83, 1866; Aden; Zanzibar. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 526, 1871; Red Sea. Day, Fishes India, Supplement, p. 801, 1888.

Paraglyphidodon melas Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 123, 1877; Nias; Singapore; Java; Celebes; Solor; Ceram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 4, 1878.

Glyphidodon (*Paraglyphidodon*) *melas* Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 502, 1900.

Abudefduf melas de Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 128, 1913; Saonek, New Guinea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 161, 1928; Port Matalvi, Zambales Province; Limbones Cove, Cavite Province; Port Hamilo, Nasugbu Bay, Pagapas Bay, and Balayan Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island and Basut River in fresh water, Camarines Norte Province; Canmahala Bay, Galvaney Island, and Pasacao, Ragay Gulf, Butauanan Island and Quinalasag Island, Masamat Bay, Camarines Sur Province; Paron Point, Albay Gulf, Langao Point and RapuRapu Island, Albay Province; Matnog Bay, Sorsogon Province, Luzon. Bilikias Bay and Tilik, Lubang Island, in the China Sea off northwest corner of Mindoro. Maricaban Island and Verde Island, Verde Island Passage. Paluan Bay and Galera Bay, Mindoro, Mompog Island, between Marinduque and Luzon. Cataingan, on north coast, and Catbalogan, Samar. San Roque, Leyte. Malapascua Island, Cebu Province. Dalanganem Island and Cuyo Group, Sulu Sea. Rasa Island, Palawan. Caxisigan, Bugsuk, and Candaraman Islands, Balabac. Murcielagos Bay and Inamucan Bay, Misamis Occidental Province. Little Santa Cruz, Sacol, and Tulnalutan Islands, Zamboanga Province, and Capunuypugan, Mindanao. Pilas Island and Lampinigan Island, off Basilan Island. Sulade, Taganak, Tonquil, Tara, Singaan, and Tumindao Islands, and Tutu Bay, Jolo Island, Sulu Province, Philippines. Danawan and Si Amil Islands, British North Borneo, just across the Philippine boundary line. Also 4 localities on the coast of Celebes; Buru and Tidore Island, East Indies. Okinawa, RiuKiu Islands. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Jolo and Sitankai, Sulu Province, Philippine Islands. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 296, 1936; Atuona, Hiva Oa Island, Marquesas Islands; Vita Levu Island, Fiji. Tenibuli, Ysabel Island, Solomon Islands. DeBeaufort, Fishes Indo-Austr. Arch., vol. 8, p. 424, 1940; 17 East Indian localities. Philippines and Sulu Islands, Sulu Province, Philippine Islands. Also 13 Indo-Pacific localities.

Glyphisodon (*Paraglyphidodon*) *melas* Whitley, Records Australian Mus., vol. 16, p. 21, 1927.

- Chrysiptera melas* Montalban, Pomacentridae Philippine Islands, Bur. Sci. Monogr. 24, p. 95, pl. 19, fig. 2, 1928; Sialat Point, Catanduanes Island; Puerto Galera and Calapan, Mindoro; Surigao, Surigao Province, Samuel Island, Gulf of Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Bungau, Sibutu, and Tambagaan Islands, Zulu Province, Philippine Islands.
- Paraglyphisodon melas* Whitley, Mem. Queensland Mus., vol. 9, p. 241, 1929.
- 1460. *Abudefduf notatus* (Day).**
India, the East Indies, Philippines, Japan, Phoenix Islands, and Marquesas Islands; marine.
Glyphisodon notatus Day, Proc. Zool. Soc. London, p. 521, 1870; Andaman Islands. Day, Fishes India, p. 386, pl. 83, fig. 5, 1878; same specimens.
Abudefduf clarki Snyder, Proc. U. S. Nat. Mus., vol. 40, p. 534, 1911; Tanegashima and Misaki, Japan. Snyder, *ibid.*, vol. 42, p. 419, pl. 53, fig. 2, 1892; Misaki.
Abudefduf notatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 136, 1928; Silino Island, Zamboanga Province, Mindanao; Tanegashima and Misaki, Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 318, 1928; Howland Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 408, 1940; Sumba and Solor, Dutch East Indies; Philippines.
- 1461. *Abudefduf oxyodon* (Bleeker).**
The East Indies and Philippines; marine.
Glyphisodon oxyodon Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, 1858, Tiende bijdr. vischfauna Celebes, p. 14; Menado, Celebes.
Glyphisodon oxyodon Günther, Cat. Fishes British Mus., vol. 4, p. 44, 1862; Sea of Celebes.
Paraglyphisodon oxyodon Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 127, 1877; Bawean and Celebes. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 2, 1878.
Chrysiptera oxyodon Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 98, 1928; Sitankai, Sulu Province, Philippines.
Abudefduf oxyodon Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 164, 1928; Cuyo, Cuyo Islands, north of Sulu Sea. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Jolo and Sitankai, Sulu Province. Herre, Fishes 1936-37 Exped.; reef in south lagoon, west of Tumindao Island, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 428, 1940; Bawean; and Menado, Celebes. Sulu Islands, Sulu Province and Philippines.
- 1462. *Abudefduf rex* Snyder.**
RiuKiu Islands to the Philippines; marine.
Abudefduf rex Snyder, Proc. U. S. Nat. Mus., vol. 36, p. 601, pl. 64, fig. 3, 1909; Naha, Okinawa, RiuKiu Islands.
Chrysiptera rex Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 110, 1928; Sitankai, Sulu Province, Philippines.
- 1463. *Abudefduf saxatilis* (Linnaeus).** Isdang San Ramon.
Everywhere in the Indo-Pacific, from Natal to Japan and Marcus Island and from the Red Sea to Australia, the Marquesas, and the Galapagos Islands.
Chaetodon saxatilis Linnaeus, Syst. Nat. ed. 10, p. 276, 1758; India. Osbeck, Reise nach Ost-Ind. China, p. 356, 1765; China. Forskål, Descript. Animal., p. 62, 1775; Djedda, Red Sea. Bloch, Naturges. Ausländ. Fische, vol. 3, p. 96, pl. 206, fig. 2, 1787; East Indies; Arabia.
Glyphisodon vaigiensis Quoy and Gaimard, Voy. Uranie, Zoologie, p. 391, 1824; Isles des Papous.
Glyphisodon saxatilis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 35, 1828; Red Sea. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 608, 1902; Misaki, Yagoshima, Enoshima, and Shimoda, Japan; Formosa. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra. McCulloch, Australian Zoologist, vol. 2, p. 95, 1922. Barnard, Ann. South African Mus., vol. 21, p. 736, 1927; Natal and Zululand coast; South Africa. McCulloch, Mem. 5, Aus-

- tralian Mus., Checklist, p. 298, 1929; New South Wales, and Queensland, Australia; East Indies; New Guinea; Red Sea; western Pacific; Japan. Whitley, *Memoirs, Queensland Mus.*, vol. 9, p. 240, 1929.
- Glyphisodon ater* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 473, 1830; Massaua, Red Sea.
- Glyphisodon waigensis* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 457, 1830; Waigiu; Rawak. Bleeker, *Verh. Bat. Gen.*, vol. 21, Labroid. Ctenoid., p. 13, 1847; Java.
- Glyphisodon rahti* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 456, 1830; Red Sea; Java; Celebes; New Guinea. Cuvier and Valenciennes, *ibid.*, vol. 9, p. 507, 1833; Bombay, India. Schlegel and Müller, *Verh. Nat. Gesch. Nederland. Zool.*, Overzigt *Amphiprion*, p. 22, 1839-41; Java; Celebes; Moluccas; Amboina; west New Guinea. Richardson, *Ichth. China Japan*, p. 253, 1846; China.
- Chaetodon tyrwhitti* Bennett, *Fishes Ceylon*, pl. 25, 1834; Ceylon.
- Glyphisodon tyrwhitti* Richardson, *Ichth. China Japan*, p. 253, 1846; Canton, China.
- Glyphisodon quadrifasciatus* Bleeker, *Verh. Bat. Gen.*, vol. 21, p. 17, 1847; Java.
- Glyphisodon violaceus* Brevoort, in *Narr. Perry's Exped.*, China Seas and Japan, *Nat. Hist.*, vol. 2, p. 264, 1856; RiuKiu Islands. Whitley, *Mem. Queensland Mus.*, vol. 9, p. 240, 1929.
- Glyphidodon coelestinus* Günther, *Cat. Fishes British Mus.*, vol. 4, p. 38, 1862; Pinang; China; Amboyna; India; in part; not of Cuvier and Valenciennes. Günther, in Playfair and Günther, *Fishes Zanzibar*, p. 82, 1866; Aden; Zanzibar; Seychelles. Bleeker, *Verh. Holland. Maatsch. Wetenschappen*, ser. 3, vol. 2, p. 101, 1877; in part. Gilchrist and Thompson, *Ann. South African Mus.*, vol. 6, p. 190, 1908; not of Cuvier and Valenciennes. Vinciguerra, *Ann. Mus. Civ. Stor. Nat. Genova*, ser. 3, vol. 10, p. 565, 1926; not of Cuvier and Valenciennes.
- Glyphidodon saxatilis* Kossmann and Räuber, *Verh. Naturh.-Med., vereins. Heidelberg*, vol. 1, p. 33, 1876; Red Sea. Günther, *Report Voy. Challenger, Zoology*, vol. 1, *Shore Fishes*, p. 4, 1880; St. Paul's Rocks; Indian Ocean. Steindachner, *Denks. Akad. Wiss. Wien*, vol. 71, p. 149, 1902; Sokotra.
- Abudefduf saxatilis* Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 285, 1906; Apia, Samoa. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 28, 1907; Manila, Luzon. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 263, 1908; Calayan Island, Babuyan Islands, north of Luzon; Manila, Luzon. Weber, *Siboga Exped.*, vol. 57, *Fische*, p. 345, 1913; 15 East Indian localities; in part. Fowler, *Copeia*, No. 58, p. 64, 1918; Philippines. Montalban, *Pomacentridae Philippines*, Philippine Bureau Science Monograph 24, p. 81, pl. 17, fig. 2, 1928; Santo Domingo de Basco, Batan Island, Batanes Province. Paoay, Ilokos Norte Province; Barrio Nalvo, Luna, and Barrio Paraair, Balaoan, La Union Province; Iba, Zambales Province; Monja Island, at mouth of Manila Bay; and Legaspi, Albay Province, Luzon. Calapan, Mindoro. Despujols, *Tablas Island*. Sayan and Tagapula Islands, Samar. Cabalian, Leyte. Dumaguete and Siaton, Negros Oriental Province. Halsey Harbor, Culion. Balabac Island, Siquijor Island. Bungau and TawiTawi Islands, Sulu Province, Philippines. Also Dodd Island, Amoy, China, and Wakanoura, Japan. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 124, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Grande Island Reef, Subic Bay, Bataan Province; Ligpo Point, Balayan Bay, and Pagapas Bay, Batangas Province; Manila market; Alibijaban Island, Ragay Gulf, Tayabas Province. Canimo Island, near Daet, Camarines Norte Province; Canmahala Bay, Ragay Gulf, Camarines Sur Province; Batan Island and Langao Point, Albay Province; Bula, Sorsogon Province, Luzon. Northwest and east side of Verde Island and Port Maricaban, Verde Island Passage. Apo Light and Sablayan Bay, Mindoro. Port Uson, Busuanga Island. Port Banalacan, Marinduque Island. Romblon Harbor, Romblon Island. Busin Harbor, Burias Island. San Miguel Harbor, Ticao Island. Lode Bay, Destacado Island, between Masbate and Samar. Port Dupon, Leyte. Cebu market, Cebu. Inamucan Bay and Murcielagos Bay, Misamis Occidental Province; Mahinog, Cami-

guin Island, off north coast Misamis Oriental Province; Zamboanga, Little Santa Cruz Island, Silino Island, and Lampinigan Island, Zamboanga Province, Mindanao. Jolo and Pangasinan, Teomabal, Usada, Taganak, Bubuan, and Tara Islands and Siasi Island market, Sulu Province, Philippines. Mangareva and Fakarava, Tuamotu Archipelago, Makian Island and Powati Harbor, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 315, 1928; Gilbert and Society Islands; Apia, Samoa; Fakarava and Makatea, Tuamotu Islands; Nukahiva, Marquesas Islands; Shortland Island, Solomon Islands, Faté, New Hebrides; Guam, Rarotonga. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Jour. Pan-Pacific Res. Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Manila, Luzon; reef near Burias Island; Culion; Capiz Province, and La Paz, Iloilo Province, Panay; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist. Zool. Ser. vol. 21, p. 291, 1936; Eden Island and Narborough Islands, Galapagos; Nukahiva Island, Marquesas; Ovalau Island, Fiji; Wala Island, New Hebrides; Tulagi, Solomon Islands. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 89, p. 246, 1937; Bangkok and Rayong, Siam. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon. Estancia, Iloilo Province, Panay. Dumaguete, Negros Oriental Province, Santa Maria, Zamboanga Province, Mindanao. Jolo and Sitankai, Sulu Province, Philippines. Fowler, Fishes Vanderbilt South Pacific Exped., 1938, p. 56, Tagus Cove, Albemarle Island, Conway Bay, Indefatigable Island, and Tower Island, Galapagos Islands; also p. 78, Typee Bay, Nukahiva, and Valeo Bay, Ua Pau Island, Marquesas Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 424, 1940; 17 East Indian localities; Philippines; Sulu Islands, Sulu Province, Philippines. Also 13 Indo-Pacific localities.

Abudefduf saxatilis saxatilis de Beaufort, Bijdr. Dierk. Afl., vol. 19, p. 127, 1913; Saonek, Waigiu and Sorong, New Guinea.

Abudefduf sexfasciatus Wu, Contrib. Biol. Lab. Sci. Soc. China, vol. 7, Zool. Ser. p. 31, 1931; not of Lacépède.

Abudefduf saxatilis vaigiensis de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 404, 1940; 50 East Indian localities; Philippines and 27 other Indo-Pacific localities.

1464. *Abudefduf septemfasciatus* (Cuvier and Valenciennes.)

From the east coast of Africa to the East Indies, Philippines, and China, and east to the Marshall, Society, and Tuamotu Islands, south to Australia; marine.

Glyphisodon septemfasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 463, 1830; Mauritius. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 582, 1852; Sumatra. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra. McCulloch, Mem. 5, Australian Mus., p. 298, 1929; Australia; the Philippines; East Indies; India.

Glyphidodon septemfasciatus Günther, Cat. Fishes British Mus., vol. 4, p. 40, 1862; China; Philippines; Ceylon. Playfair, Proc. Zool. Soc. London, p. 864, 1867; Seychelles. Day, Fishes India, p. 386, pl. 81, fig. 7, 1878; Bombay. Bleeker, Atlas Ichth., vol. 9, pl. 409, fig. 5, 1878. Günther, Fische der Südsee, vol. 2, p. 230, 1881; South Sea; Red Sea; East Africa; Mauritius.

Glyphidodon (Glyphidodon) septemfasciatus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 97, 1877; Philippines; Sangi; Buru; Amboina; Timor; Celebes; Java; Nias; Sumatra.

Abudefduf septemfasciatus Seale, Occas. Papers Bishop Mus., vol. 1, p. 82, 1901; Guam. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1395; 1906; Upolu, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 53, 1906; Faté, New Hebrides; Shortland Island, Solomon Islands; Rarotonga, Cook Islands; Ralatea, Society Islands; Makatea, Tuamotu Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 285, 1906; Apia, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 93, 1907; Bulan, Sorsogon Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Luzon. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 247, 1913; Kangeang; Lombok; Salibabu. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science

Monograph 24, p. 79, pl. 16, fig. 1, 1928; Barrio Paraair, Balaogan, La Union Province, Luzon; Guam. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 135, 1928; Zamboanga, Zamboanga Province, Mindanao; Amboina market; Fanning Island; Apia, Samoa; Makemo and Makatea, Tuamotu Islands; Gilbert Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 317, 1928; Tongatabu; Apia, Samoa; Fanning Island; Makemo and Makatea, Tuamotu Islands; TariTari and Apiang, Gilbert Islands; Raiatea, Society Islands; Shortland Island, Solomon Islands; Guam; Wake Island; Marshall Islands. McCulloch, Mem. 5, Australian Mus., p. 298, 1929; Australia, Philippines, China, East Indies, India, Red Sea, Mauritius. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Culion. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 401, fig. 49, 1940; 24 Dutch East Indian localities; the Philippines and 22 other localities from Madagascar and Zanzibar to China and the Marshall and Tuamotu Islands. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

1465. *Abudefduf sordidus* (Forskål).

From the east coast of Africa to the Philippines, China, Japan, Marcus Island, Australia, and the Hawaiian, Society, and Marquesas Islands; marine.

Chaetodon sordidus Forskål, Descript. Animal., p. 62, 1775; Djedda, Red Sea.

Pomacanthus sordidus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 517, 519, 1802; Arabia.

Pomacentrus sordidus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 34, pl. 8, fig. 1, 1828; Mohila, Red Sea.

Glyphisodon sordidus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 466, 1830; Macuer Island, Red Sea. Richardson, Ichth. China Japan, p. 253, 1846; China. Bleeker, Verh. Bat. Gen., vol. 21, Labroid. Ctenoid., p. 16, 1847; Batavia, Java. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 610, 1902; Misaki, Enoshima, and Yogashima, Japan; Formosa; Honolulu. McCulloch and Waite, Trans. Royal Soc. South Australia, vol. 40, p. 444, pl. 40, fig. 1, 1916; Lord Howe Island; Norfolk Island; Funafuti, Ellice Islands. Barnard, Ann. South African Mus., vol. 21, p. 737, 1927; Natal and Zululand coast; Delagoa Bay, Portuguese East Africa.

Glyphidodon sordidus Günther, Cat. Fishes British Mus., vol. 4, p. 41, 1862; China; Red Sea; Mauritius. Day, Fishes India, pl. 83, fig. 1, 1878; Sind. Günther, Fische der Südsee, vol. 2, p. 231, 1881; Tahiti and Raiatea, Society Islands; Samoa; Bonin Islands; Red Sea; East Africa; East Indies.

Glyphidodon (Glyphidodon) sordidus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 95, 1877; Sumatra; Java; Cocos Island; Obi Major; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 410, fig. 5, 1878.

Abudefduf sordidus Fowler, Proc. Acad. Nat. Sci. Phila., p. 504, 1900; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 274, fig. 117, 1905; Kailua, Hilo, Waianae, Moanalua, Honolulu, and Lahaina, Maui; Puako Bay, Hawaii, and Napili Bay, Molokai, Hawaiian Islands; Necker Island; Laysan Island. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 77, pl. 15, fig. 2, 1927; Luna and Balaogan, La Union Province, Luzon; Calapan, Mindoro; Camiguin Island, one of the Babuyan Islands, north of Luzon; Bungau, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 132, 1928; RapuRapu Island, Albay Province, Luzon; Nabatas Point, Samar; San Roque, Leyte; Silino Island, Zamboanga Province, Mindanao; Lampinigan Island, off Basilan. Fowler, Mem. Bishop Mus., vol. 10, p. 317, 1928; 27 Polynesian localities, from Marcus Island and the New Hebrides to the Marquesas Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Dumaguete. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. Herre, Fishes 1940-41 Exped.; Vizagapatam, Waltair, and Kilakarai, Ramnad District, Madras Presidency; Konival, Trivandrum, South India. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 399, 1940; 12 East Indian localities; the Philippines, and 30 other Indo-Pacific localities.

- 1466. *Abudefduf thoracotaeniatus* Fowler and Bean.**
The Philippines and East Indies; marine.
Abudefduf thoracotaeniatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 158, 1928; Biri Channel, north of Samar; Tara Island, Sulu Province, Philippines. Also Dowarra, Makyan, Talisse, Togian, BukaBuka, and Halmahera (Gilolo) Islands, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 420, 1940; after Fowler and Bean.
- 1467. *Abudefduf turchesius* Jordan and Seale.**
From the Philippines to the RiuKiu Islands.
Abudefduf turchesius Jordan and Seale, Bul. U. S. Bur. Fisheries, vol. 26, p. 28, fig. 10, 1907; Cavite, Cavite Province, Luzon. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 505, 1912; Okinawa, RiuKiu Islands. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 103, 1927; Calapan, Mindoro, Philippines.
- 1468. *Abudefduf unimaculatus* (Cuvier and Valenciennes).**
The East Indies and Philippines.
Glyphisodon unimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 358 (478), 1830; Timor. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, p. 23, pl. 6, fig. 1, 1839-44; Java; Sumatra; South Borneo.
Glyphidodon unimaculatus Günther, Cat. Fishes British Mus., vol. 4, p. 51, 1862; Borneo.
Glyphidodontops unimaculatus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 140, 1877; Sumatra; Cocos Islands; Java; Bawean; Borneo; Celebes; Sangi; Timor; Ternate; Halmahera; Buru; Amboina; Haruko; Ceram; Goram; Cebu, Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 407, fig. 5, 1878.
Chrysiptera unimaculata Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra.
Abudefduf unimaculatus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 784, 1905; Bais, Negros Oriental Province. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 93, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Calayan Island, Babuyan Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 354, 1913; 10 Dutch East Indian localities. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 145, 1928; Canimo Island near Daet, and Maculabo Island, Camarines Norte Province; Batan Island, RapuRapu Strait, Albay Province; Gubat Bay and Bacon, Sorsogon Province, Luzon. Bolalo Bay, Endeavor Strait, Sirinao Island and Malcochin Harbor, Linapacan Island, Palawan; Port Uson, Busuanga Island; Sablayan, Mindoro; Nogas Point, Antique Province, Panay; Negros; Mahinog, Camiguin Island, north of Misamis Oriental Province; Inamucan Bay, Misamis Oriental Province; Danawan and Si Amil Islands, British North Borneo, just south of the Philippine boundary; Samoa; Sumatra. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Cebu, Cebu; Sitankai, Sulu Province. Herre, 1948 Coll.; Layia, Batangas Prov., Luzon, Siaton, Negros Oriental Prov.; Siluag Island, Sulu Prov.
- 1469. *Abudefduf uniozellatus* (Quoy and Gaimard).**
Polynesia to the Marquesas, Solomons, Marianes, Philippines, East Indies, and Ceylon.
Glyphisodon uniozellatus Quoy and Gaimard, Voy. Uranie, Zoologie, vol. 2, p. 393, pl. 64, fig. 4, 1825; Mariannes; Timor (?). Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 360 (481), 1830; Timor and Vanicolo.
Glyphidodon uniozellatus Günther, Cat. Fishes British Mus., vol. 4, p. 52, 1862; Fiji Islands. Günther, Fische der Südsee, vol. 2, p. 234, pl. 128, fig. A, 1881; East Indies; Solomons; Fiji; Samoa; Tonga; Marquesas; Fatuna. Weber, Zool. Forschungsreisen. Australia, in Semon, vol. 5, p. 27, 1895; Amboina. Steindachner, Abh. Senckenb. Naturf. Gesell., vol. 25, p. 440, 1900; Ternate.
Abudefduf uniozellatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 288, pl. 43, fig. 2, 1906; Apia and Pago Pago, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 173, 1928; Simaluc, Tataan Islands, Sulu Province, Philippines. Tomahu Island, East

- Indies; Apia, Samoa: not synonymy. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Punta Flecha, Zamboanga Province, Mindanao.
- Chrysiptera uniozellatus* Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 99, 1927; Despujols, Tablas Island; Tacloban, Leyte; Port Canoan, Siquijor Island; Zamboanguita, Negros Oriental Province.
- 1470. *Abudefduf xanthonotus* (Bleeker).**
The East Indies and Philippines.
Glyphisodon xanthonotus Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 357, 1859; Bawean. Günther, Cat. Fishes British Mus., vol. 4, p. 48, 1862; after Bleeker.
Paraglyphidodon xanthonotus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 126, 1877; Bawean. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 2, 1878.
Chrysiptera xanthonota Montalban, Pomacentridae Philippines, Monograph 24, Philippine Bureau Science, p. 97, 1927; Surigao, Surigao Province and Zamboanga, Zamboanga Province, Mindanao.
Abudefduf xanthonotus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, 1928; Rasa Island, Mantaquin Bay, Palawan, Philippines. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 426, 1940; after Bleeker.
- 1471. *Abudefduf xanthozona* (Bleeker).**
The Indo-Pacific from Mauritius to the Philippines, Japan, Hawaii, Australia, and Tahiti.
Glyphisodon xanthozona Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 283, 1853; Cauer, Sumatra.
Glyphidodon xanthozona Günther, Cat. Fishes British Mus., vol. 4, p. 43, 1862; East Indian Archipelago. Günther, Fische der Südsee, vol. 2, p. 234, pl. 127, fig. D, 1881; Ovalau, Fiji; Futuna; Samoa; Tahiti; Ponapé, Caroline Islands.
Glyphidodon taenioruptus Cartier, Nat. Verh. Phys. Med. Gesell. Würzburg, p. 101, 1874; Ubay, Bohol, Philippines.
Glyphidodontops albofasciatus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 136, 1877; Sumatra; Borneo; Celebes; Buru; Amboina; Ceram; Philippines; not of Hombron and Jacquinot. Bleeker, Atlas Ichth., vol. 9, pl. 405, fig. 6, 1878; not of Hombron and Jacquinot. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 354, 1913; Karkaralong Island; Tiur Island; Roma Island; not of Hombron and Jacquinot.
Glyphidodon amabilis de Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 452, 1883; South Seas.
Abudefduf amabilis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 287, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 264, 1908; Calayan Island, Babuyan Islands, north of Luzon, Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 419, 1912; Tanegashima, Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 177, 1928; Nogas Point, Antique Province, Panay, Philippines; Apia, Samoa; Tanegashima, Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 324, 1928; Shortland Island, Solomon Islands; Faté, New Hebrides; Nukahiva, Marquesas Islands; Wake Island; Apia, Samoa.
Chrysiptera amabilis Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 104, pl. 1, fig. 2, 1927; Paraöir, Balaöan, and Bauang Sur, La Union Province, Luzon; Calayan Island, north of Luzon.
Abudefduf xanthozona Fowler, Mem. Bishop Mus., vol. 10, p. 325, 1928; Gilbert Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 9, p. 434, 1940; 11 localities in the Dutch East Indies; the Philippines, and 15 other Indo-Pacific localities.
Glyphidodontops amabilis Whitley, Mem. Queensland Mus., vol. 9, pp. 226 and 242, 1929.
- 1472. *Abudefduf zonatus* (Cuvier and Valenciennes).**
The East Indies, Philippines, Japan, south to Australia.
Glyphisodon zonatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 361 (483), 1830; New Guinea; Vanicolo. McCulloch, Proc. Linn.

Soc. New South Wales, vol. 36, p. 423, 1912; Murray Island. Whitley, Australian Zoologist, vol. 4, p. 230, pl. 33, 1926; Murray Island; Two Isles; Northwest Islet.

Glyphidodon zonatus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 528, 1871.

Glyphidodontops zonatus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 138, 1877; Cocos Island; Java; Borneo; Celebes; Ceram; Amboina; New Guinea; Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 407, fig. 3, 1878.

Abudefduf zonatus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 92, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Cagayan-cillo, Cagayan Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, 1912; p. 419, Tanegashima, Japan; p. 550, Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 179, 1928; Maculabo Island, Camarines Norte Province; Batan Island, RapuRapu Strait, Albay Province, Luzon. Sablayan, Mindoro. Port Palapag, Samar. Cebu, Cebu. Mahinog, Camiguin Island, north of Misamis Oriental Province, Mindanao. Pilas Island, off Basilan Island. Simaluc Island, Tataan Island, Singaan Island, and Tutu Bay, Jolo Island, Sulu Province. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Province.

1473. *Abudefduf melanopus* (Bleeker).

In the Indo-Pacific, from Java to Timor and Queensland, and west to Zanzibar.

Glyphisodon melanopus Bleeker, Nat. Tijdschr. Ned. Ind., vol. 11, p. 82, 1856; Java.

Glyphidodon melanopus Günther, Catalogue Fishes British Museum, vol. 4, p. 48, 1862; southeastern coast of Java.

Paraglyphidodon melanopus Bleeker, Verh. Holl. Maatsch. Wetensch., 3rd, series, vol. 2, p. 119, 1877. Bleeker, Atlas Ichthyologique, vol. 9, pl. 407, fig. 7, 1877.

Abudefduf melanopus de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 422, 1940; Java; Timor; Zanzibar; Queensland. Herre, 1948 Collection; Cuyo Islands, Sulu Sea, Philippines.

Genus 486. **ACANTHOCHROMIS** GILL.

An Indo-Australian genus with one species.

Acanthochromis Gill, Proc. Acad. Nat. Sci. Phila., p. 214, 1863; type *Dascyllus polyacanthus* Bleeker. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 27, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 27, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 446, 1940.

Heptadecanthus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 343, 1877; type, *Heptadecanthus longicaudis* Alleyne and Macleay.

Heptadecacanthus Jordan, Genera of Fishes, p. 387, 1919; error; type, *H. longicaudis* Alleyne and Macleay.

1474. *Acanthochromis polyacanthus* (Bleeker).

The East Indies, Philippines, Solomon Islands, New Hebrides, and Australia; marine.

Dascyllus polyacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 503, 1855; Batjan. Bleeker, Acta Soc. Sci. Indo-Neerl., Achtste Bijdr. vischfauna Amboina, vol. 2, p. 71, 1857. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 373, 1857; Sangi Island. Günther, Cat. Fishes, British Mus., vol. 4, p. 15, 1862; coasts of Sangi, Batjan, and Amboyna.

Tetradrachnum polyacanthus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 278, 1865; Amboina.

Acanthochromis polyacanthus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 151, 1877; Sangi; Batjan; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 410, fig. 7, 1878. Weber, *Siboga*-Exped., vol. 57, Fische, 357, 1913; Feer Island. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 27, pl. 6, fig. 2, 1927; Sibutu and Sitankai Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 27, 1928; Port Hamilo and Pagapas Bay, Batangas Province, Luzon. Balikias and Tilik, Lubang Island, in the China Sea northwest of Mindoro; Maricaban

Island, Verde Island Passage; Puerto Galera, Mansalay, Paluan Bay, Sablayan, and Varadero Bay, Mindoro. Port Caltom and Port Uson, Busuanga Island. Dalaganem Island, Cuyo Islands, Sulu Sea; Bolalo Bay, Endeavor Strait, Makesi Island, and Oyster Inlet, Ulugan Bay, Palawan. Bugsuk, Candaraman, and Caxisigan Islands, Balabac. Polloc, Cotabato Province, and Pujada, Davao Province, Mindanao. Tapiantana Island, off Basilan Island. Siasi market, Siasi Island, Tara, Tataan, Tulayan, and Tumindao Islands, and Tutu Bay, Jolo Island, Sulu Province. Celebes, Halmahera, Tidore, Kayoa, and Makian Islands, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 307, 1928; Shortland Island, Solomon Islands; Faté, New Hebrides. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 447, fig. 51, 1940; Sulu Islands, Sulu Province, Philippines; Sangi Islands; Celebes; Tidore; Maitara; Makian; Halmahera; Dowarra; Batjan; Amboina; Kei Islands; Dutch East Indies; New Britain, Solomon Islands; New Hebrides; coast of Queensland, Australia. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Heptadecanthus longicaudus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 343, pl. 15, fig. 3, 1877; Cape Grenville.

Heptadecanthus brevipinnis de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 872, 1885; Queensland coast.

Heptadecanthus maculosus de Vis, *ibid.*, p. 873; Cardwell.

Abudefduf jordani Seale, Occas. Papers Bishop Mus., vol. 4, p. 53, 1906; Shortland Island, Solomon Islands.

Acanthochromis longicaudus Whitley, Mem. Queensland Mus., vol. 9, p. 246, 1929.

Acanthochromis maculosus Whitley, Mem. Queensland Mus., vol. 9, p. 246, 1929.

Acanthochromis brevipinnis Whitley, *ibid.*, p. 246, 1929.

Genus 487. CHEILOPRION Weber.

From the East Indies and Philippines, eastward to Samoa, west to the Andaman Islands. Marine; but one species known.

Cheiloprion Weber, *Siboga-Exped.*, vol. 57, Fische, p. 342, 1913; type, *Pomacentrus labiatus* Day. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 35, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 64, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 350, 1940.

1475. *Cheiloprion labiatus* (Day).

Distribution as for the genus.

Pomacentrus labiatus Day, Fishes of India, p. 384, pl. 81, fig. 2, 1878; Andaman and Nicobar Islands.

Cheiloprion labiatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 342, fig. 73, 1913; Beo, Karakelang Island. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 127, 1913; Amboina. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 53, 1918; Philippines. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 36, pl. 9, fig. 1, 1927; Calapan, Mindoro; Canigaran, Palawan; Sibutu Island, Sulu Province, Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 273, 1936; Malo Island, New Hebrides; Ugi Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 351, fig. 45, 1940; Karakelang Island and Amboina, Dutch East Indies; Sulu Islands, Sulu Province, Philippines; the Andaman, Nicobar, and Solomon Islands; New Hebrides; Samoa. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Genus 488. CHROMIS Cuvier.

Marine reef fishes of the tropical Indo-Pacific and Atlantic Oceans, Red and Mediterranean Seas.

Chromis Cuvier, Bull. Soc. Philom. Paris, p. 68, 1814. Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 1, p. 393, 1815; type, *Sparus chromis* L. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 599, 1902. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 267, 1905. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 28, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 29, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 448, 1940.

- Heliases* Cuvier, Règne Animal, ed. 2, vol. 2, p. 173, 1829.
Heliastes Lowe, Trans. Zool. Soc. London, vol. 2, p. 177, 1841; type,
Heliases insolatus Cuvier.
Furcaria Poey, Memoriae Hist. Nat. Cuba, vol. 2, p. 194, 1860; type,
Furcaria puncta Poey.
Ayresia Cooper, Proc. California Acad. Sci., p. 73, 1863; type, *Ayresia*
punctipinnis Cooper.
Hoplochromis Fowler, Proc. Acad. Nat. Sci. Phila., p. 66, 1918; type,
Heliases caeruleus Cuvier.

1476. Chromis atripes Fowler and Bean.

A Philippine and East Indian marine species.

Chromis atripes Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 43,
 pl. 2, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands
 north of Luzon; Limbones Cove, Cavite Province, Luzon; Port Marl-
 caban, Verde Island Passage; Puerto Galera, Paluan Bay and Sab-
 layan, Mindoro; Dalanganem Island, Cuyo Group, Sulu Sea; Romblon
 Reef, Romblon Island; Polloc, Cotabato Province, and Little Santa
 Cruz Island, Zamboanga, Zamboanga Province, Mindanao; Tapiantana
 Island, south of Basilan; Bulan, Simaluc, and Singaan Islands, Sitan-
 kai Reef, Tataan Island, and Tutu Bay, Jolo Island, Sulu Province,
 Philippines; Buru, Celebes, Tidore, Gomomo, Mabul, Matitara, and
 Talisse Islands, Dutch East Indies; Danawan and Si Amil Islands,
 British North Borneo, very near the Philippine boundary.

1477. Chromis bitaeniatus Fowler and Bean.

A Philippine reef-dweller.

Chromis bitaeniatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7,
 p. 56, pl. 6, 1928; Maricaban Island, Verde Island Passage.

1478. Chromis caeruleus (Cuvier and Valenciennes).

From Madagascar, Zanzibar, and the Red Sea to the Philippines, and
 the Pelew, Caroline, Solomon, Gilbert and Tuamotu Islands, south to
 Australia; marine, on coral reefs.

Heliases caeruleus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5,
 p. 372 (497), 1830; New Guinea; Ulea. Bleeker, Nat. Tijds. Ned.-Ind.,
 vol. 8, p. 455, 1855; Cocos Islands.

Heliases lepisurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5,
 p. 373 (498), 1830; New Guinea.

Heliases frenatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5,
 p. 373 (498), 1830; Guam. Sauvage, in Grandidier, Nat. Phys. Hist.
 Madagascar, Poissons, p. 436, pl. 28, fig. 1, 1891; Madagascar.

Glyphisodon bandanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 248,
 1851; Banda Neira.

Heliastes caeruleus Günther, Cat. Fishes British Mus., vol. 4, p. 62, 1862;
 New Guinea; Ulea; Molucca Sea.

Heliastes lepidurus Günther, Cat. Fishes British Mus., vol. 4, p. 63, 1862;
 Amboyna. Günther, in Playfair and Günther, Fishes Zanzibar, p. 84,
 1866; Zanzibar. Peters, Monatsber. Akad. Wiss. Berlin, p. 443, 1876;
 Mauritius. Kossmann and Räuber, Verh. Naturh.-Med. Vereins Heidel-
 berg, vol. 1, p. 34, 1876-1877; Red Sea. Day, Fishes India, p. 389, pl.
 82, fig. 1, 1878; Andaman Islands.

Chromis lepisurus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser.
 3, vol. 2, p. 165, 1877; 14 East Indian Islands. Bleeker, Atlas Ichth.,
 vol. 9, pl. 403, fig. 7, 1878. Whitley, Records Australian Mus., vol. 16,
 p. 24, 1927.

Chromis caeruleus Jordan and Seale, Bull. U. S. Fish. Bur., vol. 25, p. 290,
 pl. 44, fig. 1, 1906; Apia and Pago Pago, Samoa. Kendall and Golds-
 borough, Mem. Mus. Comp. Zool., vol. 26, p. 299, 1911; TariTari, Gilbert
 Islands; Kusaie, Caroline Islands; Fakarava, Tuamotu Islands. Ken-
 dall and Radcliffe, *ibid.*, vol. 35, p. 136, 1912; Mangareva, Tuamotu
 Islands. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 129, 1913;
 Amboina. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 66, 1918; the
 Philippines. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Montal-
 ban, Pomacentridae Philippine Islands, Philippine Bureau Science
 Monograph 24, p. 34, pl. 8, fig. 2, 1927; Calapan and Puerto Galera,
 Mindoro; Bantayan Island, Cebu Province; Cabalian, Leyte; Cani-
 garan, Palawan; Surigao, Surigao Province, Samal Island, Gulf of

Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Basbas, Bungau, Sibutu, Sitankai, and Tambagaan Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 61, 1928; Limbones Cove, Cavite Province; Ligpo Point, Balayan Bay, Batangas Province; Canmahala Bay, Ragay Gulf, Maculao Island, Camarines Norte Province; Langao Point, Sorsogon Point, Luzon. Balikias Bay, Lubang Island, northwest of Mindoro. Port Maricaban, Verde Passage. Puerto Galera and Sablayan, Mindoro. Romblon Island. Alimango Bay, Burias Island; Cataingan Bay; Masbate; San Miguel Harbor, Ticao Island; Porongpong Island, Palumbanes Islands, west of the northern end of Catanduanes. Biri Channel and Port Palapag, Samar. Maribojoc Bay, Maribojoc, Pandanon Island, and Mantacao Island, Bohol. Mactan Cove, Mactan Island, Cebu Province. Bolalo Bay and Guntaw Island, Palawan. Candaraman Island, Balabac. Inamucan Bay, Misamis Occidental Province; Surigao, Surigao Province; Little Santa Cruz Island, Tulnalutan and Sacol Islands, Zamboanga Province; and Opol, Mindanao. Pilas Island, west of Basilan and Tapiantana Island, south of Basilan Island. Bongao, Bubuan, Bulan, Singaan, Tara, Tataan, Tonquil and Tumindao Islands, and Tutu Bay, Jolo, Sulu Province, Philippines. Danawan and Si Amil Islands, just south of the Philippine boundary, off British North Borneo. Fowler, Mem. Bishop Mus., vol. 10, p. 309, 1928; 10 Polynesian localities. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Expedition, p. 69, 1934; Dumaguete, Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 269, 1936; Tahiti and BoraBora, Society Islands; Ugi Island and Tenebuli, Ysabel Island, and Auki, Malaita Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 451, fig. 52, 1940; 24 East Indian localities; Sulu Islands, Philippines and 18 other Indo-Pacific localities. Herre, Fishes 1940-41 Exped., Estancia, Iloilo Province, Panay.

Chromis lepidurus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 358, 1913; Sanguisiapo Island, Sulu Province, Philippines; Borneo Bank; Celebes Sea; Damar; Saleyer; Rotti.

1479. *Chromis cinerascens* (Cuvier and Valenciennes).

The East Indies, Philippines, and tropical Indian Ocean; marine.

Heliasces cinerascens Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 495, 1830; Java. Schlegel and Müller, *Nat. Verh. Gesch. Nederland. Zool.*, p. 24, pl. 6, fig. 5, 1839-41; Sunda Sea. Bleeker, *Verh. Bat. Gen. vol. 21, Labroid. Ctenoid.*, p. 31, 1847; Batavia, Java. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 8, p. 344, 1855; Duizend Island.

Heliasces cinerascens Günther, *Cat. Fishes British Museum*, vol. 4, p. 61, 1862; Molucca Sea. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar, Poissons*, p. 436, 1891.

Chromis cinerascens Bleeker, *Verh. Holland. Maatsch. Wetenschappen*, ser. 3, vol. 2, p. 155, 1877; Java; Duizend Islands; Celebes; Ceram; Timor. Bleeker, *Atlas Ichth.*, vol. 9, pl. 407, fig. 1, 1878. Fowler, *Jour. Acad. Nat. Sci. Phila.*, ser. 2, vol. 12, p. 533, 1904; Padang, Sumatra. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 54, 1928; Port Hamilo, Batangas Province; Pascacao and Ragay Bay, Ragay Gulf, and Butauanan Island, Camarines Sur Province; Capulaan Bay, Pagbilao Chica Island, Tayabas Province, Luzon. Paluan Bay, Mindoro, and Verde Island, between Luzon and Mindoro. Busin Harbor, Burias Island, Catbalogan and Nabatas Point, Samar. Also Labuan Blanda Island and Padang, Sumatra, East Indies. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 457, 1940; Padang, Sumatra; Batavia, Java; Duizend Islands; Makassar, Celebes; Ceram; Amboina; Timor; Philippines; Madagascar; Réunion.

Chromis insulindicus Bleeker, *Versl. Akad. Amsterdam*, ser. 2, vol. 10, p. 390, 1877; Amboina. Bleeker, *Atlas Ichth.*, vol. 9, pl. 403, fig. 3, 1878.

1480. *Chromis desmostigma* Fowler and Bean.

A Philippine species.

Chromis desmostigma Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 51, 1928; Caxisigan Island, north of Balabac Island; Tataan Island,

north coast of TawiTawi, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 453, 1940; after Fowler and Bean.

1481. *Chromis dimidiatus* (Klunzinger).

From the Red Sea and Natal to the East Indies, Philippines, Hawaiian, Samoan, and Society Islands.

Heliastes dimidiatus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 529, 1871; Koseir, Red Sea. Günther, Fische der Südsee, vol. 2, p. 237, pl. 125, fig. 13, 1881; Tahiti and Raiatea, Society Islands.

Glyphidodon bicolor Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 365, 1882; New Guinea.

Chromis leucurus Gilbert, Bull. U. S. Fish Comm., vol. 23, Part 2, p. 620, pl. 77, fig. 2, 1905; Avone Channel and near Kauai, Hawaiian Islands.

Chromis iomelas Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 292, 1905; PagoPago, Samoa.

Chromis dimidiatus Fowler and Ball, Bishop Mus. Bull. 26, p. 20, 1925; Johnston and Wake Islands; French Frigate Shoal. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Monograph 24, p. 33, pl. 7, fig. 2, 1927; Bungau Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 45, 1928; Santo Domingo de Basco, Batan Island, Batanes Province and Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Port Matalvi, Zambales Province; Grande Island Reef, Bataan Province; Port Hamilo, Batangas Province; Limbones Cove, Cavite Province, and Quinalasag Island, Camarines Sur Province, Luzon. Puerto Galera, Sablayan and Paluan Bay, Mindoro. Northwest of Verde Island, between Luzon and Mindoro. Dalanganem Island, Cuyo Group, Sulu Sea. Guntao Island, Palawan. Tapiantana Island, south of Basilan Island. Little Santa Cruz Island and Malanipa Island, Zamboanga Province, Mindanao. Bulan, Tara, Tataan, Tomahu, and Usada Islands, Sulu Province, Philippines. Also Celebes; Ternate, Hawaiian Islands; Samoa. Danawan, and Si Amil Islands, British North Borneo, just south of the Philippine boundary line. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 270, 1936; Moorea, Society Islands; Hog Harbor, Espiritu Santo Island, New Hebrides. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 460, 1940; Sulu Islands, Philippines; Danawan and Si Amil Islands, British North Borneo, and 10 East Indian localities. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Chromis vanthurus Barnard, Ann. South African Mus., vol. 21, p. 732, 1927; Natal coast; not of Bleeker.

1482. *Chromis elerae* Fowler and Bean.

A Philippine and East Indian species.

Chromis elerae Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 52, pl. 4, 1928; Ligpo Point, Balayan Bay, Batangas Province, and Pasacao, Ragay Gulf, Camarines Sur Province, Luzon; Sablayan, Mindoro; Biri Channel, north coast of Samar; Tulayan Island, Sulu Province; Makian Island, Dutch East Indies.

1483. *Chromis lepidolepis* Bleeker.

East Indies; Philippines and Formosa; marine.

Chromis lepidolepis Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 10, p. 401, 1877; Timor. Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 163, 1877; Timor. Bleeker, Atlas Ichth., vol. 9, pl. 403, fig. 2, 1878. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 58, 1928; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Port Hamilo, Batangas Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Langao Point, Sorsogon Province, Luzon. Port Maricaban and Verde Island, between Luzon and Mindoro; Puerto Galera and Sablayan, Mindoro; Mompog Island, between Marinduque and Luzon; Biri Channel and Port Palapag, Samar; San Juanico Strait, between Samar and Leyte; Calangaman Island and Malapascua Island, Cebu Province; Port Caltom, Busuanga Island; Dalanganem Island, Cuyo Islands; Endeavor Strait, Palawan; Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province; Polloc, Cotabato Province; Little Santa Cruz Island, Tulinlutan Island, and Malanipa Island, Zamboanga Province, Mindanao. Bulan,

Pangasinan, Tara, Simaluc, Singaan, and Tataan Islands, Sulu Province, Philippines. Danawan and Si Amil Islands, British North Borneo, near the Philippine boundary line. Amboina, Buru, and Celebes, Dutch East Indies; Formosa.

1484. *Chromis lineatus* Fowler and Bean.

A Philippine species.

Chromis lineatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 50, pl. 3, 1928; Alimango Bay, Buriyas Island; Pangasinan Island, Sulu Province.

1485. *Chromis retrofasciatus* Weber.

The East Indies and Philippines.

Chromis retrofasciatus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 359, pl. 6, fig. 5, 1913; Kur Island, Dutch East Indies. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 53, 1928; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Batan Island and RapuRapu Island, Albay Province, Luzon. Balikias Bay, Lubang Island, northwest of Mindoro. Mansalay, Puerto Galera, and Sablayan, Mindoro. Port Banalacan, Marinduque. Alimango Bay, Buriyas Island. Romblon Harbor, Romblon Island. Port Palapag, Samar. Port Dupon, Leyte. Maribojoc Bay, Maribojoc, and Mantacao Island, Bohol. Cagayan, Misamis Oriental Province; Polloc, Cotabato Province; Sacol Island, Tunalutan Island, and Tapiantana Island south of Basilan, Zamboanga Province, Mindanao. Tataan Island, Sulu Province, Philippines. Coasts of Borneo, Celebes and Halmahera, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 461, 1940; Danawan and Si Amil Islands, British North Borneo; Celebes; Makian; Halmahera; Kur; Sulu Islands, Sulu Province, Philippines.

1486. *Chromis ternatensis* (Bleeker).

East Indies, Philippines, Solomon Islands, New Hebrides, and Samoan Islands.

Heliasis ternatensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 377, 1856; Ternate.

Heliasis ternatensis Günther, Cat. Fishes British Mus., vol. 4, p. 63, 1862; Ternate; Buru; Goram.

Heliasis amboinensis, Bleeker Ned. Tijds. Dierk., vol. 4, p. 111, 1871; Amboina.

Chromis amboinensis Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 162, 1877; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 403, fig. 8, 1878. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 35, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon. Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, and Capulaan Bay, Pagbilao Island, Tayabas Province; Pasacao and Ragay Bay, Ragay Gulf, Camarines Sur Province; Paron Point, Albay Gulf, and RapuRapu Island, Albay Province; Luzon. Balikias Bay, Lubang Island, northwest of Mindoro; Puerto Galera, Paluan Bay, and Varadero Bay, Mindoro; Port Banalacan, and Santa Cruz, Marinduque; Romblon Island; Alimango Bay, Buriyas Island; Port Palapag, Samar; Port Dupon, Leyte; Mactan Island and Malapascua Island, Cebu Province; Maribojoc Bay, Maribojoc, and Pandanon Island, Bohol; Bugsuk Island, Balabac. Pujada Bay, Davao Province; Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province; Polloc, Cotabato Province; Little Santa Cruz Island and Tunalutan Island, Zamboanga Province, Mindanao; Isabel, Basilan, and Tapiantana Islands, south of Basilan Island; Sulade, Sitankai, and Tataan Islands, and Tutu Bay, Jolo Island, Sulu Province, Philippines. Also Buru, Halmahera, and Tidore Islands, Dutch East Indies.

Chromis ternatensis Bleeker, Verh. Holland. Maatsch. Weten., ser. 3, vol. 2, p. 161, 1877; Flores; Timor; Ternate; Buru; Obi Major; Amboina; Goram; Aru; New Guinea. Bleeker, Atlas Ichth., vol. 9, pl. 403, fig. 4, 1878. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 359, 1913; Beo, Karakelang Island. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 32, 1927; Cabalian, Leyte; Bungau, Siasi, Sibutu, Tambagaan, and TawiTawi Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 31, 1928;

Port Matalvi, Zambales Province; Limbones Cove, Cavite Province; Ligpo Point, Balayan Bay, Port Hamilo and Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Masamat Bay, Quinalasag Island, Camarines Sur Province; Paron Point, Albay Gulf, Batan Island, and RapuRapu Island, Albay Province, Luzon, Tiliik, Balikias Bay, Lubang Island, northwest of Mindoro; Port Maricaban and northwest of Verde Island, Verde Island Passage; Puerto Galera, Mansalay, and Sablayan, Mindoro; Port Banalacan, Marinduque; Romblon Island; Alimango Bay, and Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Port Palapag, Samar; Port Dupon, Leyte; Mantacao Island and Maribojoc Bay, Maribojoc, Bohol; Calanganam Island and Mactan Cove, Mactan Island, Cebu Province; Bolalo Bay, Makesi Island and Rasa Island, Mantaquin Bay, Candaraman Island, Palawan. Balabac; Polloc, Cotabato Province; Inamucan Bay and Marcielagos Bay, Misamis Occidental Province; Little Santa Cruz Island, Lampinigan Island, Sacol Island, Isabela, Basilan Island, Pilas Island, and Tunalutan Island, Zamboanga Province, Mindanao, Simulac, Singaan, Sulade, Taganak, Tara, Tataan, Tapiantana, Tulayan, and Tonquil Islands, and Tutu Bay, Jolo Island, Sulu Province, Philippines. Also islands off Borneo and Celebes, Buru, Halmahera, and Tidore Islands, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 307, fig. 52, 1928; Shortland Island, Solomon Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 458, 1940; 21 East Indian localities; Sulu Islands, Sulu Province, Philippines; Solomon Islands; New Hebrides; Samoa.

Chromis philippinus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 63, fig. 25, 1918; Philippines.

1487. *Chromis weberi* Fowler and Bean.

A Philippine and East Indian species; marine.

Chromis weberi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 41, pl. 1, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon, Grande Island Reef, Bataan Province; Port Hamilo and Ligpo Point, Balayan Bay, Batangas Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Canmahala Bay, Ragay Gulf; Langao Point, Sorsogon Province, Luzon. Maricaban Island and northwest of Verde Island, Verde Island Passage. Puerto Galera, Mansalay, and Sablayan, Mindoro. Alimango Bay, and Busin Harbor, Burias Island. Catbalogan, Samar. Calanganam Island, between Samar and Leyte. Dalanganem Island, Cuyo Islands; Puerto Princesa and Guntao Island, Palawan. Bugsuk Island, Balabac. Polloc, Cotabato Province; Inamucan Bay, Misamis Occidental Province; Malanipa Island, and Silino Island, Zamboanga Province, Mindanao. Doc Can, Tara, and Simaluc Islands, Sitankai Wharf and Reef, Singaan, Sulade, Taganak, Tanakeke, Tataan, Teomabal, and Usada Islands, Sulu Province, Philippines, Dutch East Indies. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Dumaguete. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

1488. *Chromis xanthochir* (Bleeker).

East Indies and the Philippines; marine.

Heliases xanthochirus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 248, 1851; Banda Islands.

Heliastes xanthochir Günther, Cat. Fishes British Mus., vol. 4, p. 62, 1860; East Indian Archipelago.

Heliases xanthochir Bleeker, Ned. Tijds. Dierk., vol. 1, p. 231, 1863; Ternate.

Chromis xanthochir Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 158, 1877; Banda; Ternate; Flores; Buru; Ceram; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 402, fig. 5, 1878. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 30, 1927; Calapan, Mindoro; New Washington, Capiz Province, Panay; Bogo, Cebu; Placer, Surigao Province, Mindanao; Sibutu Island, Sulu Province, Philippines. De Beaufort, Fishes Indo-

Australian Archipelago, vol. 8, p. 455, 1940; Java, Celebes; Limbe Strait; Labuan Blanda; Flores, Timor, Letti, Ternate, Makian, Buru, Ceram, Banda, and Amboina, Dutch East Indies; Danawan and Si Amil Islands, British North Borneo, just south of the Philippine boundary; Philippines. Synonymy in part.

Pomacentrus anabatoides Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 608, 1912; Java; not of Bleeker.

Chromis scotochilopterus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 61, fig. 24, 1918; Philippines. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 31, 1927; Tagapula and Sayan Islands, Samar; Gigantangan Island, Leyte; New Washington, Capiz Province, Panay; Bungau and Tambagaan Islands, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 38, 1928; Refugio Island and Pasacao, Ragay Gulf, Camarines Sur Province; Langao, Sorsogon Province, Luzon. Port Maricaban and northwest of Verde Island, between Luzon and Mindoro. Puerto Galera, Mindoro. Capulaan Bay, Pagbilao Islands, south coast of Tayabas Province, Luzon. Escarpada Island, Naranjo Islands, between Masbate and Samar. Malapascua Island, Cebu Province. Little Santa Cruz Island, Zamboanga Province, Mindanao. Tara, Simaluc, Sulade, and Tumindao Islands, and Siasi Island market, Sulu Province, the Philippines. Also Danawan and Si Amil Islands, British North Borneo, near the Philippine boundary. Gondra, Labuan Blanda, and Makian Islands and Limbe Strait, Celebes, Dutch East Indies.

Chromis reticulatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 40, 1928; Labuan, Sipadan, and Buru Islands, East Indies.

1489. *Chromis xanthurus* (Bleeker).

An East Indian and Philippine marine species.

Heliasis xanthurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 107, 1854; Banda Neira.

Chromis xanthurus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 159, 1877; Banda Neira; Singapore. Bleeker, Atlas Ichth., vol. 9, pl. 405, fig. 5, 1878. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 29, 1927; Monja Island, at entrance of Manila Bay; Hamilo, Batangas Province, Luzon; Baco and Calapan, Mindoro; Sibuyan Island; New Washington, Capiz Province, Panay; Bungau Island, Sulu Province, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Calapan, Mindoro; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 456, 1940; 10 East Indian localities; Philippines.

Chromis opercularis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 47, 1928; Sabtang Island, Batanes Province; Limbones Cove, Cavite Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Pasacao, Ragay Gulf, and Quinalasag Island, Camarines Sur Province; Palag Bay, and San Miguel Island, Tabaco Bay, Albay Province, Luzon. Puerto Galera, Paluan Bay, Sablayan, and Varadero Bay, Mindoro. Maricaban Island and northwest of Verde Island, between Luzon and Mindoro. Port Banalacan, Marinduque. Mompog Island, between Marinduque and Luzon. Alimango Bay, Burias Island. Port Dupon, Leyte. Maribojoc Bay, Bohol. Dalanganem Island, Cuyo Islands, Sulu Sea. Guntao Island, Palawan. Polloc, Cotabato Province; Tunalutan and Sacol Islands, Zamboanga Province, Mindanao. Tapiantana Island, south of Basilan Island. Simaluc, Singaan and Tataan Islands, Sulu Province, Philippines; also on coasts of Borneo and Celebes.

Genus 489. *DASYCYLLUS* Cuvier.

Coral-reef fishes of the tropical and warm temperate Indo-Pacific.

Dasytyllus Cuvier, Règne Animal, ed. 2, vol. 2, p. 179, 1829; type, *Chaetodon aruanus* L. Günther, Cat. Fishes British Mus., vol. 4, p. 11, 1862. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 20, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 13, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 461, 1940.

Tetradrachmum Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1223, 1850; type, *Chaetodon arcuatus* Shaw.

1490. *Dascyllus aruanus* (Linnaeus).

- Everywhere in the tropical Indo-Pacific, except in the Hawaiian area, from Africa to the Marshall and Marquesas Islands.
- Chaetodon aruanus* Linnaeus, Syst. Nat., ed. 10, p. 275, 1758; Indies. Bloch, Naturges. Ausländ. Fische, vol. 3, p. 62, 1787; India, Arabia, Bloch, Ichnologie, vol. 6, p. 45, pl. 198, fig. 2, 1799.
- Chetodon aruanus* Bonnaterre, Tableau Encyclop. Ichthyologie, p. 87, pl. 92, fig. 380, 1788; East Indies, Red Sea.
- Lutjanus aruanus* Lacépède, Hist. Nat. Poissons, vol. 4, pp. 719, 720, 1803; after Linnaeus.
- Pomacentrus aruanus* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 39, 1828; Red Sea.
- Dascyllus aruanus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 325 (434), 1830; BoraBora; Tongatabu; Oualan; Guam; New Ireland; Mauritius; Massaua, Red Sea. Bleeker, Verh. Bat. Gen., vol. 21, Labroid. Ctenoid., p. 6, 1847; Batavia, Java. Bleeker, Jour. Indian Archipelago, vol. 2, p. 633, 1848; Sumbawa. Günther, Cat. Fishes British Mus., vol. 4, p. 12, 1862; Red Sea; Pinang; Mollucca Sea; East Indies; China Seas; Fiji Islands; Tongatabu; Amboina. Castelnau, Recherches Fishes Australia, Official Records Philadelphia Exposition, p. 33, 1875; Queensland, Australia. Günther, Fische der Südsee, vol. 2, p. 235, pl. 124, fig. 5, 1881; Red Sea; East Africa; South Seas. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 34, 1885; Cebu, Philippines; North Celebes; Mysore, New Guinea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 290, 1906; Samoa. Jordan and Seale, *ibid.*, vol. 26, p. 27, 1907; Cavite Province, Luzon. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 357, 1913; Sanguisiapo, Sulu Province, Philippines, and 9 East Indian localities. Fowler, Copela, No. 58, p. 64, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 49, 1922; Zamboanga, Zamboanga Province, Mindanao. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 21, 1927; Manila; Cavite, Cavite Province, Luzon. Baco, Calapan and Puerto Galera, Mindoro; Cebu and Santayan Island, Cebu Province; Tagbilaran, Bohol; San Juan, Bantayor Island; Zamboanguita, Negros Oriental Province; Canigaran and Puerto Princesa, Palawan; Davao and Samal Island, Davao Province; Cagayan, Misamis Oriental Province; Zamboanga, Zamboanga Province, Mindanao. Bilatan, Bungau, Sibutu, Sitankai, and Tandubas Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 21, 1928; Cavite, Cavite Province; Port Matalvi, Zambales Province; Batan Island and Palag Bay, Albay Province; Canmahala Bay, Ragay Gulf, Luzon. Puerto Galera; Mindoro; Port Maricaban, between Luzon and Mindoro. Port Banalacan, Marinduque. Romblon Island; San Miguel Harbor, Ticao Island; Cataingan Bay, Masbate; Biri Channel, north of Samar. Cebu market and Mactan Island, Cebu Province, Candaraman Island, Pandanon Island, and Bugsuk Island, off Balabac. Surigao, Surigao Province; Polloc, Cotabato Province; Zamboanga, Isabela, Basilan Island, and Little Santa Cruz, Socol, Pilas, and Tapiantana Islands, Zamboanga Province, Mindanao. Buan, Marongas, Simalac, Singaan, Sulade, Taganak, Tara, Tataan, Tonquil, Tulayan, and Tumindao Islands, Jolo and Tutu Bay, Jolo Island, Sulu Province. Philippines. Also Buru, Celebes, and Halmahera, Dutch East Indies; Madagascar; New Guinea; Apia and Pago Pago, Samoa; Tahiti; Mangareva, Gambier Islands; Fakarava, Tuamotu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 307, 1928; Guam; Faté, New Hebrides; Shortland Island, Solomon Islands; Palmyra, Thurston, Thaanum and Wake Islands; Tahiti, Society Islands; Ponapé; Raiatea, Mangareva, and Fakarava, Tuamotu Islands; Nukahiva, Marquesas Islands; the Marshall, Pelew, and Gilbert Islands; Apia and PagoPago, Samoa; Tonga. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Province, Luzon; Cullion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 268, 1936; Maraa, Tahiti, and BoraBora, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 467, 1940; 45 East Indian localities; Sulu Islands, Philippines, and 36 Indo-Pacific localities.
- Tetradrachmum arcuatum* Cantor, Jour. Asiatic Soc. Bengal, vol. 18,

p. 1223, 1850; Pinang. Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 147, 1877; 23 East Indian localities. Bleeker, Atlas Ichth., vol. 9, pl. 409, fig. 6, 1878.

Tetradrachmum aruanum Bleeker, Ned. Tijds. Dierk., vol. 1, p. 231, 1863; Ternate. Day, Fishes India, p. 381, pl. 80, fig. 6, 1878. Weber, Siboga-Exped., vol. 57, Fische, p. 357, 1913; Sanguisiapo, Sulu Archipelago, Philippines, and 9 other East Indian localities. Whitley. Mem. Queensland Mus., vol. 9, p. 245, 1929.

1491. *Dascyllus caudofasciatus* Montalban.

A Philippine species.

Dascyllus caudofasciatus Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 26, pl. 6, fig. 1, 1927; Bungau, Sibutu and Tambagaan Islands, Sulu Province.

1492. *Dascyllus marginatus* (Rüppell).

From the east coast of Africa to the East Indies, Philippines, China, Hawaiian Islands, Fiji, and Australia.

Pomacentrus marginatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 38, pl. 8, fig. 2, 1828; Massaua, Red Sea.

Dascyllus marginatus, Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 329 (439), pl. 133, fig. 2, 1830; Red Sea. Day, Fishes India, p. 381, pl. 79, fig. 1878. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 422, 1891. Barnard, Ann. South African Mus., vol. 21, p. 731, 1927; Ibo, Mozambique. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 24, 1927; Calapan, and Puerto Galera, Mindoro; Cabalian, Leyte; Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao; Bungau, Sibutu and Tambagaan Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 17, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands. Capulaan Bay, Pagbilao Island, Tayabas Province; Canimo Island, near Daet, Camarines Norte Province; Butaanan Island, Camarines Sur Province; Canmahala Bay, Bagay Gulf, Luzon. Maricaban Island and northwest of Verde Island, Verde Island Passage. Paluan Bay, Sablayan, and Puerto Galera, Mindoro. Alimango Bay, Burias Island. Biri Channel and Port Palapag, Samar. Mactan Cove, Mactan Island, Cebu Province. Port Caltom, Busuanga Island. Dalanganem Island, Cuyo Islands. Makesi Island, Endeavor Strait, Guntao Island and Oyster Inlet, Ulugan Bay, Palawan. Polloc, Cotabato Province; Inamucan Bay, Misamis Occidental Province; Little Santa Cruz Island, Zamboanga Province, Mindanao. Pilas Island, off Basilan Island. Bulan, Sulade and Simaluc Islands, Sitankai Reef, and Jolo, Sulu Province. Danawan and Si Amil Islands, British North Borneo, very near the Philippine boundary; Halmahera and Tidore Islands, Dutch East Indies; Zanzibar; Hawaiian Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 465, fig. 54, 1940; 18 East Indian localities; Sulu Islands, Philippines, and 15 other Indo-Pacific localities. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay. Herre, 1940 Coll.; Layia, Batangas Province; Dumaguete; Basilan Island.

Heliasis reticulatus Richardson, Ichth. China Japan, p. 254, 1846; China Seas.

Dascyllus wanthosoma Bleeker, Nat. Tijds. Ned.-Ind. vol. 2, p. 247, 1851; Banda Islands. Günther, Cat. Fishes British Mus., vol. 4, p. 14, 1862; Borneo. Günther, Fische der Südsee, vol. 2, p. 237, pl. 124, fig. C, 1876-1881; East Indies; Kandavu; New Britain; Ponapé.

Tetradrachmum reticulatum Bleeker, Ned. Tijds. Dierk., vol. 4, p. 135, 1873; China. Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 145, 1877; Nias; Borneo; Buru; Amboina; Ceram; Banda; Goram; Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 409, fig. 3, 1878. Weber, Siboga-Exped., vol. 57, Fische, p. 356, 1913; Sanguisiapo Island, Sulu Province, Philippines; Amboina; Borneo Bank; Damar.

Dascyllus reticulatus Cartier, Nat. Verh. Phys. Med. Gesell. Würzburg, new ser., vol. 5, p. 97, 1874; Ubay, Bohol.

Dascyllus trimaculatus Fowler, Copeia, No. 58, p. 64, 1918; Philippines; not of Rüppell.

Tetradrachmum anthosoma Whitley, Records Australian Mus., vol. 16, p. 23, 1927.

Pellochromis anthosoma Whitley, Mem. Queensland Mus., vol. 9, p. 246, 1929; Queensland.

1493. *Dascyllus melanurus* (Bleeker). Kalitbobo.

East Indies and Philippines, west to the Maldives, east to Yap, Ponapé, and the Solomon Islands.

Dascyllus aruanus var. Schlegel and Müller, Nat. Verh. Gesch. Nederland. Zool. Amphiprion, p. 21, 1839-41.

Dascyllus aruanus var. Bleeker, Nat Tijds. Ned.-Ind., vol. 2, p. 246, 1851; Banda Islands.

Dascyllus melanurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 109, 1854; Banda Neira. Bleeker, *ibid.*, vol. 15, p. 202, 1858; Goram Archipelago. Günther, Cat. Fishes British Mus., vol. 4, p. 12, 1862; Amboina; Molucca Sea. Günther, Fische der Südsee, vol. 2, p. 236, pl. 124, fig. C, 1881; East Indies; Ponapé, Caroline Islands. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 265, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 20, 1927; Calapan and Puerto Galera, Mindoro; Canigaran and Ulugan Bay, Palawan; Cotabato, Cotabato Province, and Samal Island, Davao Province, Mindanao. Basbas and Sibutu Islands, Sulu Province. Fowler and Bean, Bull. 100. U. S. Nat. Mus., vol. 7, p. 20, 1928; Batan Island and RapuRapu Island, Albay Province, Luzon. Puerto Galera and Mansalay, Mindoro. Port Maricaban between Luzon and Mindoro. Biri Channel, Balicuatro Islands, and Port Palapag, Samar. Little Santa Cruz and Sacol Islands, Zamboanga Province, Mindanao. Tataan and Tumindao Islands, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 306, 1928; Shortland Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 469, 1940; 18 East Indian localities; Philippines; Maldives; Yap; Ponapé; New Britain; Solomon Islands.

Tetradrachmum melanurus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 231, 1863; Ternate. Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 149, 1877; 14 East Indian localities. Bleeker, Atlas Ichth., vol. 9, pl. 409, fig. 1, 1878. Whitley, Mem. Queensland Mus., vol. 9, p. 217, fig. 1, 1929; "South Seas."

Pomacentrus onyx de Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 451, 1883; South Seas.

1494. *Dascyllus trimaculatus* (Rüppell).

From the African coast to the Philippine, Marcus Island, Marshall, Hawaiian, and Society Islands, south to Queensland, Australia.

Pomacentrus trimaculatus Rüppell, Atlas Reise Nordl. Afrika, Fische Rothen Meeres, p. 39, pl. 8, fig. 3, 1828; Massaua, Red Sea.

Dascyllus trimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 330 (441), 1830; Massaua. Günther, Cat. Fishes British Mus., vol. 4, p. 13, 1862; Red Sea; Mauritius; Mozambique; Sumatra; Amboina; Louisiade Archipelago; Aneiteum. Cartier, Verh. Phys. Med. Würzburg, vol. 5, p. 97, 1874; Ubay, Bohol. Günther, Fische der Südsee, vol. 2, p. 236, 1881; Red Sea; East Africa; East Indies; Society, Gilbert, and Pelew Islands; Yap; the Louisiades; Aneiteum; Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 290, 1906; Pago-Pago, Samoa. Jordan and Seale, *ibid.*, vol. 26, p. 27, 1907; Manila, Luzon, Philippines. Regan, Ann. Durban Mus., vol. 1, p. 459, 1914-17; Durban, Natal, South Africa. Fowler and Copela, No. 58, p. 64, 1918; Philippines. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, pl. 23, pt. 5, fig. 2, 1927; Monja Island at entrance to Manila Bay, Luzon. Calapan, Mindoro; Tablas Island; Puerto Princesa, Palawan; Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao; Sibutu and Tambagaan Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 14, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Bolinao Bay, Pangasinan Province; Limbones Cove, Cavite Province; Ligpo Point, Balayan Bay, Batangas Province, Alibijaban Island, Ragay Gulf and Capulaan Bay, Pagbilao Island, Tayabas Province; Pasacao,

Ragay Gulf, Camarines Sur Province; Canmahala Bay, Ragay Gulf, Luzon. Port Maricaban, northwest of Verde Island, Verde Island Passage. Puerto Galera, Sablayan and Paluan Bay, Mindoro. Santa Cruz Island, Marinduque. Alimango Bay, and Busin Harbor, Burias Island. Bagacay Bay, Escarpada Island, Naranjos Group between Masbate and Samar. Pandanon Island, Bohol. Mactan Cove, Mactan Island, and Malapascua Island, Cebu Province. Puerto Princesa, Palawan. Caxisign and Bugsuk Islands, Balabac. Dalanganem Island, Cuyo Islands, Sulu Sea. Inamucan Bay and Murcielagos Bay, Misamis Oriental Province; Polloc, Cotabato Province, Capungan, Surigao Province; Tunalutan Island, Zamboanga Province, Mindanao. Pilas Island, south of Basilan Island. Pangasinan. Sipadan, Sulade, Taganak, Tumindao, Simalac Islands, Sitankai Wharf, and Tutu Bay, Jolo Island, Sulu Province. Danawan and Si Amil Islands, British North Borneo, near the Philippine boundary. Buru, Celebes, and Ternate, Dutch East Indies; Red Sea; Hawaii; Samoa; Padang, Sumatra. Fowler, Mem. Bishop Mus., vol. 10, p. 305, 1928; New Guinea, Guam; Jaluit, Marshall Islands; Suva, Fiji; Apiang, Gilbert Islands; Marcus Island; Hawaiian and Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Dumaguete; Jolo and Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 463, fig. 53, 1940; 25 East Indian localities; Sulu Islands, Philippines, and 20 other Indo-Pacific localities. Herre, Fishes 1940-41 Exped.; Manila Bay, Luzon. Herre, 1948 Coll.; Layia, Batangas Province, Luzon; Dumaguete; Zamboanga Province, Mindanao.

Dascyllus niger Bleeker, Verh. Bat. Gen., vol. 21, 1847, Labroid. Ctenoid., p. 10; Batavia, Java.

Tetradrachmum trimaoulatum Bleeker, Ned. Tijds. Dierk., vol. 2, p. 145, 1865; Buru. Bleeker, Nat. Verh. Holland Maatsch. Wetenschappen, ser. 3, vol. 2, p. 144, 1877; Sumatra; Java; Bali; Celebes; Batjan; Buru; Amboina; Haruko; Ceram; Banda; Goram. Bleeker, Atlas Ichth., vol. 9, pl. 409, fig. 8, 1878.

Pelochromis trimaculatus Whitley, Mem. Queensland Mus., vol. 9, p. 246, 1929; Queensland, Australia.

Genus 490. **DAYA** Bleeker.

One species occurs in the East Indies and Philippines, south to Australia, west to India, and the Persian Gulf; marine.

Daya Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 71, 1877; type, *Pomacentrus jerdoni* Day. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 73, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 120, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 348, 1940.

1495. *Daya jerdoni* (Day).

Pomacentrus jerdoni Day, Proc. Zool. Soc. London, p. 237, 1873; Madras, India. Day, Fishes of India, p. 383, pl. 80, fig. 7, 1878; Madras. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 89, 1907; Bulan, Sorsogon Province, Luzon. Regan, Jour. Bombay Nat. Hist. Soc., vol. 16, p. 330, 1906; Persian Gulf.

Daya jerdoni Weber, *Siboga*-Exped., vol. 57, Fische, p. 344, 1913; Tonquil Island, Sulu Province, Philippines; Borneo Bank. McCulloch, Mem. Queensland Mus., vol. 7, p. 170, pl. 11, fig. 1, 1921; Capricorn Group, coast of Queensland, Australia. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 73, pl. 15, fig. 1, 1927; Olongapo, Zambales Province; Bulan, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 120, 1928; Luzon, and Bulan, Sorsogon Province, Luzon. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 349, fig. 44, 1940; Sulu Islands, Philippines; Borneo Bank. Herre, Fishes 1936-37 and 1940-41 Expeds.; Manila Bay, Luzon; Estancia, Iloilo Province, Panay.

Daya jerdoni var. *fusca* McCulloch, Mem. Queensland Mus., vol. 7, p. 171, pl. 11, fig. 2, 1921; Queensland. McCulloch, *ibid.*, vol. 8, p. 166, 1925; Double Island Point; Cape Capricorn; Bustard Head Light; Hervey Bay; Bowen.

Genus 491. HEMIGLYPHIDODON Bleeker.

East Indies, Philippines, and Seychelles Islands; marine.

Hemiglyphidodon Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 91, 1877; type, *Glyphisodon plagiometopon* Bleeker. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 74, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 185, 1928.

Ctenoglyphidodon Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 58, 1918; type, *Abudefduf melanopselion* Fowler=*Glyphisodon plagiometopon* Bleeker.

1496. Hemiglyphidodon plagiometopon (Bleeker).

Distribution as for the genus.

Glyphisodon plagiometopon Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 67, 1852; Singapore.

Glyphidodon plagiometopon Günther, Cat. Fishes, British Mus., vol. 4, p. 51, 1862; coasts of Singapore and Java. Peters, Monatsber. Akad. Wiss. Berlin, p. 442, 1876; Seychelles. Bleeker, Atlas Ichth., vol. 9, pl. 410, fig. 4, 1878.

Glyphidodon (Hemiglyphidodon) plagiometopon Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 103, 1877; Singapore; Java; Amboina.

Hemiglyphidodon plagiometopon Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 75, pl. 5, fig. 1, 1927; Cebu market and Bantayan Island, Cebu Province; Samal Island, Davao Province; Zamboanga, Zamboanga Province, Mindanao; BatoBato, Tawi-Tawi Island, and Sitankai Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 185, 1928; Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; Galvaney Island, Ragay Gulf, and Butaanan Island, Camarines Sur Province, Luzon. Santa Cruz, Marinduque; Romblon Harbor, Romblon; Busin Harbor, Burias Island; Cataingan Bay and Masbate Reef, Masbate; Biri Channel, Catbalogan, Nabatas Point, and Port Palapag, Samar; Mantacao Island, Bohol; Cebu market, Mactan Island, and Calangaman Island, Cebu Province; Cuyo Island, Cuyo Islands; Endeavor Strait, Malalo Bay, Makesi Island, Malcochin Harbor, Linapacan Island, Rasa Island, Mantaquin Bay, Ulugan Bay, and Sirinao Island, Nakoda Bay, Palawan. Candaraman Island, Balabac. Sacol Island, Zamboanga Province, Mindanao. Singaan, Tataan, Taganak, Tara, and Tumindao Islands, and Tutu Bay, Jolo Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Cullion. Herre, Fishes 1940-41 Exped.; Coron, Busuanga; Jolo, Sulu Province.

Abudefduf plagiometopon de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 428, 1940; Singapore; Batavia, Java; Gulf of Boni and Gulf of Tomini, Celebes; Halmahera; Danawan and Gomomo Islands; Amboina; Port Moresby, New Guinea. Sulu Islands, Philippines.

Genus 492. LEPIDOZYGUS Günther.

East Indies and Philippines; a single species known.

Lepidozygus Günther, Cat. Fishes British Mus., vol. 4, p. 15, 1862; type, *Pomacentrus tapeinosoma* Bleeker. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 25, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 470, 1940.

1497. Lepidozygus tapeinosoma (Bleeker).

Distribution under the genus.

Pomacentrus tapeinosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 376, 1855; Ternate. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 278, 1865; Amboina.

Lepidozygus tapeinosoma Günther, Cat. Fishes British Mus., vol. 4, p. 15, 1862; Ternate. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 71, 1877; Ternate; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 1, 1878. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 25, 1928; Puerto Galera, Mindoro; Panpan, Tara Island, Sulu Province, Philippines. Doworra, Buru, and Tidore Islands, Dutch East Indies. Herre, Fishes 1936-37 Exped.; Si Amil Island, British North Borneo, just south of the Philippine boundary line. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 471, fig. 55, 1940; Buru; Ternate; Tidore; Doworra; Amboina; Philippines.

Genus 493. POMACENTRUS Lacépède.

Rock-pool and coral-reef fishes of all warm seas; marine, but some species enter fresh water.

Pomacentrus Lacépède, Hist. Nat. Poissons, vol. 4, p. 505, 1803; type, *Chaetodon pavo* Bloch. Günther, Cat. Fishes British Mus., vol. 4, p. 16, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 600, 1902. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 270, 1905. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 37, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 65, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 352, 1940.

Pristotis Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 128, 1835; type, *Pristotis cyanostigma* Rüppell.

Dischistodus Gill, Proc. Acad. Nat. Sci. Phila., p. 214, 1863; type, *Pomacentrus fasciatus* Cuvier.

Pseudopomacentrus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 40, 1877; type, *Pomacentrus littoralis* Cuvier and Valenciennes.

Parapomacentrus Bleeker, *ibid.*, p. 65; type, *Pomacentrus polynema* Bleeker.

Amblypomacentrus Bleeker, *ibid.*, p. 68; type, *Glyphisodon breviceps* Schlegel and Müller.

Eupomacentrus Bleeker, *ibid.*, p. 73; type, *Chaetodon lividus* Bloch and Schneider.

Brachypomacentrus Bleeker, *ibid.*, p. 73; type, *Pomacentrus albifasciatus* Schlegel and Müller.

1498. *Pomacentrus albifasciatus* Schlegel and Müller.

East Indies, Philippines, Pelew Islands, Guam, Samoa.

Pomacentrus albifasciatus Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, Overzigt. *Amphiprion*, p. 21, Labroid. Ctenoid., 1839-41; northwest coast of Celebes. Bleeker, Verh. Bat. Gen., vol. 21, p. 2, 1847; Batavia, Java. Whitley, Records Australian Mus., vol. 16, p. 19, 1927; Michaelmas Cay, Great Barrier Reef, Queensland.

Pomacentrus albofasciatus Günther, Cat. Fishes British Mus., vol. 4, p. 19, 1862; East Indian Archipelago. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 282, 1906; Apia and PagoPago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 262, 1908; Calayan Island, Babuyan Islands north of Luzon. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 40, pl. 9, fig. 2, 1927; Calayan Island, Cagayan Province, Luzon. Fowler, Mem. Bishop Mus., vol. 10, p. 314, 1928; Agaña, Guam; Pago-Pago, Samoa.

Eupomacentrus (*Brachypomacentrus*) *albifasciatus* Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 75, 1877. Bleeker, Atlas Ichth., vol. 9, pl. 403, fig. 6, 1878.

1499. *Pomacentrus albolineatus* Montalban.

A Philippine marine species.

Pomacentrus albolineatus Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 70, pl. 14, fig. 1, 1927; Bungau Island, Sulu Province.

Chromis azurelineatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 57, pl. 5, 1928; Port Uson, Busuanga Island; Candaraman Island, Balabac; Tara Island, Sulu Province.

1500. *Pomacentrus amboinensis* Bleeker.

East Indies, Philippines, Pelew and Solomon Islands, New Hebrides, and Queensland, Australia; marine.

Pomacentrus amboinensis Bleeker, Versl. Akad. Amsterdam, ser. 3, vol. 2, p. 334, 1868; Amboina. Steindachner, Abh. Senckenberg. Gesell., vol. 25, p. 440, 1900; Ternate. Weber, *Siboga*-Exped., vol. 57, Fische, p. 339, 1913; Banda. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 53, 1927; Bantayan Island, Cebu Province; Sitangkai Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 86, 1928; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Butaanan Island, Camarines Sur Province; Batan Island, Albay Province; Canmahala Bay, Ragay Gulf, Luzon. Northwest of Verde Island and

Port Maricaban, Verde Island Passage, Puerto Galera, Mindoro; Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Bagacay Bay, Escarpada Island, Naranjo Group between Masbate and Samar. Biri Channel, Samar. Malcochin Harbor, Linapacan Island; Candaraman Island and Caxisigan Island, Balabac. Pujada Bay, Davao Province; Murcielagos Bay, Misamis Occidental Province, Mindanao. Bubuan, Bulan, Pangasinan, Simalac, Tonquil, Tapiantana, Tara, Tataan, and Tumindao Islands, Jolo and Sitankai Reef, Sulu Province. Also Celebes, Halmahera, Tidore, Gomomo, and Makyan Islands, Dutch East Indies; Danawan and Si Amil Islands, British North Borneo, near the Philippine boundary. Fowler, Mem. Bishop Mus., vol. 10, p. 314, 1928; East Indies. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 69, 1934; Dumaguete; Cebu, Cebu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 285, 1936; Hathorn Sound, New Georgia Island and Tenibuli, Ysabel Island, Solomon Islands; Vila, Efaté Island, New Hebrides. Herre, Fishes 1936-37 and 1940-41 Expeds.; Coron, Busuanga Island; Jolo and Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 387, 1940; 13 East Indian localities; Philippines.

1501. Pomacentrus beauforti Fowler and Bean.

A Philippine marine species.

Pomacentrus ovoides Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 98, 1874; Ubay, Bohol, and Cavite, Cavite Province, Luzon.

Pomacentrus breviceps Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 68, pl. 13, fig. 1, 1927; not of Schlegel and Müller; Subic and Olongapo, Zambales Province; Nasugbu, Batangas Province, Luzon. Concepcion, Busuanga Island; Cuyo, Cuyo Islands; Puerto Princesa, Palawan; Estancia, Iloilo Province, Panay; Cebu and Bantayan Island, Cebu Province; Tagbilaran, Bohol. Sandakan, British North Borneo.

Pomacentrus beauforti Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 115, pl. 13, 1928; Ragay Bay, Ragay Gulf, Camarines-Sur Province, Luzon. Cataingan Bay, Masbate; Catbalogan, Samar; Cebu market, Cebu.

1502. Pomacentrus bifasciatus Bleeker.

East Indies, Philippines, Andaman, Pelew, and Marshall Islands.

Pomacentrus bifasciatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 330, 1854; Flores. Bleeker, *ibid.*, vol. 22, p. 244, 1861; Bawean. Günther, Cat. Fishes British Mus., vol. 4, p. 18, 1862; Flores; Ternate; Buru. Day, Fishes India, p. 383, 1878; Andaman Islands. Günther, Fische der Südsee, vol. 2, p. 226, 1876-1881; Boston Atoll, Marshall Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 341, 1913. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 47, 1927; Cullion. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 367, 1940; Bawean, Flores, Solor, Samau, Timor, Buru, and Ternate, Dutch East Indies; Philippines.

1503. Pomacentrus breviceps (Schlegel and Müller).

East Indies, Philippines, and New Caledonia; marine.

Glyphisodon breviceps Schlegel and Müller, Verh. Nat. Gesch. Ned. Zool., vol. 2, Overzigt. *Amphiprion*, p. 23; 1839-41; Indian Ocean; southwest coast of Sumatra.

Pristotis trifasciatus Bleeker, Jour. Indian Archipelago, vol. 2, p. 637, 1848; Sumbawa.

Pomacentrus nematopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 285, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 18, 1862; East Indian Archipelago.

Pomacentrus trifasciatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 438, 1859; Sumbawa.

Glyphidodon breviceps Günther, Cat. Fishes British Mus., vol. 4, p. 42, 1862; after Schlegel and Müller.

Amblypomacentrus breviceps Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 69, 1877; 10 East Indian Islands. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 7, 1878. Weber, *Siboga*-Exped., vol. 57, Fische, p. 343, 1913.

Pomacentrus breviceps Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 114, 1928; Port Caltom, Busuanga Island; Malcochin Harbor,

Linapacan Island, Palawan Province; Tataan Island, and near Jolo Island, Sulu Province, Philippines. Toba Island, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 368, fig. 47, 1940; Sumatra, Nias, Bawean, Celebes, Djampea, Sumbawa, Timor, Halmahera, Ternate, Buru, Ceram, Amboina, and Sandakan, British North Borneo; Sulu Islands, Philippines; and New Caledonia, synonymy in part. Herre, Fishes 1940-41 Exped.; Coron, Busuanga Island. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

1504. *Pomacentrus chrysopoecilus* Schlegel and Müller.

East Indies, the Philippines, and Pelew Islands; marine.

Pomacentrus chrysopoecilus Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, Overzigt. *Amphiprion*, p. 21, pl. 5, fig. 3, 1839-41; Java. Bleeker, Nat. Tijds. Ned.-Ind. vol. 3, p. 284, 1852; Amboina; Ceram. Günther, Cat. Fishes British Mus., vol. 4, p. 20, 1862; East Indies. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 34, 1885; Cebu, Cebu. Montalban, Pomacentridae, Philippine Bureau Science Monograph 24, p. 61, pl. 11, fig. 1, 1927; Puerto Galera, Mindoro; Canigaran, Palawan; Clarendon Bay, Balabac Island; Tagbilaran, Bohol; Samal Island, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Sibutu and Sitankai Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Unisan, Tayabas Province, Luzon; Cebu, Cebu; Jolo and Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 375, 1940; 14 East Indian localities; Sulu Islands, Philippines; Pelew Islands. Herre, 1948 Coll.; Cebu; Davao Province, Mindanao.

Pomacentrus notostigmus Richardson, Voy. *Sulphur*, Zoology, Fishes, p. 89, pl. 44, figs. 1-4, 1844; South Pacific.

Dischistodus chrysopoecilus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 84, 1877; Singapore; Pulo Brani; Java; Bawean; Celebes; Buru; Amboina; Ceram; Goram; Guebe. Bleeker, Atlas Ichth., vol. 9, pl. 406, fig. 9, 1878.

Pomacentrus pristiger Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Cuyo Island, Cuyo Islands; not of Cuvier and Valenciennes. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 109, pls. 11-12, 1928; Dalanganem Island, Cuyo Islands; Nogos Point, Antique Province, Panay; Cebu market, and Calangaman Island, Cebu Province; Pandanon Island, Bohol; Romblon Reef, Romblon; Masamat Bay, Camarines Sur Province, Luzon; Sirinao Island, Palawan. Bugsuk Island, Balabac; Cagayan, Misamis Oriental Province, Mindanao; Singaan and Tataan Islands, Sulu Province, Philippines; Great Toba Island, East Indies; not of Cuvier and Valenciennes.

1505. *Pomacentrus fasciatus* Cuvier and Valenciennes.

East Indies, Philippines, and south to Australia.

Pomacentrus fasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 320, (426), pl. 134, 1830; Java. Schlegel and Müller, Verh. Nat. Gesch. Ned. Zoologie Overzigt. *Amphiprion*, p. 20, pl. 4, fig. 1, 1839-41; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 482, 1853; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 19, 1862; Philippines; Ceram. Peters, Monatsber. Akad. Wiss. Berlin, p. 270, 1868; Pulo Brani, Singapore. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 397, 1879; Port Darwin, Australia. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Ticao Island. Weber, *Siboga*-Exped., vol. 57, Fische, p. 341, 1913; Sanguisiapo Island, Sulu Province; also Kangeang, Nusa Laut, Banda, and Rotti, Dutch East Indies. Montalban, Pomacentridae Philippines, Philippine Bureau Sci. Monograph 24, p. 67, pl. 13, fig. 2, 1927; Paoay, and Curimao, Ilokos Norte Province, and Iba, Zambales Province, Luzon. Polillo Island; Bantayan Island, Cebu Province; Canigao Island, Leyte; Zamboanga Province, Mindanao; Jolo, Tubigan, TawiTawi, Bungan, Sibutu, and Saluang Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 111, 1928; Batan Island, Albay Province, and Canimo Island near Daet, Camarines Norte Province, Luzon. Port Caltom, Busuanga Island; Sirinao Island, Palawan; Santa Cruz Island, Marinduque; reef opposite Cebu, Cebu; San Pascual, Burias Island; Surigao, Surigao Province, Mindanao; Pilas Island, off Basilan Island; Tataan and Simalac Islands, and Jolo market, Jolo, Sulu Province. Great Toba Island, Dutch East Indies. Herre, Fishes 1936-37

and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province.

1506. Pomacentrus grammorhynchus Fowler.

A Philippine and East Indian marine species.

Pomacentrus grammorhynchus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 44, fig. 17, 1918; Philippines. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Sci. Monograph 24, p. 52, 1927; after Fowler. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 97, 1928; Biri Channel, north coast of Samar; Candaraman Island, Balabac; Little Santa Cruz and Sacol Islands, Zamboanga Province, Mindanao; Pangasinan, Tataan and Tumindao Islands, Sulu Province. Also Talisse and Toba Islands and Labuandatu Bay, Gulf of Boni, Celebes, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Lemery, Batangas Province, Luzon; Jolo and Sitankai, Sulu Province.

1507. Pomacentrus lepidogenys Fowler and Bean.

A Philippine marine species.

Pomacentrus lepidogenys Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 98, 1928; Ligpo Point, Balayan Bay, Batangas Province, and Batan Island, Albay Province, Luzon.

1508. Pomacentrus littoralis Cuvier and Valenciennes.

Islands of the tropical Indo-Pacific, from Madagascar to the Philippines, Caroline, Solomon, New Hebrides, and Society Islands, south to Australia; marine and entering fresh water.

Pomacentrus littoralis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 318 (425), 1830; Java. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, p. 20, pl. 4, fig. 3, 1839-41; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 483, 1853; Batavia, Java. Günther, Cat. Fishes, British Mus., vol. 4, p. 32, 1862; East Indies; Amboina; Dove's Island and Port Essington, Australia. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 426, pl. 46, fig. 2, 1891. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 89, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Cavite, Cavite Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 76, 1928; Port Matalvi, Zambales Province, Luzon; Limbones Cove, Cavite Province; Grande Island Reef and Port Binanga, Bataan Province; Dampila, near Malabon, Rizal Province; Port Hamilo and Pagapas Bay, Batangas Province; Canimo Island near Daet, and Maculabo Island, Camarines Norte Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Masamat Bay, Quinalasag Island, and Ragay Bay, Ragay Gulf, Camarines Sur Province; Batan Island, Maganak, Lagonoy Gulf, and RapuRapu Island, Palag Bay, Albay Province; Langao Point and Bacon, Sorsogon Province; in small stream, Canmahala Bay, Ragay Gulf, Luzon. Agojo Point and Cabugao Bay, Catanduanes Island; Porongpong Island, Palumbanes Group, west of Catanduanes; Mansalay and Varadero Bay, Mindoro; Santa Cruz Island, Marinduque, and Mompog Island, between Marinduque and Luzon; Alimango Bay and Busin Harbor, Burias Island; Romblon Harbor, Romblon; San Miguel Harbor, Ticao Island; Cataingan Bay, Masbate Island; Biri Channel, Cathalogan, Gigoso Point, Port Palapag and Nabatas Point, Samar; Pandanon Island, Bohol; Mactan Island; Cuyo, Cuyo Islands, Sulu Sea; Bolalo Bay, Port Langcan, Puerto Princesa, Endeavor Strait, Makesi Island, Ulugan Bay, and Caiholo River, Palawan. Bugsuk Island and Candaraman Island, Balabac; Polloc, Cotabato Province, Pujada Bay, Davao Province, Surigao and Capungan, Surigao Province, Inamucan Bay, Misamis Occidental Province, Little Santa Cruz and Sacol Islands, Zamboanga Province, Mindanao. Jolo and Bubuan, Taganak, Tanakeke, Tara, Tumindao, and Tataan Islands, Sulu Province. Danawan and Si Amil Islands, British North Borneo, just south of the Philippine boundary; and various islands on the coasts of Celebes and Halmahera, Dutch East Indies; not synonymy. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 285, 1936; Vila, Efaté Island and Malo Islands, New Hebrides. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 364, 1940; 17 East Indian localities;

- Sulu Islands, Philippines; also 14 Indo-Pacific localities. Herre, 1948 Coll.; Siluag Island, Sulu Province.
- Pomacentrus hogoleuensis* Hombron and Jacquinot, voy. *Astrolabe*, Zool., p. 47, pl. 5, fig. 3, 1853; Hogoleu, Caroline Islands.
- Pomacentrus (Pseudopomacentrus) littoralis* Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2 p. 53, 1877; Bali; Sumatra; Java; Celebes; Sangi; Flores; Timor; Solor; Buru; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 8, 1878.
- Pomacentrus burroughi* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 48, fig. 19, 1918; Philippines.
- Pseudopomacentrus littoralis* Whitley, Mem. Queensland, Mus., vol. 9, p. 236, 1929; Queensland; North Australia.
- 1509. *Pomacentrus lividus* (Bloch and Schneider).**
From East Africa and the Red Sea to the Marshall, Fiji, Society, and Marquesas Islands; marine.
- Chaetodon lividus* Bloch and Schneider, Syst. Ichth., p. 235, 1801; Pacific Ocean.
- Pomacentrus punctatus* Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 395, pl. 64, fig. 1, 1824; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 429, 1830; BoraBora. Kner, Reise *Novara*, Fische, vol. 2, p. 242, 1865; Tahiti; Nicobar Islands. Day, Fishes India, p. 384, pl. 80, fig. 8, 1878; Andaman Islands. Seale, Occas. Papers Bishop Mus., vol. 1, p. 80, 1901; Guam.
- Pomacentrus prosopotaenioides* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 286, 1852; Amboina.
- Eupomacentrus lividus* Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 73, 1877; Cocos Island; Sumatra; Singapore; Java; Celebes; Sangi; Buru; Amboina; Ceram; Goram. Bleeker, Atlas Ichth., vol. 9, pl. 403, fig. 5, 1878.
- Pomacentrus lividus* Günther, Fische der Südsee, vol. 2, p. 228, pl. 124, fig. F, 1881; Red Sea; East Indies; Boston Island, Marshall Islands; Upolu, Samoa; Vavau, Tonga Islands; Huahine and Bora Bora, Society Islands; Ponapé, Caroline Islands; Santa Christina. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 426, 1891. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 26, p. 783, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 283, 1906; Apia and PagoPago, Samoa. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 340, 1913; Borneo Bank; Muaras Reef; Beo; Liring; Damar; Timor. Fowler, Proc. Acad. Nat. Sci. Phila., p. 53, 1918; Philippines. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 39, 1927; Bulan, Sorsogon Province, Luzon; Calapan and Puerto Galera, Mindoro; Canigaran, Palawan; South Ubian, Sitankai, and Sibutu Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 116, 1928; Bacon, Sorsogon Province, Luzon; Mompog Island, between Marinduque and Luzon; Canmahala Bay, Ragay Gulf, Luzon; Cataingan Bay, Masbate; Varadero Bay, Mindoro; Calangaman Island, Cebu Province; Rasa Island, Mantaquin Bay, Palawan; Bugsuk and Candaraman Islands, Balabac. Little Santa Cruz and Sacol Islands, Zamboanga Province, Mindanao; Tataan and Tonquil Island, Sulu Province. Gomomo, Tomahu, and Morongas Islands, Dutch East Indies; Kusaie; Guam, Samoa, Fowler, Mem. Bishop Mus., vol. 10, p. 313, 1928; Shortland Island, Solomon Islands; Guam; Caroline, Marshall, and Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Dumaguete; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 356, 1940; 14 East Indian localities; the Philippines, and 18 other Indo-Pacific localities.
- Pomacentrus prosopotaenia* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 45, 1922; Zamboanga, Zamboanga Province, Mindanao; not of Bleeker.
- 1510. *Pomacentrus melanochir* Bleeker.**
East Indies and the Philippines; marine.
- Pomacentrus melanochir* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 10, p. 396, 1877. Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 49, 1877; Bali; Flores; Timor; Buru;

Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 408, fig. 4, 1878. Montalban, Pomacentridae Philippines, Philippine Bureau Science Monograph 24, p. 66, pl. 12, fig. 1, 1927; Cabalian, Leyte, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 379, 1940; Bali; Flores; Timor; North Celebes; Buru; Amboina; Mysore in Geelvink Bay, New Guinea.

1511. Pomacentrus melanopterus Bleeker.

East Indies, the Philippines, RiuKiu and Solomon Islands, and Samoa; marine and entering rivers.

Pomacentrus melanopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 562, 1852; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 24, 1862; East Indian Arch. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 80, 1928; in part; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Bolinao Bay, Pangasinan Province; Port Matlvi, Zambales Province; Grande Island Reef, and Port Binanga, Bataan Province; Limbones Cove, Cavite Province; Port Hamilo, Ligo Point, Balayan Bay, and Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island and Alibijaban Island, Ragay Gulf, Tayabas Province; Canimo Island near Daet, and Maculabo Island, Camarines Norte Province; Butaanan Island, Quinalasag Island, Masamat Bay, Pasacao, Refugio Island, and Ragay Bay, Ragay Gulf, Camarines Sur Province; Batan Island, RapuRapu Island, and Paron Point, Albay Gulf, Albay Province; Langoa Point, Bacon, and Matnog Bay, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon. Tillik, and Balikias Bay, Lubang Island, northwest of Mindoro; Port Maricaban and northwest of Verde Island, Verde Island Passage; Puerto Galera, Mansalay Island, Paluan Bay, Sablayan, and Vardero Bay, Mindoro; Port Banalacan, and Santa Cruz Island, Marinduque; Mompog Island, between Marinduque and Luzon; Romblon Harbor, Romblon Island; Alimango Bay and Busin Harbor, Burias Island; Cataingan Bay, Masbate; San Miguel Harbor, Ticao Island; Bagacay Bay, Escarpada Island, Naranjos Group between Masbate and Samar; Biri Channel, Port Palapag, and Nabatas Point, Samar. San Roque and Port Dupon, Leyte; Pandanon Island, Maribojoc Bay, Maribojoc, and Mantacao Island, west coast of Bohol; Calangaman, Malapascua, and Mactan Islands, Cebu Province; Port Caltom and Port Uson, Busuanga Island; Dalanganem Island, Cuyo Islands, Sulu Sea; Bolalo Bay, Endeavor Strait, Guntao Island, Ulugan Bay, and Rasa Island, Mantaguin Bay, Palawan; Bugsuk, Caxisigan, and Candaraman Islands, Balabac. Polloc, Cotabato Province; Pujada Bay, Davao Province; Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province; Cagayan, Misamis Oriental Province; Capungan and Surigao, Surigao Province; Lampinigan Island and Little Santa Cruz Island, Zamboanga Province, Mindanao. Tapiantana Island off Basilan Island. Tara, Tumindao, Tonquil, Tataan, Simalac, and Sulade Islands, Sitankai Reef, Singaan Island, and Tutu Bay, Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 289, 1936; Ysabel and New Georgia Islands, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 380, 1940; 20 East Indian localities; Philippines; Formosa; RiuKiu Islands; Solomon Islands; Samoa.

Pomacentrus (Pseudopomacentrus) melanopterus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 55, 1877; Java; Bawean; Bali; Flores; Buru; Amboina; Ceram; New Guinea. Bleeker, Atlas Ichth., vol. 9, pl. 402, fig. 6, 1878.

Pomacentrus alexanderae Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 90, 1907; Bacon, Sorsogon Province, Luzon, Philippines.

Pomacentrus violescens Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 43, 1918; Philippines. Fowler, Copeia, No. 58, p. 64; 1918; Philippines.

1512. Pomacentrus moluccensis Bleeker.

East Indies, the Philippines, Solomon Islands, New Hebrides; marine.

Pomacentrus moluccensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 118, 1853; Amboina; Ternate. Günther, Cat. Fishes, British Mus., vol. 4, p. 30, 1862; East Indian Archipelago. Evermann and Seale, Bull.

U. S. Bur. Fisheries, vol. 26, p. 89, 1907; Bacon, Sorsogon Province, Luzon. Weber, *Siboga-Exped.*, Fische, vol. 57, p. 337, 1913; Sanguisiapo, Sulu Islands, Philippines; Kabaladua and Borneo Bank. De Beaufort, *Bijdr. Dierk. Amsterdam*, vol. 19, p. 127, 1913. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science, Monograph 24, p. 50, 1927; Bantayan Island, Cebu Province. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 70, 1934; Culion; Dumaguete. Herre, *Field Mus. Nat. Hist.*, Zool. Ser., vol. 21, p. 283, 1936; Tenibuli, Ysabel Island, Solomon Islands. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 382, 1940; 18 East Indian localities; Sulu Islands, Philippines; Solomon Islands; New Hebrides. Herre, 1948 Coll.; Dumaguete; Siluag, Sulu Province.

Pomacentrus popei Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 90, fig. 16, 1927; Bacon, Sorsogon Province, Luzon.

Pomacentrus hebaridi Fowler, *Proc. Acad. Nat. Sci. Phila.*, vol. 70, p. 46, fig. 18, 1918; Philippines.

1513. *Pomacentrus nigricans* (Lacépède).

Tropical Pacific, from East Indies, Philippines, China, RiuKiu and Bonin Islands to the Carolines, the Marquesas Islands, and Australia; marine.

Holocentrus nigricans Lacépède, *Hist. Nat. Poissons*, vol. 4, pp. 332, 367, 1803; on Commerson.

Pomacentrus taeniops Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 5, p. 425, 1830; Mauritius; Guam; BoraBora. Lesson, *Voy. Coquille*, *Poissons*, vol. 2, p. 190, 1830.

Pomacentrus nigricans Richardson, *Ichth. China Japan*, p. 254, 1846; China. Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 52, 1906; Faté, New Hebrides; Shortland Island, Solomon Islands; Raiatea, Society Islands; Makatea, Tuamotu Islands; Marquesas. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 281, 1906; Upolu and Tutuila, Samoa. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 262, 1908; Calayan Island, Babuyan Islands north of Luzon; Cagayancillo, Cagayan Islands, Sulu Sea. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 41, 1927; Calayan Island, Cagayan Province, Luzon. Cagayancillo, Cagayan Islands. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 118, 1928; Santo Domingo de Basco, Batan Island, Batanes Province. Calayan Island and Port San Pio Quinto, Camiguin Island, Cagayan Province; Maculabo Island, Camarines Norte Province; Butaanan Island; Camarines Sur Province; Langao Point, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon. Puerto Galera, Mindoro. Bagacay Bay, Nabatas Point, Samar. Bugsuk, Port Ciego and Candaraman Island, Balabac. Calanganem Island, Cebu Province, Philippines. Midway Island and Oahu, Hawaiian Islands; Buru, Dutch East Indies; Formosa; Guam; Okinawa; Samoa; Makemo, Tuamotu Islands. Herre, *Field Mus. Nat. Hist.*, Zool. Ser., vol. 21, p. 278, 1936; Nukahiva, Marquesas Islands; Makatea Island, Tuamotu Islands; Maara, Tahiti, Moorea and BoraBora Islands, Society Islands; Malo Island, and Vila, Efaté Island, New Hebrides; Ugi Island, Solomon Islands. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 357, fig. 46, 1940; 21 East Indian places; Philippines and 18 other Pacific localities; synonymy in part.

Pomacentrus cyanospilus Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 3, p. 709, 1852; Ceram.

Pomacentrus scolopsis Günther, *Cat. Fishes British Mus.*, vol. 4, p. 28, 1862; Fiji Islands. Günther, *Fische der Südsee*, vol. 2, p. 227, pl. 125, figs. A-B, 1876-1881; Fiji; Solomon Islands; Samoa; Tonga; Society, Friendly, and Pelew Islands; Ponapé.

Pomacentrus subniger de Vis, *Proc. Linn. Soc. New South Wales*, vol. 9, p. 873, 1885; Cardwell, Queensland, Australia.

1514. *Pomacentrus nigromanus* Weber.

East Indies and the Philippines; marine.

Pomacentrus nigromanus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 338, 1913; Amboina; Halmahera. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, fig. 48, 1940; Amboina; Halmahera; New Guinea?. Herre, *Fishes Philippine Bureau Science Coll.*, 1940; Mercedes, Samar.

Pomacentrus melanopterus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 80, 1928; in part.

1515. *Pomacentrus notophthalmus* Bleeker.

East Indies, Philippines, Solomons, New Hebrides, Samoa; marine and in estuaries and tidal streams.

Pomacentrus notophthalmus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 137, 1853; Ternate. Günther, Cat. Fishes British Mus., vol. 4, p. 20, 1862; East Indian Archipelago. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 280, 1906. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Montalban, Pomacentridae Philippine Islands, Philippine Bur. Sci. Monograph 24, p. 62, 1927; Cuyo; Samal Island, Davao Province, Mindanao; Sibutu and Sitankai, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 107, 1928; Ragay River tidewater, Ragay Gulf, Camarines Sur Province; near Palag Bay, Albay Province, Luzon. Cuyo, Cuyo Island, and Dalanganem Island, Cuyo Islands; Guntao Island, and Ulugan Bay, Palawan; Bugsuk and Candaraman Islands, Balabac; Mompog Island, between Marinduque and Luzon; San Miguel Harbor, Ticao Island; Polloc, Cotobato Province, Pujada Bay, Davao Province, and Little Santa Cruz and Tulnalutan Islands, Zamboanga Province, Mindanao. Taganak and Tara Islands, Sulu Province, Philippines, Toba, Talisse, and Kapoposang Islands, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 312, 1928; Fatè, New Hebrides. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 287, 1936; Malo Island, New Hebrides; Hathorn Sound, New Georgia Island, and Tenibuli, Ysabel Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 377, 1940; Singapore; Menado, Celebes; Sangi Islands; Ternate; Buru; Nusa Laut; Goram; south coast of New Guinea; Sulu Islands, Philippines; New Britain; Woodlark Island; Solomon Islands, New Hebrides; Samoa. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Pomacentrus melanotus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, Bijdr. Vischfauna Celebes, p. 13, 1858; Manado; Celebes.

Dischistodus notophthalmus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 82, 1877; Singapore; Celebes; Sangi; Ternate; Buru; Goram. Bleeker, Atlas Ichth., vol. 9, pl. 401, fig. 4, 1878.

Pomacentrus suluensis Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 519, 1909; Sitankai, Sulu Province, Philippines.

1516. *Pomacentrus pavo* (Bloch).

Tropical Indo-Pacific, from the Red Sea and Mozambique to the Caroline and Marquesas Islands; marine.

Chaetodon pavo Bloch, Ichthyologie, vol. 6, p. 44, pl. 198, fig. 1, 1787; East Indies.

Pomacentrus pavo Lacépède, Hist. Nat. Poissons, vol. 4, pp. 505, and 508, 1802; East Indies. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 37, 1828; Massaua. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 310 (413), 1830; Moluccas. Cuvier, Règne Animal, Illustr. ed., pl. 32, fig. 3, 1839. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 247, 1851; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 23, 1862; Amboina. Günther, Fische der Südsee, vol. 2, p. 227, pl. 124, fig. E, 1876-1881; Red Sea; East Africa; Tahiti; Ponapé; Bonin Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 279, pl. 40, fig. 1, 1906; Apia and Pago Pago, Samoa. Weber, Siboga-Exped., vol. 57, Fische, p. 68, 1913; Sanguisiapo, Sulu Province, Philippines; Damar, Saleyer, Amboina, and Tuir, Dutch East Indies. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Montalban, Pomacentridae Philippines, Bureau Science Monograph 24, p. 43, pl. 10, fig. 2, 1927; Calapan, Mindoro; Puerto Princesa, Palawan; Surigao, Surigao Province, and Cagayan, Misamis Oriental Province, Mindanao; Sitankai Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 68, 1928; Port Matalvi, Zambales Province, Luzon; Puerto Galera, Mindoro; Romblon Island; Mactan Cove, Mactan Island, Cebu Province; Pandanan Island, Bohol; Cagayan, Misamis Oriental Province, Mindanao; Tataan and Tumindao Islands and Tutu Bay, Jolo, Sulu Province, Philippines. Coast of Celebes, Samoa, and

Gilbert Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 310, 1928; Apia, Samoa; TariTari, Gilbert Islands; Guam; Shortland Island, Solomon Islands; Raiatea, Society Islands; Makemo, Tuamotu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Dumaguete; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 279, 1936; Nukahiva Island, Marquesas; Takaroa Island, Tuamotu Islands; Maara, Tahiti, and BoraBora, Society Islands, Auki, Malaita Island, Tenibuli, Ysabel Island, and Hathorn Sound, New Georgia Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 385, 1940; 31 East Indian localities; Sulu Islands, Philippines, and 15 other Indo-Pacific places. Herre, 1948 Coll.; Layia, Batangas Province, Luzon.

Pomacentrus caeruleus Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 397, pl. 64, fig. 2, 1824; Mauritius. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 70, 1928; Canmahala Bay, Ragay Gulf, Luzon. Cataingan Bay, Masbate; Tulnalutan Island, Zamboanga Province, Mindanao; Simalac, Sitankai, and Sulade Islands, Sulu Province; Makyan and Gondra Islands, and Lembe Strait, Celebes, Dutch East Indies.

Pomacentrus pavoninus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 85, 1853; Lawajong, Solor.

Pomacentrus pavo var. ? Cartier. Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 99, 1874; Cebu, Philippines.

Pomacentrus (Pomacentrus) pavo Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 42, 1877; 18 East Indian localities; Cebu, Cebu Province, Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 408, fig. 9, 1878.

Pomacentrus melanochir de Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 127, 1913; not of Bleeker.

1517. *Pomacentrus perspicillatus* Cuvier and Valenciennes.

The Andamans, East Indies, Philippines, Pelew Islands, and Guam; marine and entering rivers.

Pomacentrus perspicillatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 417, 1830. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 101, 1928; Port Matalvi, Zambales Province, and Batan Island, Albay Province, Luzon; Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Cataingan Bay, Masbate; Dalanganem Island, Cuyo Islands; Caholo River, Ulugan Bay, and channels north of Oyster Inlet, Ulugan Bay and Malcochin Harbor, Linapacan Island, Palawan; Bugsuk and Candaraman Islands, Balabac; Cebu market, Cebu; Pujada Bay, Davao Province, and Capungan Point, Surigao Province, Mindanao; Tara Island, Tataan Island, and Tutu Bay, Jolo, Sulu Province. Great Tobe, Gomomo, and Halmahera Islands, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 370, 1940; 16 East Indian localities; Sulu Islands, Philippines. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro.

Pomacentrus trimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 320 (417), 1830; Batavia, Java; not of Rüppell, 1828. Schlegel and Müller, Verh. Nat. Gesch. Nederland. Zool., vol. 2, p. 20, pl. 4, fig. 2, 1839-41; Java and Celebes; not of Rüppell. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 481, 1853; Batavia, Java; not of Rüppell. Günther, Cat. Fishes British Mus., vol. 4, p. 19, 1862; China; not of Rüppell. Day, Fishes of India, p. 382, pl. 80, fig. 10, 1878; not of Rüppell. Günther, Fische der Südsee, vol. 2, p. 227, 1881; Pelew Islands; not of Rüppell. Evermann and Seale, Bull. U. S. Bureau Fisheries, vol. 26, p. 89, 1907; Bacon, Sorsogon Province, and San Fabian, Pangasinan Province, Luzon; not of Rüppell. Montalban, Pomacentridae, Philippine Bureau Science Monograph 24, p. 64, pl. 12, fig. 2, 1927; Puerto Galera, Mindoro; Busuanga Island; Halsey Harbor, Cullion; Cebu, Cebu; Tagbilaran, Bohol; Zamboanga, Mindanao; South Ubian and Tango Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped. p. 70, 1934; Cullion; Cotabato, Cotabato Province, Mindanao; Sitankai, Sulu Province.

Dischistodus trimaculatus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 79, 1877; Sumatra; Batu; Nias; Singapore; Duizend Islands; Java; Celebes; Buru; Amboina; Ceram; not

of Rüppell. Bleeker, Atlas Ichth., vol. 9, pl. 404, fig. 5, 1878; not of Rüppell.

1518. Pomacentrus philippinus Evermann and Seale.

A Philippine and East Indian species; also occurs in the China Sea.

Pomacentrus philippinus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 91, fig. 18, 1907; Bacon, Sorsogon Province, Luzon. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 48, pl. 3, fig. 2, 1927; Bacon, Sorsogon Province, Luzon; Bogo, Cebu. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 363, 1940; Buru; Tidore; Philippines; Paracel Islands; China Sea.

Pomacentrus ovoides Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 112, 1928; Nasugbu, Batangas Province, and Gubat and Bacon, Sorsogon Province, Luzon. Paluan Bay and Sablayan, Mindoro; Port Dupon, Leyte; Dalanganem Island, Cuyo Islands; Pujada Bay, Davao Province, and Murcielagos Bay, Misamis Occidental Province, Mindanao. Danawan and Si Amil Islands, British North Borneo, just south of the Philippine boundary. Buru and Tidore Islands, Dutch East Indies; not of Cartier.

1519. Pomacentrus prosopotaenia Bleeker.

East Indies, the Philippines, Indo-China, Nicobar, and Andaman Islands, south to Australia; marine and entering fresh water.

Pomacentrus prosopotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 67, 1852; Singapore. Günther, Cat. Fishes, British Mus., vol. 4, p. 23, 1862; Moluccas; Amboyna. De Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 873, 1885; Cardwell, Queensland, Australia. Day, Fishes India, Supplement, p. 801, 1888; Andaman and Nicobar Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 45, 1922; Zamboanga, Zamboanga Province, Mindanao. Montalban, Pomacentridae, Philippine Bureau Science Monograph 24, p. 63, 1927; Bantayan Island, Cebu Province; Sitankai Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 104, 1928; Limbones Cove, Cavite Province; Port Hamilo, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Butauanan Island, and Galvasey Island, Ragay Gulf, Camarines Sur Province, Luzon. Santa Cruz Island, Marinduque; Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Masbate Reef, Masbate; Pandanon Island, Bohol; Cebu market and Reef, Cebu; Endeavor Strait, Caiholo River, Ulugan Bay, and Bolalo Bay, Makesi Island, Malcochin Harbor, Linapacan Island, and Sirinao Island, Nakoda Bay, near Alfonso XIII, Palawan; Bugsuk and Candaraman Islands, Balabac, Tapiantana Island, south of Basilan. Tataan Island, Tulayan Island, and Tutu Bay, Jolo Island, Sulu Province. Great Tobeia Island, Dutch East Indies. Herre, Fishes 1941 Philippine Exped., p. 70, 1934; Culion; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 372, 1940; 14 East Indian localities; Sulu Islands, Philippines. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Pomacentrus perspicillatus Kner, Reise Novara, Fische, vol. 1, p. 241, 1865; Singapore; not of Cuvier and Valenciennes.

Pomacentrus n. sp. Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 100, 1873; Cebu, Cebu.

Dischistodus cartieri Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 82, 1877; Cebu, Cebu, Philippines; on Cartier.

Dischistodus prosopotaenia Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 80, 1877; Nias; Singapore; Pulu Brani; Java; Bawean; Celebes; Timor; Halmahera; Buru; Batjan; Amboina; Ceram; the Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 407, fig. 8, 1878. Whitley, Mem. Queensland Mus., vol. 9, p. 236, 1929; Queensland, Australia.

1520. Pomacentrus reidi Fowler and Bean.

The Philippines and East Indies; marine.

Pomacentrus reidi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 99, pl. 9, 1928; Nasugbu and Ligpo Point, Balayan Bay, Batangas Province; Maculabo Island, Camarines Norte Province; Paron Point, Albay Gulf, and Caracaran, Batan Island, Albay Province; Matnog Bay, Sorsogon Province, Luzon. Porongpong Island, Palumbanes

Group, west of north end of Catanduanes Island; Port Palapag and Biri Channel, Balicuatro Islands, Samar; Alimango Bay, Burias Island; Bugsuk Island, Balabac; Pujada Bay, Davao Province, Mindanao; Tara and Tataan Islands, Sulu Province, also Makyan Island, Buru Island, and Celebes, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 384, 1940; Labuandata Bay, and Basa Reef in Gulf of Boni, Celebes; Buru; Makian; also Philippines.

1521. *Pomacentrus smithi* Fowler and Bean.

A Philippine and East Indian marine species.

Pomacentrus smithi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 75, pl. 7, 1928; Sablayan, Mindoro; Romblon, Romblon; Cataingan Bay, Masbate; Biri Channel, Balicuatro Island, north of Samar; Mantacao Island, Bohol; Rasa Island, Mantaquin Bay, Palawan; Bugsuk Island, Balabac; Isabela, Basilan Island; Pangasinan, Tara, and Tataan Islands, Sulu Province; also Labuan Blanda, Togian and Halmahera Islands, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 366, 1940; Halmahera; Philippines.

1522. *Pomacentrus tablasensis* Montalban.

A Philippine marine species.

Pomacentrus tablasensis Montalban, Pomacentridae Philippine Islands, Bureau Science Monograph 24, p. 72, pl. 14, fig. 2, 1927; Tablas Island. *Pomacentrus stigma* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 100, pl. 10, 1928; Port Matalvi, Zambales Province Limbones Cove, Cavite Province; Port Hamilo, Batangas Province; Canimo Island, near Daet, Camarines Norte Province; Masamat Bay, Quinalasag Island, Camarines Sur Province, Luzon.

1523. *Pomacentrus taeniurus* Bleeker.

East Indies and the Philippines, east to the New Hebrides, west to Zanzibar; marine and entering estuaries and rivers.

Pomacentrus taeniurus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischfauna Amboina, p. 51, 1856. Günther, Cat. Fishes British Mus., vol. 4, p. 22, 1862; Seas of Biliton and Amboina. Cartier, Verh. Phys. Med. Gesell. Würzburg, p. 100, 1873; Ubay, Bohol; *Pomacentrus taeniurus* variety. Evermann and Seale, Bull. Bur. Fish., vol. 26, p. 89, 1907; Philippines. Weber, *Siboga*-Exped., vol. 57, Fische, p. 337, 1913; Beo, Karakelang Island and Postillon Islands, East Indies. Fowler, Copela, No. 58, p. 64, 1918; Philippines. Montalban, Pomacentridae Philippine Islands, Bureau Science Monograph 24, p. 46, 1927; Buguey, Cagayan Province, Luzon; Guinobatan, Masbate; Culion; Bantayan Island, Cebu Province; Tacloban, Leyte; Malampaya Sound and Puerto Princesa, Palawan; Tambagaan and Bungau Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 72, 1928; not synonymy; Port Matalvi, Zambales Province; Port Hamilo, Batangas Province; Butauanan Island, and Masamat Bay, Quinalasag Island, Camarines Sur Province; Caracaran, Batan Island, Albay Province; Nato River, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon; Alimango River and Busin Harbor, Burias Island; Cataingan Bay, Masbate; Catbalogan, Samar; river at Port Dupon, Leyte; Mantacao Island, Bohol; Malapascua Island; Endeavor Strait and Rasa Island, Mantaquin Bay, Palawan; Capungan, Surigao Province, Mindanao; Usada Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre Fishes 1931 Philippine Exped., p. 70, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 361, 1940; Singapore; Padang, Sumatra; Biliton; Postillon Islands; Buru; Amboina; mouth of Mbai River, New Guinea. Herre, Fishes 1940-41 Exped.; San Carlos, Negros Oriental Province, Santa Maria, Zamboanga Province, Mindanao.

1524. *Pomacentrus tripunctatus* Cuvier and Valenciennes.

Tropical Indo-Pacific, from the east coast of Africa and the Red Sea to Japan, the Pelews, Guam, Fiji, and Australia; marine and entering estuaries and fresh water rivers and lakes.

Pomacentrus tripunctatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 315 (421), 1830; Vanicolo. Günther, Cat. Fishes British Mus., vol. 4, p. 33, 1862; after Cuvier and Valenciennes. Jordan and

Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 27, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 89, 1907; Bacon, Sorsogon Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 293, 1927; Bacon, Sorsogon Province, Luzon. Herre, Philippine Jour. Sci., vol. 34, p. 297, 1927; Lake Bombon, Batangas Province, Luzon. Montalban, Pomacentridae Philippine Islands, Bureau Science Monograph 24, 1927; Balaoan, La Union Province; Lake Bombon, Batangas Province; Atimonan, Tayabas Province; Bacon, Sorsogon Province, Luzon. Calapan, and Puerto Galera, Mindoro; Culion; Malampaya Sound, Palawan; Estancia, Iloilo Province, Panay; Borongan, Samar; Cebu and Bantayan Island, Cebu; Tagbilaran, Bohol; Siquijor, Siquijor Island; Cagayan, Misamis Oriental Province, Samal Island, Gulf of Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Sitankai, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 89, 1928; Port Matalvi and Subig Bay, Zambales Province; Port Hamilo and Ligpo Point, Balayan Bay, Batangas Province; Maculabo Island, and Canimo Island near Daet, Camarines Norte Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Atulayan Bay, Batan Island, RapuRapu Straits, Paron Point, Albay Gulf, Natio River, Albay Province, Masamat Bay, Quinalasag Island, Ragay Bay, and Refugio Island, Ragay Gulf, Pasacao and Butauanan Island, Camarines Sur Province; Langoa Point, Gubat Bay, and Bacon, Sorsogon Province, Luzon. Balikias Bay, Lubang Island, northwest of Mindoro. Port Maricaban, between Mindoro and Luzon. Puerto Galera, Paluan Bay, Mansalay, and Sablayan, Mindoro; Port Banalacan and Santa Cruz Island, Marinduque; Romblon Island; Almango Bay and Busin Harbor, Burias Island; Cataingan Bay, Masbate; San Miguel Harbor, Ticao Island. Cagayan Bay, Catanduanes Island; Porongpong Island, Palumbanes Group, west of Catanduanes; Biri Channel, Catbalogan, Nabatas Point, and Port Palapag, Samar; Maribojoc Bay, Mantacao Island, and Pandanon Island, Bohol; reef opposite Cebu and Mactan Island, Cebu Province; Cuyo and Dalaganem Islands, Cuyo Islands; Caiholo River and Oyster Inlet, Ulugan Bay, Endeavor Strait, Guntao Island, Port Langcan, Dumarang Island, Puerto Princesa and Makes Island, Palawan; Candaraman Island and Port Ciego, Balabac; Santa Maria, Siquijor Island; Negros Island; Little Santa Cruz Island, and Sacol Island, Zamboanga Province, Inamucan Bay, and Murcielagos Bay, Misamis Occidental Province, Pujada Bay, Davao Province; and Nasipit, Butuan Province, Mindanao. Isabela and Tapiantana Island, Basilan. Bubuan Island, Jolo, Marongas, Sulade, Cagayan Sulu, Tara, Tataan, Tinaga, Tonquil, Tulayan, Tumindao, and Usada Islands, and Sitankai Reef, Sulu Province, Philippines. Celebes, Toba, Togian, Tidore, Dowarra, and Gomomo Islands, Dutch East Indies; Si Amil and Danawan Islands, British North Borneo, near the Philippine boundary. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 61, 1934; Nasugbu, Batangas Province, Luzon; Calapan, Mindoro; Culion; Dumaguete; Cebu, Cebu; Punta Flecha, Zamboanga Province, Mindanao. Jolo and Sitankai Sulu Prov. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 388, 1940; 68 East Indian localities; Sulu Islands, Philippines, and 22 Indo-Pacific places. Herre, Fishes 1940-41 Exped.; Kolambugan, Lanao Province, and Santa Maria, Zamboanga Province, Mindanao; Jolo, Sulu Province.

Pomacentrus vanicolensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 316 (421), 1830; Vanicolo. Günther, Cat. Fishes British Mus., vol. 4, p. 33, 1862; after Cuvier and Valenciennes.

Pomacentrus emarginatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 316 (422), 1830; Waigiü. Lesson, Voy. *Coquille*, Poissons, pl. 28, fig. 1, vol. 1, p. 189, 1830; Waigiü. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 263, 1908; Ticao Island; Cuyo, Cuyo Islands, Sulu Sea.

Pomacentrus trilineatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 5, p. 318 (428), 1830; Red Sea; Moluccas. Günther, Cat. Fishes British Mus., vol. 4, p. 25, 1862; Massaua; Red Sea; Molucca Sea. Klunzinger, Sitzungsber. Akad. Wiss. Berlin, vol. 80, p. 396, 1879; Port Darwin and Port Denison, Australia. Vaillant, Nouv. Arch. Mus.

Nat. Hist. Paris, vol. 5, p. 57, 1893; Palawan, Philippines. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 753, 1901; Japan. Weber, *Siboga*-Exped., vol. 57, Fische, p. 337, 1913; Sanguisapo Island, Sulu Islands, Philippines; and Savu, Borneo, Muaras Reef, Siau Island, Beo, Karakelang Island, Lirung, Damar, Ceram, Saleyer, Amboina, Nusa Laut, Tiur, Timor, Rotti, and Samau Islands, Dutch East Indies. Ahl, Blätter für Aquarien und Terrarienkunde, vol. 36, No. 6, with 1 text figure, 1925.

Pomacentrus biocellatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 127, pl. 31, fig. 3, 1835; Massaua.

Pomacentrus katunko Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 169, 1852; Kupang, Timor.

Pomacentrus taeniometopon Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 283, 1852; Wahai, Ceram. Günther, Cat. Fishes British Mus., vol. 4, p. 25, 1862; East Indian Archipelago.

Pomacentrus taeniops Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 729, 1852; Banka; not of Cuvier and Valenciennes.

Pomacentrus bankanensis Bleeker, *ibid.*, vol. 5, p. 513, 1853; Banka. Günther, Cat. Fishes British Mus., vol. 4, p. 26, 1862; China Sea.

Pomacentrus simsiang Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 90, 1856; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 22, 1862; after Bleeker. Montalban, Pomacentridae, Philippine Bureau Science Monograph 24, p. 59, 1927; Hundred Islands, Pangasinan Province; Limbones Cove, Cavite Province; Bacon, Sorsogon Province, Luzon. Puerto Galera, Mindoro; Guinobatan, Masbate; Borongan, Samar; Estancia, Iloilo Province, Panay; Cebu and Bantayan Island, Cebu Province; Cabalian, Leyte; Tagbilaran, Bohol; Canigaran and Puerto Princesa, Palawan; Balabac Island; Siasi and Sitankai Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Culion; Cebu, Cebu.

Pomacentrus dorsalis Gill, Proc. Acad. Nat. Sci. Phila., p. 147, 1860; Shimoda, Japan. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 136, 1872; China. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 504, 1912; Okinawa. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, p. 55, 1927; Barrio Paraair, Balaoan, La Union Province, Luzon. Calapan and Puerto Galera, Mindoro; Culion; Canigaran, Palawan; Balabac Island; Surigao, Surigao Province, Mindanao; Sibutu and Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 70, 1934; Jolo and Sitankai, Sulu Province.

Pomacentrus catunco Peters, Monatsber. Akad. Wiss. Berlin, p. 270, 1868; reef east of Laoang, Samar.

Pomacentrus punctatolineatus Cartier, Nat. Verh. Phys. Med. Gesell. Würzburg, p. 98, 1873; Ubay, Bohol.

Pomacentrus dimidiatus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 10, p. 385, 1877.

Pomacentrus (Pseudopomacentrus) dimidiatus Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 60, 1877. Bleeker, Atlas Ichth., vol. 9, pl. 406, fig. 8, 1878.

Pomacentrus (Pseudopomacentrus) trilineatus Bleeker, Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 60, 1877; 24 East Indian islands; Philippines. Bleeker, Atlas Ichth., vol. 9, pl. 406, figs. 1-6, 1878.

Pomacentrus chrysurus Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 34, 1885; Cebu, Cebu, Philippines.

Pomacentrus delurus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 783, fig. 6, 1905; Bais, Oriental Negros Province, Philippines.

Pomacentrus opisthostigma Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 61, fig. 20, 1918; Philippines.

1525. *Pomacentrus tropicus* Seale.

A Philippine species, ranging to New Hebrides.

Pomacentrus tropicus Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 517, pl. 12, fig. 1, 1909; Sitankai, Sulu Province. Montalban, Pomacentridae Philippine Islands, Philippine Bureau Science Monograph 24, pl. 4, fig. 2, 1927; Sialat Point, Catanduanes Island; Cebu, Cebu; and Sibutu, Sitankai and Tambagaan Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 71, 1934; Jolo and Sitankai, Sulu

Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 282, 1936; Hog Harbor, Espiritu Santo Island, New Hebrides.

1526. Pomacentrus violascens (Bleeker).

East Indies, the Philippines, China, Japan, and southeast to the New Hebrides; marine.

Pristotis violascens Bleeker, Jour. Indian Archipelago, vol. 2, p. 637, 1848; Sumbawa.

Dascyllus xanthurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 117, 1853; Amboina.

Pomacentrus violascens Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 222, 1856; Nias. Günther, Cat. Fishes British Mus., vol. 4, p. 20, 1862; Seas of Nias and Sumbawa. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 601, 1902; near Yokohama, Japan. Montalban, Pomacentridae, Philippine Bureau Science Monograph 24, p. 44, 1927; Siaton, Oriental Negros Province, Siquijor Island; Cagayan, Misamis Oriental Province, Mindanao; Hong Kong, China. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 65, 1930; Riu Kiu Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 281, 1936; Hog Harbor, Espiritu Santo Island, New Hebrides. Herre, Fishes 1936-37 Exped.; Coron, Busuanga Island; Singapore. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 362, 1940; Singapore; Padang, Sumatra; Nias; Postillon Islands; Sumbawa; Flores; Buru; Ceram; Amboina; Philippines.

Tetradrachnum xanthurus Bleeker, Ned. Tijds. Dierk., vol. 1, p. 250, 1863; Flores. Bleeker, *ibid.*, vol. 2, 1865, p. 186, Ceram; p. 278, Amboina.

Pomacentrus (Pomacentrus) violascens Bleeker, Nat. Verh. Holland. Maatsch. Wetenschappen, ser. 3, vol. 2, p. 46, 1877; Nias; Sumbawa; Flores; Ceram; Buru; Amboina. Bleeker, Atlas Ichth., vol. 9, pl. 408, fig. 6, 1878.

Pomacentrus rathbuni Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 754, 1901; near Yokohama, Japan.

Pomacentrus violascens Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 71, 1928; Carcaran, Batan Island, Albay Province, and Subig Bay, Zambales Province, Luzon; Cebu dock, Cebu; Port Uson, Busuanga Island; Capungan, Surigao Province, Mindanao; also Formosa and Yokohama, Japan.

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Genus 494. ANAMPSES Quoy and Gaimard.

Fishes of the tropical and sub-tropical Indo-Pacific.

Anampses Quoy and Gaimard, Voy. *Urante*, Zoologie, p. 276, 1824; type, *Anampses cuvier* Quoy and Gaimard. Günther, Cat. Fishes British Mus., vol. 4, p. 135, 1862. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 291, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 224, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 98, 1940.

Pseudanampses Bleeker, Atlas Ichth., vol. 1, p. 101, 1862.

Ampheces Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 628, 1902; type, *Anampses geographicus* Cuvier and Valenciennes.

1527. Anampses amboinensis Bleeker.

East Indies, the Philippines, Zanzibar, and Mauritius.

Anampses amboinensis Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 80, 1857. Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 282, 1862. Bleeker, Atlas Ichth., vol. 1, p. 103, pl. 25, fig. 2, 1862; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 137, 1862; Amboyna. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Dumaguete; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 103, 1940; Sulu Islands, Philippines; Amboina; Zanzibar; Mauritius.

Anampses lunatus Sauvage, in Granddier, Hist. Phys. Nat. Madagascar, Poissons, p. 459, 1891; Mauritius.

1528. *Anampses caeruleopunctatus* Rüppell.

From the Red Sea and East Africa to Japan, the Marianas, Austral, and Society Islands.

Anampses caeruleopunctatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 42, pl. 10, fig. 1, 1828; Tor., Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 5, 1839; Mauritius; Tor., Red Sea. Günther, Cat. Fishes British Mus., vol. 4, p. 135, 1862; Mauritius. Day, Fishes India, p. 395, pl. 87, fig. 4, 1878; Andaman Islands. Günther, Fische der Südsee, vol. 2, p. 251, 1876-1881; Tahiti. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 295, 1906; Apia, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 228, 1928; West Island, Palumbanes Islands, between Catanduanes Island and Luzon. Cabugan Grande Island, Hinunangan Bay, Leyte; Silino Island, Zamboanga Province, Mindanao; also Apia, Samoa, and Japan. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; reef near Burias Island; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 105, 1940; Java; Amboina; Hood Bay, New Guinea; Sulu Islands, Sulu Province, Philippines. Also 15 other Indo-Pacific localities.

Anampses caeruleopunctatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 342, 1859; Java. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 276, 1865; Amboina. Bleeker, Recherches faune Madagascar, Poissons, p. 82, 1875. Bleeker, Verh. Akad. Amsterdam, vol. 18, Contrib. Ichth. Maurice, p. 9; 1879; Mauritius.

1529. *Anampses diadematus* Rüppell.

The Red Sea and East Africa to the Philippines, East Indies, Gilbert and Tuamotu Islands.

Anampses diadematus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 21, pl. 8, fig. 3, 1835; Tor., Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 14, 1839; Red Sea. Günther, in Brenchley, Cruise of *Curaçao*, p. 411, 1873; Misol, Moluccas. Günther, Fische der Südsee, vol. 2, p. 252, pl. 139, 1881; Misol; Samoa; Gilbert Islands; Huahine, Society Islands; Tuamotu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 333, 1928; Society Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 230, 1928; Lahuy Island, Camarines Sur Province; Binang Island, coast of Celebes. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; near Burias Island; Jolo, Sulu Province, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 104, 1940; Binang Unang Island, Celebes, and Misol, Dutch East Indies; Philippines.

Anampses taeniatus Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar Poissons, p. 457, 1891.

1530. *Anampses geographicus* Cuvier and Valenciennes.

East Indies and the Philippines, north to the RiuKiu Islands, east to the Tuamotu Islands, and west to the Mauritius.

Anampses geographicus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 10, pl. 389, 1839. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 58, 1856; Amboina. Bleeker, Atlas Ichth., vol. 1, p. 102, pl. 25, fig. 3, 1862; Amboina and Ceram. Günther, Cat. Fishes British Mus., vol. 4, p. 137, 1862; Amboina. Peters, Monatsber. Akad. Wiss. Berlin, p. 443, 1876; Mauritius. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 628, 1902; RiuKiu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 331, 1928; after Bleeker; Tuamotu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 226, 1928; Cavite market, Cavite Province, Luzon. Port Banalacan, Marinduque Island; Catbalogan, Samar; Cebu market, Cebu; Cabugan Island, Hinunangan Bay, Leyte; Sitankai Reef, Tara Island, and Tonquil Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Manila market, Luzon; Dumaguete; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 99, 1940; Sulu Islands, Philippines; Misol; Ceram; South New Guinea.

1531. *Anampses meleagrises* Cuvier and Valenciennes.

The East Indies, Philippines, RiuKiu Islands, west to Ceylon, Mauritius, and Zanzibar.

Anampses meleagrides Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 12, 1839; Mauritius. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischfauna Amboina, p. 57, 1856; Amboina. Bleeker, Atlas Ichth., vol. 1, p. 102, pl. 24, fig. 1, 1862; Amboina. Weber, *Siboga*-Expéd., vol. 57, Fische, p. 367, 1913; Banda. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 227, 1928; Cebu market, Cebu; Mahinog, Camiguin Island, north coast of Mindanao; Pilas Island, west of Basilan Island; Bulan Island, Sulu Province. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 73, 1930; RiuKiu Islands. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Linapacan Island, Palawan Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 102, fig. 19, 1940; Amboina; Banda; Philippines; Zanzibar; Mauritius; Ceylon; the RiuKiu Islands. Herre, 1948 Coll.; Jolo, Sulu Province.

Anampses meleagris Günther, Cat. Fishes, British Mus., vol. 4, p. 135, 1862; Mauritius; Amboina. Günther, in Playfair and Günther Fishes Zanzibar, p. 91, 1866; Zanzibar.

1532. *Anampses pterophthalmus* Bleeker.

From the East Indies and Philippines east to the Carolines.

Anampses pterophthalmus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 81, 1857. Bleeker, Atlas Ichth., vol. 1, p. 102, pl. 24, fig. 3, 1862; Amboina; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 138, 1862; Amboina. Günther, Fische der Südsee, vol. 2, p. 253, 1881; Amboina; Celebes; Kusate (Oualan), Caroline Islands. Weber, *Siboga*-Expéd., vol. 57, Fische, p. 367, 1913; Karkaralong Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 225, 1928; Cebu market, Cebu; San Roque, Leyte; Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Jolo, Gondra Island and Teomabal Island, Sulu Province, Philippines. Powati Harbor, Makian Island, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Cebu; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 101, 1940; Sulu Islands, Philippines; Celebes; Karkaralong Islands; Makian; Ceram; Amboina; Timor; Port Moresby, New Guinea. Herre, 1948 Coll.; Dumaguete; Jolo.

Anampses pterophthalmus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 265, 1908; Cuyo, Cuyo Islands, Sulu Sea.

Genus 495. CHEILINUS Lacépède.

Coral-reef fishes of the tropical and sub-tropical Indo-Pacific.

Cheilinus Lacépède, Hist. Nat. Poissons, vol. 3, p. 529, 1802; type, *Cheilinus trilobatus* Lacépède. Günther, Cat. Fishes British Mus., vol. 4, p. 125, 1862. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 319, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 343, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 74, 1940.

Cheilinas Duméril, Zoologie Analytique, p. 333, 1806; type, *Cheilinus trilobatus* Lacépède.

Urichthys Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 224, 1839; type, *Labrus lunulatus* Forskål.

Crassilabrus Swainson, *ibid.*, p. 225; type, *Cheilinus undulatus* Rüppell.

Thalliurus Swainson, *ibid.*, p. 230; type, *Crenilabrus blochii* Swainson.

Chilinus Peters, Archiv Naturges., p. 264, 1855; type, *Cheilinus trilobatus* Lacépède.

Oxycheilinus Gill, Proc. Acad. Nat. Sci. Phila., p. 143, 1862; type, *Cheilinus arenatus* Cuvier and Valenciennes.

Wetmorella Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 211, 1928; type, *Wetmorella philippina* Fowler and Bean.

1533. *Cheilinus arenatus* Cuvier and Valenciennes.

From the East Indies and Philippines, west to Cargados Carajos and Mauritius.

Cheilinus arenatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 101, pl. 397, 1839; Mauritius. Günther, Cat. Fishes British Mus., vol. 4, p. 132, 1862; Mauritius. Regan, Trans. Linn. Soc. London, ser. 2, vol. 12, p. 231, 1908; Cargados Carajos, in 20 to 30 fathoms. De Beaufort Fishes Indo-Australian Archipelago, vol. 8, p. 93, 1940; Batavia, Java; Ternate, Dutch East Indies; Philippines.

Cheilinus notophthalmus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 493, 1853; Batavia, Java.

1534. *Cheilinus bimaculatus* Cuvier and Valenciennes.

The East Indies, Philippines, Maldives, Seychelles, New Hebrides, and Hawaiian Islands.

Cheilinus bimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 96, 1839; Honolulu. Günther, Cat. Fishes British Mus., vol. 4, p. 131, 1862; Hawaiian Islands; after Cuvier and Valenciennes. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 320, pl. 38, 1905; Honolulu and Hilo, Hawaiian Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 359, 1928; Honolulu, Hilo, and Maui, Hawaiian Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 344, 1928; Canmahala Bay, Ragay Gulf, Luzon; Varadero Bay, Mindoro; Cataingan Bay, Masbate; Cebu market, Cebu; Pandanon Island; Bohol; Cotabato, Cotabato Province, and Surigao, Surigao Province, Mindanao; Honolulu, Hawaiian Islands. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 79, 1930; RiuKiu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Dumaguete; Cebu, Cebu. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 240, 1938; Honolulu, Hawaiian Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 84, 1940; Java; Flores; Solor; Timor; Amboina; Ceram; Banda; New Guinea; Philippines; Maldives; New Hebrides; Hawaii. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Cheilinus ceramensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 290, 1852; Wahai, Ceram. Günther, Cat. Fishes British Mus., vol. 4, p. 127, 1862; Amboyna; Aneiteum, New Hebrides. Bleeker, Atlas Ichth., vol. 1, p. 62, pl. 28, fig. 4, 1862; Bali; Solor; Timor; Amboina; Ceram; Banda. Regan, Trans. Linn. Soc. London, ser. 2, vol. 12, p. 230, 1908, Maldives; Seychelles.

Cheilinus melanopleura Bleeker, Ned. Tijds. Dierk., vol. 2, p. 275, 1865; Amboina. Bleeker, *ibid.*, vol. 3, p. 134, 1866. Bleeker, Arch. Neerl. Sci. Nat., vol. 6, pl. 6, fig. 2, 1871.

Cheilinus ceramensis Günther, Fische der Südsee, vol. 2, p. 245, 1876-1881; Zanzibar; Aneiteum, New Hebrides.

1535. *Cheilinus celebicus* Bleeker.

The East Indies, Philippines, and Solomon Islands.

Cheilinus celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 171, 1853; Makassar, Celebes. Bleeker, Atlas Ichth., vol. 1, p. 70, pl. 28, fig. 3, 1862. Günther, Cat. Fishes British Mus., vol. 4, p. 133, 1862; East Indian Archipelago. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Capiz, Capiz Province, Panay. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 94, fig. 17, 1940; 17 East Indian localities; Philippines; Solomon Islands.

Cheilinus Hoevenii Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 297, 1862. Bleeker, Atlas Ichth., vol. 1, pl. 27, fig. 1, 1862; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 133, 1862; Amboyna; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 152, 1863; Batjan.

Cheilinus rostratus Cartier, Nat. Verh. Phys. Med. Gesell. Würzburg, p. 103, 1874; Cebu, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 31, 1907; Iloilo, Iloilo Province, Panay. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 358, pl. 44, 1928; Port Matalvi, Zambales Province; Paron Point, Albay Gulf, and RapuRapu Island, Albay Province, Luzon. Tilik, Lubang Island, northwest of Mindoro; Paluan Bay, Mindoro; Romblon Island; Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Gigoso Point, Quinapundan Bay, Samar; Mactan Cove, Mactan Island, and Malapascua Island, Cebu Province; Mantacao Island, west coast of Bohol; Port Uson, Busuanga Island; Bolalo Bay, Endeavor Strait, Makesi Island, Malcochin Harbor, Linapacan Island, Oyster Inlet and near mouth of Baheli River, Ulugan Bay, Palawan; Candaraman Island, Balabac; Murcielagos Bay, Misamis Occidental Province, Capungan, Surigao Province, Parang, Cotabato Province, Sacol Island, and northwest of Mindanao, Zamboanga Province, Mindanao; Tapiantana Island, south of Basilan; Singaan, Tara, and Usada Islands, and Tutu Bay, Jolo, Sulu Province; also numerous East Indian localities.

Cheilinus kitlitzii Fowler, Mem. Bishop Mus., vol. 10, p. 362, 1928; not of Cuvier and Valenciennes.

1536. *Cheilinus chlorurus* (Bloch).

The tropical Indo-Pacific, from Africa to the Tuamotu Islands.

Sparus chlorurus Bloch, *Naturges. Auslând. Fische*, vol. 5, p. 24, pl. 260, 1791; Japan; and Santo Domingo in error.

Cheilinus punctatus Bennett, *Proc. Zool. Soc. London*, vol. 1, p. 167, 1831; Mauritius.

Cheilinus quinquecinctus Rüppell, *Neue Wirbelt., Fische Rothen Meeres*, p. 19, pl. 6, fig. 1, 1835; Djedda. Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, vol. 2, p. 513, 1845; Batavia, Java.

Cheilinus punctulatus Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 14, p. 87, pl. 396, 1839; Seychelles. Peters, *Archiv Naturges.*, p. 264, 1855; Mozambique.

Cheilinus guttatus Bleeker, *Nat. Geneesk. Arch. Ned.-Ind.*, ser. 2, vol. 4, p. 161, 1847; Java. Bleeker, *Verh. Bat. Gen.*, vol. 22, Gladschub. Labroiden., p. 36, 1849; Batavia, Java.

Cheilinus decacanthus Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 2, p. 256, 1851; Banda Neira.

Cheilinus chlorurus Bleeker, *Atlas Ichth.*, vol. 1, p. 65, pl. 27, fig. 3, 1862; Java; Duizend Islands; Bawean; Cocos; Batu; Nias; Singapore; Banka; Biliton; Celebes; Sangi; Timor; Ternate; Buru; Amboina; Ceram; Goram. Günther, *Cat. Fishes British Mus.*, vol. 4, p. 128, 1862; Amboina; Ceylon; Ceram; Aneiteum, New Hebrides. Day, *Fishes India*, p. 393, pl. 83, fig. 6, 1878; Andaman Islands. Vaillant, *Bull. Soc. Philom. Paris*, ser. 7, vol. 11, p. 53, 1887; Tahiti. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 93, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, *Proc. U. S. Nat. Mus.*, vol. 33, p. 245, 1905; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 362, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon; Butauanan Island, Masamat Bay, Quinalasag Island, Camarines Sur Province; Batan Island and RapuRapu Island, Albay Province, Bacon, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon, Tilik, Lubang Island, northwest of Mindoro; Cataingan Bay, Masbate; Port Caltom, Busuanga Island; Bolalo Bay and mouth of stream at village near Chase Head, Endeavor Strait, and Port Langan, Palawan; Bugsuk and Candaraman Islands, Balabac; Guijulugan, Negros Oriental Province; Cebu market and Mactan Island, Cebu Province; Pandanon Island, Bohol; Inamuacan Bay, and Murcielagos Bay, Misamis Occidental Province, Silino Island, and Pilas Island, Zamboanga Province, Mindanao. Jolo market, Sitankai Reef, and Pangasinan, Tonquil and Tumindao Islands, Sulu Province, Philippines. Also Mangareva, Tuamotu; Apia, Samoa; Okinawa; Guam; Java; Formosa; Halmahera; Danawan and Si Amil Islands. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 362, 1928; various places in the Solomons, New Hebrides, Society Islands, Austral, Tuamotu, Fiji, Samoan, and Gilbert Islands. Herre, *Fishes 1931 Philippine Exped.*, p. 76, 1934; Cullion; Cebu, Cebu Province, Jolo and Sitankai, Sulu Province. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 76, 1940; 30 East Indian localities; Sulu Islands, Philippines. Also from Mozambique to the Tuamotu Islands.

Cheilinus chlorurus Günther, *Fische der Südsee*, vol. 2, p. 245, pl. 132, 1881; New Hebrides; Pelew Islands; Society Islands; Tonga; Taumotus; Fiji; Yap; Ponapé.

Thaliurus chlorurus Seale, *Occas. Papers Bishop Mus.*, vol. 4, p. 58, 1906; Mangareva and Makatea, Tuamotu Islands; Tahiti; Faté, New Hebrides; Shortland Island, Solomon Islands. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 310, 1906; Apia and PagoPago, Samoa.

Cheilinus chlorurus Herre, *Field Mus. Nat. Hist., Zool. Ser.*, vol. 21, p. 326, 1936; Moorea Island, Society Islands; Malo and Efaté Islands, New Hebrides; Tenibuli, Ysabel Island, Solomon Islands. Fowler, *Acad. Nat. Sci. Phila. Monograph 2*, pp. 130 and 149, 1938; Takaroa, Tuamotu Islands; Tahiti, Society Islands.

1537. *Cheilinus diagrammus* (Lacépède).

In the Indo-Pacific from East Africa to the RiuKiu, Pelew, Gilbert, Hawaiian, Fiji, and Samoan Islands, and Australia; marine but sometimes entering rivers.

Labrus diagramma Lacépède, Hist. Nat. Poissons, vol. 3, pp. 448, 517, 1802; "Great Equatorial Ocean."

Cheilinus coccineus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 23, 1829; Djedda.

Cheilinus commersonii Bennett, Proc. Comm. Zool. Soc. London, vol. 1, p. 167, 1831; Mauritius.

Cheilinus lacrymans Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 109, 1839; Java. Bleeker, Atlas Ichth., vol. 1, p. 71, pl. 23, fig. 6, 1862; Java.

Cheilinus diagramma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 98, 1839; East Indies; Mauritius; Seychelles; Madagascar; New Guinea. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 539, 1904; Padang, Sumatra. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 88, 1940; 23 East Indian localities; Sulu Islands, Philippines; also 15 other Indo-Pacific localities.

Cheilinus diagrammus Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 38; 1849; Batavia, Java. Jordan and Seale, Bull. U. S. Bur. Fish., vol. 25, p. 309, 1906; Pago Pago, Samoa. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 303, 1911; TariTari, Gilbert Islands; Kusaie Island, Caroline Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 361, 1928; Hilo, Hawaii, Fiji, Samoa; TariTari, Gilbert Islands; Mangareva, Tuamotu, Islands; Shortland Island, Solomon Islands; Kusaie Island, Caroline Islands; Johnston and Wake Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 354, 1928; Pagapas Bay and Port Hamilo, Batangas Province, Luzon; Maculabo Island, Camarines Norte Province; Masamat Bay, Quinalasag Island, and Butaanan Island, Camarines Sur Province; Palag Bay, and Paron Point, Albay Gulf, Albay Province; Langoa Point, Sorsogon Province; and Canmahala Bay, Ragay Gulf, Luzon. Tilik, Lubang Island, northwest of Mindoro; Port Maricaban, Verde Island Passage, between Luzon and Mindoro; Puerto Galera, Mindoro; Mompog Island, between Marinduque and Luzon; Romblon I.; Alimango Bay and Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Cataingan Bay and Masbate Reef, Masbate Island; Biri Channel, Gigoso Point, Quinapundan Bay, and Port Palapag, Samar; Malaga River, Hinunangan Bay, and San Roque, Leyte; Calangaman Island, Cebu market, and Mactan Island, Cebu Province; Port Caltom, Busuanga Island; Port Langan, Dumarang Island, Bolalo Bay, and Observatory Island, Palawan; Polloc, Cotabato Province, Little Santa Cruz Island, and Panabutan Bay, Zamboanga Province, Mindanao; Sitankai Reef, Tutu Bay, Jolo Island, Cagayan Sulu, Singaan, Tara, and Usada Islands, Sulu Province; also Borneo; Celebes; Tidore; Halmahera; Formosa; Okinawa, Samoa; Sumatra. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 327, 1936; Maio Island, New Hebrides.

Cheilinus radiatus Bleeker, Atlas Ichth., vol. 1, p. 68, pl. 26, fig. 1, 1862; Java; Bali; Cocos; Sumatra; Celebes; Halamahera; Ternate; Batjan; Amboyna. Günther, Cat. Fishes British Mus., vol. 4, p. 131, 1862; Moluccas; Amboina; Louisiade Archipelago; Cape Flattery, North East Australia.

Chilinus radiatus Günther, Fische der Südsee, vol. 2, p. 247, pl. 135, fig. A, 1876-1881; Louisiades; Fiji; Samoa; Pelew Islands. Barnard, Ann. South African Mus., vol. 21, p. 765, 1927; Mozambique.

1538. *Cheilinus fasciatus* (Bloch).

East coast of Africa to the Philippines; East Indies, RiuKiu, Caroline, Marshall, Gilbert, Samoa and Tonga Islands, and Queensland, Australia.

Sparus fasciatus Bloch, Naturges. Ausländ. Fische, vol. 5, p. 18, pl. 257, 1791; Japan.

Labrus enneacanthus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 433 and 480, 1802.

Cheilinus fasciatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 23, 1828; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 92, 1839; Mauritius; Seychelles; Batavia; Moluccas. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 35, 1849; Batavia, Java. Bleeker, Atlas Ichth., vol. 1, p. 67, pl. 26, fig. 2, 1862; Java; Duzend Islands; Sumatra; Singapore; Nias; Celebes; Flores; Amboina; Banda; Goram. Günther, Cat. Fishes British Mus., vol. 4, p.

- 129, 1862; Amboina. Günther, in Playfair and Günther, Fishes Zanzibar, p. 89, 1866; Zanzibar. Day, Fishes India, p. 394, pl. 84, fig. 1, 1878; Malay Archipelago. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 35, 1885; Cebu, Cebu, Philippines; Makassar, Celebes; and Mysore, New Guinea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 308, 1906; Apia and Pago Pago, Samoa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 51, 1922; Cebu, Cebu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 350, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon; Bolinao Harbor, Pangasinan Province; Port Matalvi and Masinloc Bay, Zambales Province; Limbones Cove, Cavite Province; Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Batan Island and vicinity of Palag Bay, Albay Province; Masamat Bay, Quinalasag Island, Camarines Sur Province; Gubat, Sorsogon Province; Maricaban Island, between Luzon and Mindoro; Tiliik, Lubang Island, northwest of Mindoro; Puerto Galera, Mindoro; Mompog Island, between Marinduque and Luzon; Romblon Island; San Miguel Harbor, Ticao Island; Biri Channel, Gigoso Point, Quinapundan Bay, and Port Palapag, Samar; Mantacao Island, and Pandanon Island, west coast of Bohol; Cebu market, Cebu; Port Caltom and Port Uson, Busuanga Island; Dalanganem Island, Cuyo Islands; Makesi Island, Bolalo Bay, Rasa Island, Mantaquin Bay, Oyster Inlet and Rifa Island, Ulugan Bay, Endeavor Strait, and Malcochin Harbor, Linapacan Island, Palawan; Candaraman Island, Balabac; Lianga Bay, Port Capungan, and Surigao, Surigao Province, Polloc, Cotabato Province, Pujada Bay, Davao Province, Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island and Tulnalutan Island, Zamboanga Province, Mindanao. Bulan, Taganak, Tapiantana, Tara, and Tataan Islands, Sulu Province; also Halmahera Island, Makyau Island, Dutch East Indies; Guam; Pago Pago, Samoa, Naga, Okinawa; Padang, Sumatra. Fowler, Mem. Bishop Mus., vol. 10, p. 360, 1928; Guam; Rarotonga; Faté; Shortland Island; Pago Pago, Samoa; Gilbert Islands; Ebon Island, Marshall Islands. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Culion, Dumaguete; Jolo, Sulu Province. Herre, Field Mus., Zool. Ser., vol. 21, p. 327, 1936; Tenibuli, Ysabel Island, Solomon Islands. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 81, fig. 16, 1940; 24 East Indian localities; Sulu Islands, Philippines; also 16 other Indo-Pacific localities.
- Cheilinus fasciatus* Günther, Fische der Südsee, vol. 2, p. 246, pl. 134, 1876-1881; East Indies; Solomon, Pelew, and Gilbert Islands; Vavau; Ponape.
- Cheilinus nigropinnatus* Seale, Occas. Papers Bishop Mus., vol. 1, p. 86, 1901; Guam.
- Cheilinus cinnacanthus* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 539, 1904; Padang, Sumatra.
- Wetmorella philippina* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 211, pl. 17, 1928; Atulayan Island, and RapuRapu Island, Albay Province; Port Langcan Island, Linapacan Island, Palawan; Little Santa Cruz Island, Zamboanga Province, Mindanao, Philippines. Mabul Island and Libani Bay, Celebes, Dutch East Indies.
- 1539. *Cheilinus mentalis* Rüppell.**
The Red Sea, East Indies, and Philippines.
- Cheilinus mentalis* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 24, 1828; Massaua. Günther, Cat. Fishes, British Mus., vol. 4, p. 131, 1862; after Rüppell. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 104, 1862; Batjan. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 556, 1871; Red Sea. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 86, 1940; Philippines; Batjan, East Indies; Red Sea.
- Cheilinus coccineus* Bleeker, Atlas Ichth., vol. 1, p. 71, pl. 33, fig. 8, 1862; not of Rüppell; Batjan.
- Cheilinus orientalis* Günther, Cat. Fishes, British Mus., vol. 4, p. 132, 1862; Batjan; description after Bleeker.

1540. *Cheilinus oxycephalus* Bleeker.

The East Indies, Philippines, and Society Islands.

Cheilinus oxycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 349, 1853; Amboina. Günther, Cat. Fishes, British Mus., vol. 4, p. 128, 1862; Batu; Flores; Batjan; Amboina. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 267, 1908; Cuyo, Cuyo Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 364, 1913; Salibabu and Saleyer Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 364, 1928; Port Matalvi, Zambales Province; RapuRapu Island, Albay Province, Luzon. Biri Channel, and Port Palapag, Samar; Bolalo Bay, Port Langan, Dumarang Island, and Ulugan Bay, Palawan; Tapiantana Island, south of Basilan Island; Bulan Island, Busbus Point, Siasi, Tara, Singaan, Tataan, Tonquil, Tumindao, and Tulayan Islands, and Tutu Bay, Jolo, Sulu Province; also, Tidore, Halmahera, Gomomo, Maitara, Birabirahan, and several small islands on the coast of Celebes, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 359, 1928; Society Islands. Herre, Fishes 1936-37 Exped., Singapore Harbor. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 78, 1940; Batu Island; Saleyer; Sadaa Island; Talaut Island, Batjan; Gomomo Island; Maitara; Halmahera; Tidore; Flores; Amboina; Banda; South New Guinea. Philippines; Society Islands. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province; Siluag Island, Sulu Province.

1541. *Cheilinus oxyrhynchus* Bleeker.

East Indies and Philippines, north to the RiuKiu Islands, south to the Solomon Islands and Australia.

Cheilinus oxyrhynchus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 300, 1862. Bleeker, Atlas Ichth., vol. 1, p. 73, pl. 28, fig. 2, 1862; Celebes; Amboina; Batjan. Günther, Cat. Fishes British Mus., vol. 4, p. 133, 1862; East Indian Archipelago. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 275, 1865; Amboina; Celebes; Batjan. Macleay, Descriptive Cat. Australian Fish, vol. 2, p. 91, 1881; Queensland, Australia. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 653, 1902; RiuKiu Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 365, 1913; Kei Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 362, 1928; after Bleeker. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., p. 78, 1930; RiuKiu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 6, p. 8, 1931; Tenibuli, Ysabel Island, Solomon Islands. Herre, Jour. Pan Pacific Research Inst., vol. 10, p. 166, 1935; Pelew Islands. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 329, 1936; Tenibuli, Ysabel Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 91, 1940; Philippines; Makassar and Menado, Celebes; Amboina; Batjan; Kei Islands.

Cheilinus oxyrhynchus Günther, Fische der Südsee, vol. 2, p. 248, 1876-81; Pelew Islands.

1542. *Cheilinus rhodochrous* Günther.

East Indies, Philippines, RiuKiu Islands, Hawaiian Islands, west to Zanzibar.

Cheilinus rhodochrous Günther, in Playfair and Günther, Fishes Zanzibar, p. 90, 1866; Zanzibar. Bamber, Jour. Linn. Soc. Zool., vol. 31, p. 482, 1915. De Beaufort, Fishes Indo-Austr. Arch., vol. 8, p. 90, 1940; Sulu Islands, Philippines; Dowora, Binongka, and Banda, Dutch East Indies.

Cheilinus unifasciatus Streets, U. S. Nat. Mus., Bull. No. 7, p. 82, 1877; Fanning Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 362, pl. 38 B, 1928; Honolulu; Hawaiian Islands; French Frigate Shoal; Fanning Islands; Johnston Island; Samoan Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 357, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon; Cagayan Sulu and Simalac Islands, Sulu Province, Philippines. Dowara Island, Dutch East Indies; also Midway, Fanning, Johnston, and Hawaiian Islands. Schmidt, Trans. Pacific Comm. Acad. Sci., U. S. S. R., vol. 1, p. 79, 1930; RiuKiu Islands.

Cheilinus hexagonatus Günther, Fische der Südsee, vol. 2, p. 247, pl. 135, fig. B, 1876-1881; Yap; Hawaiian Islands. Jordan and Evermann,

Bull. U. S. Fish Comm., vol. 23, Part 1, p. 319, fig. 136, 1905; Honolulu; Hilo. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 73, 1925; Honolulu; Hawaii.

Cheilinus zonorus Jenkins, Bull. U. S. Fish Commission, vol. 19, p. 56, fig. 13, 1900; Honolulu.

Cheilinus cingulatus M. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 365, pl. 9, fig. 5, 1913; Binongka and Banda Islands.

1543. *Cheilinus trilobatus* Lacépède.

Islands of the tropical Indian Ocean to the Philippines, RiuKiu, Caroline, Marshall, Hawaiian, New Hebrides, Fiji, Samoan, and Society Islands.

Cheilinus trilobatus Lacépède, Hist. Nat. Poissons, vol. 6, pp. 274, 284, pl. 19, fig. 3, 1802; Réunion, Mauritius, Madagascar. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 22, 1828; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 79, 1839; Mauritius; Bourbon; Madagascar; Seychelles; Japan; Java. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 34, 1849; Batavia, Java. Bleeker, Atlas Ichth., vol. 1, p. 66, pl. 27, fig. 2, 1862; Java, Bali, Bawean; Sumatra; Singapore; Celebes; Timor; Halmahera; Ternate; Buru; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 126, 1862; Mauritius; China; Aneiteum; Moluccas; Amboina. Günther, in Playfair and Günther, Fishes Zanzibar, p. 88, 1866; Aden; Zanzibar. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, ser. 2, vol. 2, p. 147, 1866; Madagascar. Day, Fishes India, p. 394, pl. 82, fig. 4, 1878; Andaman Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 322, 1905; PagoPago, Samoa; Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 308, 1906; Apia, and PagoPago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 31, 1907; Manila, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga Province, Mindanao. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 347, 1928; Nasugbu, and Batangas Bay, Batangas Province; Maculabo Island, Camarines Norte Province; Quinalasag Island and Butauanan Island, Camarines Sur Province; Maagnas, Lagonoy Gulf, RapuRapu Island, RapuRapu Strait, and Palag Bay, Albay Province; Langoa Point and Gubat Bay, Sorsogon Province, Luzon. Tilik, Lubang Island; Port Maricaban, Verde Island Passage, between Luzon and Mindoro; Mansalay Bay, Mindoro; Romblon Harbor, Romblon; Cataingan Bay, Masbate; San Miguel Island, Ticao Island; Lode Bay, Destacado Island, between Masbate and Samar; Cabugan Island, Hinunangan Bay, Leyte; Cebu market, Mactan Cove, Mactan Island, and Malapascua Island, Cebu Province; Bisucay Island, Cuyo Islands; Makes Island, Palawan; Bugsuk Island, Balabac. Pujada Bay, Davao Province, Inamucan Bay and Murcielagos Bay, Misamis Occidental Province, Surigao and Port Capungan, Surigao and Zamboanga Provinces, Mindanao. Formosa, Okinawa, Padang, Sumatra, and Mauritius. Fowler, Mem. Bishop Mus., vol. 10, p. 360, 1928; Apia and PagoPago, Samoa; Tahiti, Society Islands; Guam; New Hebrides; New Guinea; Gilbert Islands; Ebon Island, Marshall Islands; Hawaiian Islands. Herre, Jour. Pan-Pacific Research Institute, vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Cebu, Cebu; Dumaguete; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 329, 1936; Maara, Tahiti. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 149, 1938; Tahiti, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 79, 1940; 24 East Indian localities; Philippines; 12 Indo-Pacific localities.

Cheilinus rivulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 86, 1839; New Ireland; Vanicolo.

Cheilinus tetrazona Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 293, 1853; Priaman, Sumatra.

Cheilinus trilobatus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 553, 1871; Koseir, Red Sea. Günther, Fische der Südsee, vol. 2, p. 244, pl. 131, 1881; East Africa; Fiji; New Hebrides; Samoa; Society Islands; Gilbert Islands; Ponapé, Caroline Islands; Howland Island, Futuna Island.

1544. *Cheilinus undulatus* Rüppell. Maming.

The largest of all labrids, reaching a length of 7 feet. On coral reefs from the Red Sea to the Philippines and eastward to the Caroline, Gilbert, and Tuamotu Islands.

Cheilinus undulatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 20, pl. 6, fig. 2, 1835; Djedda, Red Sea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 492, 1853; Batavia, Java. Bleeker, Atlas Ichth., vol. 1, p. 68, pl. 26, fig. 3, 1862; Java. Günther, Cat. Fishes British Mus., vol. 4, p. 129, 1862; Red Sea; Batavia. Günther, in Playfair and Günther, Fishes Zanzibar, p. 88, 1866; Zanzibar. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 309, 1906; Pago Pago, Samoa. Herre, Philippine Bur. Science Collection, 1921-28; reefs near Masbate; reef off Bohol; Tubataha Reef, Sulu Sea; specimens of 25 to 100 kilos not rare in Zamboanga market, Zamboanga Province, Mindanao, and Jolo Market, Sulu Province; Tumindao Lagoon and Sitankai Reef, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 352, 1928; Alibijaban Bay, Ragay Gulf, Tayabas Province, and Matnog Bay, Sorsogon Province, Luzon, Medio Island, Puerto Galera and Sablayan Bay Mindoro; Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Biri Channel, north of Samar; Cebu market, Cebu; Bolalo Bay, Endeavor Strait, and Oyster Inlet, Ulugan Bay, Palawan; Bugsuk Island, Port Ciego, and Candaraman Island, Balabac; Murcielagos Bay, Misamis Occidental Province, Mindanao. Tataan Island and Jolo Reef, Jolo, Sulu Province; also Samoa; TariTari, Gilbert Islands; Rangiroa, Tuamotu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 361, 1928; Faté, New Hebrides; Guam; Wake Island; Rangiroa, Tuamotus; Kusaie, Carolines; Suva, Fiji. Fowler, Acad. Nat. Sci. Phila. Monograph 2, p. 111, 1938; Takarua, Tuamotus. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 83, 1940; Pulu Weh; Batavia, Java; Gomomo Island; Port Moresby, New Guinea; Philippines; Zanzibar; Red Sea; Ceylon; Pacific Islands as far as Tuamotu Islands.

Cheilinus mertensi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 102, 1839; Guam.

Cheilinus festivus Cuvier and Valenciennes, *ibid.*, p. 104; Kusaie (Oualan) Island.

Chilinus godeffroy Günther, Proc. Zool. Soc. London, p. 666, pl. 66, 1871; Tonga Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 36, 1885; Cebu, Philippines.

Chilinus undulatus Günther, Fische der Südsee, vol. 2, p. 245, pl. 133, 1876-1881; Red Sea; Zanzibar; Batavia; Tonga; Tahiti; Fanning Islands; Vavau; Ponapé; Tuamotu, Caroline, and Pelew Islands.

Cheilinus undulatus Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Culion; Jolo, Sulu Province; misprint.

Genus 496. CHEILIO Lacépède.

Only one species known.

Cheilio Lacépède, Hist. Nat. Poissons, vol. 4, p. 432, 1802; type, *Cheilio auratus* Lacépède. Günther, Cat. Fishes British Mus., vol. 4, p. 194, 1862. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 314, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 335, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 108, 1940.

Micropodus Rafinesque, Analyse Nature, p. 86, 1815; a substitute for *Cheilio*; the type, therefore, *Cheilio auratus* Lacépède.

Eupemis Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 232, 1839; type *Labrus fusiformis* Rüppell.

Chilio Peters, Monatsber. Akad. Wiss. Berlin, p. 263, 1855; type, *Cheilio auratus* Lacépède. Barnard, Ann. South African Mus., vol. 21, p. 743, 1927.

1545. *Cheilio inermis* (Forskål).

From the Red Sea and east coast of Africa to the Philippines, Formosa, Riu Kiu, Hawaiian, Samoan, and Society Islands, Easter Island, and Australia.

Labrus inermis Forskål, Descript. Animal., p. 34, 1775; Moccha, Red Sea.

Labrus hasseh Lacépède, Hist. Nat. Poissons, vol. 3, pp. 244, 513, 1802; Arabia; on Forskål.

- Labrus auratus* Lacépède, *ibid.*, vol. 4, p. 433, 1802; Mauritius.
- Cheilio fuscus* Lacépède, *Hist. Nat. Poissons*, vol. 4, p. 433, 1802; Mauritius.
- Cheilio auratus* Quoy and Gaimard, *Voy. Uranie*, Zoologie, p. 274, pl. 54, fig. 2, 1824; Hawaiian Islands. Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 13, p. 341, 1839. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 2, p. 221, 1851; Celebes.
- Labrus fusiformis* Rüppell, *Neue Wirbelt.*, Fische Rothen Meeres, p. 7, pl. 1, fig. 4, 1835; Djedda; Massana.
- Cheilio cyanochloris* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 13, p. 346, pl. 382, 1839; Mauritius.
- Cheilio Forskalii* Cuvier and Valenciennes, *ibid.*, p. 349, 1839; Mauritius; Suez; on Forskål.
- Cheilio hemichrysos* Cuvier and Valenciennes, *ibid.*, p. 351, 1839; Hawaiian Islands.
- Cheilio viridis* Cuvier and Valenciennes, *ibid.*, p. 352, 1839; Vanicolo.
- Cheilio microstoma* Cuvier and Valenciennes, *ibid.*, p. 353, 1839.
- Cheilio ramosus* Jenyns, *Voy. Beagle*, Fishes, p. 102, 1842.
- Cheilio bicolor* Bianconi, *Mem. Acad. Sci. Bologna*, vol. 8, p. 460, pl. 25, 1859; Mozambique.
- Cheilio inermis* Bleeker, *Atlas Ichth.*, vol. 1, p. 82, pl. 31, fig. 4, 1862; Java, Bawean, Sumatra, Celebes, Sangi, Ternate, Amboina, Banda, Ceram, Goram, Buru, Timor, and Letti, Dutch East Indies. Günther, *Cat. Fishes British Mus.*, vol. 4, p. 194, 1862; Mozambique; Philippines; Makassar, Celebes; Amboina; Anelteum; New Hebrides. Day, *Fishes India*, p. 407, pl. 88, fig. 4, 1878; Malay Archipelago. Meyer, *An. Soc. España Hist. Nat. Madrid*, vol. 14, p. 37, 1885; Cebu, Philippines; also Sangi, Celebes, Tubakan, and Mysore Island, Geelvink Bay, New Guinea. Vinciguerra, *Giorn. Romano Sci. Biol.*, ser. 2, vol. 19, p. 486, 1890; Zanzibar. Sauvage, in Grandidier, *Hist. Phys. Nat. Madagascar*, Poissons, p. 465, 1891. Jordan and Snyder, *Proc. U. S. Nat. Mus.*, vol. 24, p. 644, 1902; Honolulu and Hilo, Hawaiian Islands; Okinawa, RiuKiu Islands; Formosa. Jordan and Evermann, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 314, pl. 33, 1905; Hilo and Honolulu; Samoa. Jordan and Seale, *Proc. U. S. Nat. Mus.*, vol. 28, p. 789, 1905; Bais, Negros Oriental Province. Evermann and Seale, *Bull. U. S. Bur. Fisheries*, vol. 26, p. 93, 1907; Bacon, Sorsogon Province, Luzon. Seale and Bean, *Proc. U. S. Nat. Mus.*, vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, *Bull. U. S. Bur. Fisheries*, vol. 27, p. 267, 1908; Cuyo, Cuyo Islands, Philippines. Gilchrist and Thompson, *Ann. South African Mus.*, vol. 6, p. 199, 1908-11; Natal, South Africa. Kendall and Radcliffe, *Mem. Mus. Comp. Zool.*, vol. 35, p. 139, 1912; Cook Bay, Easter Island. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 381, 1913; Makassar and Menado, Celebes; Tian, Saleyer, Nusa Laut, Banda and Rotti Islands, Dutch East Indies. Fowler, *Copeia*, No. 58, p. 64, 1918; Philippines. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 358, 1928; Hawaiian Islands; Guam; Tahiti, Society Islands; Apia, Samoa; Ebon Island, Marshall Islands; Ponapé, Caroline Islands. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 335, 1928; Port Hamilo, Batangas Province, and Maagnas, Lagonoy Gulf, Albay Province, Bacon, Sorsogon Province, Luzon; Cabugao Bay, Catanduanes Island; Port Marican, Verde Island Passage; Varadero Bay, Mindoro; Cebu market, Cebu; Negros; Bugsuk Island, Balabac; Mahinog, Camiguin Island, off Misamis Oriental Province, and Inamucan Bay, Misamis Occidental Province, and Zamboanga, Zamboanga Province, Mindanao; Jolo market, Jolo, Sitankai Reef, and Tara Island, Sulu Province, Philippines; Honolulu, Hawaiian Islands; Nafa, Okinawa; Easter Island, Apia, Samoa. Herre, *Jour. Pan Pacific Research Inst.*, vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, *Fishes 1931 Philippine Exped.*, p. 76, 1934; Calapan, Mindoro; Culion; Dumaguete; Jolo and Sitankai, Sulu Province. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 109, fig. 20, 1940; 28 East Indian localities; the Philippines, and 19 other Indo-Pacific localities. Herre, *Fishes 1940-41 Exped.*; Puerto Galera, Mindoro; Cagayan, Misamis Oriental Province, Mindanao.

Genus 497. CHOERODON Bleeker. Bankilan.

Tropical and sub-tropical Indo-Pacific, on coral reefs.

Choerodon Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 2, p. 547, 1847; nomem nudum. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 10, 1849; type *Labrus macrodontus* Lacépède. Gill, Proc. U. S. Nat. Mus., vol. 35, p. 155, 1908. Fowler and Bean, Bull. 100, U. S. N. M., vol. 7, p. 191, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 30, 1940.

Choerops Rüppell, Verzeich. Mus. Senckenberg, Naturf., Gesell., Sammlungen, vol. 4, Fische, p. 20, 1852; type *Choerops meleagris* Rüppell. Günther, Cat. Fishes British Mus., vol. 4, p. 93, 1862.

Cossyphodes Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 37, 1860; type, *Labrus macrodontus* Lacépède. *Hypsigenys* Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 8, p. 383, 1861.

1546. Choerodon anchorago (Bloch).

From the East Indies and Philippines, east to the Pelew and Caroline Islands, south to the Solomon Islands, New Hebrides, and Australia, and west to India and Ceylon; abundant.

Sparus anchorago Bloch, Naturges. Ausländ. Fische, vol. 5, p. 108, pl. 276, 1791.

Labrus macrodontus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 451, 522, 1802. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 98, 1839; Java.

Cossyphus macrodon Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 10, 1849; Batavia, Java.

Choerops meleagris Rüppell, Verzeich. Mus. Senckenb. Naturf. Gesell. Sammlungen, vol. 4, Fische, p. 20, 1852.

Labrus chlorodus Gray, Cat. Fishes described by Gronow, p. 80, 1854.

Crenilabrus leucozona Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 238, 1858; Billiton. Bleeker, Atlas Ichth., vol. 1, p. 163, pl. 42, fig. 4, 1862. Günther, Cat. Fishes British Mus., vol. 4, p. 95, 1862; after Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 35, 1885; Cebu, Cebu Province, Philippines; Menado, Celebes.

Cossyphodes macrodon Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, 1860, Achtste Bijdr. vischfauna Sumatra, p. 37; Sumatra.

Hypsigenys macrodon Günther, Ann. Mag. Nat. Hist., p. 384, 1861.

Choerops macrodon Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 297, 1862. Bleeker, Atlas Ichth., vol. 1, p. 162, pl. 47, fig. 1, 1862; Java; Bawean; Sumatra; Singapore; Bintang; Billiton; Celebes; Sumbawa; Ternate; Batjan; Ceram; Timor. Günther, Cat. Fishes British Mus., vol. 4, p. 94, 1862; northeast Australia. Kner, Reise Novara, Fische, vol. 2, p. 248, 1865; Madras, India; Singapore. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 35, 1885; Cebu, Philippines; Rubi, New Guinea. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao.

Choerops anchorago Günther, Cat. Fishes, British Mus., vol. 4, p. 95, 1862; Amboina. Peters, Monatsber. Akad. Wiss. Berlin, p. 270, 1868; Singapore. Day, Fishes India, p. 391, pl. 82, fig. 5, 1878. Günther, Fische der Südsee, vol. 2, p. 238, 1876-1881; East Indies; north coast Australia; Pelew Islands; Yap. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 35, 1885; Cebu; Philippines; Menado, Celebes. Day, Fauna British India, vol. 2, p. 394, fig. 131, 1889. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 28, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 95, 1907; Bacon, Sorsogon Province, Luzon; Jolo, Sulu Province, Philippines. Weber, *Siboga*-Exped., vol. 57, Fische, p. 362, 1913; Saleyer, Gisser, and Feer Islands, and Makassar, Celebes.

Choerops maeander Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 102, 1874; Cebu, Philippines.

Choerops graphicus de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 878, 1885; Cardwell, Queensland, Australia.

Choirodon anchorago Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 265, 1908; Cuyo, Cuyo Islands.

Choerops macrodontus Weber, Abh. Senckenberg. Gesell., vol. 34, p. 11, 1911; Kei Island.

Choerodon anchorago Ogilby, Mem. Queensland Mus., vol. 2, p. 93, 1913. Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 456, 1917; Ceylon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 193, 1928; Sueste Point Light, Zambales Province; Port Hamilo, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Ragay River, Camarines Sur Province; Bacon, Sorsogon Province, Luzon. Varadero Bay, Sablayan, Mansalay, and Puerto Galera, Mindoro; Tiliik, Lubang Island, northwest of Mindoro; Romblon, Romblon; Alimango Bay and Busin Harbor, Burias Island; San Miguel Harbor, Ticao Island; Cataingan Bay, and Masbate Reef, Masbate Island; Port Palapag, Samar; San Juanico Strait, between Samar and Leyte; Cebu market and Mactan Island, Cebu; Iloilo market, Iloilo Province, Panay; Bolalo Bay, near Chase Head, Endeavor Strait, and Ulugan Bay, Palawan. Candaraman Island and Cãkãsi-gan Island, Balabac; Pujada Bay, Davao Province, Inamucan Bay, Misamis Occidental Province, Little Santa Cruz Island and Zamboanga, Zamboanga Province, Mindanao; Jolo market, Jolo Island, Pangasinan Island, Cagayan Sulu Island, and South Tumindao Lagoon, Sulu Province; Sadong, Borneo; Libani Bay, Celebes. Fowler, Mem. Bishop Mus., vol. 10, p. 327, 1928; Shortland Island, Solomon Islands; Faté, New Hebrides; New Guinea. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Culion; Cebu; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser. vol. 21, p. 325, 1936; Tenibuli, Ysabel Island, Solomon Islands; Philippines. Herre, Annot. Zool. Japon., vol. 18, p. 305, 1939; Gorrer, Pelew Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 31, fig. 8, 1940; 22 East Indian localities; Sulu Islands, Philippines; Ceylon; Andaman, RiuKiu, and Pelew Islands; Yap; Solomon Islands; New Hanover, New Caledonia; Queensland; Tahiti. Herre, Fishes 1940-41 Exped.; Murcielagos Bay, Misamis Occidental Province, and Zamboanga, Zamboanga Province, Mindanao.

1547. *Choerodon margaritiferus* Fowler and Bean.

A Philippine species.

Choerodon margaritiferus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 197, 1928; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 36, 1940; Sulu Islands, Philippines; after Fowler and Bean.

1548. *Choerodon melanostigma* Fowler and Bean.

A Philippine species.

Choerodon melanostigma Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 199, pl. 16, 1928; Jolo market, Jolo, Sulu Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Jolo, Sulu Province. De Beaufort, Fishes, Indo-Australian Archipelago, vol. 8, p. 38, 1940; Sulu Islands, Philippines; after Fowler and Bean.

1549. *Choerodon oligacanthus* (Bleeker).

The East Indies and Philippines, and southeast to New Caledonia.

Crenilabrus oligacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 489, 1851; Riouw. Bleeker, *ibid.*, vol. 3, p. 68, 1852; Singapore.

Hypsigenys oligacanthus Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 8, p. 384, 1861.

Choerops oligacanthus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 297, 1862. Bleeker, Atlas Ichth., vol. 1, p. 164, pl. 47, fig. 2, 1862; Singapore; Bintang; Banka; Celebes. Günther, Cat. Fishes, British Mus., vol. 4, p. 96, 1862; Singapore. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 35, 1885; Cebu, Cebu Province, Philippines; Manado, Celebes. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 363, 1913; Makassar, Celebes.

Choerodon oligacanthus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 265, 1908; Iloilo Province, Panay, Philippines.

Choerodon palawanensis Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 523, 1909; Puerto Princesa, Palawan.

Choerodon oligacanthus Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 281, 1910; Sandakan, British North Borneo; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 200, 1928; Cebu market,

Cebu; Iloilo market, Iloilo Province, Panay; Sirinao Island, Nakoda Bay, and Ulugan Bay, Palawan; Sandakan, Borneo. Herre, Fishes 1931 Philippine Exped., p. 72, 1934; Cullion; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 39, 1940; Pulu Weh; Singapore; Bintang, Banka; Balikpapan and Sandakan, Borneo; Makassar and Badjoa, Celebes; Sulu Islands, Philippines; Malacca; New Caledonia.

1550. *Choerodon schoenleini* (Cuvier and Valenciennes).

The East Indies, Philippines, China, and Australia; sometimes enters river mouths.

Cossyphus Schoenleinii Cuvier and Valenciennes, Hist. Nat. Poissons, v61. 13, p. 143, 1839; Celebes. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 7, 1849; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 213, 1851; Celebes.

Cossyphus cyanostolus Richardson, Ichth. China Japan, p. 256, 1846; China Seas; Canton.

Cossyphus ommopterus Richardson, Ichth. China Japan, p. 257, 1846; Canton; Sea of China.

Hypsigenys ommopterus Günther, Ann. Mag. Nat. Hist., vol. 8, p. 384, 1861.

Choerops ommopterus Günther, Cat. Fisches British Mus., vol. 4, p. 94, 1862; Canton; China; Molucca Sea; Cape York, Australia.

Choerops Schoenleinii Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 297, 1862. Bleeker, Atlas Ichth., vol. 1, p. 163, pl. 46, fig. 3, 1862; Java, Singapore; Celebes; Batjan. Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 784, fig. 7, 1905; Bais, Negros Oriental Province.

Choerops unimaculatus Cartier, Verh. Phys. Med. Ges. Würzburg, vol. 5, p. 102, 1873; Cavite, Cavite Province, Luzon.

Choerops notatus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 344, pl. 16, fig. 1, 1877; Cape Grenville, Queensland, Australia.

Choerops cyanostolus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 292, 1906; New Guinea; East Indies; Australia.

Choerodon schoenleinii Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 198, 1928; Cataingan Bay, Masbate; Ragay River, Ragay Gulf, Camarines Sur Province, Luzon; Negros; Zamboanga market, Zamboanga Province, Mindanao, Philippines. Also Makassar market, Makassar, Celebes; Hong Kong market, Hong Kong, China; Padang, Sumatra. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Jolo, Sulu Province, Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 34, 1940; 12 East Indian localities: Sulu Islands, Philippines; China; Australia. Herre, 1948 Coll.; Baler, Quezon Province; Siluag Island, Sulu Province.

1551. *Choerodon zamboangae* (Seale and Bean).

A Philippine species.

Choerops zamboangae Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 236, fig. 6, 1907; Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Bureau Science Collection, 1921-27; Zamboanga, Mindanao; Bongao and Pearl Bank, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 196, 1928; Zamboanga; from the types. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Jolo, Sulu Province.

1552. *Choerodon zosterophorus* (Bleeker).

East Indies and the Philippines.

Choerops zosterophorus Bleeker, Arch. Neerl. Sci. Nat., vol. 3, p. 273, 1868; Misol. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 36, 1940; Misol; Philippines; Kei Islands?

Choerops Brenchleyi Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 424, 1872. Günther, in Brenchley, Cruise of the *Curaçao*, p. 426, 1873; Kei Islands.

1553. *Choerodon balerensis* Herre

A gorgeously colored Philippine labrid.

Choerodon balerensis Herre, Philippine Jour. Sci., vol. 78, p. 149 (June 1949) 1950; Baler, Quezon (Tayabas) Province, Luzon.

Genus 498. *CIRRHILABRUS* Schlegel.

Japan to the Philippines and East Indies, east to the Hawaiian Islands.

Cirrhilabrus Schlegel, Fauna Japonica, Pisces, p. 167, 1845; type, *Cirrhilabrus temminckii* Bleeker. Günther, Cat. Fishes British Mus., vol. 4, p. 123, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 651, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 315, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 338, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 20, 1940.

Cheilinoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 71, 1851; type, *Cheilinoides cyanopleura* Bleeker.

1554. *Cirrhilabrus cyanopleura* (Bleeker).

The East Indies and Philippines.

Cheilinoides cyanopleura Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 72, pl. 1, 1851; Batavia, Java.

Cirrhilabrus cyanopleura Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Enumeratio Piscium, p. 102, 1859. Bleeker, Atlas Ichth., vol. 1, p. 76, pl. 23, fig. 1, 1862; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 124, 1862; Sea of Batavia; after Bleeker. Weber, in Semon, Zool. Forschungsreisen, vol. 5, p. 272, 1895; Amboina. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 339, 1928; Apo Island, west of Mindoro; Tara Island, Sulu Province, Philippines; Also Lembe Strait, Celebes, and Gane Road, Halmahera, Moluccas; in part; not synonymy. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 23, 1940; Lembe Strait; Amboina; Ceram; Halmahera, Dutch East Indies; Philippines.

Cirrhilabrus heterodon Bleeker, Arch. Neerl. Sci. Nat., vol. 6, p. 326, 1871; Amboina.

1555. *Cirrhilabrus solorensis* Bleeker.

The East Indies, Philippines, and RiuKiu Islands.

Cirrhilabrus solorensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 88, 1853; Solor. Bleeker, Atlas Ichth., vol. 1, p. 76, pl. 23, fig. 3, 1862; Solor; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 124, 1862; Seas of Solor and Banda. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 272, 1883; Pitt Bay, New Guinea. Weber, Siboga-Exped., vol. 57, Fische, p. 363, 1913; Sulu Islands, Sulu Province, Philippines. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 77, 1930; RiuKiu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 21, fig. 5, 1940; Talaut Islands; Amboina; Ceram; Haruko; Banda; Flores; Rotti; Solor; Pitt Bay, New Guinea; Philippines; RiuKiu Islands.

Cirrhilabrus iyukyuensis Ishikawa, Proc. Nat. Hist. Tokyo Mus., vol. 1, p. 12, 1904; RiuKiu Islands.

1556. *Cirrhilabrus temminckii* Bleeker.

Japan and the Philippines.

Cirrhilabrus sp. Schlegel, Fauna Japonica, Pisces, p. 167, 1846; Nagasaki.

Cirrhilabrus temminckii Bleeker, Verh. Bat. Gen., vol. 15, Ichth. Japan, p. 17, 1853; Nagasaki. Günther, Cat. Fishes British Mus., vol. 4, p. 124, 1862; Japanese Sea; after Schlegel. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 651, fig. 10, 1902; Wakanoura, Japan. Jordan, Tanaka, and Snyder, Cat. Fishes Japan, p. 205, fig. 150, 1913; Wakanoura and Nagasaki, Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 338, 1928; Jolo and Sirum Island, Sulu Province, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 22, 1940; Sulu Islands, Philippines; Japan.

Genus 499. *CORIS* Lacépède. Rainbow wrasse.

Indo-Pacific, Red Sea, Mediterranean Sea, and eastern Atlantic Ocean.

Coris Lacépède, Hist. Nat. Poissons, vol. 3, p. 96, 1802; type, *Coris aygula* Lacépède. Günther, Cat. Fishes, British Mus., vol. 4, p. 195, 1862;

synonymy in part. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 640, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 310, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 302, 1928; synonymy in part. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 241, 1940.

Julis Cuvier, Bull. Soc. Philom. Paris, p. 90, 1814; type, *Labrus julis* L.
Aygula Rafinesque, Analyse Nature, p. 87, 1815; type, *Coris aygula* Lacépède.

Neanis Gistel, Naturgeschichte Thierreichs, p. IX, 1848; type, *Labrus julis* L.

Hemicoris Bleeker, Proc. Zool. Soc. London, p. 411, 1861; type, *Halichoeres variegatus* Rüppell.

Ophthalmolepis Bleeker, Proc. Zool. Soc. London, p. 413, 1861; type, *Julis lineolatus* Cuvier and Valenciennes.

1557. *Coris aygula* Lacépède.

In the Tropical Indo-Pacific from Mauritius and the Red Sea to Japan, the Hawaiian Islands, Australia, the Austral and Society Islands.

Coris aygula Lacépède, Hist. Nat. Poissons, vol. 5, pp. 127, 128, pl. 4, fig. 1, 1801; after Commerson. Günther, Cat. Fishes British Mus., vol. 4, p. 201, 1862; Red Sea; India; Australia. Day, Fishes India, p. 408, pl. 88, fig. 5, 1878. Macleay, Descriptive Cat. Australian Fishes, vol. 2, p. 99, 1881. Seale, Occas. Papers Bishop Mus., vol. 1, p. 87, 1901; Guam. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 641, fig. 9, 1902; Wakanoura, Japan. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 313, fig. 134, 1905; Hawaii. Herre, Philippine Bureau Science Collection, 1921-27; Puerto Galera, Mindoro; Bennett Island, Masbate; Bantayan Island, Cebu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 318, 1936; Tahiti, Society Islands. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 149, 1938; Tahiti. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 247, 1940; Port Moresby, New Guinea; Philippines; also 17 other Indo-Pacific localities.

Coris angulatus Lacépède Hist. Nat. Poissons, vol. 5, pp. 127, 131, pl. 4, fig. 2, 1801. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 303, 1928; Bucutua Island, Sulu Province, Philippines; Nafa, Okinawa Island, RiuKiu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 345, 1928; Society and Hawaiian Islands; Mauritius; Tubuai, Austral Islands; Guam; Wake Island. Schmidt, Bull. Acad. Sci. U. S. S. R., p. 551, 1930; RiuKiu Islands.

Labrus cingulum Lacépède, Hist. Nat. Poissons, vol. 3, p. 517, pl. 28, fig. 1, 1802; Mauritius.

Julis ruppellii Bennett, Proc. Zool. Soc. London, p. 128, 1831; Mauritius.

Julis gibbifrons Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 707, pl. 19, fig. 3, 1834; Mauritius.

Labrus aureo-maculatus Bennett, Fishes Ceylon, pl. 20, 1834; Ceylon.

Julis semipunctatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 12, pl. 3, fig. 3, 1835; Mohila, Red Sea.

Julis coris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 491, 1839; Mauritius.

Julis cingulum Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 428, 1839; Mauritius.

Coris cingulum Günther, Cat. Fishes British Mus., vol. 4, p. 203, 1862; Aneiteum, New Hebrides; Mauritius; Red Sea; Ceylon. Günther, Fische der Südsee, vol. 3, p. 280, 1910; Society Islands; Friendly Islands; Solomon Islands; Aneitum, New Hebrides; Upolu, Samoa.

Hemicoris cingulum Bleeker, Recherches faune Madagascar, Poissons, p. 83, 1875.

Coris cyanea Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 588, 1882; New Guinea. Whitley, Australian Zoologist, vol. 8, p. 227, 1937.

Coris variegata Ramsay and Ogilby, Proc. Linn. Soc. New South Wales, ser. 2, vol. 1, p. 131, 1886; Aneiteum, New Hebrides; not of Rüppell.

1558. *Coris flavovittata* (Bennett).

The Hawaiian Islands and Philippines.

Julis flavovittatus Bennett, Zool. Jour. London, vol. 4, p. 36, 1829; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 308, pl. 28, 1905; Laysan Island.

- Coris flavovittata* Günther, Cat. Fishes British Mus., vol. 4, p. 205, 1862; from the type. Fowler, Bull. 22, Bishop Mus., pp. 14, 29, 1925; Guam; Honolulu. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 310, 1928; Cebu market; Philippines; also Honolulu, Hawaiian Islands; not synonymy.
1559. *Coris formosa* (Bennett).
Labrus formosus Bennett, Fishes Ceylon, pl. 16, 1834; Ceylon.
Julis formosus Swainson, Nat. Hist. Animals Fishes, vol. 2, p. 230, fig. 64, 1839; after Bennett.
Julis (Halichoeres) formosus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 169, 1853; Banka. Bleeker, Verh. Bat. Gen., vol. 25, Nalez. Ichth. fauna Bengal en Hindustan, p. 54, 1853; Bengal and Hindostan. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 18, 1860; Celebes.
Coris formosa Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 281, 1862. Günther, Cat. Fishes British Mus., vol. 4, p. 201, 1862; after Bennett. Günther, in Playfair and Günther, Fishes Zanzibar, p. 100, 1866; Zanzibar. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Manila, Luzon; reef near Burias Island; Dumaguete; Jolo, Sulu Province.
Julis formosa Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 643, 1902; RiuKiu Islands.
1560. *Coris gaimard* (Quoy and Gaimard).
Tropical Indo-Pacific, from Zanzibar to the RiuKiu, Hawaiian, Fiji, Tuamotu, and Marquesas Islands.
Julis Gaimard Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 265, pl. 24, fig. 1, 1824; Maui, Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 305, 1905; Honolulu and Hilo, Hawaiian Islands.
Julis Gaimardi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 500, 1839; Maui, Hawaiian Islands.
Coris gaimardi Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 366, 1839; Maui, Hawaiian Islands. Günther, Fische der Südsee, vol. 3, p. 277, 1910; Pelew Islands; Yap; Caroline Islands; Hawaiian Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 242, fig. 36, 1940; Celebes, Talaut Islands, Amboina, Ternate, Timor, and Misol, Dutch East Indies; Port Moresby, New Guinea; Philippines; also 11 other Indo-Pacific localities; synonymy in part.
Julis gaymardi Kottlitz, Denkw. Reise Mikronesien, vol. 2, p. 159, 1858; Ulea, Caroline Islands.
Coris Gaimardi Bleeker, Atlas Ichth., vol. 1, p. 99, pl. 19, fig. 2, 1862; Moluccas.
Coris pulcherrima Günther, Cat. Fishes British Mus., vol. 4, p. 200, 1862; Amboina; Tahiti; Aneiteum, New Hebrides. Seale, Occas. Papers Bishop Mus., vol. 1, p. 87, 1901; Guam.
Julis pulcherrima Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 460, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm. vol. 23, Part 1, p. 305, pl. 27, 1905; Honolulu, Hilo, and Kailua, Hawaiian Islands; Samoa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa, RiuKiu Islands.
Julis gaimard Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 460, 1903; Honolulu. Evermann and Seale, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 305, 1905; Honolulu and Hilo, Hawaiian Islands.
Coris gaimard Herre, Fishes, Philippine Bureau Science Collection, 1920-27; Puerto Galera, Mindoro; Bantayan Island, Cebu Province; TayTay Bay, Palawan; Baganga, Davao Province, and Zamboanga market, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 311, 1928; Maculabo Island, Camarines Norte Island; Maagnas, Lagonoy Gulf, Albay Province; Gubat, Sorsogon Province, Luzon. Cebu market, Cebu. Murcielagos Bay, Misamis Oriental Province, and Tulnalutan Island, Zamboanga Province, Mindanao. Simalac Island, Sulu Province, Philippines. Gomomo Island, Dutch East Indies. Apla, Samoa. Honolulu, Hawaiian Islands. Kambara, Fiji. Fowler, Mem. Bishop Mus., vol. 10, p. 348, pl. 39 B, 1928; Honolulu, Hawaiian Islands; Kambara, Fiji; Apla, Samoa; Guam; Tahiti; Society Islands; Ascension Island. Herre, Fishes 1931 Philippine Exped., p. 75, 1934;

Jolo, Sulu Province, Philippines. Fowler, Acad. Nat. Sci. Phila., Monograph 2, 1938; p. 129, Apataki, Tuamotu Islands; p. 149, Tahiti, Society Islands. Herre, 1948 Coll.; Manila Bay; Layia, Batangas Province, Luzon.

1561. *Coris multicolor* (Rüppell).

Red Sea, Natal, Philippines, Solomons, and New Hebrides.

Halichoeres multicolor Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 15, pl. 4, fig. 3, 1835; Djedda.

Coris multicolor Günther, Cat. Fishes British Mus., vol. 4, p. 198, 1862; Red Sea; Aneiteum, New Hebrides. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 541, 1871; Red Sea. Günther, Fische der Südsee, vol. 3, p. 274, 1910; New Hebrides; Solomon Islands. Regan, Ann. Durban Mus., vol. 1, p. 459, 1917; Durban, Natal, South Africa. Fowler and Ball, Bull. 26, Bishop Mus., p. 22, 1925; Wake Island. Fowler, Mem. Bishop Mus., vol. 10, p. 347, 1928; Laysan Island; after Rüppell. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 308, 1928; Jolo market and vicinity of Jolo Island, Sulu Province, Philippines; Teomabal Island, Dutch East Indies.

1562. *Coris philippina* Fowler and Bean.

A Philippine fish.

Coris philippina Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 309, pl. 42, 1928; Balicasag Island, off Bohol; Sulade Island, Sulu Province.

1563. *Coris variegata* (Rüppell).

Red Sea to the Philippines, RiuKiu Islands, East Indies, and New Hebrides.

Halichoeres variegatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 14, pl. 4, fig. 1, 1835; Djedda.

Julis variegatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 462, 1839; Red Sea.

Julis (Halichoeres) batuensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 240, 1856-57; Batu Islands.

Julis (Halichoeres) Schroderii Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, Tiende Bijdr. vischfauna Amboina, p. 2, 1858.

Hemicoris variegatus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 283, 1862. Bleeker, Atlas Ichth., vol. 1, p. 106, pl. 36, fig. 4, 1862; Amboina.

Coris variegata Günther, Cat. Fishes British Mus., vol. 4, p. 198, 1862; Red Sea; Amboina. Weber, *Siboga*-Exped., vol. 57, Fische, p. 382, 1913; Kei Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 304, 1928; Tilik, Lubang Island, northwest of Mindoro; Puerto Galera, Mindoro; Mompog Island, between Marinduque and Luzon; Alimango Bay, Burias Island; Cataingan Bay, Masbate Island; Biri Channel, Balicuatro Islands, north of Samar; Cebu market, Cebu; Port Langcan, Linapacan Island, Palawan; Bugsuk Island, Balabac; Isabela, Basilan Island; Jolo Reef, Bulan, Siasi, Gondra, Tara, Tonquil, Teomabal, Tictauan, Simalac, and Tataan Islands, Sulu Province Philippines; also Naha, Okinawa, RiuKiu Islands. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 249, 1940; Batu Islands; Amboina, Timor; Kei Islands; South New Guinea; Sulu Islands, Philippines; Red Sea; Riu-Kiu Islands; New Hebrides.

Hemicoris batuensis Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 283, 1862. Bleeker, Atlas Ichth., vol. 1, p. 107, pl. 36, fig. 3, 1862; Batu.

Coris batuensis Günther, Cat. Fishes, British Mus., vol. 4, p. 199, 1862; Batu; after Bleeker. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 306, 1928; Puerto Galera, Mindoro; Cataingan Bay, Masbate Island; Cebu market, Cebu.

Genus 500. *CYMOLUTES* Günther.

In the Indo-Pacific, from the coast of Africa to the Hawaiian and Tonga Islands. Marine; apparently but one variable species.

Cymolutes Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 8, p. 387, 1861; type, *Julis practextata* Quoy and Gaimard. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 327, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 368, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 51, 1940.

1564. *Cymolutes lecluse* (Quoy and Gaimard).

From the east coast of Africa to the East Indies, Philippines, Pelew, Hawaiian, Fiji, and Tonga Islands; marine.

Xyrichthys lecluse Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 284, pl. 65, fig. 1, 1824; Hawaiian Islands.

Julis praetextata Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 712, pl. 15, fig. 4, 1834; Mauritius.

Xyrichthys microlepidotus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 52, 1839; Hawaii.

Xyrichthys torquatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 54, pl. 392, 1839; East Indies; "Surinam" by error.

Xyrichthys novaculooides Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 122, 1853; Amboina.

Novacula xyrichthyoides Bleeker, *ibid.*, p. 488, 1856; on *Xyrichthys novaculooides* Bleeker.

Novacula praetextata Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 207, 1859-60; Bali. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 17, 1860; Celebes.

Cymolutes praetextatus Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 8, p. 387, 1861. Bleeker, Atlas Ichth., vol. 1, p. 146, pl. 31, fig. 1, 1862; Java; Bali; Celebes; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 207, 1862; Amboina. Day, Fishes India, p. 409, pl. 90, fig. 1, 1878. Day, Fauna British India, vol. 2, p. 420, fig. 145, 1889. Günther, Fische der Südsee, vol. 3, p. 289, 1910; Pelew Islands. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, 1911; Namuka, Tonga Islands. Barnard, Ann. South African Mus., vol. 21, p. 771, 1927; Delagoa Bay, Mozambique. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Alabat Island; Magallanes, Sorsogon Province, Luzon.

Cymolutes leclusei Günther, Cat. Fishes British Mus., vol. 4, p. 207, 1862; Hawaiian Islands. Günther, Fische der Südsee, vol. 3, p. 289, 1910; Hawaiian Islands.

Cymolutes lecluse Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 327, 1905; Honolulu; Hilo. Fowler and Bean, Bull. 100. U. S. Nat. Mus., vol. 7, p. 368, 1928; Cebu market, Cebu, and Pandanon Island, Bohol, Philippines; Honolulu, Hawaiian Islands; Zanzibar; Namuka, Tonga Island. Fowler, Mem. Bishop Mus., vol. 10, p. 364, 1928; Honolulu; Namuka; Laysan Island; Guam. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Magallanes, Sorsogon Province, Luzon. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 330, 1936; reef near Suva, Viti Levu Island, Fiji. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 52, fig. 11, 1940; Pulu Weh; Java; Bali; Borneo; Menado; Celebes; Ternate; Buru; Amboina; Philippines; Natal; Zanzibar; Mauritius; Ceylon; Pelew Islands; Fiji; Tonga Islands; Hawaii. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 241, 1938; Honolulu.

Genus 501. **DUYMAERIA** Bleeker.

The East Indies and Philippines, north to China and Japan, south to the New Hebrides, and west through the tropical Indian Ocean. Species very few and highly variable; marine.

Duymaeria Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Besch. Visch. Amboina, p. 52, 1856; type, *Duymaeria amboinensis* Bleeker. Günther, Cat. Fishes British Mus., vol. 4, p. 120, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 623, 1902. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 215, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 139, 1940.

Labrastrum Guichenot, Revue Mag. Zool., ser. 2, vol. 12, p. 152, 1860; type, *Ctenolabrus flagellifer* Cuvier and Valenciennes.

1565. *Duymaeria flagellifer* (Cuvier and Valenciennes).

East Indies and Philippines, China, Japan, New Hebrides, Aden, Zanzibar, and Mozambique; marine.

Ctenolabrus flagellifer Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 240, 1839. Schlegel, Fauna Japonica, Pisces, p. 166, pl. 86, fig. 2, 1842; Nagasaki.

Ctenolabrus aurigarius Richardson, Voy. *Sulphur*, Ichth., p. 90, pl. 45, figs. 1 and 2, 1844; Canton, China.

Ctenolabrus rubellio Richardson, Voy. *Sulphur*, Ichth., p. 93, pl. 45, fig. 3, 1844; Canton.

- Crenilabrus nematopterus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 250, 1851; Banda Neira.
- Crenilabrus enneacanthus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 120, 1853; Amboina.
- Crenilabrus spilogaster* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 416, 1854; Nagasaki, Japan. Bleeker, Verh. Bat. Gen., vol. 26, Ichth. Japan, p. 113, pl. 8, fig. 2, 1854-57; Nagasaki.
- Duymaeria aurigaria* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 53, 1855; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 121, 1862; China.
- Duymaeria flagellifer* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischsoorten Amboina, p. 53, 1856; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 121, 1862; Japan. Günther, Report Voyage Challenger, Zool., vol. 1, Shore Fishes, p. 53, 1880; Zamboanga, Zamboanga Province, Mindanao. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 623, 1902; Tokyo; Misaki; Wakanoura; Kobe; Nagasaki; Formosa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 216, 1928; Atulayan Bay, Lagonoy Gulf, Paron Point, Albay Gulf, Batan Island, RapuRapu Strait and RapuRapu Island, Albay Province, Luzon. Bolalo Bay and Observatory Island, Palawan; Dalanganem Island, Cuyo Islands; Port Caltom, Busuanga Island; Mansalay, Mindoro; Port Cataingan, Masbate Island; Guijulugan, Leyte; Sitankai Reef, Sulu Province; also Talisse Island and Tidore Island, Dutch East Indies; Kowloon market, China; Mogi, Kagoshima, Nagasaki, and Tokyo market, Japan. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 140, fig. 23, 1940; Singapore; Talaut Islands; Amboina; Tidore; Banda; southeast coast of New Guinea; Philippines; Mozambique; Zanzibar; Muscat; Aden; Japan; China; RiuKiu Islands, Formosa; Aneiteum, New Hebrides; synonymy in part. Herre, Fishes 1940-41 Exped.; Dumaguete, Negros Oriental Province.
- Duymaeria spilogaster* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 54, 1856; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 122, 1862; Sea of Nagasaki; after Bleeker.
- Duymaeria enneacanthus* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 54, 1856; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 123, 1862; Amboina. Herre, Jour. Pan Pacific Res. Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped. p. 73, 1934; Dumaguete. Herre, Bull. Raffles Mus., No. 13, p. 36, 1937; reefs in Singapore Harbor.
- Duymaeria caeruleomaculata* Günther, Cat. Fishes British Mus., vol. 4, p. 122, 1862; Aneiteum, New Hebrides.
- Duymeria nematoptera* Günther, Cat. Fishes British Mus., vol. 4, p. 123, 1862; Sea of Banda Neira; after Bleeker. Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 272, 1883; southeast of New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 330, 1928; after Bleeker.
- Duymeria nematopterus* Herre, Bull. Raffles Mus., No. 13, p. 36, 1937; reef at Singapore.

Genus 502. DIPROCTACANTHUS Bleeker.

A single marine species, in the East Indies and Philippines.

- Diproctacanthus* Bleeker, Proc. Zool. Soc. London, p. 415, 1861; type, *Labroides wanthurus* Bleeker. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 151, 1940.

1566. Diproctacanthus xanthurus (Bleeker).

East Indies and the Philippines.

- Labroides wanthurus* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischsoorten; Menado, p. 52, 1856; Menado, Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 120, 1862; Amboina; after Bleeker. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 223, 1928; Teomabal Island, Sulu Province, Philippines.

- Diproctacanthus wanthurus* Bleeker, Proc. Zool. Soc. London, p. 415, 1861; Menado, Celebes. Bleeker, Atlas Ichth., vol. 1, p. 156, pl. 21, fig. 2, 1862; Menado, Celebes. De Beaufort, Bijdr. Dierk., Amsterdam, vol. 19, p. 131, 1913; Amboina. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 151, fig. 26, 1940; Menado, Celebes; Ceram; Amboina; Sulu Islands, Philippines.

- Diprotactacanthus wanthurus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 277, 1865; Amboina.

Genus 503. EPIBULUS Cuvier.

An Indo-Pacific genus with one marine species.

Epibulus Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 1, p. 111, 1815; type, *Sparus insidiator* Pallas. Günther, Cat. Fishes British Mus., vol. 4, p. 134, 1862. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 212, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 7, p. 72, 1940.

1567. *Epibulus insidiator* (Pallas).

Tropical Indo-Pacific from Zanzibar and Mauritius to the RiuKiu, New Hebrides, Society, and Tuamotu Islands, south to Australia.

Sparus insidiator Pallas, Spicilegia Zoologica, vol. 8, p. 41, pl. 5, fig. 1, 1770; Java.

Epibulus insidiator Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 110, pls. 398-399, 1839; Java, Mauritius, Moluccas. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 40, 1849; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 135, 1862; Amboina; China. Bleeker, Atlas Ichth., vol. 1, p. 74; pl. 22, fig. 3, 1862; Java; Duizend Islands; Cocos; Singapore; Sumatra; Nias; Celebes; Batjan. Günther, Fische der Südsee, vol. 2, p. 250, pl. 137, 1876-1881; East Africa to the South Sea. Waite, Mem. Australian Mus., No. 3, p. 199, 1897; Funafuti, Ellice Islands. Seale, Occas. Papers Bishop Mus., vol. 4, p. 55, 1906; Tahiti and Raiatea, Society Islands; Faté, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 294, 1906; Apia and PagoPago, Samoa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 506, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 51, 1922; Zamboanga, Zamboanga Province, Mindanao. McCulloch and Whitley, Mem. Queensland Mus., vol. 8, p. 168, 1925; Port Denison, Queensland, Australia. Herre, Philippine Bureau Science Collection, 1920-27; Balabac Island; Cebu and Bantayan Island, Cebu Province; Cabalian, Leyte; Samal Island, Gulf of Davao, Davao Province, and Dapitan, Zamboanga Province, Mindanao. Jolo Island, Bungau, and Pearl Bank, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 213, 1928; Sabtang Island, Batanes Province; Palau Island, Cagayan Province; Port Matalvi, Zambales Province; Grande Island Reef, Subig Bay, Bataan Province; Pagapas Bay, Batangas Province; Pitogo Anchorage, Tayabas Province; Butauanan Island and Galvaney Island, Ragay Gulf, Camarines Sur Province; near Palag Bay, RapuRapu Island, and Paron Point, Albay Gulf, Albay Province, Luzon. Bilikias Bay, Lubang Island, northwest of Mindoro; Port Maricaban, Verde Island Passage between Luzon and Mindoro; Puerto Galera and Sablayan Bay, Mindoro; Romblon Harbor, Romblon; Port Busin, Burias Island; Biri Channel, north of Samar; Cabugan Island, Hinunangan Bay and Port Dupon, Leyte; Pandanon Island, Bohol; Cebu market, Cebu; Cagayan Island, Cagayan Islands, Sulu Sea; Port Uson, Busuanga Island; Endeavor Strait, Bolalo Bay and Ulugan Bay, Palawan; Candaraman Island and Caxisigan Island, Balabac; Mahinog, Camiguin Island, off north coast of Mindanao; Polloc and Parang, Cotabato Province, Surigao, Surigao Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Tonquil, Tara, Tataan, and Simalac Islands, Sulu Province, Philippines. Danawan and Si Amil Islands, British North Borneo, just south of Philippine boundary. Bum Bum, Gomomo, Doworra, and Halmahera Islands, Dutch East Indies. Also Guam, Samoa, Okinawa, and Mauritius. Fowler, Mem. Bishop Mus., vol. 10, p. 330, 1928; Apia, Samoa; Fiji; Faté, New Hebrides; Tahiti and Raiatea, Society Islands; Gilbert Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 304, 1936; Takaroa, Tuamotu Islands; Maraa, Tahiti, and BoraBora, Society Islands; Bushman Bay, Malekula Island, New Hebrides; Tenibuli, Ysabel Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 73, fig. 15, 1940; 16 East Indian localities; the Philippines, also 13 Indo-Pacific places. Herre, 1948 Coll.; Manila Bay, Luzon.

Epibulus striatus Day, Proc. Zool. Soc. London, p. 697, 1870. Day, Fishes India, p. 395, pl. 87, fig. 2, 1878; Andaman Islands. Day, Fauna British India, vol. 2, p. 400, fig. 135, 1889; Andaman Islands.

Genus 504. GOMPHOSUS Lacépède.

Marine fishes of the tropical and sub-tropical Indo-Pacific.

Gomphosus Lacépède, Hist. Nat. Poissons, vol. 3, p. 61 (100), 1802; type, *Gomphosus caeruleus* Lacépède. Günther, Cat. Fishes, British Mus., vol. 4, p. 192, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 649, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 289, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 331, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 111, 1940.

Acarauna Sewastianoff, *Acarauna* Piscium Thoracices, p. 357, 1802; type, *Acarauna longirostris* Sewastianoff = *Gomphosus caeruleus* Lacépède.

Elops (Commerson) Lacépède, Hist. Nat. Poissons, vol. 3, p. 100, 1802; type, *Gomphosus tricolor* Lacépède.

Gomphosus Swainson, Nat. Hist. Animals, vol. 2, pp. 43, 173, and 231, 1839; type, *Gomphosus caeruleus* Lacépède.

1568. *Gomphosus tricolor* Quoy and Gaimard.

In the tropical Indo-Pacific from Mauritius to the RiuKiu, Hawaiian, Cook, Society, and Tuamotu Islands.

Gomphosus tricolor Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 280, pl. 55, fig. 2, 1824; Maui, Hawaiian Islands. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Viscsoorten Menado, p. 54, 1856; Celebes. Bleeker, Atlas Ichth., vol. 1, p. 85, pl. 21, fig. 6, 1862; Celebes; Sumatra; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 193, 1862; China; Ceylon. Day, Fishes India, p. 406, 1878. Seale, Occas. Papers Bishop Mus., vol. 1, p. 93, 1901; Guam. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 649, 1902; Nafa, Okinawa, RiuKiu Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 290, pl. 36, 1905; Honolulu, Hilo and Puako Bay, Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 307, 1906; Apia and PagoPago, Samoa. Günther, Fische der Südsee, vol. 3, p. 297, 1909; Hawaiian and Mortlock Islands. Herre, Philippine Bureau Science Collection, 1921-27; Calapan and Puerto Galera, Mindoro; Sibutu and Sitankai, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 333, 1928; Butauanan Island, Camarines Sur Province; Palag Bay, Albay Province; Langao Point, Sorsogon Province, Luzon. Cagayan Island, Hinunangan Bay, Leyte; Port Langcan, Dumarán Island, Palawan Province. Pílas Island, west of Basilan Island. Cagayan Sulu Island, Sulu Sea, Sulu Province. Also Toba Island, Dutch East Indies, Apia, Samoa, and Hawaiian Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 357, 1928; Hawaiian Islands; Mangareva; Rarotonga; Guam; Johnston Island; Tahiti, Society Islands; Apia, Samoa. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 113, 1940; Sumatra; Celebes; Amboina; Pitt Bay; New Guinea; the Philippines; also 11 Indo-Pacific localities.

Gomphosus cepedianus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 18, pl. 390, 1839; Hawaii; Caroline Islands; Tahiti. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 7, 1849; Batavia, Java.

Gomphosus sandwicensis Günther, Cat. Fishes British Mus., vol. 4, p. 194, 1862; Hawaiian Islands.

Gomphosus pacificus Seale, Occas. Papers Bishop Mus., vol. 1, p. 94, 1901; Guam.

1569. *Gomphosus varius* Lacépède.

From the east coast of Africa to Japan, Guam, Hawaiian, Samoan, and Society Islands.

Gomphosus varius Lacépède, Hist. Nat. Poissons, vol. 3, p. 104, pl. 5, fig. 2, 1802; Tahiti. Günther, Cat. Fishes British Mus., vol. 4, p. 193, 1862; Aneiteum, New Hebrides; Tahiti, Society Islands. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 650, 1902; Kagoshima, Japan; RiuKiu Islands; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 289, fig. 125, 1905; Honolulu, Kailua, and Hilo, Hawaiian Islands. Günther, Fische der Südsee, vol. 3, p. 298, pl. 147, fig. 13, 1910; Fiji; Ponapé, Caroline Islands; South Sea; western Indian Ocean. Regan, Ann. Durban Mus., vol. 1, p. 459, 1914-17; Durban, Natal. Herre, Philippine Bureau Science Collection, 1925; Cabalian, Leyte. Fowler and Bean, Bull. 100, U. S.

Nat. Mus., vol. 8, p. 332, 1928; Matnog Bay, Sorsogon Province, Luzon. Cbugao Island, Hinanungan Bay, Leyte; Mansalay, Mindoro; Port Maricaban, Verde Island Passage, between Luzon and Mindoro; Dalanganem Bay, Cuyo Islands. Lampinigan Island, off Basilan Island; Singaan Island, Sulu Province. Fanning and Hawaiian Islands; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 356, 1928; Hawaiian Islands; Guam; Kusaie, Caroline Islands; French Frigate Shoal; Apia, Samoa; Fanning Islands, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 114, fig. 21, 1940; Pulu Weh, Sumatra; Nias; Java; Bali, and Hood Bay, New Guinea; also 17 other Indo-Pacific localities.

Gomphosus pectoralis Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 282, 1824; Maui, Hawaii. Day, Fishes India, p. 406, pl. 86, fig. 6, 1878; Andaman Islands.

Gomphosus fuscus Bennett, Fishes Ceylon, pl. 3, 1830; Ceylon. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 25, 1839; Mauritius; Tahiti; Hawaii. Brevoort, Narr. Perry's Exped. China Seas and Japan, Nat. Hist., p. 272, 1856; Riu Kiu Islands. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, ser. 2, vol. 2, p. 147, 1866; Madagascar.

Gomphosus melanotus Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 457, 1855; Cocos Island, Indian Ocean. Bleeker, Atlas Ichth., vol. 1, p. 87, pl. 21, fig. 3, 1862; Cocos Island; Java. Günther, Cat. Fishes British Mus., vol. 4, p. 193, 1862; Java and Cocos. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 535, 1871; Koseir, Red Sea.

Gomphosus undulatus Streets, Bull. 7, U. S. Nat. Mus., p. 85, 1877; Fanning Islands.

Genus 505. HALICHOERES Rüppell.

Coral-reef and kelp fishes of the tropical and sub-tropical Indo-Pacific and Eastern Atlantic Oceans.

Halichoeres Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 10, 1835; type, *Halichoeres bimaculatus* Rüppell. Bleeker, Nat. Geneesk. Arch. Ned.-Ind., vol. 1, p. 553, 1844. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 99, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 636, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 285, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 250, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 175, 1940.

PlatyGLOSSUS Bleeker, Proc. Zool. Soc. London, p. 411, 1861; type, *Julis annularis* Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 4, p. 143, 1862; in part.

Güntheria Bleeker, Proc. Zool. Soc. London, p. 413, 1861; type *Halichoeres cocruleovittatus* Rüppell.

Hemitautoga Bleeker, Proc. Zool. Soc. London, p. 413, 1861; type, *Labrus centiquadrus* Lacépède.

LeptoJulis Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 100, 1862; type, *LeptoJulis cyanopleura* Bleeker.

Octocymodon Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; type, *Julis miniatus* Cuvier and Valenciennes.

1570. *Halichoeres amboinensis* (Bleeker).

East Indies and Philippines.

Julis (Halichoeres) amboinensis Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischfauna Amboina, p. 55, 1856; Amboina.

Halichoeres amboinensis Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 285, 1862. Bleeker, Atlas Ichth., vol. 1, p. 122, pl. 37, fig. 3, 1862; Amboina. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 288, 1928; Puerto Galera, Mindoro, and Teomabal Island, Sulu Province; also Doworra Island and Gondra Island, Dutch East Indies. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 223, 1940; Amboina, Solor; and Doworra Islands, Dutch East Indies; Philippines. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

PlatyGLOSSUS amboinensis Günther, Cat. Fishes British Mus., vol. 4, p. 156, 1862; Amboina.

1571. *Halichoeres argus* (Bloch and Schneider).

East Indies, Philippines, Indo-China, Fiji.

Labrus argus Bloch and Schneider, Syst. Ichth., p. 263, 1801; Australia.

Julis argus Bennett, Zool. Jour., vol. 3, p. 577, pl. 13, fig. 7, 1828; Su-

- matra. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 7, 1849; Batavia, Java. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 230, fig. 34A, 1940; 23 East Indian places; Philippines.
- Julis (Halichoeres) polyophthalmus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 731, 1852; Banka.
- Julis (Halichoeres) argus* Bleeker, Acta Soc. Sci. Indo-Neerl., Achtste Bijdr. vischfauna Sumatra, p. 37, 1860.
- Halichoeres guttatus* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 286, 1862. Bleeker, Atlas Ichth., vol. 1 p. 124, pl. 35, fig. 1, 1862; Java; Bawean; Sumatra; Nias; Batu; Lepar; Biliton; Celebes; Sangi; Buru; Amboina; Ceram. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 94, 1906; Bacon, Sorsogon Province, Luzon.
- PlatyGLOSSUS guttatus* Günther, Cat. Fishes British Mus., vol. 4, p. 155, 1862; Sumatra; Ceram; Chusan Island, China. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 36, 1885; Cebu, Philippines; Sangi Island, Dutch East Indies. Günther, Fische der Südsee, vol. 3, p. 270, 1910; Ovalau, Fiji.
- Halichoeres argus* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 787, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 292, 1928; Batan Island, Albay Province; Port Matalvi, Zambales Province; Bacon, Sorsogon Province; and Grande Island Reef, Bataan Province, Luzon. Sablayan, Mindoro. Port Palapag, Samar. Negros; Nogas Point, Antique Province, Panay. near mouth of Baheli River, Ulugan Bay, Palawan. Danawan and Si Amil Islands, British North Borneo, just south of Philippine boundary, Padang, Sumatra. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Manila Bay, Luzon; Cebu, Cebu; Dumaguete. Herre, Fishes 1936-37 and 1940-41 Expeds.; Puerto Galera, Mindoro; Estancia, Iloilo Province, Panay. De Beaufort, Fishes Indo-Austral. Arch., vol. 8, p. 230, fig. 34A, 1940; 23 East Indian places; Philippines.
- Halichoeres leparensis* Fowler, Copeia, No. 58, p. 64, 1918; Philippines: not of Bleeker.

1572. *Halichoeres bicolor* (Bloch and Schneider).

- East Indies, Philippines, Malaya.
- Labrus bicolor* Bloch and Schneider, Syst. Ichth., p. 267, 1801.
- Julis mola* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1220, 1850; Pinang; in part.
- Julis (Halichoeres) margaritophorus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 487, 1853; Batavia, Java.
- Julis (Halichoeres) Cantori* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 70, 1861; Pinang.
- Halichoeres bicolor* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 285, 1862. Bleeker, Atlas Ichth., vol. 1, p. 118, pl. 39, fig. 5, 1862; Java; Singapore. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 282, 1928; Catbalogan, Samar; Cebu market, Cebu. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Magallanes, Sorsogon Province, Luzon; Cebu, Cebu. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 205, 1940; Singapore, Java; Borneo; Celebes; Amboina; Waigiu; also Philippines; and Pinang.
- PlatyGLOSSUS bicolor* Günther, Cat. Fishes British Mus., vol. 4, p. 145, 1862; Pinang; Singapore.

1573. *Halichoeres binotopsis* (Bleeker).

- East Indies, Philippines, Pelew Islands, Fiji Islands, Banks Islands, and New Hebrides.
- Julis (Halichoeres) binotopsis* Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth. Bali, p. 7, 1849; Boleling, North Bali.
- Halichoeres binotopsis* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 285, 1862. Bleeker, Atlas Ichth., vol. 1, p. 120, pl. 40, fig. 4, 1862; Java; Bali; Bawean; Timor; Ternate; Amboina; Goram. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 29, 1907; Cavite, Cavite Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 285; 1928; after Günther. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes

1931 Philippine Exped., p. 74, 1934; Cullion; Cebu, Cebu; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 310, 1936; Ovalau Island, Fiji. Herre, Fishes 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Panay; Dumaguete; and Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 213, 1940; 16 East Indian localities; Philippines. Herre, 1948 Coll.; Dumaguete and Siaton, Negros Oriental Province, Siluag Island, Sulu Province.

PlatyGLOSSUS binotopsis Günther, Cat. Fishes British Mus., vol. 4, p. 153, 1862; East Indian Archipelago. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 36, 1885; Cebu, Philippines; Menado, Celebes. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 131, 1913; Säonek, Waigiu.

Choerujulis binotopsis Martens, Preuss. Exped. Ost-Asien, p. 397, 1876; Amboina.

1574. Halichoeres centiquadra (Lacépède). Payuk.

Indo-Pacific, from East Africa to Formosa, Guam, Gilbert, and Society Islands.

Labrus centiquadrus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 437 and 493, 1802; Madagascar; Mauritius; Réunion.

Labrus hortulanus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 449, 518, pl. 29, fig. 2, 1802; "Great Equatorial Ocean."

Julis hortulanus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 430, 1839; Mauritius.

Julis (Halichoeres) hortulanus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 486, 1852; Batavia, Java.

PlatyGLOSSUS hortulanus Günther, Cat. Fishes British Mus., vol. 4, p. 147, 1862; Red Sea; Mauritius; Ceylon; Moluccas; Amboyna; Celebes; East Indies; Aneiteum, New Hebrides. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 546, 1871; Koseir, Red Sea. Day, Fishes India, p. 399, pl. 85, fig. 3, 1878; Andaman Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 37, 1885; North Celebes. Günther, Fische der Südsee, vol. 3, p. 263, 1910; East Africa, Society Islands, Samoa, Aneiteum, Shortland Island; Mortlock and Ponapé Islands, Caroline Islands; Guam; Rotuma.

Hemitautoga centiquadra Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 292, 1862. Bleeker, Atlas Ichth. vol. 1, p. 139, pl. 32, fig. 3, 1862; Java; Sumatra; Borneo; Celebes; Sangi; Flores; Timor; Letti; Amboina; Goram.

PlatyGLOSSUS (Hemitautoga) centiquadrus Bleeker, Verh. Akad. Amsterdam, vol. 18, Contrib. Maurice, p. 10, 1879; Mauritius.

Halichoeres hortulanus Seale, Occas. Papers Bishop Mus., vol. 1, p. 88, 1901; Guam.

Güntheria centiquadra Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 355, 1902.

Halichoeres centiquadrus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 300, pl. 46, fig. 3, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Cagayancillo, Cagayan Islands. McCulloch, Australian Zoologist, vol. 2, p. 98, 1922. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 311, 1936; Moorea, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 189, 1940; 28 East Indian places; Sulu Islands, Philippines; also 16 other Indo-Pacific localities.

PlatyGLOSSUS centiquadrus Weber, Siboga-Exped., vol. 57, Fische, p. 375, 1913; Beo, Karakelong Island; Salibabu and Banda.

Halichoeres centiquadrus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 253, 1928; Alibijaban Island, Ragay Gulf, Tayabas Province; Pagapas Bay, Batangas Province; Palag Bay, Paron Point, Albay Gulf, and Maagnas, Lagonoy Gulf, Albay Province; Langao Point and Matnog Bay, Sorsogon Province, Luzon. Agojo Point, Catanduanes Island; Caguban Island, Hinanungan Bay, and San Roque, Leyte. Dalanganem Island, Cuyo Islands; Port Langan, Dumaran Island, and Ulugan Bay, Palawan. Murcielagos Bay, Misamis Occidental Province, Mindanao. Pilas Island, west of Basilan Island. Jolo market and Jolo reefs, Simalac, Sipadan, Sitankai, Sulade, Taganak, Tonquil, Teomabal, and Tulayan Islands, Sulu Province; also Celebes

and Tidore Island, and Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 337, 1928; Guam; Shortland Island, Solomon Islands; Tahiti and Raiatea, Society Islands; Gilbert Islands; Ebon Island, Marshall Islands. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 109, 1938; Takaroa, Tuamotu Islands.

1575. *Halichoeres chloropterus* (Bloch).

East Indies, Philippines, Pelew Islands, China, and Mauritius.

Labrus chloropterus Bloch, Naturges. Ausländ. Fische, vol. 5, p. 151, pl. 288, 1791; Japan.

Julis semidecorata Lesson, Mem. Soc. Hist. Nat. Paris, vol. 4, p. 403, 1828; Mauritius. Lesson, Voy. *Coquille*, Zool., vol. 2, p. 138, pl. 35, fig. 2, 1830.

Julis (*Halichoeres*) *Cuvieri* Bleeker, Nat. Geneesk. Arch. Ned.-Ind., ser. 2, vol. 4, p. 160, 1847; Batavia, Java; not of Bennett. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 24, 1849; Batavia.

Halichoeres bleekeri Günther, Ann. Mag. Nat. Hist., ser. 3, vol. 8, p. 386, 1861; on *Julis* (*Halichoeres*) *Cuvieri* Bleeker.

Halichoeres chloropterus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 285, 1862. Bleeker, Atlas Ichth., vol. 1, p. 125, pl. 35, fig. 3, 1862; Java; Bawean; Duizend Islands; Singapore; Banka; Celebes; Amboina. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 135, 1874; China. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 294, 1928; Maculabo Island, Camarines Norte Province, and Langao Point, Sorsogon Province, Luzon. Santa Cruz, Marinduque Island; Romblon, Romblon Island; Busin Harbor, Burias Island; Cataingan Bay, Masbate; Catbalogan, Samar; Cebu market, Cebu; Makes Island and Ulugan Bay, Palawan; Surigao, Surigao Province; Tobeia Island and Makassar market, Makassar, Celebes, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Manila, Luzon; Culion. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 233, 1940; Singapore; Banka; Batavia, Java; Duizend Islands; Bawean; Makassar and Menado, Celebes; Amboina; Waigui; New Guinea; Philippines.

PlatyGLOSSUS chloropterus Günther, Cat. Fishes British Mus., p. 144, 1862; Java; Banka; Celebes. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 60, p. 566, 1870.

PlatyGLOSSUS (*Halichoeres*) *chloropterus* Bleeker, Verh. Akad. Amsterdam, vol. 18, Faune Ichth. l'île Maurice, p. 10; 1878; Mauritius.

1576. *Halichoeres cyanopleura* (Bleeker).

East Indies and Philippines.

Julis (*Halichoeres*) *cyanopleura* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 489, 1853; Batavia, Java.

Julis (*Halichoeres*) *pyrrhogrammatoides* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 490, 1853; Batavia, Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Visschsoorten Menado en Makassar, p. 61, 1856; Celebes.

LeptoJulis cyanopleura Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 289, 1862. Bleeker, Atlas Ichth., vol. 1, p. 128, pl. 36, fig. 5, 1862; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 167, 1862; Sea of Batavia.

LeptoJulis pyrrhogrammatoides Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 289, 1862. Bleeker, Atlas Ichth., p. 129, pl. 36, fig. 1, 1862; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 167, 1862; Sea of Batavia.

Halichoeres cyanopleura, Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 183, 1940; Batavia, Java; Philippines.

1577. *Halichoeres desmogenys* Fowler and Bean.

A Philippine species.

Halichoeres desmogenys Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 276, pls. 28-29, 1928; Port Dupon, Leyte; also Opol, Mindanao.

1578. *Halichoeres gymnocephalus* (Bloch and Schneider).

East Indies, Philippines, Pelew, Solomon, and New Hebrides Islands.

Labrus gymnocephalus Bloch and Schneider, Syst. Ichth., p. 251, 1801.

Julis (*Halichoeres*) *modestus* Bleeker, Nat. Geneesk. Arch. Ned.-Ind.,

- ser. 2, vol. 4, p. 160, 1847; Java. Bleeker, Jour. Indian Archipelago, vol. 2, pp. 633 and 638, 1848; Sumbawa. Bleeker, Verh. Bat. Gen., vol. 22, 1849; p. 26; Batavia, Java.
- Halichoeres modestus* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 287, 1862. Bleeker, Atlas Ichth., vol. 1, p. 126, pl. 35, fig. 2, 1862; Java; Bawean; Duizend Islands; Singapore; Banka; Lepar; Bliton; Sumbawa; Buru; Timor.
- PlatyGLOSSUS modestus* Günther, Cat. Fishes British Mus., vol. 4, p. 157, 1862; Singapore. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 70, p. 567, 1870. Weber, Abh. Senckenberg. Nat. Gesell., vol. 34, p. 8, 1911; Kei Island.
- PlatyGLOSSUS gymnocephalus* Peters, Monatsber. Akad. Berlin, p. 270, 1866; Singapore. Günther, Fische der Südsee, vol. 3, p. 271, 1910; East Indies; Pelew Islands. Giltay, Mem. Mus. Hist. Belgique, vol. 5, fasc. 3, p. 77, 1933; Weeim Island, Dutch East Indies.
- Halichoeres gymnocephalus* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Cuyo, Cuyo Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 296, 1928; Ragay Bay, Ragay Gulf, Camarines Sur Prov., and Langao Point, Sorsogon Province, Luzon. Tilik, Lubang Island; Mansalay, Mindoro; Cataingan Bay, Masbate; Catbalogan, Samar; Port Caltom, Busuanga Island; Cuyo, Cuyo Islands; Bolalo Bay, Chase Head, Endeavor Strait, Malcochin Harbor, Linapacan Island, and Ulugan Bay, Palawan. Jolo market, Jolo, Sulu Province, Great Toba Island and Halmahera, Dutch East Indies. Herre, Fishes 1931 Phil. Exped., p. 74, 1934; Cullion. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 234, 1940; 15 East Indian localities; Philippines. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.
- Halichoeres javanicus* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 10, 1927; Benkulen, Sumatra; not of Bleeker.
- 1579. *Halichoeres hartzfeldi* (Bleeker).**
East Indies and Philippines.
Julis (Halichoeres) Hartzfeldii Bleeker, Nat. Tijds. Ned.-Ind., p. 563, 1852; Amboina.
Halichoeres Hartzfeldii Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 286, 1862. Bleeker, Atlas Ichth., vol. 1, p. 123, pl. 35, fig. 4, 1862; Bali; Celebes; Ternate; Buru; Amboina.
PlatyGLOSSUS Hartzfeldii Günther, Cat. Fishes British Mus., vol. 4, p. 157, 1862; Celebes; Ternate; Amboyna.
Choerophilus hartzfeldi Martens, Preuss. Exped. Ost-Asien, p. 397, 1876; Larantuka, Flores.
Halichoeres hartzfeldii Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 537, 1904; Padang, Sumatra. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 291, 1928; Jolo, Sulu Province, Philippines; Padang, Sumatra.
Halichoeres hartzfeldi Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Dumaguete; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 228, 1940; Padang, Sumatra, Anjer, Java; Bali; Menado, Celebes; Buru; Ternate; Amboina; Flores; Philippines.
- 1580. *Halichoeres hoeveni* (Bleeker).**
East Indies, Philippines, Pelew, Solomon, New Hebrides, Fiji, Samoan, and Society Islands.
Julis (Halichoeres) Hoevenii Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 250, 1851; Banda Neira.
PlatyGLOSSUS Hoevenii Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 284, 1862. Bleeker, Atlas Ichth., vol. 1, p. 111, pl. 42, fig. 3, 1862; 13 East Indian localities.
PlatyGLOSSUS Hoevenii Günther, Cat. Fishes British Mus., vol. 4, p. 153, 1862; East Indian Archipelago. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 300, 1906; PagoPago, Samoa. Günther, Fische der Südsee, vol. 3, p. 268, 1910; East Indies; Pelew Islands; Mortlock, Caroline Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 268, 1928; Ragay Bay, Ragay Gulf, Camarines Sur Province, Luzon. Cataingan Bay, Masbate. San Miguel Harbor, Ticao Island; Port Palapag, Catbalogan, and Quinapundan Bay, Samar; Mantacao Island,

west coast of Bohol; Endeavor Strait, Palawan; Polloc, Cotabato Province, Mindanao, Philippines; also Makassar, Celebes; Halmahera Island; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 340, 1928; Apia, Samoa.

Halichoeres hoeveni Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 307, 1936; Ovalau Island, Fiji; Tenibuli, Ysabel Island, Solomons. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 202, 1940; 22 East Indian localities; Philippines.

1581. *Halichoeres hyrtl* (Bleeker).

East Indies, Philippines, China, and west to the Persian Gulf.

Julis mola Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1220, 1850; Pinang; in part.

Julis (Halichoeres) Hyrtl Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, 1856, Vischfauna, Menado, p. 60; Makassar.

Halichoeres Hyrtl Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 286, 1862. Bleeker, Atlas Ichth., vol. 1, p. 121, pl. 39, fig. 2, 1862; Java; Singapore; Banka; Nias; Celebes; Sangi.

PlatyGLOSSUS hyrtli Günther, Cat. Fishes British Mus., vol. 4, p. 149, 1862; Pinang; Java; Nias; Celebes; Sangi.

PlatyGLOSSUS bifasciatus Steindachner, Verh. Zool.-Bot. Gesell. Wien, p. 477, pl. 5, fig. 2, 1866; Hong Kong.

PlatyGLOSSUS pseudogramma Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 103, 1874; Ubay, Bohol, Philippines.

PlatyGLOSSUS hyrtl Day, Fishes India, p. 398, pl. 88, fig. 1, 1878; Malay Archipelago.

Halichoeres hyrtl Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 29, 1907; Manila, Luzon. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 220, 1940; 10 East Indian localities; Philippines; Hong Kong; Pinang; Christmas Island; Andaman Islands; Ceylon; Persian Gulf. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

Halichoeres hyrtl Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 285, 1928; San Miguel Harbor, Ticao Island; Catbalogan, Samar; Cebu market, Cebu, Philippines. Sandakan Bay, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Culion; Cebu; Dumaguete. Herre, Records Indian Mus., vol. 41, p. 342, 1939; Andaman Islands. Herre, Mem. Indian Mus., vol. 13, p. 379, 1941; Persian Gulf, East Indies; Philippines; and China.

1582. *Halichoeres iris* Seale.

A Philippine species of doubtful validity. Inserted here to call attention to it. Fowler has listed it under *Thalassoma quinquevittatus*, but it is not a *Thalassoma*.

Halichoeres iris Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 522, 1909; Sitankai Island, Sulu Province; Philippines.

1583. *Halichoeres javanicus* (Bleeker).

East Indies, Philippines, Hong Kong, Ceylon, Zanzibar.

Julis (Halichoeres) javanicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 341, 1857; Java.

Julis (Julis) javanicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 331, 1859; south coast of Java.

Halichoeres javanicus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 286, 1862. Bleeker, Atlas Ichth., vol. 1, p. 125, pl. 40, fig. 3, 1862; Java; Singapore. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 70, 1914; Hong Kong. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 236, 1940; Singapore; Java; Zanzibar; Ceylon; Hong Kong. Herre, Copeia, No. 3, p. 149, 1945; Dumaguete, Negros Oriental Province; Kolambagan, Lanao Province, Mindanao, Philippines.

PlatyGLOSSUS javanicus Günther, Cat. Fishes British Mus., vol. 4, p. 145, 1862; Java; Singapore.

1584. *Halichoeres kallochroma* (Bleeker).

East Indies, Philippines, Pelew, Fiji, Samoan, and Society Islands.

Julis (Halichoeres) kallochroma Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 289, 1853; Sumatra.

- Platyglossus kallochroma* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 284, 1862. Bleeker, Atlas Ichth., vol. 1, p. 109, pl. 42, fig. 4, 1862; Sumatra and Nias, Dutch East Indies. Günther, Cat. Fishes British Mus., vol. 4, p. 159, 1862; Sumatra; Nias.
- Platyglossus foscovallii* Jordan and Seale, Bull. U. S. Bur. Fish., vol. 25, p. 299, pl. 46, fig. 2, 1906; PagoPago, Samoa. Günther, Fische der Südsee, vol. 3, p. 269, 1910; on Jordan and Seale.
- Halichoeres kallochroma* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 261, 1928; Batan Island, Albay Province, Luzon; Santa Cruz Island; Marinduque Island; Busin Harbor, Burias Island; San Miguel Harbor and San Miguel Island, Ticao Island; Port Palapag, Samar; Mantacao Island, west coast of Bohol; Polloc, Cotabato Province, and Inamucan Bay, Misamis Occidental Province, Mindanao, Philippines. Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 339, 1928; Society Islands. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Cullion. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 308, 1936; Ovalau Island and Suva, Viti Levu Island, Fiji. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 193, 1940; Padang and Priaman, Sumatra; Nias.

1585. Halichoeres kawarin (Bleeker).

- The East Indies, Philippines, Andaman, Samoan, Gilbert, and Society Islands.
- Julis (Halichoeres) kawarin* Bleeker, Nat. Tijds. Ned.-Ind., p. 172, 1852; Kupang, Timor. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 18; 1860.
- Halichoeres kawarin* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 286, 1862. Bleeker, Atlas Ichth., vol. 1, p. 121, pl. 41, fig. 4, 1862; Timor and Celebes. Fowler, Mem. Bishop Mus., vol. 10, p. 343, 1928; Samoa. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 227, 1940; Duizend Islands, Celebes, Timor, Waigiu, Dutch East Indies. Philippines; Samoa, Society and Gilbert Islands.
- Platyglossus kawarin* Günther, Cat. Fishes British Mus., vol. 4, p. 152, 1862; coast of Celebes and Timor; after Bleeker. Day, Fishes India, p. 400, 1878; Andaman Islands. Günther, Fische der Südsee, vol. 3, p. 266, pl. 142, fig. 13, 1910; Society and Gilbert Islands. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 131, 1913; Saonek, Waigiu.

1586. Halichoeres leparensis (Bleeker). Masangi.

- The East Indies, Philippines, east to the Pelew Islands, Guam, and New Caledonia, west to the Andaman Islands.
- Julis (Halichoeres) leparensis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 730, 1852; Lepar Islands.
- Halichoeres leparensis* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 287, 1862. Bleeker, Atlas Ichth., vol. 1, p. 119, pl. 42, fig. 5, 1862; Java; Bawean; Sumatra; Nias; Singapore; Lepar; Billiton; Celebes; Ternate; Buru; Amboina; Saparua; Goram; Timor. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 95, 1907; San Fabian, Pangasinan Province, and Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 283, 1928; Port Matalvi, Zambales Province; Ragay Gulf, Ragay Bay, Camarines Sur Province; Batan Island, Albay Province; and Bacon, Sorsogon Province, Luzon. Mansalay, Mindoro; Santa Cruz Island, Marinduque; Cabugao Bay, Catanduanes Island; Cataingan Reef, Masbate; Pandanon Island, Bohol; Cebu market and Mactan Island, Cebu Province; Negros; Nugas Point, Antique Province, Panay; Port Caltom, Busuanga Island; Chase Head, Endeavor Strait, near Baheli River mouth, Sirinao Island Reef, and Ulugan Bay, Palawan; Inamucan Bay, Misamis Occidental Province, and Capungan, Surigao Province, Mindanao; Tara Island and Tulayan Island, Sulu Province, Philippines. Great Toba Island and Celebes, Dutch East Indies; Padang, Sumatra. Fowler, Mem. Bishop Mus., vol. 10, p. 342, 1928; Guam. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 94, 1932; Noumea, New Caledonia. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Cullion; Cebu, Cebu; Dumaguete; Punta Flecha, Zamboanga Province; Mindanao, Philippines. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 211, fig. 34C, 1940; 28 East Indian lo-

- calities; the Philippines; Andaman, Nicobar, and Pelew Islands; Guam; New Caledonia. Herre, Mem. Indian Mus., vol. 13, p. 380, 1941; Andaman Islands to the East Indies, Philippines, and Guam.
- PlatyGLOSSUS leparensis* Günther, Cat. Fishes British Mus., vol. 4, p. 156, 1862; East Indian Archipelago. Day, Fishes of India, p. 399, pl. 84, fig. 3, 1878; Andamans. Weber, *Siboga* Exped., vol. 57, Fische, p. 374, fig. C, 1913; Siau, Karakelong, Salibabu, and Elat, Dutch East Indies.
- PlatyGLOSSUS reticulatus* Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 104, 1874; Cebu, Cebu, Philippines.
- 1587. Halichoeres leucostigma** Fowler and Bean.
A Philippine species.
Halichoeres leucostigma Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 299, pl. 40, 1928; Pujada Bay, Davao Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Cebu, Cebu, Philippines.
- 1588. Halichoeres leucurus** (Walbaum).
The East Indies, Philippines, Andaman Islands, Indo-China and Solomon Islands.
Labrus leucurus Walbaum, Artedi Piscium, vol. 3, p. 249, 1792; on Gronow. Bloch and Schneider, Syst. Ichth., p. 259, 1801.
Labrus purpureus Bloch and Schneider, Syst. Ichth., p. 262, 1801; on Seba, Thesaur.
Julis (Halichoeres) Temmincki Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 491, 1853; Batavia, Java.
Julis (Halichoeres) kallopis Bleeker, *ibid.*, vol. 5, p. 348, 1853; Amboina.
PlatyGLOSSUS purpureus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 284, 1862. Bleeker, Atlas Ichth., vol. 1, p. 108, pl. 45, fig. 1, 1862; Java; Bawean; Banka; Celebes; Amboina.
PlatyGLOSSUS marginatus Day, Fishes India, p. 398, pl. 84, 1878; Andaman Islands; in part.
PlatyGLOSSUS purpurascens Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 36, 1885; Mysore, Schouten Islands, Dutch New Guinea.
Halichoeres purpureus Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 94, 1907; Bacon, Sorsogon Province, Luzon.
Halichoeres leucurus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 260, 1928; Sulade Islands and Teomabal Island, Sulu Province; Luzon, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 192, fig. 33, 1940; Banka; Java; Bawean; Makassar; Amboina; Timor; Schouten Islands, Dutch East Indies; Philippines. Andaman Islands; Indo-China; Solomon Islands.
Halichoeres purpurascens Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 316, 1936; Tenibuli, Ysabel Island, Solomon Islands.
- 1589. Halichoeres margaritaceus** (Cuvier and Valenciennes).
The East Indies and Philippines, north to Japan, south and east to Australia and Samoa, west in the Indian Ocean to the coast of Natal.
Julis margaritaceus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 484, 1839; Vanicolo.
Julis (Halichoeres) pseudominiatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, 1856; vischssen Amboina, p. 62; Amboina; Menado, Celebes; Koepang, Timor; Priaman, Sumatra.
Halichoeres pseudominiatus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 288, 1862. Bleeker, Atlas Ichth., vol. 1, p. 115, pl. 40, fig. 5, 1862; Java; Bawean; Sumatra; Celebes; Timor; Amboina. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 785, 1906; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Province, Luzon.
PlatyGLOSSUS pseudominiatus Günther, Cat. Fishes British Mus., vol. 4, p. 151, 1862; East Indian Archipelago; after Bleeker. Barnard, Ann. South African Mus., vol. 21, p. 752, 1927; Natal coast.
PlatyGLOSSUS opercularis Günther, Cat. Fishes British Mus., vol. 4, p. 148, 1862; Fiji Islands; Amboina. Günther, in Playfair and Günther, Fishes Zanzibar, p. 95, pl. 12, fig. 1, 1866; Johanna Island. Günther, Fische der Südsee, vol. 3, p. 264, 1910; Pelew Islands; Solomon Islands; Samoa; Fiji; Guam; Rotuma; Ruk.
Halichoeres opercularis Seale, Occas. Papers Bishop Mus., vol. 1, p. 89, 1901; Guam. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25,

- p. 302, pl. 47, fig. 3, 1906; Apia and PagoPago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 267, 1908; Calayan Island, Babuyan Islands, north of Luzon. McCulloch, Proc. Linn. Soc. New South Wales, vol. 35, p. 431, 1910; Masthead Island, Queensland. Snyder, Proc. U. S. Nat. Mus., vol. 42, 1912, p. 421; Tanegashima, Japan; p. 507, Okinawa, RiuKiu Island. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 315, 1936; Suva, Viti Levu Island, Fiji.
- Halichoeres margaritaceus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 302, 1906; Vanicolo. Fowler and Bean, Bull. 100, U. S. Nat. Mus., p. 216, 1928; Batan Island, Albay Province, and Gubat Bay, Sorsogon Province, Luzon. Calayan Island, Babuyan Islands north of Luzon. Negros; Cagayancillo, Cagayan Islands. Apia, Samoa; Okinawa, RiuKiu Islands, and Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 341, 1928; Apia, Samoa; Guam; Kusaie, Caroline Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 216, 1940; 17 East Indian localities; Philippines. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Capiz, Capiz Province, Panay; Dumaguete.
- Octocynodon margaritaceus* Whitley, Great Reef Exped., vol. 4, p. 294, 1932; Low Islands, Queensland, Australia.

1590. *Halichoeres marginatus* Rüppell.

Red Sea and Mozambique to the Philippines, East Indies, Samoan Society, and Marquesas Islands.

Halichoeres marginatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 16, 1835; Mohila; Massaua, and Red Sea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 265, 1928; Santo Domingo de Basco, Batan Island, Batanes Province. Butauanan Island, Camarines Sur Province, Luzon. Verde del Sur Island, Palawan, Philippines. Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 340, 1928; Raiatea, Society Islands; Nukahiva, Marquesas Islands; Apia, Samoa. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 197, 1940; 13 East Indian localities; Philippines.

Julis marginatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 490, 1839; after Rüppell.

Julis annularis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 482, 1839; Java. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 6, 1849; Batavia, Java.

Julis (Halichoeres) annularis Bleeker, Nat. Tijds. Ned-Ind., vol. 5, p. 513, 1853; Sumatra.

PlatyGLOSSUS marginatus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 283, 1862. Bleeker, Atlas Ichth., vol. 1, p. 109, pl. 41, fig. 3, 1862; Sumatra; Batu; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 160, 1862; Mauritius; Ceylon. Peters, Monatsber. Akad. Wiss. Berlin, p. 443, 1876; Mauritius. Day, Fishes India, p. 398, pl. 84, figs. 5-6, 1878; Malay Archipelago; Andaman Islands; in part. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 299, pl. 46, fig. 1, 1906; Apia, Samoa. Günther, Fische der Südsee, vol. 3, p. 271, pl. 143, fig. C, 1910; Society Islands; Samoa.

1591. *Halichoeres melanochir* Fowler and Bean.

A Philippine species.

Halichoeres melanochir Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 264, pl. 25, 1928; Maculabo Island, Camarines Norte Province, Luzon; Lampinigan Island, off Basilan Island, Zamboanga Province, Mindanao.

1592. *Halichoeres melanurus* (Bleeker).

The East Indies, Philippines, Caroline and Pelew Islands, New Britain, and Samoa.

Julis (Halichoeres) melanurus Bleeker, Nat. Tijds. Ned-Ind., vol. 2, p. 251, 1851; Banda Neira. Bleeker, *ibid.*, vol. 5, p. 87, 1853; Solor.

PlatyGLOSSUS melanurus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 284, 1862. Bleeker, Atlas Ichth., vol. 1, p. 109, pl. 46, fig. 1, 1862; Bawean; Celebes; Sangi; Solor; Timor; Buru; Amboyna; Banda; Goram. Günther, Cat. Fishes British Mus., vol. 4, p. 148, 1862; Amboina. Günther, Fische der Südsee, vol. 3, p. 285, 1910; Ponape, Caroline Is-

lands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 375, 1913; Elat, Dutch East Indies.

Halichoeres melanurus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 262, 1928; Port Hamilo, Batangas Province, Luzon; Tilik, Lubang Island, northwest corner of Mindoro; Port Banalacan, Marinduque; Alimango Bay, Burias Island; San Miguel Harbor, Ticao Island; Masbate Reef and Cataingan Bay, Masbate; Catbalogan, Samar; Pujada Bay, Davao Province, Surigao, Surigao Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao. Tataan Island, Teomabal Island, and Tumindao Island, Sulu Province, Philippines. De Beaufort, Fishes Indo-Austr. Arch., vol. 8, p. 195, 1940; 14 East Indian localities; Philippines.

1593. *Halichoeres miniatus* (Cuvier and Valenciennes).

The East Indies, Philippines, China, Australia, New Hebrides, Fiji, and Madagascar.

Julis miniatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 337 (460), 1839; Java.

Julis (Halichoeres) miniatus Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth., Bali, p. 8, 1849; Bali.

Halichoeres miniatus Bleeker Versl. Akad. Amsterdam, vol. 13, p. 287, 1862. Bleeker, Atlas Ichth., vol. 1, p. 114, pl. 41, fig. 5, 1862; Java; Bawean; Bali; Sumatra; Batu; Borneo; Celebes; Solor; Timor; Ternate; Amboina. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 785, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Manila; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Calayan Island, Babuyan Islands, north of Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 270, 1928; Maculabo Island, and Canimo Island, near Daet, Camarines Norte Province; Batan Island, RapuRapu Strait, Albay Province; Bacon, Sorsogon Province, Luzon. Sablayan, Mindoro; Romblon Island; Guijulugan Shoal, Negros. Cebu, Cebu. Near Baheli River, Palawan, Padang, Sumatra. Fowler, Mem. Bishop Mus., vol. 10, p. 341, 1928. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 314, 1936; Malekula Island, and Wala Island, New Hebrides. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 214, 1940; 22 East Indian localities; Philippines. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu and Balayan Bay, Luzon; Estancia, Iloilo Province, Panay; Dumaguete; Kolambugan, Lanao Province, Mindanao; Brooke's Point, Palawan.

PlatyGLOSSUS miniatus Günther, Cat. Fishes British Mus., vol. 4, p. 150, 1862; Australia; China.

ChoerOJULIS miniata Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 397, 1876.

Halichoeres (Octocynodon) miniatus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra.

Octocynodon miniatus Whitley, Great Barrier Reef Exped., vol. 4, p. 294, 1932; Low Islands, Queensland, Australia.

1594. *Halichoeres nebulosus* (Cuvier and Valenciennes).

The tropical Indo-Pacific, from the Red Sea to the Philippines, RiuKiu and Caroline Islands, and Queensland, Australia.

Julis nebulosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 461, 1839; Bombay, India.

Julis pOCCILA Lay and Bennett, Zool. Capt. Beechey's Voyage, p. 66, pl. 39, fig. 1, 1839; near RiuKiu Islands.

Julis (Halichoeres) Harloffii Bleeker, Nat. Geneesk. Arch. Ned.-Ind., ser. 2, vol. 4, p. 159, 1847; Java.

PlatyGLOSSUS nebulosus Günther, Cat. Fishes British Mus., vol. 4, p. 151, 1862; Red Sea; Amboina; in part; not *Julis reichei* or *Halichoeres reichei*. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 544, 1871; Koseir, Red Sea. Day, Fishes India, p. 400, pl. 85, fig. 2, 1878; Malay Archipelago. Günther, Fische der Südsee, vol. 3, p. 265; 1910; Ponapé, Caroline Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 371, 1913; Siau; Beo, Karakelong; Salibabu; Kabaena; Binongka; Nusa Laut; Tiur; Rotti, Dutch East Indies.

- Halichoeres pocila* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 288, 1862. Bleeker, Atlas Ichth., vol. 1, p. 115, pl. 39, fig. 4, 1862; Java; Bawean; Sumatra; Batu; Bali; Borneo; Celebes; Flores; Timor; Ternate; Buru; Amboina; Goram.
- PlatyGLOSSUS poecilus* Günther, Cat. Fishes British Mus., vol. 4, p. 152, 1862; East Indian Archipelago. Peters, Monatsber. Akad. Wiss. Berlin, p. 270, 1868; Paracale; Camarines Sur Province, Luzon, Philippines.
- Choerofulus pocila* Martens, Preuss. Exped. Ost-Asien, p. 397, 1876; Ternate; Amboina.
- Halichoeres nebulosus* Seale, Occas. Papers Bishop Mus., vol. 1, p. 88, 1901; Guam. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 267, 1908; Cuyo, Cuyo Islands, Philippines. McCulloch, Proc. Linn. Soc. New South Wales, vol. 35, p. 431, 1910; Masthead Island, Queensland, Australia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 273, pl. 27, 1928; Canimo Island near Daet, and Maculabo Island, Camarines Norte Province. Batan Island, RapuRapu Strait, Albay Province. Gubat Bay, Sorsogon Province, Luzon; Mansalay, Mindoro; Romblon Island; Bais and Guihulugan Shoal, Negros; Bolalo Bay, Observatory Island, and Ulugan Bay, Palawan, Philippines; Padang, Sumatra; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 341, 1928; Apia, Samoa; Guam; Kusaie or Strong Island, Caroline Islands; Gilbert Islands; Rarotonga; Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Dumaguete. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 218, 1940; 33 localities in the East Indies; the Philippines; in part; not *H. reichei*. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay; Brooke's Point, Palawan.
- Halichoeres annulatus* Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, pl. 20, upper figure, 1904; Padang, Sumatra.
- Halichoeres pocilus* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 785, 1905; Bais, Negros, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 95, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 267, 1908; Calayan Island, Babuyan Islands, north of Luzon.

1595. *Halichoeres nigrescens* (Bloch and Schneider).

- From Zanzibar to the Philippines, China, Japan, Formosa, and North Australia.
- Labrus nigrescens* Bloch and Schneider, Syst. Ichth., p. 263, 1801; on Seba, Thesaur.
- Julis Dussumieri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 478, pl. 387, 1839; Malabar, India.
- Julis exornatus* Richardson, Ichth. China Japan, p. 258, 1846; China Seas; Canton; Hong Kong.
- Julis (Halichoeres) notophthalmus* Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 20, 1849; Batavia, Java. Bleeker, *ibid.*, vol. 25, Ichth. Fauna Bengal, p. 54, 1853 Bengal; Hindustan.
- Julis (Halichoeres) mola* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 98, 1859.
- PlatyGLOSSUS dussumieri* Günther, Cat. Fishes British Mus., vol. 4, p. 143, 1862; Pinang; Chusan Island, China. Day, Fishes India, p. 399, pl. 85, fig. 1, 1878. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 404, 1879; Port Darwin, Australia. Regan, Jour. Nat. Hist. Soc. Bombay, vol. 16, 1906; p. 330, Persian Gulf; p. 332, Karachi, India.
- Halichoeres nigrescens* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 287, 1862. Bleeker, Atlas Ichth., vol. 1, p. 118, pl. 37, fig. 4, 1862; Java; Duiزند Islands; Sumatra; Singapore; Banka; Biliton; Bali; Celebes; Buru. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 29, 1907; Manila, Luzon, Philippines. Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 94, 1907; Bulan, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 280, 1928; Bulan, Sorsogon Province, Luzon; Catbalogan, Samar; San Juanico Strait, between Samar and Leyte; Cotabato Province, Mindanao; Mantaquin Bay, Palawan, Philippines; Kowloon, China; Padang, Sumatra.

Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Atimonan, Tayabas Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 207, 1940; 13 East Indian localities; Philippines. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Kolambugan, Lanao Province, Mindanao.
Choerajulis Dussumieri Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 397, 1876; Nagasaki Bay, Japan.
Halichoeres dussumieri Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 70, 1914; Hong Kong, China.

1596. *Halichoeres notopsis* (Cuvier and Valenciennes).

The East Indies, Philippines, Guam, Pelew Islands, southeast to the Society Islands and west to Ceylon.
Julis notopsis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 485, 1839; Guam. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 6, 1849; Batavia, Java.
Julis (Halichoeres) notopsis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 290, 1853; Sumatra.
Julis (Halichoeres) phaiopus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 291, 1853; Cauer, Sumatra.
PlatyGLOSSUS notopsis Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 284, 1862. Bleeker, Atlas Ichth., vol. 1, p. 111, pl. 41, figs. 1-2, 1862; Java; Bawean; Sumatra; Batu; Biliton; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 154, 1862; Java; Sumatra; Batu. Day, Fishes India, p. 398, pl. 84, fig. 4, 1878. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Calayan Island, Babuyan Islands. Günther, Fische der Südsee, vol. 3, p. 268, pl. 142, fig. A, 1910; Society Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 507, 1912; Okinawa, and RiuKiu Islands. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 16, p. 130, 1913; Saonek; Waigiü.
Halichoeres notopsis Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 457, 1917; Colombo, Ceylon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 267, 1928; Caracaran Bay, Batan Island, Albay Province, Luzon. Sablayan, Mindoro, Philippines. Nafa, Okinawa; Apia and PaöoPäo, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 340, 1928; Gilbert, Society, and Samoan Islands. Herre, Field Mus. Nat. Hist. Zool. Ser. vol. 21, p. 308, 1936; Wala Island, New Hebrides. Herre, Fishes 1936-37 Exped.; Dumaguete, Negros Oriental Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 199, 1940; 17 East Indian localities; Philippines.

1597. *Halichoeres papilionaceus* (Cuvier and Valenciennes).

The East Indies, Philippines, and the Pelew and Santa Cruz Islands.
Julis papilionaceus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 484, 1839; Vanicolo.
Julis (Halichoeres) Schwarzii Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth. Bali, p. 7, 1849; Boleling, Bali; Sumanap, Madura.
Julis (Halichoeres) diechismenacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 645, 1852; Banda Neira.
Julis (Halichoeres) diechismenacanthoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 121, 1853; Amboina.
Halichoeres Schwarzii Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 288, 1862. Bleeker, Atlas Ichth., vol. 1, p. 117, pl. 39, fig. 3, 1862; Madura; Bawean; Bali; Lepar; Celebes; Timor; Ternate; Halmahera; Batjan; Buru; Amboina; Banda.
PlatyGLOSSUS schwarzii Günther, Cat. Fishes British Mus., vol. 4, p. 149, 1862; Amboina. Meyer, An. Soc. Española Hist. Nat. Madrid, vol. 14, p. 36, 1885; Cebu, Philippines; Menado, Celebes.
PlatyGLOSSUS (Halichoeres) Dolenschalli Steindachner, Verh. Zool.-Bot. Gesell. Wien, vol. 13, p. 1190, fig. 2, 1863; Amboina.
PlatyGLOSSUS (Halichoeres) schwarzii Steindachner, Verh. Zool.-Bot. Gesell. Wien, vol. 14, pl. 2, fig. 2, 1864.
Choerajulis schwarzii Martens, Preuss. Exped. Ost-Asien, p. 397, 1876; Amboina and Ternate, Dutch East Indies.
PlatyGLOSSUS schwarzii Weber, Siboga-Exped., vol. 57, Fische, p. 370, 1913; Menado and Nusa Laut, East Indies.
Halichoeres papilionaceus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 278, 1928; Port Matalvi, Zambales Province, Luzon. San

Pascual, Burias Island; Santa Cruz Island, Marinduque; Cebu market, and reef, and Mactan Island, Cebu Province; Guijulugan, Negros; Endeavor Strait, Palawan; Capungan, Surigao Province, Mindanao, Philippines. Great Tobea Island, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Alabat Island; Cebu, Cebu; Dumaguete, Negros Oriental Province. Herre, Pan Pacific Research Inst. Section, in Mid-Pacific Mag., vol. 10, No. 2, p. 166, 1935; Pelew Islands. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Panay; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 209, 1940; 22 East Indian localities; Philippines. Herre, 1948 Coll., Dumaguete and Siaton, Negros Oriental Province, Mindanao.

1598. Halichoeres podostigma (Bleeker).

The East Indies and Philippines.

Julis (Halichoeres) podostigma Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 332, 1854; Larantuka, Flores.

Halichoeres podostigma Bleeker, Atlas Ichth., vol. 1, p. 126, pl. 32, fig. 4, 1862; Amboina; Buru; Flores. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 297, 1928; Cebu market, Cebu; Pandanon Island, coast of Bohol; Mahinog, Camiguin Island, coast of Misamis Oriental Province, and Tapiantana Islands, Zamboanga Province, Mindanao; Gondra Island, Singaan Island, and Jolo, Sulu Province, Philippines. Cape Kait, Libani Bay, Celebes. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Jolo, Sulu Province, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 237, 1940; Sulu Islands, Philippines; Celebes, Amboina, Buru, and Flores, Dutch East Indies.

PlatyGLOSSUS podostigma Günther, Cat. Fishes British Mus., vol. 4, p. 160, 1862; Flores; Buru; Amboyna.

1599. Halichoeres poecilopterus (Schlegel).

A Japanese fish ranging south into the Philippines.

Julis poecilopterus Schlegel, Fauna Japonica, Pisces, p. 169, pl. 86, fig. 1, 1842; Simabara Bay, Japan. Richardson, Ichth. China, Japan, p. 260, 1846; China Seas, Canton. Brevoort, in Narr. Perry's Exped. China Seas and Japan, vol. 2, p. 271, 1856; Shimoda, Japan.

PlatyGLOSSUS poecilopterus Günther, Cat. Fishes British Mus., vol. 4, p. 166, 1862; China.

Halichoeres poecilopterus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 251, 1865; Simabara Straits, Japan. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 637, 1902; 10 Japanese localities. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 421, 1912; Hakodate, Nagasaki, Oki Island, and Misaki, Japan. Jordan and Metz, Mem. Carnegie Mus., vol. 6, p. 43, 1913; Fusan, Korea. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 70, 1914; Hong Kong, China. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 250, 1925; typographical error in name; Toba, Tokyo, Misaki, Toyana, Miyazu, Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 286, 1928; Sulade Island, Sulu Province; Yokohama, Tokyo, Aomori, Nagasaki, and Tsuruga, Japan. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Cullion.

1600. Halichoeres prosopeion (Bleeker).

The East Indies, Philippines, and RiuKiu Islands.

Julis (Halichoeres) prosopeion Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 347, 1853; Amboina.

Halichoeres prosopeion Bleeker, Atlas Ichth., vol. 1, p. 122, pl. 37, fig. 2, 1862; Amboina. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 290, 1928; Sablayan, Mindoro; Tulnalutan Island, Zamboanga Province, Mindanao, Philippines. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 83, 1930; RiuKiu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 222, 1940; Amboina; Manokwari, New Guinea; Philippines.

PlatyGLOSSUS prosopeion Günther, Cat. Fishes British Mus., vol. 4, p. 155, 1862; Amboyna.

PlatyGLOSSUS (ParaplatyGLOSSUS) prosopeion Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 40, 1878; Doreh, New Guinea.

1601. *Halichoeres reichei* (Bleeker).

The Philippines and East Indies.

Julis (Halichoeres) Reichei Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 479, 1857; Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, 1857-58, Bijdr. Vischfauna Sumatra, p. 43; Trussan, West Sumatra; Amboina; Kajeli, Buru.

Halichoeres Reichei Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 116, 1862. Bleeker, Atlas Ichth., vol. 1, p. 116, pl. 37, fig. 1, 1862; Java; Bawean; Bali; Sumatra; Buru; Amboina.

Halichoeres reichei Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 275, 1928; Pilas Island, off Basilan, Zamboanga Province; Cuyo, Cuyo Islands, Philippines; synonymy? Herre, Jour. Pan. Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Dumaguete, Oriental Negros Province.

1602. *Halichoeres richmondi* Fowler and Bean.

The Philippines and East Indies.

Halichoeres richmondi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 263, pl. 24, 1928; Mahinog, Camiguin Island, off north coast of Misamis Oriental Province; Inamucan Day, Misamis Occidental Province, Mindanao, Philippines; also Cape Kait, Libani Bay, Celebes. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 195, 1940; Libani Bay, Celebes; Philippines; after Fowler and Bean.

1603. *Halichoeres scapularis* (Bennett).

From the coast of Africa to the Philippines, East Indies, Solomon Islands, New Hebrides, Samoan Islands and Queensland, Australia.

Julis scapularis Bennett, Proc. Zool. Soc. London, vol. 1, p. 167, 1831; Mauritius.

Julis ceylonicus Bennett, Proc. Zool. Soc. London, vol. 2, p. 183, 1832; Ceylon.

Halichoeres coeruleovittatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 14, pl. 4, fig. 1, 1835; Djedda market.

Julis caeruleovittatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 466, 1839; after Rüppell.

Julis elegans Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 467, 1839; Java.

Julis (Halichoeres) elegans Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 289, 1852; Amboina.

Julis (Halichoeres) phaiotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 322, 1855; Batu Islands.

Güntheria coeruleovittata Bleeker, Proc. Zool. Soc. London, p. 413, 1861. Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 291, 1862. Bleeker, Atlas Ichth., vol. 1, p. 137, pl. 32, fig. 2, 1862; Java, Bawean; Singapore; Sumatra; Nias; Batu; Celebes; Sangi; Buru; Amboina; Goram; Timor; Flores, Solor.

PlatyGLOSSUS ceylonicus Günther, Cat. Fishes, British Mus., vol. 4, p. 158, 1862; after Bennett.

PlatyGLOSSUS scapularis Günther, Cat. Fishes British Mus., vol. 4, p. 146, 1862; Mauritius; Mozambique; Ceram; Amboina. Günther, in Playfair and Günther, Fishes Zanzibar, p. 94, 1866; Zanzibar. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, 545, 1871; Koseir, Red Sea. Day, Fishes India, p. 400, pl. 85, fig. 4, 1878; Andaman Islands. Meyer, An. Soc. Espana Hist. Nat. Madrid, vol. 14, p. 36, 1885; Cebu, Philippines; Sangi and North Celebes, Dutch East Indies. Vaillant, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 5, vol. 3, p. 57, 1893; Palawan, Philippines. Günther, Fische der Südsee, vol. 3, p. 263, 1910; Indian Ocean; Red Sea; East Indies; Micronesia. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 16, p. 131, 1913; Amboina; Saonek; Waigiu. Weber, Siboga-Exped., vol. 57, Fische, p. 372, 1913; Menado, Celebes; Siau; Saleyer. Barnard, Ann. South African Mus., vol. 21, p. 752, 1927; Zululand coast; Mozambique.

Güntheria scapularis Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 286, 1868; Solor. Bleeker, *ibid.*, vol. 7, p. 38, 1873; Aru Islands. Bleeker, Recherches faune Madagascar, Poissons, p. 83, 1875.

PlatyGLOSSUS alternans Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 104, 1874; Cebu, Cebu Province, and Panglao, Bohol, Philippines.

Choerojulis scapularis Martens, Preuss. Exped. Ost-Asien, p. 397, 1876; Amboina.

Halichoeres cymatogrammus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 766, fig. 8, 1905; Bais, Negros Oriental Province, Philippines.

Halichoeres scapularis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 29, 1907; Manila, Luzon; Panay, Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 94, 1907; Bacon, Sorsogon Province, Luzon. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 255, 1928; Port Gubat, Gubat Bay and Bacon, Sorsogon Province; Batan Island, Albay Province, Luzon, Sablayan and Puerto Galera, Mindoro; Cebu market, Cebu; Pandanon Island, coast of Bohol; Bugsuk Island, Balabac; Polloc, Cotabato Province, Capungon, Point, Surigao Province, Inamucan Bay and Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao; Pangasinan Island, Simalac Island, Teomabal and Tumindao Islands, Sulu Province, Philippines. Danawan and Si Amil Islands, British North Borneo, just south of the Philippine boundary; Great Tobeia Island, Gomomo Island, Gulf of Boni, Celebes, and Gane Road, Halmahera, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 339, 1928; Shortland Island, Solomon Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Expedition, p. 75, 1934; Dumaguete; Cebu, Cebu; Jolo and Sitankai, Sulu Province, Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 309, 1936; Tenibuli, Ysabel Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 186, 1940; 27 East Indian localities; Sulu Islands, Philippines; also 12 other Indo-Pacific localities. Herre, 1948 Collection; Dumaguete and Siaton, Negros Oriental Province; Zamboanga, and Bojelebung, Basilian, Zamboanga Province; Siluag Island, Sulu Province.

1604. *Halichoeres solorensis* (Bleeker).

East Indies and Philippines, east to the Marquesas Islands.

Julis (Halichoeres) solorensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 86, 1853; Lawajong, Solor.

Halichoeres solorensis Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 289, 1862. Bleeker, Atlas Ichth., vol. 1, p. 116, pl. 40, fig. 2, 1862; Solor. Seale, Occas. Papers Bishop Mus., vol. 4, p. 56, 1906; Nukahiva, Marquesas Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 278, 1928; Jolo and Tara Island, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 342, 1928; Nukahiva, Marquesas Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 204, 1940; Ceram, Amboina; Solor; Timor; Philippines; Marquesas Islands.

1605. *Halichoeres tenuispinis* (Günther).

The Philippines, China, Korea, and Japan.

PlatyGLOSSUS tenuispinis Günther, Cat. Fishes British Mus., vol. 4, p. 161, 1862; Seas of China.

Halichoeres tenuispinis Bleeker, Nat. Tijds. Dierk., vol. 2, p. 57, 1865; Amoy, China. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 250, 1925; Tokyo, Shizuoka, Misaki, and Toyama, Japan. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 288, 1928; Ragay Bay, Ragay Gulf, Camarines Sur Province, Luzon. Catbalogan, Samar; Endeavor Strait, Ulugan Bay, and Malcochin Harbor, Linapacan Island, Palawan; Pujada Bay, Davao Province, Mindanao. Kowloon market, China; Yokohama, Kobe, and Tokyo, Japan. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

1606. *Halichoeres trimaculatus* (Quoy and Gaimard).

The East Indies and Philippines, north to China and Japan, east to the Pelews, Fiji, Samoa, and the Tuamotus, and south to Australia.

Julis trimaculatus Quoy and Gaimard, Voy. *Astrolabe* Poissons, vol. 3, p. 705, pl. 20, fig. 2, 1834; Vanikolo.

Julis (Halichoeres) spilurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 252, 1851; Banda Neira, Dutch East Indies.

Güntheria trimaculata Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 291, 1862. Bleeker, Atlas Ichth., vol. 1, p. 138, pl. 32, fig. 1, 1862; Cocos; Celebes; Sangi; Flores; Buru; Amboina; Haruko; Banda; Letti;

Goram. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 635, 1902; RiuKiu Islands. Whitley, Great Barrier Reef Exped., vol. 4, p. 294, 1932; Batt Reef, Queensland, Australia.

PlatyGLOSSUS trimaculatus Günther, Cat. Fishes British Mus., vol. 4, p. 153, 1862; Sea of Vanicolo; East Indian Archipelago. Günther, Fische der Südsee, vol. 3, p. 266, 1910; Samoa; Fiji, Solomon, Ellice, and Pelew Islands; Vanicolo, East Indies.

Choerofulus trimaculatus Martens, Preuss. Exped. Ost-Asien, vol. 1, p. 397, 1876; Amboina.

PlatyGLOSSUS (Güntheria) trimaculatus Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 41, 1878; New Guinea.

Halichoeres trimaculatus Seale, Occas. Papers Bishop Mus., vol. 4, p. 56, 1906; Tahiti; Tubuai, Austral Islands; Shortland Island, Solomon Islands; Faté, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 301, pl. 47, fig. 1, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Cagayancillo, Cagayan Islands, Philippines. Herre, Philippine Bureau Science Collection, 1921-27; Samal Island, Davao Province, Mindanao; Sibutu, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 258, 1928; Cagayan Sulu Island, Sulu Province, Philippines; Great Tobea Island and Gulf of Boni, Celebes, Dutch East Indies; Apia, Samoa; Makemo, Tuamotus; Nafa, Okinawa, RiuKiu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 338, 1928; Fiji; Apia, Samoa; Society, Tuamotu, and Gilbert Islands; New Hebrides; Tubuai; Shortland, Guam, and Wake Islands. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 317, 1936; Tahiti; Fiji Islands. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 176, 1938; BoraBora, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 184, 1940; 20 East Indian localities; Philippines; also 15 other places in the Pacific.

1607. Halichoeres vroliki (Bleeker).

The East Indies and Philippines.

Julis (Halichoeres) Vrolikii Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 323, 1855; Batu Islands.

Julis (Julis) Vrolickii Bleeker, *ibid.*, vol. 12, p. 217, 1856-57; Nias.

PlatyGLOSSUS Vroliki Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 285, 1862. Bleeker, Atlas Ichth., vol. 1, p. 110, pl. 42, fig. 2, 1862; Bawean; Batu, Nias; Banka.

PlatyGLOSSUS vrolikii Günther, Cat. Fishes British Mus., vol. 4, p. 159, 1862; Batu; Nias; Banka.

PlatyGLOSSUS ubayensis Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 104, 1874; Ubay, Bohol, Philippines.

Halichoeres vrolikii Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 266, 1928; after Günther.

Halichoeres vroliki de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 201, 1940; Philippines; Batu Islands; Nias, Banka, and Bawean, Dutch East Indies.

Genus 506. HEMIGYMNUS Günther.

Tropical and subtropical Indo-Pacific; marine.

Hemigymnus Günther, Ann. Mag. Nat. Hist., vol. 8, p. 386, 1861; type, *Mullus fasciatus* Thunberg. Günther, Cat. Fishes, British Mus., vol. 4, p. 138, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 634, 1902. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 244, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 142, 1940.

Cheilolabrus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 345, 1877; type, *Cheilolabrus magnilabris* Alleyne and Macleay.

1608. Hemigymnus fasciatus (Bloch).

From the Red Sea and Madagascar to the Philippines, RiuKiu Islands, Japan and the Caroline and Samoan Islands.

Labrus fasciatus Bloch, Naturges. Ausländ. Fische, vol. 6, p. 6, pl. 290, 1792; Japan.

Mullus fasciatus Thunberg, Voy, Japan, vol. 4, p. 351, pl. 314, 1796; RiuKiu Islands; not of Shaw.

Labrus fuliginosus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 437 and 493, pl. 22, fig. 3, 1802; Madagascar; Mauritius, Réunion.

Sparus zonephorus Lacépède, Hist. Nat. Poissons, vol. 4, pp. 51 and 155, 1802; on Bloch, pl. 290.

- Sparus meaco* Lacépède, *ibid.*, pp. 54 and 160, 1802; on Thunberg.
- Labrus melapteronotus* Lacépède, *ibid.*, pp. 450 and 518, pl. 31, fig. 1, 1802; "Great Equatorial Ocean."
- Scarus quinquefasciatus* Bennett, *Fishes Ceylon*, pl. 23, 1830; Ceylon.
- Halichoeres sexfasciatus* Rüppell, *Neue Wirbelt.*, *Fische Rothen Meeres*, p. 18, pl. 5, fig. 3, 1835; Djedda.
- Tautoga sexfasciata* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 13, p. 303, 1839.
- Cheilinus Blochii* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 14, p. 108, 1839; on Bloch, pl. 290.
- Tautoga fasciata* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 13, p. 303, pl. 379, 1839; Mauritius. Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 4, p. 484, 1854; Batavia, Java.
- Tautoga leucomos* Bleeker, *Nat. Tijds. Ned.-Ind.*, vol. 15, p. 239, 1858; Biliton.
- Hemigymnus fasciatus* Günther, *Ann. Mag. Nat. Hist.*, p. 386, 1861. Bleeker, *Atlas Ichth.*, vol. 1, p. 141, pl. 46, fig. 2, 1862; Java; Nias; Biliton; Amboyna. Günther, *Cat. Fishes British Mus.*, vol. 4, p. 138, 1862; Amboina. Klunzinger, *Verh. Zool.-Bot. Gesell. Wien*, vol. 21, p. 547, 1871; Red Sea. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, p. 245, 1928; Masamat Bay, Quinalasag Island, and Butauanan Island, Camarines Sur Province; Batan Island, Albay Province; Matnog Bay, Sorsogon Province; and Port Hamilo, Batangas Province, Luzon. Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Agojo Point, Catanduanes Island; Maricaban Island, south of Luzon in Verde Island Passage; Alimango Bay, Burias Island; Biri Channel, Balicuatro Islands, north of Samar; Cabugan Island, Hinunangan Bay, Leyte; Cebu market, Cebu; Parang, Cotabato Province, Mindanao, Philippines. Also Bumbum Island, Borneo; Gomoro Island, and Tidore Island, Dutch East Indies; Apia, Samoa; Nafa, Okinawa, RiuKiu Islands. Schmidt, *Trans. Pacific Comm. Acad. Sci. U. S. S. R.*, vol. 1, p. 72, 1930; RiuKiu Islands. De Beaufort, *Fishes Indo-Australian Archipelago*, vol. 8, p. 143, 1940; Nias; Biliton; Batavia, Java; Tidore; Gomomo Island; Amboina, New Guinea; Philippines.
- Hemigymnus sexfasciata* Günther, *Cat. Fishes British Mus.*, vol. 4, p. 139, 1862; Red Sea.
- Hemigymnus leucomos* Bleeker, *Atlas Ichth.*, vol. 1, p. 142, pl. 44, fig. 3, 1862; Biliton. Günther, *Cat. Fishes British Mus.*, vol. 4, p. 139, 1862; Biliton; after Bleeker.
- Hemigymnus fuliginosus* Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 295, 1906; Apia, Samoa. Snyder, *Proc. U. S. Nat. Mus.*, vol. 42, p. 506, 1912; Okinawa, RiuKiu Islands.
- Thalliurus fasciatus* Roxas and Martin, *Checklist Philippine Fishes*, p. 210, *Tech. Bull. 6, Philippine Dept. Agriculture and Commerce, Manila*, 1937.

1609. *Hemigymnus melapterus* (Bloch).

- In the Indo-Pacific from Madagascar to the Philippines, Indo-China, RiuKiu, Pelew, Caroline, and Samoan Islands, and Queensland, Australia.
- Labrus melapterus* Bloch, *Naturges. Ausländ. Fische*, vol. 5, p. 137, pl. 285, 1791; Japan.
- Tautoga melapterus* Cuvier and Valenciennes, *Hist. Nat. Poissons*, vol. 13, p. 311, 1839; Java. Richardson, *Ann. Mag. Nat. Hist.*, vol. 11, p. 358, 1843. Bleeker, *Verh. Bat. Gen.*, vol. 22, *Gladschub. Labroid.*, pp. 15-16, 1849; Batavia, Java.
- Tautoga dimidiatus* Bleeker, *Verh. Bat. Gen.*, vol. 22, *Gladschub. Labroid.*, p. 18, 1849.
- Hemigymnus melapterus* Bleeker, *Atlas Ichth.*, vol. 1, p. 142, pl. 45, figs. 2-3, 1862; Java; Duizend Islands; Cocos; Sumatra; Batu; Nias; Singapore; Bintang; Celebes; Amboina; Ceram; Goram. Peters, *Monatsber. Akad. Wiss. Berlin*, p. 443, 1876; Mauritius. Day, *Fishes India*, p. 396, pl. 84, fig. 2, 1878. Jordan and Snyder, *Proc. U. S. Nat. Mus.*, vol. 24, p. 634, 1902; RiuKiu Islands. Jordan and Seale, *Bull. U. S. Bur. Fisheries*, vol. 25, p. 294, 1906; Apia and PagoPago, Samoa. Fowler and Bean, *Bull. 100, U. S. Nat. Mus.*, vol. 7, 247, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Dasol Bay, Pangasinan Province; Masinloc Bay, Zambales Province;

Port Hamilo and Pagapas Bay, Batangas Province; Maculabo Island, Camarines Norte Province; Butauanan Island and Masamat Bay, Quinalasag Island, Camarines Sur Province; RapuRapu Island, Albay Province; Gubat Bay, Sorsogon Province, Luzon. Agojo Point, Catanduanes Island; Tilik, Lubang Island, northwest of Mindoro; Maricaban Island, and northwest of Verde Island, Verde Island Passage; Varadero Bay, Puerto Galera, and Mansalay, Mindoro; Romblon Harbor, Romblon; Alimango Bay and Busin Harbor, Burias Island; Masbate Reef, Masbate; San Miguel Island and Harbor, Ticao Island; Lode Bay, Destacado Island, between Masbate and Samar; Tacloban market, Leyte; Cebu market and Malapascua Island, Cebu Province; Mantacao Island, Bohol; Cuyo Island, Cuyo Islands; Port Uson, Busuanga Island; Endeavor Strait, Makesi Island, and Oyster Inlet, Ulugan Bay, Palawan; Bugsuk Island, Caxisigan Island, Candaraman Island, and Port Ciego, Balabac; Pujada Bay, Davao Province; Surigao, Surigao Province; and Little Santa Cruz Island, Zamboanga Province, Mindanao; Bubuan Island, Jolo market, Pangasinan Island, Tara Island, Sanguisiapo Island, Simonon Island, Sitankai Reef, and Tataan, Tulayan, and Usada Islands, Sulu Province, Philippines. Also Libani Bay and Lembe Strait, Celebes; Hong Kong, China; Apra Bay, Guam; and Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 337, 1928; Samoa; Shortland Island, Solomon Islands; Guam; Gilbert Islands. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Cullion; Cebu, Cebu; Linapacan Island, Palawan; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 306, 1936; Vila, Efaté Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 145, fig. 24, 1940; 24 East Indian localities; Sulu Islands, Philippines; and 15 other Indo-Pacific localities. Herre, 1948 Collection; Layia, Batangas Province; Cebu, Cebu; Dumaguete and Siaton, Negros Oriental Province; Siluag, Sulu Province.

Hemigymnus melanopterus Günther, Cat. Fishes British Mus., vol. 4, p. 139, 1862; Celebes; Java; Port Essington; Endeavor Reef, Australia. Klunzinger, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 404, 1879; Port Darwin, Australia. Günther, Fische der Südsee, vol. 2, p. 253, 1881; East Africa; North Australia; Pelew Islands; Samoa.

Labrichthys bicolor Day, Proc. Zool. Soc. London, p. 696, 1870; Andaman Islands.

Cheilolabrus magnilabrus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 345, pl. 16, fig. 2, 1877; Darnley Island, Australia.

Hemigymnus (Cheilolabrus) melapterus Whitley, Great Barrier Reef Exped., vol. 4, p. 294, 1932; Low Isles, Queensland, Australia.

Thallichthys melapterus Roxas and Martin, Checklist Philippine Fishes, p. 210, Tech. Bull. 6, p. 210, 1937, Philippine Dept. Agriculture and Commerce, Manila.

Genus 507. HEMIPTERONOTUS Lacépède.

Marine fishes of the tropical and subtropical Indo-Pacific.

Hemipteronotus Lacépède, Hist. Nat. Poissons, vol. 3, p. 214, 1802; type, *Hemipteronotus quinquemaculatus* Lacépède. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 332, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 370, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 53, 1940.

1610. *Hemipteronotus aneitensis* (Günther). and Zanzibar.

Noracula aneitensis Günther, Cat. Fishes, vol. 4, p. 176, 1862; Aneiteum; New Hebrides. Günther, Fische der Südsee, vol. 3, p. 285, pl. 147, fig. A, 1910; Aneiteum, New Hebrides.

Hemipteronotus liogenys Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 539, pl. 20, lower figure, 1904; Padang, Sumatra.

Xyrichtys niveilatus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 337, fig. 142, 1905; Honolulu, Oahu, Hawaiian Islands.

Hemipteronotus aneitensis Herre, Philippine Bureau Science Collection, 1927; Zamboanga, Zamboanga Province, Mindanao, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 62, 1940; Padang, Sumatra; Philippines.

Iniistius aneitensis Fowler, Mem. Bishop Mus., vol. 10, p. 366, 1928; Honolulu.

- 1611. Hemipteronotus celebicus (Bleeker).**
 The East Indies and Philippines.
Novacula celebicus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Menado, p. 61, 1856; Makassar, Celebes.
Hemipteronotus celebicus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 294, 1862. Bleeker, Atlas Ichth., vol. 1, p. 153, pl. 30, fig. 5, 1862; Celebes and Amboina. Herre, Philippine Bureau Science Collection, 1922-27; Jolo and Sibutu, Sulu Province, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 372, 1928; Makassar market, Celebes. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 60, 1940; Makassar market, Celebes, and Amboina, Dutch East Indies; Philippines.
Novacula celebica Günther, Cat. Fishes British Mus., vol. 4, p. 178, 1862; Celebes.
- 1612. Hemipteronotus melanopus (Bleeker).**
 East Indies and Philippines; (?) Hawaiian Islands, and (?) Formosa.
Novacula melanopus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 82, 1857; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 178, 1862; Amboina. Günther, Fische der Südsee, vol. 3, p. 286, 1910; Honolulu; in part.
Novacula spilonotus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 83, 1857; Amboina.
Novacula spilonotus Günther, Cat. Fishes British Mus., vol. 4, p. 178, 1862; Amboina.
Hemipteronotus melanopus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 294, 1862. Bleeker, Atlas Ichth., vol. 1, p. 151, pl. 29, fig. 3, 1862; Amboina; Buru. Herre, Philippine Bur. Sci. Collection, 1925; Pearl Bank, Sulu Province. (?) Fowler, Mem. Bishop Mus., vol. 10, p. 365, 1928, Honolulu. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 58, 1940; Amboina; Ceram; Buru; Philippines; (?) Formosa; (?) Hawaii.
Hemipteronotus spilonotus Bleeker Atlas Ichth., vol. 1, p. 151, pl. 30, fig. 3, 1862; Amboina. Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 295, 1862. (?) Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 49, 1922; Takao, Formosa. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Jolo, Sulu Province, Philippines.
- 1613. Hemipteronotus pentadactylus (Linnaeus).**
 The Red Sea and east coast of Africa to the East Indies, Philippines, China, Formosa, and Hawaiian Islands.
Coryphaena pentadactyla Linnaeus, Syst. Nat., ed. 10, p. 261, 1758; India. Bloch, Naturges. Ausländ. Fische, vol. 2, p. 140, pl. 173, 1786.
Hemipteronotus ninque-maculatus Lacépède, Hist. Nat. Poissons, vol. 3, p. 214, 1802; China; Moluccas; East Indies.
Xirichthys cyanorostris Guérin-Meneville, Iconographie Règne Animal de G. Cuvier, Poissons, vol. 3, p. 27, pl. 43, fig. 3, 1829-1844; Pondicherry, India.
Novacula seamaculata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 72, 1839; Bombay, India.
Novacula punctulata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 73, 1839; Bombay, India. Günther, Cat. Fishes, British Mus., vol. 4, p. 177, 1862; China.
Novacula pentadactyla Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 69, pl. 395, 1839; Celebes. Richardson, Ichth. China Japan, p. 261, 1846; China Seas; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 177, 1862; Amboina; China. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 532, 1871; Koseir, Red Sea.
Hemipteronotus pentadactylus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 294, 1862. Bleeker, Atlas Ichth., vol. 1, p. 150, pl. 30, fig. 4, 1862; Bali; Celebes; Ternate; Buru; Amboina; Ceram. Bleeker, Recherches faune, Madagascar, Poissons, vol. 4, p. 65, 1874. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 31, 1907; Manila, Luzon, Philippines. Fowler, Copeia, No. 58, p. 64, 1918, Philippines. Herre, Philippine Bureau Science Collection, 1921-27; Calapan, Mindoro; Sibuyan Island; Bantayan Island, Cebu Province; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 370, 1928; Limbones Cove, Cavite Province, and Bolinao Harbor, Pangasinan Province, Luzon. Mansalay, Mindoro;

Hinunangan Beach, Leyte; Malabang, Lanao Province, and Inamucan Bay, Misamis Occidental Province, Mindanao, Nogas Point, Antique Province, Panay. Also Formosa, and Honolulu, Hawaiian Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 354, 1928; Honolulu, Hawaiian Islands; Takao, Formosa. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Lemery, Batangas Province; Unisan, Tayabas Province; Magallanes, Sorsogon Province, Luzon. Herre, Fishes 1936-37 Exped.; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 57, 1940; 17 East Indian localities, Philippines. Herre, 1948 Collection; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province; Zamboanga, Zamboanga Province, Mindanao.

Hemipteronotus pentadactylum Barnard, Ann. South African Mus., vol. 21, p. 768, 1927; Natal coast.

1614. Hemipteronotus stockumi (Reuvens).

The Philippines and East Indies.

Novacula Stockumii Reuvens, Notes Leyden Mus., vol. 16, p. 131, 1894; Paternoster Islands, East Indies; 1 specimen.

Hemipteronotus nigromaculatus Herre, Copeia, No. 1, p. 20, 1933; Jolo, Sulu Province, Philippines. Herre, Fishes 1931 Exped., p. 77, 1934, Jolo, Sulu Province.

Hemipteronotus Stockumi de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 56, 1940; Paternoster Islands; Philippines.

1615. Hemipteronotus twisti (Bleeker).

The East Indies and Philippines.

Novacula Twistii Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 381, 1856; Ternate.

Hemipteronotus Twistii Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 295, 1862. Bleeker, Atlas Ichth., vol. 1, p. 152, pl. 29, fig. 1, 1862; Ternate; Batjan. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 36, 1878; New Guinea.

Novacula twistii Günther, Cat. Fishes British Mus., vol. 4, p. 178, 1862; Ternate. Steindachner, Abh. Senckenb. Naturf. Gesell., vol. 25, p. 443, 1901.

Hemipteronotus twistii Herre, Philippine Bureau Science Collection, 1922-27; Zamboanga, Zamboanga Province. Mindanao; Jolo, North Ubian, and Sitankai, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 365, 1928. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Jolo, Sulu Province, Philippines. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province, Zamboanga, Zamboanga Province, Mindanao.

Hemipteronotus twisti de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 55, 1940; North Celebes; Sangi Islands; Ternate; Batjan; New Guinea. Philippines.

Genus 508. HOLOGYMNOSUS Lacépède.

Only one species known.

Hologymnosus Lacépède Hist. Nat. Poissons, vol. 3, p. 556, 1802; type, *Hologymnosus fasciatus* Lacépède. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 313, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 252, 1940.

Hologymnes Duméril, Zoologie Analytique, p. 337, 1806; type, *Hologymnosus fasciatus* Lacépède.

1616. Hologymnosus semidiscus (Lacépède).

The tropical Indo-Pacific, from East Africa to the Philippines, Riu Kiu, Pelew, Gilbert, New Hebrides, Fiji, and Society Islands.

Labrus semidiscus Lacépède, Hist. Nat. Poissons, vol. 3, p. 429, 472, pl. 6, fig. 2, 1802; "Great Gulf of India."

Labrus doliatus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 429, 473, pl. 6, fig. 3, 1802; "Great Gulf of India." Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 504, 1839; Mauritius.

Labrus annulatus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 455, 526, pl. 28, fig. 3, 1802; "The Great Equatorial Ocean."

Hologymnosus fasciatus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 556, 557, pl. 1, fig. 3, 1802; "Great Equatorial Ocean." Bleeker, Atlas Ichth., vol. 1, p. 96, pl. 20, figs. 1-2, 1862; Celebes; Amboina. (?) Borodin,

- Bull. Vanderbilt Marine Mus., vol. 1, p. 60, 1830; Hilo, Hawaii; a doubtful record.
- Julis rosea* Quoy and Gaimard, Voy. *Astrolabe*, Zool., p. 796, pl. 15, fig. 7, 1834; Mauritius.
- Julis annulatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 501, pl. 388, 1839; East Indies; Mauritius; Seychelles.
- Julis (Julis) annulatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 311, 1855; Celebes.
- Julis oxyrhynchos* Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 74, 1857; Kajeli, Buru.
- Hologymnosus oxyrhynchos* Bleeker, Atlas Ichth., vol. 1, p. 97, pl. 33, fig. 4, 1862.
- Coris elongata* Günther, Cat. Fishes British Mus., vol. 4, p. 201, 1862; Aneiteum, New Hebrides.
- Coris semipartita* Günther, Cat. Fishes British Mus., vol. 4, p. 203, 1862; Mauritius.
- Coris longipes* Günther, Cat. Fishes British Mus., vol. 4, p. 204, 1862; Aneiteum.
- Coris annulata* Günther, Cat. Fishes British Mus., vol. 3, p. 202, 1862; Mauritius; Seychelles. Günther, Fische der Südsee, vol. 3, p. 280, pl. 146, fig. A, 1909; Pelew, Gilbert, and Society Islands. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 258, 1908-11; Durban, Natal.
- Coris (Hologymnus) dolata* Sauvage, in Grandidier, Hist. Phys. Nat., Poissons, p. 462, pl. 49, fig. 5, 1891; on Cuvier and Valenciennes.
- Hologymnosus semidiscus* Seale, Occas. Papers Bishop Mus., vol. 4, p. 57, 1906; Rarotonga, Cook Islands; Tahiti, Society Islands. Herre, Fishes Philippine Bureau Science Collection, 1921-27; Puerto Galera, Mindoro; Taytay Bay, Palawan; Bennett Island, west of Masbate; Cebu, Cebu; Zamboanga, Zamboanga Province, Mindanao. Barnard, Ann. South African Mus., vol. 21, p. 748, 1927; Natal coast, South Africa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 313, 1928; Port Maricaban, Verde Island Passage between Luzon and Mindoro; Cruz Point, Bohol; Jolo market, Jolo, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 349, 1928; Tahiti, Society Islands; Rarotonga, Cook Islands. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Burias Island; Culion; Linapacan Island, Palawan Province; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 253, fig. 37, 1940; Simalur; Java; Makassar and Menado, Celebes; Flores; Buru; Amboina; Banda; Port Moresby, New Guinea.

Genus 509. INIISTIVS Gill.

- Tropical and subtropical Indo-Pacific; species marine, few in number.
- Iniistius* Gill, Proc. Acad. Nat. Sci. Phila., p. 143, 1862; type, *Xyrichthys pavo* Cuvier and Valenciennes. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 328, 1905. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 62, 1940.
- Xyrichthys* Bleeker, Atlas Ichth., p. 149, 1862; not of Cuvier, according to de Beaufort.

1617. *Iniistius pavo* (Cuvier and Valenciennes).

- From the east coast of Africa to the Hawaiian and Marquesas Islands and the Pacific coast of Mexico.
- Xyrichthys pavo* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 61, pl. 394, 1839; Mauritius; Bourbon.
- Xyrichthys pavoninus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 63, 1839; Hawaiian Islands.
- Novacula pavo* Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 378, 1856; Ternate. Günther, Cat. Fishes British Mus., vol. 4, p. 175, 1862; Mauritius. Günther, Fische der Südsee, vol. 3, p. 287, 1910; Ponapé; Mortlock; Tahiti; Honolulu.
- Xyrichthys pavo* Bleeker, Atlas Ichth., vol. 1, p. 149, pl. 29, fig. 2, 1862; Ternate.
- Iniistius mundicorpus* Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 145, 1862; Cape San Lucas, Lower California, Mexico. Jordan and Evermann, Fishes North and Middle America, vol. 2, p. 1620, 1898; west coast of Mexico.
- Iniistius pavo* Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 143, 1865; Cape San Lucas, Lower California, Mexico. Fowler, Mem. Bishop

Mus., vol. 10, p. 365, 1928; Honolulu, Hilo, Maui; and Puako Bay, Hawaiian Islands. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Jolo, Sulu Province. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 241, 1938; Honolulu, Hawaiian Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 63, fig. 13, 1940; Bali; Sulu Islands; Ternate; Manokwari, New Guinea; Philippines; also 14 other Indo-Pacific localities; synonymy in part.

Iniistius leucozonus Jenkins, Bull. U. S. Fish. Comm., vol. 19, p. 54, 1901; Honolulu.

Iniistius acatua Waite, Records Australian Mus., vol. 4, p. 41, pl. 7, 1901; Lord Howe Island.

Iniistius pavoninus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 465, 1902; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 329, pl. 42, and fig. 139, 1905; Honolulu, Hilo, Kailua, and Puako Bay, Hawaiian Islands. McCulloch, Records Australian Mus., vol. 14, p. 17, 1923; Lord Howe Island.

1618. *Iniistius niger* (Steindachner).

The Philippine and Hawaiian Islands.

Novacula (Iniistius) nigra Steindachner, Anz. Akad. Wiss. Wien, vol. 16, p. 176, June 27, 1900. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 505, pl. 4, fig. 2, 1901; Honolulu.

Iniistius verater Jenkins, Bull. U. S. Fish. Comm., vol. 19, p. 55, fig. 12, August 30, 1900; Honolulu, Hawaiian Islands.

Iniistius niger Seale, Occas. Papers Bishop Mus., vol. 1, p. 18, 1901; Honolulu. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 331, fig. 140, 1905; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 365, 1928; Honolulu, Hawaii. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Unisan, Tayabas Province, Luzon, Philippines.

Genus 510. *XYRICHTHYS* Cuvier.

Xyrichthys Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 1, pp. 317, 329, and 355, 1815; type, *Xyrichthys cultratus* Cuvier = *Coryphaena novacula* L. Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 103, 1862. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 336, 1905. Fowler, Marine Fishes West Africa, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 981, 1936.

1619. *Xyrichthys tetrazona* Bleeker.

From the East Indies and Philippines to the Red Sea.

Novacula tetrazona Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 169, 1858-59; Bali. Günther, Cat. Fishes British Mus., vol. 4, p. 175, 1862; Bali. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 531, 1871; Red Sea.

Xyrichthys tetrazona Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 294, 1862. Bleeker, Atlas Ichth., vol. 1, p. 149, pl. 30, fig. 1, 1862; Bali. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Dumaguete.

Iniistius tetrazona Barnard, Ann. South African Mus., vol. 21, p. 770, 1927; Natal coast.

Genus 511. *LABRICHTHYS* Bleeker.

Only one Indo-Pacific species.

Labrichthys Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 331, 1854; type, *Labrichthys cyanotaenia* Bleeker. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 219, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 152, 1940.

Thysanochelilus Kner, Denks. Akad. Wiss. Wien, vol. 24, p. 4, 1864; type, *Thysanochelilus ornatus* Kner.

Chaerofulus Kner and Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 54, p. 394, 1866.

1620. *Labrichthys cyanotaenia* Bleeker.

Zanzibar to the Philippines, the RiuKiu, Solomon, and Samoan Islands. *Labrichthys cyanotaenia* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 331, 1854; Larantuka, Flores. Bleeker, Atlas Ichth., vol. 1, p. 154, pl. 22, fig. 1, 1862; Flores. Günther, Cat. Fishes British Mus., vol. 4, p. 116, 1862; after Bleeker. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 294, 1906; Apia, Samoa. Herre, Philippine Bureau Science Collection, 1924; Bungau, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 220, 1928; Batan Island, RapuRapu Strait,

Albay Province, Luzon; Puerto Galera, Mindoro; Bisucay Island, Cuyo Islands; Isabela, Basilan Island. Also Danawan and Si Amil Islands, British North Borneo, close to the Philippine boundary line; Tidore Island, Dutch East Indies; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 331, 1928; Apia, Samoa. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 74, 1930; Riu Kiu Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 304, 1936; Tenibuli, Ysabel Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 153, fig. 27, 1940; Sulu Islands, Philippines; Tidore and Banda, Dutch East Indies.

Thysanocheilus ornatus Kner, Denks. Akad. Wiss. Wien, vol. 24, p. 4, pl. 3, 1864; Upolu, Samoa.

PlatyGLOSSUS ocellatus Kner and Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 54, p. 377, fig. 8, 1867; Upolu, Samoa.

Chaerophilis castaneus Kner and Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 54, p. 394, figs. a-b, 1867; Samoa.

Thysanocheilus cyanotaenia Günther, Proc. Zool. Soc. London, p. 241, 1881. Günther, Fische der Südsee, vol. 2, p. 242, 1881; Samoa.

Genus 512. LABROIDES Bleeker.

Marine fishes of the tropical Indo-Pacific.

Labroides Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 249, 1851; type, *Labroides paradiseus* Bleeker. Günther, Cat. Fishes British Mus., vol. 4, p. 118, 1862; in part. Barnard, Ann. South African Mus., vol. 21, p. 749, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 221, 1928; in part. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 147, 1940.

Fissilabrus Kner, Sitzungsber. Akad. Wiss. Wien, vol. 40, p. 14, 1860; type, *Cossyphus dimidiatus* Cuvier and Valenciennes.

1621. *Labroides bicolor* Fowler and Bean.

The Philippines and East Indies.

Labroides bicolor Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 224, 1928; Port Maricaban, Verde Island Passage, between Luzon and Mindoro, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 150, 1940; Batavia, Java; Philippines.

1622. *Labroides dimidiatus* (Cuvier and Valenciennes).

From the east coast of Africa to the Philippines, Pelew Islands, Yap, Hawaiian Islands, New Hebrides, Australia, Samoan and Society Islands.

Labrus latovittatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 7, pl. 2, fig. 2, 1835; not of Lacépède; Tor, Red Sea.

Cossyphus dimidiatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, pp. 136 and 139, 1839; Mauritius.

Labroides paradiseus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 249, 1851; Banda Neira. Bleeker, Atlas Ichth., vol. 1, p. 155, pl. 44, fig. 2, 1862; Java; Cocos; Sumatra; Celebes; Sangi; Ternate; Batjan; Buru; Amboina; Haruko; Banda; Goram; Letti. Günther, Cat. Fishes British Mus., vol. 4, p. 119, 1862; East Indian Archipelago. Martens, Preuss. Exped. Ost-Asien, p. 397, 1876; Amboina River. Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 94, 1907; Bacon, Sorsogon Province, Luzon.

Labroides dimidiatus Günther, Cat. Fishes British Mus., vol. 4, p. 119, 1862; Amboina; Goram; Red Sea. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 548, 1871; Koseir, Red Sea. Day, Fishes India, p. 393, pl. 87, fig. 1, 1878. Günther, Fische der Südsee, vol. 2, p. 243, 1881; East Africa; Pelew Islands; Yap; New Hebrides; Samoa; Hawaii. Day, Fauna British India, vol. 2, p. 397, fig. 133, 1889. Barnard, Ann. South African Mus., vol. 21, p. 749, 1927; Natal coast. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 222, 1928; Ragay Bay, Ragay Gulf, Camarines Sur Province, and Bacon, Sorsogon Province, Luzon. Cebu market, Cebu; Surigao, Surigao Province, Mindanao; Simalac Island, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 331, 1928; Society Islands. Whitley, Records Australian Mus., vol. 16, p. 221, 1928. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 148, fig. 25, 1940; 16 East Indian localities; Sulu Islands, Philippines; and 17 Indo-Pacific localities.

Herre, 1948 Coll.; Layia, Batangas Province, Luzon; Siluag Island, Sulu Province.

Labroides latovittatus Bleeker, Atlas Ichth., vol. 1, p. 155, pl. 44, fig. 1, 1865; Amboina, Goram, Letti, Timor.

Labrides dimidiatus Herre, Mem. Indian Mus., vol. 13, p. 380, 1941; Red Sea to Mauritius, the Philippines, Hawaii, and Samoa; typographical error.

Genus 513. LEPIDAPLOIS Gill.

Tropical Indo-Pacific reef fishes.

Lepidaplois Gill, Proc. Acad. Nat. Sci. Phila., p. 140, 1862; type, *Labrus axillaris* Bennett. Jordan and Snyder, Proc., U. S. Nat. Mus., vol. 24, p. 616, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 278, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 201, 1928.

Bodianus de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 41, 1940.

Euhypsocara Gill, Proc. Acad. Nat. Sci. Phila., p. 222, 1863; type *Cossyphus anthioides* Günther.

Gymnopropoma Gill, Proc. Acad. Nat. Sci. Phila., p. 222, 1863; type, *Labrus bilunulatus* Lacépède.

1623. *Lepidaplois bilunulatus* (Lacépède).

From the tropical islands of the Indian Ocean to the Philippines and Hawaiian Islands.

Labrus bilunulatus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 454, 526, pl. 31, fig. 2, 1802; "Great Equatorial Ocean."

Cossyphus bilunulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 121, 1839; Mauritius. Richardson, Ichth. China Japan, p. 256, 1846; China Seas; Canton. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, Bijdr. vischfauna Amboina, p. 4, 1858. Bleeker, Atlas Ichth., vol. 1, p. 160, pl. 38, fig. 3, 1862; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 105, 1862; Mauritius. Günther, Fische der Südsee, vol. 2, p. 240, pl. 130, 1876-1881; Mauritius; Zanzibar; Amboina; Misol; Hawaiian Islands.

Harpe bilunulata Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 503, 1901; Honolulu.

Lepidaplois bilunulatus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 207, 1928; Zamboanga market, Zamboanga Province, Mindanao; Honolulu, Hawaiian Islands; not synonymy. Fowler, Mem. Bishop Mus., vol. 10, p. 323, 1928; Honolulu and Maui, Hawaiian Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Dumaguete; Cebu, Cebu; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 47, 1940; Amboina and Misol, Dutch East Indies; Philippines.

1624. *Lepidaplois diana* (Lacépède).

East coast of Africa to the Philippines.

Labrus diana Lacépède, Hist. Nat. Poissons, vol. 3, pp. 450 and 452, pl. 32, fig. 1, 1802; "Great Equatorial Ocean."

Cossyphus diana Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 127, 1839; on a drawing. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 86, 1854; Sumatra. Peters, Archiv Naturges., p. 261, 1855; Mozambique. Bleeker, Atlas Ichth., vol. 1, p. 159, pl. 38, fig. 1, 1862; Sumatra; Bintang; Celebes; Batjan; Amboina. Günther, Cat. Fishes, British Mus., vol. 4, p. 104, 1862; Mauritius; Amboina, Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 549, 1871; Koseir, Red Sea. Day, Fishes India, p. 392, pl. 87, fig. 3, 1878; Waltair, India; Malay Archipelago. Weber, Siboga-Exped., vol. 57, Fische, p. 362, 1913; Banda.

Lepidaplois diana Jordan and Starks, Ann. Carnegie Mus., vol. 11, p. 456, 1917; Ceylon. Barnard, Ann. South African Mus., vol. 21, p. 745, 1927; Natal Coast; Mozambique. Herre, Philippine Bureau Science Collection, 1920-27; Puerto Galera, Mindoro; Bancoran Island, east of Balabac Island; Tonquil Island, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 204, 1928; northwest of Verde Island, Verde Island Passage, between Luzon and Mindoro; Sulu Island and Tataan Island, Sulu Province; Gomomo, Tidore,

and Buru Islands, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 44, fig. 9, 1940; Sumatra; Bintang; Makassar, Celebes; Batjan; Buru; Gomomo; Amboina and Banda, Dutch East Indies; Sulu Islands, Philippines.

1625. *Lepidaplois hirsutus* (Lacépède.)

Natal, South Africa, to the Philippines, RiuKiu and Tuamotu Islands. *Labrus hirsutus* Lacépède, Hist. Nat. Poissons, vol. 3, pp. 429, 473, pl. 20, fig. 1, 1802; Great Gulf of India.

Lepidaplois hirsutus Barnard, Ann. South African Mus., vol. 21, p. 745, 1927; Natal Coast; Mozambique, not synonymy. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 208, 1928; Santo Domingo de Basco, Batan Island, Batanes Province. Port Hamilo, Batangas Province, Luzon. Paluan Bay, Mindoro. Also Nafa, Okinawa, RiuKiu Islands, Tuamotu Islands. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Culion; Linapacan Island, Palawan.

Labrus macrourus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 438, 493, pl. 9, fig. 3, 1802; Great Equatorial Ocean.

Cossyphus macrurus Günther, Cat. Fishes British Mus., vol. 1, p. 104, 1862; Mautitiu. Günther, Fische der Sudsee, vol. 2, p. 240, pl. 129, fig. A, 1881; Mauritius and Vavau.

Lepidaplois macrurus Jordan and Seale, Bull. Bur. Fish., vol. 26, p. 29, 1907; Manila, Luzon, Philippine Islands.

Crenilabrus croceus Lesson, Mem. Soc. Hist. Nat. Paris, vol. 4, p. 407, 1828; Tombau Bay, Mauritius.

Crenilabrus chabrolii Lesson, Voy. Coquille Zool., vol. 2, p. 133, pl. 38, 1830; on *Crenilabrus croceus* Lesson.

Labrus spilonotus Bennett, Proc. Zool. Soc. London, vol. 3, p. 207, 1835; Mauritius.

Cossyphus maldat Cuvier and Valenciennes, vol. 13, p. 114, 1839; Mauritius.

Lepidaplois trotteri Fowler and Bean, Proc. U. S. Nat. Mus., vol. 63, p. 20, 1923; Tuamotu Islands.

1626. *Lepidaplois mesothorax* (Bloch and Schneider).

East Indies, the Philippines, China, Australia.

Labrus mesothorax Bloch and Schneider, Syst. Ichth., p. 254, 1801; East Indies.

Cossyphus mesothorax Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 129, 1839; Java. Bleeker, Verh. Bat. Gen., vol. 23, Glad-schub. Labroid., p. 13, 1849; Batavia, Java. Bleeker, Atlas Ichth., vol. 1, p. 159, pl. 38, fig. 4, 1862; Java; Sumatra; Amboina. Günther, Cat. Fishes, vol. 4, p. 103, 1862; Ceram; Amboyna.

Bodianus mesothorax Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 41, 1878; New Guinea. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 42, 1940; 12 East Indian localities; Sulu Islands; Sulu Province, Philippines; China; Queensland, Australia.

Lepidaplois mesothorax Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 535, 1904; Padang, Sumatra. Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 94, 1907; Bacon, Sorsogon Province, Luzon, Philippines. Ogilby, Mem. Queensland Mus., vol. 5, p. 184, 1916; Great Barrier Reef, Queensland, Australia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 202, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands, north of Luzon. Grande Island Reef, Subig Bay, Bataan Province; Ligpo Point, Balayan Bay, Batangas Province; Alibijaban Island and Capulaan Bay, Pagbilao Island, Tayabas Province; Galvaney Island, Ragay Gulf, Butaanan Island, and Masamat Bay, Quinalasag Island, Camarines Sur Province; Palag Bay, Faron Point, Albay Gulf, and San Miguel Island, Tabaco Bay, Albay Province; Matnog Bay, Sorsogon Province, Luzon. Agojo Point, Catanduanes Island. Puerto Galera and Varadero Bay, Mindoro; Alimango Bay, Burias Island; Masbate Reef, Masbate Island; San Roque, Leyte; Port Langan, Dumaran Island, Palawan Province; Camp Overton, Lanao Prov., Murcielagos Bay, Misamis Occidental Province, and Silino Island, Zamboanga Province, Mindanao; Tonquil Island, Tutu Bay, Jolo Island, and Siasi Island, Sulu Province. Banawan and Si Amil Islands, British North Borneo, south of the Philippine boundary. Also Buru, Celebes, Halmahera, and Ternate Islands, Dutch East

Indies; Kowloon market, China. Fowler, Mem. Bishop Mus., vol. 10, p. 328, 1928; East Indies; Philippines; Queensland, Australia. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Jolo, Sulu Province, Philippines.

Genus 514. MACROPHARYNGODON Bleeker.

Hawaiian and Caroline Islands to the RiuKiu Islands, Philippines, East Indies, Solomon and Samoan Islands. Species few, perhaps but one; marine.

Macropharyngodon Bleeker, Proc. Zool. Soc. London, p. 412, 1861; type, *Julis geoffroy* Quoy and Gaimard. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, part 1, p. 288, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 299, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 171, 1940.

1627. *Macropharyngodon meleagris* (Cuvier and Valenciennes).

Distribution that of the genus.

Julis meleagris Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 481, 1839; Ulea, Caroline Islands.

Julis (Halichoeres) Geoffroyi Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1 Vischsoorten Menado en Makassar, p. 58, 1856; Celebes; not of Quoy and Gaimard.

Macropharyngodon Geoffroyi Bleeker, Proc. Zool. Soc. London, p. 412, 1861. Bleeker, Atlas Ichth., vol. 1, p. 129, pl. 37, fig. 5, 1862; Celebes; not of Quoy and Gaimard. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 277, 1865; Amboina; not of Quoy and Gaimard.

PlatyGLOSSUS geoffroyi Günther, Cat. Fishes, vol. 4, p. 145, 1862, Celebes; after Bleeker; not of Quoy and Gaimard.

Macropharyngodon meleagris Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 298, 1906; Apia, Samoa. Günther, Fische der Südsee, vol. 3, p. 262, pl. 143, fig. A, 1910; Duke of York Island; Ponapé, Caroline Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 172, fig. 31, 1940; Menado, Celebes; Kei Islands; Hood Bay; New Guinea; Philippines.

PlatyGLOSSUS meleagris Weber, *Siboga*-Exped., vol. 57, Fische, p. 376, 1913; Elat, Dutch East Indies.

Macropharyngodon geoffroyi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 299, 1928; Mahinog, Camiguin Island, north of Misamis Oriental Province, Mindanao; Sulade Island, Sulu Province, Philippines; not synonymy and not of Quoy and Gaimard.

Halichoeres meleagris Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 83, 1930; RiuKiu Islands.

1628. *Macropharyngodon negrosensis* Herre.

A Philippine species living on coral reefs.

Macropharyngodon negrosensis Herre, Copeia, No. 3, p. 142, 1932; Dumaguete, Negros Oriental Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 75, 1934; Dumaguete.

Genus 515. NOVACULICHTHYS Bleeker.

Coral reef fishes of the tropical Indo-Pacific.

Novaculichthys Bleeker, Proc. Zool. Soc. London, p. 414, 1861; type, *Labrus taeniourus* Lacépède. Bleeker, Versl. Akad. Amsterdam, p. 102, 1862. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 322, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 365, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 66, 1940.

1629. *Novaculichthys bifer* (Lay and Bennett).

The Hawaiian, Society, Samoan, and Caroline Islands, East Indies and Philippines.

Julis bifer Lay and Bennett, Fishes, Zoology Capt. Beechey's Voyage, p. 64, pl. 18, fig. 2, 1839; Oahu, Hawaiian Islands.

Novacula hoefti Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Nieuwe Vischsoorten Amboina, p. 59; 1856.

Novacula kалlosoma Bleeker, *ibid.*, vol. 8, Bijdr. vischfauna Amboina, p. 5, 1860. Günther, Cat. Fishes British Mus., vol. 4, p. 176, 1862; Amboina and Bali. Günther, Fische der Südsee, vol. 3, p. 286, 1910; Ponapé; Samoa; Tahiti; Hawaiian Islands.

- Novaculichthys kallosoma* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 293, 1862. Bleeker, Atlas Ichth., vol. 1, p. 145, pl. 31, fig. 3, 1862; Bali and Amboina. Snyder, Bull. U. S. Fish Comm., vol. 22, p. 530, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 527, pl. 41, 1905; Honolulu, Hawaiian Islands; Negros, Philippine Islands; Pago Pago, Samoa.
- Novaculichthys kallosomus* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 788, 1905; Bais, Negros Oriental Province, Philippines.
- Novacula hoedti* Günther, Cat. Fishes British Mus., vol. 4, p. 173, 1909; Celebes; Sangi; Amboina.
- Novaculichthys (Semachlorella) bifer* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 367, 1928; Negros, Philippines; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 364, pl. 41, fig. B, 1928; Honolulu, Oahu Island, Hawaiian Islands; Guam. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 71, 1940; Bali; Makassar; Celebes; Sangi Islands, Amboina; Philippines; Ponapé, Samoa; Tahiti; Hawaii.
- 1630.** *Novaculichthys macrolepidotus* (Bloch).
East coast of Africa to the East Indies, Philippines, and Riu Kiu Islands.
Labrus macrolepidotus Bloch, Naturges. Ausländ. Fische, vol. 5, p. 135, pl. 284, fig. 2, 1791.
Labrus arago Quoy and Gaimard, Voy. Uranie, Zoologie, p. 263, pl. 65, fig. 2, 1824; Îles des Papous.
Labrus taenionotus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 271, 1824; Waigiü.
Xyrichthys macrolepidotus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 59, 1839; East Indies; Waigiü. Peters, Archiv Naturges, p. 264, 1855; Mozambique.
Julis trimaculatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 386, 1839; on pl. 284, Bloch.
Novacula julioides Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 254, 1851; Banda Neira.
Xyrichthys (Novacula) Arago Steindachner, Verh. Zool.-Bot. Gessel. Wien, p. 136, pl. 4, fig. 1, 1861; Moluccas (?).
- Novaculichthys macrolepidotus* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 293, 1862. Bleeker, Atlas Ichth., vol. 1, p. 144, pl. 31, fig. 6, 1862; Bali; Sangi; Amboina; Ceram; Banda; Goram. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 788, 1905; Bais, Negros Oriental Province, Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 94, 1907; Bacon, Sorsogon Province, Luzon. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa, Riu Kiu Islands. Fowler, Proc. Acad. Nat. Sci. Phila., p. 259, 1925; Delagoa Bay, Portuguese East Africa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 306, 1928; Canmahala Bay, Ragay Gulf, Luzon; Guihulngan, Negros Oriental Province; Pandanon Island, Bohol; Zanzibar. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete; Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 277, 1934; Dumaguete. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 67, 1940; Java; Bali; Siau; Makassar, Celebes; Sangi Islands, Amboina; Ceram; Banda; Goram; Waigiü; Hood Bay, New Guinea; Philippines. Herre, 1948 Coll.; Dumaguete and Siaton, Negros Oriental Province.
- Novacula macrolepidota* Günther, Cat. Fishes, vol. 4, p. 174, 1862; Mozambique. Weber, Siboga-Exped., vol. 57, Fische, p. 377, 1943; Siau.
- 1631.** *Novaculichthys taeniourus* (Lacépède).
From Madagascar and Zanzibar to the East Indies, Philippines, New Hebrides, Pelew, Marshall, Hawaiian, Fiji, Samoan, and Society Islands; marine.
Labrus taeniourus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 488, 518, pl. 29, fig. 1, 1802; "Great Equatorial Ocean."
Labrus hemisphaerium Lacépède, Hist. Nat. Poissons, vol. 4, pp. 53, 160, 1802.
Julis vanikorensis Quoy and Gaimard, Voy. Astrolabe, Zool., p. 794, pl. 20, fig. 1, 1834; Vanikolo.
Xyrichthys vanicolensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 57, 1839; New Hebrides; Vanikolo.
Xyrichthys taeniurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 54, pl. 393, 1839; Mauritius.

Novacula cephalotaenia Bleeker, Nat. Tijds. Ned-Ind., vol. 6, p. 333, 1854; Larantuka, Flores.

Novacula taeniurus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Nieuwe Vischsoorten Menado en Makassar, p. 62, 1856. Günther, Cat. Fishes, vol. 4, p. 69, 1862; Mauritius. Günther, Fische der Südsee, vol. 3, p. 284, 1910; Pelew Islands; Caroline Islands; New Hebrides; Samoa; Society Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 376, 1913. Duncker and Mohr, Mitt. Zool. Mus. Hamburg, vol. 44, p. 68, 1929.

Novacula vanicolensis Günther, Cat. Fishes British Mus., vol. 4, p. 172, 1862; Aneiteum, New Hebrides.

Novaculichthys vanicorensis Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 131, 1903; Marcus Island.

Novaculichthys taeniourus Snyder, Bull. U. S. Fish Comm., vol. 22, p. 530, 1904; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 325, fig. 138, 1905; Honolulu and Hilo, Hawaiian Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 363, pl. 41, fig. A, 1928; Honolulu, Hawaiian Islands; Marcus Island; Wake Island; Gilbert Islands; Society Islands; Kusaie, Caroline Islands; Ebon and Ascension Islands, Marshall Islands. Herre, Fishes 1931 Philippine Exped., p. 77, 1934; Manila, Luzon; Cebu, Cebu; Jolo, Sulu Province. Herre, Fishes 1933-34 Exped.; Zamboanga, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 330, 1936; Suva, Viti Levu Island, Fiji.

Genus 516. PSEUDOCHEILINUS Bleeker.

One or possibly more marine species of the tropical Indo-Pacific.

Pseudocheilinus Bleeker, Proc. Zool. Soc. London, p. 409, 1861; type *Cheilinus hewataenia* Bleeker. Günther, Cat. Fishes British Mus., vol. 4, p. 134, 1862. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 316, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 341, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 96, 1940.

1632. *Pseudocheilinus hexataenia* (Bleeker).

From the Red Sea and Madagascar to the Philippines, Hawaiian and Tuamotu Islands.

Cheilinus hewataenia Bleeker, Acta Soc. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna Amboina, p. 84, 1857.

Pseudocheilinus hewataenia Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 276, 1862. Bleeker Atlas Ichth., vol. 1, p. 73, pl. 23, fig. 2, 1862; Amboina; Goram. Günther, Cat. Fishes British Mus., vol. 4, p. 134, 1862; Seas of Amboina and Goram. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 557, 1871; Koseir, Red Sea. Günther, Fische der Südsee, vol. 2, p. 250, 1881; Society Islands; Samoa; Phoenix Group. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 455, pl. 51 B, fig. 2, 1891; Madagascar. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 311, pl. 44, fig. 2, 1906; Apia, Samoa. Weber, *Siboga*-Exped., vol. 57, Fische, p. 366, 1913; Solor; Borneo Bank; Karkaralong Island. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 341, 1928; Puerto Galera, Mindoro; Gondra Island, Sulu Province; Murcielagos Bay, Misamis Occidental Province, Mindanao; Talisse and Halmahera Islands, Dutch East Indies; Honolulu, Hawaiian Islands; Apia, Samoa; Tahiti. Fowler, Mem. Bishop Mus., vol. 10, p. 358, 1928; Raiatea and Tahiti, Society Islands; Palmyra Island; Honolulu, Hawaiian Islands; Apia, Samoa; Johnston and Wake Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Dumaguete. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 325, 1936; Takaroa, Tuamotu Islands. Fowler, Acad. Nat. Sci. Philadelphia, Monograph 2, p. 239, 1938; Honolulu, Hawaiian Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 97, fig. 18, 1940; Kabala-dua, Strait of Makassar; Talisse Island; Solor; Goram; Amboina: Ternate; Halmahera; Karkaralong Islands, Dutch East Indies; Philippines; also 11 other Indo-Pacific localities. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Pseudocheilinus psittaculus Kner and Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 54, p. 376, fig. 7, 1866; Phoenix Islands.

Cossyphus echiis Guichenot, Nouv. Arch. Mus. Hist. Nat. Paris, vol. 5, p. 197, pl. 12, fig. 5, 1869; Madagascar.

Genus 517. PSEUDOCORIS Bleeker.

A single marine species from the East Indies, Philippines, and Tahiti; doubtfully recorded from China. Only 6 specimens known, only 3 now in existence, as the Philippine specimens were destroyed by the Japanese during World War II.

Pseudocoris Bleeker, Proc. Zool. Soc. London, p. 411, 1861; type, *Julis heteropterus* Bleeker. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 238, 1940.

1633. Pseudocoris heteropterus (Bleeker).

Julis (Halichoeres) heteropterus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 78, 1857; Amboina.

Pseudocoris heteropterus Bleeker, Proc. Zool. Soc. London, p. 411, 1861. Bleeker, Atlas Ichth., vol. 1, p. 98, pl. 19, fig. 1, 1862; Amboina. Herre, Philippine Bureau Science Collection; Samal Island, Davao Gulf, Davao Province; Jolo and Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 239, fig. 35, 1940; Amboina and Ceram, Dutch East Indies; Tahiti; Philippines.

Coris heteroptera Günther, Cat. Fishes, British Mus., vol. 4, p. 206, 1862; Amboina; after Bleeker. Günther, Fische der Südsee, vol. 3, p. 283, 1910; Tahiti. Fowler, Mem. Bishop Mus., vol. 10, p. 349, 1928; after Bleeker.

Coris Bleekeri Hubrecht, Ann. Mag. Nat. Hist., vol. 17, p. 214, 1876; Ceram.

Genus 518. PSEUDODAX Bleeker.

A single marine species, ranging from the East Indies and Philippines to Zanzibar and Réunion.

Pseudodax Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 229, 1861; type, *Odax moluccanus* Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 4, p. 208, 1862. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 210, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 25, 1940.

1634. Pseudodax moluccanus (Cuvier and Valenciennes).

Distribution as above for the genus.

Odax moluccanus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 305, pl. 408, fig. 2, 1839; Moluccas. Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 91, fig. 3, 1839.

Pseudodax moluccanus Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 277, 1862. Bleeker, Atlas Ichth., vol. 1, p. 80, pl. 18, fig. 5, and pl. 22, fig. 2, 1862; Celebes; Amboina; Ceram. Bleeker, Nat. Tijds. Dierk., vol. 1, p. 265, 1863; Atapupu, Timor. Day, Fishes India, p. 409, pl. 89, fig. 1, 1878; Malay Archipelago. Day, Fauna British India, vol. 2, p. 420, fig. 146, 1889. Herre, Philippine Bureau of Science Collection; Caraga, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Calapan, Mindoro; Cebu. Cebu. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 210, 1928; off Daet, Camarines Norte Province, Luzon; Maricaban Island, Verde Island Passage; Cebu market, Cebu; Tulnalutan Island, Zamboanga, Zamboanga Province, Mindanao; Dowarra, Buru, and Halmahera Islands, and the Gulf of Tomini, Celebes, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 330, 1928; Philippines; East Indies; Zanzibar, Réunion. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 25, fig. 6, 1940; Gulf of Tomini and Makassar, Celebes: Doworra; Amboina; Buru; Ceram; New Guinea; Philippines; Zanzibar; Réunion; Nikobar Islands.

Pseudodax moluccensis Günther, Cat. Fishes British Mus., vol. 4, p. 208, 1862; Amboina; Java. Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 106, 1874; Bohol.

Genus 519. STETHOJULIS Günther.

Coral-reef fishes of the warmer parts of the Indo-Pacific.

Stethojulis Günther, Ann. Mag. Nat. Hist., vol. 8, p. 386, 1861; type, *Julis strigiventer* Bennett. Günther, Cat. Fishes British Mus., vol. 4, p. 140, 1862. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 629, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 283, 1905. Barnard, Ann. South African Mus., vol. 21, p. 756, 1927. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 23, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 155, 1940.

1635. *Stethojulis albobittata* (Bonnaterre).

From the Red Sea and Madagascar to the Philippines, and the Fiji, Samoan, and Cook Islands.

Labrus albobittatus Bonnaterre, Tableau Encyclop. Ichth., p. 108, pl. 98, fig. 399, 1788. Lacépède, Hist. Nat. Poissons, vol. 3, pp. 443, 509, 1802.

Julis balteatus Quoy and Gaimard, Voy. *Uranie*. Zoologie, p. 267, pl. 56, fig. 1, 1824; Maui, Hawaiian Islands.

Julis (Halichoeres) balteatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 253, 1851; Banda Neira.

Stethojulis albobittata Günther, Ann. Mag. Nat. Hist., vol. 8, p. 386, 1861. Bleeker, Atlas Ichth., vol. 1, p. 132, pl. 44, fig. 5, 1862; Java, Sumatra; Nias; Batu; Bali; Celebes; Sangi; Ternate; Buru; Banda; Goram; Letti. Günther, Cat. Fishes British Mus., vol. 4, p. 141, 1862; Madagascar; Amboina; Hawaiian Islands. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 542, 1871; Koseir, Red Sea. Günther, Fische der Südsee, vol. 2, p. 256, pl. 141, fig. B, 1881; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 284, pl. 26, 1905; Honolulu and Maui, Hawaiian Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 241, 1928; Cebu market, Cebu; Sulade and Teomabal Islands, Sulu Province, Philippines; Samoa; Honolulu, Hawaiian Islands; Guam; Kusaie Island, Caroline Islands; Gilbert Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 159, 1940; 19 East Indian localities; Sulu Islands, Philippines; also 16 other Indo-Pacific places. Herre, 1948 Coll.; Siluag Islands, Sulu Province.

1636. *Stethojulis axillaris* (Quoy and Gaimard).

Indo-Pacific from the Red Sea and Madagascar to the Philippines, Japan, Marshall, Hawaiian, Fiji, Tuamotu, and Marquesas Islands, and south of Australia.

Julis axillaris Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 272, 1824; Hawaiian Islands.

Julis (Halichoeres) bandanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 254, 1851; Banda Neira.

Stethojulis axillaris Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 290, 1862. Bleeker, Atlas Ichth., vol. 1, p. 136, pl. 44, fig. 7, 1862; Java; Celebes; Ternate; Banda; Goram; Timor; Letti. Günther, Cat. Fishes, vol. 4, p. 142, 1862; Madagascar. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 541, 1871; Koseir, Red Sea. Günther, Fische der Südsee, vol. 2, p. 254, pl. 136, fig. C, 1881; East Africa; East Indies; Pelew Islands; Solomon, Fiji, and Society Islands; Hawaii; New Hebrides; Ponapé, Caroline Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 283, fig. 121, 1905; Honolulu and Hilo, Hawaiian Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 506, 1912; Okinawa, RiuKiu Islands. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 234, 1928; Port San Pio Quinto Island, Babuyan Islands, north of Luzon. Bolinao Harbor, Pangasinan Province, Luzon. Cagayancillo, Cagayan Islands; Cagayan Sulu Island, and Sulade Island, Sulu Province; Negros, Philippines. Honolulu, Oahu Island, Hawaiian Islands; Midway Reefs; Tanegashima, Japan; Apia, Samoa; Wotje and Arhno Atolls, Marshall Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 334, 1928; Oahu, Honolulu, and Maui, Hawaiian Islands; Guam; Fiji; Apia, Samoa; Marcus Island; Nukahiva Island, Marquesas Islands; Kusaie Island, Caroline Islands; Society Islands; Gilbert Islands. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 81, 1930. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 305, 1936; Suva, Viti Levu Island, Fiji. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 167, fig. 28, 1940; 21 East Indian localities; Philippines; also 18 more Indo-Pacific places. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province; Siluag Island, Sulu Province. *Stethojulis bandanensis* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 787, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 297, pl. 45, fig. 2, 1906; Apia and PagoPago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Prov., Luzon; Philippines; Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Cuyo, Cuyo Islands; Cagayancillo, Cagayan Islands.

1637. *Stethojulis interrupta* (Bleeker).

From the coast of Africa and the Red Sea to the East Indies, Philippines, and China.

Julis (Halichoeres) interruptus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 252, 1851; Banda Neira.

Stethojulis interrupta Günther, Ann. Mag. Nat. Hist., vol. 8, p. 386, 1861. Bleeker, Atlas Ichth., vol. 1, p. 133, pl. 44, fig. 5, 1862; Bali; Celebes; Solor; Timor; Ternate; Buru; Amboina; Ceram; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 142, 1862; Amboina. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 543, 1871; Koseir, Red Sea. Fowler, Proc. Acad. Nat. Sci. Phila., p. 259, 1925; Delagoa Bay, Portuguese East Africa. Barnard, Ann. South African Mus., vol. 21, p. 756, 1927; Natal coast; Delagoa Bay. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 240, 1928; Cebu market, Cebu; Pandanon Island, coast of Bohol; Teomabal Island, Sulu Province, Philippines; China. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 73, 1934; Dumaguete, Sitankai, Sulu Province, Philippines. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 161, 1940; 14 East Indian localities; Sulu Islands, Philippines; Natal, Zanzibar, Red Sea, Annam, China. Herre, 1948 Coll.; Zamboanga, Zamboanga Province.

1638. *Stethojulis kalosoma* (Bleeker). Lugday.

From East Africa and the Red Sea to the East Indies, Philippines, and Japan, and south to Australia.

Julis (Halichoeres) kalosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 289, 1852; Amboina; Wahai, Ceram.

Stethojulis kalosoma Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 290, 1862. Bleeker Atlas Ichth., vol. 1, p. 134, pl. 43, fig. 4, 1862; Java; Bawean; Bali; Sumatra; Nias; Celebes; Sangi; Ternate; Buru; Amboina; Ceram; Banda; Goram. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 369, 1913; North Ubian Island, Sulu Province, Philippines; Sarasa, Saleyer, and Elât, Dutch East Indies. Barnard, Ann. South African Mus., vol. 21, p. 758, 1927; Natal coast; Delagoa Bay. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Dumaguete; Cebu, Cebu. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Brooke's Point, Palawan.

Stethojulis kalosoma Günther, Cat. Fishes British Mus., vol. 4, p. 142, 1862; Amboina. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 543, 1871; Koseir, Red Sea. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 787, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Province, Luzon. McCulloch, Proc. Linn. Soc. New South Wales, vol. 36, p. 606, 1912; Murray Island, Queensland, Australia. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 420, 1912; Misaki, Japan. Seale, Philippine Jour. Sci., vol. 9A, p. 70, 1914; Hong Kong, China. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 238, 1928; Calayan Island, Babuyan Islands, north of Luzon; Maculabo, Camarines Norte Province; Masamat Bay, Quinalasag Island, Camarines Sur Province; Atulayan Bay, Albay Province; Bacon and Bagatao Bay, Sorsogon Province; Luzon. Varadero Bay, Mindoro; Santa Cruz Island, Marinduque; San Pascual Bay, Burias Island; Cataingan Bay, Masbate; Cebu Market, Cebu. Guihulugan, Negros Oriental Province. Pandanon Island, Bohol. Bolalo Bay, Palawan. Mahinog, Camiguin Island off Misamis Oriental Province, Mindanao. Jolo Light, Jolo and Tara Island, Sulu Province, Philippines. Great Tobeia Island, Dutch East Indies; Misaki and Wakanoura, Japan. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 165, 1940; 22 East Indian localities; Sulu Islands, Philippines; Natal coast; Madagascar; Zanzibar; Red Sea; Japan; China; Indo-China; Queensland, Australia. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Stethojulis terina Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 631, fig. 6, 1902; Misaki, Wakanoura, and Kominato, Japan. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 250, 1925; Shizuoka and Misaki, Japan.

Stethojulis zatina Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 788, fig. 9, 1905; Bais, Negros Oriental Province. Evermann and Seale, Bull. U. S. Bureau Fisheries, vol. 26, p. 93, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 266, 1908; Calayan Island, Babuyan Islands north of Luzon; Cuyo, Cuyo Islands, Philippines.

1639. *Stethojulis phekadopleura* (Bleeker).

From the African coast to the East Indies, Philippines, Japan, the Caroline Islands, Solomon Islands, New Hebrides, Fiji, and Samoan Islands. *Julis* (*Halichoeres*) *phekadopleura* Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth. Bali, p. 8, 1849; Boeling, Bali.

Stethojulis phekadopleura Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 290, 1862. Bleeker, Atlas Ichth., vol. 1, p. 134, pl. 43, fig. 5, 1862; Java; Bawean; Bali; Sumatra; Nias; Borneo; Celebes; Sangi; Ternate; Amboina; Ceram; Timor; Letti. Günther, Cat. Fishes British Mus., vol. 4, p. 143, 1862; East Indian Archipelago. Günther, Fische der Südsee, vol. 2, p. 255, 1881; Solomon Islands; Ponapé, Caroline Islands. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 787, 1905; Bais, Negros Oriental Province, Philippines; Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 297, fig. 52, 1906; Apia and Pago-Pago, Samoa; Negros Island, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 93, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 265, 1908; Calayan Island, Babuyan Islands, north of Luzon; Cuyo, Cuyo Islands, Philippines. Snyder, Proc. U. S. Nat. Mus., vol. 42, 1912; p. 420, Tanegashima, Japan; p. 516, Okinawa, RiuKiu Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 369, 1913; Savu; Beo; Obi Major; Saleyer; Nusa Laut; Tiur. Barnard, Ann. South African Mus., vol. 21, p. 759, 1927; Natal coast. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 237, 1928; Calayan Island, Babuyan Islands, north of Luzon. Rosa Island, Gulf of Lagonoy, Alabay Province; Bacon, Sorsogon Province, Luzon. Sablayan, Mindoro; Bolalo Bay and Endeavor Strait, Palawan; Cebu market, Cebu; Nogas Point, Antique Province, Panay; and Negros, Philippines. Apia, Samoa; Padang, Samatra. Fowler, Mem. Bishop Mus., vol. 10, p. 335, 1928; Apia, Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Dumaguete. Herre, Fishes 1933-34 Exped.; Cebu, Cebu. Herre, Fishes 1940-41 Exped.; Kolambugan, Lanao Province, Mindanao. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 164, 1940; 30 East Indian, Philippines, and 9 other Indo-Pacific localities.

1640. *Stethojulis renardi* (Bleeker).

East coast of Africa to the East Indies, Philippines, the RiuKiu, Caroline, and Samoan Islands, and south to Australia.

Julis (*Halichoeres*) *renardi* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 253, 1851; Banda Neira.

Stethojulis renardi Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 291, 1862. Bleeker, Atlas Ichth., vol. 1, p. 132, pl. 43, fig. 2, 1862; Bawean; Sangi; Celebes; Buru; Ternate; Amboina; Banda.

Stethojulis renardi Günther, Cat. Fishes British Mus., vol. 4, p. 141, 1862; East Indian Archipelago. Günther, Fische der Südsee, vol. 2, p. 256, 1881; Zanzibar; East Indies; Ponapé; Samoa. Ogilby, Proc. Royal Soc. Queensland, vol. 21, p. 23, 1908; Cairns Islands and Dunk Island, Queensland, Australia. Barnard, Ann. South African Mus., vol. 21, p. 757, 1927; Mozambique. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 242, 1928; Port Matalvi, Zambales Province, Luzon. Cebu market, Cebu; Pandanon Island, Bohol; Varadero Bay, Mindoro; Tumindao Island, Sulu Province, Philippines. Amboina market, Amboina, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 336, 1928; Agana, Guam. Schmidt, Bull. Acad. Sci. U. S. S. R., p. 551, 1930; RiuKiu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Dumaguete; Cebu; Sitankai, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 158, 1940; Singapore; Bawean; Java; Buru, Ceram; Manado;

Celebes; Sangi Islands; Ternate; Banda; Amboina; Timor; Sulu Islands, Philippines.

1641. *Stethojulis strigiventer* (Bennett).

From the east coast of Africa to the East Indies, Philippines, Japan, the Marshall and Tuamotu Islands, and south to Australia.

Julis strigiventer Bennett, Proc. Zool. Soc. London, p. 184, 1832; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 468, 1839. Peters, Archiv Naturges., p. 263, 1855; Mozambique.

Julis (Halichoeres) strigiventer Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 251, 1851; Banda Islands.

Stethojulis strigiventer Günther, Ann. Mag. Nat. Hist., vol. 8, p. 386, 1861. Bleeker, Atlas Ichth., vol. 1, p. 135, pl. 43, fig. 1, 1862; Bawean; Singapore; Lepar; Billiton; Celebes; Ternate; Buru; Amboina; Ceram; Banda; Timor; Letti. Günther, Cat. Fishes British Mus., vol. 4, p. 140, 1862; Mauritius; Mozambique; Amboina; Port Essington, Australia. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, p. 345, 1876; Low Island, Queensland, Australia. Day, Fishes India, p. 397, pl. 84, fig. 7, 1878; Andaman Islands. Günther, Fische der Südsee, vol. 2, p. 254, 1881; Pelew Islands; Vavau, Fiji; Samoa; Ponapé; Wallis Islands; East Africa. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 36, 1885; Cebu, Cebu, Philippines. Day, Fauna British India, vol. 2, p. 403, fig. 138, 1889. Vaillant, Nouv. Arch. Hist., ser. 5, vol. 3, p. 57, 1893; Palawan, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 265, 1908; Cuyo, Cuyo Islands. Fowler, Copeia, No. 58, p. 64, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 294, 1927; Philippines. Barnard, Ann. South African Mus., vol. 21, p. 757, 1927; Mozambique. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 232, 1928; Port Matalvi, Zambales Province; Bolinao, Pangasinan Province; Butaanan Island, Camarines Sur Province; Lagonoy Island, Albay Province, Luzon. Romblon Island; Varadero Bay, Mindoro; Port Caltom, Busuanga; Cuyo, Cuyo Islands; Bolalo Bay, Observatory Island, Ulugan Bay, and Malcochin Harbor, Linapacan Island, Palawan; San Pascual, Burias Island; Pandanon Island, Bohol; Cebu market. Cebu; Guihulugan Island, Negros Oriental Province; Simalac Island, Tara Island, Tataan Island, and Tumindao Island, Sulu Province, Philippines. Danawan and Si Amil Islands, British North Borneo, near Philippine boundary. Gulf of Boni, Celebes; Moen, Caroline Islands; Wotje Atoll, Marshall Islands; Nafa, Okinawa, RiuKiu Islands; Tanegashima, Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 333, 1928; Marshall and Caroline Islands; Guam; Fakarava, Tuamotu Islands. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 307, 1936; Ovalau Island, Fiji. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 175, 1938; BoraBora, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 163, 1940; 16 East Indian Islands; Philippines; and 17 other Indo-Pacific localities. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao.

1642. *Stethojulis trilineata* (Bloch and Schneider).

The East Indies and Philippines, east to the Pelew Islands and Bismarck Archipelago, west to the Red Sea and Madagascar.

Labrus trilineatus Bloch and Schneider, Syst. Ichth., p. 253, 1801; Coringo, Coromandel, India.

Stethojulis trilineata Günther, Ann. Mag. Nat. Hist., vol. 8, p. 386, 1861. Günther, Cat. Fishes, vol. 4, p. 140, 1862; Amboina. Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 291, 1862. Bleeker, Atlas Ichth., vol. 1, p. 131, pl. 43, fig. 3, 1862; Java; Bawean; Bali; Sumatra; Nias; Celebes; Sangi; Batian; Amboina; Goram; Haruko; Letti. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 543, 1871; Red Sea. Günther, Fische der Südsee, vol. 2, p. 255, 1881; Pelew Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 243, 1928; Butaanan Island, Camarines Sur Province, Luzon; Cebu market, Cebu; Taganak Island, Sulu Province; Tanakeke Island, Celebes. Fowler, Mem. Bishop Mus., vol. 10, p. 336, 1928; Marshall Islands; Kusaie Island, Caroline Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Culion; Dumaguete; Jolo and Sitankai, Sulu Province.

Herre, Fishes 1933-34 Exped.; Cebu, Cebu. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 156, 1940; 21 East Indian localities; Philippines. Red Sea; Madagas Region, Pelew Islands; New Hanover. Herre, 1948 Coll.; Dumaguete and Siaton, Negros Oriental Province.

Genus 520. THALASSOMA Swainson.

Reef fishes of the tropical and subtropical Indo-Pacific and Atlantic Oceans, the Mediterranean and Red Seas.

Thalassoma Swainson, Nat. Hist. Animals, vol. 2, Fishes, pp. 172, 224, 1839; type, *Scarus purpureus* Forskål. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 645, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, part 1, p. 295, 1905. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 315, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 117, 1940.

Chlorichthys Swainson, Nat. Hist. Animals, vol. 2, Fishes, pp. 173, 232, 1839; type, *Labrus bifasciatus* Bloch.

Julis Bleeker, Atlas Ichth., vol. 1, p. 87, 1862; not of Cuvier.

Bermudichthys Nichols, Proc. Biol. Soc. Washington, vol. 33, p. 62, 1920; type, *Bermudichthys subfurcata* Nichols.

1643. Thalassoma amblycephalus (Bleeker).

The East Indies, Philippines, RiuKiu, Caroline, and Society Islands, west to Ceylon.

Julis (Julis) amblycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 683, 1856; Ord, Malang, southwest Java. Bleeker, Atlas Ichth., vol. 1, p. 90, pl. 33, fig. 6, 1862; Java; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 182, 1862; Ceylon; Java; Celebes; Sangi; Amboina. Day, Fishes India, p. 404, 1878. Günther, Fische der Südsee, vol. 3, p. 296, pl. 152, fig. C, 1910; Ceylon; East Indies; Ponapé; Huahine; Mortlock; Rotuma.

Thalassoma amblycephalus Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 330, 1928; Bulan Island, Sulu Province, Philippines; Nafa, Okinawa, RiuKiu Islands. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 89, 1930; RiuKiu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 136, 1940; Java, Celebes; Ceram; Amboina; Sangi Islands; Philippines.

1644. Thalassoma cupido (Schlegel).

Japan, the Philippines, and Java.

Julis cupido Schlegel, Fauna Japonica, p. 170, pl. 86, bis, fig. 3, 1842; Nagasaki, Japan. Bleeker, Verh. Bat. Gen., Gladschub. Labroid., vol. 22, p. 30, 1849; Batavia, Java. Bleeker, Atlas Ichth., vol. 1, p. 93, pl. 33, fig. 1, 1862; south coast of Java. Günther, Cat. Fishes British Mus., vol. 4, p. 181, 1862; Sea of Japan; Java, "Batavia" by error. Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 53, p. 276, 1887; Tokyo, Japan. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 646, 1902; Tokyo, Misaki, and Nagasaki, Japan. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 132, 1940; Pagotang, Patjitan, and Karangbollong, Java; Japan.

Thalassoma cupido Herre, Fishes 1940-41 Exped.; Dumaguete, Negros Oriental Province, Philippines.

1645. Thalassoma duperrey (Quoy and Gaimard).

Hawaiian Islands and the Philippines.

Julis duperrey Quoy and Gaimard, Voy, Uranie, Zoologie, p. 268, pl. 56, fig. 2, 1824; Hawaiian Islands.

Julis duperrei Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 421, 1839; Hawaiian Islands. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 506, 1901; Honolulu; Laysan Island.

Julis clepsydralis Smith and Swain, Proc. U. S. Nat. Mus., vol. 5, p. 136, 1882; Johnston Island.

Thalassoma pyrrovinctum Jenkins, Bull. U. S. Fish Comm., vol. 19, p. 51, fig. 7, 1900; Honolulu.

Thalassoma duperreyi Seale, Occas. Papers Bishop Mus., pp. 16, 19, 1901; Honolulu.

Thalassoma duperrey Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 463, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Pt. 1, p. 302, fig. 130 and pl. 35, 1906; Honolulu, Hilo, Kailua, Laysan, between Maui and Molokai, and Puako Bay, Hawaiian Is-

- lands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 329, 1928; Sorsogon market, Sorsogon Province, Luzon; Midway Island; Johnston Island; Honolulu, Oahu Island; Hawaiian Islands.
- Julis duperreyi* Günther, Fische der Südsee, vol. 3, p. 291, pl. 148, figs. B-C, 1910; Hawaii.
- 1646. *Thalassoma güntheri* (Bleeker).**
From the Red Sea and Cape of Good Hope to the East Indies, Philippines, RiuKiu, Marshall, Solomon, Samoan, and Tuamotu Islands, Fanning Island and Laysan Island.
- Julis (Julis) quadricolor* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Vischfauna Menado, p. 55, 1856; Celebes; Sangi; not of Lesson.
- Julis Güntheri* Bleeker, Versl. Akad. Amsterdam, vol. 13, p. 279, 1862. Bleeker, Atlas Ichth., vol. 1, p. 94; pl. 34, fig. 1, 1862; Celebes; Sangi. Günther, Fische der Südsee, vol. 3, p. 294, pl. 144, fig. C, 1910; Tuamotus; Society Islands; Samoa; Gilbert Islands; Fanning Island; Solomon Islands; Lifu, Loyalty Islands; Futuna. Weber, Siboga-Exped., vol. 57, Fische, p. 379, 1913; Karakelong; Salibabu.
- Julis guntheri* Günther, Cat. Fishes British Mus., vol. 4, p. 189, 1862; Cape of Good Hope; Celebes; Sangi.
- Julis Rüppelli* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 536, 1871; Red Sea.
- Thalassoma güntheri* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 305, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 267, 1908; Calayan Island, Babuyan Islands, north of Luzon. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa. RiuKiu Islands.
- Thalassoma purpureum* Barnard, Ann. South African Mus., vol. 21, p. 761, 1927; Natal and Zululand coast; Delagoa Bay, Mozambique; in part.
- Thalassoma quinquevittatus* Fowler, Mem. Bishop Mus., vol. 10, p. 350, 1928; Society and Gilbert Islands; Ebon Island, Marshall Islands; French Frigate Shoal; Wake Island; Fanning Island; Apia, Samoa. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 110, 1938; Takaroa, Tuamotu Islands.
- Thalassoma guntheri* de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 130, 1940; Menado, Celebes; Sangi Islands; Talaut Islands; New Guinea; Philippines and 12 additional localities in the Indo-Pacific.
- 1647. *Thalassoma hardwicki* (Bennett).**
The Indo-Pacific, from Africa to Japan, Australia, the Caroline, Society, and Tuamotu Islands.
- Sparus hardwickii* Bennett, Fishes Ceylon, pl. 12, 1830; Ceylon.
- Julis dorsalis* Quoy and Gaimard, Voy. *Astrolabe*, Zool., p. 713, pl. 15, fig. 5, 1834; Mauritius. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 449, 1839. Bleeker, Atlas Ichth., vol. 1, p. 94; pl. 34, fig. 4, 1862; Java; Bawean; Sumatra; Batu; Nias; Celebes; Sangi; Flores; Amboina; Banda; Goram; Letti; New Guinea. Günther, Cat. Fishes British Mus., vol. 4, p. 190, 1862; Philippines. Mozambique; Ceylon; Moluccas; China; Hong Kong; Aneiteum; Fiji Islands. Day, Fishes India, p. 403, pl. 85, fig. 7, 1878; Moluccas. Day, Fauna British India, vol. 2, p. 412, fig. 141, 1889. Günther, Fische der Südsee, vol. 3, p. 295, 1910; Society Islands; Samoa. Weber, Siboga-Exped., vol. 57, Fische, p. 380, 1913; Menado, Celebes; Beo, Karakelong; Salibabu; Binongka; Kur; Dutch East Indies. Regan, Ann. Durban Mus., vol. 1, p. 459, 1914-17; Durban, Natal, South Africa.
- Chlorichthys Hardwickii* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 232, 1839.
- Julis semifasciatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 448, 1839; Mauritius.
- Julis (Julis) urostigma* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 287, 1853; Cauer, Sumatra.
- Thalassoma dorsale* Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 648, 1902; RiuKiu Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 307, 1906; Apia and Pago Pago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 31, 1907; Manila, Luzon, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fish-

eries, vol. 27, p. 267, 1908; Cagayancillo, Cagayan Islands, Philippines. McCulloch, Proc. Linn. Soc. New South Wales, vol. 36, p. 347, 1912; Murray Island, Queensland, Australia. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa, RiuKiu Islands. Barnard, Ann. South African Mus., vol. 21, p. 762, 1927; Natal coast; Mozambique.

Thalassoma melanochir Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 537, pl. 20, middle figure, 1904; Padang, Sumatra.

Thalassoma hardwicke Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 317, 1928; Port San Pio Quinto, Camiguin Island, and Palau Island, Babuyan Islands, Cagayan Province; Dasol Bay, Pangasinan Province; Ligpo Point, Balayan Bay, Batangas Province; Maagnas, Lagonoy Gulf, Palag Bay, and Atulayan Island, Albay Province; Langoa Point and Gubat, Sorsogon Province, Luzon. Northwest of Verde Island and Port Maricaban, Verde Island Passage between Luzon and Mindoro; Puerto Galera and Mansalay, Mindoro; Port Caltom, Busuanga Island; Bisucay Island, and Dalanganem Island; Cuyo Islands; Ulugan Bay and Inamukan Island, Palawan; Caxisigan Island, Balabac; Mompog Island, between Marinduque and Luzon; Alimango Bay, Burias Island; Lode Bay, Destacado Island, between Masbate and Samar; Biri Channel and Quinapundan Bay, Samar; Agojo Point, Catanduanes Island; Cabugan Island, Hinunangan Bay, and San Roque, Leyte; Cebu market and Mactan Island, Cebu Province; Polloc, Cotabato Province, Pujada Bay and Tomahu Island, Davao Province, and Little Santa Cruz, Silino, Tulnalutan and Pilas Islands, Zamboanga Province, Mindanao; Bubuan Island, Cagayan Sulu Island, Bulan Island, and Tumindao Island, Sulu Province, Philippines. Gondra, Tobeia, Talisse, Tidore, Tana Keke, and Dowarra Islands, Lembe Strait, Makassar market, and Gulf of Boni, Celebes; BiraBira Island, Borneo; Padang, Sumatra; Apia, Samoa, Nafa, Okinawa, RiuKiu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 350, 1928; Apia, Samoa; Shortland Island, Solomon Islands; Ponapé, Caroline Islands; Ebon Island, Marshall Islands; Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. ser., vol. 21, p. 320, 1936; Tahiti, Society Islands; Suva, Viti Levu Island, Fiji; Malo Island, New Hebrides; Solomon Islands; Celebes Sea and Sulu Sea, Philippines. Fowler, Acad. Nat. Sci. Phila. Monograph 2, p. 110, 1938; Takaroa, Tuamotu Archipelago.

Thalassoma hardwicke de Beaufort, Fishes Indo-Australia Archipelago, vol. 8, p. 122, fig. 22, 1940; 41 East Indian localities; Sulu Islands, Philippines. Also 21 Indo-Pacific localities elsewhere.

1648. *Thalassoma janseni* (Bleeker).

The East Indies, Philippines, RiuKiu Islands, Solomon Islands, New Hebrides, Fiji, and Queensland, Australia.

Julis (Julis) janseni Bleeker, Acta Soc. Sci. Indo-Neerl, vol. 1, Nieuwe Vischsoorten Menado, p. 56, 1856; Menado, Celebes.

Julis janseni Bleeker, Atlas Ichth., vol. p. 91, pl. 34, fig. 5, 1862; Java; Sumatra; Celebes; Sangi; Amboina; Letti.

Julis-janseni Günther, Cat. Fishes British Mus., vol. 4, p. 187, 1862; Fiji Islands; Aneiteum, New Hebrides. Day, Fishes India, p. 405, pl. 86, fig. 4, 1878; Andaman Islands. Günther, Fische der Südsee, vol. 3, p. 295, 1910; East Indies; Ponapé, Caroline Islands; Solomon Islands; New Hebrides; Fiji; Lifu Island, Loyalty Islands.

Thalassoma janseni McCulloch, Proc. Linn. Soc. New South Wales, vol. 36, p. 347, 1912; Murray Island, Queensland, Australia. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 408, 1912; Okinawa, RiuKiu Islands. Herre, Fishes, 1931 Philippine Exped., p. 76, 1934; Unisan, Tayabas Province, Luzon; Jolo, Sulu Province. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 119, 1940; 14 East Indian places; the Philippines, and 8 additional places in the Indo-Pacific.

Thalassoma janseni Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 324, 1928; Cebu market, Cebu; Cabugan Island, Hinunangan Bay, Leyte; Sulade Island and Tumindao Island, Sulu Province. Also Nafa, Okinawa, RiuKiu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 352, 1928; Fiji.

1649. *Thalassoma lutescens* (Lay and Bennett).

RiuKiu Islands and Philippines to the Hawaiian, Society, and Marquesas Islands.

Julis lutescens Lay and Bennett, Zool. Beechey's Voy., p. 65; pl. 19, fig. 2, pl. 19, fig. 1839; Tahiti and RiuKiu Islands; after Solander. Brevoort, Exped. Japan, Fishes, p. 271, pl. 8, figs. 3 and 4, 1856; Nafa, Okinawa Island, RiuKiu Islands.

Thalassoma lutescens Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 647, 1902; Nafa, Okinawa. Jordan and Snyder, Bull. U. S. Bur. Fish., vol. 26, p. 214, 1907; Honolulu. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 508, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 326, 1928; Port San Quinto, Camiguin Island, Babuyan Islands, Luzon, Philippines. Also Fanning Island, Honolulu, Nafa, Okinawa, and Ousima, Japan. Fowler, Mem. Bishop Mus., vol. 10, p. 354, 1928; Honolulu; Fanning Island; Mangareva, Tuamotu Island; Tubuai, Austral Island; Nukahiva, Marquesas Islands; Guam; Rarotonga, Cook Islands; Johnston Island.

Labrus lunaris Bloch (not of Linnaeus), Ausländ. Fische, p. 129, pl. 281, 1785; East Indies.

Julis aneitensis Günther, Cat. Fishes British Mus., vol. 4, p. 183, 1862; Aneiteum, New Hebrides; Northeast Australia; Norfolk Island. Steindachner, Sitz. Akad. Wiss. Wien., vol. 102, p. 237, 1893; Yokohama, Japan. Günther, Fische der Sudsee, vol. 3, p. 16, 1909; Ponapé, Samoa; Solomons; Aniutum.

Thalassoma aneitense Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 27, p. 943, 1904; Honolulu. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 304, pl. 41, 1905; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 4, p. 57, 1906; Nukahiva, Marquesas Islands.

Thalassoma lunaris Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 303, 1905; Honolulu.

Thalassoma neanis Jordan and Evermann, in Jordan and Snyder, Bull. U. S. Bur. Fisheries, vol. 26, p. 214, pl. 12, fig. 2, 1907; Honolulu.

1650. *Thalassoma lunare* (Linnaeus).

Tropical Indian Ocean to the East Indies, Philippines, and Hong Kong, south to the Solomon Islands, New Hebrides, and Australia. Replaced in Polynesia by *Thalassoma lutescens*, the two species much confused.

Labrus lunaris Linnaeus, Syst. Nat., ed. 10, p. 283, 1758; in Indiis.

Scarus gallus Forskål, Descript. Animal., p. 26, 1775; Lohaja, Red Sea.

Julis porphyrocephalus Bennett, Proc. Zool. Soc. London, vol. 2, p. 183, 1832; Ceylon.

Julis lunaris Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 11, 1835; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 409, 1837; Massaua, Red Sea; Siau, Dutch East Indies. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 28, 1849; Batavia, Java. Bleeker, Atlas Ichth., vol. 1, p. 90, pl. 33; fig. 5, 1862; 21 East Indian localities. Günther, Cat. Fishes, vol. 4, p. 180, 1862; Mozambique; Ceylon; Amboina; Moluccas; Hong Kong, China; Aneiteum, New Hebrides. Peters, Archiv Naturges., p. 263, 1865; Mozambique. Kner, Reise Novara, Fische, vol. 2, p. 256, 1865; Java and Hong Kong. Steindachner, Sitzungsber. Akad. Wiss. Wien. vol. 53, p. 463, 1866; Port Jackson, Australia. Day, Fishes India, p. 403, pl. 86, fig. 1, 1878; Andamans. Kent, Great Barrier Reef, p. 296, pl. 16, fig. 13, 1893; Cape Flattery, Queensland, Australia. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 198, 1908-11; Durban. Weber, Siboga-Exped. vol. 57, Fische, p. 378, 1913; Banda; Timor; Postillon Islands.

Julis meniscus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 415, 1839; East Indies; Seychelles; China Sea; Macao.

Julis (Julis) celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 313, 1855; Menado, Celebes.

Julis truncatus Cartier, Verh. Med. Phys. Gesell. Würzburg, p. 105, 1873; Cebu, Cebu.

Thalassoma lunare Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 537, 1904; Padang, Sumatra. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 305, 1906. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 30, 1907; Cavite, Cavite Province, Luzon. Herre, Philippine Bur. Sci. Collection, 1920-27; Manila market; Batangas, Taal, and Nasugbu, Batangas Province, Luzon; Calapan and Puerto Galera, Mindoro; Sibuyan Island; Cebu market and Bantayan Island,

Cebu Province; Dumaguete, Negros Oriental Province; Cabalian, Leyte; Samal Island, Davao Province, and Zamboanga, Zamboanga Province; Jolo, Bungau, Pearl Bank, Sibutu, and Sitankai, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 321, 1928; in part; Palau Island, Cagayan Province; Alibijaban Island, Camarines Sur Province, Luzon. Port Maricaban, Verde Island Passage; Varadero Bay, Mindoro; Alimango Bay, and Busin Harbor, Burias Island; Bagacay Bay, Escarpada Island, Naranjo Islands between Masbate and Samar; Biri Channel, north coast of Samar; Malapascua Island, Cebu Province; Endeavor Strait, Palawan; Candaraman Island, Balabac; Mahinog, Camiguin Island, coast of Misamis Oriental Province, Inamucan Bay and Murcielagos Bay, Misamis Occidental Province, Tomahu Island, Davao Province, and Polloc, Cotabato Province, and Malanipa Island, Zamboanga Province, Mindanao. Isabela, Basilan Island. Bulan Island, Bumbung Island, Jolo market, Simalac, Tataan, Teomabal, and Tumindao Islands, Sulu Province, Philippines. Also Danawan and Si Amil Islands, British North Borneo, near Philippine boundary line; Limbe Strait, Celebes; Padang, Sumatra. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Manila, Luzon; Culion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 321, 1936; Hathorn Sound, New Georgia Island, Solomon Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 133, 1940; synonymy and distribution in part; 45 East Indian localities; Sulu Islands, Philippines; also 15 or more places in the Indian Ocean and western Pacific, besides numerous doubtful localities.

Thalassoma lunaris Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 94, 1907; Bacon, Sorsogon Province, Luzon.

1651. *Thalassoma melanochir* (Bleeker).

East Indies, Philippines, and eastward throughout the tropical Pacific. *Julis (Julis) melanochir* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. Vischfauna Amboina, p. 77, 1857; Amboina.

Julius melanochir Bleeker, Atlas Ichth., vol. 1, p. 89, pl. 33, fig. 2, 1862; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 182, 1862; Amboina. Günther, Fische der Südsee, vol. 3, p. 296, pl. 152, fig. 5, 1910; Amboina; Hawaii. Weber, *Siboga*-Exped., vol. 57, Fische, p. 377, 1913; Salibabu.

Thalassoma melanochir Waite, Records Australian Mus., vol. 5, p. 3, 1903; Naura Island; Marshall Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 328, 1928; Malapascua Island, Cebu Province, Philippines; Lembe Strait, Celebes; Hong Kong, China. Fowler, Mem. Bishop Mus., vol. 10, p. 355, 1928; Society Islands; Fanning Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 137, 1940; Talaut Islands; Lembe Strait, Celebes; Amboina; Aru Islands; Manokwari, New Guinea; Malapascua Island, Cebu, Philippines.

1652. *Thalassoma schwanefeldi* (Bleeker).

The East Indies and Philippines, east to the Society Islands, west to the Maldive Islands.

Julis (Julis) Schwanefeldi Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 288, 1853; Cauer, Sumatra. Bleeker, Atlas Ichth., vol. 1, p. 95, pl. 33, fig. 7, 1862; Java and Sumatra.

Julis schwanefeldii Günther, Cat. Fishes British Mus., vol. 4, p. 191, 1862; Sumatra. Günther, Fische der Südsee, vol. 3, p. 296, 1910; Tahiti; Pelew Islands.

Thalassoma schwanefeldi Seale, Occas. Papers Bishop Mus., vol. 4, p. 57, 1906; Tahiti, Society Islands; by error recorded as Tubuai, Austral Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 351, 1928; Marcus Island (?); Tahiti, Society Islands; Samoa.

Thalassoma schwanefeldi Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 320, 1928; Ulugan Bay, near mouth of Baheli River, Palawan, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 76, 1934; Dumaguete. De Beaufort, Fishes

Indo-Australian Archipelago, vol. 8, p. 121, 1940; Kauer and Trus-
sal, Sumatra; Karangbollong, Java; North Celebes; Philippines.
Thalassoma schwanefeldi Herre, Field Mus. Nat. Hist., Zool. Ser., vol.
21, p. 323, 1936; Ugi Island, Solomon Islands.

1653. *Thalassoma umbrostygma* (Rüppell).

From the coast of Africa to the Hawaiian, Gilbert, Society, Tuamotu,
and Marquesas Islands, and Easter Island.

Julis umbrostygma Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 11,
pl. 3, fig. 2, 1835; Mohila and Djedda, Red Sea.

Julis Souleyetii Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13,
p. 334, 1839; Mauritius; Hawaiian Islands. Eydoux and Souleyet,
Voy. Bonite, Zool., vol. 1, p. 190, pl. 6, fig. 2, 1841.

Julis (Julis) Souleyetii Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 176,
1855; Cocos Islands.

Julis umbrostigma Bleeker, Atlas Ichth., vol. 1, p. 92, pl. 34, fig. 2, 1862;
Java and Cocos Island. Günther, Cat. Fishes British Mus., vol. 4,
p. 185, 1862; Red Sea; Aneiteum, New Hebrides; China Sea. Peters,
Monatsber. Akad. Wiss. Berlin, p. 443, 1876; Mauritius. Gilchrist
and Thompson, Ann. South African Mus., vol. 6, p. 193, 1908-11;
Natal. Günther, Fische der Südsee, vol. 3, p. 294, pl. 149, fig. 3,
1910; Pelew Islands; Ponapé, Mortlock and Ruk, Caroline Islands;
Aneiteum, New Hebrides; Marquesas, Gilbert, and Society Islands;
Samoa; Rarotonga, Cook Islands; Rotuma; Hawaiian Islands.
Fuentes, Boletín Mus. Nac. Chile, vol. 7, p. 304, pl. 9, 1914; Easter
Island.

Thalassoma umbrostigma Jordan and Evermann, Bull. U. S. Fish Comm.,
vol. 23, Part 1, p. 300, fig. 129, 1905; Honolulu, Kailua, and Hilo,
Hawaiian Islands. Jordan and Richardson, Bull. U. S. Bur. Fish-
eries, vol. 27, p. 267, 1908; Calayan Island, Babuyan Islands north
of Luzon. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 72,
1922; Honolulu. Herre, Philippine Bureau Science Collection, 1921-
27; Jolo, Bungan and Sibutu Islands, Sulu Province. Fowler and
Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 325, 1928; Fanning Islands;
Hawaiian Islands; Apia, Samoa; Easter Island; Okinawa Island,
RiuKiu Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 352, pl. 40,
fig. A, 1928; Easter Island; Hawaiian, Gilbert, and Society Islands;
Ebon Island, Marshall Islands; Guam; Rarotonga, Cook Islands;
Makatea, Tuamotu Islands; Apia, Samoa; Fanning Islands. De
Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 125, 1940;
Benkulen, Sumatra; Karangbollong and Patjitan, Java; Talaut Is-
lands; Amboina; Banda; Sulu Islands, Philippines; also 13 Indo-
Pacific places.

Thalassoma umbrostygma Herre, Field. Mus. Nat. Hist., Zool. Ser., vol.
21, p. 324, 1936; Papeete, Tahiti.

Genus 521. *XENOJULIS* de Beaufort.

Two marine species known; from New Guinea and the Philippines.

Xenajulis de Beaufort, Philippine Jour. Sci., vol. 69, p. 415, 1939;
type, *Xenajulis montillai* de Beaufort. De Beaufort, Fishes Indo-
Australian Archipelago, vol. 8, p. 169, 1940.

1654. *Xenajulis margaritaceus* (Macleay).

New Guinea and the Philippines; 2 specimens known.

PlatyGLOSSUS margaritaceus Macleay, Proc. Linn. Soc. New South Wales,
vol. 8, p. 27, 1883; Hood Bay, New Guinea; not of Cuvier and Valen-
ciennes. Whitley, Records Australian Mus., vol. 20, p. 274, fig. 3,
1939; Hood Bay, Papua, New Guinea; on Macleay's type.

Halichoeres macleayi Jordan and Seale, Bull. U. S. Bur. Fisheries, vol.
25, p. 303, 1906; on Macleay. Fowler, Mem. Bishop Mus., vol. 10, p.
342, 1928; after Macleay.

Xenajulis margaritaceus de Beaufort, Philippine Jour. Sci., vol. 69, p.
415, figs. 1-2, 1939; Hood Bay, New Guinea; Barrio Nalvo, Luna, La
Union Province, Luzon, Philippines. De Beaufort, Fishes Indo-
Australian Archipelago, vol. 8, p. 170, figs. 29-30, 1940; Hood Bay,
New Guinea; Philippines.

1655. *Xenajulis montillai* de Beaufort.

A Philippine species.

Xenajulis montillai de Beaufort, Philippine Jour. Sci., vol. 69, p. 417,

fig. 3, 1939; Barrio Paraair, Balawan, La Union Province, Luzon, Philippines.

Genus 522. XIPHOCEILUS Bleeker.

A few species, marine but sometimes entering fresh water, of the tropical Indo-Pacific, from the Red Sea, Zanzibar, and Mauritius, to the Philippines, East Indies and Australia.

Xiphocheilus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 223, 1856; orthotype, *X. typhus* Bleeker.

1656. Xiphocheilus quadrimaculatus Günther.

Known only from the Arafura Sea, the Philippines, and the East Indies. Found once in fresh water.

Xiphocheilus quadrimaculatus Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 45, pl. 20, fig. C, 1880; Arafura Sea. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 190, 1928; Olongapo, Zambales Province; Marikina River, above Montalban, Rizal Province, Luzon. This latter location is 40 or more kilometers from salt water. Bolalo Bay and Observatory Island, Palawan. Also Great Tobea Island, Dutch East Indies. McCulloch, Mem. 5, Australian Mus., p. 321, 1929; Arafura Sea; North Australia. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 29, 1940; Arafura Sea; Philippines. Herre, 1948 Coll.; 2 specimens taken by trawl, near Corregidor Island, Manila Bay, Luzon.

Xiphocheilus quadrimaculatus Fowler, Mem. Bishop Mus., vol. 10, p. 327, 1928; after Günther.

Family 165. SCARIDÆ. Parrotfishes; Mulmul; Ogos

Coral-reef fishes, mostly brilliantly colored, some of large size.

Genus 523. LEPTOSCARUS Swainson.

Two species of the tropical Indian and western Pacific Oceans.

Leptoscarus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 226, 1839; type, *Scarus vaiigiensis* Quoy and Gaimard. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 256, 1940.

Scarichthys Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 106, 1859; type, *Scarus naevius* Bleeker. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 373, 1928.

1657. Leptoscarus coeruleopunctatus (Rüppell). Duldul.

From the coast of Africa to the East Indies, Philippines, China, Formosa, Marshall, Samoan, Tonga, and Cook Islands.

Scarus (Calliodon) coeruleo-punctatus Rüppell, Neue Wirbelt, Fische Rothen Meeres, p. 24, pl. 7, fig. 3, 1835; Djedda, Red Sea.

Scarus coeruleo-punctatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 262, 1839; Djedda. Bleeker, Nat. Tijds., Ned.-Ind., vol. 6, p. 1854; Banda Neira.

Scarus rubro-notatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 212, 1839; Arabian Gulf and Red Sea.

Scarichthys coeruleopunctatus Bleeker, Atlas Ichth., vol. 1, p. 16, pl. 1, fig. 2, 1862; Cocos; Celebes; Ternate; Buru; Amboina; Banda. Günther, Cat. Fishes, vol. 4, p. 213, 1862; East Indian Archipelago. Day, Fishes India, p. 410, pl. 87, fig. 5, 1878. Day, Fauna British India, vol. 2, p. 422, fig. 147, 1889. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 95, 1907; Bacon and Bulan, Sorsogon Province, Luzon, Jolo, Sulu Province, Philippines. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Günther, Fische der Südsee, vol. 3, p. 300, 1909; Rarotonga. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 304, 1911; Vavau, Tonga Islands. Barnard, Ann. South African Mus., vol. 21, p. 775, 1927; East London, South Africa; Delagoa Bay, Portuguese East Africa. Herre, Collection Philippine Bureau Science; Puerto Galera, Mindoro; Bantayan, Cebu Province; Siasi and Tandubas Islands, Sulu Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 375, 1928; Balikias Bay, Lubang Island, northwest of Mindoro; Sablayan, Mindoro; Cebu market, Cebu; near Cotabato, Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province; Formosa. Fowler, Mem. Bishop Mus., vol. 10, p. 367, 1928; Rarotonga, Cook Islands; Marshall Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete,

- Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Cebu, Cebu; Dumaguete; Jolo and Sitankai, Sulu Province.
- Leptoscarus coeruleopunctatus* de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 259, 1940; Surabaya, Java; Sandakan, Borneo; Makassar and Menado, Celebes; Ternate; Buru; Ceram; Amboina; Banda; Timor; Port Moresby, New Guinea; Sulu Islands, Philippines; also 12 other Indo-Pacific places. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province; Zamboanga, Zamboanga Province, Mindanao; Siluag Island, Sulu Province.
1658. *Leptoscarus vaiigiensis* (Quoy and Gaimard). Duldul.
From the east coast of Africa to the Philippines, RiuKiu, Caroline, Tonga, and Cook Islands, and Queensland, Australia.
Scarus vaiigiensis Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 288, 1824; Waigi. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 158 (214), 1839; Waigi.
Scarus auritus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 218, 1839; Java.
Scarichthys auritus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 243, 1861. Bleeker, Atlas Ichth., vol. 1, p. 15, pl. 1, fig. 3, 1862; Java; Celebes; Timor; Banda; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 213, 1862; Amboina; Hong Kong; Aneiteum, New Hebrides. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 245, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 268, 1908; Cagayan-cillo, Cagayan Islands, Sulu Sea. Günther, Fische der Südsee, vol. 3, p. 299, 1909; Ponapé; Aneiteum; Rarotonga. McCulloch, Proc. Linn. Soc. New South Wales, vol. 36, p. 606, 1912; Murray Island, Queensland, Australia. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 373, 1928; Port Hamilo, Batangas Province, and Canmahala Bay, Ragay Gulf, Luzon; Balikias Bay, and Tilik Harbor, Lubang Island, northwest corner of Mindoro; Mansalay, and Varadero Bay, Mindoro. Cataingan Bay, Masbate; Cebu market, Cebu; Guihulugan, Negros Oriental Province; Malcochin Harbor, Linapacan Island, Palawan Province; near mouth of Rio Grande, Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao; Jolo market, Jolo, Sulu Province. Also Vavau, Tonga. Fowler, Mem. Bishop Mus., vol. 10, p. 367, 1928; Rarotonga, Cook Islands; Guam; Ascension Island, Marshall Islands; Vavau. Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 92, 1930; RiuKiu Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931 Philippine Exped., p. 77, 1934; Tayug, Tayabas Province, Luzon; Dumaguete; Cebu, Cebu. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province.
Scarichthys vaiigiensis Guichenot, Mem. Soc. Imp. Sci. Nat. Cherbourg, vol. 11, p. 18, 1865; on the type.
Choerops auritum Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 95, 1907; Bacon, Sorsogon Province, Luzon.
Leptoscarus vaiigiensis de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 257, fig. 38, 1940; 17 East Indian localities; the Philippines and 14 other places in the Indo-Pacific.
- Genus 524. **CRYPTOTOMUS** Cope.
Reef fishes of the tropical and subtropical Indo-Pacific and western Atlantic Oceans.
Leptoscarus Jordan, Genera Fishes, p. 199, 1919; not of Swainson. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 376, 1928.
Calliodon Cuvier, Règne Animal, ed. 2, vol. 2, p. 266, 1829; type, *Scarus spinidens* Quoy and Gaimard.
Cryptotomus Cope, Trans. American Philos. Soc., p. 462, 1871; type, *Cryptotomus roseus* Cope. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 260, 1940.
1659. *Cryptotomus spinidens* (Quoy and Gaimard).
From the east coast of Africa to the East Indies, Philippines, Formosa, Caroline, Hawaiian, and Society Islands.
Scarus spinidens Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 289, 1824; Waigi.
Scarus (*Calliodon*) *viridescens* Rüppell, Neue Wirbelt. Fische Rothen Meeres, p. 23, pl. 7, fig. 2, 1835; Djedda, Red Sea.

- Callyodon carolinus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 291, 1839; Caroline Islands. Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 444, 1859-60; Atapupu, Timor. Günther, Cat. Fishes British Mus., vol. 4, p. 214, 1862; Ceylon. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 36, 1878; New Guinea.
- Callyodon genistriatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 293, 1839. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 111, 1854; Banda. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 244, 1861. Bleeker, Atlas Ichth., vol. 1, p. 13, pl. 1, fig. 1, 1862; Celebes; Banda. Günther, Cat. Fishes British Mus., vol. 1, p. 215, 1862; Celebes; Banda. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 509, 1901; Honolulu. Günther, Fische der Südsee, vol. 3, p. 300, pl. 150, figure, 1910; Ponapé; New Britain; Tahiti; Fiji.
- Callyodon waigiensis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 296, 1839; Waigi.
- Callyodon brachysoma* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 244, 1861; Amboina, Ternate. Bleeker, Atlas Ichth., vol. 1, p. 14, pl. 2, fig. 3, 1862.
- Callyodon moluccensis* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 243, 1861. Bleeker, Atlas Ichth., vol. 1, p. 12, pl. 2, fig. 1, 1862; Celebes; Ternate; Lebuka; Batjan; Timor; Amboina; Ceram; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 216, 1862; Aneiteum, New Hebrides.
- Callyodon spinidens* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 244, 1861. Bleeker, Atlas Ichth., vol. 1, p. 13, pl. 2, fig. 2, 1862; Sumatra; Cocos; Bali; Sangi; Ternate; Amboina; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 215, 1862; Amboina; Moluccas.
- Callyodon viridescens* Günther, Cat. Fishes British Mus., vol. 4, p. 214, 1862; Red Sea. Day, Fishes India, p. 410, pl. 90, fig. 2, 1878; Andaman Islands. Barnard, Ann. South African Mus., vol. 21, p. 776, 1927; Delagoa Bay, Portuguese East Africa.
- Calotomus vaigiensis* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 789, 1905; Bais, Negros Oriental Province; not of Quoy and Gaimard.
- Calotomus moluccensis* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 789, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 268, 1908; Cuyo, Cuyo Islands.
- Leptoscarus viridescens* Fowler, Proc. Acad. Nat. Sci. Phila., p. 261, 1925; Delagoa Bay, Portuguese East Africa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 378, 1928; Bolinao Bay, Pangasinan Province, and Port Matalvi, Zambales Province, Luzon; Maricaban Island, Verde Island Passage, between Luzon and Mindoro; Varadero Bay, Mindoro; Cataingan Bay, Masbate Island; Cebu market, Cebu; Guihulugan and Bais, Negros Oriental Province; Iloilo market, Iloilo province, Panay; Observatory Island, Palawan Province; Surigao, Surigao Province, and Silino Island and Zamboanga market, Zamboanga Province, Mindanao; Siasi Island, Sulu Province; Sandakan, British North Borneo; Buru Island, Dutch East Indies; Honolulu, Hawaiian Islands; Vavau, Tonga; Tokyo market, Japan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Dumaguete.
- Leptoscarus vaigiensis* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, pp. 380, 1928; Cebu market, Cebu; Zamboanga; Tambul Segambul, Tonquil Island, Sulu Province, Philippines; Basa Island, Gulf of Boni, Celebes, Dutch East Indies; Hawaii.
- Leptoscarus moluccensis* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 377, 1928; Port Matalvi, Zambales Province, and Port Hamilo, Batangas Province, Luzon. Cabugao Bay, Catanduanes Island; Puerto Galera, Mansalay, and Varadero Bay, Mindoro; Cataingan Bay, Masbate Island; Cebu market, Cebu; Bais and Guihulugan, Negros Oriental Province; Sirinao Island, Nakoda Bay, Palawan; Surigao, Surigao Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 369, 1928; Vavau, Tonga Islands; Ponapé, Caroline Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Dumaguete. Herre, Fishes 1936-37 Exped.; Sitankal, Sulu Province.

Cryptotomus spinidens de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 262, 1940; 22 East Indian localities; Philippines; and 13 other Indo-Pacific localities.

Genus 525. SCARUS Forskål. Parrot fishes; ogos; mulmul.

Coral-reef fishes of the tropical Indo-Pacific and Atlantic Oceans; often of large size; not found on the Pacific coast of America. Sometimes entering brackish or fresh water.

Callyodon Gronow, Museum Ichthyologicum, vol. 2, p. 8, 1754; non-binomial; type, *Scarus croicensis* Bloch. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 381, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 265, 1940.

Scarus Forskål, Descript. Animal., p. 25, 1775; type, *Scarus psittacus* Forskål. Jordan and Gilbert, Synopsis, p. 938, 1883. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 658, 1902.

Pseudoscarus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 231, 1861; type *Pseudoscarus microrrhinos* Bleeker.

1660. *Scarus balinensis* Bleeker.

An East Indian and Philippine species.

Scarus balinensis Bleeker, Verh. Bat. Gen., vol. 22, Ichth. fauna Bali, p. 8, 1849; Bali. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 228, 1851; Banda. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Burias Island: Calapan, Mindoro; Cebu, Cebu. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Catbalogan, Samar. Herre, 1948 Coll.; market, Alaminos, Pangasinan Province; Layia, Batangas Province, Luzon.

Pseudoscarus balinensis Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 238, 1861. Bleeker, Atlas Ichth., vol. 1, p. 39, pl. 16, fig. 3, 1862; Bali; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 228, 1862; Bali; Banda; after Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid., vol. 14, p. 38, 1885; Cebu, Philippines; Menado, Celebes.

Callyodon balinensis Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 509, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 457, 1928; Grande Island Reef, Subic Bay, Bataan Province; Pagapas Bay, Batangas Province; Ragay River, Ragay Gulf, Camarines Sur Province, Luzon. Busin Harbor, Burias Island; Port Banalacan, Marinduque Island; Cebu market, Cebu; Malcochin Harbor, Linapacan Island, Palawan Province; Mahinog, Camiguin Island, north coast of Mindanao; Polloc, Cotabato Province, Mindanao; Tutu Bay and Jolo market, Sitankai, and Tataan Islands, Sulu Province, Philippines.

1661. *Scarus bataviensis* Bleeker.

In the Indo-Pacific from Madagascar to the Philippines and East Indies, and on to the Hawaiian and Marquesas Islands.

Scarus bataviensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 342, 1857; Batavia, Java. Herre, Fishes, 1931 Philippine Exped., p. 78, 1934; Taytay Bay, Palawan. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Pseudoscarus bataviensis Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 242, 1861. Bleeker, Atlas Ichth., vol. 1, p. 48, pl. 12, fig. 3, 1862; Batavia, Java. Günther, Cat. Fishes British Mus., vol. 4, p. 231, 1862; Batavia; after Bleeker. Day, Fishes India, Supplement, p. 803, 1888. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 508, 1900; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 1, p. 96, 1901; Guam. Günther, Fische der Südsee, vol. 3, p. 317, 1909; Pelew Islands; Mortlock, Ponapé, and Ruk, Caroline Islands; Yap; Samoan, Society, and Marquesas Islands.

Scarus gilberti Jenkins, Bull. U. S. Fish Comm., vol. 19, p. 59, fig. 15, 1900; Honolulu.

Scarus jenkinsi Jordan and Evermann, *ibid.*, vol. 22, p. 195, 1904; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, p. 353, 1905; Honolulu.

Callyodon bataviensis Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 356, fig. 155, 1905; Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fish., vol. 25, p. 323, fig. 61, 1906; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 377, 1928; Guam; Faté, New Hebrides; South Pacific; Palmyra Island. De Beaufort, Fishes Indo-Australian

Archipelago, vol. 8, p. 323, 1940; Batavia, Java; Sulu Islands, Philippines; also 14 other Indo-Pacific localities.
Callyodon gilberti Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 354, fig. 154, 1905; Honolulu, Hawaiian Islands.

1662. *Scarus bicolor* Rüppell.

The East Indies, Philippines, RiuKiu, Caroline, Ellice, and Society Islands.

Scarus bicolor Rüppell, Atlas Reise Nördl. Africa, Fische Rothen Meeres, p. 82, pl. 21, fig. 3, 1828; Djedda. Herre, Fishes Philippine Bureau Science Collections, 1921-27; Cebu and Bantayan, Cebu; Bennett Island, near Masbate Island; Linapacan Island, Palawan Province; Mantabuan Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Dumaguete; Cotabato, Cotabato Province, Mindanao. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao.

Pseudoscarus bicolor Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 82, 1861. Bleeker, Atlas Ichth., vol. 1, p. 33, pl. 14, 1862; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 219, 1862; Red Sea; Celebes. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Makassar, Celebes. Günther, Fische der Südsee, vol. 3, p. 305, 1909; Red Sea; Celebes; Ponapé, Carolines.

Callyodon bicolor Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 509, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 496, 1928; Tilik, Lubang Island, northeast of Mindoro; Port Caltom, Busuanga Island; Biri Channel; north coast of Samar; Catbalogan, Samar; Cebu market, Cebu; Malcochin Harbor, Linapacan Island, and Bolalo Bay, Palawan; Caxisigan Island, Balabac; Bulan Island, Cagayan Sulu Island, and Tapiantana Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 272, 1940; Makassar and Badjoa, Celebes; Philippines; Red Sea, RiuKiu Islands, Ponapé, Funafuti, and Society Islands.

1663. *Scarus bleekeri* de Beaufort.

The East Indies and Philippines, Ponapé, Caroline Islands, New Ireland, and Solomon Islands.

Scarus Quoyi Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 607, 1853; Ternate; not of Cuvier and Valenciennes.

Pseudoscarus Quoyi Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 230, 1861. Bleeker, Atlas Ichth., vol. 1, p. 29, pl. 6, fig. 3, 1862; Ternate; not of Cuvier and Valenciennes.

Pseudoscarus quoyi Günther, Cat. Fishes British Mus., vol. 4, p. 239, 1862; after Bleeker, not of Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 3, p. 319, 1910; New Ireland; Ternate; Ponapé; Ruk.

Callyodon quoyi Seale, Occas. Papers Bishop Mus., vol. 4, p. 62, 1906; Shortland Island, Solomon Islands; not of Cuvier and Valenciennes. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Bacon, Sorsogon Province, Luzon; not of Cuvier and Valenciennes. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 407, 1928; Capulaan Bay, Pagbilao Island, Alibijaban Island, Ragay Gulf, Luzon; Port Maricaban; Verde Island Passage between Luzon and Mindoro; Mansalay and Medio Island, Puerto Galera, Mindoro; Port Banalacan, Marinduque Island; Romblon, Romblon Island; Cataingan Bay and Masbate Reef, Masbate Island; Busin Harbor, Burias Island; Port Dupon, Leyte; off Bohol Island; Parang and Polloc, Cotabato Province, Pujada Bay, Davao Province, Surigao, Surigao Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao; Pangasinan Island, Sulu Province, Philippines; not of Cuvier and Valenciennes. Fowler, Mem. Bishop Mus., vol. 10, p. 375, 1928; Shortland Island, Solomon Islands; not of Cuvier and Valenciennes.

Scarus quoyi Herre, Fishes 1931 Philippine Exped., p. 79, 1934; reef near Burias Island; Linapacan Island, Palawan Province; (as *Eleotris fusca* by printer's error). Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 335, 1936; Tenibuli, Ysabel Island, and Hathorn Sound, New Georgia Island, Solomon Islands.

Callyodon bleekeri de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 318, 1940; Padang, Sumatra; Ternate; Philippines; New Ireland; Ponapé; Solomon Islands.

1664. *Scarus blochi* Cuvier and Valenciennes.

- East Indies, Philippines, and RiuKiu Islands, east to the Caroline, New Hebrides, Society, and Tuamotu Islands, west to India and Mauritius. *Scarus Blochii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 219, 1839; Java.
- Scarus Quoyi* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 273, 1839; New Ireland. Fowler, Jour. Acad. Nat. Sci. Phila. ser. 2, vol. 12, p. 544, 1904; Padang, Sumatra.
- Scarus chrysopomus* Bleeker, Nat. Gen. Arch. Ned-Ind., vol. 4, p. 163, 1847; Java. Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 53, 1849; Batavia, Java.
- Pseudoscarus viridus* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 240, 1861. Bleeker, Atlas Ichth., vol. 1, p. 45, pl. 17, fig. 3, 1862; Java; Bawean; Duizend Islands; Sumatra; Singapore; Billiton; Celebes; Amboina. Bean and Weed, Proc. U. S. Nat. Mus., vol. 42, p. 608, 1912; Batavia, Java.
- Pseudoscarus chrysopoma* Günther, Cat. Fishes British Mus., vol. 4, p. 221, 1862; East Indies. Day, Fishes India, p. 412, pl. 89, fig. 2, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Cebu, Cebu, Philippines. Günther, Fische der Südsee, vol. 3, p. 307, 1909; Pelew Islands; East Indies; Ponapé, Caroline Islands.
- Callyodon hadji* Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 525, 1909; Puerto Princesa, Palawan.
- Callyodon philippinus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 66, fig. 26, 1918; Philippines.
- Scarus blochii* Herre, Philippine Bureau Science Collection, 1921-27; Calapan, Mindoro; Cresta da Gallo Island, Sibuyan Province; Jolo and Sibutu, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Culion; Cebu, Cebu; Sitankai, Sulu Province, Philippines.
- Callyodon blochii* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 462, 1928; Palau Island, Cagayan Province; San Fernando, La Union Province; Port Matalvi and Santa Cruz, Zambales Province; Port Hamilo, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Masamat Bay, Quinalasag Island, Camarines Sur Province; Canimo Island, Camarines Norte Province; Palag Bay, Albay Province; Langao Point, Sorsogon, Luzon. Balikias Bay and Tilik Bay, Lubang Island; Maricaban Island reef, Verde Island Passage; Medio Island, Puerto Galera, Mansalay, Sablayan, and Varadero Bay, Mindoro; Mompog Island, between Marinduque and Luzon; Alimango Harbor (misprinted Atulayan), and Busin Harbor, Burias Island; Masbate Island; Lode Bay, Destacado Island, between Masbate and Samar; Biri Channel and Quinapundan Bay, Samar; Port Dupon, Leyte; Pandanon Island, Bohol; Cebu market and Mactan Reef, Cebu Province; Port Uson, Busuanga Island; Bolalo Bay, Endeavor Strait, and Ulugan Bay, Palawan; Parang and Polloc, Cotabato Province, Surigao, Surigao Province, Pujada Bay, Davao Province, and Sacol Island, Zamboanga Province, Mindanao; Siasi Island and Sitankai Reef, Sulu Province, Philippines. Si Amil and Danawan Islands, British North Borneo, near Philippine boundary; Sebatik Island, east coast of Borneo; Talisse Island and Java, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 384, 1928; Faté, New Hebrides; Tahiti. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 309, 1940; 14 East Indian localities; Sulu Islands, Philippines; also 12 more East Indian localities.
- Callyodon chrysopomus* Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R., vol. 1, p. 94, 1930; RiuKiu Islands.
- Scarus blochi* Herre, 1948 Coll.; market, Alaminos, Pangasinan Province, Luzon; Dumaguete, Negros Oriental Province.

1665. *Scarus bowersi* (Snyder).

- RiuKiu Islands, the Philippines, and East Indies.
- Callyodon bowersi* Snyder, Proc. U. S. Nat. Mus., vol. 36, p. 602, 1909; Nafa, Okinawa, RiuKiu Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 509, pl. 66, fig. 3, 1912; same specimen. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 319, 1940; Batavia, Java; Philippines; RiuKiu Islands.
- Scarus bowersi* Herre, Philippine Bureau Science Collection, 1921-27; Calapan and Bulalacao, Mindoro; Tablas Island; Bantayan Island, Cebu Province.

Callyodon sordidus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 398, 1928; in part; Palau Is., Cagayan Prov.; Alibijaban Is., Ragay Gulf, Tayabas Province; Langoa Point, Sorsogon Province, Luzon; Sablayan, Mindoro; Port Uson, Busuanga; Cebu market, Cebu; Biri Channel; Samar; Nafa, Okinawa, RiuKiu Islands.

1666. *Scarus caudofasciatus* (Günther).

Mauritius and Zanzibar, to the East Indies, Philippines, Caroline, and Samoan Islands.

Pseudoscarus caudofasciatus Günther, Cat. Fishes British Mus., vol. 4, p. 283, 1862; Mauritius. Günther, in Playfair and Günther, Fishes Zanzibar, p. 108, 1865; Zanzibar. Günther, Fische der Südsee, vol. 3, p. 312, pl. 153, figs. a-b, 1909; Mauritius; Zanzibar; Ponapé; Mortlock; Samoa.

Callyodon zonularis Jordan and Seale, Bull. U. S. Bur. Fish., vol. 25, p. 321, fig. 60, 1906; Apia and PagoPago, Samoa. Seale and Bean Proc. U. S. Nat. Mus., vol. 33, p. 246, 1907; Zamboanga, Zamboanga Province, Mindanao.

Callyodon caudofasciatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 446, 1928; Port Matalvi, Zambales Province; Port Hamilo and Pagapas Bay, Batangas Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Palau Island, Cagayan Province; Langoa Point, Sorsogon Province; Canmahala Bay, Ragay Gulf, Luzon. Port Marican, Verde Island Passage; Puerto Galera and Mansalay, Mindoro; Santa Cruz Island, and Mompog Island, Marinduque; Romblon, Romblon Island; Alimango Bay and Busin Harbor, Burias Island; Cataingan Bay, Masbate; San Miguel Harbor, Ticao Island; Nabatas Point, Samar; Mactan Island, Cebu Province; Mantacao Island, Bohol; Iloilo market, Iloilo Province, Panay; Bolalo Bay, Endeavor Strait, Makesi Island, Oyster Inlet and Ulugan Bay, Palawan; Candaraman Island and Caxisigan Island, Balabac. Parang and Polloc, Cotabato Province; Pujada Bay, Davao Province; Surigao, Surigao Province; Zamboanga and Little Santa Cruz Island, Zamboanga Province, Mindanao. Bubuan Island, Jolo market, Jolo; Pendek, Simalac, Singaan, Tara, Tataan, and Tumindao Islands, Sulu Province, Philippines, also Celebes. Fowler, Mem. Bishop Mus., vol. 10, p. 381, 1928; PagoPago, Samoa; Shortland Island, New Hebrides.

Scarus caudofasciatus Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Jolo and Sitankai, Sulu Province, Philippines.

Callyodon oviceps de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 302, fig. 40, 1940; Makassar, Celebes; Buka Island; Karkaralung Islands; Buru, East Indies; Sulu Islands, Philippines; in part.

1667. *Scarus cyanognathos* Bleeker.

The East Indies, Philippines, and Solomon Islands.

Scarus cyanognathos Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 63, 1849; Batavia, Java.

Pseudoscarus cyanognathos Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 235, 1861. Bleeker, Atlas Ichth., vol. 1, p. 32, pl. 11, fig. 2, 1862. Bleeker, Recherches faune Madagascar, Poissons, p. 81, 1875; Madagascar.

Pseudoscarus cyanognathus Günther, Cat. Fishes British Mus., vol. 4, p. 234, 1862; Java. Weber, Siboga-Exped., vol. 57, Fische, p. 387, 1913.

Callyodon cyanognathus Seale, Occas. Papers Bishop Mus., vol. 4, p. 6, 1906; Shortland Island, Solomon Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 379, 1928; Shortland Island, Solomon Islands.

Scarus cyanognathus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Dumaguete.

1668. *Scarus dimidiatus* Bleeker.

East Indies, Philippines and Pelew, Solomon, Tonga, and Samoan Islands; sometimes enters brackish or fresh water.

Scarus dimidiatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, Bijdr. vischfauna Nieuw Guinea, p. 17, 1859; Doreh, New Guinea. Herre, Philippine Bur. Sci. Coll., 1921-27; Puerto Galera and Bulalacao Bay, Mindoro; Taytay Bay, Palawan; Cebu market, Cebu; Jolo, Siasi, Bungau, and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 336, 1936; Tenibuli, Ysabel Island, and Hathorn Sound, New Georgia Island, Solomon Islands; East Indies.

- Pseudoscarus dimidiatus* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 239, 1861. Bleeker, Atlas Ichth., vol. 1, p. 41, pl. 16, fig. 1, 1862; Doreh Bay, New Guinea. Günther, Fische der Südsee, vol. 3, p. 308, 1909; Pelew Islands; Ponapé, Caroline Islands.
- Callyodon dimidiatus* Seale, Occas. Papers Bishop Mus., vol. 4, p. 60, 1906; Shortland Island, Solomon Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 425, 1928; Palaui Island, Cagayan Province; Port Matalvi and Santa Cruz, Zambales Province; Port Hamilo and Pagapas Bay, Batangas Province; Capulaan Bay, near Lucena, and Alibijaban Bay, Ragay Gulf, Tayabas Province; Ragay river, Ragay Gulf, Camarines Sur Province; Langoa Point, Sorsogon Province, Luzon; Maricaban island, Verde Island Passage; Tilik, Lubang Island, northwest of Mindoro; Puerto Galera, Mansalay, Sablayan and Varadero Bay, Mindoro; Mompog Island, off Marinduque Island; Romblon, Romblon Island; Alimango Bay, and Busin Harbor, Burias Island; Masbate Reef, Masbate Island; Lode Bay, Destacado Island between Masbate and Samar; off Bohol; Cebu market, Cebu; Iloilo market, Iloilo Province, Panay; Bolalo Bay, Endeavor Strait, Malampaya Sound, and Ulugan Bay, Palawan; Candaraman Island, Balabac; Polloc, Cotabato Province, Pujada Bay, Davao Province, and Surigao, Surigao Province, Mindanao; Jolo market, Jolo, and Tara Island, Sulu Province, Philippines. Also PagoPago, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 379, 1928; Shortland Island, Solomon Islands; TongaTabu Island, Tonga Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 289, 1940; Manokwari, New Guinea; Sulu Islands, Philippines; Pelew, Solomon, Tonga, and Samoan Islands.
- Callyodon fumifrons* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 326, pl. 34; 1906; PagoPago, Samoa.
- 1669. *Scarus dubius* Bennett.**
Mauritius to the Philippines, China, and the Caroline, Hawaiian, Society, and Marquesas Islands. Sometimes entering river mouths.
- Scarus dubius* Bennett, Zool. Jour., vol. 4, p. 37, 1828; Hawaiian Islands. Jordan, Proc. U. S. Nat. Mus., vol. 66, p. 31, 1925; Honolulu. Herre, Philippine Bureau Science Collection, 1921-27; Puerto Galera, Mindoro; Tablas Island; Taytay Bay, Palawan; Agutaya Island, Cuyo Islands; Tandubas, Jolo and Mantabuan Islands. Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Calapan, Mindoro; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 332, 1936; Tenibuli, Ysabel Island, Solomon Islands. Herre, Fishes 1936-37 and 1940-41 Expeds.; Bennett Island, west of Masbate; Dumaguete, Negros Oriental Province. Herre, 1948 Coll.; Layta, Batangas Province, Luzon.
- Scarus bennetti* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 270, 1839; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, pl. 45, 1905.
- Scarus lacerta* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 217, 1839; Pondicherry, India.
- Scarus aeruginosus* Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 58, 1849; Batavia, Java; not of Cuvier and Valenciennes.
- Pseudoscarus dubius* Günther, Cat. Fishes, vol. 4, p. 229, 1862; Hawaiian Islands; Fiji Islands. Günther, Fische der Südsee, vol. 3, p. 313, 1910; Hawaiian Islands; East Indies; Tahiti and Raiatea, Society Islands; Samoa; Fiji; Marquesas Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 386, 1913; Makassar; Salibabu; Banda; Aru Islands.
- Pseudoscarus aeruginosus* Bleeker, Atlas Ichth., p. 39, pl. 17, fig. 2, 1862; Java; Sumatra; Batu; Singapore; Billiton; Celebes; Halmahera; Ternate; Timor; Ceram. Günther, Cat. Fishes, vol. 4, p. 229, 1862; East Indian Archipelago; not of Cuvier and Valenciennes. Kner, Reise Novara, Fische, vol. 2, p. 261, 1865; Manila, Luzon, Philippines; Singapore; Tahiti; "Auckland," evidently an error. Day, Fishes India, p. 412, pl. 89, fig. 3, 1878; Andaman Islands.
- Pseudoscarus lacerta* Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 33, 1865.
- Callyodon lacerta* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 319, 1905; Apia, and PagoPago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 31, 1907; Iloilo, Iloilo Province, Panay, Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26,

p. 96, 1907; Bacon and Bulan, Sorsogon Province, Luzon, Philippines. *Callyodon dubius* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 350, pl. 44, 1905; Honolulu. Seale, Philippine Jour. Sci. vol. 9, sec. 9, p. 70, 1914; Hong Kong. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 473, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Palaui Island, Cagayan Province; Subic Bay, Zambales Province; Grande Island Reef, Subig Bay, Bataan Province; Limbones Cove, Cavite Province; Pagapas Bay and Port Hamilo, Batangas Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Butauanan Island, Lahuy Island, Masamat Bay, Quinalasag Island, and Ragay River, Camarines Sur Province; Paron Point, Albay Gulf, Palag Bay and Atulayan Island, Lagonoy Gulf, Albay Province, Luzon. Agojo Point, Catanduanes Island; Porongpong Island, Palumbanes Islands, west of Catanduanes. Port Maricaban, Verde Island Passage, between Luzon and Mindoro. Balikias Bay and Tilik, Lubang Island, northwest of Mindoro; Puerto Galera, Mansalay, Sablayan, and Varadero Bay, Mindoro; Santa Cruz, Port Banalacan, and Mompog Island, Marinduque; Romblon Harbor, Romblon; Alimango Bay and Busin Harbor, Burlas Island; San Miguel Harbor, Ticao Island; Cataingan Bay and Masbate Reef, Masbate Island; Lode Bay, Destacado Island between Masbate and Samar; Port Palapag, Quinapundan Bay, Nabatas Point, and Biri Channel on north coast of Samar; Port Dupon and Cabugan Island, Hinunangan Bay, Leyte; Maribojoc Bay and Pandanon Island Bohol; Cebu market, Mactan Island and Calangaman Island, Cebu Province; Bais, Negros; Port Caltom and Port Uson, Busuanga Island; Cuyo Island, Cuyo Islands; Bolalo Bay, Chase Head near Endeavor Strait, Malampaya Sound, Malcochin Harbor, Linapacan Island, Rasa Island, Mantaquin Bay and Ulugan Bay, Palawan; Candaraman Island, Balabac; Mahinog, Camiguin Island, north of Mindanao; Camp Overton, Lanao Province; Inamucan Bay and Murcielagos Bay, Misamis Occidental Province, Polloc, Cotabato Province, Tomahu Island and Pujada Bay, Davao Province, Surigao, Surigao Province, and Little Santa Cruz Island, Sacol Island, and Tictauan, Zamboanga Province, Mindanao; Cagayan Sulu Island, Tutu Bay, and Jolo market, Jolo Island, Tataan, Teomabal, Tonquil, Tara, and Sulade Islands, Sitankai, Simumul Island, Tumindao Island, and Usada Island, Sulu Province; Talisse Island, Celebes, Halmahera, Buru, and Lembe Strait, Dutch East Indies; Formosa; Guam; Kowloon market, China; Apia, Samoa; Honolulu, Hawaiian Islands; Fanning Island. Fowler, Mem. Bishop Mus., vol. 10, p. 385, 1928; Hawaiian, Gilbert, and Society Islands; Apia and Pago Pago, Samoa; New Guinea, Fanning Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 300, 1940; synonymy in part; 24 East Indian localities; Sulu Islands, Philippines; also 21 other Indo-Pacific places.

1670. *Scarus dussumieri* Cuvier and Valenciennes.

From the Red Sea and Madagascar to the East Indies, Philippines, Caroline Islands, and the New Hebrides.

Scarus Dussumieri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 252, 1839; Seychelles. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 494, 1853; Batavia, Java. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 42, 1861; Singapore.

Scarus dussumieri Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Cullion; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao.

Pseudoscarus Dussumieri Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 241, 1861. Bleeker, Atlas Ichth., vol. 1, p. 46, pl. 8, fig. 1, 1862; Java. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 47, 1865; Seychelles; Zanzibar; Madagascar; Réunion.

Pseudoscarus dussumieri Günther, Cat. Fishes British Mus., vol. 4, p. 224, 1862; Java. Boulenger, Proc. Zool. Soc. London, p. 664, 1887; Muscat, Arabia. Day, Fishes India, Supplement, p. 804, 1888. Günther, Fische der Südsee, vol. 3, p. 309, 1909; Muscat; Java; Ponapé, Caroline Islands; Faté, New Hebrides.

Callyodon dussumieri Jordan and Richardson, Mem. Carnegie Mus., vol. 4, p. 196, pl. 73, 1909; Takao, Formosa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 449, 1928; Port Banalacan, Marinduque

Island; Lode Bay, Destacado Island, between Masbate and Samar; Port Palapag and Biri Channel, off north coast of Samar; Agojo Point, Catanduanes Island; Dalanganem Island, Cuyo Islands; Balukbaluk Island off Basilan Island, Zamboanga Province, Mindanao. Talisse and Tomahu Islands, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 382, 1928; Christmas and Fanning Islands; after Bleeker. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 308, 1940; Singapore; Nias; Java; Tomahu Island; Talisse Island; Philippines.

1671. *Scarus erythrodon* Cuvier and Valenciennes.

From the east coast of Africa to the East Indies, the Philippines, Pelew, Mariana, Caroline, Hawaiian, Solomon, New Hebrides, Samoan, Society, and Marquesas Islands; sometimes enters brackish water.

Scarus erythrodon Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 255, 1839; Mauritius. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Calapan, Mindoro; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 331, 1936; Tenibuli, Ysabel Island, Solomon Islands; Malo and Wala Islands, New Hebrides; Suva, Fiji; BoraBora and Moorea, Society Islands.

Scarus sumbawensis Bleeker, Jour. Indian Archipelago, vol. 1, p. 638, 1848; Sumbawa.

Scarus gymnognathus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 498, 1853; Batavia, Java.

Pseudoscarus sumbawensis Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 242, 1861. Bleeker, Atlas Ichth., vol. 1, p. 47, pl. 15, fig. 4, 1862; Batu; Celebes; Sangi; Sumbawa; Timor; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 232, 1862; eastern parts of the East Indian Archipelago. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 509, 1900; Laysan Island.

Pseudoscarus gymnognathus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 242, 1861. Bleeker, Atlas Ichth., vol. 1, p. 28, pl. 15, fig. 3, 1862; Java. Günther, Cat. Fishes British Mus., vol. 4, p. 239, 1862; after Bleeker.

Pseudoscarus erythrodon Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 49, 1865; Mauritius. Günther, in Playfair and Günther, Fishes Zanzibar, p. 107, 1866; Zanzibar. Day, Fishes India, p. 413, 1878; Port Blair, Andaman Islands. Sauvage, in Grandidier, Hist. Phys. Nat. Poissons, Madagascar, p. 470, 1891; Madagascar. Günther, Fische der Südsee, vol. 3, p. 319, 1909; East Africa; Ceylon; Pelew Islands; Yap; New Hebrides; Marquesas; Samoa; Society Islands.

Pseudoscarus Goldiei Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 590, 1882; New Guinea.

Callyodon erythrodon Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 357, fig. 156, 1905; Laysan Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 317, 1906; PagoPago, Samoa. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 115, p. 1400, 1906; Savaii, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 385, 1928; Sabtan Island, Batanes Province, Port Matalvi, Zambales Province; Port Hamilo and Pagapas Bay, Batangas Province; Aliibi-jaban Bay, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Galvaney Island, Ragay Gulf, Butauanan Island, and Masamat Bay, Quinalasag Island, Camarines Sur Province; Atulayan Island, San Miguel Island, RapuRapu Island, Palag Bay, and Albay Gulf, Albay Province; Matnog Bay and Langao Point, Sorsogon Province, Luzon. Agojo Point, Catanduanes Island; Tilik, Lubang Island; Maricaban Island Reef, Verde Island Passage; Mansalay, Sablayan, and Puerto Galera, Mindoro; Mompog Island, near Marinduque Island; Romblon Harbor, Romblon; Alimango Bay and Busta Harbor, Burias Island; Masbate Reef and Cataingan Bay, Masbate; Biri Channel, Catbalogan, Port Palapag, and Quinapundan Bay, Samar; Port Dupon and San Roque, in brackish water and Cabugan Island, Hinunangan Bay, Leyte; Pandanon Island and Maribojoc Bay, Bohol; Cebu market and Mactan Reef, Cebu; Port Uson, Busuanga Island; Cuyo Island, Cuyo Islands. Endeavor Strait, Malampaya Sound, Bolalo Bay, and Ulugan Bay, Palawan; Candaraman Island

and Caxisigan Island, Balabac; Surigao and La Generale Island, Capungan Peninsula, Surigao Province, Little Santa Cruz Island, Tunalutan Island, Tapiantana Island and Tictauan Island, Zamboaga Province, Pujada Bay, Davao Province, Polloc, Cotabato Province, Murcielagos Bay, Misamis Occidental Province, and Camp Overton, Lanao Province, Mindanao; Bubuan Island, Lagoon at Tumindao Island, Simalac Island, Sitankai Reef, Tara, Teomabal, and Tonquil Islands, Sulu Province. Tidore, Halmahera, Buru, Great Tobeia, Sadaa, Binang Unang, and Togian Islands, and Celebes, Dutch East Indies; Guam. Fowler, Mem. Bishop Mus., vol. 10, p. 372, 1928; Samoan, Society, Solomon, and Hawaiian Islands; Guam; Rarotonga. Fowler, Acad. Nat. Sci. Phila., Monograph 2, 1938; p. 150, Tahiti; p. 176; BoraBora. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 316, 1940; 15 East Indian localities; Sulu Islands, Philippines; also 14 additional Indo-Pacific localities.

1672. *Scarus fasciatus* Cuvier and Valenciennes.

The East Indies, Philippines, west to India, north to China, and the RiuKiu Islands, east to the Tuamotu Islands.

Scarus fasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 222, 1839; Moluccas. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Sitankai, Sulu Province.

Scarus rivulatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 223, 1839; Java.

Scarus rivulatooides Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 55; 1849; Batavia, Java.

Scarus micrognatus Bleeker, *ibid.*, p. 56; Batavia, Java.

Pseudoscarus rivulatus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 240, 1861. Bleeker, Atlas Ichth., vol. 1, p. 44, pl. 9, fig. 3, 1862; Java; Bawean; Singapore; Billiton; Celebes; Sumbawa; Batjan; Timor. Günther, Cat. Fishes British Mus., vol. 4, p. 22, 1862; East Indies. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 345, 1876; Cape Greville, Queensland, Australia. Day, Fishes India, p. 413, pl. 87, fig. 6, 1878; Madras, India.

Callyodon fasciatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 328, 1906. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 429, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands north of Luzon; Palau Island, Cagayan Province; Dasol Bay, Pangasinan Province; Grande Island Reef, Subig Bay, Bataan Province; Hamilo Bay, Batangas Province; Limbones Cove, Cavite Province; Capulaan Bay, Pagbilao Island, Tayabas Province; Maculabo Island, Camarines Norte Province; Masamat Bay and Lahuy Island, Camarines Sur Province; Lagonoy Gulf, Albay Province; Langao Point and Bulan, Sorsogon Province, Luzon. Tilik and Balikias Bay, Lubang Island, Puerto Galera and Mansalay, Mindoro; Port Busin, Burias Island; Romblon Island; Lode Bay, Destacado Island, between Masbate and Samar; Biri Channel, Samar; Mactan Island and Reef and Malapascua Island, Cebu Province; Port Uson, Busuanga Island; Endeavor Strait, Malampaya Sound, and Bolalo Bay, Palawan; Bugsuk Island, Balabac; Generale Island, Capungan, Surigao Province, Parang, Cotabato Province, and Zamboanga, Zamboanga Province, Mindanao; Taganak Island, Jolo market, Jolo Island, and Tumindao Island, Sulu Province. Also Java. Fowler, Mem. Bishop Mus., vol. 10, p. 379, 1928; Faté, New Hebrides; Society Islands. Fowler, Acad. Nat. Sci. Phila., Monograph 2, 1938; p. 114, Takaroa; p. 130, Apataki, Tuamotu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 306, 1940; Singapore; Billiton; Batavia, Java; Bawean; Makassar, Celebes; Sumbawa; Batjan; Amboina; Timor; Sulu Islands, Philippines.

Callyodon rivulatus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 246, 1907; Zamboanga, Zamboanga Province, Mindanao.

1673. *Scarus forsteni* (Bleeker).

The East Indies, Philippines, and RiuKiu Islands.

Pseudoscarus Forsteni Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 238, 1861; Celebes. Bleeker, Atlas Ichth., vol. 1, p. 38, pl. 8, fig. 2, 1862; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 230, 1862; Celebes; after Bleeker.

Callyodon latifasciatus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 238, fig. 7, 1907; Zamboanga, Zamboanga Province, Mindanao.

- Callyodon forsteni* Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 509, 1912; Naha market, Okinawa, RiuKiu Islands.
- Scarus forsteni* Herre, Fishes Philippine Bureau Science Collection, 1921-27; Jolo and Sibutu Islands, Sulu Province.
- Callyodon forsteni* De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 294, 1940; Batavia, Java; Birabirahan Island, Borneo; Doworra Island; Baru; Sulu Islands, Philippines.
- Callyodon tricolor* Fowler and Bean, Bull. U. S. Nat. Mus., vol. 7, p. 460, 1928; Santo Domingo de Basco, Batan Island, Batanes Province; Palaui Island, Cagayan Province, and Grande Island Reef, Subic Bay, Bataan Province, Luzon; Verde Island and Maricaban Island, Verde Island Passage; Sablayan, Mindoro; Romblon Harbor, Romblon; Dalangaman Island, Cuyo Islands, Calangaman Island, Cebu Province; Endeavor Strait, Palawan; Murcielagos Bay, Misamis Occidental Province; Zamboanga and Silino Island, Zamboanga Province, Mindanao; Jolo market, Similac Island and Singaan Island, Sulu Province; Birabirahan Island, Borneo; Doworra and Buru Islands, Dutch East Indies; not of Bleeker.
- 1674. *Scarus forsteri* Cuvier and Valenciennes.**
East Indies, Philippines, RiuKiu Islands, Pelew Islands, Guam, and the Hawaiian, Fiji, Samoan, and Society Islands.
- Scarus forsteri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 275, 1839; Tahiti. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Jolo and Sitankai, Sulu Province.
- ?*Callyodon oktodon* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 96, 1907; Zamboanga, Zamboanga Province, Mindanao; according to Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, pp. 410 and 414, 1928.
- Pseudoscarus forsteri* Günther Fische der Südsee, vol. 3, p. 318, pl. 145, 1909; Tahiti. Fowler, Bull. 22, Bishop Mus., p. 35, 1925; Samoa.
- Callyodon forsteri* Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 509, 1912; Okinawa, RiuKiu Islands. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 410, 1928; Port Hamilo, Batangas Province, Luzon; Maricaban Island, between Luzon and Mindoro; Sablayan Bay, Mindoro; Bolalo Bay and Ulugan Bay, Palawan; Cabugan Island, Hinunangan Bay, Leyte; Murcielagos Bay, Misamis Occidental Province, Zamboanga, Little Santa Cruz Island, and Silino Island, Zamboanga Province, Mindanao; Similac Island, Sulu Province, Si Amil Island, British North Borneo, near Philippine boundary; Tidore and Labuan Blanda Islands, Dutch East Indies; Nan Wan Bay, Formosa; Naha, Okinawa, RiuKiu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 325, 1940; Batavia, Java; Tidore; Banda; Rotti; New Guinea; Sulu Islands, Philippines; Mauritius; RiuKiu Islands; Formosa; Philippines; Pelew Islands; Guam; Fiji; Samoa; Tahiti; Hawaii; Laysan Island.
- 1675. *Scarus frenatus* Lacépède.**
The East Indies and Philippines, eastward to the Solomon Islands and Samoa, west to the Seychelles and Mauritius.
- Scarus frenatus* Lacépède, Hist. Nat. Poissons, vol. 4, p. 13, pl. 1, fig. 2, 1802; Great Equinoxial Ocean. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 227, 1839. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 770, 1852; Celebes. Jouan, Mem. Soc. Sci. Cherbourg, ser. 2, vol. 5, p. 106, 1870; Seychelles. Herre, Fishes 1931 Philippine Exped., p. 78, 1934; Culion; Cotabato, Cotabato Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 338, 1936; Tenibuli, Ysabel Island, Solomon Islands.
- Pseudoscarus frenatus* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 239, 1861. Bleeker, Atlas Ichth., vol. 1, p. 40, pl. 16, fig. 2, 1862; Celebes. Peters, Monatsber. Akad. Wiss. Berlin, p. 844, 1877; New Britain. Günther, Fische der Südsee, vol. 3, p. 307, 1909; Celebes; Louisiades; New Pomerania.
- Pseudoscarus viridis* Günther, Cat. Fishes British Mus., vol. 4, p. 220, 1862; Louisiade Archipelago; Celebes; not of Bleeker.
- Pseudoscarus fraenatus* Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 37, 1865; Mauritius.
- Callyodon frenatus* Fowler, Bull. 22, Bishop Mus., p. 35, 1925; Samoa. Fowler, and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 436, 1928; Palaui

Island, Cagayan Province; Balayan Bay and Pagapas Bay, Batangas Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Butaanan Island and Quinalasag Island, Camarines Sur Province; RapuRapu Island, Albay Province; Langao Point, Sorsogon Province, Luzon. Romblon, Romblon Island; Santa Cruz, Marinduque; Port Busin, Burias Island; Batag Island, Biri Channel, Quinpundan Bay and Port Palapag, Samar; Cabugan Island, Hinunangan Bay and Port Dupon, Leyte; Cebu market, Cebu; Wreck Bay, Dalangnem Island, Cuyo Islands; Bolalo Bay, Endeavor Strait, Malampaya Sound, and Ulugan Bay, Palawan; Polloc, Cotabato Province, Pujada Bay, Davao Province, Murcielagos Bay, Misamis Occidental Province, Sacol Island and Tulnalutan Island, Zamboanga Province, Mindanao; Tulayan Island, Tara Island, Siasi, and Sitankai Reef, Sulu Province, Philippines. Great Toba Island, Pendek Island, Buru Island, Limbe Strait, and Gulf of Tomini, Celebes, and Halmahera Island, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 380, 1928. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 290, 1940; Makassar and Bulacomba, Celebes; Limbe Strait; Togian, Halmahera, Buru, and Banda Islands; Manokwari, New Guinea; Philippines.

1676. *Scarus harid* Forskål.

In the tropical Indo-Pacific, from the Red Sea and Madagascar to the Caroline, Samoan, and Tuamotu Islands.

Scarus harid Forskål, Descript. Animal., p. 30, 1775; Red Sea, Arabia. Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 80, pl. 21, fig. 1, 1828; Djedda, Red Sea. Herre, Fishes Philippine Bureau Science Collection, 1921-27; Puerto Galera, Mindoro; reef west of Masbate; Naranjo Islands, between Masbate and Samar; Tandubas Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Sitankai, Sulu Province.

Scarus mastax Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 80, pl. 21, fig. 2, 1828; Ras Mehamed, Jubal, and Gemesche, Arabia. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 199, 1854; Batavia, Java.

Scarus longiceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 241, 1839; Waigiü.

Scarus latus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 245, 1839; Red Sea.

Scarus Rüppelli Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 259, 1839; Red Sea.

Pseudoscarus mastax Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 236, 1861. Bleeker, Atlas Ichth., vol. 1, p. 35, pl. 10, fig. 1, 1862; Java. Guichenot, Mem. Soc. Sci. Cherbourg, vol. 11, p. 44, 1865; Red Sea; Botta Island; Dove Island.

Pseudoscarus longiceps Bleeker, Atlas Ichth., vol. 1, p. 50, 1862.

Pseudoscarus harid Günther, Cat. Fishes British Mus., vol. 4, p. 220, 1862; Djedda, Red Sea; Java; Cocos. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 45, 1865; Ceylon; Bombay; Seychelles; Red Sea. Peters, Monatsber. Akad. Wiss. Berlin, p. 443, 1876; Mauritius. Günther, Fische der Südsee, vol. 3, p. 306, 1910; Pelew Islands, Ponapé; Ruk; Samoa. Weber, Siboga-Exped., vol. 57, Fische, p. 385, 1913; Binongka.

Callyodon harid Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 420, 1928; Maculabo Island, Camarines Norte Province; Butaanan Island, Lahuy Island, and Quinalasag Island, Camarines Sur Province; Albay Gulf and near Palag Bay, Albay Province, Luzon. Mansalay and Sablayan Bay, Mindoro; Romblon Harbor, Romblon; Port Busin, Burias Island; Biri Channel, north of Samar; Port Dupon, Leyte; Cebu market, Cebu; Candaraman Island, Balabac; Murcielagos Bay, Misamis Occidental Province, and Sacol and Tulnalutan Islands, Zamboanga Province, Mindanao; Simalac Sibi Island and Singaan Island, Sulu Province. Also Ternate market, Dutch East Indies; New Guinea. Fowler, Mem. Bishop Mus., vol. 10, p. 379, 1928; New Guinea. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 130, 1938; Apataki, Tuamotu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 276, 1940; Batavia, Java; Binongka; Ternate; Kei Islands; Waigiü; New Guinea; Philippines. Also 12 other Indo-Pacific localities.

1677. *Scarus hypselopterus* Bleeker.

The East Indies, Philippines, and Society Islands.

Scarus hypselopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 946, 1853; Batavia, Java. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Manila, Luzon; Culion; Sitankai, Sulu Province. Herre, Fishes, 1940-41 Exped.; Puerto Galera, Mindoro.

Pseudoscarus hypselopterus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 237, 1861. Bleeker, Atlas Ichth., vol. 1, p. 36, pl. 8, fig. 3, 1862; Java. Günther, Cat. Fishes British Mus., vol. 4, p. 224, 1862; after Bleeker. Steindachner, Denks. Akad. Wiss. Wien, vol. 41, p. 19, 1879; Society Islands.

Callyodon hypselopterus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 484, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Maculabo Island, Camarines Norte Province; Butauanan Island, Camarines Sur Province; Capulaan Bay, Pagbilao Island, and Alibijaban Island, Ragay Gulf, Tayabas Province; Batan Island, and Rapurapu Island, Albay Province; Langao Point, Sorsogon Province, Luzon; Mansalay, Mindoro; Santa Cruz and Mompog Island, near Marinduque Island; Alimango Bay and Busin Harbor, Burias Island; Masbate Reef, Masbate Island; Biri Channel, Nabatas Point, Port Palapag, and Quinapundan Bay, Samar; Caguban Island, Hinunangan Bay, Leyte; Dalanganem Island, Cuyo Islands; Chase Head, Endeavor Strait, Bolalo Bay, Ulugan Bay, and Linapacan Island, Palawan; Bugsuk Island, Balabac; Cebu market and Mactan Cove, Mactan Island, Cebu Province; Pujada Bay, Davao Province, Surigao and Capungon Point, Surigao Province, and Tictauan Island, Zamboanga Province, Mindanao; Tara, Teomabal, and Siasi Islands, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 387, 1928, locality of one specimen uncertain; Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 293, 1940; Batavia, Java; Philippines; Society Islands.

1678. *Scarus janthochir* Bleeker.

The East Indies and Philippines, east to the Caroline Islands, west to the Arabian Sea and Persian Gulf.

Scarus janthochir Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 139, 1853; Ternate. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 54, 1860; Celebes. Herre, Fishes Philippine Bureau Science Collection, 1926; Bungau, Sulu Province.

Pseudoscarus janthochir Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 234, 1861. Bleeker, Atlas Ichth., vol. 1, p. 30, pl. 5, 1862; Java; Celebes; Ternate. Günther, Cat. Fishes British Mus., vol. 4, p. 234, 1862; Moluccas. Boulenger, Proc. Zool. Soc. London, p. 664, 1887; Muscat, Arabia.

Callyodon janthochir Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 444, 1928; Sabtang Island, Batanes Islands; vicinity of Palag Bay and Rapurapu Island, Albay Province, and Matnog Island, Sorsogon Province, Luzon; Mansalay, Mindoro; Port Caltom, Busuanga; Cuyo Harbor, Cuyo Islands; Caxisigan Island, near Balabac; Biri Channel, Balicuatro Islands, north of Samar; Mahinog, Camiguin Island, north of Misamis Oriental Province, Mindanao; Cagayan Sulu Island, Sulu Province, Philippines; excluding synonymy. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 281, 1940; Batavia, Java; Badjoa, Celebes; Ternate; Sulu Islands, Philippines.

1679. *Scarus javanicus* Bleeker.

The East Indies and Philippines.

Scarus javanicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 198, 1854; Batavia, Java.

Pseudoscarus javanicus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 237, 1861. Bleeker, Atlas Ichth., vol. 1, p. 36, pl. 11, fig. 3, 1862; Java. Günther, Cat. Fishes British Mus., vol. 4, p. 222, 1862; Java; after Bleeker.

Callyodon ogos Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 527, 1909; Puerto Princessa, Palawan. Herre, Fishery Resources Philippine Islands, colored pl. 27, fig. 1, 1927.

Callyodon javanicus de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 292, 1940; Batavia, Java; Philippines.

Scarus ogos Herre, Philippine Bureau Science Collection; Cuyo Islands.

1680. *Scarus kelloggi* (Jordan and Seale).
The Samoan Islands and Philippines.
Callyodon kelloggi Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 327, fig. 62, 1905; Apia, Samoa. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 434, 1928; Palau Island, Cagayan Province; Palag Bay, Albay Gulf, and Maagnas, Lagonoy Gulf, Albay Province, Luzon. Biri Channel, Balicuatro Islands, Samar; Inamucan Bay, Misamis Occidental Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao; Sitankai Reef, Sulu Province. Also Apia, Samoa.
Scarus kelloggi Herre, Fishes 1931 Philippine Exped., p. 74, 1934; Jolo, Sulu Province.
1681. *Scarus lineolabiatatus* (Fowler and Bean).
Callyodon lineolabiatatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 457, pl. 47, 1928; Butauanan Island, Camarines Sur Province.
Scarus lineolabiatatus Herre, 1940-41 Exped.; Jolo, Sulu Province.
1682. *Scarus margaritus* (Cartier).
The Philippines and East Indies.
Pseudoscarus margaritus Cartier, Verh. Phys. Med. Gesell. Würzburg, vol. 5, p. 105, 1874; Cebu, Cebu, Philippines. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 397, 1928; Palau Island, Cagayan Province; Langao Point, Sorsogon Province, Luzon. Cebu Market, Cebu; Candaraman Island and Caxisigan Island, Balabac. Murcielagos Bay, Misamis Oriental Province, and Lampinigan Island, Zamboanga Province, Mindanao. Simaluc and Teomabal Islands, Sulu Province. Also Libani Bay, Celebes, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 374, 1928; New Guinea. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 313, 1940; Celebes; New Guinea; Sulu-Islands, Philippines.
Callyodon albipunctatus Seale, Philippine Jour. Sci., vol. 4, section A, p. 526, 1909; Sitankai Island, Sulu Province.
Callyodon muricatus Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 52, 1922; Zamboanga, Zamboanga Province, Mindanao; not of Cuvier and Valenciennes.
Scarus albipunctatus Herre, Philippine Bureau Science Collection, 1925; Sibutu, Sulu Province.
1683. *Scarus microcheilos* (Bleeker).
The East Indies and Philippines, eastward to Samoa and the Tuamotu Islands.
Pseudoscarus microcheilos Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 231, 1861; Java. Bleeker, Atlas Ichth., vol. 1, p. 24, pl. 4, fig. 2, 1862; Java.
Pseudoscarus microchilus Günther, Cat. Fishes British Mus., vol. 4, p. 236, 1862; Java; after Bleeker.
Callyodon microcheilos Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 417, 1928; Port Maricaban, Verde Island Passage between Luzon and Mindoro; Alimango Bay, Burias Island; Tataan Island, Sulu Province; Philippines; also Binang Unang Island, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 378, 1928; after Bleeker. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 113, 1938; Takarao, Tuamotu Islands.
Callyodon microcheilus de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 275, 1940; Batavia, Java; Binang Unang Island; Philippines.
1684. *Scarus microrhinus* Bleeker.
Reaches a length of more than two meters; specimens a meter or more long become bulky to very bulky. Ranges from Madagascar to the East Indies, Philippines, Fiji, Samoa, Society, and Tuamotu Islands.
Scarus microrhinus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 200, 1854; Batavia, Java. Herre, Fishes Philippine Bureau Science Collection, 1920-27; Calapan, Mindoro; Tablas Island (specimen 1,300 mm. long); Bennett Island, near Masbate; Jolo market and Bungau, Sulu Province; last specimen over 2 meters long, too large to preserve. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Taytay, Palawan; Zamboanga, Zamboanga Province, Mindanao.

- Pseudoscarus microrhinos* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 231, 1861. Bleeker, Atlas Ichth., vol. 1, p. 22, pl. 3, 1862; Java; Celebes.
- Pseudoscarus microrhinos* Günther, Cat. Fishes British Mus., vol. 4, p. 235, 1862; Java; Celebes. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 116, 1874; China. Günther, Fische der Südsee, vol. 3, p. 322, pl. 156, 1910; Ponapé; Ruk; Mortlock; Fiji; Samoa; Society Islands.
- Pseudoscarus striatus* Sauvage, in Granddidier, Hist. Phys. Nat. Madagascar, Poissons, p. 467, 1891.
- Callyodon ultramarinus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 332, fig. 64, 1906; Apia and PagoPago, Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 63, 1906; Mangareva, Tuamotu Islands.
- Callyodon microrhinos* Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 418, 1928; Port San Pio Quinto, Camiguin Island, Babuyan Islands; Palau Island, Cagayan Province; Alibijaban Island, Ragay Gulf, Tayabas Province; Galvaney Island, Ragay Gulf, Camarines Sur Province; Atulayan Island, Lagonoy Gulf, Albay Province, Luzon. Tilik Bay and Balikias Bay, Lubang Island, northwest of Mindoro; Port Maricaban, Verde Island Passage; Sablayan and Luzon; Alimango Bay, Burias Island; Biri Channel, north of Samar; Camp Overton, Lanao Province, Mindanao; Cagayan Sulu, Tara, and Tataan Islands, Sulu Province. Binang Unang Island, Dutch East Indies; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 378; 1928; Mangareva, Tuamotu Islands; Samoa. Fowler, Acad. Nat. Sci. Phila., Monograph 2, 1938; p. 113, Takarua, Tuamotu Islands; BoraBora, Society Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 273, 1940; Batavia, Java, Makassar, Celebes; Biwang Unang Island; Adonare; Moresby Bay, New Guinea; Philippines; Fiji; Samoa; Society Islands; Gambier Islands.
- 1685. *Scarus muricatus* Cuvier and Valenciennes.**
The East Indies, Philippines, Siam, Samoa, Pelew, Caroline, and Solomon Islands.
- Scarus muricatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 208, pl. 402, 1839; Java. Bleeker, Verh. Bat. Gen., vol. 22, Glad-schub. Labroid., p. 46, 1849; Batavia, Java. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Bais, Dumaguete, Negros Oriental Province.
- Pseudoscarus muricatus* Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 232, 1861. Bleeker, Atlas Ichth., vol. 1, p. 26, pl. 7, fig. 3, 1862; Java; Moluccas. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; North Celebes. Günther, Fische der Südsee, vol. 3, p. 316, 1910; Ponapé, Caroline Islands; Pelew Island; Solomon Islands.
- Callyodon muricatus* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 780, 1905; Bais, Negros Oriental Province. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 495, 1928; Biri Channel, north of Samar; Cebu market, Cebu; Endeavor Strait and Ulugan Bay, Palawan; Murcielagos Bay, Misamis Occidental Province, Mindanao, Philippines. Also Binang Unang Island, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 388, 1928; after Günther. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 288, 1940; Simalur; Batavia, Java; North Celebes; Moluccas; Binang Unang Island, Dutch East Indies; Philippines.
- 1686. *Scarus mutabilis* (Gray).**
From Zanzibar to the Philippines, Japan, the Pelew, Solomon, Samoan, and Ellice Islands.
- Callyodon mutabilis* Gray, Cat. Fishes described by Gronow, p. 86, 1854; Amboina. Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 414, 1928; Palau Island, Cagayan Province; Grande Island Reef, Subic Bay, Bataan Province; Galvaney Island, Ragay Gulf, Tayabas Province; Maculabo Island, Camarines Norte Province; Butaanan Island, Camarines Sur Province; Palag Bay, Atulayan Island, and RapuRapu Island, Albay Province; Langoa Point, Sorsogon Province, Luzon; Agojo Point, Catanduanes Island; Porongpong Island, Palumbanes Islands, between Catanduanes and Luzon. Puerto Galera, Mindoro; Biri Channel, Balicutro Islands north of Samar; Port Ciego, Balabac Island; Murcielagos Bay, Misamis Occidental Province; Capungan Point, Surigao Province, Little Santa Cruz Island and Silino Island,

Zamboanga Province, Mindanao; Sitankai reef and Taganak Island, Sulu Province, Philippines; also Japan. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 320, 1940; Batavia, Java; Makassar, Celebes; Amboina; Rotti; New Guinea; the Philippines and 7 other Indo-Pacific localities.

Pseudoscarus pentazona Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 241, 1861. Bleeker, Atlas Ichth., vol. 1, p. 46, pl. 11, fig. 1, 1862; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 231, 1862; Celebes; after Bleeker. Günther, in Playfair and Günther, Fishes Zanzibar, p. 107, 1866; Zanzibar.

Pseudoscarus Schlegeli Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 242, 1861. Bleeker, Atlas Ichth., vol. 1, p. 48, pl. 12, fig. 2, 1862; Celebes.

Pseudoscarus schlegelii Günther, Cat. Fishes British Mus., vol. 4, p. 231, 1862; after Bleeker.

Pseudoscarus pentazona var. *schlegeli* Weber, *Siboga*-Exped., Fische, vol. 57, p. 388, 1913; Rotti, Dutch East Indies.

Scarus schlegeli Herre, Fishes 1931 Philippine Exped., p. 79, 1934; reef near Burias Island; Linapacan Island, Palawan Province.

Scarus mutabilis Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao.

1687. *Scarus nuchipunctatus* Cuvier and Valenciennes.

In the tropical Indo-Pacific from Zanzibar to the Philippines, Riu Kiu Islands, and east to the Gilbert and Tuamotu Islands.

Scarus nuchipunctatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 224, 1839; Sea of the Indies. Herre, Fishes Philippine Bureau Science Collection, 1921-27; Bulalacao Bay, Mindoro; Linapacan Island, Palawan; Zamboanga, Zamboanga Province, Mindanao; Pearl Bank and Siasi, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Jolo, Sulu Province.

Scarus limbatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 271, 1839; Macao, China; Java; in part? Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 60, 1849; Batavia, Java.

Pseudoscarus nuchipunctatus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 235, 1861. Bleeker, Atlas Ichth., vol. 1, p. 31, pl. 10, fig. 2, 1862; Java; Sumatra; Celebes; Timor; Amboina; Banda. Günther, Cat. Fishes British Mus., vol. 4, p. 233, 1862; Amboina; China. Günther, Fische der Südsee, vol. 3, p. 323, pl. 157, 1910; Pelew Islands; Fiji; Samoa; Society Islands; Gilbert Islands; Yap; Ponapé. Weber, *Siboga*-Exped., vol. 57, Fische, p. 387, 1913; Banda. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 53, 1922; Zamboanga, Zamboanga Province, Mindanao.

Pseudoscarus limbatus Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 36, 1865.

Callyodon nigra Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 246, 1907; Zamboanga, Zamboanga Province, Mindanao.

Callyodon nuchipunctatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 487, 1928; Palau Island, Cagayan Province; Hamilo Bay, and Pagapas Bay, Batangas Province; Manila market; Alibijaban Island, Ragay Gulf, Tayabas Province; Quinalasag Island, Masamat Bay, Camarines Sur Province; RapuRapu Island, Albay Province, Luzon. Verde Island and Maricaban Island, Verde Island Passage; Balikias Bay, Lubang Island, northwest of Mindoro; Puerto Galera, Mansalay, Paluan Bay, Sablayan, and Varadero Bay, Mindoro; Mompog Island, near Marinduque Island; Alimango Bay and Busin Bay, Burias Island; Catabalogan, Port Palapag, and Biri Channel, Samar. Caxisigan Island and Candaraman Island, off Balabac; Cebu market, and Mactan Island, Cebu Province; Pujada Bay, Davao Province, Surigao, Surigao Province, and Little Santa Cruz Island, Zamboanga Province, Mindanao; Balukbaluk Island, Siasi Island market, Sulade, Tara, and Tataan Islands, Sulu Province, Philippines. Also Tidore Island, Limbe Strait and Gulf of Tomini, Celebes, Dutch East Indies; New Guinea; Hong Kong market. Fowler, Mem. Bishop Mus., vol. 10, p. 387, 1928; Hawaiian Islands; Gilbert Islands; New Guinea. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 115, 1938; Takarao, Tuamotu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 283, 1940; 10 East Indian localities; Sulu Islands, Philippines; also 11 other Indo-Pacific places.

1688. *Scarus oedema* (Snyder).
The RiuKiu Islands and Philippines; marine and in brackish water.
Callyodon oedema Snyder, Proc. U. S. Nat. Mus., vol. 36, p. 603, 1909;
Nafa, Okinawa, RiuKiu Islands. Snyder, *ibid.*, vol. 42, p. 509, pl. 67,
fig. 1, 1912; same specimen. Fowler and Bean, Bull. 100, U. S. Nat.
Mus., vol. 7, p. 385, 1928; Santiago River, Pagapas Bay, Batangas
Province, Luzon; Nafa, Okinawa, RiuKiu Islands; Tampotana Island.
1689. *Scarus oktodon* (Bleeker).
The East Indies, Philippines, RiuKiu, Pelew, and Society Islands, west
to Zanzibar.
Pseudoscarus oktodon Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 235,
1861. Bleeker, Atlas Ichth., vol. 1, p. 33, pl. 13, fig. 2, 1862; Buton
Island.
Pseudoscarus octodon Günther, Cat. Fishes British Mus., vol. 4, p. 234,
1862; Buton Island; after Bleeker. Steindachner, Denks. Akad. Wiss.
Wien, vol. 41, p. 19, 1879; Society Islands. Günther, Fische der Südsee,
vol. 3, p. 327, 1910; Pelew Islands; Yap.
Callyodon oktodon Fowler, Mem. Bishop Mus., vol. 10, p. 378, 1928;
Kusaie Island, Caroline Islands; Society Islands. De Beaufort, Fishes
Indo-Australian Archipelago, vol. 8, p. 314, 1940; East Java and Buton
Island, Dutch East Indies; Philippines.
Callyodon octodon Schmidt, Trans. Pacific Comm. Acad. Sci. U. S. S. R.,
vol. 1, p. 93, 1930; RiuKiu Islands.
Scarus oktodon Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Jolo,
Sulu Province; also 1948 collection.
1690. *Scarus ophthalmistius* Herre.
A Philippine species.
Scarus ophthalmistius Herre, Copeia, No. 1, p. 21, 1933; Jolo market,
Sulu Archipelago, Philippines. Herre, Fishes 1931 Philippine Exped.,
p. 79, 1934; Jolo, Sulu Province.
Callyodon ophthalmistius de Beaufort, Fishes Indo-Australian Archi-
pelago, vol. 8, p. 279, 1940; Sulu Islands; after Herre.
1691. *Scarus oviceps* Cuvier and Valenciennes.
The Philippines and East Indies, then east to the Pelew, Caroline, Gil-
bert, Society, and Tuamotu Islands.
Scarus oviceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p.
244, 1839; Tahiti.
Pseudoscarus oviceps Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11,
p. 43, 1865; Tahiti. Günther, Fische der Südsee, vol. 3, p. 312, pl. 152,
fig. A, 1910; Ponapé Caroline Islands; Samoa, Pelew, Gilbert, Society,
and Tuamotu Islands.
Pseudoscarus Knerii Steindachner, Sitzungsber. Akad. Wiss. Wien, vol.
96, Abth. 1, p. 64, pl. 4, fig. 1-A, 1887; Indian Ocean, Weber,
Siboga-Exped., vol. 57, Fische, p. 386, 1913; Karkaralong Island, Dutch
East Indies.
Callyodon oviceps Seale, Occas. Papers Bishop Mus., vol. 4, p. 63, 1906;
Tahiti, Society Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries,
vol. 25, p. 321, 1906; Apia and PagoPago, Samoa.
Callyodon oviceps Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7,
p. 452, 1928; Tonquil Island, Sulu Province; Tapiantana Island, off
Basilan Island, Zamboanga Province, Mindanao. Also Makassar mar-
ket, Dutch East Indies; and Apia, Samoa. Fowler, Mem. Bishop Mus.,
vol. 10, p. 382, 1928; Apia, Samoa; Tahiti, Society Islands; Thornton
Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p.
302, 1940; Makassar, Celebes; Buka Island; Karkaralong Islands;
Buru; Sulu Islands, Philippines. In part, and not the synonymy.
1692. *Scarus pectoralis* Cuvier and Valenciennes.
From the Red Sea and Zanzibar to the East Indies and Philippines, and
eastward to the Pelew, Solomon, New Hebrides, Samoan, and Society
Islands.
Scarus pectoralis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14,
p. 269, 1839; Djedda, Red Sea. Herre, Fishes Philippine Bureau
Science Collection; Puerto Galera and Calapan, Mindoro; Sibuyan
Island; Cebu, Cebu; Dapitan and Zamboanga, Zamboanga Province,
Mindanao; Jolo, Tandubas, and Sibutu Island, Sulu Province, Philip-
pines. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Taytay, Pala-

wan. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 333, 1936; Tenibuli, Ysabel Island, and Hathorn Sound, New Georgia, Solomon Islands. Herre, Fishes 1936-37 Exped.; Dumaguete, Negros Oriental Province.

Pseudoscarus pectoralis Günther, Cat. Fishes, vol. 4, p. 237, 1862; Djedda; after Cuvier and Valenciennes. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 565, 1871; Koseir, Red Sea. Capello, Journ. Sci. Lisboa, p. 83, 1872; Mozambique. Günther, Fische der Südsee, vol. 3, p. 324, pl. 158, 1910; Seychelles; Zanzibar; Upolu, Samoa; Pelev Islands; Society Islands. M. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 387, 1913; Karkaralong Islands.

Pseudoscarus pseudognathus Günther, Cat. Fishes British Mus., vol. 4, p. 234, 1862; Java. Günther, in Playfair and Günther, Fishes Zanzibar, p. 108, 1866; Zanzibar. Weber, *Siboga-Exped.*, Fische, vol. 57, p. 387, 1913.

Callyodon lazulinus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 333, fig. 65, 1906; Apia and Pago Pago, Samoa.

Callyodon elerae Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 31, fig. 11, 1907; Cavite, Cavite Province, Luzon.

Callyodon pectoralis Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 453, 1928; Palau Island, Cagayan Province; Balayan Bay, Batangas Province; Grande Island Reef, Subic Bay, Bataan Province; Masamat Bay, Quinalasag Island, Camarines Sur Province, Luzon. Balikias Bay, Lubang Island, northwest of Mindoro; Sablayan and Puerto Galera, Mindoro; Maricaban Island, Verde Island Passage; Port Banalacan, Marinduque Island; Calangaman Island, and Malapascua Island, Cebu Province; Silino Island, Zamboanga Province, and Pujada Bay, Davao Province, Mindanao; Simalac Island and Sitankai Reef, Sulu Province, Philippines. Also Libani Bay, Celebes, Sipadan Island, and Gomomo Island, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 383, 1928. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 204, 1938; Christmas Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 286, 1940; Batavia, Java; Libani Bay, Celebes; Karkaralong Island; Banda; and Sula Islands, Dutch East Indies. Sulu Islands, Philippines; synonymy in part.

1693. *Scarus pulchellus* Rüppell.

From the Red Sea to the East Indies, Philippines, China, Pelew, Caroline, and Tuamotu Islands.

Scarus pulchellus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 25, pl. 8, fig. 3, 1835; Djedda, Red Sea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 440, 1854; Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 16, 1860; Celebes. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 305, 1911; Fakarava, Tuamotu Islands. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Culion; Linapacan Island, Palawan Province.

Pseudoscarus pulchellus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 236, 1861. Bleeker, Atlas Ichth., vol. 1, p. 34, pl. 10, fig. 3, 1862; Java; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 219, 1862; Mauritius; China. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 559, 1871; Koseir, Red Sea. Günther, Fische der Südsee, vol. 3, p. 305, 1910; Pelew Islands; Ponapé, Caroline Islands.

Callyodon pulchellus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 423, 1928; Port Matalvi, Zambales Province, Luzon; Porongpong Island, Palumbanes Islands, between Catanduanes and Luzon. Bolalo Bay, Endeavor Strait, and Makesi Island, Palawan; Singaan Island, Sulu Province, Philippines. Also Lembe Strait, Celebes, Dutch East Indies. Fowler, Mem. Bishop Mus., vol. 10, p. 379, 1928; Fakarava, Tuamotu Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 27, 1940; Batavia, Java; Lesser Sunda Islands; Menado and Limbe Strait, Celebes; the Philippines and 18 other Indo-Pacific places.

1694. *Scarus rhoduropterus* (Bleeker).

The Philippines and East Indies.

Pseudoscarus rhoduropterus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 233, 1861; Celebes. Bleeker, Atlas Ichth., vol. 1, p. 27, pl. 4, fig. 1, 1862; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 238, 1862; Celebes; after Bleeker.

Scarus rhodopterus Herre, Bureau Science Collection, 1925; Sitankai, Sulu Province.

Scarus rhodopterus Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Balabac Island; typographical error.

Callyodon rhodopterus de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 315, 1940; Makassar, Celebes; Philippines.

1695. *Scarus rubroviolaceus* Bleeker.

From Zanzibar to the Philippines, Guam, Hawaiian, Solomon, Gilbert, Austral, Society, and Tuamotu Islands.

Scarus rubroviolaceus Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 52, 1849; Batavia, Java. Herre, Philippine Bureau Science Collection, 1921-27; Calapan, Mindoro; Cebu, Cebu; Jolo market, Sulu Province.

Pseudoscarus rubroviolaceus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 237, 1861. Bleeker, Atlas Ichth., vol. 1, p. 37, pl. 13, fig. 3, 1862; Java and Buton, Dutch East Indies. Günther, Cat. Fishes British Mus., vol. 4, p. 229, 1862; Java; Moluccas. Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 51, 1865; Nias Island. Günther, in Playfair and Günther, Fishes Zanzibar, p. 106, 1865; Zanzibar. Steindachner, Denks. Akad. Wiss. Wien, vol. 41, p. 19, 1879; Gilbert and Society Islands. Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 152, 1902. Weber, *Siboga*-Exped., vol. 57, Fische, p. 389, 1913; Karkaralong Island.

Scarus calus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 542, pl. 21, lower figure, 1904; Padang, Sumatra.

Callyodon ruberrimus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 316, fig. 56, 1905; PagoPago, Samoa.

Callyodon upolensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 319, fig. 59, 1906; Apia, Samoa.

Callyodon macrorhinus Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 246, 1907; Zamboanga, Zamboanga Province, Mindanao.

Pseudoscarus ruberrimus Günther, Fische der Südsee, vol. 3, p. 314, 1910; Hawaii; Samoa; Ruk; Pelew Islands.

Callyodon rubroviolaceus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, 1928; Santo Domingo de Basco, Batan Island, and Sabtang Island, Batanes Province, Vicinity of Palag Bay, Albay Province; Tilik Bay, Lubang Island, northwest of Mindoro; Sablayan Bay, Mindoro; Cabugan Island, Hinunangan Bay, Leyte; Cebu market and Calangaman Island, Cebu Province; Baluk Baluk Island, Sillino Island, and Zamboanga market, Zamboanga Province, Mindanao. Cagayan Sulu Island, market, Siasi Island, and Simalac Island, Sulu Province, Philippines. Gondra Island, Sipadan Island, Binang Unang Island, Lembe Strait, and Libani Bay, Celebes, Dutch East Indies; Birabirahan Island, Borneo; Samoa; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 384, 1928; Shortland Island, Solomon Islands; Tubuai, Austral Islands; Society Islands; Tuamotu Islands; Wake Island; Guam; Gilbert Islands; PagoPago, Samoa. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 296, 1940; Padang, Sumatra; Nias; Batavia, Java; Buton Island; Karkaralong Island; Birabirahan Island, Borneo; Libani Bay, Celebes; Binang Unang Island, Dutch East Indies; the Philippines; also 11 other Indo-Pacific places.

1696. *Scarus singaporensis* Bleeker.

The East Indies, Philippines, Caroline Islands, Samoa, and Ellice Islands; marine.

Scarus singaporensis Bleeker, Nat. Tijds. Ned-Ind., vol. 3, p. 69, 1852; Singapore.

Pseudoscarus singaporensis Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 235, 1861. Bleeker, Atlas Ichth., vol. 1, p. 31, pl. 13, fig. 1, 1862; Singapore; Java. Waite, Mem. Australian Mus., no. 3, p. 194, 1897; Funafuti, Ellice Islands.

Pseudoscarus singaporensis Günther, Cat. Fishes British Mus., vol. 4, p. 235, 1862; Java; Singapore. Günther, Fische der Südsee, vol. 3, p. 325, 1910; Ponapé, Caroline Islands.

Callyodon guttatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 493, 1928; not of Bloch and Schneider; Palauli Island, Cagayan Province; Hamilo Bay, Batangas Province; Atulayan Island, Lagonoy Gulf, Palag Bay, Albay Gulf and RapuRapu Island, Albay Province;

Lahuy Island, Camarines Sur Province, Luzon. Agoio Point, Catanduanes Island; Porongpong Island, Palumbanes Island, between Catanduanes and Luzon; Bisucay Island and Cuyo Island, Cuyo Islands; Mansalay, Mindoro; Bugsuk Island, Balabac; Tilik, Lubang Island, northwest of Mindoro; Cebu market, Cebu; Batag, Samar; Surigao, Surigao Province, and Silino Island, Zamboanga Province, Mindanao; Tara Island, Sulu Province. Limbe Strait, Celebes and Tidore Island, Dutch East Indies.

? *Callyodon guttatus* Fowler, Mem. Bishop Mus., vol. 10, p. 388, 1928; Samoa; not of Bloch and Schneider.

Callyodon singaporensis de Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 280, 1940; Batavia, Java; Tidore; Singapore; the Philippines; Ponapé; Samoa; Funafuti.

1697. *Scarus sordidus* Forskål.

From east Africa to the Philippines, China, and the Hawaiian and Taumotu Islands; marine and very rarely entering fresh water.

Scarus sordidus Forskål, Descript. Animal, p. 30, 1775; Arabia. Herre, Fishes, Philippine Bureau Science Collections; Puerto Galera, Mindoro; Burias Island; Tablas Island; Cebu market, Cebu; Jolo market, Jolo, Sulu Province. Herre, Fishes 1931, Philippine Exped., p. 79, 1934, Calapan, Mindoro. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Scarus variegatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 14, p. 256, 1839; Mauritius.

Scarus Troschelii Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 498, 1853; Batavia, Java.

Scarus celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 253, 1854; Makassar, Celebes. Seale, Occas. Papers Bishop Mus., vol. 1, p. 95, 1901; Guam.

Pseudoscarus Troschelii Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 232, 1861. Bleeker, Atlas Ichth., vol. 1, p. 25, pl. 7, fig. 2, 1862; Java. Weber, Siboga-Exped., vol. 57, Fische, p. 388, 1913; Gisser, Saleyer, and Timor, Dutch East Indies.

Pseudoscarus troschelii Günther, Cat. Fishes British Mus., vol. 4, p. 237, 1862; Java; after Bleeker. Günther, in Playfair and Günther, Fishes Zanzibar, p. 108, pl. 14, 1866; Zanzibar. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 38, 1885; Rubi, New Guinea. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 358, fig. 157, 1905.

Pseudoscarus celebicus Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 232, 1862; Celebes. Günther, Cat. Fishes British Mus., vol. 4, p. 237, 1862; Sea of China.

Pseudoscarus variegatus Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 11, p. 49, 1865; on the type.

Pseudoscarus sordidus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 568, 1871; Red Sea and Gulf of Accaba; on *Scarus nigricans* and *Scarus mentalis*. Day, Fishes India, p. 413, 1878. Steindachner, Denks. Akad. Wiss. Wien, vol. 71, p. 150, 1902; Kalansiye, Socotra, and Gischin.

Pseudoscarus Troschelii var. *flavoguttata* Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 96, p. 63, 1888; Gilbert Islands.

Callyodon pyrhrurus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 314, fig. 55, 1906; Apia and PagoPago, Samoa.

Callyodon rostratus Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 524, 1909; Zamboanga, Zamboanga Province, Mindanao.

Callyodon celebicus Fowler, Mem. Bishop Mus., vol. 10, p. 373, 1928; Faté, New Hebrides; Guam.

Callyodon sordidus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 398, 1928; Port Matalvi and Santa Cruz, Zambales Province; Port Hamilo, Batangas Province; Capulaan Bay, Pagbilao Island, Tayabas Province; fresh water, Ragay River, Ragay Gulf, Camarines Sur Province, Luzon. Balikias Bay, Lubang Island, northwest of Mindoro; Puerto Galera, Mindoro; Port Banalacan, Marinduque Island; Alifmango Bay and Busin Harbor, Burias Island; San Miguel, Ticao Island; Biri Channel, Samar; Cebu market and Calangaman Island, Cebu Province; Bolalo Bay, Endeavor Strait, and Ulugan Bay, Palawan; Candaraman Island and Caxisigan Island, Balabac; Parang and Polloc, Cotabato Province, Murcielagos Bay, Misamis Occidental Province, and Little Santa Cruz Island and Tapiantana Island off

Basilan, Zamboanga Province, Mindanao; Jolo market, Jolo, Cagayan Sulu, Baluk Baluk, Simalac, Sulade, and Tara Islands, Sulu Province, Philippines. Also Kayoa and Maitara Islands, Labuan Blanda Island, Binang Unang Island and Libani Bay, Celebes, Dutch East Indies; excluding synonymy. Fowler, Mem. Bishop Mus., vol. 10, p. 374, 1928; Honolulu; Guam, Makatea, Tuamotu Islands; Rarotonga, Cook Islands; Johnston Island; Wake Island; Society Islands; Apia, Samoa; synonymy in part. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 112, 1938, Takaroa, Tuamotu Islands; p. 204, Christmas Island, Line Islands. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 311, 1940; 10 East Indian localities; Sulu Islands, the Philippines; also 20 other Indo-Pacific localities; synonymy in part.
Scarus troscheli Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 339, 1936; Papeete, Tahiti.

1698. *Scarus tricolor* Bleeker.

The East Indies, Philippines, Solomon Islands, and Wake Island.
Scarus tricolor Bleeker, Verh. Bat. Gen., vol. 22, Gladschub. Labroid., p. 59, 1849; Batavia, Java. Herre, Fishes 1931 Philippine Exped., p. 79, 1934; reef near Burias Island.
Pseudoscarus tricolor Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 238, 1861. Bleeker, Atlas Ichth., vol. 1, p. 39, pl. 17, fig. 1, 1862; Java; Celebes; Amboina. Günther, Cat. Fishes British Mus., vol. 4, p. 229, 1862; Java; Celebes; Amboina. Günther, Fische der Südsee, vol. 3, p. 315, 1910.

Callyodon tricolor Fowler and Ball, Bull. 26, Bishop Mus., p. 26, 1925; Wake Island. Fowler, Mem. Bishop Mus., vol. 10, p. 383, 1928; Wake Island. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 295, 1940; Batavia, Java; Makassar, Celebes; Karkaralong Islands; Amboina, Dutch East Indies; Philippines; Wake Island.

1699. *Scarus vermiculatus* (Fowler and Bean).

The Philippines, East Indies, and Polynesia.
Callyodon vermiculatus Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 472, pl. 49, 1928; Bugsuk Island, Balabac; Cabugan Island, Hinunangan Bay, Leyte; Porongpong Island, Palumbanes Islands, between Catanduanes Island and Luzon; Tambul Sigambul, Tonquil Island, Sulu Province. Halmahera Island and Tidore Island, Dutch East Indies. Danawan Island, British North Borneo, near Philippine boundary line. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 185, 1938; Tongareva. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 282, 1940; Batavia, Java; Halmahera; Tidore; the Philippines.
Scarus vermiculatus Schultz, Bull. 180, U. S. Nat. Mus., p. 218, 1943; reef at Enderbury Island.

1700. *Scarus viridibusius* Fowler and Bean.

The Philippines and East Indies.
Callyodon viridibusius Fowler and Bean, Bull. 100, U. S. Nat. Mus., vol. 7, p. 459, pl. 48, 1928; Rapurapu Island, Albay Province, Luzon; Iloilo market, Iloilo Province, Panay; Silino Island, Zamboanga Province, Mindanao, Philippines; Buru Island and Limbe Strait, Celebes. De Beaufort, Fishes Indo-Australian Archipelago, vol. 8, p. 299, 1940; Limbe Strait, Celebes; Buru Island, Dutch East Indies; Sulu Islands, Philippines.
Scarus viridibusius Herre, Fishes 1931 Philippine Exped., p. 79, 1934; Jolo, Sulu Province.

1701. *Scarus visayanus* Herre.

A Philippine fish.
Scarus visayanus Herre, Copela, No. 1, p. 22, 1933; Taytay, Palawan; Linapacan Island, Palawan Province; reef between Burias and Ticao Islands. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; near Burias Island; Linapacan Island and Taytay, Palawan.

Order CC. GOBIOIDEA

Family 166. RHYACICHTHYIDÆ

A family consisting of one genus with but one species positively known.

Genus 526. RHYACICHTHYS Boulenger.

Streams of Java, Celebes, the Philippines, New Guinea, and Solomon Pilingan.

Platyptera (Kuhl and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 239 (320), 1836; type, *Platyptera aspro* van Hasselt; preoccupied; Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 3, p. 138, 1861.

Rhyacichthys Boulenger, Ann. Mag. Nat. Hist., ser. 1, vol. 7, p. 267, 1901; type, *Platyptera aspro* van Hasselt. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 22, 1927.

1702. *Rhyacichthys aspro* (Cuvier and Valenciennes). Kampa; Delaposcian; Pilingan.

Distribution as for the genus.

Platypterus flavescens Valenciennes, in Cuvier, Règne Animal, Illustr. ed., Poissons, pl. 83, fig. 1, 1829.

Platyptera aspro Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 240 (321), pl. 360, 1836; fresh waters of Bantam, Java. Günther, Cat. Fishes British Mus., vol. 3, p. 138, 1861; Wanderer Bay, Solomon Islands. Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; Loquilo-com, Samar; Buraun river, Leyte. Günther, Fische der Südsee, vol. 2, p. 191, 1877-81; Solomon Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 31, 1885; Santa Cruz, Laguna Province, Luzon.

Rhyacichthys aspro Weber, Nova Guinea, vol. 9, p. 599, 1913; Bégowre River, North New Guinea. Herre, Gobies of Philippines, Philippine Bureau Science, Monograph 23, p. 22, pl. 1, fig. 1, 1927; Bangui, Ilokos Norte Province; tributary of Agno River, Pangasinan Province; Mamator River, near Casiguran, Tayabas Province, Luzon; stream near Bugasong, and San Jose, Antique Province, Panay; Barrio Cajulogan, Gingoog, Misamis Oriental Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 388, 1928; after Boulenger. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; creek near Zamboanga, Zamboanga Province, Mindanao. Blanco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Herre, 1940-41 Exped.; mountain brooks north of Laguna de Bay, Rizal Province, Luzon; Cagayan River near Cagayan, Misamis Oriental Province, Mindanao. Herre, 1948 Coll.; Mantugil River, 42 kilometers from the sea, Villar, Zambales Province, Luzon.

Family 167. ELEOTRIDÆ

Marine, brackish, and fresh-water fishes, abundant in the warmer parts of the Indo-Pacific and Atlantic Oceans.

Genus 527. ANDAMELEOTRIS Herre.

Small saltwater fishes related to *Ptereleotris*. Two species known, one in the Philippines, and one in the Andaman Islands.

Andameleotris Herre, Records Indian Mus., vol. 41, p. 346, 1939; sub-genus.

Andameleotris Herre, Copeia, No. 1, p. 42, 1945; type, *Andameleotris palustris* Herre.

1703. *Andameleotris palustris* Herre.

Andameleotris palustris Herre, Copeia, No. 1, p. 2, 1945; nipa swamp near the Fisheries Station, Zamboanga, Zamboanga Province, Mindanao.

Genus 528. ASTERROPTERYX Rüppell.

Short stout little reef fishes, widely distributed in the Indo-Pacific, from the Red Sea, to the Tuamotu Islands; species very few.

Asterropteryx Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 138, 1828; type, *Asterropteryx semipunctatus* Rüppell. Günther,

Cat. Fishes British Mus., vol. 3, p. 132, 1861. Herre, Gobies of the Philippines, Monograph 23, Philippine Bureau Science, p. 27, 1927.
Brachyleotris Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 8, p. 374, 1874; orthotype, *Eleotris cyanostigma* Bleeker.

1704. *Asterropteryx ensifer* (Bleeker).

Brachyleotris ensifera Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 8, p. 375, 1874; Buru. Weber, *Siboga*-Exped., vol. 57, Fische, p. 454, 1913; Sarassa, Postillon Island.

Asterropteryx ensifer Herre, Proc. Biol. Soc. Washington, vol. 57, p. 7, 1944; in coral head, 8 miles west of Jolo, Sulu Province, Philippines. Herre, Fishes 1940-41 Exped.; Bungau, Sulu Province.

1705. *Asterropteryx everetti* Boulenger.

Asterropteryx everetti Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 186, 1895; Palawan.

1706. *Asterropteryx semipunctatus* Rüppell. Kusung.

The Red Sea and across the Indian and Pacific Oceans to the Hawaiian Society, and Tuamotu Islands.

Asterropteryx semipunctatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 138, pl. 34, fig. 4, 1828; Massaua, Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 132, 1861; after Rüppell. Kner, Sitzungsber. Akad. Wiss. Wien, vol. 57, p. 329, 1868; Samoa. Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 500, 1902; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 480, 1905; Waianae; and Waikiki, Hawaiian Islands; Samoa. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 28, pl. 1, fig. 2, 1927; Caldera Bay, near Zamboanga and Samal Island, Gulf of Davao, Mindanao; Sitankai, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Cebu, Cebu Province; Sitankai, Sulu Province. Herre, 1933-34 Exped.; reefs at Gorrer, Pelew Islands; very abundant. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 341, 1936; Tahiti; Viti Levu, Nukulau, and Ovalau Islands, Fiji; Malo Island and Malekula Island, New Hebrides. Herre, 1940-41 Exped.; Dumaguete, Negros Oriental Province.

Eleotris cyanostigma Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 452, 1855; Cocos Island.

Eleotriodes cyanostigma Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 460, 1858; Cocos Island.

Brachyleotris cyanostigma Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 306, 1874.

Eleotris semipunctata Günther, Fische der Südsee, vol. 2, p. 187, pl. 111, fig. D, 1876-1881; Samoa; Society Islands; Pelew Islands.

Asterropteryx cyanostigma Snyder, Bull. U. S. Fish. Comm., vol. 22, p. 536, 1904; Honolulu.

Asterropteryx semipunctatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 385, pl. 36, fig. 1, 1906; Apia and Pago Pago, Samoa. Kendall and Goldsborough, Mem. Mus. Comp Zool., vol. 26, p. 317, 1911; Fakarava, Paumotus. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 394, 1928; numerous Hawaiian localities.

Genus 529. *BELOBRANCHUS* Bleeker.

One species known, found in the East Indies, and Philippines; in rivers and estuaries.

Belobranchnus Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 300, 1856; Bali; type, *Eleotris belobranchna* Cuvier and Valenciennes. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 35, 1927.

1707. *Belobranchnus belobranchnus* (Cuvier and Valenciennes).

Eleotris belobranchna Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 183 (243), 1836. Günther, Cat. Fishes British Mus., vol. 3, p. 127, 1861; Ceram; Batjan; Celebes. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 30, 1885; Santa Cruz, Laguna Province, Luzon; not Manila Bay, as printed.

Belobranchnus taeniopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 301, 1856-57; Bali.

Belobranchnus quoyi Bleeker, Nat. Tijds. Ned.-Ind., p. 300, 1856-57; nomem nudum. Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 53, 1877.

Eleotris taenioptera Günther, Cat. Fishes British Mus., vol. 3, p. 127, 1861; rivers of Bali and Batjan; after Bleeker.

Belobranchus belobrancha Herre, Gobies of Philippines, Monograph 23, Philippine Bureau Science, p. 35, pl. 2, fig. 2, 1927; Kabatohan River, mountains east of Iba, Zambales Province, Luzon; Alabat Island; Cahulogan, Barrio, Gingoog, Misamis Oriental Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; vicinity of Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Tanjay River 30 kilometers north of Dumaguete; Negros Oriental Province; creek near Zamboanga, Zamboanga Province, Mindanao. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 130, fig. 3, 1938; Lake Naujan, Mindoro.

Belobranchus belobranchus Herre, Fishes 1940-41 Exped.; Cagayan River near Cagayan, Misamis Oriental Province, Mindanao. Herre, 1948 Coll.; Dibutunan River, Zambales Province; Creek near Baler, Quezon Province, Luzon.

Genus 530. BORODA Herre.

Only known from the Philippines and New Guinea, in fresh water.

Boroda Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 58, 1927; type, *Boroda expatria* Herre. Philippines. Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 302, 1940.

1708. Boroda albo-oculata Herre.

Boroda albo-oculata Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 58, 1927; small stream near Taytay, Palawan. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Culion. Herre, Philippine Jour. Sci., vol. 72, p. 364, 1940; Nasugbu, Batangas Province, Luzon; also Taytay, Palawan. Herre, Fishes 1940-41 Exped.; creek at Barrio San Nicolas, and Wayan Creek, Busuanga.

1709. Boroda expatria Herre.

Boroda expatria Herre, Gobies Phil., Philippine Bureau Science Monograph 23, p. 59, pl. 5, fig. 1, 1927; Philippines; Lake Manguao, Palawan.

1710. Boroda francoi Roxas and Ablan.

A Philippine species.

Boroda francoi Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 303, pl. 2, 1930; Dagupan River, Pangasinan Province, Luzon.

Genus 531. BOSTRICHTHYS Duméril.

One species occurring from China to the Philippines, Fiji, and Samoa, and west to the Andaman Islands; in fresh and salt water.

Bostrychus Lacépède, Hist. Nat. Poissons, vol. 3, p. 144, 1802; preoccupied.

Bostrichthys Duméril, Zoologie Analytique, pp. 120, 332, 1806; type, *Bostrychus sinensis* Lacépède. Herre, Gobies of the Philippines, Philippine Bureau Science Monograph 23, p. 43, 1927.

1711. Bostrichthys sinensis (Lacépède).

Bostrychus sinensis Lacépède, Hist. Nat. Poissons, vol. 3, p. 141, pl. 14, fig. 2, 1802; China. Kner, Reise Novara, Fische, p. 186, 1865; Manila, Luzon. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 29, p. 526, 1905. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 382, 1906. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 74, 1914; Hong Kong.

Philypnus ocellicauda Richardson, Zool. Voy. Sulphur, Ichth., p. 59, 1844. *Philypnus sinensis* Richardson, Zool. Voy. Sulphur, Ichth., p. 149, pl. 56, figs. 15-16, 1845.

Bostrichthys sinensis Gill, Proc. Acad. Nat. Sci. Phila., p. 125, 1860. Day, Fishes India, p. 309, pl. 65, fig. 4, 1878. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 43, pl. 3, fig. 3, 1927; Coron, Busuanga; Cebu; Martin ranch, Siasi, Sulu Province; Amoy and Hong Kong, China. Fowler, Mem. Bishop Mus., vol. 10, p. 388, 1928; after Day. Herre, Fishes 1936-37 Exped.; Manila Bay; Dumaguete, Negros Oriental Province, Negros; Kabili River, British North Borneo; Singapore. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 344, 1936; Mbureta River, Ovalau Island, Fiji. Herre, Fishes 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro; Coron, Bu-

suanga; Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao.

Eleotris sinensis Günther, Cat. Fishes British Mus., vol. 3, p. 127, 1861; China; Hong Kong; Oualan (Kusaie) Island, Caroline Islands. Günther, Fische de Südsee, vol. 2, p. 189, 1876-81; Fiji.

Genus 532. MUNAKA Herre. Batabot or Boto-bot (Ilokano name); Bunak (name near Casiguran) Philippines and Borneo, in fresh water.

Bunaka Herre, Gobies, Philippine Bureau Science Monograph 23, p. 60, type *Bunaka pinguis* Herre; Dumaguete River, Negros Oriental Province, Negros.

1712. *Bunaka pinguis* Herre.

All over the Philippines in rivers and creeks; also in Borneo, and the Pelew and Caroline Islands.

Bunaka pinguis Herre, Gobies, Philippine Bureau Science Monograph 23, p. 61, colored pl. 27, fig. 2, 1927; Abra River near Bangued, Abra Province; Kabulig River, Nueva Viscaya Province, near Casiguran; and the Pasig River, Manila, Luzon. San Jose, Antique Province, Panay; Dumaguete River, Negros Oriental Province, Negros; Pulangi River, near Reina Regente, Cotabato Province, Mindanao; Lapid-Lapid River, TawiTawi, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; river near Zamboanga, Zamboanga Province, Mindanao; Pulangi River, near Reina Regente, Cotabato Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 10, p. 163, 1935; Pelew Islands. Herre, 1936-37 Exped.; Kinabutan River, Tawau, British North Borneo. Bianco, Philippine Jour. Sci., vol. 66, p. 506, 1938; Cagayan Province, Luzon. Herre, Annot Zool. Japon., vol. 18, p. 305, 1939; Malam River, Kusaie Island, Caroline Islands.

1713. *Bunaka sticta* Herre.

Bunaka sticta Herre, Stanford Ichth. Bull., vol. 2, p. 119, 1942; Tagaloan River, Tagaloan, Misamis Oriental Province, Mindanao.

Genus 533. BUTIS Bleeker. Biang sunog, sleeping goby.

Bottom fishes in shallow bays and estuaries, entering fresh water rivers.

Butis Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 42, 1856; orthotype, *Butis gymnopomus* Bleeker; tautotype, *Cheilodipterus butis* Hamilton [né Buchanan.] Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 46, 1927.

1714. *Butis amboinensis* (Bleeker). Biang sunog; Cavite name, Kaple.

Occurs in the East Indies, Philippines, and southeast to the Solomon Islands.

Eleotris amboinensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 343, 1853; Amboina. Günther, Cat. Fishes British Mus., vol. 3, p. 117, 1861; rivers of Amboina, Celebes, and Buru; after Bleeker.

Butis amboinensis Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 44, 1860; Celebes. Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 66, 1875. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 276, 1908; Baco River, Mindoro. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 46, 1927; Luna, La Union Province; Santa Inez, Rizal Province; Manila; Libog and Arimbay Rivers, Albay Province, Luzon. Baco River, and Naganahan River, near Calapan, Mindoro; San Jose and Mariri River, Antique Province, and Molo, Iloilo Province, Panay; Butuan, Agusan Province, and Placer, Surigao Province, Mindanao. Herre, Fishes 1936-37 Exped.; Marikina River at Montalban, Rizal Province, Luzon; Butas Baklad, Naujan River, Mindoro. Herre 1940-41 Exped.; Old Ayukitan, Negros Oriental Province, Negros. Cagayan River, near Cagayan Misamis Oriental Province, Mindanao.

1715. *Butis butis* Hamilton [né Buchanan]. Pasel (Ibanag name).

India, through the East Indies and Philippines to New Guinea.

Cheilodipterus butis Hamilton [né Buchanan], Fishes Ganges, p. 367, 1822; Ganges River below Calcutta.

Eleotris humeralis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 246, 1837.

Eleotris butis Cantor, Jour. Asiatic Soc. Bengal, vol. 18; p. 1178, 1850; Pinang. Günther, Cat. Fishes British Mus., vol. 3, p. 116, 1861; Phil-

ippines; China; Borneo; Amboina; Pinang; in part. Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; Basey River, Samar. Day, Fishes India, p. 315, pl. 67, fig. 3, 1878; in part. Vaillant, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 3, vol. 5, p. 57, 1893; Palawan. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 186, 1895; Palawan.

Butis butis Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 62, 1877. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 275, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 74, 1914; Hong Kong. Fowler, Copeia, No. 58, p. 65, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 290, 1927; Orion and Orani, Bataan Province, Luzon. Herre, Gobies, Philippine Bureau Science Monograph 23, p. 48, pl. 4, fig. 1, 1927; Abulug, Cagayan Province; Vigan, Ilokos Sur Province; Gulf of Lingayen, San Fabian, and Agno River, Pangasinan Province; and Balluag, Bulacan Province; Malabon, Rizal Province; Pasig River, Manila; Laguna de Bay, Laguna Province; Nasugbu, Batangas Province; preceding all on Luzon. Baco, Mindoro; Polillo; Capiz, Capiz Province, and Dumangas, Iloilo, Leganes, Molo, Villa, and Zaragoza, Iloilo Province. Panay. Buenvista and Navalas, Guimaras Island; Davao, Davao Province, Mindanao. Also Hong Kong and Amoy, China. Fowler, Mem. Bishop Mus., vol. 10, p. 394, 1928; after Day. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Curimao, Ilokos Norte Province; Iba, Zambales Province; Bulacan, Bulacan Province; Manila; Laguna de Bay, all from Luzon; Dumaguete, Negros Oriental Province, Negros; Capiz, Capiz Province, Panay. Herre 1940-41 Exped.; Cabaritan, Cagayan Province and Malabon, Rizal Province, Luzon. Capiz, Capiz Province, and Estancia, Iloilo Province, Panay; Coron, Busuanga; Cagayan, Misamis Oriental Province and Zamboanga, Zamboanga Province, Mindanao. Also in 1937 from Kabil, Kinabutan, and Segaliud Rivers, British North Borneo, and Kuching, Sarawak.

1716. *Butis gymnopomus* (Bleeker).

The East Indies, Malaya, and the Philippines.

Eleotris gymnopomus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 274, 1854; Sumatra.

Butis gymnopomus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 215, 1856; name only. Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 70, 1877. Herre, Gobies, Philippine Bureau Science Monograph 23, p. 51, 1927; Rabon, La Union Province; Lake Buhi, Camarines Sur Province, Luzon. Capiz, Capiz Province, Panay; Daguitan river, Dulag, Leyte. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 343, 1936; Kulambagra Island, Solomon Islands. Herre, Exped. 1940-41; Hacienda Waterous, Mangarin, Mindoro. Herre, 1948 Coll.; Manat River, Binmalay, Pangasinan Province, Luzon.

Genus 534. *ELEOTRIS* (Gronow).

Small fishes living in the sea and lower parts of rivers; found from the east coast of Africa and Madagascar to the Hawaiian and Marquesas Islands, north to the Riu Kiu Islands.

Eleotris Gronow, Zoophylaceum, p. 83, 1763; type, *Gobius pisonis* Gmelin=*Eleotris gyrinus* Cuvier and Valenciennes.

Eleotris Bloch and Schneider, Syst. Ichth., p. 65, 1801; type, *Eleotris* Gronow; Jordan, Genera Fishes, Part 1, p. 58, 1917, stated that the name is borrowed from Gronow, whose *Eleotris* is the *Eleotris* of Cuvier and subsequent authors. But *Eleotris pisonis* is indicated by Schneider as "a species of doubtful relations, perhaps a *Periophthalmus*." We let the current arrangement stand, though on shaky foundation, unless the names of Gronow are finally accepted. The genus *Eleotris* of Bloch and Schneider represents an utter confusion of species, many of them not gobies at all.

1717. *Eleotris fusca* (Bloch and Schneider). Lamug; Mulug.

Poecilia fusca Bloch and Schneider, Syst. Ichth., p. 453, 1801; after *Cobitis pacifica* Forster (in manuscript).

Eleotris fusca Günther, Cat. Fishes British Mus., vol. 3, p. 125, 1861; Ganges River, Calcutta; Bay of Bengal; Ceylon; Amboina; fresh water, Aneiteum; Oualan or Kusaie, in fresh water; Wanderer Bay,

Solomon Islands. Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; Lebmanan River, Samar. Günther, Fische der Südsee, vol. 2, p. 188, 1876-1881; New Hebrides; Solomon Islands; Samoa; Society Islands. Day, Fishes India, p. 313, pl. 65, fig. 7, 1878. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 186, 1895; Palawan. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 274, 1908; Sibuyan Island; also a doubtful record from Aparri, Cagayan Province, Luzon; specimen probably *Eleotris melanosoma* Bleeker. Herre, Gobies Philippine Bureau Science Monograph 23, p. 30, pl. 2, fig. 1, 1927; Agno River at Dagupan, Pangasinan Province, record doubtful; Baliwag, Bulacan Province; Cabatohan River, Zambales Province; Bataan Province; Pasig River, Manila; Rawis River, Arimbay River, Aringay River, and Yawa River, Legaspi, Albay Province; Bacon, Sorsogon Province, Luzon. Polillo Island; Tambo River, Ambil Island; Puerto Galera, Mindoro; Sibuyan Island; Mambugan Swamp, San Jose de Buenavista, and Mariri River, and San Jose, Antique Province; Villa, Iloilo Province, Panay. Jordan River, Guimaras. Dumaguete River, Negros Oriental Province, Negros. Lasay, Siquijor; Anahawan and Cabalian, Leyte, Cagayan, Misamis Oriental Province; Titunod River, Kolambugan, Lanao Province; Caldera Bay and George River, Zamboanga Province; Rio Grande near Dulawan and the Saub River, Cotabato Province, Mindanao. Balabac Island. Bancolid River, Jolo Island; Martin Ranch, Siasi; Buan Island; Lapi Lapid and Lambog Rivers, TawiTawi, and Sitankai, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 392, 1928; Hawaiian Islands; Apia, Samoa; Fiji; Bonin Islands; Guam; Tubuai, Austral Islands; Tahiti, Society Islands; Marquesas Islands; Kusaie, Caroline Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Molawin Creek, College of Agriculture, Laguna Province, Luzon; Tanjay River, Negros Oriental Province, Negros. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 345, 1936; streams on Hiva Oa and Nukahiva Islands, Marquesas Islands; Papanoo River, Tahiti, and Moorea, Society Islands; Viti Levu Island, Fiji; Hathorn Sound, New Georgia Island, Solomon Islands. Herre, 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro; Dumaguete, Negros Oriental Province, Negros. Cagayan River, Misamis Oriental Province; Titunod River; Kolambugan, Lanao Province; San Ramon, and 6 miles northeast of Zamboanga, Zamboanga Province, Mindanao.

Culius fuscus Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 129, 1938; Pansipit River, Batangas Province, Luzon, Philippines. Also North Celebes and Bali.

1718. *Eleotris melanosoma* Bleeker. Virot.

An important fish in northern Luzon, Philippines, and in the East Indies. *Eleotris melanosoma* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 705, 1852; Ceram. Günther, Cat. Fishes British Mus., vol. 3, p. 126, 1861; coasts of Wahai, West Sumatra; Buru; Ceram; after Bleeker. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 33, 1927; Laoag River, Ilokos Norte Province; Abra River, Abra Province, and Ilokos Sur Province; Bangar, La Union Province; Agro River, Dagupan, Pangasinan Province; Buguey, Cagayan Province; Kabulig river, Casiguran, Tayabas Province; Malabon, Rizal Province; Luzon. Puerto Galera and Naganahan River, near Puerto Galera, Mindoro; Iloilo, Panay; Navalas, Guimaras Island; Hong Kong. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Curimao, Ilokos Sur Province; Los Banos, Laguna Province; Lemery, Batangas Province, Luzon; Culion; Dumaguete, Negros. Herre, 1948 Coll.; Manat River, Binmaley, Pangasinan Province.

? *Eleotris fusca* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 274, 1908; Aparri, Cagayan Province, Luzon.

Culius melanosoma Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 129, 1938; brook in Misamis Oriental Province, Mindanao, Philippines; Great Sangir Islands, Dutch East Indies.

Genus 535. *EVIOTA* Jenkins.

Tiny marine eleotrids of Pacific coral reefs from the Philippines to Samoa.

Eviota Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 501, 1902; type, *Eviota epiphanes* Jenkins. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 386, 1906. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 72, 1927.

1719. *Eviota gymnocephalus* Weber.

The Andaman Islands, East Indies, and Philippines; marine.

Eviota gymnocephalus Weber, *Siboga*-Exped., vol. 57, Fische, p. 452, fig. 87, 1913; Karkaralong Island; Siau Island; coast of Borneo; Celebes; Saleyer; Sula Besi; Timor; Waigiu; and Sanguisiapo, Sulu Province, Philippines.

1720. *Eviota sealei* Herre.

Eviota sealei Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 73, 1927; Puerto Galera, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Culion; Dumaguete. Herre, 1940-41 Exped.; Bongao, Sulu Province; Coron, Busuanga Island.

1721. *Eviota distigma* Jordan and Seale.

A tiny goby widely distributed in Polynesia.

Eviota distigma Jordan and Seale, Fishes Samoa, Bulletin U. S. Bureau Fisheries, vol. 25, p. 389, fig. 79, 1906; Pago Pago, Samoa. Fowler and Silvester, Marine Papers Carnegie Institute, p. 125, 1922; Pago Pago. Fowler, Fishes Oceania, Memoirs Bishop Museum, vol. 10, p. 395, 1928; Pago Pago. Herre, Zoological Series Field Museum Natural History, vol. 21, p. 348, 1936; Papeete, Tahiti; reef near Suva, Fiji. Herre, 1948 Collection; Dumaguete, Negros Oriental Province.

Genus 536. **GOBIOMORPHUS** Gill.

Eleotrids of the Philippines, East Indies, and tropical Pacific.

Gobiomorphus Gill, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, p. 270, 1863; orthotype, *Eleotris gobioides* Cuvier and Valenciennes. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 45, 1927.

Batracheleotris Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 129, 1938; type, *Eleotris sclateri* Steindachner.

1722. *Gobiomorphus illotus* Herre.

A Philippine species.

Gobiomorphus illotus Herre, Gobies of Philippines, Philippine Bureau Science, Monograph 23, p. 45, pl. 3, fig. 4, 1927; Polillo Island.

1723. *Gobiomorphus sclateri* (Steindachner).

The Philippines to Australia and Tahiti; marine.

Eleotris sclateri Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 157, 1880; Tahiti, Society Islands.

Gobiomorphus sclateri Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 384, fig. 73, 1906; Apia and Pago Pago, Samoa. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Sitankai, Sulu Province.

Callogobius sclateri McCulloch and Ogilby, Records Australian Mus., vol. 13, p. 219, pl. 32, fig. 3, 1919; Two Isles, North Queensland, Australia; New Hebrides; Solomon Islands; Fiji. Fowler, Mem. Bishop Mus., vol. 10, p. 408, 1928; Apia, Samoa; after McCulloch and Ogilby. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 362, 1936; Viti Levu and Ovalau Islands, Fiji; Malekula, Malo, and Wala Islands, New Hebrides.

Batracheleotris sclateri Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 130, 1938; Batan Island, Albay Province; Canimo Island near Daet, Camarines Norte Province, and Gubat Bay, Sorsogon Province, Luzon; Mahinog, Camiguin Island, off north coast of Misamis Oriental Province, Mindanao; Nasipit, Agusan Province, Mindanao; Simalac Island, Sulu Province; Great Toba Island and Tomahu Island, Dutch East Indies.

Genus 537. **HERREOLUS** Smith.

Small saltwater eleotrids of Siam and the Philippines.

Herrea Smith, Proc. U. S. Nat. Mus., vol. 79, p. 40, 1931; type, *Herrea formosa* Smith; preoccupied.

Herreolus Smith, Jour. Siam Soc. Nat. Hist., Supplement, vol. 8, p. 190, 1931; type, *Herreolus formosus* Smith.

1724. *Herreolus formosus* Smith.
Herrea formosa Smith, Proc. U. S. Nat. Mus., vol. 79, p. 40, 1931; Gulf of Siam.
Herreolus formosus Herre, Philippine Journ. Sci., vol. 72, p. 364, 1940; Dumaguete, Negros Oriental Province; Port Holland; Basilan. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao.
1725. *Herreolus philippinus* Herre.
 A Philippine species.
Herreolus philippinus Herre, Proc. Biol. Soc. Washington, vol. 58, p. 14, 1945; Santa Maria, Zamboanga Province, Mindanao.
- Genus 538. **HYPSELEOTRIS** Gill.
 Small freshwater eleotrids; East Indies and Philippines, south to Australia, and west to Réunion and the Indian Ocean.
Hypseleotris Gill, Proc. Acad. Nat. Sci. Phila., vol. 15, p. 270, 1863; type, *Eleotris cyprinoides* Cuvier and Valenciennes. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 37, 1927. Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 301, 1940.
1726. *Hypseleotris agilis* Herre.
 A Philippine species.
Hypseleotris agilis Herre, Gobies, Philippine Bureau Science, Monograph 23, p. 38, pl. 2, fig. 3, 1927; creek entering Lake Mainit, Barrio Mainit, Surigao Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Nasugbu, Batangas Province, Luzon.
Ophieleotris agilis Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 136, 1938; Mainit Lake, Surigao Province, Mindanao.
1727. *Hypseleotris quisumbingi* Roxas and Ablan.
 A Philippine species.
Hypseleotris quisumbingi Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 301, pl. 1, 1940; market, San Fernando, La Union Province, Luzon.
1728. *Hypseleotris bipartita* Herre. Maringyan (Bikol name).
Hypseleotris bipartita Herre, Gobies, Philippine Bureau Science, Monograph 23, p. 39, pl. 3, fig. 1, 1927; creek at Barrio Puru, Legaspi, and Rawis River, Legaspi, Albay Province, Luzon. Herre, Philippine Jour. Sci., vol. 59, p. 367, 1936; San Agustin River, a tributary of Lake Naujan, Mindoro.
1729. *Hypseleotris cyprinoides* (Cuvier and Valenciennes).
 Philippine records are very doubtful.
Eleotris cyprinoides Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 187, 1836; Bourbon. Günther, Cat. Fishes British Mus., vol. 3, p. 118, 1861; Kusaie (Oualan) Island, Caroline Islands.
 ? *Hypseleotris cyprinoides* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 794, 1905; Bais, Negros Oriental Province.
1730. *Hypseleotris modestus* (Bleeker). Lomog (Tagalog name).
 Sumatra, Singapore, and the Philippines.
Eleotris cyprinoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 277, 1853; Sumatra; not of Cuvier and Valenciennes, or of Günther.
Asterropteryx modestus Bleeker, Arch. Neerl. Sci. Nat., vol. 10, p. 111, 1875. Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 81, 1877.
Hypseleotris modestus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 276, 1908; Mindoro. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 41, 1927; Pansipit River, near its source, Batangas Province, Luzon; Puerto Galera, Mindoro; San Jose, Antique Province, Panay; Daguitan River, Dulag, Leyte; brook near Taytay, Palawan. Herre, Fishes 1931 Philippine Exped., p. 80, 1934; Dulag, Leyte.
1731. *Hypseleotris pangel* Herre. Pañgel.
Hypseleotris pangel Herre, Gobies, Philippine Bureau Science Monograph 23, p. 42, pl. 3, fig. 2, 1927; Cavite Province, Luzon.
- Genus 539. **LUZONELEOTRIS** Herre.
 Only one species known; confined to the Philippines.
Luzoneleotris Herre, Stanford Ichth. Bull., vol. 1, p. 59, 1938; type *Luzoneleotris nasugbu* Herre.

1732. *Luzoneleotris nasugbu* Herre.

A dwarf marine eleotrid.

Luzoneleotris nasugbu Herre, Stanford Ichth. Bull., p. 60, fig. 1, 1938; Nasugbu, Batangas Province, Luzon.

Genus 540. ODONTOBUTIS Bleeker.

Japan to the Philippines and East Indies; marine and entering rivers.

Odontobutis Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 305, 1874; type *Eleotris obscura* Schlegel. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 42, 1901. Herre, Gobies, Philippine Bureau Science Monograph 23, p. 54, 1927.

1733. *Odontobutis obscura* (Schlegel).

A fish of estuaries and river mouths, from central Japan to Korea, China, the Philippines, and Java.

Eleotris obscura Schlegel, Fauna Japonica, Pisces, p. 149, pl. 77, figs. 1-3, 1846; streams tributary to the Bay of Nagasaki. Günther, Cat. Fishes British Mus., vol. 3, p. 115, 1861; Japan; Chekiang, China. Kner, Reise Novara, Fische, p. 185, 1865.

Odontobutis obscura Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 56, 1877. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 370, 1900; Yokohama, Japan. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 55, 1927; Zamboanga, Zamboanga Province, Mindanao.

Odontobutis obscurus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 43, 1901; Chikogu River, Kurame; Tokyo Bay, Lake Biwa, and Bay of Omura, Japan. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1908; Zamboanga, Mindanao.

Genus 541. OPHIOCARA Gill.

In the sea and fresh water streams and lakes, from Madagascar and the east coast of Africa to the Philippines, Pelew, and Caroline Islands, New Guinea, the New Hebrides, Fiji, and Australia.

Ophiocara Gill, Proc. Acad. Nat. Sci. Phila., vol. 15, p. 270, 1863; orthotype, *Eleotris ophiocephalus* Cuvier and Valenciennes.

1734. *Ophiocara aporos* (Bleeker). Bangayngay; Palowon; Labanag; Dalak; Simiwar.

The Philippines and East Indies, west to India, east and south to New Guinea, the Pelews, and Fiji. In the sea and in fresh-water streams and lakes.

Eleotris aporos Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 59, 1854; Sindangole, Halmahera.

Eleotris hoedti Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 496, 1854; rivers of Amboina, Buru, Timor, and Nias. Günther, Cat. Fishes British Mus., vol. 3, p. 110, 1861; after Bleeker.

Eleotris aporos Günther, Cat. Fishes British Mus., vol. 3, p. 109, 1861; Borneo; fresh waters of Kusaie (Oualan) Island, Caroline Islands; Fiji Islands; Wanderer Bay, Solomon Islands, in fresh water; Ani-teum, in fresh water; Amboina. Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; Loquilocon and Basey River, Samar. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 185, 1895; Balabac Island, Philippines.

Ophiocara aporos Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 33, 1877. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 274, 1908; Mindoro and Camp Balet, Rio Baco, Mindoro; Sibuyan Island. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 65, pl. 5, fig. 2, colored pl. 28, fig. 3, 1927; from Luzon: Lake Paoay, Ilokos Norte Province; Karowan, Cagayan Province, San Fernando, La Union Province; Kabatohan River, near Iba, Zambales Province; Kabulig River, near Casiguran, Tayabas Province; Pasig River, Manila; Laguna de Bay; Manang River, Antipolo, Rizal Province; Cayman Lake, Los Banos, Molawin Creek at College of Agriculture, and Balanak River, Laguna Province; Nasugbu, Pansipit River, and Lake Bombon, Batangas Province; Mangso River, and Puru, Legaspi, Albay Province; and Alabat Island, Tayabas Prov., Luzon. Calapan, Naujan River, Mambach and Subaan Rivers, Lake Naujan, Mindoro. Tambo River, Ambil Island. Fresh water stream, Tablas Island, Sibuyan Island. River at Catarman, Samar, Anahawan, Leyte. Dumaguete River, Negros Oriental Province, Negros. San

Jose, Antique Province, Panay; Cuyo; Culion; Taytay, Palawan; Balabac; Basilan; Zamboanga, Zamboanga Province; Tatayan and Saub Rivers, south coast of Cotabato Province, Mindanao. Lapid-Lapid River, TawiTawi. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Laguna de Bay, and Molawin Creek, Laguna Province; Majay-jay, Tayabas Province; Nasugbu, Batangas Province, Luzon. Busuanga; Culion; Capiz, Capiz Province, Panay; Mangutu Creek near Dumaguete, Negros Oriental Province, Negros; creek near Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes 1936-37 Exped.; Butas, Naujan River, Mindoro. Koumans, Zoologische Mededeelingen, vol. 20, p. 18, 1937; British India, Indo-Australian Archipelago; Philippines; Australia; Fiji Islands. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 132, fig. 5, 1938; Bombon Lake and Pansipit River, Batangas Province; Molawin Creek and Pandin, Sampaloc, Alligator, Yambo, Palacpakin, and Calibato Lakes, Laguna Province; Buhí River, Camarines Sur Province, Luzon. Naujan Lake, Mindoro. Herre, 1940-41 Exped.; from Rizal Province, Malabon; Barras River; Barrio Malaya, Jala Jala; Morong River; Tanay River; San Cristobal River. From Laguna Province, Bay, river, 3 kilometers from Laguna de Bay; Molawin Creek; Santa Maria River, Santa Maria; preceding all from Luzon. Coron, Busuanga; Hacienda Waterous, Mangarin, Mindoro; Old Ayukitan, near Dumaguete, Negros Oriental Province, Negros; Lake Mainit, Surigao Province, Cagayan River, Misamis Oriental Province, San Ramon and river 6 miles northeast of Zamboanga, Zamboanga Province, Mindanao. Herre, Mem. Indian Mus., vol. 13, p. 383, 1941; India; Philippines; Kusaie; Fiji; Queensland, Australia.

Ophiocara hoedti Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 35, 1877.
Eleotris (Giurus) laglazei Sauvage, Bull. Soc. Philom., ser. 7, vol. 4, p. 54, 1880; Manila.

1735. *Ophiocara porocephala* (Cuvier and Valenciennes). Palu (Bikol name); Palace (Ibanag name); Baranog; Paku (Busuanga name). The Philippines, East Indies, Seychelles, Caroline, and Fiji Islands. In fresh and salt water.
- Eleotris porocephala* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 178, 1837; Seychelles and New Ireland.
- Eleotris margaritacea* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 181, 1837; Vanicolo.
- Eleotris porocephaloides* Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 511, 1853; Sumatra. Günther, Cat. Fishes British Mus., vol. 3, p. 109, 1861; rivers of Priaman, Sumatra; after Bleeker.
- Eleotris scintillans* Blyth, Jour. Asiatic Soc. Bengal, p. 146, 1860. Day, Proc. Zool. Soc. London, p. 517, 1869. Day, Fishes India, p. 314, pl. 65, fig. 8, 1876.
- Eleotris cantoris* Günther, Cat. Fishes British Mus., vol. 3, p. 108, 1861; Pinang.
- Eleotris ophiocephalus* Günther, Cat. Fishes British Mus., vol. 3, p. 107, 1861; Philippines; Sea of Pinang, Moluccas, Borneo; Amboina. Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; Tibi Bay, Albay Province, Luzon; Loquilocon, Samar. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1908; Zamboanga, Mindanao.
- Ophiocara ophiocephalus* Gill, Proc. Acad. Nat. Sci. Phila., p. 270, 1863; Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 11, p. 29, 1877; New Guinea.
- Eleotris litoralis* Day, Fishes India, p. 314, 1876.
- Eleotris porocephalus* Day, Fishes India, p. 312, pl. 67, fig. 1, 1876.
- Ophiocara porocephalus* Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 30, 1877. Herre, Mem. Indian Mus., vol. 13, p. 383, 1941; India; Philippines; Kusaie; Fiji.
- Ophiocara porocephala* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 274, 1908; Calayan Island, Babuyan Islands; Mindoro. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 69, pl. 5, fig. 3, 1927; Bangui, Ilokos Norte Province; Abulug, and Buguey River, Mission, Cagayan Province; Obando, Bulacan Province; San Miguel Bay, Camarines Sur Province; Aringay River, Legaspi, Albay Province—all from Luzon. Polillo Island; Puerto Galera and Naganahan River near Puerto Galera,

Mindoro; Bintoan and Langbuan River, Busuanga; Tablas Island; Iloilo, Dumangas, Leganes, and Villa, Iloilo Province, Panay; Navales, Guimaras Islands; Catarman, Samar; Taytay, Palawan; Balabac Island; Buan Island and Bungau, Sulu Province; Davao, Davao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Laguna de Bay, Luzon; La Paz, Iloilo Province, Panay; Dumaguete, Negros; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 346, 1936; Bushman's Bay, Malekula Island, New Hebrides; river on Viti Levu Island, Fiji. Herre 1936-37 Exped.; Dumaguete, Negros; Nasugbu, Batangas Province, Luzon; Tawau and Kabili River, British North Borneo; Serangoon, Singapore; and reefs in Singapore Harbor; Chanderoh Dam, Perak. Koumans, Zoolog. Mededeel., vol. 20, p. 16, 1937; British India; Indo-Australian Archipelago; Philippines; Australia; New Ireland; Fiji; Caroline Islands. Herre 1940-41 Exped.; Cabaritan, Cagayan Province, Luzon; mangrove swamp, Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga; Capiz, Capiz Province, Panay; Dumaguete; Cagayan River, Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao.

Ophiochara ophiocephalus Fowler, Mem. Bishop Mus., vol. 10, p. 390, 1928; Kusaie, Caroline Islands.

Genus 542. OXYELEOTRIS Bleeker.

The East Indies, Malaya, Philippines, in rivers, and river mouths.
Oxyeleotris Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 302, 1874. Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 21, 1877. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 74, 1927.

1736. *Oxyeleotris marmorata* (Bleeker).

Sumatra, Borneo, Malay Peninsula, and the Philippines; no doubt occurs in rivers of Balabac, TawiTawi, and Mindanao.

Eleotris marmorata Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 424, 1852. Günther, Cat. Fishes British Mus., vol. 3, p. 123, 1861; rivers of Siam, Borneo, and Sumatra. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 30, 1885; Laguna de Bay, Luzon.

Oxyeleotris marmorata Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 22, 1877. Herre, Bull. Raffles Mus., No. 13, p. 38, 1937; Lake Chin Chin, near Jasin, Malacca. Herre, Bull. Raffles Mus., No. 16, p. 50, 1940; streams on Singapore Island; streams near Chenderoh Dam, Perak.

Genus 543. PALOA Herre.

Known only from Panay; in fresh water.

Paloea Herre, Gobies, Philippine Bureau Science Monograph 23, p. 56, 1927; orthotype, *Paloea polylepsis* Herre. Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 304, 1940.

1737. *Paloea polylepsis* Herre.

Paloea polylepsis Herre, Gobies, Philippine Bureau Science Monograph 23, p. 56, pl. 4, fig. 3, 1927; San Jose, Antique Province, and Iloilo market, Iloilo Province, Panay.

1738. *Paloea villadolidi* Roxas and Ablan.

A Philippine fish.

Paloea villadolidi Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 304, pl. 30, 1940; Dagupan, Pangasinan Province, Luzon.

Genus 544. PARVIPARMA Herre.

A Philippine eleotrid.

Parviparma Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 81, 1927; orthotype, *Parviparma straminea* Herre.

1739. *Parviparma straminea* Herre.

Parviparma straminea Herre, Gobies Philippine Bureau Science Monograph 23, p. 82, pl. 6, fig. 2, 1927; Saug River, south coast of Cotabato Province, Mindanao. Herre, Philippine Jour. Sci., vol. 59, p. 368, 1936; Aparri, Cagayan Province, Luzon.

Genus 545. POGONOCULIUS Fowler.

A Philippine genus with one known species, living in the sea.

Pogonoculius Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 134, 1938; type, *Pogonoculius zebra* Fowler.

1740. *Pogonoculius zebra* Fowler.
Pogonoculius zebra Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 134, 1938;
 Dasol Bay, Pangasinan Province, Luzon.
- Genus 546. PRIONOBUTIS** Bleeker.
 India to the Moluccas and Philippines, north to China; in salt and
 brackish water.
Prionobutis Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 305, 1874; orthotype,
Eleotris dasyrhynchus Günther. Herre, Gobies of Philippines, Philip-
 pine Bureau Science Monograph 23, p. 52, 1927.
1741. *Prionobutis koilomatodon* (Bleeker).
 The Philippines, East Indies, coast of China, Andaman Islands, and
 India. Marine and in rivers near the sea.
Eleotris koilomatodon Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis
 Blennioden en Gobiiden, p. 21, 1849; Madura Strait near Surabaya and
 Kammal.
Eleotris caperatus Cantor, Proc. Asiatic Soc. Bengal, vol. 18, p. 1178,
 1850; Pinang.
Eleotris caperata Günther, Cat. Fishes British Mus., vol. 3, p. 117, 1861;
 Sea of Pinang; China. Day, Fishes India, p. 315, 1878; Andaman
 Islands.
Prionobutis koilomatodon Bleeker, Arch. Neerl. Sci. Nat., vol. 10, p. 105,
 1875; name only. Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 73,
 1877; Pinang; Singapore. Herre, Gobies, Philippine Bureau Science
 Monograph 23, p. 52, pl. 4, fig. 2, 1927; Malabon, Rizal Province;
 markets, and Pasig River, Manila; Manila Bay, Luzon. Molo and
 Zarraga, Iloilo Province, Panay; Barrio Navalas, Buenavista; Gui-
 maras Island; Hong Kong and Amoy, China. Herre, 1940-41 Exped.;
 nipa swamp near Capiz, Capiz Province, Panay. Herre, Mem. Indian
 Mus., vol. 13, p. 384, 1941; India to China, the Philippines, and East
 Indies.
Prionobutis serrifrons Rutter, Proc. Acad. Nat. Sci. Phila., p. 84, 1897;
 Swatow, China.
Butis serrifrons Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26,
 p. 40, 1907; Cavite, Cavite Province, Luzon.
Butis koilomatodon Jordan and Richardson, Bull. U. S. Bur. Fisheries,
 vol. 27, p. 274, 1908; Iloilo, Iloilo Province, Panay.
Butis caperata Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 74, 1914;
 Hong Kong.
- Genus 547. PTERELEOTRIS** Gill.
 Small marine eleotrids, occurring from Japan and the Philippines to the
 New Hebrides.
Ptereleotris Gill, Proc. Acad. Nat. Sci. Phila., vol. 15, p. 271, 1863. Herre,
 Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 83,
 1927.
1742. *Ptereleotris dispersus* Herre.
Ptereleotris dispersus Herre, Gobies of Philippines, Philippine Bureau
 Science Monograph 23, p. 83, pl. 6, fig. 3, 1927; Santo Domingo de
 Basco, Batan Island, Batanes Province; south coast of Cotabato
 Province, Mindanao.
- Genus 548. PTEROCULIOPS** Fowler.
 A Philippine genus with one marine species known.
Pteroculiops Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 133, 1938; type,
Pteroculiops guttatus Fowler.
1743. *Pteroculiops guttatus* Fowler.
Pteroculiops guttatus Fowler, Proc. U. S. Nat. Mus., vol. 85, p. 133, 1938;
 Port Banalacan, Marinduque Island.
- Genus 549. Valenciennesa** Bleeker.
 The Philippines, East Indies, and tropical Pacific, north to Japan;
 marine.
Valenciennesa Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 412, 1856; haplo-
 type, *Eleotris hasselti* Bleeker. Jordan and Snyder, Proc. U. S. Nat.
 Mus., vol. 24, p. 42, 1901. Herre, Gobies of Philippines, Philippine
 Bureau Science Monograph 23, p. 75, 1927.

Valenciennesia Bleeker, Versl. Akad. Amsterdam, vol. 2, p. 288, 1868; type, *Eleotris strigata* Cuvier and Valenciennes. Bleeker, Arch. Neerl. Sci. Nat., vol. 9, Esquisse Systeme Nat. Gobioides, p. 307, 1874.

1744. *Valenciennesia longipinnis* (Bennett).

The RiuKiu Islands, Philippines, and through the East Indies to Fiji. *Eleotris longipinnis* Bennett, in Lay and Bennett, Fishes, Zoology Capt. Beechey's Voyage, p. 64, pl. 20, fig. 3, 1839; RiuKiu Islands. Günther, Report Voy. *Challenger* Zoology, vol. 1, Shore Fishes, p. 35, 1880. Günther, Fische der Südsee, vol. 2, p. 190, 1881; Fiji. Weber, *Siboga*-Exped., vol. 57, Fische, p. 449, 1913; Sanguisiapo, Sulu Province, Philippines.

Valenciennesia longipinnis Bleeker, Versl. Akad. Amsterdam, vol. 11, p. 93, 1877.

Valenciennesia longipinnis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 76, pl. 6, fig. 1, 1927; Canigao Island off southwest coast of Leyte; San Juan, Siquijor Island. Fowler, Mem. Bishop Mus., vol. 10, p. 397, 1928; after Bleeker. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province, Negros. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Dumaguete.

1745. *Valenciennesia muralis* (Quoy and Gaimard).

India and Ceylon to the Philippines, Pelew Islands, Australia, and the Fiji Islands.

Eleotris muralis Quoy and Gaimard, in Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 253, pl. 357, 1837; Vanicolo. Günther, Cat. Fishes British Mus., vol. 3, p. 130, 1861; the Philippines; East Indian Archipelago. Günther, Fische der Südsee, vol. 2, p. 189, 1881; Pelew Islands.

Valenciennesia muralis Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 42, 1901; RiuKiu Islands; in part. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 79, 1927; Bantayan Island; Puerto Princesa, Palawan; Balabac; Samal Island, Davao Gulf, Davao Province, Mindanao; Sitankai, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 397, 1928; Pelew Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Culion; Dumaguete. Herre, 1933-34, 36-37 and 40-41, Exped.; Dumaguete, Negros Oriental Province; Estancia, Iloilo Province, Panay; Brook's Point, Palawan; Gorrer, Pelew Islands; Pulau Pangjiang, Gulf of Siam.

1746. *Valenciennesia sexguttata* (Cuvier and Valenciennes).

Ceylon, East Indies, the Philippines, Solomon Islands, New Hebrides, Samoa.

Eleotris sexguttata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 254, 1837; Ceylon. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 277, 1852; Amboina. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 3, p. 42, 1858; Sumatra. Günther, Cat. Fishes British Mus., vol. 3, p. 130, 1861; Ceylon; East Indian Archipelago.

Valenciennesia sexguttata Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 412, 1856; Buru. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Dumaguete. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon. Herre, 1948 Coll.; Siaton, Negros Oriental Province.

Valenciennesia sexguttata Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 37, 1873; Aru Islands. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 11, p. 98, 1878.

Valenciennesia violifera Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 383, pl. 52, fig. 2, 1906; Apia and PagoPago, Samoa; Negros Island, Philippines. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 261, 1919; Samoa; New Hebrides; Bougainville Island; Duke of York Island. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 80, 1927; copied from Jordan and Seale. Fowler, Mem. Bishop Mus., vol. 10, p. 397, 1928. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Philippine Jour. Sci., vol. 72, p. 365, 1940; Nasugbu, Batangas Province, Luzon; Bais, Negros Oriental Province.

1747. *Valenciennaea strigata* (Broussonet).
 From the Philippines and East Indies to Tahiti.
Gobius strigatus Broussonet, Ichthyologia, plate, 1782; Tahiti. Bon-
 naterre, Tableau Encyclop. Ichth., p. 64, pl. 35, fig. 138, 1788; Pacific
 Ocean.
Eleotris strigata Bloch and Schneider, Syst. Ichth., p. 65, 1801; copied.
 Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 189, 1837;
 Tahiti. Günther, Cat. Fishes British Mus., vol. 3, p. 13, 1861; Am-
 boina; coasts of Java, Celebes, Buru, and Tahiti. Bleeker, Versl.
 Akad. Amsterdam, vol. 11, p. 89, 1877. Günther, Fische der Südsee, vol.
 2, p. 190, pl. 3, fig. E, 1876; Fiji; Samoa; Society Islands.
Valenciennaea strigata Jordan and Seale, Bull. U. S. Bur. Fisheries,
 vol. 25, p. 383, 1906; compiled. Evermann and Seale, Bull. U. S. Bur.
 Fisheries, vol. 26, p. 104, 1907; Bacon, Sorsogon Province, Luzon.
 Herre, Gobies of Philippines, Philippine Bureau Science Monograph
 23, p. 78, 1927; Bacon, Sorsogon Province; compiled.
Valenciennaea strigatus Fowler, Mem. Bishop Mus., vol. 10, p. 396, 1928;
 Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8,
 p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes
 1931 Philippine Exped., p. 81, 1934; Dumaguete.

Family 168. GOBIIDÆ

Section VOMERODONTIA Herre.

The following eight genera are distinguished by the presence of vomerine teeth.

Genus 550. CALAMIANA Herre.

One of the gobies with vomerine teeth; known only from Busuanga Island.

Calamiana Herre, Proc. Biol. Soc. Washington, vol. 58, p. 79, 1945; holotype, *Calamiana magnoris* Herre.

1748. *Calamiana magnoris* Herre.

Calamiana magnoris Herre, Proc. Biol. Soc. Washington, vol. 58, p. 80, 1945; Coron, Busuanga Island.

Genus 551. CORONOGOBIUS Herre.

Another goby with vomerine teeth. Known only from Busuanga Island.
Coronogobius Herre, Proc. Biol. Soc. Washington, vol. 58, p. 80, 1945;
 holotype, *Coronogobius striatus* Herre.

1749. *Coronogobius striatus* Herre.

Coronogobius striatus Herre, Proc. Biol. Soc. Washington, vol. 58, p. 81, 1945; in coral heads at dock, Coron, Busuanga Island.

Genus 552. INTONSAGOBIUS Herre.

Related to *Callogobius* and *McGregorella* but with vomerine teeth; found on coral reefs of the Sulu Islands.

Intonsagobius Herre, Proc. Biol. Soc. Washington, vol. 56, p. 91, 1943; holotype, *Intonsagobius kudereri* Herre.

1750. *Intonsagobius kudereri* Herre.

Intonsagobius kudereri Herre, Proc. Biol. Soc. Washington, vol. 56, p. 93, 1943. About 8 miles west of Jolo, Sulu Province, Philippines.

1751. *Intonsagobius van clevei* Herre.

A Philippine goby belonging to the section Vomerodontia.

Intonsagobius van clevei Herre, Proceedings Biological Society Washington, vol. 63, p. 73, 1950. The type and sole specimen was taken at Dumaguete, Negros Oriental Province.

Genus 553. MANGARINUS Herre.

A genus with vomerine teeth and known only from Mindoro, Philippines.
Mangarinus Herre, Proc. Biol. Soc. Washington, vol. 56, p. 94, 1943; orthotype, *Mangarinus waterousi* Herre.

1752. *Mangarinus waterousi* Herre.

Mangarinus waterousi Herre, Proc. Biol. Soc. Washington, vol. 56, p. 94, 1943; in mangrove swamp, Hacienda Waterous, Mangarin, Mindoro.

Genus 554. MARS Jordan and Seale.

Small gobies with vomerine teeth and numerous lines of sensory papillae

on the head. One Samoan species and 2 from the Philippines.
Mars, Jordan and Seale, Bull. U. S. Bur. Fish., vol. 25, p. 408, 1906;
Samoa; orthotype, *Mars strigillifer* Jordan and Seale.

1753. *Mars caeruleo-maculata* Herre.

Mars caeruleo-maculatus Herre, Copeia, No. 1, p. 22, April 1933; tidal flats, Jolo, Sulu Province. Herre, Fishes 1933-34 Exped.; on reef at Gorrer, Pelew Islands. Herre, Philippine Jour. Sci., vol. 72, p. 367, 1940; Dumaguete, Oriental Negros Province, Negros. Herre, 1936-37 and 1940-41 Expeds.; Coron, Busuanga Island; Iloilo, Iloilo Province, Panay; Dumaguete.

Mars caeruleo-punctatus Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Jolo, Sulu Province; (error).

1754. *Mars haydeni* Herre.

Mars haydeni Herre, Philippine Jour. Sci., vol. 59, p. 363, pl. 2, fig. 6, 1936; tidal flats, Bais, Negros Oriental Province, Negros.

Genus 555. *MINDOROGOBIUS* Herre.

Another genus with vomerine teeth; from Mindoro, Philippines.

Mindorogobius Herre, Proc. Biol. Soc. Washington, vol. 58, p. 11, 1945; orthotype, *Mindorogobius lopezi* Herre.

1755. *Mindorogobius lopezi* Herre.

Mindorogobius lopezi Herre, Proc. Biol. Soc. Washington, vol. 58, p. 13, 1945; mangrove swamp, Hacienda Waterous, Mangarin, Mindoro.

Genus 556. *MYERSINA* Herre.

Another unique Philippine goby with vomerine teeth.

Myersina Herre, Fishes 1931 Philippine Exped., p. 89, 1934; orthotype, *Myersina macrostoma* Herre.

1756. *Myersina macrostoma* Herre.

Myersina macrostoma Herre, Fishes 1931 Philippine Exped., p. 90, 1934; on reef, Culion Harbor.

Genus 557. *SMILOGOBIUS* Herre.

Reef fishes with huge vomerine teeth; two species from the Philippines and two from Singapore.

Smilogobius Herre, Fishes 1931 Philippine Exped., p. 88, 1934; orthotype, *Smilogobius inexplicatus* Herre.

1757. *Smilogobius inexplicatus* Herre.

A Philippine species.

Smilogobius inexplicatus Herre, Fishes 1931 Philippine Exped., p. 88, 1934; Sitankai, Sulu Province.

1758. *Smilogobius obliquus* Herre.

Smilogobius obliquus Herre, Fishes 1931 Philippine Exped., p. 89, 1934; Culion Harbor.

Section *AVOMERODONTIA* Herre.

Gobies without vomerine teeth, so far as is known.

Genus 558. *ABOMA* Jordan and Starks.

Small marine gobies of the west coast of Mexico and Central America, Japan, and the Philippines.

Aboma Jordan and Starks, Proc. California Acad. Sci., ser. 2, vol. 5, p. 497, 1895; type, *Aboma etheostoma* Jordan and Starks. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 67, 1901. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 202, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 90; no date.

1759. *Aboma viganensis* (Steindachner).

A Philippine species.

Gobius viganensis Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 102, p. 230, 1893; Vigan, Ilokos Sur Province, Luzon.

Aboma viganensis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 203, 1927; after Steindachner.

Genus 559. *AMBLYGOBIUS* Bleeker.

The East Indies, Philippines, west to the Andaman Islands, south to Australia, and southeast in the Pacific to the Society Islands. Species marine, rarely entering fresh water.

- Amblygobius* Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 322, 1874; type, *Gobius sphinx* Cuvier and Valenciennes. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 227, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes p. 95; no date.
- Odontogobius* Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 323, 1874; type, *Gobius bynoensis* Richardson.
1760. *Amblygobius bynoensis* (Richardson).
From Australia to the Philippines and west through the East Indies to the Andaman Islands.
- Gobius bynoensis* Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 1, pl. 1, figs. 1-2, 1844-48; Western Australia. Günther, Cat. Fishes British Mus., vol. 3, p. 70, 1861; Philippines; Australia, Port Essington. Peters, Monatsber. Akad. Wiss. Berlin, p. 266, 1868; Paracale, Camarines Norte Province, Luzon. Day, Fishes India, p. 284, pl. 61, fig. 3, 1878.
- Gobius stethophthalmus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 248, fig. 7, 1851; Anjer, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 236, 1858; Biliton. Bleeker, *ibid.*, vol. 18, p. 356, 1859; Bawean. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 56, 1861; Singapore.
- Odontogobius bynoensis* Bleeker, Arch. Neerl. Sci. Nat. vol. 9, p. 323, 1874.
- Apocryptes lineatus* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 332, pl. 12, fig. 3, 1877; Cape Grenville, Queensland, Australia.
- Apocryptes bivittatus* Macleay, *ibid.*, vol. 2, p. 357, pl. 9, fig. 5, 1878; Port Darwin, Australia.
- Gobius harmandi* Sauvage, Bull. Soc. Philom, Paris, ser. 7, vol. 4, p. 49, 1880.
- Amblygobius bynoensis* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 795, 1905; Bais, Negros Oriental Province. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 232, pl. 19, fig. 1, 1927; Polillo Island; Busuanga Island; Bantayan Island, Cebu Province; Canigao Island, Leyte Province; Inabanga, Bohol; Balabac. Koumans, Zoologische Mededeelingen, vol. 18, p. 140, 1935; Indo-Australian Archipelago. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay. Herre, Mem. Indian Mus., vol. 13, p. 384, 1941; India to the Philippines, and south to Australia.
1761. *Amblygobius decussatus* (Bleeker).
The Philippines, East Indies, and Pelew Islands.
- Gobius decussatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 442, 1855; Celebes. Bleeker, *ibid.*, vol. 12, p. 215, 1856-57; Nias. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 43, 1860; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 69, 1862; coasts and rivers of Nias, Celebes, and Buru; after Bleeker.
- Amblygobius perpusillus buanensis* Herre, Gobies of the Philippines, Philippine Bureau Science, Monograph 23, p. 230, pl. 18, fig. 2, 1927; Puerto Princesa, Palawan; Buan Island, in fresh water, off south coast of TawiTawi, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 10, p. 166, 1935; Gorrer, Pelew Islands.
- Amblygobius decussatus* Koumans, Zoologische Mededeelingen, vol. 18, p. 139, 1935; Philippines; Bleeker's type from Celebes. Herre, Fishes 1940-41 Exped.; Coron, Busuanga.
1762. *Amblygobius inornatus* Herre.
A Philippine species.
Amblygobius inornatus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 228, 1927; north coast of Siasi Island, Sulu Province.
1763. *Amblygobius linki* Herre.
A Philippine species.
Amblygobius linki Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 231, pl. 18, fig. 4, 1927; Bungau, Sulu Province; Caldera Bay, Zamboanga Province, Mindanao. Herre, Fishes 1940-41 Exped.; Coron, Busuanga; Dumaguete, Oriental Negros Province.
1764. *Amblygobius phalaena* (Cuvier and Valenciennes).
The Philippines and East Indies, east to the Pelew, Samoan, and Society Islands, south to Australia.

Gobius phalaena Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 70, 1837; Vanicolo. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 244, 1851; Banda. Günther, Cat. Fishes British Mus., vol. 3, p. 67, 1861; Amboyna. Günther, Fische der Südsee, vol. 2, p. 178, pl. 111, fig. C, 1876; Pelew Islands; Apia, Samoa; Society Islands.

Amblygobius phalaena Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 405, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 278, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 253, pl. 35, fig. 1, 1919; Murray and Darnley Islands, Torres Straits; Cape York, Two Isles of Cape Bedford, and Masthead Island off Port Curtis, Queensland; Monte Bello Islands, Western Australia; New Hebrides. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 235, pl. 30, fig. 3, 1927; Puerto Galera, Mindoro; Cebu, Cebu; Tagbilaran, Bohol; Cabalian, Leyte; San Juan, Siquijor Island; Canigaran, near Puerto Princesa, Palawan; Sibutu and Sitankai, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 412, 1928; Pelew Islands; Society Islands; Guam; Faté, New Hebrides; Apia; Vavau, Tonga Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 90, 1934; Dumaguete; Capiz, Capiz Province, Panay; Culion. Herre, Fishes 1933-34 Exped.; Cebu, Cebu; Tagbilaran, Bohol. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 379, 1936; Ovalau and Nukulau Islands, Fiji.

1765. *Amblygobius sphynx* (Cuvier and Valenciennes).

The Philippines and East Indies, to New Guinea and the Caroline Islands.

Gobius sphynx Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 70, 1837; New Guinea.

Gobius sphinx Günther, Cat. Fishes British Mus., vol. 3, p. 67, 1861; Ceram; Borneo.

Amblygobius sphynx Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; New Guinea. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 237, 1927; Bacon, Sorsogon Province, Luzon; Puerto Galera, Mindoro; Dumaguete, Negros Oriental Province; Cagayan, Misamis Province, and Samal Island, Davao Province, Mindanao; Canigaran, Palawan; Balabac. Fowler, Mem. Bishop Mus., vol. 10, p. 413, 1928; Moen, Truk Island, Caroline Islands. Herre, Jour. Pan-Pacific Research Inst., vol. 8, p. 11, 1934; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 90, 1934; Cebu, Cebu Province; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province. Koumans, Zoologische Mededeelingen, vol. 18, p. 138, 1935; Philippines; Indo-Australian Archipelago; Pulo Condor; Red Sea.

Amblygobius sphinx Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 795, 1905; Bais, Negros Oriental Province. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 321, 1911; Moen, Truk Island, Caroline Islands.

Genus 560. **APOCRYPTODON** Bleeker.

Small marine and freshwater fishes ranging from India to the Philippines and New Guinea.

Apocryptodon Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 327, 1874; type, *Apocryptes madurensis* Bleeker. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 277, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 129; no date. Ablan, Philippine Jour. Sci., vol. 71, p. 373, 1940.

1766. *Apocryptodon glyphisodon* (Bleeker).

The East Indies and Philippines.

Apocryptes glyphisodon Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden en Gobioiden, p. 36, 1849; Batavia, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 356, 1859; Bawean. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 56, 1861; Singapore.

Apocryptes glyphidodon Günther, Cat. Fishes British Mus., vol. 4, p. 84, 1861; Sea of Batavia; after Bleeker.

Apocryptodon montalbani Herre, Gobies of Philippines, Philippine Bureau Science, Monograph 23, p. 277, pl. 22, fig. 2, 1927; Zarraga, Iloilo Province, Panay.

Apocryptodon sealci Herre, Gobies Philippines, Philippine Bureau Science, Monograph 23, p. 278, 1927; Manila market, Manila, Luzon. Herre, Philippine Jour. Sci., vol. 69, p. 369, 1936; Opon, Mactan Island. The type and only specimen was collected in a Manila market in 1908. It was lost when the Japanese destroyed the Bureau of Science in World War II. Herre, 1948 Coll.: 2 specimens from Manat River, Pangasinan Province, Luzon.

Apocryptodon glyphisodon Herre, 1948 Coll.; Manat River, Pangasinan Province, Luzon.

1767. Apocryptodon lomboyi Ablan.

A Philippine species.

Apocryptodon lomboyi Ablan, Philippine Jour. Sci., vol. 71, p. 373, pl. 1, 1940; Dagupan, Pangasinan Province, Luzon.

1768. Apocryptodon taylori Herre.

A Philippine species.

Apocryptodon taylori Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 279, pl. 22, fig. 3, 1927; Odiongan, Tablas.

Genus 561. BATHYGOBIUS Bleeker.

Marine and brackish water fishes of rocky coasts and river mouths, occurring throughout the tropics. Fishes of this genus rarely enter fresh water.

Bathygobius Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; type, *Gobius nebulopunctatus* Rüppell. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 111, 1927. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1000, 1936. Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 305, 1940.

Mapo Smitt, Oefv. Vet. Akad. Vorh. Stockholm, p. 543, 1899; type *Gobius saporator* Cuvier and Valenciennes.

1769. Bathygobius blancoi Roxas and Ablan.

A Philippine species.

Bathygobius blancoi Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 306, pl. 5, 1940; Dagupan, Pangasinan Province, Luzon. A doubtful species.

1770. Bathygobius bravoii Herre.

A Philippine species.

Bathygobius bravoii Herre, Gobies of Philippines, Philippine Bureau Science, Monograph 23, p. 112, pl. 8, fig. 1, 1927; Romblon Island; Cabalian, Leyte; south coast of Cotabato Province, Mindanao.

1771. Bathygobius fuscus (Rüppell).

Apparently a pan-tropic marine species. Only a small part of the synonymy is given here.

Gobius fuscus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 137, 1828; Red Sea. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 60, 1938; Indefatigable Island and Sullivan Bay, James Island, Galapagos Islands.

Gobius punctillatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 138, 1828; Red Sea.

Gobius nebulopunctatus Rüppell, Neue Wirbelt, Fische Rothen Meeres, p. 139, 1835; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 57, 1837. Günther, Cat. Fishes British Mus., vol. 3, p. 26, 1861; Red Sea; Mozambique. Regan, Ann. Durban Mus., vol. 1, p. 459, 1917; Durban, Natal.

Gobius saporator Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 56, 1837; Martinique, West Indies. Günther, Cat. Fishes British Mus., vol. 3, p. 26, 1861; Jamaica; Mexico; Panama; Sicily; Caribbean Sea. Günther, Fische der Südsee, vol. 2, p. 173, pl. 111, fig. B, 1876-1881; Samoa; Tonga.

Gobius albo-punctatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 57, 1837; Mauritius. Günther, Cat. Fishes British Mus., vol. 3, p. 25, 1861; Egypt; China; Fiji Islands; Port Essington, Australia. Kner, Reise Novara Fische, vol. 2, p. 173, 1865; Tahiti. Günther, Fische der Südsee, vol. 2, pl. 110, fig. A, 1876-1881; Fiji, Society Islands; Gilbert Islands; Samoa; Hawaiian Islands. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 135, 1903; Marcus Island.

Gobius lineatus Jenyns, Voy. *Beagle*, Zoology; Fishes, p. 95, pl. 19, fig. 2, 1842; Galapagos Islands.

Gobius padangensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 249, 1851; Padang, Sumatra.

Gobius breviceps Blyth, Jour. Asiatic Soc. Bengal, p. 271, 1858; Great Andaman Island.

Gobius homocyanus Vaillant and Sauvage, Revue Mag. Zool., ser. 3, vol. 3, p. 280, 1875; Hawaiian Islands.

Glossogobius girus Streets, Bull. No. 7, U. S. Nat. Mus., p. 60, 1877; coral reefs of Oahu; not Hamilton [né Buchanan].

Gobius sandvicensis Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 60, 1880; Honolulu, in fresh water.

Mapo soporator Snodgrass and Heller, Proc. Washington Acad. Sci., vol. 6, p. 416, 1904; Albemarle, Charles, Narborough, and Seymour Islands, Galapagos Islands; Cocos Island; Clipperton Island; Revillagigedos Islands. Seale, Occas. Papers Bishop Mus., vol. 4, p. 84, 1906; Makatea, Tuamotu Islands; Nukahiva, Marquesas Islands; Tahiti. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 147, 1912; Mangareva, Gambier Islands, Tuamotu Archipelago.

Mapo fuscus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 483, fig. 212, 1905; Honolulu, Moanalua, Waiialua, Waikiki, Waianae, Kailua, Hilo, Puako Bay and Kealakekua Bay, Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 402, 1906; Upolu Island and Tutuila Island, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 43, 1907; Cavite, Cavite Province, Luzon, Philippines. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao.

Bathygobius fuscus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 78, 1922; South Seas. Fowler, Bull. 22, Bishop Mus., pp. 17, 38, 1925; Guam; Tahiti. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 113, pl. 8, fig. 2, 1927; Tacloban, Leyte; Kolabugan, Lanao Province, and Caldera Bay, Zamboanga Province, Mindanao; Siasi, Bungau, Sibutu, and Sitankai, Sulu Prov., Mindanao. Balabac I., Cavite, Cavite Province, Luzon, and Zamboanga, Zamboanga Province, Mindanao; Andaman Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 405, 1928; Pearl Harbor, Honolulu, Oahu Island, Hilo, Hawaii, Hawaiian Islands; Apia, Samoa; Marshall Islands; Palmyra Island, Marcus Island; Shortland Island, Solomon Islands; Rarotonga, Cook Islands; Society Islands; Tuamotu Islands; Marquesas Islands; Gilbert Islands; Tonga Islands; Necker, Lisiansky, Laysan, Guam, and Johnston Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Cullion; Dumaguete; Cebu, Cebu; Punta Flecha, Zamboanga Province, Mindanao; Jolo, Bungau and Sitankai, Sulu Province. Koumans, Zoologische Mededeelingen, vol. 18, p. 121, 1935; synonymy in part. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 355, 1936; Galapagos Islands; Marquesas Islands; Tuamotu Archipelago; Ovalau Island, Fiji; New Hebrides; Solomon Islands. Herre, Fishes 1936-37 Exped.; Nasugbu, Batangas Province, Luzon; Manubul Islands, Sulu Province. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay; Kolabugan, Lanao Province, and Cagayan, Misamis Oriental Province, Mindanao.

Gobius (Mapo) fuscus Barnard, Ann. South African Mus., vol. 21, p. 821, 1927; Natal coast, Delagoa Bay, and Mozambique.

Bathygobius soporator Meek and Hildebrand, Field Mus. Nat. Hist., Zool. Ser., vol. 15, p. 867, 1928; Panama. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1001, 1936; coast of West Africa from Liberia to Angola; mouth of the Congo.

1772. *Bathygobius laoe* Roxas and Ablan.

A Philippine fish.

Bathygobius laoe Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 306, pl. 4, 1940; Dagupan, Pangasinan Province, Luzon. A doubtful species.

1773. *Bathygobius mearnsi* (Evermann and Seale).

A Philippine marine species.

Mapo mearnsi Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 510, fig. 2, 1907; Zamboanga, Zamboanga Province, Mindanao.

Bathygobius mearnsi Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 116, 1927; Bungau, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Dumaguete.

1774. *Bathygobius nox* (Bleeker).

Gobius nox Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 248, 1851. Günther, Cat. Fishes, vol. 3, p. 28, 1861; coasts of West Sumatra, Nias, and Solor; after Bleeker. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 116, 1927; Hong Kong. Herre, Philippine Jour. Sci., vol. 72, p. 365, 1940; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province, Negros.

Genus 562. **CHLAMYDES** Jenkins.

The Philippines, Society, and Hawaiian Islands.

Chlamydes Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 503, 1903; type, *Chlamydes laticeps* Jenkins. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 118, 1927.

Gobius subgenus *Chlamydes* Koumans, Preliminary Revision Genera Gobioid Fishes, p. 48; no date.

1775. *Chlamydes leytenensis* Herre.

A Philippine species.

Chlamydes leytenensis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 118, pl. 8, fig. 3, 1927; Cabalian, Leyte.

Genus 563. **BRACHYGOBIUS** Bleeker.

Small gobies of fresh and brackish water, perhaps in salt water too, in the East Indies, Philippines, and Malay Peninsula.

Brachygobius Bleeker, Arch. Neerl. Sci. Nat. vol. 9, p. 315, 1874; type, *Gobius doriae* Günther.

Hypogymnogobius Bleeker, *ibid.*, p. 318; type, *Gobius xanthozona* Bleeker.

1776. *Brachygobius aggregatus* Herre.

The Philippines and Borneo; in fresh and brackish water.

Brachygobius aggregatus Herre, Philippine Jour. Sci., vol. 72, p. 361, pl. 4, 1940; Dumaguete, Negros Oriental Province; Kabili River, British North Borneo.

Genus 564. **CALLOGOBIUS** Bleeker.

East Indies, Philippines, Australia, Solomon Islands, New Hebrides, Samoan, and Society Islands.

Callogobius Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 318, 1874; type, *Eleotris hasseltii* Bleeker. McCulloch and Ogilby, Records Australian Museum, vol. 12, p. 216, 1919. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 75; no date.

1777. *Callogobius maculipinnis* Fowler.

A Philippine species.

Drombus maculipinnis Fowler, Proc. Acad. Nat. Sci. Phila., vol. 70, p. 69, fig. 27, 1918; Philippines.

Genus 565. **CHONOPHORUS** Poey. Batog; Biang bato; Bukto, Bunog; Totot.

Tropical river gobies of wide distribution in the Indo-Pacific and Atlantic Oceans. At least two species are of economic importance in the Philippines.

Chonophorus Poey, Poissons de Cuba, Memorias Hist. Nat., vol. 2, p. 274, 1860; Cuba; orthotype, *Chonophorus bucculentus* Poey=*Gobius banana* Cuvier and Valenciennes. Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 320, 1874. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 491, 1905. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 82; no date.

1778. *Chonophorus genivittatus* (Cuvier and Valenciennes).

Common in the streams of the Philippines, Hawaiian Islands, Society Islands, Samoa, Fiji, New Caledonia, New Hebrides, Pelew, and Caroline Islands.

Gobius genivittatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 48, 1837; Tahiti. Günther, Cat. Fishes British Mus., vol. 3, p. 13, 1861; Tahiti; after Cuvier and Valenciennes. Günther, Fische der

Südsee, vol. 2, p. 170, pl. 110, fig. C, 1876-1881; Tahiti; Fiji; Samoa; Hawaiian Islands.

Awaous genivittatus Fowler, Proc. Acad. Nat. Sci. Phila., p. 517, 1900; Hawaii. Jordan and Evermann, Bull. U. S. Fish. Comm., vol. 23, Part 1, p. 492, fig. 218, 1905; Honolulu; Hilo; Hawaii; after Günther.

Chonophorus genivittatus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 78, 1922; Hawaiian Islands. Fowler, Bull. 22, Bishop Mus., p. 30, 1925; Honolulu. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 211, pl. 16, fig. 4, 1927; Limbones Cove, Cavite Province, Bigaa and Arimbay Rivers, Albay Province, Luzon; San Jose, Antique Province; Dumarao, Capiz Province, Panay; Sibuyan Island; Lasay, Siquijor Islands; Cagayan, Misamis Oriental Province, Mindanao; Balabac Island. Fowler, Mem. Bishop Mus., vol. 10, p. 409, pl. 42, fig. C, 1928; Honolulu and other Hawaiian localities; Society Islands; Kusaie, Caroline Islands; Apia, Samoa. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 374, 1936; Hiva Oa Island, Marquesas Islands; Papenu River, Tahiti and Moorea Island, Society Islands; Viti Levu Island, Fiji. Herre 1936-37 and 1940-41 Exped.; Calatagan, Batangas Province, Luzon; San Ramon, Zamboanga Province, Mindanao.

Stenogobius genivittatus Koumans, Zoologische Mededeelingen, vol. 18, p. 124, 1935; not synonymy. Indo-Australian Archipelago to Polynesia. Australia, Japan, Madagascar, Amboina, Ceram, and Hawaiian Islands.

1779. *Chonophorus lachrymosus* (Peters). Biang paku; Biang tulis.

Known in the Philippines and New Guinea.

Gobius lachrymosus Peters, Monatsber. Akad. Wiss. Berlin, p. 65, 1868; Quingoa River, Calumpit, Bulacan Province, Luzon. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Manila Bay.

Chonophorus lachrymosus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 212, colored frontispiece, 1927; Calumpit, delta of Pampanga River; Angat River; Agusan River at Talacogon, Agusan Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 459, 1936; Sepik River, at Koragu and at Marienberg, New Guinea.

1780. *Chonophorus melanocephalus* (Bleeker). Batog; Bukto; Biang bato; Bunog; Totot.

The Philippines and East Indies, north to China, east to the Marianas, west to Andaman Islands, Ceylon, India, and Mauritius. In rivers and creeks, in lowland and mountain streams.

Gobius melanocephalus Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden en Gobioiden, p. 33, 1849; Java.

Gobius personatus Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden en Gobioiden, p. 34, 1849; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, fig. 4, 1851. Day, Fishes India, p. 292, pl. 63, fig. 6, 1878.

Gobius grammepomus Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden en Gobioiden, p. 34, 1849; Java. Günther, Cat. Fishes British Mus., vol. 3, p. 64, 1861; Ceylon; Madras, India; Borneo. Rivers of Java, Celebes, Borneo, Bali, Buru, Amboyna, Sumatra, and Batjan. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 185, 1895; Palawan, Philippines.

Gobius litturatus Heckel ms., Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 42, p. 289, pl. 1, figs. 4-5, 1861; Philippines.

Gobius stoliczke Day, Proc. Zool. Soc. London, p. 692, 1870.

Awaous personatus Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 17, 1879; Mauritius.

Chonophorus melanocephalus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 216, pl. 17, fig. 1, 1927; Laoag River at Bacarra, and at Laoag, Ilokos Norte Province; Bangued, Kalaba, and Abra River, Abra Province; Bauang Sur, La Union Province; Lamug, Pinacanawan River, Tuguegarao, Karoan and Buguey, Cagayan Province; Nayon, Ifugao sub-Province; Chico River at Calbayan and Saltan River at Limos, and Kalinga sub-Province; Kabulig River at Casiguran, Tayabas Province; Pansipit River, Batangas Province; Arimbay River and Bigaa River, Legaspi, and the Libog, Mangsa, and Yawa Rivers, Albay Province; preceding all from Luzon. Baco, Mindoro; San Jose, Antique Province, Panay.

Also specimens from Amoy, China. Herre, Philippine Jour. Sci., vol. 34, 1927; pp. 294 and 297, Lake Bombon, Batangas Province, Luzon; p. 303, Lake Naujan, Mindoro. Fowler, Mem. Bishop Mus., vol. 10, p. 410, 1928; India, Andaman Islands, East Indies, Philippines, Micronesia; after Day. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Magat River, Bagabag, Nueva Vizcaya Province; Lemery, Batangas Province; Libog River, Albay Province, Luzon. Tanjay River near Dumaguete, Negros Oriental Province; Jolo, Sulu Province. Herre, Fishes 1936-37 Exped.; Sinigpit River at Vintar, and Laoag River, Ilokos Norte Province, Luzon. Also Tawau, British North Borneo. Herre, Mem. Indian Mus., vol. 13, p. 385, 1941; Andaman Islands.

1781. *Chonophorus ocellaris* (Broussonet).

Widespread in the tropical Indo-Pacific region.

Gobius ocellaris Broussonet, Encyclop. Ichth., fig. 142, 1782; fresh waters of Tahiti. Bonnaterre, Tableau Encyclop. Ichth., p. 65, pl. 36, fig. 142, 1788; Tahiti. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 98, 1837; Tahiti. Günther, Cat. Fishes British Mus., vol. 3, p. 64, 1861; fresh waters of Mauritius; after Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 2, p. 177, pl. 108, fig. C, 1876-1881; Samoa; Rarotonga; Viti Levu.

Awaous ocellaris Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 320, 1874; Mauritius. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 405, 1906; Vaisigano River, Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 277, 1908; Mindoro.

Chonophorus ocellaris Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 218, pl. 17, fig. 2, 1927; Bangar, La Union Province; Pansipit River, Batangas Province, Luzon. Chicago, Baco River, and Naujan River, Mindoro; Sibuyan Islands; San Jose, Antique Province, Panay; Lasay, Siquijor Islands; Cabalian, Leyte, Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 409, 1928; Pago Pago, Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Curimao, Ilokos Norte Province, Luzon. Tanjay River, near Dumaguete; San Ramon, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 375, 1936; Papenu River, Tahiti; Rewa River, Viti Levu Island, Fiji. Herre, 1940-41 Exped.; Cagayan River, near Cagayan, Misamis Oriental Province, Mindanao.

Genus 566. CINGULOGOBIUS Herre.

Cingulogobius Herre, Gobies of Philippines, Bureau Science Monograph 23, p. 201, 1927; orthotype, *Cingulogobius boulengeri* Seale. *Pleurogobius*, a Typographical Error, Herre, Copela, No. 2, p. 132, 1943.

1782. *Cingulogobius boulengeri* (Seale).

Pleurogobius boulengeri Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 536, 1909; Puerto Princesa, Palawan. *Pleurogobius* was a printer's error, Seale having written *Pterogobius* and his specimen being labeled *Pterogobius*.

Cingulogobius boulengeri Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 201, pl. 16, fig. 1, 1927; Puerto Princesa, Palawan. Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Sitankai, Sulu Province.

Genus 567. CREISSON Jordan and Seale.

Creisson Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 43, 1907; orthotype, *Creisson validus* Jordan and Seale. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 139, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 115; no date.

1783. *Creisson janthinopterus* (Bleeker).

An East Indian and Philippine species.

Gobius janthinopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 702, 1852; Ceram. Bleeker, *ibid.*, vol. 15, p. 224, 1858; Biliton. Bleeker, *ibid.*, vol. 18, p. 370, 1859; Banka. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 111, 1862; Batjan. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 192, 1865; Ceram.

Creisson validus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 43, fig. 16, 1907; Cavite, Cavite Province, Luzon. Herre, Gobies of Philippines, Philippine Bur. Sci. Monograph 23, p. 140, 1927; Mission, Cagayan Province; Calumpit, Bulacan Province; Malabon, Rizal Province; Manila; Cavite, Cavite Province; Laguna de Bay, Laguna Province; preceding all from Luzon. From Panay:—San Jose, Antique Province; Capiz, Capiz Province; Iloilo, Dumangas, Molo, and Villa, Iloilo Province. Bintoan and Coron, Busuanga Island, Polo Plantation, Tanjay, Negros Oriental Province; Cebu, Cebu Province; Cabalian, Leyte. Davao, Davao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Malabon, Rizal Province, and Laguna de Bay, Luzon. Capiz, Capiz Province, Panay; Dumaguete; Jolo, Sulu Province. *Creisson janthinopterus*, Herre, 1936-37 and 1940-41 Expeds.; Malabon, and Dagat-Dagatan Fisheries Exper. Station, Rizal Province; Nasugbu, Batangas Province; Luzon. Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga; Capiz, Capiz Province, Panay; Cagayan River, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao; also Kranji River, Singapore.

Genus 568. CRISTATOGOBIOUS Herre.

Only one species known.

Cristatogobius Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 170, 1927; orthotype, *Cristatogobius lophius* Herre. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 118; no date.

1784. Cristatogobius lophius Herre.

A Philippine species.

Cristatogobius lophius Herre, Gobies of Philippines, Monograph 23, Philippine Bureau Science, p. 170, pl. 13, fig. 1, 1927; Bungau, Sulu Province; San Jose, Antique Province, Panay. Herre, Philippine Jour. Sci., vol. 72, p. 365, 1940; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province, Negros.

Genus 569. CRYPTOCENTROIDES Popta.

East Indies and the Philippines, with two species known; marine.

Cryptocentroides Popta, Zoologische Mededeelingen Leiden, vol. 7, p. 32, 1922; type, *Cryptocentroides dentatus* Popta. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 97; no date.

1785. Cryptocentroides dentatus Popta.

East Indies and the Philippines.

Cryptocentroides dentatus Popta, Zoologische Mededeelingen, vol. 7, p. 33, 1922; Raha, Muna Island, Dutch East Indies. Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Sitankai, Sulu Province.

1786. Cryptocentroides insignis (Seale).

The Philippines and Solomon Islands.

Amblygobius insignis Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 116, pl. 2, fig. 1, 1910; Polillo Island; Bantayan Islands, Cebu Province. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 234, pl. 18, fig. 3, 1927; Seale's specimens redescribed. Herre, Fishes 1931 Philippine Exped., p. 90, 1934; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 376, fig. 28, 1936; Hathorn Sound, New Georgia Island, Solomon Islands. *Cryptocentroides insignis* Herre, 1940-41 Exped.; Estancia, Iloilo Province, Panay.

Genus 570. CRYPTOCENTRUS (Ehrenberg) Cuvier and Valenciennes.

Brightly colored marine gobies occurring in the Philippines, East Indies, north to Japan, east to Fiji and the Tonga Islands, and west to the Red Sea.

Cryptocentrus (Ehrenberg) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 111, 1837; orthotype, *Cryptocentrus meleagris* Ehrenberg = *Gobius cryptocentrus* Cuvier and Valenciennes. Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 322, 1874; orthotype, *Gobius cryptocentrus* Cuvier and Valenciennes. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 72, 1901. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 239, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 96; no date.

- Paragobius* Bleeker, Ned. Tijds. Dierk., vol. 4, p. 128, 1873; Macao, Hong Kong, Amoy, China; type, *Gobius knutteli* Bleeker.
- Biat* Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 532, 1909. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 245, 1927. Koumans, Preliminary Revision Genera Gobioid. Fishes, p. 105; no date.
- 1787. *Cryptocentrus cebuanus* Herre.**
Cryptocentrus cebuanus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 240, pl. 19, fig. 2, 1927; Cebu, Cebu Province. Herre, Fishes 1931 Philippine Exped., p. 90, 1934; Cebu.
- 1788. *Cryptocentrus fontanesi* (Bleeker).**
 East Indies and the Philippines.
Gobius fontanesii Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 764, 1852; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 74, 1861; Seas of Bulucumba, Celebes; Amboyna; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 292, 1865; Amboina.
Biat luzonicus Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 532, 1909; east coast of Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, pl. 20, fig. 1, 1927; east coast of Luzon, Tayabas Province; redescribed from type. Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Lamon Bay, Tayabas Province, Luzon, and Alabat Island, off east coast of Luzon; Cebu, Cebu Province. Roxas, Copeia, No. 1, p. 19, 1935; Port Galera Bay, Mindoro Island, Philippines.
Gobius (Cryptocentrus) fontanesii Weber, Siboga-Exped., vol. 57, Fische, p. 474, 1913.
Oxyurichthys fontanesii Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 72, 1922; Cebu, Cebu Province.
Cryptocentrus fontanesii Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 242, 1927; Cebu, Philippines; compiled.
Cryptocentrus fontanesi Herre, 1936-37 Exped.; Sitankai, Sulu Province; Singapore; Malaya.
- 1789. *Cryptocentrus leucostictus* (Günther).**
 Polynesia and the Philippines.
Gobius leucostictus Günther, Proc. Zool. Soc. London, p. 664, pl. 63, fig. C, 1871; Tonga Islands. Günther, Fische der Südsee, vol. 2, p. 176, pl. 108, fig. F, 1876-1881; on the type.
Cryptocentrus leucostictus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 406, 1906. Fowler, Mem. Bishop Mus., vol. 10, p. 413, 1928; after Günther. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 379, fig. 31, 1936; Ovalau, Fiji. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon.
- 1790. *Cryptocentrus vagus* Herre.**
 A Philippine species.
Cryptocentrus vagus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 243, pl. 19, fig. 3, 1927; Mindoro or Mindanao; Iloilo, Iloilo Province, Panay.
- Genus 571. CTENOGOBIOUS Gill.**
 A genus of general distribution, the species mostly marine.
Ctenogobius Gill, Ann. Lyceum Nat. Hist. New York, vol. 6, p. 374, 1853-58; type, *Ctenogobius fasciatus* Gill. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 88; no date; in part; confused with *Rhinogobius*.
Drombus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 797, 1905; type, *Drombus paluckyi* Jordan and Seale.
Rhinogobius Herre, Gobies Philippine Bureau Science Monograph 23, p. 176, 1927.
Amoya Herre, Gobies Philippine Bureau Science Monograph 23, p. 225, 1927; type, *Gobius brevirostris* Günther.
- 1791. *Ctenogobius baliuroides* (Bleeker).**
 East Indies and Philippines.
Gobius baliuroides Bleeker, Verh. Bat. Gen., vol. 22, Bijdrege kennis Blennioiden en Gobioiden, p. 26, 1849; coast of Sumanap, Madura Island, Dutch East Indies. Günther, Cat. Fishes British Mus., vol. 3,

p. 42, 1861; after Bleeker. Fowler, Mem. Bishop Mus., vol. 10, p. 403, 1928; after Bleeker.

Gobius reichei Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 509, 1853; Sumatra. According to Koumans, Zoologische Mededeelingen, vol. 22, p. 187, 1940, *Rhinogobius baliuroides* (Bleeker) is identical with *Acentrogobius reichei* (Bleeker). If he is correct the name *Gobius baliuroides* must stand, as it precedes *G. reichei* by 4 years.

Rhinogobius baliuroides Jordan and Richardson, Bull. U. S. Bur. Fish., vol. 27, p. 277, 1908; Aparri, Cagayan Province, Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 188, 1927; Vigan, Ilokos Sur Province; San Fabian, Pangasinan Province; Malabon, Rizal Province; and the south coast of Luzon. Molo, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Kanoan, Siquijor Island; Cuyo, Cuyo Islands; Cagayan, Misamis Oriental Province, Caldera Bay, Zamboanga Province, and Davao, Davao Province, Mindanao.

Ctenogobius baliuroides Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Lemery, Batangas Province, Luzon. Herre, Fishes 1936-37 Exped.; Loay, Bohol; Sitankai, Sulu Province; Nasugbu, Batangas Province, Luzon.

1792. *Ctenogobius calamianensis* Herre.

A Philippine marine species.

Ctenogobius calamianensis Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Culion Harbor, Culion.

1793. *Ctenogobius calderae* (Evermann and Seale).

A Philippine species, extending in the China Sea to Singapore.

Gobius calderae Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 511, fig. 3, 1907; Caldera Bay, Zamboanga Province, Mindanao.

Rhinogobius calderae Jordan and Richardson, Check-List Philippine Fishes, p. 48, 1910; Caldera Bay, Zamboanga Province, Mindanao. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 182, 1927; Nalvo Barrio, Luna, La Union Province, Luzon.

Ctenogobius calderae Herre, Fishes 1931 Philippine Exped.; Iba, Zambales Province, Luzon. Herre, Bull. 13, Raffles Mus., Singapore, p. 43, 1937; common on reefs in Singapore Harbor.

1794. *Ctenogobius caninus* (Cuvier and Valenciennes).

East Indies, Philippines, and north to China; in bays and estuaries, and entering fresh water rivers.

Gobius caninus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 65, 1837; Java. Bleeker, Verh. Bat. Gen., vol. 22, Ichth. fauna Madura, p. 5, 1849; Madura. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 472, 1851; Riouw. Günther, Cat. Fishes British Mus., vol. 3, p. 38, 1861; Amoy, China. Günther, Fische der Südsee, vol. 2, p. 175, pl. 109, fig. C, 1876-1881; western Polynesia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; misprinted as *G. cazinus*; Cebu, Cebu.

Gobius grandinosus Valenciennes, Voy. Bonito, Poissons, p. 177, pl. 5, fig. 4, 1842.

Rhinogobius caninus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 791, 1905; Bais, Negros Oriental Province. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 277, 1908; Lubang Island, northwest of Mindoro; Iloilo, Iloilo Province, Panay. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 285, 1910; Common in British North Borneo; also in Philippines. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 186, pl. 13, fig. 4, 1927; includes *Rhinogobius caninus magnisquamatus* Herre; Malabon, Rizal Province; Manila; Cavite, Cavite Province; San Miguel Bay and Buhl River, Camarines Sur Province, Luzon. Guinobatan, Masbate Island; Iloilo, and Zarraga, Iloilo Province, Panay; Navalas, Guimaras Island; Cebu, Cebu; Davao, Davao Province, Mindanao; Balabac Island. Also Sandakan, British North Borneo, and Amoy, China.

Ctenogobius caninus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 84, 1934; Bauang Sur, La Union Province; Manila; Unisan, Tayabas Province, Luzon. Cebu, Cebu. Herre, Fishes 1936-37 Exped.; Balañgan, Bataan Province, Luzon. Kabili

River, British North Borneo; Rejang River, Sarawak, Borneo. Herre, Fishes 1940-41 Exped.; Coron, Busuanga Island; Cagayan River, Misamis Oriental Province, Mindanao.

1795. *Ctenogobius criniger* (Cuvier and Valenciennes). Laginlagen. Zanzibar to the Philippines, and Pelew Islands, and south through the East Indies, to the New Hebrides and Australia. Occurs in fresh and salt water. This fish is said to be poisonous.
- ? *Gobius nebulosus* Forskål, Descript. Animal., p. 24, 1775; Red Sea. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 63, 1837.
- Gobius criniger* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 62, 1837; Doreh Harbor, New Guinea; Malabar, India. Richardson, Zoology, Voy. *Brebus* and *Terror*, Fishes, p. 2, pl. 1, figs. 3 and 4, 1844. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 453, 1852; Banka. Günther, Cat. Fishes British Mus., vol. 3, p. 29, 1861; Madras, India; northwest coast of Australia; New Guinea; East Indian Archipelago; Pinang; Malabar. Day, Fishes India, p. 288, pl. 62, fig. 2, 1878.
- Ctenogobius criniger* Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; New Guinea. Herre, Fishes 1931 Philippine Exped., p. 84, 1934; Lingayen, Pangasinan Province; Malabon, Rizal Province; Molawin brook, Laguna Province; Lemery, Batangas Province, Luzon. Culion; Cebu, Cebu; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Malabon, Rizal Province and Manila Bay, Luzon; Coron, Busuanga Island; Estancia, Iloilo Province, Panay; Kolambugan, Lanao Province, Mindanao.
- Coryphopterus criniger* Seale, Occas. Papers Bishop Mus., vol. 4, p. 84, 1906; Raiatea, Society Islands.
- Rhinogobius nebulosus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 41, 1907; Cavite, Cavite Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 276, 1908; Aparri, Cagayan Province, and Manila, Luzon.
- Rhinogobius lungi* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 41, fig. 13, 1907; Panay Island, Philippines.
- Rhinogobius criniger* Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 191, pl. 14, fig. 2, 1927; Buguey River, Mission, Cagayan Province; Laguna de Bay, Laguna Province; Pasay, Rizal Province; Balayan Bay, Batangas Province, and Unisan, Tayabas Province, Luzon. Puerto Galera, Mindoro; Capiz, Capiz Province, and Iloilo, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Cebu and Bantayan, Cebu Province; Cabalian, Leyte; Borongan, Samar; Cagayan, Misamis Oriental Province, Mindanao; Balabac Island; spring on Buan Island, Sulu Province.
1796. *Ctenogobius culionensis* Herre.
A Philippine marine species, extending to the Pelew and Fiji Islands, and west to Singapore.
Ctenogobius culionensis Herre, Fishes 1931 Philippine Exped., p. 84, 1934; Culion Harbor, Culion.
1797. *Ctenogobius decoratus* Herre.
An Indo-Pacific species.
Rhinogobius decoratus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 181, pl. 13, fig. 3, 1927; Cabalian, Leyte. Herre, Fishes 1931 Philippine Exped., p. 85, 1934; Culion. Herre, Jour. Pan Pacific Research Inst., vol. 10, p. 166, 1935. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 365, 1936; reef near Suva, Viti Levu Island, and reef at Ovalau Island, Fiji. Herre, Fishes 1936-37 and 1940-41 Expeds.; Kolambugan, Lanao Province, Mindanao. Reef in Singapore Harbor, Singapore. Krusadai Island, Gulf of Manaar, South India.
1798. *Ctenogobius moloanus* (Herre).
Known from the Philippines and Siam.
Aparrius moloanus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 207, pl. 16, fig. 3, 1927; Molo, Iloilo Province, Panay; Capiz, Capiz Province; San Jose, Antique Province, Panay. Koumans, Zoologische Mededeelingen, vol. 2, p. 127, 1940; states that "this species does not belong to *Aparrius=Oliogolepis*", which seems to be true. He further states, "It agrees fully with *Acentrogobius bontii* (Bleeker)," which is not in agreement with Kouman's descrip-

tion of *A. bonti*. *Otenogobius moloanus* has a different scale count, a notched tongue, and other characters unlike those of *A. bonti*. Therefore it is being placed provisionally in *Otenogobius*. Herre, Fishes 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga Island; Cagayan, Misamis Oriental Province, Mindanao.

Oligolepis moloanus Smith, Jour. Siam Soc. Nat. Hist. Supplement, vol. 9, p. 80, 1933; Chantabun River estuary, southeastern Siam. Herre, Philippine Jour. Sci., vol. 69, p. 369, 1936; Opon, Mactan Island, Cebu Province; Iloilo and Antique Provinces, Panay. Also Chantabun River, southeastern Siam.

1799. *Ctenogobius multifasciatus* (Herre).

A Philippine marine goby, found also in the Pelew Islands.

Rhinogobius multifasciatus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 190, pl. 14, fig. 1, 1927; mouth of Jaro River, Iloilo, Iloilo Province, Panay. Herre, Fishes 1931 Philippine Exped., p. 85, 1934; Bauang Sur, La Union Province, Luzon. Koumans, Zoologische Mededeelingen, vol. 22, p. 187, 1940, states that *C. multifasciatus* Herre agrees with the description of *Ctenogobius notophthalmus* Bleeker. As the author was unable to secure a copy of Bleeker's paper, and as Dr. Koumans apparently had no authentic specimen of *C. notophthalmus* for comparison, *C. multifasciatus* is provisionally retained.

Gobius multifasciatus Abe, Palao Tropical Biological Station Studies, No. 4, p. 571, 1939; Philippines; Palao Islands.

1800. *Ctenogobius nuchipunctatus* Herre.

A Philippine species.

Ctenogobius nuchipunctatus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 85, 1934; Dumaguete.

1801. *Ctenogobius palackyi* (Jordan and Seale).

A Philippine species.

Drombus palackyi Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 797, fig. 15, 1905; Bais, Oriental Negros Province, Philippines.

Rhinogobius palackyi Herre, Gobies of Philippines, Philippines Bureau Science Monograph 23, p. 178, 1927; Malabon, Rizal Province, and Mariveles, Bataan Province, Luzon; southern Negros; Kanoan, Siquijor Island, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Bais, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 86, 1934; Culion. Herre, Fishes 1936-37 and 1940-41 Expeds.; Manila Bay, Luzon; Estancia, Iloilo Province, Panay.

1802. *Ctenogobius scapulo-punctatus* (de Beaufort).

East Indies, Philippines, southeast to Fiji, and west to Singapore.

Gobius (Rhinogobius) scapulopunctatus de Beaufort, Zool. Anzeiger, vol. 39, p. 137, 1912; Saonek, Waigiu. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 140, fig. 5, 1913.

Ctenogobius scapulo-punctatus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 86, 1934; Dumaguete. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 369, 1936; Nukulau Island, Fiji. Herre, Bull. Raffles Mus., Singapore, No. 13, p. 43, 1937; Singapore.

1803. *Ctenogobius schultzei* (Herre).

A Philippine species.

Rhinogobius schultzei Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 185, 1927; Fabrica, Negros Occidental Province.

1804. *Ctenogobius suluensis* (Herre).

A Philippine marine goby.

Rhinogobius suluensis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 193, 1927; Bungau, Sulu Province.

Ctenogobius suluensis Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 368, 1936; Hathorn Sound, New Georgia Island, Solomon Islands; Bungau, Sulu Archipelago. Herre, Philippine Jour. Sci., vol. 72, p. 366, 1940; Loay, Bohol; Bungau, Sulu Province; also Hathorn Sound, New Georgia Island, Solomon Islands.

1805. *Ctenogobius triangularis* (Weber).
East Indies and Philippines.
Gobius triangularis Weber, Notes Leyden Mus., vol. 31, p. 150, 1909.
Weber, *Siboga-Exped.*, vol. 57, Fische, p. 464, fig. 91, 1913; Amboina.
Ctenogobius triangularis Herre, Fishes 1931 Philippine Exped., p. 86,
1934; Jolo, Sulu Province, Philippines. Herre, Fishes 1940-41, Exped.;
Estancia, Iloilo Province, Panay.
Acentrogobius bontii Koumans, Zoologische Mededeelingen, vol. 18, p.
123, 1935, reduces *Gobius triangularis* Weber to a variety of *G. bontii*
Bleeker. The author agrees with Weber that *triangularis* has specific
status.
1806. *Ctenogobius villadolidi* Herre.
A Philippine species.
Ctenogobius villadolidi Herre, Philippine Jour. Sci., vol. 59, pl. 2, fig. 4,
1936; Dumaguete, Negros Oriental Province.
1807. *Ctenogobius viridi-punctatus* (Cuvier and Valenciennes). Palo.
India through the East Indies and Philippines.
Gobius viridi-punctatus Cuvier and Valenciennes, Hist. Nat. Poissons,
vol. 12, p. 47 (62), 1837; Bombay, India. Günther, Cat. Fishes British
Mus., vol. 3, p. 24, 1861; coast of Coromandel; Bombay; after Cuvier
and Valenciennes. Day, Fishes India, p. 286, pl. 59, fig. 5, pl. 61, fig. 4,
and pl. 63, fig. 4, 1878. Fowler, Mem. Bishop Mus., vol. 10, p. 405,
1928; after Day.
Rhinogobius viridi-punctatus Herre, Gobies of Philippines, Philippine
Bureau Science Monograph 23, p. 179, pl. 30, fig. 1, 1927; Malabon,
Rizal Province; Manila market, Manila, Luzon; Calapan, Mindoro;
Capiz, Capiz Province, Panay; Molo, Dumangas, and Villa, Iloilo
Province, Panay. Buena Vista, and Navalas, Guimaras; Kanoan,
Siquijor Island.
Ctenogobius viridi-punctatus Herre, Fishes 1931 Philippine Exped., p.
87, 1934; Cebu, Cebu. Herre, Bull. Raffles Mus., Singapore, No. 13,
p. 43, 1937; reef at Singapore. Herre, Fishes 1940-41 Exped.; Hacienda
Waterous, Mangarin, Mindoro; Coron, Busuanga. Also Gopalpur,
Ganjam District, Orissa; Vizagapatam, Madras Presidency; and
Krusadai Island, Gulf of Manar, South India.
- Genus 572. **FUSIGOBIUS** Whitley.
A single small delicate species known; widespread in the tropical
Pacific.
Fusigobius Whitley, Australian Zool., vol. 6, p. 122, 1930; type, *Gobius*
neophytus Günther. Koumans, Preliminary Revision Genera Gobioid
Fishes, p. 160, no date.
1808. *Fusigobius neophytus* (Günther).
Caroline, Samoan, Society, and Fiji Islands, and the Philippines.
Gobius neophytus Günther, Fische der Südsee, vol. 2, p. 174, pl. 108,
fig. E, 1876-1881; Ponapé; Huahine; Apia; Tahiti.
Rhinogobius neophytus Jordan and Seale, Bull. U. S. Bur. Fisheries,
vol. 25, p. 400, pl. 37, fig. 2, 1906; Apia and PagoPago, Samoa. Herre,
Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 195,
pl. 14, fig. 4, 1927; Puerto Galera, Mindoro; Puerto Princesa, Palawan,
Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 411, 1928; Apia,
Samoa; after Günther.
Ctenogobius neophytus Herre, Fishes 1931 Philippine Exped., p. 85, 1934;
Sitankai, Sulu Province.
- Genus 573. **GLADIOGOBIUS** Herre.
Philippines and Waigiu Island.
Gladiogobius Herre, Copeia, No. 1, p. 23, 1933; type, *Gladiogobius ensifer*
Herre.
1809. *Glariogobius ensifer* Herre.
Philippines and East Indies.
Gladiogobius ensifer Herre, Copeia, No. 1, p. 23, 1933; Culion, Philip-
pines; Mahalibit Inlet, Waigiu, Dutch East Indies. Herre, Fishes,
1931 Philippine Exped., p. 87, 1934; Culion; Waigiu. Herre, Philip-
pine Jour. Sci., vol. 69, p. 369, 1936; Bais, Negros Oriental Province.
Fowler, Acad. Nat. Sci. Phila. Monograph 2, p. 205, 1938; noted the

confusion of *Brachyleotris ensifera* Bleeker and *Gladiogobius ensifer* Herre and agreed with Herre's determination. Koumans, Zoologische Mededeelingen, vol. 22, pp. 147 and 181, 1940; Haarlem Island, Bay of Batavia, Java; Waigiu Island; Culion Island and Negros Island, Philippines. Herre, Fishes 1940-41 Exped.; Coron, Busuanga Island.

Genus 574. GLOSSOGOBIUS Gill.

A small widespread genus, occurring from Natal, Zululand, and the east coast of Africa to the Philippines, China, Japan, Wake Island, south to Australia, east to Samoa, Tahiti, and the Tuamotu Island. Some of the species are important food fishes.

Glossogobius Gill, Proc. Acad. Nat. Sci. Phila., p. 146, 1860. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 74, 1901. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 156, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 69; no date. *Cephalogobius* Bleeker, Arch. Neerl. Sci. Nat., vol. 9, pp. 315 and 320, 1873; type, *Gobius subtilus* Cantor.

1810. *Glossogobius biocellatus* (Cuvier and Valenciennes).

Biang tulog; Mulug.

From India to the Philippines, East Indies, Samoa, and the Tuamotu Islands.

Gobius biocellatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 55 (73), 1837; Pondicherry, India. Günther, Cat. Fishes British Mus., vol. 3, p. 20, 1861; after Cuvier and Valenciennes. Day, Fishes India, p. 289, pl. 63, fig. 8, 1878; Madras. Weber, *Siboga*-Exped., vol. 57, Fische, p. 470, 1913.

Glossogobius aglestes Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 798, fig. 16, 1905; Bais, Negros Oriental Province.

?*Glossogobius vaisiganus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 403, fig. 93, 1906; Vaisigano River at Apia, Samoa.

Glossogobius biocellatus Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 81, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 104, 1907; Bacon, Sorsogon Province, Luzon. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 320, 1911; Makemo, Tuamotu Islands. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 237, 1919; North Queensland, Australia. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 156, pl. 12, fig. 3, 1927; Mission, Cagayan Province; Vigan, Ilokos Sur Province; Agno River, Pangasinan Province; Subic, Zambales Province; Malabon, Rizal Province; Manila; Lake Bombon, Pansipit River, and Nasugbu, Batangas Province; Arimbay River and Puru, Legaspi, Albay Province—preceding all from Luzon. Mangarin, Mindoro; San Jose, Antique Province, and Capiz, Capiz Province, Panay. Loboc, Iloilo Province, Panay; Dumaguete, Negros Oriental Province; Cebu, Cebu; Lasay, Siquijor Island; Cagayan, Misamis Oriental Province, Rio Grande, Cotabato Province, Davao and Samal Island, Davao Province, Caldera Bay and Zamboanga, Zambonga Province, Mindanao. Balabac Island; Hong Kong. Fowler, Mem. Bishop Mus., vol. 10, p. 402, 1928; Makemo, Tuamotu Islands; after McCulloch and Ogilby. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete; Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Bauang Sur, La Union Province; Nasugbu and Lake Bombon, Batangas Province, Luzon. Cebu, Cebu Province; Dumaguete, Negros Oriental Province; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 360, 1936; river at Suva Harbor, Viti Levu Island, Fiji. Herre, Fishes 1936-37 and 1940-41 Expeds.; Santa Maria River, Santa Maria, Laguna Province; Bayombong, Oriwong, and Santa Fe, Nueva Vizcaya Province, Luzon. Hacienda Waterous, Mangarin, Mindoro; Barrio San Nicolas, Busuanga Island; Capiz, Capiz Province, Panay; Old Ayukitan, Oriental Negros Province; Kolambugan, Lanao Province, Cagayan River, Misamis Oriental Province, and Zamboanga and San Ramon, Zamboanga Province, Mindanao. Also Singapore.

1811. *Glossogobius celebius* (Cuvier and Valenciennes). Rock goby; Bal-la; Biang bato; Tabula; Taporak.
The Philippines and East Indies, New Guinea, Aru and Fiji Islands.
Gobius celebius Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 56, 1837; fresh waters of Celebes. Bleeker, Jour. Indian Archipelago, vol. 3, pp. 67, 68, 1849; Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 318, 1854; Bantam, Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 41, 1860; Sumatra. Weber, Siboga-Expéd., vol. 57, Fische, p. 463, 1913.
Gobius fusiformis Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioden en Gobioden, p. 30, 1849; Sunda-Molukka Archipelago.
Gobius phaiosoma Bleeker, *ibid.*; Sunda-Molukka Archipelago.
Gobius pavo Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 55, p. 715, 1867; Philippines.
- Glossogobius celebius* Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 158, pl. 12, fig. 4, 1927; Mission and Pinacawan River at Barrio Lamug, Peña Blanca, Cagayan Province; Laoag River, Ilokos Norte Province; Magat River and tributaries, at Dupax and Santa Fe, Nueva Vizcaya Province; Baguio, Benguet sub-Province; Bangar, Bauang Sur, and Gulf of Lingayen, La Union Province; Agno River, Pangasinan Province; Gumay River, Pampanga Province; Angat River and Ibo Creek, Banaban River, Kalingay Brook, Pinagsangan River, and Sapanga Creek, all near Angat; Sibul Springs, and Calumpang River, Norzagaray, Bulacan Province; Santa Ines River, Irig River, Marikina River at Montalban, Manang River near Antipolo, and Malabon, Rizal Province; Mayondon on south shore of Laguna de Bay, Molawin Creek at College of Agriculture, and Balanak River at Pagsanjan, Laguna Province; Lamul, Cavite Province; Lake Bombon, Batangas Province; Lukban, Tayabas Province; Talakop Creek, Camarines Sur Province; Bacon, Sorsogon Province—preceding all from Luzon. Polillo Island; Mambac River, Lake Naujan, Mindoro; San Jose, Antique Province; Capiz, Capiz Province; and Dumangas and Zarraga, Iloilo Province, Panay. Concepcion, Busuanga Island. Dumaguete River, Dumaguete, Negros Oriental Province, Negros. Siquijor Island. Daguitan River, Dulag, Leyte; Kolambungan, Lanao Province, Rio Grande, Cotabato Province and Dayao, Davao Province, Mindanao. Taytay, Palawan, Balabac. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Bauang Sur, La Union Province; Santa Fe, Nueva Vizcaya Province; Laguna de Bay and Molawin Creek, Laguna Province; Lake Bombon, Batangas Province; Tobacco, Albay Province; Magallanes, Sorsogon Province—all on Luzon. Busuanga Island; Culion Island; creek near Zamboanga, Zamboanga Province, Cotabato, and Fort Pikit, Cotabato Province, Mindanao; Jolo, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 361, 1936; Rewa River and river at Suva Harbor, Viti Levu Island, Fiji. Herre, 1936-37 Exped.; Bauang River, La Union Province, and Pansipit River, Batangas Province, Luzon. Also Kabil River, British North Borneo. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 146, 1938; Lake Bombon and Pansipit River, Batangas Province, Luzon; Lake Naujan, Mindoro. Also Beo, Talaud Islands, and Bali. Herre, 1940-41 Exped.; Oriwong Toll-gate; Bayombong and Santa Fe, Nueva Vizcaya Province; Santa Maria River, Santa Maria, Laguna Province, Luzon. Hacienda Waterous, Mangarin, Mindoro; Barrio San Nicolas, and Wayan Creek, Busuanga; Capiz, Capiz Province, Panay; river mouth near Old Ayukitan, Negros Oriental Province; Kolambungan, Lanao Province, Cagayan River, Misamis Oriental Province, San Ramon and creek 6 miles northeast of Zamboanga, Zamboanga Province, Mindanao. Koumans, Zoologische Mededeelingen, vol. 18, pp. 145-147, 1935; regards *Glossogobius celebius* as a synonym of *Glossogobius giurus*, a decision with which this author does not agree. A comparison of many hundreds of specimens, both living and preserved in alcohol, of these two species merely confirms their separate identities.
1812. *Glossogobius giurus* (Hamilton [né Buchanan]). Bala; Bia; Biang puti (white goby); Batug; Bunog; Dolog; Kapalo; Palo; Tabula.
Philippines and East Indies, north to China, east to Polynesia, west to India and the east coast of Africa. In rivers, lakes, and the sea.

Largest and most important of Philippine true gobies; a valuable food fish.

- Gobius giurus* Hamilton [né Buchanan] Fishes Ganges, pp. 51 and 366, pl. 33, fig. 15, 1822; Ganges River, India. Günther, Cat. Fishes British Mus., vol. 3, p. 21, 1861; Philippines; Ceylon; Madras; Calcutta; Bengal; Pinang; Siam; Amboyna; Ceram; Borneo; China Seas; East Indies; Zambezia; in part. Peters, Monatsber. Akad. Wiss. Berlin, p. 263, 1868; Lebmanan River, Camarines Sur Province, Luzon; Lake Bito, Leyte. Day, Fishes India, p. 294, pl. 67, fig. 1, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Laguna de Bay, Laguna Province, Luzon; Cebu, Cebu Province. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 185, 1895; Palawan.
- Gobius spectabilis* Günther, Cat. Fishes, British Mus., vol. 3, p. 45, 1861; India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Cebu, Philippines.
- Glossogobius giurus* Smith and Seale, Proc. Biol. Soc. Wash., vol. 19, p. 79, 1906; Rio Grande, Cotabato Province, Mindanao. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 104, 1907; San Fabian, Pangasinan Province; Bacon and Bulan, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 277, 1908; Aparri, Cagayan Province, Luzon; Mindoro; Iloilo, Iloilo Province, Panay. Fowler, Copeia, p. 65, 1918; Philippines. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 236, 1919; Flinders and Norman Rivers, Queensland; Port Darwin, Northern Australia. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 291, 1927; Santa Maria, Ilokos Sur Province; San Fabian, Pangasinan Province; Orani, Bataan Province, Luzon, Philippines. Herre, Gobies of Philippine, Philippine Bureau Science Monograph 23, p. 161, pl. 27, fig. 1, 1927; Buguey and Tuguegarao, Cagayan Province; Barrio La Paz, Laoag, Ilokos Norte Province; Abra River near Vigan, and Santa Maria, Ilokos Sur Province; Lingayen Gulf, La Union Province; Agno River, Dagupan, Pangasinan Province; Angat River, Calumpang River at Norzagaray, Baliuag, Calumpit, Sibul Springs, and saltwater fishpond, Bulacan Province; Malabon, Rizal Province; Pasig River and market, Manila; Laguna de Bay at Mayondon, and Balanak River, Pagsanjan, Laguna Province; Bunkal River, Darakap, Zambales Province; Lake Bombon and Pansipit River, Batangas Province; Lake Buhi, Bikol River and San Miguel Bay, Camarines Sur Province; Legaspi and Puru, Albay Province—preceding all from Luzon. Mamboc River, Lake Naujan, and Baco, Mindoro. Buddudan River and Mambungan Swamp. San Jose de Buenavista, Antique Province; Dumarao, Capiz Province; Dumangas, Villa, and Iloilo, Iloilo Province, Panay. Navalas, Guimaras Island; Concepcion, Busuanga Island; Taytay, Palawan; Balabac Island. Dumaguete River, Negros Oriental Province; Lasay, Siquijor Island. Daguitan River, Dulag, Leyte; Malabang Spring, Malabang, Lanao Province; Agusan River, Agusan Province; Lake Buluan, Cotabato Province; Davao, Davao Province, Mindanao; also Hong Kong; Ganges River, Bengal, India. Fowler, Mem. Bishop Mus., vol. 10, p. 402, 1928; Wake Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Bauang Sur, La Union Province; Manila, Laguna de Bay and Molawin Brook at College of Agriculture, Laguna Province; Majayjay, Tayabas Province; Nasugbu, and Lake Bombon, Batangas Province, Luzon; Lake Naujan, Mindoro; Cullion; Dumaguete, Negros Oriental Province, Negros. Herre, 1936-37 Exped.; Barrio Mindoro, Vigan, Ilokos Sur Province, and Nasugbu, Batangas Province, Luzon; Bungau, Sulu Province. Also Tawau, and the Sigaliud River, British North Borneo; Kuching, Sarawak, Borneo; Kranji River, Singapore Island; Bukit Merah, Perak; and Pinang. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 144, 1938; Pansipit River, Batangas Province, and Molawin Creek, Laguna Province, Luzon; Lake Naujan, Mindoro; Agusan River, Agusan Province, Mindanao, Philippines. Herre, 1940-41 Exped.; Dagat-dagatan Exper. Fisheries Station, and Malabon, and Morong River, Rizal Province; Banay River at Banay, Santa Cruz River at Santa Cruz, and Molawin Creek, College of Agriculture, Laguna Province, Luzon. Hacienda Waterous, Mangarin, Mindoro. Capiz, Capiz

Province, Mindoro. Cagayan River near Cagayan, Misamis Oriental Province, and Lake Mainit. Agusan Province, Mindanao.
Gobius (Glossogobius) giurus Weber, *Siboga-Exped.*, vol. 57, Fische, p. 468, fig. 93, 1913; Beo, Karakelong Island; Makassar, Celebes.

1813. *Glossogobius giurus* var. *obscuripinnis* (Peters). Golden goby; Oro-on. *Gobius obscuripinnis* Peters, Monatsber. Akad. Wiss. Berlin, p. 263, 1868; Bikol River, Camarines Sur Province; Kalabos Brook, near Daraga, Albay Province; Luzon.
Glossogobius giurus var. *obscuripinnis* Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 164, 1927; Lake Buhi and Lake Bato, Camarines Sur Province, Luzon.

Genus 575. GNATHOLEPIS Bleeker.

Coral-reef fishes of the tropical seas, north to Japan, and from the East Indies and Philippines eastward to the Caroline, Hawaiian, Samoan, and Society Islands, south to northeast Australia, west to Zanzibar and the Red Sea.

Gnatholepis Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 318, 1874; type, *Gobius anjerensis* Bleeker. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 394, 1906. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 126, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 86; no date. Roxas and Ablan, Philippine Jour. Sci., vol. 71, p. 77, 1940.

Hazeus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 51, 1901; type, *Hazeus otakii* Jordan and Snyder.

Exyrias Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 405, 1906; type, *Gobius puntangoides* Bleeker. McCulloch, and Ogilby, Records Australian Mus., vol. 12, p. 220, 1919.

1814. *Gnatholepis baliurus* (Cuvier and Valenciennes). East Indies and the Philippines.

Gobius baliurus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 61, 1837; Java. Bleeker, Verh. Bat. Gen., vol. 22, Blennioiden en Gobioiden, p. 31, 1849; Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Vischfauna Celebes, p. 43, 1860; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 18, 1861; Amboina. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 32, 1861; Singapore. Meyer, An. Soc. Espafia Hist. Nat. Madrid, vol. 14, p. 29, 1885; Cebu, Cebu, Philippines.

1815. *Gnatholepis calliurus* Jordan and Seale.

A Philippine species.

Gnatholepis calliurus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 796, fig. 14, 1905; Bais, Negros Oriental Province, Philippines. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 285, 1910; Sandakan, British North Borneo; Philippines. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 130, pl. 9, fig. 2, 1927; Manila; Cavite, Cavite Province, Luzon; Capiz and Pontevedra, Capiz Province, and Estancia and Zarraga, Iloilo Province, Panay; Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete. Herre, 1931 Philippine Exped., p. 82, 1934; Manila; Cebu, Cebu. Herre, Fishes 1936-37 and 1940-41 Exped.; Pasay, Rizal Province, and Manila Bay, Luzon. Herre, Bull. 13, Raffles Mus., p. 39, 1937; Singapore, Malaya.

1816. *Gnatholepis davaoensis* Seale.

A Philippine species.

Koumans, Zoologische Mededeelingen, vol. 22, pp. 156 and 184, 1940, places *G. davaoensis* Seale under *Acentrogobius cauerensis* (Bleeker), a disposition with which I cannot agree.

Gnatholepis davaoensis Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 537, 1909; Samal Island, Davao Gulf, Mindanao. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 134, 1927; after Seale. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Dumaguete; Sitankai, Sulu Province. Herre, Philippine Jour. Sci., vol. 72, p. 366, 1940; Nasugbu, Batangas Province, Luzon; Dumaguete; Samal Island, Gulf of Davao, Mindanao; Sitankai, Sulu Province.

1817. *Gnatholepis deltoides* Seale.

Guam and the Philippines, southeast to Fiji and Samoa.

Gnatholepis deltooides Seale, Occas. Papers Bishop Mus., vol. 1, p. 125, 1901; Guam. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 796, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 394, fig. 84, 1906; Apia and Pago-Pago, Samoa. Herre, Gobies of Philippines, Philippine Bureau of Science Monograph 23, p. 133, 1927; San Juan, Siquijor Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 357, 1936; Nukulau Island and Suva, Viti Levu Island, Fiji. Herre, Philippine Jour. Sci., vol. 72, p. 366, 1940; Sitankai, Sulu Province. Koumans, Zoologische Mededeelingen, vol. 22, p. 208, 1940, places *Gnatholepis deltooides* Seale under *Acentrogobius cauerensis* (Bleeker), a species which he has made too inclusive. I am therefore provisionally retaining the species as listed here.

1818. *Gnatholepis gemmeus* Herre.

The Philippines to New Hebrides; marine; a distinct and beautiful species.

Gnatholepis gemmeus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 135, pl. 9, fig. 3, 1927; Samal Island, Davao Gulf, Mindanao; Sitankai, Sulu Province; San Juan, Siquijor Island. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 357, 1936; Bushman Bay, Malekula Island, New Hebrides. Herre, Philippine Jour. Sci., vol. 72, p. 366, 1940; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province. Koumans, Zoologische Mededeelingen, vol. 22, p. 184, 1940, considered *Gnatholepis gemmeus* Herre to be identical with *Acentrogobius cauerensis* (Bleeker) from which it differs greatly.

1819. *Gnatholepis knighti* Jordan and Evermann.

Hawaiian Islands to the Philippines.

Gnatholepis knighti Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 204, 1903; Honolulu.

Gnatholepis knighti Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 487, pl. 58, 1905; Hilo, Hawaii Island, and Honolulu, Oahu Island. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 137, pl. 29, fig. 1, 1927; Naivo, Luna, La Union Province; Polillo Island. Herre, 1948 Coll.; Layia, Batangas Province, Luzon.

1820. *Gnatholepis puntangoides* (Bleeker). Burok; Kamumbon.

East Indies and Philippines, east to the Caroline and Solomon Islands, south to Australia, west to the Andaman Islands.

Gobius puntang Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 692, 1852; Ceram; not of vol. 2, p. 486, 1851. Day, Fishes India, p. 288, pl. 62, fig. 1, 1878; Andaman Islands. Vaillant, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 3, vol. 5, p. 58, 1893; Palawan.

Gobius puntangoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 242, 1853; Ceram. Günther, Cat. Fishes British Mus., vol. 3, p. 19, 1861; Amboyna; Ceram. Günther, Fische der Südsee, vol. 2, p. 171, pl. 108, fig. A, 1876-1881; Ponapé, Caroline Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Cebu, Philippines.

Exyrias puntangoides Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 405, 1906; Cebu, Philippines; Ponapé, Caroline Islands; Shortland Island; Solomon Islands.

Exyrias puntang McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 221, 1919; Andaman Islands; Cape York, Queensland; D'Entrecasteaux Group.

Exyrias puntang Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 290, 1927; Santa Maria, Ilokos Sur Province, Luzon.

Gnatholepis puntangoides Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 127, pl. 9, fig. 1, 1927; Ballesteros and Buguey, Cagayan Province; Vigan, Ilokos Sur Province; Hundred Islands, Pangasinan Province; Manila Bay at Pasay, Rizal Province; Balayan Bay, Batangas Province; Buru River, Legaspi, Albay Province; and Bacon, Sorsogon Province—preceding all on Luzon; Polillo, Polillo Island; Pinamalayan, and Puerto Galera, Mindoro; Cebu.

Cebu; Borongan, Samar; Guindulman, Bohol; Lasay, Siquijor Island; Balabac; Caldera Bay and Zamboanga, Zamboanga Province, and Davao, Davao Province, Mindanao; Jolo and Bongao, Sulu Province. Also Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Manila, and Cavite, Cavite Province, Luzon; Culion; Cebu, Cebu; Jolo, Sulu Province. Herre, Fishes 1936-37 Exped.; Manila Bay; Pulau Pisang, Singapore. Herre, Fishes 1940-41 Exped.; Manila Bay and Ragay Gulf; Cabaritan, Cagayan Province, Luzon; Dumaguete, Negros Oriental Province; Cagayan River, Misamis Oriental Province, Mindanao; Bungau, Sulu Province, Philippines. *Gnatholepis puntang* Fowler, Mem. Bishop Mus., vol. 10, p. 407, 1928; Shortland Island, Solomon Islands; Ascension Island.

1821. *Gnatholepis turneri* Roxas and Ablan.

A Philippine species.

Gnatholepis turneri Roxas and Ablan, Philippine Jour. Sci., vol. 71, p. 77, pl. 1, 1940; Lingayen Gulf, Pangasinan Province, Luzon.

1822. *Gnatholepis volcanus* Herre.

Gnatholepis volcanus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 131, 1927; one specimen, from Lake Bombon (Taal), Batangas Province, Luzon.

Genus 576. GOBIODON Bleeker.

Feeble swimming, small and deep-bodied naked fishes, living on coral reefs of the Indo-Pacific.

Gobiodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 407, 1856; type, *Gobius histrio* Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 3, p. 87, 1861. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 409, 1906. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 207, 1919. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 291, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 19, 1931; no date.

Ellerya Castelnau, Proc. Zool. Soc. Victoria, vol. 2, p. 95, 1873; ortho type, *Ellerya unicolor* Castelnau.

1823. *Gobiodon erythrospilus* Bleeker.

The East Indies and Philippines.

Gobiodon erythrospilus Bleeker, Arch. Neerl. Sci. Nat., vol. 10, p. 122, 1875; Cocos Island; Batu; Sumbawa; Solor; Timor; Celebes; Buru; Goram. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 53, 1878; Doreh Bay, New Guinea. Weber, *Siboga*-Exped., vol. 57, Fische, p. 455, 1913; Borneo Bank; Celebes Sea; Karakelong Island; Salomakie Island; Amboina; Seleyar; and Kei Island. Giltay, Mem. Mus. Royal Hist. Nat. Belgique, vol. 5, p. 100, 1933; Sorong, New Guinea.

Gobiodon fulvus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 292, 1927; Maricaban Island, Verde Island Passage, Batangas Province, Luzon. Calapan, Mindoro. This disposition follows Koumans, Zoologische Mededeelingen, vol. 2, p. 192, 1940, as I was unable to obtain Bleeker's description of *G. erythrospilus*. Nat., vol. 10, p. 117, 1875. Weber, *Siboga*-Exped., vol. 57, Fische, p.

1824. *Gobiodon hypselopterus* Bleeker.

East Indies and Philippines.

Gobiodon hypselopterus Bleeker, Arch. Neerl. Sci. Nat., vol. 10, p. 120, 1875; Moluccas. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 293, pl. 28, fig. 2, 1927; Calapan, Mindoro; Canigaran, near Puerto Princesa, Palawan.

1825. *Gobiodon quinquestrigatus* (Cuvier and Valenciennes). Daing sahasa. East Indies, Philippines, New Hebrides, Fiji, Tonga Islands, Tahiti, and Queensland, Australia.

Gobius quinquestrigatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 101 (134), 1837; Tongatabu Island, Tonga Islands.

Gobius ceramensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 704, 1852; Ceram.

Gobiodon quinquestrigatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 233, 1856-57; Batu Islands. Bleeker, *ibid.*, vol. 15, p. 201, 1858; Goram Archipelago. Günther, Cat. Fishes British Mus., vol. 3, p. 87, 1861; Seas of Tonga; Tabu; Solor; Buru; Goram; Sumbawa. Kner, Reise *Novara*, Fische, vol. 2, p. 180, 1865; Tahiti. Bleeker, Arch. Neerl. Sci.

Nat. vol. 10, p. 117, 1875. Weber, *Siboga*-Exped., vol. 57, Fische, p. 454, 1913. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 210, fig. 4, 1919; Cairns Reef, off Cooktown, Queensland, Australia. Herre, Gobies, Philippine Bureau Science Monograph 23, p. 294, 1927; Puerto Galera, Mindoro; Dumaguete and Zamboangita. Negros Oriental Province; Cabalian, Leyte; Zamboanga, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 92, 1934; Unisan, Tayabas Province, Luzon; Dumaguete; Jolo, Sulu, Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 384, 1936; Malo Island, New Hebrides. Herre, Fishes 1936-37 and 1940-41 Expeds.; Mactan Island, Cebu Province; Cabucan Island, northwest of Jolo, Sulu Province.

Gobiodon ceramensis Günther, Cat. Fishes British Mus., vol. 3, p. 88, 1861; China Seas; Borneo; Amboina; Fiji islands. Günther, Fische der Südsee, vol. 2, p. 182, pl. 109, fig. D, 1876-1881; Fiji.

Gobiodon quinquestrigatus var. *ceramensis* McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 211, 1919; Murray Island and Darnley Island, Torres Strait, Australia.

1826. *Gobiodon rivulatus* (Rüppell).

Red Sea and Mauritius to the Philippines, New Hebrides, Society and Tuamotu Islands.

Gobius rivulatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen, Meeres, p. 136, 1828; Jubal Island, Red Sea.

Gobiodon rivulatus Günther, Cat. Fishes British Mus., vol. 3, p. 87, 1861; Jubal Island, Red Sea. Bleeker, Verh. Akad. Amsterdam, vol. 18, Ichth. Pile Maurice, p. 17, 1879; Mauritius. Günther, Fische der Südsee, vol. 2, p. 180, pl. 109, figs. F and G, 1876-1881; Society, Friendly and Solomon Islands; Jaluit (Bonham Island), Marshall Islands; Vavau. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 323, 1911; Fakarava, Tuamotu Islands. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 384, 1936; Vila, Efate Island, New Hebrides. Herre, Fishes 1940-41 Exped.; Sitankai, Sulu Province.

Genus 577. **GOBIUS** Linnaeus.

Small fishes of Europe, and the Asiatic coast from the Red Sea to Japan, the Philippines, Pelew, Caroline, Samoan, Tonga, and Fiji Islands, and Australia. They live in shallow bays and estuaries and some species enter freshwater rivers.

Gobius Linnaeus, Syst. Nat. ed. 10, vol. 1, p. 262, 1758; after Artedi; type, *Gobius niger* L. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 52, 1901. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 105, 1927.

Gobius subgenus *Gobius* Koumanns, Preliminary Revision Genera Gobioid Fishes, p. 45; no date.

1827. *Gobius cauerensis* Bleeker.

East Indies, Philippines, and South China Sea.

Gobius cauerensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 269, 1853; Cauer, Sumatra. Günther, Cat. Fishes British Mus., vol. 3, p. 41, 1861; Sea of Cauer, Sumatra; after Bleeker. Weber, *Siboga*-Exped., vol. 57, Fische, p. 460, 1913; Sanguisiapo; Sulu Archipelago, Philippines; Beo, Karakalong Island; Lirung, Saibabu Island; Amboina; Sanana, Sulu; Nusa Laut, Dutch East Indies. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 107, 1927; Sanguisiapo Island, Sulu Province, Philippines; after Weber.

Gobius ophthalmotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 46, 1854; Cocos Island. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Bijdr. vischfauna Celebes, p. 44, 1860. Günther, Cat. Fishes British Mus., vol. 3, p. 37, 1861; China Seas. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 128, 1873; China. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Cebu, Cebu, Philippines.

1828. *Gobius elmeri* Herre.

A Philippine species.

Gobius elmeri Herre, Philippine Jour. Sci., vol. 72, p. 358, pl. 1, 1940; Nasugbu, Batangas Province, Luzon.

1829. *Gobius oligolepis* Bleeker.

East Indies and Philippines; in sea and rivers.

Gobius oligolepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 508, 1853; Sumatra. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Aekstte Bijdr. vischfauna Sumatra, p. 42, 1860. Günther, Cat. Fishes British Mus., vol. 3, p. 14, 1861; coasts and rivers of Java, Madura, and Sumatra; after Bleeker. Peters, Monatsber. Akad. Wiss. Berlin, p. 263, 1863; Tibi, Albay Province, Luzon, Philippines. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 110, 1927; after Bleeker and Peters.

1830. *Gobius ornatus* Rüppell.

Red Sea and east coast of Africa to the Philippines, East Indies, Caroline, Fiji, Samoan, and Tonga Islands, south to Australia.

Gobius ornatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 135, 1828; Massaua, Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 21, 1861; Philippines; northwest coast of Australia; Moluccas; Amboina; Red Sea; Fiji. Peters, Monatsber. Akad. Wiss. Berlin, p. 263, 1868; Paracale, Camarines Norte Province, Luzon, Philippines. Günther, Fische der Südsee, vol. 2, p. 172, pl. 3, fig. A, 1876-1881; Fiji; Yap; Puy nipet; Ponapé. Day, Fishes India, p. 294, pl. 63, fig. 1, 1878. Vaillant, Nouv. Arch. Hist. Nat. Paris, ser. 5, vol. 3, p. 57, 1893; Palawan, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 401, fig. 9, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 277, 1908; Ticao Island, Philippines. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 319, 1911; Caroline Islands; Tonga Islands; Suva, Fiji Islands. Fowler, Copeia, p. 65, 1918; Philippines. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 227, pl. 33, fig. 2, 1919; Torres Strait; North Queensland; Port Darwin, North Australia; New Hebrides. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 108, pl. 7, fig. 4, 1927; Currimao, Ilokos Norte Province; Nalvo, Luna, La Union Province; Nasugbu, Batangas Province, Luzon. Puerto Galera, Mindoro; Odiongan, Tablas Island; San Jose, Antique Province, Panay; Canigaran and Puerto Princesa, Palawan; Cuyo, Cuyo Islands; Davao and Samal Island, Davao Gulf, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Siasi and Sitankai, Sulu Province, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 403, 1928; Pelew Islands; Truk, Caroline Islands; Tonga, Tonga Islands; Suva, Fiji Islands; Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Cullion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 353, 1936; Ovalau Island and Nukulau Island, Fiji; Malo, Malekula, and Wala Islands, New Hebrides. Herre, Fishes 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Estancia, Iloilo Province, Mindanao; Pulau Pisang, Singapore.

1831. *Gobius panayensis* Jordan and Seale.

A Philippine goby of doubtful status. It may be a synonym of *Bathygobius fuscus* (Rüppell).

Gobius panayensis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 42, fig. 15, 1907; Iloilo, Panay. Herre, Gobies Philippines, Bur. Sci. Monograph 23, p. 106, 1927; Manila market; south coast of Luzon; Siquijor Island; Zamboanga, Zamboanga Province, and Davao, Davao Province, Mindanao; Balabac Island; Sitankai Island, Sulu Province; after Seale.

1832. *Gobius sumatranus* Bleeker.

East Indies and Philippines.

Gobius sumatranus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 83, 1854; Padang, Sumatra. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 42, 1860. Günther, Cat. Fishes British Mus., vol. 3, p. 31, 1861; Sea of Padang, Sumatra; after Bleeker. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Cullion, Philippines.

Genus 578. *ILLANA* Smith and Seale.

A genus of the Philippines and East Indies, with one known species.

Illana Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 79, 1906; orthotype, *Illana cacabet* Smith and Seale=*Illana bictrrhosa* (Weber). Herre, Gobies of Philippines, Philippine Bureau Science Monograph

23, p. 268, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 109; no date.

1833. *Illana bicirrhosa* (Weber).

Philippines and East Indies; in salt and fresh water.

Gobius bicirrhosus Weber, Zool. Ergebnisse Reise Ned. Ost-Ind., vol. 3, p. 412, 1894; Maros River, Celebes.

Illana cacabet Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 80, with text figure, 1906; Rio Grande de Mindanao, Cotabato, Mindanao. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 269, pl. 21, fig. 3, 1927; same specimens.

Illana bicirrhosus Koumans, Zoologische Mededeelingen, vol. 18, p. 143, 1935; Rio Grande, Mindanao, Philippines; Maros River, Celebes; Bezoeki, Java.

Illana bicirrhosa Herre, 1940-41 Exped.; Capiz, Panay; Dumaguete, Oriental Negros.

Genus 579. **ITBAYA** Herre.

A Philippine marine genus with one species known.

Itbaya Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 288, 1927; type, *Itbaya nuda* Herre. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 117; no date.

1834. *Itbaya nuda* Herre.

A Philippine species.

Itbaya nuda Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 288, pl. 23, fig. 2, 1927; Itbayat Island, Batanes Province. Koumans, Zoologische Mededeelingen, vol. 22, p. 192, 1940.

Genus 580. **LOPHOGOBIUS** Gill.

West Indies, coast of Florida, and Philippines.

Lophogobius Gill, Proc. Acad. Nat. Sci. Phila., vol. 14, p. 240, 1862; type, *Gobius crista-galli* Cuvier and Valenciennes, Ablan, Philippine Jour. Sci., vol. 71, p. 375, 1940.

1835. *Lophogobius nonatoae* Ablan.

A Philippine species.

Lophogobius nonatoae Ablan, Philippine Jour. Sci., vol. 71, p. 376, pl. 2, 1940; from fishponds at Dagupan, Pangasinan Province, Luzon.

Genus 581. **MACGREGORELLA** Seale.

A small group of marine gobies extending in the Pacific from the Philippines and East Indies to the Solomons, New Hebrides, and Fiji Islands, and in the Indian Ocean to the Gulf of Manaar, India.

Macgregorella Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 533, 1909; orthotype; *Macgregorella moroana* Seale. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 100, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 76; no date.

1836. *Macgregorella bravoii* Herre.

Known from the Philippines and Waigiü.

Macgregorella bravoii Herre, Philippine Jour. Sci., vol. 72, p. 363, pl. 5, 1940; type from Nasugbu, Batangas Province, Luzon; paratype from Waigiü Island, northwest of New Guinea.

1837. *Macgregorella intonsa* Herre.

Macgregorella intonsa Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 100, pl. 7, fig. 2, 1927; San Jose, Antique Province, Panay; near Saub, south coast of Cotabato Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre Fishes 1931 Philippine Exped., p. 81, 1934; Cullion; Dumaguete; Jolo, Sulu Province, Philippines. Herre, Philippine Jour. Sci., vol. 72, p. 367, 1940; Nasugbu, Batangas Province, Luzon; and Dumaguete. Also a specimen from the Kranji River, Singapore, in 1937.

1838. *Macgregorella moroana* Seale.

Macgregorella moroana Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 533, 1909; Jolo, Sulu Province. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 102, pl. 28, fig. 1, 1927; Odiongan, Tablas Island; Jolo, Jolo Island, Sulu Province. Smith, Jour. Siam Society, Nat. Hist., Supplement, vol. 9, p. 81, 1933; Chantabun River, southeast Slam. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10,

1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Dumaguete; Sitankai, Sulu Province. Herre, Philippine Jour. Sci., vol. 72, p. 367, 1940; Sitankai, and Jolo, Sulu Province; Dumaguete, Negros Oriental Province. Herre, 1948 Coll.; Caluya Islands, Semirara Islands, Philippines.

Genus 582. MIROGOBIUS Herre.

Dwarf fresh water gobies, naked or nearly so, found only in Luzon, Philippines.

Mirogobius Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 91, 1927; type, *Mirogobius stellatus* Herre. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 120; no date.

1839. Mirogobius lacustris Herre. Dolong.

Mirogobius lacustris Herre, Gobies, Philippine Bureau Science Monograph 23, p. 93, 1927; Laguna de Bay, at Calamba, Los Banos, Lumbang, Santa Cruz, and all along the lake shore, Laguna and Rizal Province, also Manila market, Luzon. Herre, Fishes 1931 Philippine Exped., p. 81, 1934; Laguna de Bay, Luzon.

Gobiopterus lacustris Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 180, 1938; Laguna de Bay, Luzon, Philippines.

1840. Mirogobius stellatus Herre.

Mirogobius stellatus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 92, pl. 6, fig. 4, 1927; Lake Lanigay, Polangi, Albay Province, Luzon.

Gobiopterus stellatus Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 180, 1938; Lanigay Lake, Albay Province, Luzon, Philippines.

Genus 583. MISTICHTHYS Smith.

A small genus of minute Philippine gobies in which the adults retain larval characters; one species known from fresh water and two from salt water.

Mistichthys Smith, Science, vol. 15, new series, p. 30, 1902; genotype, *Mistichthys luzonensis* Smith. Smith, Bull. U. S. Fish. Comm., vol. 21, p. 167, 1902. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 95, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 116; no date.

1841. Mistichthys luzonensis Smith. Sinarapan.

Known only from Lake Buhi and Lake Bato, Camarines Sur Province, Luzon.

Mistichthys luzonensis Smith, Science, vol. 15, New Series, p. 30, 1902; Lake Buhi. Smith, Bull. U. S. Fish. Comm., vol. 21, p. 167, pl. 22 and 2 text figures, 1902; Lake Buhi, Camarines Sur Province, Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 95, pl. 7, fig. 1, 1927; Lake Buhi, Camarines Sur Province. Te Winkel, Jour. Morphology, vol. 58, p. 463, 1935. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 177, figs. 24-25, 1938; Lake Buhi and Lake Bato, Camarines Sur Province.

1842. Mistichthys panayensis Herre.

Mistichthys panayensis Herre, Proc. Biol. Soc. Washington, vol. 57, p. 108, 1944; nipa swamp near Capiz, Capiz Province, Panay.

1843. Mistichthys mindanensis Herre.

Mistichthys mindanensis Herre, Proc. Biol. Soc. Wash., vol. 57, p. 109, 1944; nipa swamp near the Fisheries Station, Zamboanga, Mindanao.

Genus 584. OLIGOLEPIS Bleeker.

Oligolepis Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 318, 1874; type, *Gobius melanostigma* Bleeker. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 74; no date.

Aparrius Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 278, 1908; type, *Aparrius acutipinnis* Jordan and Richardson. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 204, 1927.

1844. Oligolepis acutipennis (Cuvier and Valenciennes).

From the Philippines to India.

Gobius acutipennis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 60, 1837; Malabar, India.

Gobius acutipennis Günther, Cat. Fishes. British Mus., vol. 3, p. 44, 1861;

- Malabar; after Cuvier and Valenciennes. Day, Fishes India, p. 291, pl. 61, fig. 2, 1878.
- Acentrogobius acutipinnis* Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 81, 1906; Cotabato, Cotabato Province, Mindanao, Philippines.
- Rhinogobius ocyurus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 42, fig. 14, 1907; Cavite, Cavite Province, Luzon.
- Aparrius acutipinnis* Jordan and Richardson, Bulletin U. S. Bur. Fisheries, vol. 27, p. 278, 1908; Aparri, Cagayan Province, Luzon. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 291, 1927; Santa Maria, Ilokos Sur Province, and San Fernando, La Union Province. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 204, pl. 16, fig. 2, 1927; Vigan and Abra River at Cagayan, Ilokos Sur Province; Agno River, Dagupan, Pangasinan Province; Baliuag, Bulacan Province; Subic, Zambales Province; Lake Bombon and Pansipit River, Batangas Province; Bigaa, Arimbay, and Libog Rivers, Albay Province, all on Luzon. Puerto Galera, Mindoro; San Jose, Antique Province; Capiz, Capiz Province; Molo and Villa, Iloilo Province, Panay; Caldera Bay, Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Lake Bombon, Batangas Province, Luzon.
- Oligolepis acutipinnis* Herre, 1936-37 Exped.; Cagayan, Ilokos Norte Province, and Nasugbu, Batangas Province, Luzon. Herre, 1940-41 Exped.; Dagat-Dagatan Experiment Station, Rizal Province, Luzon; Hacienda Waterous, Mangarin, Mindoro; Capiz, Capiz Province, Panay; Dumaguete and Old Ayukitan, Negros Oriental Province; Cagayan, Misamis Oriental Province, Mindanao.
- Oligolepis acutipennis* Herre, 1948 Coll.; Manat River, Pangasinan Province, Luzon.

Genus 585. OPLOPOMUS (Ehrenberg) Cuvier and Valenciennes.

A very distinct genus with two marine species, occurring from the Red Sea to the Society Islands.

Oplopomus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 66, 1837; orthotype, *Oplopomus pulcher* Ehrenberg=*Gobius oplopomus* Cuvier and Valenciennes; in Ehrenberg ms. Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 42, p. 291, 1860; orthotype, *Oplopomus pulcher* Ehrenberg. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 166, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 92; no date.

Centrogobius Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 321, 1874; orthotype, *Gobius notacanthus* Bleeker.

1845. *Oplopomus oplopomus* (Cuvier and Valenciennes).

Found from the Red Sea through the Philippines and East Indies to the Caroline and Society Islands.

Gobius oplopomus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 50, 1837; Massaua, Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 15, 1861; Massaua, Red Sea; after Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 2, p. 170, pl. 110, fig. B, 1876-1881; Maiao Island, New Hebrides; Tahiti.

Oplopomus pulcher Ehrenberg, Zool. Pisc., pl. 9, fig. 6; footnote in Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 50, 1837; Red Sea.

Gobius bitelatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 67, 1837; Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 35, 1861; Red Sea; after Cuvier and Valenciennes.

Gobius notacanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 210, 1858; Goram. Günther, Cat. Fishes British Mus., vol. 3, p. 35, 1861; Sea of Goram; after Bleeker.

Oplopomus notacanthus Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 42, p. 290, pl. 1, fig. 2, 1860; Philippines.

Oplopomus oplopomus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 396, 1906. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 166, pl. 29, fig. 3, 1927; Polillo; Cebu, Cebu; Puerto Princesa, Palawan; Balabac. Fowler, Mem. Bishop Mus., vol. 10, p. 412, 1928; Truk, Caroline Islands; Society Islands.

1846. *Oplopomus caninoides* (Bleeker).

East Indies and Philippines.

Gobius caninoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 274, 1852; Amboina. Bleeker, *ibid.*, p. 702, 1852; Ceram. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, Menado en Makassar, p. 50, 1856. Günther, Cat. Fishes British Mus., vol. 3, p. 36, 1861; Seas of Amboina, Celebes, and Buru; after Bleeker.

Oplopomus vergens Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 44, fig. 17, 1907; Cavite, Cavite Province, Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 168, 1927; Nasugbu, Batangas Province, Luzon; Iloilo, Panay; Inabanga, Bohol.

Genus 586. *OXYURICHTHYS* Bleeker.

Tropical Indo-Pacific from India to China and Formosa, south through the Philippines and East Indies to Australia.

Oxyurichthys Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 44, 1860; type, *Gobius belosso* Bleeker.

Gobiichthys Klunzinger, Synopsis Fische Rothen Meeres, Part 2, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 479, 1871; type *Gobiichthys petersi* Klunzinger.

Oxyurichthys Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 324, 1874; type, *Oxyurichthys belosso* Bleeker. Webber, Siboga-Exped., vol. 57, Fische, p. 475, 1913. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 247, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 103; no date.

Pselaphias Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 406, 1906; type, *Gobius ophthalmonemus* Bleeker.

1847. *Oxyurichthys argulus* Peters.

A doubtful species only recorded from the Philippines.

Gobius argulus Peters, Monatsber. Akad. Wiss. Berlin, p. 266, 1868; Paracale, Luzon, Philippines.

Oxyurichthys argulus Jordan and Richardson, Checklist Philippine Fishes, p. 50, 1910; Paracale. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 249, 1927; Paracale, Luzon; after Peters.

1848. *Oxyurichthys microlepis* (Bleeker).

East Indies, Philippines, Malay Peninsula, and China Sea.

Gobius microlepis Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden en Gobioiden, p. 35, 1849; Madura Straits. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 436, 1854; Java. Günther, Cat. Fishes, vol. 3, p. 49, 1861; Sea of Pinang.

Oxyurichthys microlepis Bleeker, Nat. Tijds. Ned.-Ind., vol. 16, p. 408, 1858-59. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 120, 1859. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 251, pl. 20, fig. 2, 1927; Agno River, Dagupan, Pangasinan Province; Obando, Bulacan Province; Malaban and Manila Bay at Pasay, Rizal Province, Luzon. Estancia, Dumangas, Molo, Iloilo, and Zarraga, Iloilo Province; Capiz and Pontevedra, Capiz Province, Panay. Navalas, Guimaras Island. Also Hong Kong. Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Currimaoc, Ilokos Norte Province; Bulacan, Bulacan Province; Manila; Pasay, Rizal Province, Luzon. Umali, Edible Fishes Manila, p. 184, 1936; Manila Bay and environs. Herre, 1948 Coll.; Manat River, Binmaley, Pangasinan Province, Luzon.

Oxyurichthys cristatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 44, 1907; Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 104, 1907; San Fabian, Pangasinan Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 278, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 285, 1910; "common in Borneo and the Philippines."

1849. *Oxyurichthys oculo-mirus* Herre.

A Philippine species.

Oxyurichthys oculo-mirus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 256, 1927; Cebu, Cebu; Davao, Davao Province, Mindanao. Manila Bay, Luzon, near San Nicolas Light-house; Calape, Bohol Island. Herre, Fishes, 1931 Philippine Exped.,

p. 91, 1934; Cebu, Cebu Province. Herre, Fishes 1930-31 Exped.; Murcielagos, Misamis Occidental Province, Mindanao.

1850. *Oxyurichthys ophthalmonema* (Bleeker).

In the sea and in brackish and fresh water. East Indies, Philippines, and on to the Fiji, Samoan, and Tonga Islands.

Gobius ophthalmonema Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 208, 1856-57; Ternate. Günther, Cat. Fishes British Mus., vol. 3, p. 48, 1861; Sea of Ternate; after Bleeker. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Cebu, Cebu.

Oxyurichthys ophthalmonema Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 120, 1859. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 257, pl. 20, fig. 3, 1927; Vigan, Ilokos Sur Province; Agno River at Dagupan, Pangasinan Province; Malabon, Rizal Province; Pasig River, Manila; Cavite, Cavite Province; Balayan Bay, Batangas Province, Luzon. San Jose, Antique Province, Pontevedra, Capiz Province, and Iloilo, Molo, Dumaguete, Villa, and Zarraga, Iloilo Province, Panay. Navalas, Guimaras Island; Cebu, Cebu; Davao, Davao Province, Mindanao. Also Hong Kong. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Bauang Sur, La Union Province, and Manila, Luzon; Culion; Antique Province, Panay; Cebu, Cebu; Dumaguete; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Malabon, Rizal Province; Calatagan and Nasugbu, Batangas Province, Luzon; Cagayan River near Cagayan, Misamis Oriental Province, Mindanao.

Euctenogobius ophthalmonema Günther, Fische der Südsee, vol. 2, p. 180, pl. 111, fig. B, 1876-1881; Tonga Islands; Akyab, Burma.

Pselaphias ophthalmonemus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 406, 1906; Vaisigano River at Apia, Samoa.

Oxyurichthys tentacularis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 45, 1907; Cavite, Cavite Province, Luzon.

Gobiichthys tentacularis Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 278, 1908; Aparri, Cagayan Province, Luzon; Iloilo, Iloilo Province, Panay.

Euctenogobius ophthalmonemus Fowler, Mem. Bishop Mus., vol. 10, p. 415, 1928; Apia, Samoa; after Günther.

1851. *Oxyurichthys papuensis* (Cuvier and Valenciennes).

East Indies, and the Philippines to Australia.

Gobius papuensis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 80, 1837; New Guinea. Günther, Cat. Fishes British Mus., vol. 3, p. 49, 1861; Seas of Australia, New Guinea, and Java.

Gobiichthys papuensis Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 796, 1905; Bais, Oriental Negros Province.

Oxyurichthys papuensis Jordan and Richardson, Check List Philippine Fishes, p. 50, 1910; Negros. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 253, 1927; southern coast of Negros; compiled.

Gobius (Oxyurichthys) papuensis Weber, Siboga-Exped., vol. 57, Fische, p. 476, 1913.

1852. *Oxyurichthys visayanus* Herre.

A Philippine species.

Oxyurichthys visayanus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 254, 1927; Cebu, Cebu Province.

1853. *Oxyurichthys viridis* Herre.

A Philippine species.

Oxyurichthys viridis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 260, 1927; Manila market, Manila, Luzon; Capiz, Capiz Province, Panay; Navalas, Guimaras Island.

Genus 587. PANDAKA Herre.

Minute salt- and brackish-water gobies, apparently confined to the Philippines.

Pandaka Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 196, 1927; type, *Pandaka pusilla* Herre. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 118; no date.

1854. *Pandaka pusilla* Herre.

A Philippine species.

Pandaka pusilla Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 197, pl. 15, figs. 1-2, 1927; Sitankai, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Sitankai, Sulu Province. Herre, Proc. Biol. Soc. Washington, vol. 57, p. 8, 1944; Coron, Busuanga; Capiz, Capiz Province, Panay; Sitankai, Sulu Province, Philippines.

1855. *Pandaka pygmaea* Herre.

This is the smallest fish known; a Philippine species.

Pandaka pygmaea Herre, Gobies Philippine Bureau Science Monograph 23, p. 198, pl. 15, fig. 3, 1927; Malabon, Rizal Province, Luzon.

Genus 588. **PARACHAETURICHTHYS** Bleeker.

Coasts of Japan, China, India, and the Philippines; only one species known.

Parachaeturichthys Bleeker, Arch. Neerl., Sci. Nat., vol. 9, p. 325, 1874; type, *Chaeturichthys polynema* Bleeker. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 103, 1901. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 270, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 107; no date.

1856. *Parachaeturichthys polynema* (Bleeker).

Chaeturichthys polynema Bleeker, Verh. Bat. Gen., vol. 25, p. 44, fig. 4, 1853; Nagasaki, Japan.

Gobius polynema Günther, Cat. Fishes British Mus., vol. 3, p. 46, 1861; China; Madras, India. Day, Fishes India, p. 286, pl. 61, fig. 8, 1878.

Parachaeturichthys polynemus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 103, 1901; Tsuruga, Kobe, Nagasaki, Wakanoura, Hiroshima, and Onomichi, Japan. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 29, p. 528, 1906; Hong Kong.

Parachaeturichthys polynema Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 270, pl. 21, fig. 4, 1927; Iloilo, Iloilo Province, Panay; Amoy, China. Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Magallanes, Sorsogon Province, Luzon.

Genus 589. **PARAGOBIODON** Bleeker.

Small gobies, some of strange appearance, found over most of the tropical Indo-Pacific from the Red Sea and Madagascar to the Philippines, China, Australia, Tahiti, and the Tuamotu Islands.

Ruppelia and *Ruppellia* by misprint, Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 281, 1839; type, *Gobius echinocephalus* Rüppell; preoccupied.

Paragobiodon Bleeker, Ned. Tijds. Dierk., vol. 4, p. 129, 1873; type, *Gobius echinocephalus* Rüppell. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 396, 1906. Herre, Philippine Gobies, Phil. Bur. Science Monograph 23, p. 172, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 20; no date.

Ruppellia Jordan and Richardson, Check List Philippine Fishes, p. 47, 1910; preoccupied.

1857. *Paragobiodon echinocephalus* (Rüppell).

From the Red Sea and Madagascar to the Philippines, China Sea, Samoa, and the Tuamotu Islands.

Gobius echinocephalus Rüppell, Atlas Reise Nödl. Afrika, Fische Rothen Meeres, p. 136, fig. 3, pl. 34, 1828; Massaua, Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 34, 1861; Red Sea; China Seas. Günther, Fische der Südsee, vol. 2, p. 175, pl. 108, fig. D, 1876-1881; Samoa; Tahiti; Tonga; Meduro; Port Bowen; China Sea; Red Sea. Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 53, 1880; Cebu, Philippines.

Paragobiodon echinocephalus Bleeker, Ned. Tijds. Dierk., vol. 4, p. 129, 1873; China. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 397, 1906; Apia and PagoPago, Samoa. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 172, pl. 13, fig. 2, 1927; Puerto Galera, Mindoro; Guindulman, Bohol; Zamboanga, and Samal Island in Davao Gulf, Mindanao; Sitankai, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 399, 1928; Shortland Island, Solomon Islands; Palmyra Island; Guam; Wake Island; Fiji; Apia, Samoa; Makemo, Tuamotu Islands; BoraBora, Society Islands; Ebon Island;

Tonga Islands; synonymy in part. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Unisan, Tayabas Province, Luzon; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 363, 1936; Takarao, Tuamotu Islands; Tahiti; Vila, Efate Island, Malo Island, and Wala Island, New Hebrides. Herre, 1936-37 Exped.; Mactan Island, Cebu Province; Sitankai, Sulu Province.

Paragobiodon melanosomus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 45, 1907; Manila, Luzon.

1858. *Paragobiodon melanosomus* (Bleeker).

The Philippines, East Indies, and Indo-Pacific from Madagascar to New Guinea.

Gobius melanosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 703, 1852; Ceram. Peters, Monatsber. Akad. Wiss. Berlin, p. 265, 1868; Mambulao, Camarines Norte Province, Luzon.

Paragobiodon melanosoma Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 309, 1874. Bleeker, Recherches faune Madagascar, Poissons, p. 78, 1875; Madagascar. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; New Guinea.

Paragobiodon melanosomus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 174, 1927; Puerto Galera, Mindoro; Zamboanga Province, Mindanao. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Sitankai, Sulu Province.

1859. *Paragobiodon xanthosomus* (Bleeker).

East Indies, Philippines, and southeast to Samoa.

Gobius xanthosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 703, 1852; Ceram. Günther, Cat. Fishes British Mus., vol. 3, p. 42, 1861; coasts of Celebes, Buru, Amboina, Ceram, and Goram; after Bleeker.

Paragobiodon xanthosoma Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; New Guinea.

Paragobiodon xanthosomus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 397, 1906; Apia, Samoa. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 175, 1927; Dumaguete, Negros Oriental Province; Samal Island, Davao Gulf, Davao Province, Mindanao, Sitankai, Sulu Province.

Genus 590. **PARAPOCRYPTES** Bleeker.

Estuaries and tidal reaches of rivers, in salt and brackish water.

Parapocryptes Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 327, 1874; type,

Apocryptes macrolepis Bleeker. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 261, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 130; no date.

1860. *Parapocryptes* (*Paeneapocryptes*) *mindanensis* Herre.

A Philippine species.

Parapocryptes (*Paeneapocryptes*) *mindanensis* Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 262, pl. 20, fig. 4, 1927; south coast of Cotabato Province, Mindanao.

1861. *Parapocryptes serperaster* (Richardson).

Southern coast to Bengal, India. Ilokano coast, Luzon, Philippines.

Parapocryptes serperaster Richardson, Ichth. China Japan, Report British Assoc. Advancement Science, vol. 15, p. 206, 1846; Macao, China. Günther, Cat. Fishes British Mus., vol. 3, p. 82, 1861; China; Bengal. Day, Fishes India, p. 300, pl. 6, fig. 2, 1878. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 262, 1927; Fu-chow, Fukien Province, China. Also a specimen from Ilokano coast of Luzon.

Genus 591. **PSEUDOGOBIOPSIS** Koumans.

East Indies and the Philippines.

Gobiopsis Koumans, Preliminary Revision Genera Gobioid Fishes, p. 66; no date; in part.

Pseudogobiopsis Koumans, Zoologische Mededeelingen, vol. 18, p. 131, 1935; type, *Gobiopsis oligactis* Bleeker.

1862. *Pseudogobiopsis romeri* (Weber).

East Indies and the Philippines.

Gobius romeri Weber, Abh. Senckenberg. Naturf. Gesell., vol. 34, p. 39, fig. 8, 1911. Weber, *Siboga*-Exped., vol. 57, Fische, 459, 1913.

Pseudogobiopsis römeri Koumans, Zoologische Mededeelingen, vol. 18, p. 132, 1935; Java; Celebes; Buton; Aru Islands; Obi Major; Merauke, New Guinea; not *Vainosa macrogathus* Herre in the synonymy, except a specimen from Bungau, Sulu Province.

Genus 592. RHINOGOBIUS Gill.

Small gobies of Japan, Korea, China, Formosa, and the Philippines.

This genus has been confused by authors with *Otenogobius*.

Rhinogobius Gill, Proc. Acad. Nat. Sci. Phila., p. 145, 1859; type, *Rhinogobius similis* Gill. Herre, Science, vol. 78, p. 265, 1933.

Otenogobius Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 54, 1901.

Tukugobius Herre, Gobies, Philippine Bureau Science Monograph 23, p. 119, 1927; type, *Tukugobius carpenteri* (Seale).

1863. *Rhinogobius bucculentus* (Herre).

A Philippine species.

Tukugobius bucculentus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 121, pl. 8, fig. 4, 1927; Santa Fe, and Dupax, Nueva Vizcaya Province; Barrio Diviguén, San Mariano, and Mount Moises, Isabel Province; Cagayan Valley, Luzon.

Rhinogobius bucculentus Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Magat River, Bayombong, Nueva Vizcaya Province, Luzon.

1864. *Rhinogobius carpenteri* Seale.

A Philippine species.

Rhinogobius carpenteri Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 535, 1909; Trinidad River, Baguio, Mountain Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 83, 1934; Trinidad Farm School, near Baguio, Mountain Province, Luzon.

Tukugobius carpenteri Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 122, pl. 29, fig. 2, 1927; Trinidad River, Baguio, and the Rio Chico, Bontoc, Mountain Province; Balet Pass, Nueva Vizcaya Province, Luzon.

1865. *Rhinogobius philippinus* (Herre). Lizard goby; Biang tuku.

A Philippine goby.

Tukugobius philippinus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 124, 1927; Irid River, Santa Ines, Rizal Province, and Banaban River, Angat, Bulacan Province, Luzon. Nalvo Luna, La Union Province; Kalumpang River, Norzagaray and Ibo Creek, near Angat River, Bulacan Province; Nanang River, Antipolo, Rizal Province; Hinagianan River, Camarines Sur Province, Luzon. Fabrica Negros Occidental Province; San Jose, Leyte.

Rhinogobius philippinus Herre, Philippine Exped. 1936-37; Loku River, Montalban, Rizal Province. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 154, fig. 18, 1938; lake above "Orneo"=Ormoc, Leyte. Herre, Philippine Collection, 1940; Oriwong Tollgate, Nueva Vizcaya Province, Luzon.

Genus 593. SCHISMATOGOBIUS de Beaufort.

East Indies and the Philippines; living in the sea and in fresh water streams.

Schismatogobius de Beaufort, Zool. Anzeiger, vol. 39, p. 1912; type, *Schismatogobius bruynisi* de Beaufort. De Beaufort, Bijdr. Ned. Dierk. Amsterdam, vol. 19, p. 142, 1913. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 54; no date.

1866. *Schismatogobius bruynisi* de Beaufort.

East Indies and the Philippines.

Schismatogobius bruynisi de Beaufort, Zool. Anzeiger, vol. 39, p. 139, 1912. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 141, figs. 10-11, 1938; stream on Camiguin Island, off coast of Misamis Oriental Province, Mindanao, Philippines.

1867. *Schismatogobius insignum* (Herre).

A Philippine species; may be identical with *S. marmoratus*.

Gobiosoma insignum Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 289, pl. 27, fig. 3, 1927; Dumaguete River, Negros Oriental Province; Bangar, La Union Province, Luzon; Antique Province, Panay.

1868. *Schismatogobius marmoratus* (Peters).
 A Philippine species imperfectly described and therefore of uncertain value.
Gobiosoma marmoratum Peters, Monatsber, Akad. Wiss. Berlin, p. 267, 1868; Loquilocun, Samar.
1869. *Schismatogobius pallida* Herre.
 A Philippine species.
Gobiosoma pallida Herre, Fishes 1931 Philippine Exped., p. 91, 1934; Sitankai, Sulu Province.
1870. *Schismatogobius roxasi* Herre.
 A Philippine species.
Schismatogobius roxasi Herre, Philippine Jour. Sci., vol. 69, p. 362, pl. 2, fig. 1, 1936; San Jose, Antique Province, Panay.

Genus 594. **SICYOPTERUS** Gill.

East Indies and Philippines, eastward to the Hawaiian, Samoan, and Society Islands, west in the Indian Ocean to Mauritius. Species cannot be determined with exactness unless the teeth are examined under a compound microscope. Koumans has referred some of the species listed here to *S. cynocephalus* (Cuvier and Valenciennes), *S. micrurus* Bleeker, and others. Until the teeth of the East Indian species are properly described and figured it is desirable to retain the Philippine species as given here.

Sicyopterus Gill, Proc. Acad. Nat. Sci. Phila., p. 101, 1860; type, *Sicyopterus stimpsoni* Gill. Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 313, 1874. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 300, 1927. Koumans, Preliminary Revision General Gobioid Fishes, p. 26; no date.

Sicydium Günther, Cat. Fishes British Mus., vol. 3, p. 91, 1861; in part. Ogilvie-Grant, Proc. Zool. Soc. London, p. 152, 1884; in part. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 489, 1905.

Sicydiops Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 314, 1874; type, *Sicydium xanthurus* Bleeker.

Microsicydium Bleeker, *ibid.*, p. 314; type, *Sicydium gymnanchen* Bleeker.

1871. *Sicyopterus crassus* Herre.
 A Philippine species.
Sicyopterus crassus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 307, text fig. 2, 1927; Crann River, south coast Cotabato Province, Mindanao. Herre, 1931 Philippine Exped., p. 92, 1934; creek near Zamboanga, Zamboanga Province, Mindanao. Herre 1940-41 Exped.; Daraitan River, Rizal Province, Luzon; Cagayan River, Misamis Oriental Province, Mindanao. Herre, 1948 Coll.; Bangan Labad River, Dibutunan River, and Mantugil River, Zambales Province, Luzon.
1872. *Sicyopterus cynocephalus* (Cuvier and Valenciennes).
 East Indies and Philippines.
Sicydium cynocephalus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 134, pl. 352, 1837; East Indies. Günther, Cat. Fishes British Mus., vol. 3, p. 94, 1861; rivers of the East Indian Archipelago. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 185, 1895; Palawan, Philippines.
Sicyopterus cynocephalus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 9, p. 275, 1876. Herre, Gobies, Philippine Bureau Science Monograph 23, p. 306, 1927; Palawan; after Boulenger.
1873. *Sicyopterus extraneus* Herre.
Sicyopterus taeniurus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 279, 1908; Mindoro; Sibuyan Island. Not of Günther.
Sicyopterus extraneus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 311, text fig. 4, 1927; Cabalian, Leyte; Cagayan River, Misamis Oriental Province, Mindanao. Herre, 1936-37 and 1940-41 Expeds.; Cagayan River, near Cagayan, Misamis Oriental Province, and creeks at San Ramon, Zamboanga Province, Mindanao.

1874. *Sicyopterus fuliag* Herre. Fuliag.
Sicyopterus fuliag Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 309, text fig. 3, 1927; Pinacanawan River, at Barrio Lamug and Barrio Karoan, east of Tuguegarao, Cagayan Province; Cagayan River Valley, Luzon. Herre, 1936-37 Exped.; Peñablanca, Cagayan Province, Luzon.
1875. *Sicyopterus lacrymosus* Herre. Paliling.
Sicyopterus lacrymosus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 303, text fig. 1, pl. 24, fig. 1, 1927; Abra River, Bangued, Abra Province; Laoag River and Vigan, Ilokos Norte Province; Bangar, and Bauang River, La Union Province, Luzon. Dumaguete River, and Zamboanguita, Oriental Negros Province; Titunod River, Kolambugan, Lanao Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 92, 1934; stream near Zamboanga, Zamboanga Province, Mindanao. Herre, 1936-37 Exped.; Sinigpit River, Vintar, Ilokos Norte Province; Vigan, Ilokos Sur Province; Paratong River at Bangar and Bauang Sur, La Union Province, Luzon.
1876. *Sicyopterus panayensis* Herre.
Sicyopterus panayensis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 313, fig. 5, 1927; San Jose, Antique Province, Panay. Herre, Fishes 1931 Philippine Exped., p. 92, 1934; Tanjay River, near Dumaguete, Negros Oriental Province. Herre 1940-41 Exped.; Titunod River, near Kolambugan, Lanao Province; Cagayan River, Misamis Oriental Province; creek at San Ramon, Zamboanga Province; Mindanao.
- Genus 595. **SICYOPUS** Gill.
 East Indies and Philippines.
Sicyopus Gill, Proc. Acad. Nat. Sci. Phila., p. 262, 1863; type, *Sicydium zosterophorum* Bleeker. Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 311, 1874. De Beaufort, Bijdr. Ned. Dierk., Amsterdam, vol. 19, p. 144, 1913. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 33; no date.
1877. *Sicyopus zosterophorum* (Bleeker).
 East Indies and the Philippines.
Sicydium zosterophorum Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 296, 1856-57; Bali. Günther, Cat. Fishes British Mus., vol. 3, p. 95, 1861; rivers of Boeling, North Bali; after Bleeker.
Sicyopus zosterophorum Gill, Proc. Acad. Nat. Sci. Phila., p. 262, 1863. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 9, p. 287, 1876; Bali. De Beaufort, Bijdr. Ned. Dierk. Amsterdam, vol. 19, p. 145, pl. 2, fig. 5, 1913; Eme River, Ceram. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 139, fig. 8, 1938; Camiguin Island, off Misamis Oriental Province, Mindanao. Herre, Proc. Biol. Soc. Washington, vol. 57, p. 8, 1944; San Ramon Penal Colony, and Pasonanca River, Zamboanga Province, Mindanao; Bali, Ceram.
- Genus 596. **STIGMATOGBIUS** (Bleeker).
 East Indian and Philippine fishes, westward to India.
 Apparently this genus was not strictly defined and limited by Bleeker. According to the discussion by Koumans it contains diverse elements. *Stigmatogobius* Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 323, 1874; type *Gobius pleurostigma* Bleeker. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 101; no date.
Pseudogobius Bleeker, Museum name, not published. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 158, 1938.
1878. *Stigmatogobius javanicus* (Bleeker).
 East Indies and Philippines.
Gobius javanicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 88, 1856; Java. Günther, Cat. Fishes British Mus., vol. 3, p. 33; 1861; rivers of southern Java; coast of Buru; after Bleeker.
Vaimosa microstoma Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 538, 1909; Malabon, Rizal Province, Luzon. Herre, Gobies of Philippines, Bureau Science Monograph 23, p. 146, 1927; Malabon, Rizal Province, Luzon. Determination by Koumans.

Stigmatogobius javanicus Koumans, Preliminary Revision Genera Gobioid Fishes, p. 102; no date. Herre, 1948 Coll.; Layia, Batangas Province, Luzon.

Pseudogobius-javanicus Aurich. Internat. Revue Hydrobiol. and Hydrogr., vol. 38, p. 160, 1938; Peta, Great Sangi, Sangir Islands, Dutch East Indies.

1879. *Stigmatogobius tambujon* (Bleeker).

East Indies and the Philippines.

Gobius tambujon Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 319, 1854; Bantam, Java. Bleeker, *ibid.*, vol. 17, p. 147, 1858-59; Bali. Günther, Cat. Fishes British Mus., vol. 3, p. 32, 1861; Panimbang and Tjiliwong Rivers, Java; rivers of Bali; after Bleeker.

Stigmatogobius tambujon Herre, Philippine Jour. Sci., vol. 72, p. 368, 1940; Dumaguete, Negros Oriental Province; determined by Koumans.

Genus 597. *STIPHODON* Weber.

East Indies and Philippines to the Marquesas Islands.

Stiphodon Weber, in Semon's Zool. Forschungsreisen Australia, vol. 5, p. 269, 1895; type, *Stiphodon semoni* Weber=*Sicydium elegans* Steindachner. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 30; no date.

Microsicydium Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 295, 1927; not of Bleeker.

1880. *Stiphodon elegans* (Steindachner).

From the Philippines and East Indies to the Marquesas; in rocky or gravelly streams; strongly dimorphic.

Sicydium elegans Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 78, p. 152, 1859; Society Islands. Ogilvie-Grant, Proc. Zool. Soc. London, p. 162, 1884.

Stiphodon semoni Weber, in Semon's Zool. Forschungsreisen, Australia, vol. 5, p. 270, 1895; New Guinea. Weber, Nova Guinea, vol. 5, p. 264, 1908; Klipong River and Manapiri, North New Guinea.

Microsicydium elegans Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 411, 1905; Tonga.

Stiphodon elegans de Beaufort, Bijdr. Ned. Dierk. Amsterdam, vol. 19, p. 143, pl. 2, figs. 4-5, 1913; streams of Batjan and Ceram, East Indies. Weber and de Beaufort, Nova Caledonia, Zool., vol. 2, p. 39, 1915; Tao River, New Caledonia. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 387, fig. 34, 1936; Hiva Oa Island and Nuka Hiva Island, Marquesas; Moorea Island, Society Islands; river flowing into Suva Harbor, Viti Levu Island, Fiji. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 138, fig. 7, 1938; Camiguin Island, off Oriental Misamis Province, Mindanao. Herre, 1940-41 Exped.; Wayan Creek and San Nicolas Creek, Busuanga; streams near Old Ayukitan, Negros Oriental Province; Kolambungan, Lanao Province, hill streams at San Ramon, and river 6 miles northeast of Zamboanga, Zamboanga Province, Mindanao. Herre, 1948 Coll.; Okoi River, near Dumaguete, Negros Oriental Province.

Microsicydium atro-purpureum Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 296, 1927; Irid River, Santa Inez, Rizal Province; Bangar, La Union Province, Luzon; males of *Stiphodon elegans*.

Microsicydium pulchellum Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 229, pl. 23, fig. 4, 1927; Dumaguete River, Oriental Negros Province; females of *Stiphodon elegans*.

Stiphodon pulchellum Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete; females of *S. elegans*. Herre, Fishes 1931 Philippine Exped.; creeks near Dumaguete, and Tanjay River, Oriental Negros Province.

Stiphodon atro-purpureum Herre, Fishes 1931 Philippine Exped., p. 92, 1934; Santa Fe, Nueva Vizcaya Province, Luzon; males of *S. elegans*.

1881. *Stiphodon formosum* (Herre).

A Philippine species.

Microsicydium formosum Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 297, pl. 23, fig. 3, 1927; Titunod River, near Kolambungan, Lanao Province, Mindanao.

Stiphodon formosum Herre, 1931 Philippine Exped.; Karig Malan Creek, Cullion.

Genus 598. TAMANKA Herre.

Small gobies of the Philippines and China Coast, with 6 or 8 species known, living in lakes, brackish, and salt water.

Tamanka Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 220, 1927; orthotype, *Tamanka siitensis* Herre; Lake Siit, Jolo Island, Sulu Province, Philippines. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 117, 1931. Herre, Proc. Biol. Soc. Washington, vol. 58, p. 73, 1945.

Mugilogobius, Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 307, 1940.

1882. *Tamanka arguellesi* Roxas and Ablan.

Tamanka arguellesi Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 308, pl. 7, 1940; Dagupan, Pangasinan Province, and the market in San Fernando, La Union Province, Luzon.

1883. *Tamanka cagayanensis* (Aurich).

Known only from the Island of Cagayan Sulu, Sulu Sea.

Vaimosa cagayanensis Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 169, fig. 22, 1938; Lake Singuan, Cagayan Sulu, Sulu Province, Philippines.

1884. *Tamanka maculata* Aurich.

Known only from a crater lake on Jolo Island.

Tamanka maculata Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 154, 1938; Timpuk Lake, Jolo Island, Sulu Province, Philippines.

1885. *Tamanka mindora* Herre.

Tamanka mindora Herre, Proc. Biol. Soc. Washington, vol. 58, p. 75, 1945; from a brackish-water mangrove swamp, Hacienda Waterous, Mangarin, Mindoro.

1886. *Tamanka philippina* Herre.

Tamanka philippina Herre, Proc. Biol. Soc. Washington, vol. 58, p. 75, 1945; from brackish water, Hacienda Waterous, Mangarin, Mindoro.

1887. *Tamanka siitensis* Herre.

Crater lakes, Jolo, and coastal streams in Lanao Province, Mindanao.

Tamanka siitensis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 220, pl. 17, fig. 3, 1927; Siit Lake, Jolo Island, Sulu Province; Titunod River, Kolambugan, Lanao Province, Mindanao. Herre, Fishes 1929 Exped.; Lake Timpak, Jolo Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 87, 193; Lake Siit, Jolo, Sulu Province. Herre, 1936-37 Exped.; Lake Panamao, Jolo, Sulu Province. Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, pp. 152-154, 1938; Lake Panamao, Jolo Island, Sulu Province, Philippines. Herre, 1940-41 Exped.; Crater Lake.

1888. *Tamanka tagala* Herre.

Tamanka tagala Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 222, 1927; Malabon, Rizal Province, Luzon; Sitankai, Sulu Province. Herre, Fishes 1936-37 Exped.; Malabon, Rizal Province, Luzon. Herre, Fishes 1940-41 Exped.; Mangrove swamp near Capiz, Capiz Province, Panay.

1889. *Tamanka talavera* Herre.

Tamanka talavera Herre, Copeia, No. 1, p. 4, 1945; nipa swamp, near Capiz, Capiz Province, Panay.

1890. *Tamanka umbra* Herre.

Tamanka umbra Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 223, 1927; Palawan.

Genus 599. TRIAENOPOGON Bleeker.

A genus consisting of one species, definitely occurring on the coasts of China, Japan, and probably found in the Philippines and on the coast of Celebes.

Triaenopogon Bleeker, Arch. Neerl. Sci. Nat., vol. 9, 312, 1874; type, *Triaenophorichthys barbatus* Günther. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 280, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 23; no date.

1891. *Triaenopogon barbatus* (Günther).

China and Japan; said to occur in the Philippines or Celebes.

Trienophorichthys barbatus Günther, Cat. Fishes British Mus., vol. 3, p. 90, 1861; probably from China.

Tridentiger barbatus Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 80, p. 151, 1879; "Celebes or the Philippines." Rutter, Proc. Acad. Nat. Sci. Phila., p. 85, 1897; Swatow, China.

Trienopogon barbatus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 111, fig. 23, 1901; Bay of Tokyo, Japan. Rendahl, Arkiv Zoologi, vol. 16, p. 25, 1924; Kuan Hsien, and Pei Tai Ho, Chihli. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 281, pl. 22, fig. 4, 1927; Amoy, China; Tokyo Bay, Japan; "Celebes or the Philippines."

Trienopogon japonicus Rendahl, Arkiv Zoologi, vol. 16, p. 27, 1924; Tokyo; on Jordan and Snyder. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 309, 1925; Fukuoka, Japan.

Genus 600. **VAIMOSA** Jordan and Seale.

Small fishes of swift hill streams and mountain lakes, more rarely of brackish water and the sea; occurring from Samoa to the Philippines, East Indies, Malaya, Siam, and Ceylon.

Vaimosa Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 395, 1906; type, *Vaimosa fontinalis* Jordan and Seale. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 141, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, pp. 86-7; no date.

Redigobius Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 98, 1927; type, *Gobius sternbergi* Smith = *Redigobius dispar* (Peters). Koumans, Preliminary Revision Genera Gobioid Fishes, p. 120; no date.

1892. **Vaimosa balteata** Herre.

Waigiu and the Philippines.

Vaimosa balteata Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 18, p. 419, 1935; freshwater creek flowing into Majalibit Inlet, Waigiu Island. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, fig. 21, p. 359, 1936; same specimens. Herre, Proc. Biol. Soc. Washington, vol. 57, p. 8, 1944; Fisheries Station, Zamboanga, Zamboanga Province, Mindanao.

1893. **Vaimosa bikolana** Herre.

Vaimosa bikolana Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 151, pl. 11, fig. 2, 1927; Creek at Barrio Puru, Legaspi, Albany Province, Luzon. Herre, Philippine Jour. Sci., vol. 72, p. 368, 1940; Comon River and Haya River, Bilar, Bohol. Also a brook at Tawau, and the Kabil River, British North Borneo. Herre, 1940-41 Oriental Exped.; Coron, Busuanga; Old Ayukitan, near Dumaguete, Negros Oriental Province; Lake Mainit, Surigao Province, Mindanao.

Pseudogobius bikolanus Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 161, 1938; Lake Bombon (Taal), Pansipit River, and Yambo Lake, Luzon; Naujan Lake, Mindoro; Mainit Lake, Surigao Province, Mindanao, Philippines. Also brooks in Talaud Islands and North Celebes, Dutch East Indies.

1894. **Vaimosa cardonensis** Herre.

Vaimosa cardonensis Herre, Philippine Jour. Sci., vol. 72, p. 358, pl. 2, 1940; Cardona, Rizal Province, Luzon.

1895. **Vaimosa dispar** (Peters). Irin-irin.

Confined to Camarines Sur and Albay Provinces, southeastern Luzon.

Gobius dispar Peters, Monatsber. Akad. Wiss. Berlin, p. 263, 1868; Lake Buhi and Lake Bato, Camarines Sur Province; Kolabos and Lebmanan brooks, Albay Province or Camarines Sur Province, Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 142, 1927; Lake Buhi, Buhi River, and Lake Bato, Camarines Sur Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Lake Buhi, Camarines Sur Province, Luzon.

Gobius sternbergi Smith, Bull. U. S. Fish Comm., vol. 21, p. 169, with text figure, 1901; Lake Buhi, Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 98, 1927; after Smith.

Gnatholepis sternbergi Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga; does not belong here.

Gnatholepis (?) *sternbergi* Jordan and Richardson, Check List Philippine Fishes, p. 47, 1910; Lake Buhi, Philippines.

- Pseudogobius dispar* Aurich, Internat. Revue Hydrobiol. und Hydrogr., vol. 38, p. 164, 1938; Lake Bato, Camarines Sur Province, Luzon, Philippines.
- 1896. *Vaimosa fusca* Herre.**
Singapore and the Philippines.
Vaimosa fusca Herre, Philippine Jour. Sci., vol. 72, p. 359, pl. 3, 1940; Dumaguete, Negros Oriental Province; Singapore Island. Herre, Fishes 1936-37 Exped.; Malampaya Sound, Palawan, Philippines; Serangoon, Singapore. Herre, 1940-41 Exped.; Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay; Dumaguete and Old Ayukitan, Negros Oriental Province; Zamboanga, Zamboanga Province, Mindanao.
- 1897. *Vaimosa luzonensis* (Roxas and Ablan).**
A Philippine goby of uncertain generic status.
Mugilgobius luzonensis Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 307, pl. 6, 1940; Luzon, Philippines.
- 1898. *Vaimosa macrognathos* Herre.**
A strongly marked Philippine species. Koumans considers it a synonym of *Pseudogobioptis römeri* (Weber). The author cannot agree with this.
Vaimosa macrognathus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, pl. 10, fig. 2, 1927; Lake Bombon, Batangas Province, Luzon; Momboc river, at Lake Naujan, Mindoro; Bongao, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Lake Bombon, Batangas Province, Luzon; Concepcion, Busuanga; Karig Malan Creek, Cullion.
- 1899. *Vaimosa montalbani* Herre.**
A Philippine species.
Vaimosa montalbani Herre, Philippine Jour. Sci., vol. 59, p. 359, pl. 1, fig. 3, 1936; Lake Naujan, Mindoro.
- 1900. *Vaimosa piapensis* Herre.**
The commonest and most widely distributed species of the genus. Koumans considers this species identical with *Stigmatogobius javanicus*, but the author finds differences to keep them separate.
Vaimosa piapensis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 147, pl. 10, fig. 3, 1927; Malabon, Rizal Province, Luzon; Capiz, Capiz Province, Iloilo, and Molo, Iloilo Province, and Mariri River, San Jose de Buenavista, Antique Province, Panay; Piapi Creek, Dumaguete, Negros Oriental Province; Lake Bombon, Batangas Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 82, 1934; Malabon, Rizal Province, and Lake Bombon, Batangas Province, Luzon; Cullion; Tanjay River, near Dumaguete, Negros Oriental Province. Herre, 1936-37 Exped.; Luna, La Union Province; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province; Singapore Island. Herre, 1940-41 Exped.; Dagat-Dagatan Experiment Station, and Malabon, Rizal Province, Luzon; Hacienda Waterous, Mangarin, Mindoro; Coron, Busuanga; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay; Cayagan River, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao; Bungau, Sulu Province.
- 1901. *Vaimosa rivalis* Herre.**
Vaimosa rivalis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 149, pl. 11, fig. 1, 1927; Talakop Creek, foot of Mt. Isarog, Calabanga, and the Hinagianan River, Camarines Sur Province.
- 1902. *Vaimosa sapanga* Herre.**
Vaimosa sapanga Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 152, pl. 11, fig. 3, 1927; Sapanga Creek, Angat, Bulacan Province; Gumay River, Pampanga Province; gravelly brooks north of Manila Bay, Luzon; Tagmatay Brook, near Cagayan, Misamis Oriental Province, Mindanao.
- 1903. *Vaimosa tessellata* Herre.**
Vaimosa tessellata Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 153, pl. 12, fig. 1, 1927; Titunod River, near

Kolambungan, Lanao Province, Mindanao. Herre, 1940-41 Exped.; Old Ayukitan, near Dumaguete, Oriental Negros Province; San Ramon, Zamboanga Province, Mindanao.

1904. *Vaimosa villa* Herre.

Vaimosa villa Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 154, pl. 12, fig. 2, 1927; Villa and Molo, Iloilo Province, Panay. Herre, 1940-41 Exped.; Coron, Busuanga; Capiz, Capiz Province, Panay.

1905. *Vaimosa layia* Herre.

A Philippine goby.

Vaimosa layia Herre, 1948 Collection; the male type and 3 female paratypes from Layia, Batangas Province, Luzon.

1906. *Vaimosa zebrina* Herre.

A Philippine goby.

Vaimosa zebrinus Herre, Proceedings Biological Society Washington, vol. 63, p. 74, 1950; typographical error. The type and 3 paratypes were collected at Layia, Batangas Province, Luzon.

Genus 601. *Waitea* Jordan and Seale.

One species, found in the East Indies, Philippines, eastward to Samoa (?), west to Siam and the east coast of Africa.

Waitea Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 407, 1906; type, *Gobius mystacina* Cuvier and Valenciennes. Herre, Gobies Philippine Bureau Science Monograph 23, p. 208, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 67; no date.

1907. *Waitea mystacina* (Cuvier and Valenciennes).

Distribution as for the genus.

Gobius mystacina Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 94, 1837; Java. Günther, Cat. Fishes British Mus., vol. 3, p. 48, 1861; Java; after Cuvier and Valenciennes.

Gobius pulverulentus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 125, 1837.

Waitea mystacina Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 407, fig. 94, 1906; Samoa; Java. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 279, 1908; Aparri, Cagayan Province, Luzon. Herre, Gobies, Philippine Bureau Science Monograph 23, p. 208, 1927; Iloilo, Iloilo Province, Panay. Koumans, Zoologische Mededeelingen, vol. 18, p. 133, fig. 2, 1935; Java and Amboina, Dutch East Indies; Chantabun estuary, Siam; Dar-es-Salaam, east coast of Africa; Iloilo, Panay and Aparri, Luzon, Philippines; Samoa (?).

Mahidolia normani Smith and Koumans, Jour. Siam Soc. Nat. Hist., Supplement, vol. 8, p. 256, pl. 23, 1932; estuary of the Chantabun River, Siam; Dar-es-Salaam, east coast of Africa.

Genus 602. *Yabotichthys* Herre.

A Philippine genus with one species known.

Yabotichthys Herre, Copeia, No. 1, p. 3, 1945; orthotype, *Yabotichthys nocturnus* Herre.

1908. *Yabotichthys nocturnus* Herre.

A marine species.

Yabotichthys nocturnus Herre, Copeia, No. 1, p. 3, 1945; offshore from Yabot's Camp, near San Jose, Busuanga Island.

Genus 603. *Zonogobius* Bleeker.

Species very few, dwarf, widespread in the tropical Indo-Pacific.

Zonogobius Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 323, 1874; orthotype, *Gobius semifasciatus* Kner. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 199, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 100; no date.

1909. *Zonogobius semidoliatus* (Cuvier and Valenciennes). Tatok-layam.

From the Andamans to Tahiti.

Gobius semidoliatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 51, 1837; Vanicolo. Günther, Cat. Fishes British Mus., vol. 3, p. 31, 1861; Sea of Vanicolo; after Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 2, p. 174, pl. 109, fig. H, 1876-1881; Huahine; Society Islands; Samoa. Day, Fishes India, p. 295, pl. 59, fig. 6, 1878;

Andaman Islands. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 462, 1913; Sanguisiapo Island, near TawiTawi Sulu Province, Philippines.
Gobius semifasciatus Kner, Sitzungsber. Akad. Wiss. Wien, vol. 58, p. 326, pl. 5, fig. 15, 1868; Samoan Islands.
Zonogobius semidoliatus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 796, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Seale, Fishes Samoa, Bull. U. S. Bur. Fisheries, vol. 25, p. 397, fig. 86, 1906; Apia and PagoPago, Samoa. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 200, pl. 30, fig. 2, 1927; southern Negros; Samal Island, Davao, Puerto Princesa, Palawan; Sanguisiapo and Sitankai, Sulu Province. Fowler, Fishes Oceania, Mem. Bishop Mus., vol. 10, p. 414, 1928; Society Islands; Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 87, 1934; Dumaguete tide pools, Negros Oriental Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga Island; Dumaguete and Old Ayukitan, Negros Oriental Province; Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 370, 1936; Tahiti; Nukulau Island and Ovalau Island, Fiji; Malo Island, New Hebrides. Herre, Mem. Indian Mus., vol. 13, p. 388, 1941; Red Sea to the Philippines, Pelews and Tahiti.

Family 169. PERIOPHTHALMIDÆ

Shore fishes of wide distribution in the tropical Indo-Pacific and west coast of tropical Africa.

Genus 604. PERIOPHTHALMUS Bloch and Schneider. Mud skipper; Talimosak; Banasak.

Tropical Indo-Pacific from Africa to Samoa, north to China and Japan, south to Australia, and also on the tropical west coast of Africa.

Periophthalmus Bloch and Schneider, Syst. Ichth., p. 63, 1801; type, *Periophthalmus papilio* Bloch and Schneider. Günther, Cat. Fishes British Mus., vol. 3, p. 96, 1861. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 49, 1901. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 316, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 125; no date.

Euchoristopus Gill, Proc. Acad. Nat. Sci. Phila., vol. 15, p. 271, 1863; type, *Periophthalmus koelreuteri* Bloch and Schneider; orthotype, *Gobius koelreuteri* Pallas, in Jordan, Genera Fishes, Part 3, p. 326, 1919.

1910. *Periophthalmus barbarus* (Linnaeus).

Local names and distribution given under genus. Many species have been created, but most of them are variants of a single polymorphic species. Specimens from West Africa no doubt belong to a different species.

Gobius barbarus Linnaeus, Syst. Nat., ed. 12, p. 450, 1766. Bonnaterre, Tableau Encyclop. Ichth., p. 63, pl. 35, fig. 137, 1788; China.

Gobius koelreuteri Pallas, Spicilegia Zoologica, fasc. 8, p. 8, pl. 2, figs. 1-3, 1770.

Periophthalmus papilio Bloch and Schneider, Syst. Ichth., p. 64, pl. 14, 1801. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 143, pl. 353, 1837.

Periophthalmus koelreuteri Bloch and Schneider, Syst. Ichth., p. 65, 1801. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 136, 1837; Port Praslin, New Ireland; Waigi; Kusaie Island (Oualan), Caroline Islands; New Guinea; Vanicolo. Günther, Cat. Fishes Brit. Mus., vol. 3, p. 97, 1861; Philippines: Ceylon; India; Port Essington, Australia; Java; West Sumatra; Flores; Borneo; Fiji Islands; Hong Kong, Ning-Po and Chusan, China. Day, Fishes India, p. 303, pl. 64, fig. 8, 1878. Günther, Fische der Südsee, vol. 2, p. 185, 1876-1881; Pelew Islands; Samoa; Fiji. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 29, 1885; Cebu, Cebu, Philippines. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 147, 1913; Saonek, Waigi; Sorong, New Guinea. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 194, pl. 31, fig. 1, 1919; Northwestern Australia; Queensland, Australia; Epi, New Hebrides; India; Samoa; Bougainville Island,

Solomon Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 416, fig. 63, 1928; Apia, Samoa; Faté, New Hebrides; Guam; Suva, Fiji; Kusale Island and Truk, Caroline Islands; New Guinea.

Periophthalmus barbarus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 393, fig. 1, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 276, 1908; Aparri, Cagayan Province, Luzon; Ticao Island, Philippines; Tokyo, Japan; Samoa. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 317, 1911; Moen, Truk Group, Caroline Islands, and Suva, Fiji Islands. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 316, pl. 24, fig. 3, 1927; Malabon, Rizal Province; Olongapo, Zambales Province; Limbones Cove, Cavite Province; Port Sula, Cagraray Island, Albay Province, Luzon. Ambil Island, northwest of Mindoro; Puerto Galera, Mindoro; Romblon, Romblon Island; Tablas Island; Aroroy and Guinobatan, Masbate Island; Dumaguete, Negros Oriental Province; San Jose, Antique Province, Panay; Busuanga Island; Balabac Island; Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Siasi, Bungau, and Sitangkal, Sulu Province, Philippines. Also Amoy, China, and Japan. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 92, 1934; Manila Bay; Tobacco, Albay Province, Luzon; Busuanga Island; Culion; Dumaguete; Punta Flecha, Zamboanga Province, Mindanao; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Laoag River, Ilokos Norte Province; Nasugbu, Batangas Province, Luzon; Coron, Busuanga Island; Capiz, Capiz Province, and Estancia, Iloilo Province, Panay; Zamboanga, Zamboanga Province, Mindanao.

Periophthalmus chrysopilus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 41, 1907; Panay Island.

Genus 605. PERIOPHTHALMODON Bleeker.

East Indies and Philippines to Siam and India, Australia and Fiji.

Periophthalmodon Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 326, 1874; type, *Gobius schlosseri* Pallas. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 320, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 127; no date.

1911. Periophthalmodon schlosseri (Pallas).

India, Philippines, East Indies, and south to Australia and Fiji.

Gobius schlosseri Pallas, Spicilegium Zoologica, vol. 8, p. 3, pl. 1, figs. 1 to 4, 1769; Amboina.

Periophthalmus schlosseri Bloch and Schneider, Syst. Ichth., p. 64, 1801. Günther, Cat. Fishes British Mus., vol. 3, p. 100, 1861; Philippines; Siam; Singapore; Pinang; Batavia, Java; India. Day, Fishes India, p. 304, pl. 66, fig. 4, 1878; India; Andaman Islands.

Periophthalmodon schlosseri Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 40, 1907; Cavite, Cavite Province, Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 320, 1927; Perez, Bondoc Peninsula, Tayabas Province; Cavite, Cavite Province, Luzon; Odiongan, Tablas; Iloilo, Iloilo Province, Panay; Polo Plantation, Tanjay, Negros Oriental Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 93, 1934; Dumaguete. Herre, 1936-37 and 1940-41 Expeds.; Hacienda Waterous, Mangarin, Mindoro; Dumaguete; mouth of Kuching River, Sarawak, Borneo; Singapore. Herre, Mem. Indian Mus., vol. 13, p. 388, 1941; Andaman Islands; India; Philippines; Fiji; Sumatra; Siam.

Periophthalmodon barbarus McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 197, pl. 31, fig. 2, 1919; several places in Queensland and northern Australia.

Periophthalmus barbarus Fowler, Mem. Bishop Mus., vol. 10, p. 417, 1928; Suva, Fiji.

Genus 606. SCARTELAOS Swainson.

India to the East Indies, Philippines, and China.

Scartelaos Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 279, 1839; *Scartelaos viridis* Hamilton [né Buchanan]. Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 328, 1874. McCulloch and Ogilby, Records

Australian Mus., vol. 12, p. 199, 1919. Herre, Gobies Philippine Bureau Science Monograph 23, p. 324, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 133; 1931.

1912. Scartelaos viridis (Hamilton [né Buchanan]).

India, the East Indies, Philippines, China, and Australia.

Gobius viridis Hamilton-[né Buchanan], Fishes Ganges, pp. 42 and 366, pl. 32, fig. 12, 1822; Ganges River.

Boleophthalmus viridis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 160, 1837. Bleeker, Verh. Bat. Gen., vol. 25, Nalez. Ichth. fauna Bengalen en Hindostan, p. 50, 1853; Ganges River. Günther, Cat. Fishes British Mus., vol. 3, p. 104, 1861; Sea of Pinang; China. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 77, 1861; Pinang. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 129, 1873; Macao, Canton, Shanghai, and Woosung, China. Day, Fishes India, p. 307, pl. 66, fig. 5, 1878.

Scartelaos viridis Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 328, 1874. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 794, fig. 12, 1905; Bais, Negros Oriental Province. McCulloch and Ogilby, Records Australian Mus., vol. 12, p. 200, pl. 32, fig. 1, 1919; several places in Queensland, north, and northwestern Australia. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 325, pl. 25, fig. 2, 1927; Zarraga, Iloilo Province, Panay; Navalas, Guimaras Island; Amoy, China. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; vicinity of Dumaguete, Negros Oriental Province. Herre, 1940-41 Exped.; Malabon, Rizal Province, Luzon.

Family 170. GOBIOIDIDÆ

Elongate and more or less eel-shaped or ribbon-shaped gobies of the tropical and warm temperate Indo-Pacific.

Genus 607. BRACHYAMBLYOPUS Bleeker.

An East Indian group; species few.

Brachyamblyopus Bleeker, Arch. Neerl. Sci. Nat., vol. 9, p. 329, 1874; type, *Amblyopus brachysoma* Bleeker. Hora, Records Indian Mus., vol. 27, p. 454, 1925. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 328, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 137; not date.

1913. Brachyamblyopus olivaceus Herre.

Brachyamblyopus olivaceus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 329, pl. 25, fig. 3, 1927; La Libertad, Oriental Negros Province; Strait between Occidental Negros Province and Iloilo Province, Panay. Herre, Fishes 1931 Philippine Exped., p. 93, 1934; Manila Bay, Luzon. Herre, 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Province, and Manila Bay, Luzon; Hacienda Wateros, Mangarin, Mindoro; Capiz, Capiz Province, Panay; Old Ayukitan, Oriental Negros Province. Koumans, Zoologische Mededeelingen, vol. 22, 1940; considers *Brachyamblyopus olivaceus* to be a synonym of *B. urolepis* (Bleeker). Bleeker's description gives marked differences in the dentition and scalation of *B. urolepis* from that of *B. olivaceus*. Until further material is available it is best to keep them separate.

Genus 608. CARAGOBIOUS Smith and Seale.

A Philippine genus with one species.

Caragobius Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 81, 1906; type, *Caragobius typhlops* Smith and Seale. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 286, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 145; no date.

1914. Caragobius typhlops Smith and Seale.

A mud dweller, in fresh and brackish water.

Caragobius typhlops Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 81, text figure, 1906; Rio Grande, at Cotabato, Cotabato Province, Mindanao. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 287, pl. 23, fig. 1, 1927; Rio Grande de Mindanao at Cotabato, Cotabato Province, Mindanao.

Genus 609. NUDAGOBIOIDES Shaw.

Fishes of the China and Luzon coasts.

Nudagobioides Shaw, Bull. Fan Memorial Inst. Biol., vol. 1, p. 1, 1929.

Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 309, 1940.

1915. Nudagobioides monseratti Roxas and Ablan.

A Philippine species.

Nudagobioides monseratti Roxas and Ablan, Philippine Jour. Sci., vol. 73, p. 309, pl. 8, 1940; Lingayen Gulf, Pangasinan Province, Luzon.

Genus 610. TAENIOIDES Lacépède.

East Indies, Philippines, north to China and Japan, west to India.

Taenioides Lacépède, Hist. Nat. Poissons, vol. 2, p. 580, 1798; type,

Taenioides Hermannianus Lacépède. Jordan and Snyder, Proc. U. S.

Nat. Mus., vol. 24, p. 128, 1901. Herre, Gobies of Philippines, Philip-

pine Bureau Science Monograph 23, p. 330, 1927. Koumans, Pre-

liminary Revision Genera Gobioid Fishes, p. 140; no date.

Amblyopus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 157,

1837; type, *Taenioides hermannianus* Lacépède.

Leme de Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 286, 1883;

type, *Leme mordax* de Vis. McCulloch and Ogilby, Records Australian

Mus., vol. 12, p. 205, 1919.

1916. Taenioides caeculus (Bloch and Schneider). Baliga.

India, East Indies, Philippines, and China, living in salt and fresh water.

Caepola caecula Bloch and Schneider, Syst. Ichth., p. 241, pl. 54, 1801.

Amblyopus caeculus Cuvier and Valenciennes, Hist. Nat. Poissons, vol.

12, p. 165, 1837; Pondicherry, India. Günther, Cat. Fishes British

Mus., vol. 3, p. 133, 1861; Madras, India; Sea of Pinang; Canton,

China.

Gobioides caeculus Day, Fishes India, p. 318, pl. 68, fig. 1, 1878.

Taenioides caeculus Weber, Siboga-Exped., vol. 57, Fische, p. 486, 1913.

Rendahl, Arkiv Zoologi, vol. 16, p. 31, 1924; China. Herre, Gobies of

Philippines, Philippine Bureau Science Monograph 23, p. 331, 1927;

Pampanga River, Bulacan Province; Pansipit River, just below Lake

Bombon, and Ambulong, Lake Bombon, Batangas Province, Luzon.

Dumaguete, Negros Oriental Province; Villa, Iloilo Province, Panay;

Hoihow, Hainan Island, and Amoy, Fukien Province, China. Herre,

1931 Philippine Exped., p. 93, 1934; Manila market and Laguna de

Bay near Mayondon, Laguna Province; outlet of Lake Bombon, in

Pansipit River, Batangas Province, Luzon. Herre, 1948 Coll.; Manat

River, Binmaley, Pangasinan Province, Luzon.

1917. Taenioides caniscapulus Roxas and Ablan.

A Philippine species.

Taenioides caniscapulus Roxas and Ablan, Philippine Jour. Sci., vol. 66, p.

261, pls. 1-2, 1938; Hinigaran, Occidental Negros Province, Philippines.

1918. Taenioides cirratus (Blyth).

From India to the East Indies and Philippines.

Amblyopus cirratus Blyth, Jour. Asiatic Soc. Bengal, vol. 29, p. 147, 1860;

Hugli River at Calcutta, India.

Amblyopus brachygaster Günther, Cat. Fishes British Mus., vol. 3, p.

134, 1861; East Indies.

Gobioides cirratus Day, Fishes India, p. 318, pl. 69, fig. 4, 1878.

Taenioides brachygaster Jordan and Richardson, Bull. U. S. Bur. Fish-

eries, vol. 27, p. 279, 1908; Aparri, Cagayan Province, Luzon.

Taenioides cirratus Herre, Gobies of Philippines, Philippine Bureau

Science Monograph 23, p. 333, 1927; Aparri, Cagayan Province; Manila

Bay at Pasay, Rizal Province; Manila market, Luzon; Lake Naujan,

Mindoro.

Taenioides cirratus Aurich, Internat. Revue Hydrobiol. und Hydrogr.,

vol. 38, p. 181, fig. 28, 1938; Laguna, Luzon, Philippines; presumably

Laguna de Bay is meant.

1919. Taenioides gracilis (Cuvier and Valenciennes).

From India to the Philippines and East Indies.

Amblyopus gracilis Cuvier and Valenciennes, Hist. Nat. Poissons, vol.

12, p. 125, 1837; Pondicherry, India. Günther, Cat. Fishes British

Mus., vol. 3, p. 134, 1861; East Indies; estuaries of Surabaya, Java;

coast of Pondicherry.

Gobioides gracilis Day, Fishes India, p. 378, 1878.

Taenioides gracilis Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 334, pl. 26, fig. 1, 1927; Malabon, Rizal Province, and Manila market, Manila, Luzon. Herre, Fishes 1936-37 Exped.; Kuching, Sarawak, Borneo. Herre, 1948 Coll.; Manat River, Binmaley, Pangasinan Province, Luzon.

Family 171. TRYPAUCHENIDÆ

Fishes of the coasts of Asia from India to southern Japan, the East Indies, and Philippines. Living in shallow bays and estuaries, and salt water or brackish creeks.

Genus 611. AMBLYOTRYPAUCHEN Hora.

From Bengal, India, to the Philippines.

Amblyotrypauchen Hora, Records Indian Mus., vol. 26, p. 160, 1924; type, *Amblyotrypauchen fraseri* Hora. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 145; no date.

1920. *Amblyotrypauchen arctocephalus* (Alcock).

From the Arabian Sea and Bay of Bengal to Manila Bay, Philippines.

Amblyopus arctocephalus Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 6, p. 432, 1890.

Amblyotrypauchen fraseri Hora, Records Indian Mus., vol. 26, p. 160, fig. 3, 1924; sandheads off the mouth of Hugli River, Bay of Bengal, India.

Amblyotrypauchen arctocephalus Koumans, Mem. Indian Mus., vol. 13, p. 308, 1941; Arabian Sea; Gulf of Martaban; sandheads, mouth of Hugli River, Bay of Bengal; Ganjam and Vizagapatam coasts, India: Mandalay. (Apparently an error as Mandalay is 400 miles inland on the Irrawadi River.) Herre and Herald, 1947 Coll. motorship *Theodore N. Gill*; Manila Bay, Philippines, at 19 to 29 fathoms.

Genus 612. CTENOTRYPAUCHEN Steindachner.

Fishes of muddy coasts from China, the Philippines and East Indies to Natal, South Africa. Only three species positively known; in fresh and salt water.

Ctenotrypauchen Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 55, p. 530, 1876; type, *Ctenotrypauchen chinensis* Steindachner. Hora, Records Indian Mus., vol. 26, p. 159, 1924. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 341, 1927. Barnard, Ann. South African Mus., vol. 21, p. 830, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 145; no date.

1921. *Ctenotrypauchen microcephalus* (Bleeker).

East Indies and the Philippines.

Trypauchen microcephalus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 62, 1860; Sungi-Duri, Dutch Borneo, in fresh water. Günther, Cat. Fishes British Mus., vol. 3, p. 137, 1861; after Bleeker.

Ctenotrypauchen microcephalus Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 341, 1927; La Libertad, Negros Oriental Province, in the sea. Herre, Motorship *Theodore N. Gill*, 1947; Manila Bay, Luzon, at 19 to 29 fathoms.

Genus 613. TRYPAUCHEN Cuvier and Valenciennes.

The Philippines, East Indies, China, Japan, RiuKiu Islands, Malaya, and India.

Trypauchen Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 115, 1837; type, *Gobius vagina* Bloch and Schneider. Günther, Cat. Fishes British Mus., vol. 3, p. 137, 1861. Hora, Records Indian Mus., vol. 26, p. 158, 1924. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 338, 1927. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 143; no date.

1922. *Trypauchen vagina* Bloch and Schneider.

Philippines, and East Indies, north to China and Japan, west to India.

Trypauchen vagina Bloch and Schneider, Syst. Ichth., p. 73, 1801. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 115, pl. 351, 1837. Richardson, Ichth. China, Japan, p. 206, 1846; Hong Kong, Macao, Chusan, and Woosung, China. Günther, Cat. Fishes British Mus.,

vol. 3, p. 137, 1861; Madras; Pinang; Ceram; China; East Indies. Day, Fishes India, p. 320, pl. 68, fig. 2, 1878; Madras. Seale, Philippine Jour. Sci., vol. 9, sec. D, p. 77, 1914; Hong Kong. Rendahl, Arkiv Zoologi, vol. 16, p. 30, 1924; Shikiang River, China. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 291, 1927; Santa Maria, Ilokos Sur Prov. Luzon. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 338, pl. 26, fig. 3, 1927; Amoy, China; Fuchow, Fukien Province, and Hong Kong, China; Calcutta, India. Herre, 1940-41 Exped.; Puerto Galera, Mindoro. Herre, 1948 Coll.; Manila Bay, Luzon.

Trypauchen wakae Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 127, fig. 32, 1901; Wakanoura, Kii, Japan.

Genus 614. TRYPACHENICHTHYS Bleeker.

A single species is known.

Trypauchenichthys Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 63, 1860; type, *Trypauchen typus* Bleeker. Günther, Cat. Fishes, vol. 3, p. 137, 1861. Hora, Records Indian Mus., vol. 26, p. 159, 1924. Koumans, Preliminary Revision Genera Gobioid Fishes, p. 144; no date.

1923. Trypauchenichthys typus Bleeker.

A rare fish known only from a few specimens taken in Borneo, the Philippines, and Siam.

Trypauchenichthys typus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 63, 1860; Sungi-Duri, Borneo. Günther, Cat. Fishes British Mus., vol. 3, p. 138, 1861; after Bleeker. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 279, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Hora, Records Indian Mus., vol. 26, p. 159, 1924; Tal'e Sap, Siam. Herre, Gobies of Philippines, Philippine Bureau Science Monograph 23, p. 340, 1927; Cagayancillo Island, Cagayan Islands, Sulu Sea; also Sungi-Duri, Borneo; the Tale Sap, Siam. Herre, Herald and Kaufman, Motorship *Theodore N. Gill*, 1947; Manila Bay, Luzon, 7 miles northwest of Sangley Point, Cavite Province, in 15 fathoms.

Order DD. DISCOCEPHALI

Family 172. ECHENEIDÆ. Remoras; Shark suckers; Sucking fish

Genus 615. ECHENEIS Linnaeus. Parikit banka.

In all warm seas.

Echeneis Linnaeus, Syst. Nat., ed. 10, p. 261, 1758; type, *Echeneis naucrates* L. Günther, Cat. Fishes British Mus., vol. 2, p. 376, 1860.

1924. Echeneis naucrates Linnaeus.

Echeneis naucrates Linnaeus, Syst. Nat. ed. 10, p. 261, 1758; "Pelago Indico." Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 104, 1907; Bulan, Sorsogon Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Oriental Negros Province. Herre, Fishes 1931 Philippine Exped., p. 93, 1934; Manila Bay at Pasay, Rizal Province, Luzon; Alabat Island; Culion; Dumaguete; Cebu, Cebu. Umali, Edible Fishes Manila, p. 186, fig. 145, 1936; Manila Bay, Luzon. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1021, fig. 421, 1936; Acra, Guinea, Africa; Mediterranean Sea; New Jersey, U. S. A. Herre, Fishes 1936-37 and 1940-41 Expeds.; Puerto Galera, Mindoro; Estancia, Iloilo Province, Panay; Singapore. Herre, 1948 Coll.; Manila Bay; Guinlo, Malampaya Sound, Palawan.

Leptecheneis naucrates Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 40, 1907; Manila, Luzon. Barnard, Ann. South African Mus., vol. 21, p. 420, 1925; East London to Natal, South Africa.

Genus 616. REMORA Forster.

In all warm seas.

Remora Forster, Catalog Animals North America, p. 20, 1770; type, *Echeneis remora* L.

1925. Remora remora (Linnaeus).

Echeneis remora Linnaeus, Syst. Nat., ed. 10, p. 260, 1758; "Pelago Indico." Günther, Cat. Fishes British Mus., vol. 2, p. 378, 1860;

Guernsey Island, English Channel; Madeira; Cape of Good Hope; India; China Seas; South Sea; Port Essington and Bass Straits, Australia; northwest coast of America. Barnard, Ann. South African Mus., vol. 21, p. 422, 1925; Natal coast, South Africa. Fowler, Mem. Bishop Mus., vol. 10, p. 410, fig. 65, 1928; Honolulu, Hawaiian Islands; Marcus Island; Wake Island; Hull's Island; Takarava, Tuamotu Islands; Apiang Island; Society Islands; Fanning Island; Ebon Island, Marshall Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 93, 1934; Dumaguete; Jolo, Sulu Province.

Remora remora Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 27, p. 946, 1904; Honolulu. Jordan and Dickerson, *ibid.*, vol. 34, p. 617, 1908; near Fiji. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 77, 1922; Hawaii. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1019, 1936; Madeira; open Atlantic Ocean; Mediterranean Sea. Herre and Herald, Motorship *Spencer F. Baird*, March 1948; Celebes Sea, Lat. 6° N., Long. 123° E.; specimen 25 mm. long attached to a sailfish, *Istiophorus orientalis*, 461 mm. in length.

Genus 617. REMORINA Jordan and Evermann.

Tropical Pacific, north to Japan and San Francisco; but one species known.

Remorina Jordan and Evermann, Check-List of North Amer. Fishes Report U. S. Fish Comm., p. 490, 1895 (1896); type, *Echeneis albescens* Schlegel.

1926. Remorina albescens (Schlegel).

Echeneis albescens Schlegel, Fauna Japonica Pisces, p. 272, pl. 120, fig. 4, 1842; Nagasaki, Japan. Bleeker, Acta Soc. Sci. Indo-Nerl., vol. 6, p. 20, 1859; Doreh, New Guinea. Günther, Cat. Fishes British Mus., vol. 2, p. 377, 1860; China. Day, Fishes India, p. 258, pl. 57, fig. 2, 1878. Martin, Philippine Jour. Sci., vol. 66, p. 387, 1938; between Dumaguete, Negros Oriental Province, and Siquiljor Island.

Remora albescens Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; Ternate Island. Bleeker, Versl. Akad. Amsterdam, ser. 2, p. 77, 1868; Batjan Island.

Remorina albescens Jordan and Evermann, Check-List of North American Fishes Report U. S. Fish. Comm., 1896, p. 490. Jordan, Everman, and Clark, Check List of Fishes, Report U. S. Comm. Fisheries, Part 2, 1928 (1930), p. 449. Breder, Bull. Bingham Oceanogr. Collection, vol. 2, p. 43, fig. 14, 1936; Panama; Lower California. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 93, p. 272, figs. 19-20, 1941; Oahu Island, Hawaiian Islands. Fowler, Acad. Nat. Sci. Phila., Monograph 6, p. 251, 1944; Perlas Islands, Bay of Panama.

Genus 618. REMOROPSIS Gill.

A single species, in all warm seas.

Remoropsis Gill, Proc. Acad. Nat. Sci. Phila., vol. 16, p. 60, 1864; type *Echeneis brachyptera* Lowe.

1927. Remoropsis brachyptera (Lowe).

Echeneis brachyptera Lowe, Proc. Zool. Soc. London, p. 89, 1839; Madeira. Günther, Cat. Fishes British Mus., vol. 2, p. 378, 1861; China; Brazil.

Remoropsis brachyptera Fowler, Mem. Bishop Mus., vol. 10, p. 421, 1928; Honolulu. Herre, Fishes 1936-37 Collection; Dumaguete, Negros Oriental Province; determined by G. S. Myers. Herre, Collection of Motorship *Spencer F. Baird*, 1948; Celebes Sea between Sulu Islands and Mindanao, Philippines.

Remora brachyptera Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1020, fig. 420, 1936; after Günther; pelagic.

Order EE. JUGULARES

Family 173. CALLIONYMIDAE. Dragonets

Genus 619. CALLIONYMUS Linnaeus.

Shore fishes of shallow bays; the sexes often strongly dimorphic and described as separate species. They range from the east coast of

Africa to the Philippines, Japan, the Hawaiian and Tuamotu Islands. Additional material will no doubt show that some of the numerous forms are merely nominal.

Callionymus Linn., Syst. Nat. ed. 10, vol. 1, p. 249, 1758, after Artedi; type, *Callionymus lyra* L.

1928. *Callionymus boleogenys* Fowler.

A Philippine species.

Callionymus boleogenys Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 6, fig. 3, 1941; Pandanan Island, near Bugsuk and Balabac Islands, south of Palawan.

1929. *Callionymus brunneus* Fowler.

A Philippine species.

Callionymus brunneus Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 11, fig. 7, 1941; Subic Bay, Subic, Zambales Province, and Balayan Bay, at Taal, Batangas Province, Luzon.

1930. *Callionymus calauropomus* Richardson.

Australia to the Philippines and Japan. *C. altivelis* are the males, *C. calauropomus* are females of the same species, *C. calauropomus*.

Callionymus altivelis Schlegel, Fauna Japonica, Pisces, p. 155, pl. 79, fig. 1, 1842; Omura Bay, near Nagasaki, Japan. Günther, Cat. Fishes British Mus., vol. 3, p. 147, 1861; Bay of Omura, Japan. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 948, 1903; Omura Bay; after Schlegel.

Callionymus calauropomus Richardson, Zool. Voy. *Erebus* and *Terror*, Fishes, p. 10, pl. 7, figs. 4-5, 1844; Western Australia. Günther, Cat. Fishes British Mus., vol. 3, p. 147, 1861; northwest Australia. Schmeltz, Cat. Mus. Godeffroy, No. 5, p. 29, 1874; Ovalau, Fiji; Tonga. Peters, Monatsber. Akad. Wiss. Berlin, p. 841, 1877; New Ireland. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 53, 1880; Philippines. Günther, Report Voy. *Challenger*, Zoology, vol. 22, Deep Sea Fishes, p. 70, 1887; Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 93, 1934; Dumaguete. Herre, Fishes 1940-41 Exped.; Nasugbu, Batangas Province, and Ragay Gulf, Luzon; Agusan River, Agusan Province, Mindanao; Bungau, Sulu Province.

1931. *Callionymus curvicornis* Cuvier and Valenciennes.

Indian Ocean, to the Philippines and China.

Callionymus curvicornis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 298, 1837; Bourbon. Günther, Cat. Fishes British Mus., vol. 3, p. 145, 1861; China; not synonymy. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 53, 1880; Philippines. Herre, Lingnan Sci. Jour., vol. 11, p. 442, 1932; Canton, China. Herre, Lingnan Sci. Jour., vol. 17, p. 436, 1938; Hoihow, Hainan, China.

1932. *Callionymus distethommatus* Fowler.

A Philippine species.

Callionymus distethommatus Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 18, fig. 11, 1941; Cebu market, Cebu; Guihulugan Tañon Strait, Negros Oriental Province; and Port Matalvi, Zambales Province, Luzon.

1933. *Callionymus enneactis* Bleeker.

Singapore, the Philippines, and Pelew Islands.

Callionymus enneactis Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 14, p. 95, 1879; Singapore. Herre, Fishes 1931 Philippine Exped., p. 93, 1934; Culion. Herre, Fishes 1933-34 Exped.; Gorrer Island, Pelew Islands; Sitankai, Sulu Province, Philippines. Herre, Bull. Raffles Mus., No. 13, p. 46, 1937; Singapore; Culion and Sitankai, Philippines; Pelew Islands.

1934. *Callionymus fimbriatus* Herre.

A Philippine species.

Callionymus fimbriatus Herre, Fishes 1931 Philippine Exped., p. 94, 1934; Sitankai Reef, Sitankai, Sulu Province.

1935. *Callionymus hudsoni* Fowler.

A Philippine species.

Callionymus hudsoni Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 8, fig. 5, 1941; Port San Vicente, Palau Island, Cagayan Province, Luzon.

Cabugao Bay, Catanduanes Island; Pandanon Island and Mantacao Island, off Bohol; Cebu market, Cebu.

1936. *Callionymus inversicoloratus* Seale.
A Philippine species.
Callionymus inversicoloratus Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 538, 1909; Samal Island, Davao Gulf, Davao Province, Mindanao, Philippines.
1937. *Callionymus keeleyi* Fowler.
A Philippine species.
Callionymus keeleyi Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 14, fig. 9, 1941; Cebu, Luzon.
1938. *Callionymus leucobranchialis* Fowler.
Philippines and Borneo.
Callionymus leucobranchialis Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 19, figs. 12-13, 1941; off San Fernando Point Light, La Union Province; Cavite and San Roque markets, Cavite Province; Manila Harbor and Manila Bay; Bacoor, Rizal Province, Luzon. Cebu market, Cebu; Bolalo Bay, Malampaya Sound, Palawan. Sandakan Bay, British North Borneo. Herre, 1948 Coll.; Manila Bay, Luzon.
1939. *Callionymus longi* Fowler.
A Philippine species.
Callionymus longi Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 10, fig. 6, 1941; Pahunahan Island, east of TawiTawi, Sulu Province.
1940. *Callionymus marisinensis* Fowler.
Occurs off the coast of China and in the Philippines.
Callionymus marisinensis Fowler, Proc., U. S. Nat. Museum, vol. 90, p. 8, fig. 4, 1941; China Sea, vicinity of Hong Kong; Tinakta Island, Sulu Province, Lat. 5°12'30" N., 119°55'50" E., Philippines.
1941. *Callionymus punctilateralis* Fowler.
A Philippine species.
Callionymus punctilateralis Fowler, Proc., U. S. Nat. Mus., vol. 90, p. 13, fig. 8, 1941; Tigbauan, Iloilo Province, Panay; below mouth of the Rio Grande, near Cotabato, Cotabato Province, Mindanao.
1942. *Callionymus sagitta* Pallas.
East Indies and Philippines to India and the Island of Bourbon.
Callionymus sagitta Pallas, Spicilegia Zoologica, vol. 8, p. 29, pl. 4, figs. 4-5, 1770; Amboina, Dutch East Indies. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 31, 1851. Bleeker, *ibid.*, vol. 3, 1852; p. 412, Borneo; p. 445, Banka Island. Günther, Cat. Fishes British Mus., vol. 3, p. 146, 1861; Bay of Bengal and Madras, India; East Indies. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 32, 1861; Singapore. Day, Fishes India, p. 322, pl. 68, fig. 5, 1878; Madras, Seas of India. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 283, 1908; Manila, Luzon, Philippines. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 61, 1930; Manila Bay, Philippines. Herre, Fishes 1931 Philippine Exped., p. 94, 1934; Manila, Luzon.
1943. *Callionymus scabriceps* Fowler.
A Philippine species.
Callionymus scabriceps Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 4, fig. 2, 1941; Surigao, Surigao Province, Mindanao; Jolo, Sulu Province.
1944. *Callionymus schaapi* Bleeker.
East Indies, Malaya, and the Philippines.
Callionymus schaapii Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 455, 1852; Banka Island, Dutch East Indies.
Callionymus schaapi Günther, Cat. Fishes British Mus., vol. 3, p. 148, 1861; Sea of Banka; after Bleeker. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 14, p. 94, 1879; Singapore; Banka; Java. Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 16, fig. 17, 1941; Cebu, Cebu; Iloilo market, Iloilo Province, Panay; Buenavista, Guimaras Island, Philippines.
1945. *Callionymus umbrithorax* Fowler.
A Philippine species.
Callionymus umbrithorax Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 3, fig. 1, 1941; Cliff Island, Malampaya Sound, Palawan.

1946. *Callionymus zaspilus* Herre.
A Philippine species.
Callionymus zaspilus Herre, Copeia, No. 1, p. 24, 1933; Sitankai, Sibutu Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 94, 1934; Sitankai, Sulu Province.

Genus 620. *CALLIURICHTHYS* Jordan and Fowler.

In shallow waters from Japan to the Philippines and China, west to the Natal coast of Africa.

- Calliurichthys* Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 941, 1903; type, *Calliurichthys japonicus* (Houttuyn). Barnard, Ann. South African Mus., vol. 21, p. 447, 1927.

1947. *Calliurichthys filamentosus* (Cuvier and Valenciennes).

East Indies and Philippines.

- Callionymus filamentosus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 303, pl. 359, 1837; Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 278, 1852; Amboina. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 110, 1862; Batjan Island.

- Calliurichthys filamentosus* Herre, Philippine Jour. Sci., vol. 59, p. 369, 1936; Manila Bay, Luzon. Herre, Fishes 1936-37 Exped.; Singapore. Herre, Fishes 1940-41 Exped.; Dipolog, Zamboanga Province, Mindanao.

1948. *Calliurichthys lineo-thorax* Fowler.

A Philippine species.

- Calliurichthys lineo-thorax* Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 80, fig. 19, 1943; off Jolo Light, near Jolo, Sulu Province.

1949. *Calliurichthys neptunia* Seale.

A Philippine species.

- Calliurichthys neptunia* Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 539, 1909; Balayan Bay, Batangas Province, Luzon.

1950. *Calliurichthys reevesi* (Richardson).

China to the Philippines and East Indies. This may be identical with *Calliurichthys japonicus* (Houttuyn), as claimed by Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 942, fig. 2, 1903.

- Callionymus reevesi* Richardson, Voy. Sulphur, Fishes, p. 60, pl. 36, figs. 1-3, 1844; Canton, China. Richardson, Ichth. China, Japan, p. 210, 1846; Hong Kong; Macao. Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 244, 1853; Ceram, Dutch East Indies. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Vischfauna Celebes, p. 43, 1860; Celebes.

- Calliurichthys reevesi* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 103, 1907; Bulan, Sorsogon Province, Luzon, Philippines. Herre, Fishes 1940-41 Exped.; Dumaguete, Negros Oriental Province.

Genus 621. *DACTYLOPUS* Gill.

East Indies and Philippines; only one species known.

- Dactylopus* Gill, Proc. Acad. Nat. Sci. Phila., p. 130, 1860; type, *Callionymus dactylopus* Bennett.

- Vulsus* Günther, Cat. Fishes British Mus., vol. 3, p. 307, 1861; type, *Callionymus dactylopus* Bennett.

1951. *Dactylopus dactylopus* (Bennett).

Callionymus dactylopus Bennett, in Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 310, 1837. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 559, 1852; Amboina. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Vischfauna Celebes, p. 42, 1860; Celebes. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 55, 1861; Singapore.

- Vulsus dactylopus* Günther, Cat. Fishes British Mus., vol. 3, p. 152, 1861; Amboina; coasts of Amboyna and Celebes. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 246, 1863; Rotti Island. Bleeker, Versl. Akad. Amsterdam, vol. 16, p. 365, 1864; Nusa Laut. Meyer, An. Soc. España Hist., Nat. Madrid, vol. 14, p. 31, 1885; Cebu, Cebu.

- Dactylopus dactylopus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 46, fig. 18, 1907; Cavite, Cavite Province, Luzon. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province, Philippines. Also Singapore. Herre, 1948 Coll.; Manila Bay, Luzon.

Genus 622. *DICALLIONYMUS* Fowler.

East Indies and Philippines; one species known.

- Dicallionymus* Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 29, 1941; type, *Dicallionymus goramensis* Bleeker.

1952. *Dicallionymus goramensis* (Bleeker).
Callionymus goramensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 214, 1858; Goram Island. Günther, Cat. Fishes British Mus., vol. 3, p. 149, 1861; Sea of Goram; after Bleeker.
Synchiropus goramensis Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 14, p. 101, 1879; Goram.
Dicallionymus goramensis Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 30, 1941; Pandanon Island, coast of Bohol, Philippines.
- Genus 623. **SYNCHIROPUS** Gill.
 Small fishes of the tropical Indian Ocean and east in the Pacific through the Philippines to the Solomon, Fiji, and the Tonga Islands.
Synchiropus Gill, Proc. Acad. Nat. Sci. Phila., p. 129, 1860; type, *Callionymus lateralis* Richardson.
1953. *Synchiropus delandi* Fowler.
 Known from the Philippines and Borneo.
Synchiropus delandi Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 81, fig. 20, 1941; off Point Tagolo Light, Zamboanga Province Mindanao. Also Mabul Island, Sibuko Bay, British North Borneo.
1954. *Synchiropus grinnelli* Fowler.
 A Philippine species.
Synchiropus grinnelli Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 24, fig. 15, 1941; off San Bernardino Light, Sorsogon Province, Luzon.
1955. *Synchiropus ocellatus* (Pallas).
 East Indies and Philippines.
Callionymus ocellatus Pallas, Spicilegia Zoologica, vol. 8, p. 25, pl. 4, figs. 1-3, 1770; Amboina. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 308, 1837. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 422, 1855; Amboina. Bleeker, *ibid.*, vol. 15, p. 201, 1858; Goram Islands. Bleeker, Acta. Soc. Sci. Indo-Neerl., vol. 8, Vischfauna Celebes, p. 42, 1860. Weber, *Siboga*-Exped., vol. 57, Fische, p. 524, 1913; Beo, Karakelong Island; Kabaena Island; Amboina; Nusa Laut; and Tiur Island, Dutch East Indies.
Callionymus punctulatus Lacépède, Hist. Nat. Poissons, vol. 2, pp. 328, 340, 1800.
Synchiropus ocellatus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 282, 1927; Calayan Island, Babuyan Islands, north of Luzon. Herre, Fishes 1931 Philippines Exped., p. 94, 1934; Old Ayukitan, near Dumaguete, Negros Oriental Province, Philippines. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province, Philippines; also Singapore. Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 26, 1941; Gubat Bay, Sorsogon Province, Luzon.
1956. *Synchiropus pallidus* Fowler.
 A Philippine species.
Synchiropus pallidus Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 23, fig. 14, 1941; no definite locality.
1957. *Synchiropus splendidus* (Herre).
 Philippines to the Great Barrier Reef, Australia.
Callionymus splendidus Herre, Philippine Jour. Sci., vol. 32, p. 416, pl. 2, 1927; Bungau, Sulu Province.
Synchiropus splendidus Whitley, Records Australian Mus., vol. 16, p. 222, pl. 17, figs. 1, a-b, 1928; Hayman Island Reef, Whitsunday Group, Great Barrier Reef, Queensland, Australia. McCulloch, Memoir 5, Australian Mus., p. 337, 1929; Bungau, Sulu, Philippines; Queensland. Herre, Fishes Exped. 1931; Tumindao Island, Sibutu Islands, Sulu Province, Philippines. Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 26, 1941; Biri Channel, North of Samar, Philippines.
Synchiropus leopoldi Giltay, Mem. Mus. Roy. Hist. Nat. Belgique, vol. 5, fasc. 3, Poissons, p. 83, figs. 23 and 24, 1933; near Banda Neira, Dutch East Indies.
1958. *Synchiropus zamboangana* Seale.
 A Philippine species.
Synchiropus zamboangana Seale, Philippine Jour. Sci., vol. 4, sec. A, p. 540, 1909; Zamboanga, Zamboanga Province, Mindanao.

Subgenus **ELEUTHEROCHIR** Bleeker.

Eleutherochir Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 14, p. 103, 1879; type, *Callionymus opercularioides* Bleeker. Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 26, 1941.

Brachycallionymus Herre and Myers, Proc. Biol. Soc. Washington, vol. 49, p. 12, 1936; type, *Brachycallionymus mirus* Herre=*Synchiropus* (*Eleutherochir*) *opercularioides* Bleeker (juvenile).

1959. **Synchiropus** (*Eleutherochir*) *maccaddeni* (Fowler).

A Philippine species.

Eleutherochir maccaddeni Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 27, fig. 16, 1941; Hinunangan Bay, Leyte.

1960. **Synchiropus** (*Eleutherochir*) *opercularis* (Cuvier and Valenciennes).

India to the East Indies and Philippines.

Callionymus opercularis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 228 (305), 1837; mouth of the River Arian-Coupan, India. Bleeker, Verh. Bat. Gen., vol. 25, Visschf. Bengalen en Hindostan, p. 52, 1853; Bengal and Hindostan. Günther, Cat. Fishes British Mus., vol. 3, p. 151, 1861; mouth of the River Arian-Coupan; after Cuvier and Valenciennes. Day, Fishes India, p. 323, 1878; Pondicherry; Madras. Weber, *Siboga*-Exped., vol. 57, Fische, p. 522, 1913; Menado, Celebes; Amboina.

Callionymus opercularioides Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 32, 1850; Padang, Sumatra. Bleeker, *ibid.*, vol. 20, p. 206, 1859-60; Bali.

Synchiropus opercularis Gill, Proc. Acad. Nat. Sci. Phila., p. 130, 1858. Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Lemery, Batangas Province, Luzon. Herre, Fishes 1936-37 Exped.; Balayan Bay, Batangas Province, Luzon.

Eleutherochir opercularioides Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 14, p. 103, 1879; Sumatra; Bali; Celebes; Batjan; Ceram; Amboina; Guebe.

Brachycallionymus mirus Herre, Proc. Biol. Soc. Washington, vol. 49, p. 12, 1936; north coast of Celebes (Lembe Strait); Nasugbu, Batangas Province, Luzon; Romblon, Romblon, Philippines.

Eleutherochir opercularis Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 26, 1941; Port San Vicente, Palaui Island, Cagayan Province; Lingayen Gulf, Pangasinan Province; Nasugbu and Taal, Batangas Province; and Nato, Lagonoy Gulf, Albay Province, Luzon. Paluan Bay, Mindoro; Romblon, Romblon; Davao, Davao Province, and Camp Overton and Malabang, Lanao Province, Mindanao.

Synchiropus (*Eleutherochir*) *opercularis* Herre, Collection Motorship *Spencer F. Baird*, December 1947 and March 1948; Caldera Bay and Siokun Bay, Zamboanga Province, Mindanao.

Genus 624. **ANAORA** Gray.

An East Indian and Philippine genus; misprinted as *Amora*.

Anaora Gray, Illustrations Indian Zoology, vol. 2, p. 90, fig. 1, 1833; type, *Anaora tentaculata* Gray.

Amora Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 30, 1941.

1961. **Anaora** *fowleri* Herre.

A Philippine species with smooth body and otherwise differing from *Anaora tentaculata* Gray.

Synchiropus tentaculatus Herre, Philippine Jour. Sci., vol. 35, p. 33, pl. 1, 1928; Puerto Galera, Mindoro. Herre, Fishes 1936-37 Exped.; Puerto Princesa, Palawan.

1962. **Anaora** *tentaculata* Gray.

East Indies and Philippines. According to Gray and Bleeker, as quoted by Fowler, the body is spinulose.

Anaora tentaculata Gray, Illustrations Indian Zoology, vol. 2, pl. 90, figs. 1, a-b, 1833-34; Amboina. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 14, p. 107, 1879.

Amora tentaculata Fowler, Proc. U. S. Nat. Mus., vol. 90, p. 30, 1941; Port Caltom, Busuanga Island; Puerto Galera, Mindoro; Romblon Island, Philippines. Also Sandakan Bay, British North Borneo, and Great Tobea Island, Dutch East Indies.

Genus 625. PARAPERCIS Bleeker. Sand-divers.

Fishes of the tropical and warm temperate Indo-Pacific, from the Red Sea and Mauritius to the Philippines, Japan, the Hawaiian, Solomon, New Hebrides, Fiji, Samoan, and Society Islands.

Parapercis Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; type, *Sciaena cylindrica* Bloch. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 463, 1902. Barnard, Ann. South African Mus., vol. 21, p. 441, 1927. Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 215, 1935.

Ncopercis Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 49, p. 212, 1885; type, *Percis ramsayi* Steindachner. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 466, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 476, 1905.

Osurus Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 206, 1903; type, *Parapercis schauinslandi* Steindachner.

Chilias Ogilby, Proc. Roy. Soc. Queensland, vol. 23, p. 40, 1910; type, *Percis stricticeps* de Vis.

1963. *Parapercis clathrata* Ogilby.

Philippines, East Indies, Pelew Islands, Guam, Fiji, Samoa, and Society Islands.

Percis tetracanthus Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 458, 1853; Batavia, Java. Bleeker, *ibid.*, vol. 13, p. 371, 1857; Sangi Islands. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr., p. 40, 1860; Sumatra. Günther, Cat. Fishes British Mus., vol. 2, p. 241, 1860; Amboina; Fiji Islands. Günther, Fische der Südsee, vol. 2, p. 158, pl. 93, fig. 5, 1876-1881; Pelew Islands; Fiji; Samoa; Society Islands.

Parapercis tetracanthus Garman, Bull. Mus. Comp. Zool., vol. 39, p. 233, 1903; Fiji. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 414, 1906; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 424, 1928; Suva, Fiji; Apia, Samoa; Society Islands.

Parapercis clathrata Ogilby, Proc. Roy. Soc. Queensland, vol. 23, p. 41, 1911. Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 222, pl. 2, fig. 1, 1935; Santo Domingo de Basco, Batan Island, Batanes Province, Camiguin Island, Babuyan Islands, Cagayan Province. Cabalian, Leyte; Balabac Island. Herre, Fishes 1940-41 Exped.; Miagao, Iloilo Province, Panay.

Percis quadrispinosus Weber, Siboga-Exped., vol. 57, Fische, p. 519, 1913.

Parapercis quadrispinosa Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Sitankai, Sulu Province.

1964. *Parapercis cylindrica* (Bloch).

East Indies, Philippines, China, and south to Australia, the New Hebrides, and Fiji.

Sciaena cylindrica Bloch, Naturges. Ausländ. Fische, vol. 6, p. 42, pl. 299, fig. 1, 1792.

Percis cylindrica Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 199 (267), 1829. Bleeker, Verh. Bat. Gen., vol. 22, Percoiden, p. 55, 1849; Malaya-Moluccan Archipelago. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 235, 1851; Banda. Bleeker, *ibid.*, vol. 13, p. 371, 1857; Sangi Islands. Günther, Cat. Fishes British Mus., vol. 2, p. 239, 1860; Philippines; Amoina; China Seas; Sir Charley's Hardy Island. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 295, 1927; Philippines.

Parapercis cylindrica Bleeker, Ned. Tijds. Dierk., vol. 1, 1863; p. 236. Ternate, p. 252, Flores, and p. 271, Timor. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908; Cuyo, Cuyo Islands, Sulu Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Iloilo, Iloilo Province, Panay; Dumaguete; Cebu, Cebu; Jolo and Sitankai, Sulu Province, Philippines. Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 216, pl. 1, fig. 1, 1935; Polillo Island to Sitankai, Sulu Province. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 395, 1936; Ovalau Island, Fiji. Herre, Fishes 1936-37 and 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete; Bungau and Sitankai, Sulu Province. Also Sultan Shoal, Singapore.

Parapercis (Parapercis) cylindrica McCulloch, Mem. 5, Australian Mus., p. 331, 1929; Queensland; East Indies; Philippines; China.

1965. *Parapercis dorsonebulosa* Martin and Montalban.

A Philippine species.

Parapercis hexophthalmus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 46, 1907; not of Cuvier and Valenciennes; probably placed correctly by Martin and Montalban.

Parapercis dorsonebulosa Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 220, pl. 2, fig. 2, 1935; Catbalogan, Samar; Balabac Island.

1966. *Parapercis hexophthalma* (Cuvier and Valenciennes).

From the Red Sea and Mozambique to the Philippines, and RiuKiu Islands, south to the Solomons, New Hebrides, Fiji, and Society Islands.

Percis hexophthalma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 202, 1829; Massaua, Red Sea. Günther, Cat. Fishes British Mus., vol. 2, p. 239, 1860; Red Sea; Louisiade Archipelago. Günther, in Brenchley, Cruise *Curacoa*, p. 409, 1873; Solomon Islands. Day, Fishes India, p. 263, pl. 57, fig. 4, 1878.

Percis polyophthalma Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 203, (272) 1829. Klunzinger, Fische Rothen Meeres, vol. 1, p. 816, 1870.

Percis caudimaculata Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 98, 1835; Red Sea.

Parapercis hexophthalmus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 272, 1868; Guebe Island. Bleeker, Recherches faune Madagascar, Poissons, p. 78, 1875; Madagascar. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 53, 1878; New Guinea.

Parapercis hexophthalma Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 466, 1902; RiuKiu Islands. Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 103, 1907; Bacon, Sorsogon Province, Luzon. Weber, *Siboga*-Exped., vol. 57, Fische, p. 518, 1913. Barnard, Ann. South African Mus., p. 442, pl. 19, fig. 1, 1927; Mozambique, East Africa. Fowler, Mem. Bishop Mus., vol. 10, p. 424, 1928; Fiji; Society Islands. Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 219, pl. 2, fig. 1, 1935; Hamilo, Batangas Province, Luzon. Tablas Island; Balabac Island. Herre, Fishes 1940-41 Exped.; Puerto Galera, Mindoro.

1967. *Parapercis montillae* Martin and Montalban.

A Philippine fish.

Parapercis montillae Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 224, pl. 2, fig. 2, 1935; Calapan, Mindoro; Zamboanga, Zamboanga Province, Mindanao. Herre, China Sea near Monja Island, entrance to Manila Bay, Luzon, in 54 fathoms; 1948 Coll.

1968. *Parapercis (Osurus) schauinslandii* (Steindachner).

Hawaiian Islands and the Philippines.

Percis schauinslandii Steindachner, Anz. Akad. Wiss. Wien, vol. 16, p. 175, 1900; Honolulu.

Parapercis schauinslandii Seale, Occas. Papers Bishop Mus., vol. 1, pp. 15-16, 1900; Hilo, Island of Hawaii, and Honolulu.

Osurus schauinslandii Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 505, 1903; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 475, figs. 209 and 209a, 1905; Honolulu and Hilo.

Parapercis (Osurus) schauinslandii Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Dumaguete, Negros Oriental Province.

1969. *Parapercis tetracantha* (Lacépède).

East Indies, Philippines, Fiji, Samoa, and Society Islands.

Labrus tetracanthus Lacépède, Hist. Nat. Poissons, vol. 3, pp. 473, 488, 1802; vol. 2, pl. 13, fig. 3, 1802.

Percis cancellata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 200 (268), 1829. Bleeker, Nat. Tijds. Ned.-Ind., vol. 9, p. 501, 1855; Batjan. Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 331, 1859; Java.

Parapercis cancellata Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; Flores. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 292, 1865; Amboina.

Parapercis tetracanthus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 281, 1908; Calayan Island, Babuyan Islands, north of Luzon. Weber, *Siboga*-Exped., vol. 57, Fische, p. 518, 1913.

Parapercis tetracantha Ogilby, Proc. Roy. Soc. Queensland, vol. 20, p. 40, 1910. Martin and Montalban, Philippine Jour. Sci., vol. 56, p. 217, pl. 1, fig. 2, 1935; Calapan, Mindoro; Romblon, Romblon; south coast of Cotabato Province, Mindanao. Herre, 1948 Coll.; Jolo, Sulu Province.

Genus 626. NEOPERCIS Steindachner.

Known from Japan, Australia, the Kei Islands, and the Philippines. *Neopercis* Steindachner, Denks. Akad. Wiss. Wien, vol. 49, p. 212, 1885; orthotype *Percis ramsayi* Steindachner. M. Weber, *Siboga* Exped., vol. 57, Fische, p. 520, 1913.

1970. Neopercis tessellata Herre.

This is the first representative of the genus *Neopercis* taken in the Philippines. The type and only specimen was captured by a trawler in Manila Bay, Luzon; Herre, 1948 Collection.

Family 175. PTEROPSARIDÆ

Genus 627. ROXASELLA Fowler.

A Philippine genus with one species known.

Roxasella Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, part 2, p. 87, 1943; type, *Roxasella fusiforme* Fowler.

1971. Roxasella fusiforme Fowler.

Roxasella fusiforme Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, part 2, p. 87, fig. 23, 1943; Aparri, Cagayan Province, Luzon.

Family 176. TRICHONOTIDÆ

Small, slender, inconspicuous fishes of salt and fresh water, usually burrowing in sand. Found on the coasts of the Philippines, East Indies, China, and east to Samoa, south to Australia and New Zealand, and west to the Indian Ocean and the Seychelles and Cargados Carajos Groups.

Genus 628. GOBITRICHINOTUS Fowler.

A Philippine genus with one species.

Gobitrichinotus Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 85, 1943; type, *Gobitrichinotus radiocularis* Fowler.

1972. Gobitrichinotus radiocularis Fowler.

Only the type and paratype known.

Gobitrichinotus radiocularis Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 86, fig. 22, 1943; Malabang River, south coast of Lanao Province, Mindanao.

Genus 629. TRICHONOTUS Bloch and Schneider.

Found on the coasts of the East Indies, Philippines, and China.

Trichonotus Bloch and Schneider, Syst. Ichth., p. 179, 1801; type, *Trichonotus setiger* Bloch and Schneider. Günther, Cat. Fishes British Mus., vol. 3, p. 484, 1861.

1973. Trichonotus setiger Bloch and Schneider.

East Indies and Philippines, west to the Andaman Islands, north to China, southeast to Australia.

Trichonotus setiger Bloch and Schneider, Syst. Ichth. p. 179, pl. 39, 1801; *Trichonotus setigerus* on plate; "eastern India." Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 251, 1854; Celebes. Bleeker, *ibid.*, vol. 17, p. 148, 1858-59; Bali. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 45, 1860; Celebes. Giltay, Mem. Mus. Roy. Hist. Nat. Belgique, vol. 5, fasc. 3, p. 82, 1933; Bali, Dutch East Indies. *Trichonotus polyophthalmus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 243, 1853; Ceram.

Trichonotus setigerus Günther, Cat. Fishes British Mus., vol. 3, p. 484, 1861; coasts of Celebes and Ceram. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 31, 1885; Cebu, Cebu, Philippines. Day, Fishes India, Supplement, p. 795 text figure, 1888; Andaman Islands. Herre, Fishes Philippine Bureau Science Collection, 1922; Pinamalayan, Mindoro. Herre, Fishes 1931 Philippine Collection, p. 95, 1934; East coast of Mindoro. Herre, Philippine Jour. Sci., vol. 59, p. 370, 1936;

Pansipit River near the outlet of Lake Bombon, Batangas Province, Luzon; also east coast of Mindoro. Herre, Mem. Indian Mus., vol. 13, p. 390, 1941; Andaman Islands, East Indies, and Philippines. Herre, 1948 Coll.; Siaton, Negros Oriental Province.
Taeniolabrus filamentosus Steindachner, Sitzungsber. Akad. Wiss. Wien, vol. 55, p. 713, pl. 3, fig. 5, 1867.

Family 177. CHIASMODONTIDÆ

A small family of deep sea fishes.

Genus 630. PSEUDOSCOPELUS Lütken.

Deep-sea fishes of the Indo-Pacific and Atlantic, of wide distribution.
Pseudoscopelus Lütken, Spolia Atlantica. Vidensk. Selsk. Skrift., ser. 6, vol. 7, p. 285, 1892; type, *Pseudoscopelus scriptus* Lütken. Goode and Bean, Oceanic Ichthyology, p. 292, 1895. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1324, 1936.

1974. *Pseudoscopelus cephalus* Fowler.

A Philippine species.

Pseudoscopelus cephalus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 361, fig. 111, 1933; Station 5423, Cagayan Island, Cagayanes Islands, Sulu Sea, in 508 fathoms.

Family 178. OPISTHOGNATHIDÆ

Species few; in the warmer parts of the Indo-Pacific and Atlantic Oceans.

Genus 631. GNATHYPOPS Gill.

Tropical Indo-Pacific and both coasts of the Americas in tropical and warm temperate waters.

Gnathypops Gill, Proc. Acad. Nat. Sci., Phila., vol. 14, p. 241, 1862; type, *Opisthognathus mazillozus* Poey.

1975. *Gnathypops dendritica* Jordan and Richardson. Tabangka.

A Philippine species.

Gnathypops dendritica Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 261, fig. 9, 1908; Cuyo, Cuyo Islands, Philippines. Herre, Fishes Philippine Bureau Science Collection, 1925; Tubataha Reef, Sulu Sea. Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Cullion. Herre, Fishes 1936-37 and 1940-41 Exped.; Coron, Busuanga Island; Sandakan, British North Borneo.

Genus 632. OPISTHOGNATHUS (Cuvier) Oken.

A genus of the Indo-Pacific and Atlantic Oceans.

Opisthognathus (Cuvier) Oken, Isis, p. 1182, 1817; type, *Opisthognathus sonnerati* Cuvier. Günther, Cat. Fishes British Mus., vol. 3, p. 254, 1861. Barnard, Ann. South African Mus., vol. 21, p. 443, 1927.

1976. *Opisthognathus macrolepis* Peters.

Siam and the Philippines.

Opisthognathus macrolepis Peters, Monatsber. Akad. Wiss. Berlin, p. 520, 1866; Bangkok, Siam. Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 52, 1880; Philippines.

1977. *Opisthognathus suluensis* Herre.

A Philippine species.

Opisthognathus suluensis Herre, Copeia, No. 1, p. 25, 1933; Sitankai, Sibutu Islands, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Jolo, Sulu Province.

Family 179. OWSTONIIDÆ

A small family of deep-sea fishes.

Genus 633. SPHENANTHIAS Weber.

The East Indies, Philippines and Japan.

Sphenanthias Weber, Siboga-Exped., vol. 57, Fische, p. 210, 1913; type, *Sphenanthias sibogae* Weber. Weber and de Beaufort, Fishes Indo-Australian Archipelago, vol. 6, p. 114, 1931.

1978. *Sphenanthias pectinifer* Myers.

A Philippine species.

Sphenanthias pectinifer Myers, Proc. Biol. Soc. Washington, vol. 52, p. 19, 1939; off Dumalag Island, Davao Gulf, Davao Province, Mindanao, at a depth of 100 fathoms.

Family 180. CHAMPSODONTIDÆ

Coasts of Asia, East Indies, Philippines, and north to Japan.

Genus 634. CHAMPSODON Günther.

Champsodon Günther, Proc. Zool. Soc. London, p. 102, 1867; type, *Champsodon vorax* Günther. Goode and Bean, Oceanic Ichthyology, p. 291, 1895. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 480, 1902.

1979. *Champsodon curtipes* Fowler.

Philippines and East Indies.

Champsodon curtipes Fowler, Bull. 100, U. S. Nat. Mus., vol. 14, Part 2, p. 83, fig. 21, 1943; China Sea, off Corregidor Light, at entrance to Manila Bay, Luzon; Malavatuan Island, Lubang Islands, northwest of Mindoro; off Legaspi Light, Albay Province, and off Tayabas Light, Tayabas Province. South coast of Luzon near Marinduque Island; Destacado Island between Samar and Masbate Island; specimens from an unknown island between Samar and Masbate, listed from Talajit, but no such name is known in the Philippines; Chocolate Island, off northern tip of Cebu; Bongo Island, Iilana Bay, Cotabato Province, Mindanao; Cabalian Point, Jolo Island, Sulu Province. Also Makassar Island, Buton Strait, Celebes, Dutch East Indies.

1980. *Champsodon guntheri* (Regan).

A Philippine species.

Champsodon vorax Günther, Report Voy. *Challenger*, Zool., vol. 1, pt. 6, Shore Fishes, p. 52, pl. 23, fig. A, 1880; Station 204 at 115 fathoms, Philippines; also Nares Bay, Admiralty Islands; Arafura Sea, Ki Islands. Günther, Report Voy. *Challenger*, Zoology, vol. 22, Deep Sea Fishes, p. 49, 1887; Philippines; coast of Japan. Goode and Bean, Oceanic Ichthyology, p. 291, 1895; Philippines at Station 204; Arafura Sea near the Ki Islands in 129 fathoms; Bay of Bengal, in 100 fathoms. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 61, 1930; Manila Bay, Philippines.

Family 181. URANOSCOPIDÆ. Stargazers

Bottom dwellers in all tropical seas, ranging north to Japan, south to Australia and New Zealand.

Genus 635. URANOSCOPUS Linnaeus.

South Africa to India, East Indies, the Philippines, Japan, Australia, Fiji, and the Tonga Islands.

Uranoscopus Linnaeus, Syst. Nat., ed. 10, p. 250, 1758; type, *Uranoscopus scaber* L. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 3, p. 285, 1828. Günther, Cat. Fishes British Mus., vol. 2, p. 226, 1860. Goode and Bean, Oceanic Ichthyology, p. 294, 1895. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 474, 1902. Barnard, Ann. South African Mus., vol. 21, p. 435, 1927. Umali, Philippine Jour. Sci., vol. 56, p. 320, 1935.

1981. *Uranoscopus bicinctus* Schlegel.

Japan and China to the Philippines and East Indies.

Uranoscopus bicinctus Schlegel, Fauna Japonica, Pisces, p. 26, pl. 10, B, 1842; Nagasaki, Japan. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr., p. 41, 1857; Amboina. Günther, Cat. Fishes British Mus., vol. 2, p. 228, 1860; Japan; China. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 126, 1873; China. Nystrom, Bihang Svenska Vet. Akad. Handlingar, p. 28, 1887; Nagasaki. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 476, 1902; Misaki and Wakanoura, Japan. Umali, Philippine Jour. Sci., vol. 56, p. 321, pl. 1, fig. 2, 1935; Divisoria market, Manila; but taken by trawl in Lingayen Gulf, Pangasinan Province, Luzon. Herre, May, 1948; Manila Bay, Luzon; commonly taken by beam trawl.

1982. *Uranoscopus japonicus* Houttuyn.

Japan, China and the Philippines.

Uranoscopus japonicus Houttuyn, Verh. Holland. Maatsch. Wetenschappen Haarlem, p. 311, 1782; Nagasaki. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 475, 1902; Yokohama, Wakanoura, Hakata, Misaki, and Tokyo. Umali, Philippine Jour. Sci., vol. 56, p. 320, pl. 1, fig. 1, 1935; Manila market, but taken from Lingayen Gulf, Pangasinan Province, Luzon. Herre, Fishes 1940-41 Exped.; Ragay Gulf, Tayabas Province, Luzon. Herald, Kauffman, Umali, and Wade, June, 1947; Manila Bay, Luzon, in 31-fathoms.

Uranoscopus asper Schlegel, Fauna Japonica, Pisces, p. 26, pl. 9, fig. 1, 1842; Nagasaki, Japan. Richardson, Ichth. China, Japan, p. 211, 1846; south coasts of Japan and coasts of China down to Canton. Günther, Cat. Fishes British Mus., vol. 2, p. 228, 1860; Japan. Nyström, Svenska Vet. Akad. Handlingar, p. 28, 1887, Nagasaki.

Family 182. CLINIDÆ

Small scaled blennies of tropical and warm temperate waters.

Genus 636. *TRIPTERYGIUM* Risso.

Philippines, East Indies, India, New Zealand, Mediterranean Sea, West Indies, and tropical coast of America.

Tripterygion Risso, Hist. Nat. Europe Mérid., vol. 3, p. 241, 1826; type, *Tripterygion nasus* Risso. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 444, 1902. Weber, *Siboga*-Exped., vol. 57, Fische, p. 526, 1913.

Enneapterygius Rüppell, Neue Wirbelt. Fische Rothen Meeres, p. 2, 1835; orthotype, *Enneapterygius pusillus* Rüppell.

Tripterygium Günther, Cat. Fishes British Mus., vol. 3, p. 276, 1861. Herre, Philippine Jour. Sci., vol. 70, p. 317, 1939.

Enneanectes Jordan and Evermann, Proc. California Acad. Sci., p. 501, 1895; type, *Enneanectes carminalis* Jordan and Gilbert.

Gillias Evermann and Marsh, Report U. S. Fish Comm., p. 357, 1899; type, *Gillias jordani* Evermann and Marsh.

1983. *Tripterygion callionymi* Weber.

Philippines and East Indies.

Tripterygion callionymi Weber, Notes Leiden Mus., vol. 31, p. 147, 1909. Weber, *Siboga*-Exped., Fische, vol. 57, p. 546, figs. 116-117, 1913.

Tripterygium callionymi Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete. Herre, Fishes 1941 Philippine Exped., p. 95, 1934; Culion; Dumaguete, Negros Oriental Province; Sitankai, Sulu Province.

Tripterygion callionymi Herre, Philippine Jour. Sci., vol. 70, p. 318; 1939; Culion; Dumaguete; Sitankai.

1984. *Tripterygion philippinum* (Peters).

Tripterygium philippinum Peters, Monatsber. Akad. Wiss. Berlin, p. 269, 1868; Paracale, Camarines Norte Province, Luzon.

Enneapterygius philippinus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 283, 1908; Calayan Islands, Babuyan Islands.

Tripterygion philippinum Herre, Philippine Jour. Sci., vol. 70, p. 319, 1939; Paracale, Camarines Norte Province, Luzon; Calayan Island, Babuyan Islands.

1985. *Tripterygion punctulatum* Herre.

New Hebrides and Philippines.

Enneapterygius punctulatus Herre, Field Mus. Nat. Hist. Zool. Ser., vol. 21, p. 397, fig. 37, 1936; Wala Island, Espiritu Santo Island, and Malo Island, New Hebrides.

Tripterygion punctulatum Herre, Philippine Jour. Sci., vol. 70, p. 320, 1939; Nasugbu, Batangas Province, Luzon. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

1986. *Tripterygion trigloides* Bleeker.

Philippines and East Indies.

Tripterygion trigloides Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 234, 1858; Billiton. Weber, *Siboga*-Exped., Fische, vol. 57, p. 545, fig. 115, 1913;

Tiur Island. Herre, Philippine Jour. Sci., vol. 40, p. 318, 1939. Dumaguete, Negros Oriental Province; also Lembeh Strait, Celebes.

Tripterygium trigloides Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 95, 1934; Dumaguete, Negros Oriental Province. Herre, 1948 Coll.; Layia, Batangas Province, Luzon.

Genus 637. CRISTICEPS Cuvier and Valenciennes.

Philippines, East Indies, Australia, Tasmania, and the Mediterranean Sea.

Cristiceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, pp. 194 and 402, 1836; haplotype, *Cristiceps australis* Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 3, p. 272, 1861. Herre, Philippine Jour. Sci., vol. 70, p. 320, 1939.

1987. Cristiceps xanthosoma (Bleeker).

Java and Luzon.

Clinus xanthosoma Bleeker, Nat. Tijds Ned.-Ind., vol. 13, p. 340, 1857; Java.

Cristiceps xanthosoma Günther, Cat. Fishes British Mus., vol. 3, p. 273, 1861; after Bleeker. Herre, Philippine Jour. Sci., vol. 59, p. 371, 1936; Paraor, La Union Province, Luzon. Herre, Philippine Jour. Sci., vol. 70, p. 321, 1939; Paraor, La Union Province, Luzon. Herre, 1948 Coll.; Dumaguete, Negros Oriental Province.

Genus 638. PARACRISTICEPS Herre.

Paracristiceps Herre, Philippine Jour. Sci., vol. 70, p. 321, 1939; orthotype, *Paracristiceps flifer* (Steindachner).

1988. Paracristiceps flifer (Steindachner).

Cristiceps flifer Steindachner, Archiv Zool., vol. 3, p. 199, 1864; Philippines; Bombay.

Paracristiceps flifer Herre, Philippine Jour. Sci., vol. 70, p. 322, 1939; on Steindachner.

Family 183. BLENNIIDÆ

A large family of mostly small fishes, living in shallow coastal waters of tropical and warm temperate regions. Some dwell at considerable depths and a very few live in fresh water. (The Salarian genera have been revised by Dr. W. M. Chapman, Director School of Fisheries, University of Washington, Seattle, Wash.)

Genus 639. BLENNIUS Linnaeus.

Indo-Pacific and Atlantic Oceans, Mediterranean Sea, and lakes of northern Italy.

Blennisu Linnaeus, Syst. Nat. ed 10, p. 256, 1758; type, *Blennius galerita* L. Günther, Cat. Fishes British Mus., vol. 3, p. 211, 1861. Herre, Philippine Jour. Sci., vol. 70, p. 323, 1939.

1989. Blennius thysanius Jordan and Seale.

A Philippine species.

Blennius thysanius Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 47, fig. 19, 1907; Cavite, Cavite Province, Luzon. Herre, Philippine Jour. Sci., vol. 70, p. 324, 1939; Daram Passage off Leyte; Catbalogan, Samar; Puerto Princesa, Palawan; Cavite, Cavite Province, Luzon.

Genus 640. PETROSCIRTES Rüppell.

Throughout the tropical Indo-Pacific.

Petrosirtes Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 110, 1828; orthotype, *Petrosirtes mitratus* Rüppell. Günther, Cat. Fishes British Mus., vol. 3, p. 259, 1861. Herre, Philippine Jour. Sci., vol. 70, p. 325, 1939. Herre, Copeia, No. 2, p. 112, 1942.

Blennechis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 279, 1836; type, *Blennechis filamentosus* Cuvier and Valenciennes.

1990. Petrosirtes amblyrhynchus Bleeker.

East Indies and Philippines.

Petrosirtes amblyrhynchus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 64, 1857; Amboina.

Petrosirtes amblyrhynchus Weber, Siboga-Exped., vol. 57, Fische, p. 540, 1913; Saleyer; Banda. Herre, Philippine Jour. Sci., vol. 70, p. 329, 1939; south coast, Cotabato Province, Mindanao; Lembah

Strait and Kema, North Celebes; Ternate; Manokwari, New Guinea. Herre, Copeia, No. 2, p. 115, 1942; south coast of Cotabato Province, Mindanao; Lembah Strait and Kema, North Celebes.

1991. *Petrosirtes bankanensis* Bleeker.

East Indies and Philippines.

Petrosirtes bankanensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 727, 1852; Banka. Bleeker, *ibid.*, vol. 11, p. 215, 1856; Batjan Island. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 57, 1861; Singapore. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 191, 1865; Ceram. Bleeker, *ibid.*, p. 293; Amboina.

Petrosirtes bankanensis Günther, Cat. Fishes British Mus., vol. 3, p. 237, 1861; after Bleeker. Weber, *Siboga*-Exped., Fische, vol. 57, p. 540, 1913. Herre, Philippine Jour. Sci., vol. 70, p. 331, 1939; Cabalian, Leyte. Herre, Copeia, No. 2, p. 116, 1942; Cabalian, Leyte.

1992. *Petrosirtes eretes* Jordan and Seale.

Philippines, Singapore, Pelew Islands.

Petrosirtes eretes Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 801, fig. 19, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 47, 1907; Iloilo, Iloilo Province, Panay. Negros. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 283, 1908; Cuyo, Cuyo Islands. Herre, Jour. Pan Pacific Research Inst., vol. 6, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 98, 1934; Magallanes, Sorsogon Province, Luzon; Culion; Dumaguete; Sitankai, Sulu Province. Herre, Bull. Raffles Mus., No. 13, p. 48, 1937; Singapore. Herre, Philippine Jour. Sci., vol. 70, p. 333, 1939; Manila; Nasugbu, Batangas Province; Magallanes, Sorsogon Province, Luzon. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay. Herre, Copeia, No. 2, p. 116, 1942; Manila; Nasugbu, Batangas Province, and Magallanes, Sorsogon Province, Luzon. Puerto Galera, Mindoro; Culion; Estancia and Iloilo, Iloilo Province, Panay; Cuyo, Cuyo Islands; Bais and Dumaguete, Oriental Negros Province; Sitankai, Sulu Province.

Petrosirtes vulsus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 47, fig. 20, 1907; Manila, Luzon.

1993. *Petrosirtes felicitiana* Herre.

The Philippines.

Petrosirtes felicitiana Herre, Copeia, No. 2, pp. 112 and 116, 1942; Cagayan, Misamis Oriental Province, Mindanao. Herre, 1948 Coll.; Manat River, Pangasinan Province, Luzon.

1994. *Petrosirtes ferox* Herre.

A Philippine fresh-water species.

Petrosirtes ferox Herre, Philippine Jour. Sci., vol. 34, p. 277, pl. 3, figs. 2-3, 1927; vicinity of Ambulong, Talisay, and Volcano Island, Lake Bombon, Batangas Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 98, 1934; Ambulong, Lake Bombon, Batangas Province, Luzon. Herre, Copeia No. 2, pp. 113 and 115, 1942; Lake Bombon, Batangas Province, Luzon.

1995. *Petrosirtes grammistes* (Cuvier and Valenciennes).

East Indies, Philippines, and Yap.

Blennechis grammistes Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 210, 1836; Java; East Indies.

Petrosirtes anema Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 273, 1852; Amboina.

Petrosirtes grammistes Günther, Cat. Fishes, British Mus., vol. 3, p. 236, 1861; after Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 2, p. 197, pl. 115, fig. F, 1876-1881; Yap. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, 1885; Cebu, Cebu. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 104, 1907; Bacon, Sorsogon Province, Luzon. Herre, Philippine Jour. Sci., vol. 70, p. 335, 1939; Subic, Zambales Province, and Legaspi, Albay Province, Luzon. Puerto Galera, Mindoro; Dumaguete, Negros Oriental Province. Also Singapore. Herre, Copeia, No. 2, p. 116, 1942; Cagayan, Misamis Oriental Province, Mindanao.

- Petrosirtes ancma* Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 31, 1885; Cebu, Cebu.
Petrosirtes hypseloptera Fowler, Copeia, No. 2, p. 65, 1918; Philippines.
1996. *Petrosirtes kallosoma* Bleeker.
 East Indies and Philippines.
Petrosirtes kallosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 227, 1858; Billiton. Günther, Cat. Fishes British Mus., vol. 3, p. 233, 1861; after Bleeker.
Petrosirtes kallosoma Weber, Siboga-Exped., vol. 57, Fische, vol. 54, p. 541, 1913; Bima and North Celebes. Herre, Philippine Jour. Sci., vol. 70, p. 332, 1939; Nasugbu, Batangas Province, Luzon. Herre, Fishes 1940-41 Exped.; Kolambugan, Lanao Province, Mindanao. Herre, Copeia, No. 2, p. 116, 1942; Nasugbu, Batangas Province, Luzon. Estancia, Iloilo Province, Panay. Patalon Plantation, Zamboanga Province, Mindanao.
1997. *Petrosirtes loxias* (Jordan and Seale).
 Philippines and the Malay Peninsula.
Hypleurochilus loxias Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 802, fig. 20, 1905; Bais, Oriental Negros Province.
Petrosirtes loxias Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 98, 1934; Dumaguete; Sitankai, Sulu Province. Herre, Philippine Jour. Sci., vol. 70, p. 332, 1939; Nasugbu, Batangas Province, Luzon; Culion; Opon, Mactan Island, Cebu Province; Bais and Dumaguete, Oriental Negros Province; Sitankai, Sulu Province; Singapore. Herre, Fishes, 1940-41, Exped.; Coron, Busuanga Island. Herre, Copeia, No. 2, p. 116, 1942; common in central and southern Philippines. Nasugbu, Batangas Province, Luzon; Bais and Dumaguete, Negros Oriental Province, Culion. Mactan Island, Cebu Province; Kolambugan, Lanao Province, Mindanao; Sitankai, Sulu Province.
1998. *Petrosirtes mitratus* Rüppell.
 Red Sea, Mozambique, Madagascar, East Indies, Philippines and Yap.
Petrosirtes mitratus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 111, pl. 28, fig. 1, 1828; Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 237, 1861; Red Sea; Seas of Banda Neira and Amboyna. Klunzinger, Synopsis Fische Rothen Meeres, p. 496, 1871; Red Sea. Günther, Fische der Südsee, vol. 2, p. 198, 1876-1881; Yap. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 295, 1927; Philippines. Herre, Philippine Jour. Sci., vol. 70, p. 330, 1939; Puerto Galera, Mindoro. Herre, Copeia, No. 2, p. 115, 1942; Philippines; Puerto Galera, Mindoro, Santa Maria and Patalon Plantation, Zamboanga Province, Mindanao.
Petrosirtes barbatus Peters, Archiv Naturges., p. 248, 1885; Mozambique. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 383, pl. 38, fig. 6, 1891. Herre, Fishes 1931 Philippine Exped., p. 98, 1934; Puerto Galera, Mindoro.
1999. *Petrosirtes polyodon* (Bleeker).
 East Indies and Philippines.
Blennechis polyodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 254, 1851; Batavia, Java.
Petrosirtes polyodon Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 45, 1860; Celebes. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 293, 1865; Amboina.
Petrosirtes polyodon Günther, Cat. Fishes, vol. 3, p. 235, 1861; after Bleeker. Herre, Philippine Jour. Sci., vol. 70, p. 335, 1939; Dumaguete, Negros Oriental Province. Herre, Copeia, No. 2, p. 116, 1942; Dumaguete.
2000. *Petrosirtes rhinorhynchus* Bleeker.
 East Indies, Philippines, Pelew Islands, and New Hebrides.
Petrosirtes rhinorhynchus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 273, 1852; Wahai, Ceram. Bleeker, *ibid.*, vol. 15, p. 201, 1858; Goram.
Petrosirtes rhinorhynchus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 45, 1860; Celebes. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 149, 1865. Buru. Bleeker, *ibid.*, p. 293; Amboina.
Petrosirtes rhinorhynchus Günther, Cat. Fishes British Mus., vol. 3, p. 230, 1861; after Bleeker. Herre, Fishes 1931 Philippine Exped.,

p. 100, 1934; Dumaguete, Negros Oriental Province. Herre, Philippine Jour. Sci., vol. 70, p. 328, 1939; Dumaguete, Negros Oriental Province, and Sitankai, Sulu Province, Philippines; Waigiu and Madang, New Guinea. Herre, Copeia, No. 2, p. 115, 1942; Dumaguete, Negros Oriental Province, and Sitankai, Sulu Province.

2001. *Petroscirtes solorensis* Bleeker.

East Indies and Philippines.

Petroscirtes solorensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 81, 1853; Lawajong, Solor Island.

Petroscirtes solorensis Günther, Cat. Fishes British Mus., vol. 3, p. 235, 1861; after Bleeker. Herre, Philippine Jour. Sci., vol. 70, p. 336, 1939; Cabalian, Leyte; Clarendon Bay, Balabac; South Ubian, Sulu Province. Herre, Copeia, No. 2, p. 116, 1942; Cabalian, Leyte; Clarendon Bay, Balabac; South Ubian, Sulu Province.

2002. *Petroscirtes taeniatus* (Quoy and Gaimard).

East Indies, Philippines, Guam, and Caroline Islands, to Tahiti and the Tuamotu Islands.

Aspidontus taeniatus Quoy and Gaimard, Voy. *Astrolabe*, Zool., vol. 3, p. 719, pl. 19, fig. 4, 1834; Agaña, Guam; North New Guinea.

Petroscirtes paradiscus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 495, 1854; Amboina.

Petroscirtes taeniatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 201, 1858; Goram Archipelago. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 293, 1865; Amboina.

Petroscirtes taeniatus Günther, Cat. Fishes British Mus., vol. 3, p. 231, 1861; coasts of Goram, Amboyna, New Guinea, and Guam. Günther, Fische der Südsee, vol. 2, p. 195, pl. 114, fig. A, 1876-1881; New Guinea; Carolines; Tonga; Tuamotu Islands; Tahiti; Fiji. Herre, Philippine Jour. Sci., vol. 59, p. 372, 1936; Calapan, Mindoro. Dumaguete, Negros Oriental Province. Sulu Archipelago. Herre, Philippine Jour. Sci., vol. 70, p. 328, 1939; Calapan, Mindoro; Dumaguete, Negros Oriental Province; Bungau, Sibutu, and Sitankai, Sulu Province. Herre, Copeia, No. 2, p. 115, 1942; Calapan and Puerto Galera, Mindoro; Dumaguete, Negros Oriental Province; Bungau, Sibutu, and Sitankai, Sulu Province.

Petroscirtes azureus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 432, fig. 109, 1906; Apia, Samoa.

2003. *Petroscirtes temmincki* Bleeker.

East Indies and the Philippines.

Petroscirtes temmincki Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 243, 1851; Banda. Bleeker, *ibid.*, vol. 15, p. 201, 1858; Goram. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; Ternate.

Petroscirtes temminckii Günther, Cat. Fishes British Mus., vol. 3, p. 236, 1861; after Bleeker.

Petroscirtes temmincki Herre, Philippine Jour. Sci., vol. 70, p. 337, 1939; Cebu, Cebu. Herre, Copeia, No. 2, p. 116, 1942; Cebu, Cebu.

2004. *Petroscirtes variabilis* Cantor.

Malaya and India to the Philippines.

Petroscirtes variabilis Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1182, 1850; Pinang; Singapore. Günther, Cat. Fishes British Mus., vol. 3, p. 234, 1861; Pinang. Day, Fishes India, p. 327, pl. 69, fig. 7, 1878. Herre, Philippine Jour. Sci., vol. 70, p. 334, 1939; near Kling, Cotabato Province, Mindanao. Also Sandakan, British North Borneo. Coral reef near Singapore. Herre, Copeia, No. 2, p. 116, 1942; Kling, Cotabato Province, Mindanao. Sulu Sea, near Sandakan, British North Borneo.

2005. *Petroscirtes waterousi* Herre.

A Philippine species.

Petroscirtes waterousi Herre, Copeia, No. 2, pp. 112 and 115, 1942; Hacienda Waterous, Mangarin, Mindoro, Philippines.

Genus 641. ENCHELYURUS Peters.

East Indies, Philippines, and tropical Pacific Ocean.

Enchelyurus Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; type *Enchelyurus flavipes* Peters. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 434, 1906. Herre, Philippine Jour. Sci., vol. 70, p. 338, 1939.

2006. *Enchelyurus caeruleo-punctatus* Herre.
A Philippine species.
Enchelyurus caeruleo-punctatus Herre, Philippine Jour. Sci., vol. 70, p. 340, pl. 1, 1939; Nasugbu, Batangas Province, Luzon.
2007. *Enchelyurus flavipes* Peters.
Enchelyurus flavipes Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; Singapore. Herre, Bull. Raffles Mus., No. 13, p. 47, 1937; Singapore. Herre, Philippine Jour. Sci., vol. 70, p. 339, 1939; Culion.
Enchelyurus flavipes var. *nigerrima* Weber, *Siboga*-Exped., vol. 57, Fische, p. 545, 1913; near Makassar, Celebes. Herre Fishes 1931 Philippine Exped., p. 98, 1934; Culion.
- Genus 642. **RHABDOBLENNIUS** Whitley.
About 9 species occur in the tropical Indo-Western Pacific, north to Japan, east to Samoa and west to the Red Sea and Natal. Marine.
Rhabdoblennius Whitley, Mem. Queensland Mus., vol. 10, p. 20, 1930; type, *Blennius rhabdotrachelus* Fowler and Ball. Norman, Ann. Mag. Nat. Hist., (11) vol. 10, p. 808, 1943.
Nixiblennius Whitley, Mem. Queensland Mus., vol. 10, p. 20, 1930; type, *Blennius snowi* Fowler.
Antennablennius Fowler, Proc. Acad. Nat. Sci., Phila., vol. 83, p. 245, 1931; type, *Blennius hypenetes* Klunzinger.
2008. *Rhabdoblennius fowleri* (Herre).
Salarias nitidus Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Dumaguete and vicinity. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete; not of Günther; males of *R. fowleri*. Herre, Philippine Jour. Sci., vol. 70, p. 351, 1939; Dumaguete.
Salarias alboguttatus Herre, Fishes 1931 Philippine Exped., p. 96, 1934; Dumaguete. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete; not of Kner.
Salarias fowleri Herre, Philippine Jour. Sci., vol. 59, p. 364, pl. 2, fig. 7, 1936; Dumaguete, Negros Oriental Province. Herre, Philippine Jour. Sci., vol. 70, p. 364, 1939; Dumaguete.
2009. *Rhabdoblennius nitidus* (Günther).
Salarias nitidus Günther, Cat. Fishes British Mus., vol. 3, p. 243, 1861; Chinese Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 130, 1873; China. Günther, Fische der Südsee, vol. 2, p. 200, pl. 113, fig. F, 1876-1881; description pro parte and not fig. G.
Salarias fowleri Herre, Philippine Jour. Sci., vol. 59, p. 364, 1936; Dumaguete; two specimens only, in type series of *fowleri*; not of Herre; pro parte.
- Genus 643. **CIRRIPECTUS** Swainson.
Cirripectus Swainson, Nat. Hist. Animals, vol. 2, Fishes, pp. 78 and 80 (*Cirripectes* on pp. 182 and 275), 1839; type, *Salarias variolosus* Cuvier and Valenciennes. Norman, Ann. Mag. Nat. Hist., (11) vol. 10, p. 810, 1943.
Exallias Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pp. 495 and 503, 1905; type, *Salarias brevis* Kner.
Gloriella Schultz, Copela, No. 1, p. 17, 1941; type, *Cirripectes caninus* Herre.
2010. *Cirripectus variolosus* (Cuvier and Valenciennes).
Tropical Indo-Western Pacific.
Salarias variolosus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 317, pl. 330, 1836; Guam. Günther, Cat. Fishes British Mus., vol. 3, p. 247, 1861 (comp.). Schmeltz, Cat. Mus. Godeffroy, vol. 5, p. 29, 1874; Savaii, Tonga. Günther, Fische der Südsee, vol. 2, p. 203, pl. 116, fig. A, 1876-1881; Samoa; Tahiti, Society Islands. Schmeltz, Cat. Mus. Godeffroy, vol. 7, p. 48, 1879; Samoa, Tonga. Pöhl, Cat. Mus. Godeffroy, vol. 9, p. 34, 1884; Tonga. Ogilby, Mem. Australian Mus., vol. 2, p. 62, 1889; Lord Howe Island. Fowler, Proc. Acad. Nat. Sci. Phila., p. 518, 1900; Hawaiian Islands. Jenkins, Bull. U. S. Fish Comm. vol. 22, p. 507, 1903; Honolulu. Fowler and Silvester, Marine Papers Carnegie Inst., p. 125, 1922; PagoPago. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, No. 3, p. 97, 1932; Venus Pt. Reef, Tahiti and Raiatea, Society Islands.

- Salarias castaneus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 324, 1836; Ile-de-France. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 20, 1879; L'île Maurice. Sauvage in Grandidier, Hist. Phys. Nat., Madagascar, Poissons, p. 522, 1891; Madagascar.
- Salarias filamentosus* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, No. 4, p. 337, pl. XIV, fig. 1, 1877; Cape York, Queensland.
- Salarias alboapicalis* Ogilby, Proc. Linn. Soc. New South Wales, vol. 23, p. 742, 1898; Lord Howe Island. Waite, Records Australian Mus., vol. 31, p. 224, 1904; Kermadac Islands. Waite, Records Australian Mus., vol. 5, p. 181, 1904; Lord Howe Island.
- Salarias nigripes* Seale, Occas. Papers Bishop Mus., vol. 1, p. 127, 1901; Guam.
- Alticus variolosus* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 497, 1903 (1905); Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 424, 1905 (1906); Apia. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 155, 1912; La Perouse Bay, Easter Island.
- Cirripectes variolosus* McCulloch and McNeil, Records Australian Mus., vol. 12, p. 22, 1918; New Hebrides. Fowler, Copeia, p. 84, 1922; Hawaii. Fowler, Bull. Bishop Mus., vol. 38, p. 29, 1927; Fanning and Christmas Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 433, 1928; Hawaiian Islands; Pago Pago and Apia, Samoa; Guam; Palmyra Island; Johnston and Wake Islands; Easter Island. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 363, 1931; Samoa and Tonga. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Dumaguete; Siquijor Island, Philippines. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1934; Hapai, Friendly Islands; Aneteum; Santo, New Hebrides. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 243, 1938; Diamond Head, Oahu, Hawaiian Islands. Herre, Philippine Jour. Sci., vol. 70, p. 343, 1939; Dumaguete; San Juan; Siquijor; Sitankai, Sulu Province; Waigiu Island. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 93, p. 276, 1941. Schultz, Copeia, No. 1, p. 19, 1941. Schultz, Bull. U. S. Nat. Mus., No. 180, p. 275, 1943; Enderbury, Hull, Canton, Tau, Tutuila, Swain's and Rose Islands.
- Rupiscartes variolosus* Fowler and Ball, Bull. Bishop Mus., vol. 26, p. 29, 1925; Johnston and Wake Islands.
- Ecalthus obscurus* Borodin, Amer. Mus. Nat. Hist. Novitates, No. 281, p. 1, 1927; Oahu, Hawaii.
- Cirripectes filamentosus* McCulloch, Mem. 5, Australian Mus., Check List Fishes Australia, Part 3, p. 345, 1929; Queensland.
- Ophioblennius vanderbilti* Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 242, 1938; Oahu, Hawaii.

Genus 644. ENTOMACRODUS Gill.

Tropical Indo-Western Pacific from Africa to Easter Island and from Japan to Australia. Tropical eastern Pacific, and tropical Atlantic Ocean from Panama to Africa. About 12 species.

Entomacrodus Gill, Proc. Acad. Nat. Sci. Phila., vol. 11, p. 168, 1859; type, *E. nigricans* Gill = *Salarias textilis* Quoy and Gaimard.

Salarichthys Guichenot, Mem. Soc. Sci. Nat. Cherbourg, vol. 13, p. 96, 1867; type, *Salarias textilis* Quoy and Gaimard.

2011. *Entomacrodus caudofasciatus* (Regan).

Salarias caudofasciatus Regan, Proc. Zool. Soc. London, p. 405, pl. 66, fig. 3, 1909; Christmas Island, Indian Ocean.

Salarias marmoratus Herre, Philippine Jour. Sci., vol. 70, p. 361, 1939; Nasugbu, Batangas Province, Luzon, specimens in part; not of Bennett.

Salarias periphthalmus Herre, Philippine Jour. Sci., vol. 70, p. 352, 1939; Dumaguete specimens in part; not of Cuvier and Valenciennes.

Salarias thalassinus Schultz, Bull. 180, U. S. Nat. Mus., p. 283, 1941; Swain's Island and Tutuila Island, Samoa; specimens in part; not of Jordan and Seale.

2012. *Entomacrodus decussatus* (Bleeker).

Salarias guttatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 379, 1857; Sangir; not of Cuvier and Valenciennes.

Salarias decussatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 230, 1858; Billiton.

- Salarias aneitensis* Günther, Fische der Südsee, vol. 2, p. 205, pl. 118, fig. A, 1876-1881; Aneiteum, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 423, 1905 (1906); after Günther. Fowler, Mem. Bishop Mus., vol. 10, p. 436, 1928; after Günther. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1931; New Hebrides. Fowler, Occas. Papers Bishop Mus., vol. 9, No. 18, p. 15, 1932; Apia, Samoa. Fowler, Proc. U. S. Nat. Mus., vol. 81, p. 7, 1932; Tonga Islands. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 362, 1939; Puerto Galera, Mindoro, Philippines. Schultz, Bull. U. S. Nat. Mus., vol. 180, p. 284, 1943; Tutuila and Tau Islands, Samoa.
- Salarias marmoratus* Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 361, 1939; Philippines; Nasugbu specimens in part; (not of Bennett).

2013. *Entomacrodus striatus* (Quoy and Gaimard).

- Salarias striatus* Quoy and Gaimard, in Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 309, 1836; Mauritius. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 20, 1879; Mauritius. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, pp. 385 and 522, pl. 41, fig. 8, 1891; Madagascar.
- Salarias fraenatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 342, 1836; Malabar coast, South India. Bleeker, Verh. Bat. Gen., vol. 25, p. 50, 1853; compiled. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, pp. 405 and 514, 1934; Durban, Natal; St. Lucia rock pools; North Zululand.
- Erpichthys fraenatus* Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 275, 1839; compiled.
- Salarias arenatus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, pp. 169-171, and 173, 1855; Cocos Island. Bleeker, *ibid.*, vol. 8, p. 448, 1855; Cocos Island. Bleeker, *ibid.*, vol. 15, p. 460, 1858; Cocos Island. Bleeker, *ibid.*, vol. 19, p. 331, 1859; Patjitan, Java. Günther, Cat. Fishes, British Mus., vol. 3, p. 249, 1861; after Bleeker. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, pp. 284 and 288, 1868; Solor. Bleeker, Recherches faune Madagascar, Poissons, p. 74, 1875; Madagascar.
- Blennius marmoratus* Gray, Descript. Cat. Specimens Royal College Surgeons, London, p. 43, 1859; Sumatra; not of Bennett.
- Salarias frenatus* Günther, Cat. Fishes British Mus., vol. 3, p. 246, 1861; after Cuvier and Valenciennes. Day, Fishes India, p. 335, pl. 70, fig. 9, 1876; Malabar and Bombay. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 388 and 522; pl. 41A, fig. 5, 1891; on type. Herre, Records Indian Mus., vol. 41, No. 4, p. 369, 1939; pro parte, from various localities in Andaman Islands.
- Salarias marmoratus* Schmeltz, Cat. Mus. Godeffroy, vol. 3, p. 9, 1866. Schmeltz, *ibid.*, vol. 4, p. 19, 1869. Schmeltz, *ibid.*, vol. 7, p. 48, 1879; Samoa. Günther, Fische der Südsee, vol. 2, p. 204, pl. 116, fig. B, 1876-1881; Aneiteum; Bonham Islands, Tahiti, Society Islands; not of Bennett. Ogilby, Mem. Australian Mus., vol. 2, p. 62, 1889; Lord Howe Island. Waite, Mem. Australian Mus., vol. 3, p. 190, 1897; Funafuti, Ellice Islands. Waite, Records Australian Mus., vol. 5, pp. 181 and 223, 1904; Lord Howe Island. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 15, 1927; Tahiti. Fowler, Bull. Bishop Mus., vol. 38, p. 29, 1927; Fanning and Tongareva specimens in part. Fowler, Mem. Bishop Mus., vol. 10, p. 436, 1928; Wake Island and Samoa specimens in part. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, No. 3, p. 97, 1932; Fave Bay, Huahine Island, Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete, Negros Oriental Province, Philippines. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Dumaguete. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1934; New Hebrides; Funafuti, Ellice Island specimens in part. Herre, Philippine Jour. Sci., vol. 70, Part 4, p. 361, 1939; Waigiu; Dumaguete, Philippines. Herre, Records Indian Mus., vol. 41, No. 4, p. 370, 1939; several locations in Andamans; pro parte. Schultz, Bull. 180, U. S. Nat. Mus., p. 283, 1943; Swain's, Tutuila, Tau, Enderbury, Canton, Rose, and Hull Islands; Pago Pago, Samoa.
- Alticus striatus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 423, 1905 (1906); Tutuila, Samoa. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 154, 1912; Samoan specimens only.
- Rupiscartes marmoratus* Fowler and Ball, Bull. Bishop Mus., vol. 26, p. 29, 1925; Wake Island; not of Bennett.

Genus 645. SALARIAS Cuvier.

Tropical Indo-Western Pacific from Africa to Easter Island and from southern Japan to northern Australia. About 30 species.

Salarias Cuvier, Règne Animal, vol. 2, p. 251, 1817; type, *S. quadripennis* Cuvier=*Blennius fasciatus* Bloch.

Salarias of authors not *Salaria* Forskål, Descript. Animal, pp. x and 22, 1775.

Erpichthys Swainson, Nat. Hist. Animals, Fishes, vol. 2, pp. 79, 182, and 275, 1839; *Erpichthys* in index; type, *Salarias quadripennis* Cuvier.

Negoscartes Whitley, Mem. Queensland Mus., vol. 10, p. 20, 1930; type, *Salarias guttatus* Curvier and Valenciennes.

Crenalticus Whitley, Mem. Queensland Mus., vol. 10, p. 21, 1930, type, *Salarias crenulatus pallidus* Whitley=*Salarias sinuosus* Snyder.

Istiblennius Whitley, Australian Zoologist, vol. 10, p. 185, 1943; type, *Salarias mülleri* Klunzinger.

2014. *Salarias alboguttatus* Kner.

Salarias alboguttatus Kner, Sitzber. Akad. Wiss. Wien, vol. 56, p. 724, pl. 4, fig. 4, 1867; Samoan Islands. Kner, Sitzber. Akad. Wiss. Wien, vol. 58, Part 1, p. 334, 1868; Kandavu, Fiji. Günther, Fische der Südsee, vol. 2, p. 205, pl. 118, fig. B, 1876-1881; Samoa. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, p. 1410, 1906; Upolu; Samoa. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, No. 3, p. 97, 1932; Raiatea, Society Islands. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; Samoa and New Hebrides. Schultz, Bull. 180, U. S. Nat. Mus., p. 283, 1943; PagoPago, Samoa. Chapman ms., one specimen in Paris Museum from Luzon, Philippines; Munda, Solomons.

Entomacrodus sealei Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, No. 1, p. 138, 1902 (1903); Marcus Island.

Alticus alboguttatus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 424, 1905 (1906); Apia; PagoPago.

Alticus sealei Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 426, 1905 (1906); after Bryan and Herre.

2015. *Salarias bilitonensis* Bleeker.

Salarias bilitonensis Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, pp. 220 and 231, 1858; western Biliton, East Indies. Günther, Cat. Fishes British Mus., vol. 3, p. 257, 1861; from Haslar collection. Day, Fishes India, p. 334, pl. 71, fig. 1, 1876; Andaman Islands. De Beaufort, Bijd. Dierk. Amsterdam, vol. 19, p. 149, 1913; Saonek, Waigiu. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 535, 1913; Lirung, Salibabu Island. Fowler, Mem. Bishop Mus., vol. 10, p. 442, 1928; compiled. Fowler, *ibid.*, vol. 11, No. 6, p. 446, 1934; compiled. Herre, Records Indian Mus., vol. 41, p. 366, 1939; compiled. Herre, Mem. Indian Mus., vol. 13, p. 394, 1941; compiled. Chapman ms. *Albatross* Philippine Collection, 1907-09; Batan Island, Batanes Province; Curimao, Ilokos Norte Province, and Maculabo Island, off coast of Camarines Norte Province, Luzon.

Salarias hendriksii Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, pp. 220 and 233, 1858; western Biliton, East Indies. Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 241, 1859; Anjer, Java. Günther, Cat. Fishes British Mus., vol. 3, p. 252, 1861; after Bleeker. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 533, 1913; Lirung, Salibabu Island.

Entomacrodus leopardus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 554, 1904; Padang, Sumatra; not of Day, nor of Fowler, 1938.

Entomacrodus calurus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, p. 55, 1904; Padang, Sumatra.

Salarias deani Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 799, fig. 17, 1905; Negros, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 284, 1908; Calayan Island, Cagayan Province, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete, Negros Oriental Province, Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Dumaguete, Jolo, and Sitankai. Herre, Philippine Jour. Sci., vol. 70, Part 4, p. 365, 1939; Nasugbu; Dumaguete; Opon; Sitankai.

Alticus novemmaculosus Snyder, Proc. U. S. Nat. Mus., vol. 35, p. 107, 1908; Naha, Okinawa. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 518, pl. 69, fig. 4, 1912; Naha, Okinawa. Okada, Cat. Vertebrates Japan, p. 254, 1938; after Snyder.

- Salarias interruptus* de Beaufort, Bijd. Dierk. Amsterdam, vol. 19, p. 149, 1913; Saonek, Waigeu; not of Bleeker.
- Salarias periophthalmus visayanus* Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Dumaguete, pro parte, Negros; Culion. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 353, 1939; Dumaguete and Culion specimens only, and in part.
- 2016. *Salarias ceramensis* Bleeker.**
- Salarias ceramensis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, pp. 690, 692, and 701, 1852; Wahai, Ceram. Bleeker, *ibid.*, vol. 5, p. 237, 1853; Ceram. Bleeker, *ibid.*, vol. 13, p. 61, 1856; Buru. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 45, 1860; Ceram. Günther, Cat. Fishes British Mus., vol. 3, p. 246, 1861; Ceram (?), Borneo. Bleeker, Ned. Tijds. Dierk., vol. 2, pp. 149, 191, and 203, 1865; Wahai, Ceram. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 31, 1885; Kordo, Mysore. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 529, 1913; Fau, Gebé Island. Herre, Fishes 1931 Philippine Exped., p. 96, 1934; Sitankai, Sulu Province, Philippines. Herre, Philippine Jour. Sci., vol. 70, no. 4, p. 349, 1939; Sitankai; Singapore. Herre, Fishes 1940-41 Exped.; Coron, Busuanga Island; Sibutu, Sulu Province.
- Salarias fasciatus* Herre, Fishes 1931 Philippine Exped.; Gorrór Island, Pelew Islands; not of Bloch.
- 2017. *Salarias cyanostigma* Bleeker.**
- Salarias cyanostigma* Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden, pp. 5, 7, 18, 1849; Pagotang, Central Java. Bleeker, *ibid.*, vol. 23, Ichth. fauna Java, p. 9, 1850; Pagotang. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 238, 241, fig. 18, 1850; Java. Bleeker, *ibid.*, vol. 1, p. 361, 1851; Batjan. Bleeker, *ibid.*, vol. 9, p. 62, 1854; Cauer and Priamen, Sumatra. Bleeker, *ibid.*, vol. 10, p. 360, 1855; Ternate. Bleeker, *ibid.*, vol. 12, p. 199, 1856-57; Ternate, Bleeker, *ibid.*, vol. 13, pp. 372, 478, 1857; Sangir; Karangbollong, Java. Bleeker, *ibid.*, vol. 15, pp. 220, 224, 403, 1858; Biliton; Karangbollong and Pagotang, Java. Bleeker, *ibid.*, vol. 20, p. 203, 1859; Karangbollong, Java. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, pp. 43, 45, 1860. Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, pp. 249, 256, 1861; Timor. Günther, Cat. Fishes, British Mus., vol. 3, p. 258, 1861; after Bleeker. Bleeker, Verh. Akad. Amsterdam, vol. 14, p. 111, 1862; Batjan. Bleeker, Ned. Tijds. Dierk., vol. 1, pp. 236, 272, 1863; Timor. Bleeker, vol. 2, p. 293, 1865. Pfeffer, Jahrbuch Hamburg Wiss. Anstalt, vol. 10, p. 143, 1892; Bauí, East Africa. Chapman, *Albatross* Philippine Collection, 1907-09; Mactán Island, Cebu Province; Nogas Point, Antique Province, Panay; from Chapman ms.
- Salarias andamensis* Day, Proc. Zool. Soc. London, p. 611, 1869; Andaman Islands. Day, Fishes India, p. 332, 1876; after Day. Day, Fauna British India, Fishes, vol. 2, p. 317, 1889; after Day.
- Salarias striolatus* Day, Fishes India, p. 333, 1876; Andaman Islands. Day, Fauna British India, Fishes, vol. 2, p. 319, 1889. Herre, Records Indian Mus., vol. 41, Part 4, p. 365, 1939; after Day. Herre, Mem. Indian Mus., vol. 13, Part 3, p. 395, 1941; after Day.
- Salarias caudolineatus* Günther, Fische der Südsee, vol. 2, p. 209, pl. 116, fig. F., 1876-1881; Tahiti. Pfeffer, Jahrbuch Hamburg Wiss. Anstalt, vol. 10, p. 143, 1893; Zanzibar. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 273, 1897; Rotuma. Seale, Occas. Papers Bishop Mus., vol. 4, No. 1, p. 87, 1906; Makatea, Paumotus; Nukahiva, Marquesas. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 15, 1927; Tahiti. Fowler, Mem. Bishop Mus., vol. 10, p. 441, 1928; Makatea; Apia; Fiji; Rangiroa. Herre, Jour. Pan Pacific Research Inst., vol. 6, No. 4, p. 14, 1931; New Hebrides, in part. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1934; Dumaguete in part. Herre, Fishes 1931 Philippine Exped., p. 96, 1934; Negros; Dumaguete and vicinity in part. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; Samoa; Vila and Hog Harbor, New Hebrides. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 354, 1939; Calapan, Mindoro; Nasugbu, Batangas Prov., Luzon; Dumaguete, Negros Oriental Province; south coast Cotabato Province; Mindanao, Philippines. Also Mombasa, East Africa; Waigiú; Malo Island, Efaté

- Island and Wala Island, New Hebrides; Ovalau, Fiji. Schultz, Bull. 180, U. S. Nat. Mus., p. 283, 1943; Tau and Tutuila, Samoa.
- Alticus caudolineatus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 423, 1905 (1906); Apia and Pago Pago, Samoa. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, No. 7, p. 326, 1911; Rangiroa, Taumotus.
- Alticus periophthalmus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 422, 1905 (1906); Apia specimens in part; not of Cuvier and Valenciennes.
- Rupiscartes caudolineatus* Fowler, Bull. Bishop Mus., vol. 22, p. 36, 1925; Samoa.
- Salarias periophthalmus* Herre, Jour. Pan Pacific Research Inst., vol. 6, No. 4, p. 14, 1931; New Hebrides. Not of Cuvier and Valenciennes. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Nasugbu and Dumaguete specimens in part. Herre, Philippine Jour. Sci., vol. 70, Part 4, p. 352, 1939; Nasugbu and Dumaguete specimens in part; Nukulau, Fiji specimens. Herre, Records Indian Mus., vol. 41, No. 4, p. 363, 1939; Andaman specimens. Schultz, Bull. U. S. Nat. Mus., No. 180, p. 284, 1943; Tutuila and Tau Island specimens, in part.
- Salarias periophthalmus visayanus* Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Dumaguete specimens, in part; not of Herre. Herre, Philippine Jour. Sci., vol. 70, Part 4, p. 353, 1939; Dumaguete specimens in part; all specimens from Mombasa, East Africa.

2018. *Salarias dussumieri* Cuvier and Valenciennes.

- Salarias dussumieri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 310, 1836; Malabar, India. Bleeker, Verh. Bat. Gen., vol. 25, p. 48, 1853; after Cuvier and Valenciennes. Günther, Cat. Fishes British Mus., vol. 3, p. 251, 1861; coast of Malabar; Port Essington. Playfair and Günther, Fishes Zanzibar, p. 77, pl. 9, figs. 6-7, 1866; Aden; Zanzibar. Day, Proc. Zool. Soc. London, p. 518, 1869; Andaman Islands. Day, Proc. Zool. Soc. London, p. 395, 1870; Andaman Islands. Day, Fishes India, p. 333, pl. 70, fig. 7, 1878; east coast of Africa, Seas of India, to Andaman Islands. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 21, 1879; L'île Maurice. Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 11, 1881; Port Essington. Meyer, An. Soc. España Hist. Nat. vol. 14, p. 31, 1885. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522, 1891, Madagascar. Pfeffer, Jahrbuch Hamburg Wiss. Anstalt, vol. 10, p. 143, 1892; Baui Island, East Africa. Pellégrin, Bull. Mus. Nat. Hist., vol. 4, p. 239, 1898; Marianas. Regan, Jour. Bombay Nat. Hist. Soc., vol. 16, p. 331, 1905; Persian Gulf. Chapman, *Albatross* Philippine Coll., 1907-09; Dumurug Point, Masbate Island; Mactan Island, Cebu Prov.; Nogas Pt., Antique Prov., Panay. Gilchrist and Thompson, Ann. Durban Mus., vol. 1, No. 4, p. 415, 1917; Durban, Whitley, Australasian Zoologist, vol. 4, No. 4, p. 235, 1926; Northwest Islet, Capricorn Group, Australia. Barnard, Ann. South African Mus., vol. 21, No. 2, p. 846, 1927; Natal coast, Delagoa Bay. Fowler, Mem. Bishop Mus., vol. 10, p. 439, 1928; Palmyra Island. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 344, 1929; Queensland; India. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, No. 3, p. 97, 1932; Apia, Samoa; Huahine Island, Society Island. Giltay, Mem. Mus. Roy. Hist. Nat. Belgique, Hors Series, vol. 5, No. 3, p. 102, 1933; Poeloe Endoe, Aru Islands. Smith, Jour. Siam Soc. Nat. Hist., Supplement, vol. 9, No. 3, p. 320, 1934; Koh Kut, Koh Chula, Lem Sing and Chantabun Estuary, southeast Siam; Koh Maprao and Koh Chan, off east coast peninsular Siam; and Koh Pipidon, west coast peninsular Siam. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; compiled. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, 1934; Durban, Natal; Umhlabi rock pools. Suvatti, Index Fishes Siam, p. 160, 1936; Ko Cula, southeast Siam; Ko Maprau, Peninsula of Siam; Ko Can, Gulf of Siam; Ko Kut, southeast Siam; Canthaburi Estuary; Ko Pipidon; Paknam, Maenam Cau Phaya, Mae Klong River, Siam. Hora and Mukerji, Records Indian Mus., vol. 38, pp. 20, 33, 1938; Maungmagan, Burma. Herre, Records Ind. Mus., vol. 41, No. 4, p. 367, 1939; Andamans; Long Island, Middle Andamans; Port Blair, Blair Reef, Murdakhari Bay, East Ross Island. Herre, Proc. Biol. Soc. Washington, vol. 55, p. 3, 1942; Nasugbu, Batangas; Calapan, Mindoro;

- Bais, and Dumaguete, Negros Oriental; Estancia, Panay; Kolombugan, Lanao; Patalon Plantation, Zamboanga; Lembeh Straits, Celebes; Andaman Islands. Natal. Thompson, Cat. Fishes Cape Province, Marine Biological Rept., Capétown, No. 4, p. 146, 1928; Natal. McCulloch and McNeil, Records Australian Mus., vol. 12, No. 2, p. 18, pl. 4, fig. 2, 1918; Darnley and Murray Islands, Torres Strait; Two Isles, off Cape Bedford, Queensland. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province; Estancia, Panay; Kolombugan, Lanao Province, and Patalon Plantation, Zamboanga Province, Mindanao; Singapore.
- Salarias oortii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 238, 241, and 257, fig. 15, 1851; Tijlankahan, Java. Bleeker, Acta. Soc. Sci. Indo-Neerl., vol. 3, p. 39, 1858; Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 404, 1858; Tijlankahan, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 333, 1859; Karongbollong, Java. Bleeker, Acta. Soc. Sci. Indo-Neerl., vol. 8, p. 43, 1860; compiled. Bleeker, Nat. Tijdschr. Ned.-Ind., vol. 22, p. 245, 1861; Batoesendi. Günther, Cat. Fishes British Mus., vol. 3, p. 257, 1861; Sumatra; Java; Moluccas. Playfair and Günther, Fishes Zanzibar, p. 77, 1866; Zanzibar. Schmeltz, Cat. Mus. Godeffroy, No. 4, p. 19, 1869; Kanathia. Schmeltz, Cat. Mus. Godeffroy, No. 7, p. 49, 1879; Kandavu. Day, Fishes India, Supplement, p. 798, 1888; Aden; east coast of India to Malay Archipelago. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522, 1891; Madagascar. Von Bonde, Rept. Fisheries Marine Biol. Survey, Union South Africa, No. 3, Part 1, p. 35, 1923; Durban Beach, Natal. Bleeker, Recherches faune, Madagascar, Poissons, p. 74, 1875; Madagascar. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 12, pp. 6, 197, pl. 3, fig. 1, 1878; Manahare, eastern Madagascar. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 21; L'île Maurice. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522; Madagascar. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, no. 1, p. 1411, 1906; Samoa. Weber, *Siboga*-Exped., vol. 57, Fische, p. 531, 1913; Banda. De Beaufort, Bijd. Dierk. Amsterdam, vol. 19, p. 149; Sorong, New Guinea. Jordan, Jour. Pan Pacific Research Inst., vol. 2, No. 4, p. 11, 1927; Samoa. Fowler Mem. Bishop Mus., vol. 11, No. 5, p. 364; compiled.
- Salarias geminatus* Alleyne and Macleay, Proc. Lin. Soc. New South Wales, vol. 1, No. 4, p. 336, pl. 13, fig. 3, 1877; Torres Straits, Australia. Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 11, 1881; after Alleyne and Macleay. McCulloch and McNeil, Records Australian Mus., vol. 12, No. 2, p. 20, pl. 4, fig. 3, 1918; Torres Strait at Darnley Island, and Murray Island. Whitley, Records Australian Mus., vol. 15, No. 5, p. 304, 1927; New Caledonia. McCulloch, Mem. 5, Australian mus., Checklist Fishes Australia, Part 3, p. 343, 1929; North Queensland; New Caledonia. Fowler, Mem. Bishop Mus., vol. 10, p. 440, 1928; Fiji. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; Noumea, New Caledonia.
- Salarias auridens* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, No. 4, p. 338, pl. 14, fig. 2, 1877; Darnley Island, Queensland. Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 12, 1881; compiled.
- Salarias cristiceps* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, No. 4, p. 338, pl. 14, fig. 3, 1877; Darnley Island, Queensland. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 848, 1927; Natal coast. Fowler, Mem. Bishop Mus., vol. 10, p. 442, 1928; compiled. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 364, 1931; compiled. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete. Herre, Fish. 1931 Philippine Exped., p. 97, 1934; Dumaguete. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 356, 1939; Atimonan, Tayabas; Calapan, Mindoro; Dumaguete, Negros Oriental; Iba, Zambales; Mariveles, Bataan.
- Salarias olivaceus* Blyth, Jour. Asiatic Soc. Bengal, vol. 27, No. 3, p. 271, 1858; Andaman Islands.
- Salarias striatamaculatus* Kner and Steindachner, Sitzber. Akad. Wiss. Wien, vol. 54, p. 368, fig. 4, 1866; Mauritius.
- Salarias doliatus* Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 197, 1878; Atlantic, an obvious error of locality.

- Salarias cheverti* Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 12, 1881; Darnley Island, Queensland.
- Salarias steindachneri* (not of Day) Pfeffer, Jahrbuch Hamburg. Wiss. Anstalt, vol. 10, p. 143, pl. 3, fig. 3, 1892; Baui, East Africa; Zugmayer, Abh. Bayerisch Akad. Wiss. München, vol. 26, No. 6, p. 15, 1913; Mekran, Baluchistan.
- Salarias zamboanga* Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 512, fig. 4, 1907; Mindanao, Zamboanga. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 98, 1934; Dumaguete and vicinity. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 359, 1939; Nasugbu, Batangas; Calapan, Mindoro; Bais and Dumaguete, Negros Oriental; Lembeh Straits, Celebes.
- Salarias barbatus* Gilchrist and Thompson, Ann. South African Mus., vol. 6, No. 2, p. 108, 1908; Durban, Natal.
- Salarias siamensis* Smith, Jour. Siam Soc. Nat. Hist., Supplement, vol. 9, No. 3, p. 320, pl. 14, 1934; Koh Tao, Gulf of Siam.

2019. *Salarias edentulus* (Bloch and Schneider).

- Blennius edentulus* Bloch and Schneider, Syst. Ichth., p. 172, 1801; Huahine Island, Society Islands.
- Blennius truncatus* Bloch and Schneider, Syst. Ichth., p. 172, 1801; Huahine Island, Society Islands. Forster, Descript. Animal., Lichtenstein ed., p. 231, 1844.
- Salarias rivulatus* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 114, 1828; Tor, Red Sea. Rüppell, Neue Wirbelt., Fische Rothen Meeres, pp. 134, 134, 135, pl. 32, fig. 1, 1835; Red Sea.
- Salarias forsteri* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 315, 1836; Huahine Island, Society Islands.
- Salarias quadricornis* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 329; 1836; Mauritius. Jenyns, Zoology, Voy. *Beagle*, Fishes, p. 87, 1842. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, pp. 38, 354, 1854; Cocos. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 175, 1855; compiled. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 460, 1858; Cocos. Kittlitz, Denkw. Reise Mikronesien, vol. 2, p. 188, 1858; Bonin Islands. Günther, Cat. Fishes British Mus., vol. 3, p. 255, 1861; China; Ceylon; Madagascar. Kner, *Novara*-Exped., Fische, p. 197, 1865; Nikobar Islands. Schmeltz, Cat. Mus. Godeffroy, vol. 2, p. 8, 1865; McKean Island, Phoenix Group. Schmeltz, Cat. Mus. Godeffroy, vol. 3, p. 9, 1866; McKean Island. Schmeltz, Cat. Mus. Godeffroy, vol. 4, p. 19, 1869; McKean Island. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 486, 1871; Arabia; Morbas, Red Sea. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 130, 1873; compiled. Schmeltz, Cat. Mus. Godeffroy, vol. 5, p. 29, 1874; Samoa; Phoenix Islands. Bleeker, Recherches faune Madagascar, Poissons, p. 74, 1875; Madagascar. Day, Fishes India, p. 331, pl. 70, fig. 4, 1876; Andaman Islands; Seas of India. Günther, Fische der Südsee, vol. 2, p. 209, pl. 117, fig. B, 1876-1881; Society Islands; Taumotus; Upolu. Streets, Bull. U. S. Nat. Mus., vol. 7, p. 80, 1877; Fanning Island. Schmeltz, Cat. Mus. Godeffroy, vol. 9, p. 49, 1879; Samoa; Phoenix Islands. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 21, 1879; L'île Maurice. Pöhl, Cat. Mus. Godeffroy, vol. 9, p. 34, 1884; Samoa. Meyer, An. Soc. España Hist. Nat., vol. 14, p. 31, 1885; northern Celebes. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522, 1891; Madagascar. Pfeffer, Jahrbuch Hamburg. Wiss. Anstalt, vol. 10, p. 143, 1892; Baui, East Africa. Boulenger, Ann. Mag. Nat. Hist. London, ser. 6, vol. 20, p. 373, 1897; Rotuma. Waite, Mem. Australian Mus., vol. 3, p. 191, 1897; Funafuti, Ellice Islands. Pellégrin, Bull. Mus. Hist. Nat. Paris, vol. 4, p. 229, 1898; Guam. Borsieri, Ann. Mus. Genova, ser. 3, vol. 1, No. 41, p. 208, 1904; Massaua, Nocra, Sciumma and Dissai on Daalac Islands, Red Sea, and Difnein Island, Eritrea. Waite, Records Australian Mus., vol. 5, pp. 181, 223, 1904; Lord Howe Island. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, p. 1411, 1906; Savaii. Seale, Occas. Papers Bishop Mus., vol. 4, No. 1, p. 86, 1906; Mangareva; Rarotonga, Cook Islands; Nukuhiva, Marquesas; Makatea, Taumotu Islands. Steindachner, Denks. Akad. Wiss. Wien., vol. 71, No. 1, p. 143, 1907; Bal-Hal, southern Arabia. Gilchrist and Thompson, Ann. South African Mus., vol. 6, p. 108, 1908; Natal. Snyder, Proc. U. S.

- Nat. Mus., vol. 42, p. 519, 1912; Okinawa, RiuKiu Islands. Gilchrist and Thompson, Ann. Durban Mus., vol. 1, p. 415, 1917; Durban, Natal. Chu, Index Piscium Sinensium, p. 171, 1931; China. Seale, Proc. California Acad. Sci., ser. 4, vol. 21, No. 27, p. 374, 1935; Bellona Island, Solomons.
- Erpichthys quadricornis* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 275, 1839; compiled.
- Salarias melanocephalus* Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioïden, pp. 5, 7, and 18, fig. 19, 1849; Pagotang, Java. Bleeker, Verh. Bat. Gen., vol. 23, p. 9, 1850; Pagotang, Java. Bleeker, Natl. Tijds. Ned.-Ind., vol. 1, pp. 238, 241, 1850; Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 62, 1854; Ulakan, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, pp. 169, 171, 446, and 448, 1855; Cocos. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 61, 1856; Buru. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, pp. 220, 224, 403, and 460, 1858; Biliton; Cocos; Karangbollong, and Pagotang, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, pp. 331 and 333, 1859; Patjitan and Karangbollong. Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 203, 1859; Karangbollong. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, pp. 43 and 45; compiled. Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, p. 245, 1861; Batu Sendi, Tambelang, Bawean. Bleeker, Nat. Tijds. Dierk., vol. 2, pp. 149 and 293, 1865; compiled. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, pp. 284 and 288, 1868; Solor. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, pp. 36-37, 1873; Arou Islands. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; Doreh, New Guinea.
- Salarias forsteri* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 237-238, 244, 246, and 255, 1851; western Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, pp. 204-205, 213, and 217, 1854; Flores, Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 62, 1854; Priaman and Siboga, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 134, 1858-59; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, p. 256, 1861; Timor. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 272, 1863; Timor. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 293, 1864; compiled.
- Salarias sumatranus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 237-238, 244, and 256, 1851; western Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, pp. 204, 206, 313, and 317, 1854; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 62, 1854; Priaman and Siboga, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, pp. 169, 171, 446, and 448, 1855; Cocos. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 215, 1856-57; Nias. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, pp. 478-479, 1857; Karangbollong and Prigi, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, pp. 404 and 460, 1858; Karangbollong; Cocos. Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, p. 134, 1858-59; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 333, 1859; Karangbollong. Bleeker, Natl. Tijds. Ned.-Ind., vol. 20, p. 203, 1859; Karangbollong. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, pp. 44-45, 1860; compiled. Günther, Cat. Fishes British Mus., vol. 3, p. 252, 1861; compiled. Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, pp. 245-256, 1861; Batoesendi; Timor. Bleeker, Ned. Tijds. Dierk., vol. 1, pp. 252 and 272, 1863; Flores, Timor. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 293, 1865; compiled. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, pp. 284 and 288, 1868; Solor. Schmeltz, Cat. Mus. Godeffroy, vol. 4, p. 19, 1869; Kanathia. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; Doreh, New Guinea. De Beaufort, Bijl. Dierk. Amsterdam, vol. 19, p. 149, 1913; Saonek, Waigau. Weber, Siboga-Exped., vol. 57, Fische, p. 531, 1913; Beo, Karakelang Island; Lirung, Salibabu Island. Fowler, Mem. Bishop Mus., vol. 10, p. 441, 1928; compiled.
- Salarias diproктоpterus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 69, 1857; Kajeli, Boereo. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 149, 1865; compiled. Günther, Cat. Fishes British Mus., vol. 3, p. 254, 1861; compiled.
- Salarias lividus* Thiolliere, Fauna Woodlark, p. 185, 1857; Woodlark Island.
- Blennius kuasut* (Montrouzier) Thiolliere, Fauna Woodlark, p. 185, 1857; name in synonymy.
- Salarias edentulus* Günther, Cat. Fishes British Mus., vol. 3, p. 252, 1861; compiled. Schmeltz, Cat. Mus. Godeffroy, vol. 4, p. 19, 1869; Viti Island. Schmeltz, Cat. Mus. Godeffroy, vol. 5, p. 29, 1874; Samoa; Viti; Tonga. Günther, Fische der Südsee, vol. 2, p. 206, pl. 117, fig. A, 1876-

1881; Huahine; Society Islands; Samoa; Tuamotus; Bonham Islands; Raratonga; Kandavu. Schmeltz, Cat. Mus. Godeffroy, vol. 7, p. 48, 1879; New Caledonia. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 370, 1897; Rotuma. Fowler, Proc. Acad. Nat. Sci. Phila., p. 517, 1900; Hawaiian Islands. Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 499, 1901; Laysan Island. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 799, 1905; Negros, Philippines. Seale, Occas. Papers Bishop Mus., vol. 4, No. 1, p. 86, 1906; Faté, New Hebrides; Makatea, Tuamotus; Nukuhiva, Marquesas. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 429, 1905 (1906); Apia and PagoPago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 284, 1908; Calayan, Cagayan Prov., Philippines. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, No. 7, p. 327, 1911; Makemo, Fakarava, and Rangiroa, Tuamotus. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, No. 3, p. 158, 1912; Mangareva. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, No. 1, p. 83, 1922; compiled. Fowler, Copeia, No. 112, p. 84, 1922; Hawaii. Fowler, Bull. Bishop Mus., vol. 22, pp. 20, 36, 38, 1925; Guam; Samoa; Tahiti. Fowler and Ball, Bull. Bishop Mus., vol. 26, p. 29, 1925; Wake Island. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 15, 1927; Tahiti. Fowler, Bull. Bishop Mus., vol. 38, p. 30, 1927; Howland; Fanning; Christmas; Tongareva; and Baker Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 437, 1928; compiled. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 364, 1931; compiled. Herre, Jour. Pan Pacific Research Inst., vol. 6, No. 4, p. 14, 1931; New Hebrides. Fowler, Proc. U. S. Nat. Mus., vol. 80, No. 6, p. 15, 1932; Eiao, Ua Huka, and Taiohae, Marquesas. Fowler, Proc. U. S. Nat. Mus., vol. 81, No. 8, p. 7, 1932; Niuafuou Islands, Tongas. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete, Philippines. Fowler, Proc. Acad. Sci. Phila., vol. 86, p. 502, 1934; Durban, Natal; St. Lucia coast, North Zululand. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; Funafuti; Santa Cruz Islands; Santo in New Hebrides; Apia, Samoa. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Luzon; Nasugbu; Leyte; Negros, Dumaguete and vicinity; Mindanao; Cotabato; Jolo; and Sitankai, all in Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 407, 1936; Atuona; Nukuhiva; Makatea; Fiji; New Hebrides. Fowler, Acad. Nat. Sci. Phila., Monog. 2, pp. 82, 186, 1938; Nukuhiva and Ua Pau Islands, Marquesas; Tongareva. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 357, 1939; Cabalian, Leyte; Calapan, Mindoro; Calayan Island; southeast coast of Cotabato Province; Dumaguete, Negros Oriental Province; Guindulman, Bohol Province; Iba, Zambales Province; Jolo, Sulu Province; Kolambugan, Lanao Province; Nasugbu, Batangas Province; Odion, Tablas; Sitankai—all in Philippines. Also Hoihow, Hainan Island; Putaw Island, Chusan Archip., China; Pelew Isles; Tinian, Marianas; Lembeh Straits, Celebes; Waigiu; Lord Howe Island; Wala Island, Malo Island, Hog Harbor on Santos Island, in New Hebrides; Ovalau Island, Fiji Islands; PagoPago, Samoa; Makatea, Tuamotu Archipelago; Nukuhiva, Hiva Oa, and Atuona Islands, Marquesas; Mombasa, East Africa. Herre, Records Indian Mus., vol. 41, No. 4, p. 368, 1939; Long Island, Middle Andaman Islands. Schultz, Bull. 180, U. S. Nat. Mus., p. 282, 1943; Tau, Rosa, Swain's, Tutuila, Canton, Enderbury, and Hull Islands. Chapman, *Albatross* Philippine Collections 1907-09; Batan Island, Batanes Province; Maricaban Island off Batangas Province; and Maculabo Island, off the coast of Camarines Norte Province, Luzon; Sablayan, Mindoro; Nogas Point, Antique Province, Panay; Mahinog, Camaguin Island, off coast of Misamis Oriental Province, Mindanao.

Salarias rivulatus Günther, Cat. Fishes British Mus., vol. 3, p. 343, 1861; Queensland; Lord Howe Island; Western Pacific. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 429, 1905 (1906); Pago-Pago and Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 284, 1908; Calayan, Philippines. De Beaufort, Bijdr. Dierk., Amsterdam, vol. 19, p. 149, 1913; Saonek, Waigiu. Weber, *Siboga*-Exped., vol. 57, Fische, p. 534, 1913; Labuan Pandan, Lombok; Sailus Ketjil, Paternoster Island; Beo, Karakelang Island; Gisser Island. Gilchrist and Thompson, Ann. Durban Mus., vol. 1, No. 4, p. 415, 1917; Durban, Natal. McCulloch and McNeil, Records

Australian Mus., vol. 12, No. 2, p. 15, pl. 3, figs. 3-4, 1918; Masthead Island, off Port Curtis, Queensland; Murray Island, Torres Strait; Lord Howe Island; New Hebrides; Samoa; Funafuti, Ellice Islands. Fowler and Silvester, Marine Papers Carnegie Inst., p. 126, 1922; PagoPago, Samoa. McCulloch, Records Australian Mus., vol. 14, No. 2, p. 125, 1923; Port Moresby, New Guinea. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 845, 1927; coast of Natal and Zululand. Whitley, Jour. Pan Pacific Research Inst., vol. 3, No. 1, p. 13, 1928; Santa Cruz Islands. Whitley, Records Australian Mus., vol. 16, No. 6, p. 303, 1928; Fairfax and Lady Musgrave Islands, Queensland. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 343, 1929; Queensland; Lord Howe Island; Western Pacific. Hora and Mukerji, Records Indian Mus., vol. 38, p. 20, 1938; Maungmagan, Burma.

Salaria quadricornis hyalinus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 487, 1871; Red Sea.

Salaria quadricornis coloratus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 1871; Red Sea.

Salaria quadricornis transiens Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 487, 1871; Red Sea.

Salaria quadricornis unicus Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 487, 1871; Red Sea.

Scartichthys enosimae Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 460, fig. 9, 1902; Yo Misaki, Sagami; Enoshima, Japan. Jordan and Starks, Proc. U. S. Nat. Mus., vol. 30, p. 703, 1906; Miyounoura, Yakushima, and Tanegashima, Japan. Jordan, Tanaka, and Snyder, Jour. College Sci. Tokyo, vol. 33, No. 1, p. 384, fig. 350, 1913; compiled.

Salaria gilberti Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 135; 1903; Marcus Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 431, 1905 (1906); compiled.

Salaria marcusii Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 137, 1903; Marcus Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 431, 1905 (1906); compiled.

Salaria basiliscus Fowler, Jour. Acad. Nat. Sci. Phila., ser. 2, vol. 12, No. 4, p. 552, 1904.

Salaria azureus Seale, Occas. Papers Bishop Mus., vol. 4, No. 1, p. 87, fig. 8 (783), 1906; Tubuai, Austral Islands.

Salaria bryani Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 430, fig. 108, 1905 (1906); Apia, Samoa.

Salaria rechingeri Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, No. 1, p. 144, 1906; Savaii.

Salaria fluctatus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 97, p. 70, 1945; Saipan, Marianas.

2020. *Salaria fasciatus* (Bloch).

Blennius fasciatus Bloch, Naturges. Ausländ. Fische, vol. 2, p. 110, pl. 162, fig. 1, 1786; East Indies. Bonnaterre, Tableau Encyclop. Ichth., p. 53, pl. 31, fig. 114, 1788; compiled. Bloch and Schneider, Syst. Ichth., p. 167, 1801; East Indies.

Salaria quadripennis Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 112, pl. 28, fig. 2, 1828; Red Sea.

Salaria quadripennis Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 318, 1836; Timor; Tongatabu; Vanicolo. Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden, pp. 3, 5, 7-9, and 19, 1849; Bali; Java; Timor; Madura. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 238, 241, and 244-6, 1850; Java; Bali; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, pp. 160 and 247, 1852; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, pp. 206, 313, and 317, 1854; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 306, 1855; Batu. Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 361, 1855; Ternate. Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 61, 1856; Buru. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, pp. 193, 199, 215, 230, 232, and 292, 1856-57; Ternate; Bali; Nias; Batu. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, pp. 372, and 388, 1857; Sangir; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, pp. 220, 224, and 403, 1858; Prigi, Java; Biliton. Bleeker, Nat. Tijds. Ned.-Ind., vol. 17, pp. 134, and 147, 1858-59; Bali; Timor. Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 356, 1859; Bawean. Bleeker, Nat. Tijds. Ned.-Ind., vol.

20, p. 129, 1859; Boni. Bleeker, Act. Soc. Sci. Indo-Neerl., vol. 8, pp. 43 and 45, 1860; Borneo; Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, pp. 245, 249, and 256, 1861; Batoesendi, Tambelang; Timor. Bamber, Jour. Linn. Soc., London, vol. 31, p. 484, 1915; Suez, Red Sea.

Salaris histronicus (Kuhl and van Hasselt) Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 320, 1836; Java.

Salaris fasciatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 324, 1836; East Indies. Bleeker, Verh. Bat. Gen., vol. 22, pp. 6, 8, 1849; compiled. Günther, Cat. Fishes British Mus., vol. 3, p. 244, 1861; Borneo; Philippines. Bleeker, Ned. Tijds. Dierk., vol. 1, pp. 236, 252, and 272, 1863; Flores, Timor. Schmeltz, Cat. Mus. Godeffroy, vol. 1, p. 9, 1864; South Seas. Schmeltz, Cat. Mus. Godeffroy, vol. 2, p. 8, 1865; South Seas. Bleeker, Ned. Tijds. Dierk., vol. 2, pp. 149, 191, and 293, 1865; Ceram. Day, Fishes Malabar, p. 122, 1865; Malabar. Schmeltz, Cat. Mus. Godeffroy, vol. 3, p. 9, 1866; South Seas. Playfair and Günther, Fishes Zanzibar, p. 77, 1866; Johanna Island, East Africa. Peters, Monatsber. Akad. Berlin, p. 269, 1868; Paracali, Luzon, Philippines. Schmeltz, Cat. Mus. Godeffroy, vol. 4, p. 19, 1869; South Seas. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, p. 491, 1871; Red Sea. Bleeker, Recherches faune Madagascar, Poissons, p. 74, 1875; Madagascar. Day, Fishes India, p. 330, 1876; India. Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, p. 336, 1877; Port Grenville, Australia. Günther, Fische der Südsee, vol. 2, p. 201, pl. 115, fig. H, 1876-1881; Fiji; New Hebrides; Samoa; Tonga.: Ponapé. Kossman and Räufer, Zoologische Ergebnisse Reise Rothen Meeres, Leipzig, p. 20, 1877; Massaua, Red Sea. Schmeltz, Cat. Mus. Godeffroy, vol. 7, p. 48, 1879; South Seas. Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 10, 1881; Cape Grenville, Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 31, 1885; Cebu, Philippines. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522, 1891; Madagascar. Garman, Bull. Mus. Comp. Zool., vol. 39, No. 8, p. 238, 1903; Suva, Fiji. Regan, Jour. Bombay Nat. Hist. Soc., vol. 16, p. 331, 1905; Persian Gulf. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 799, 1905; Negros, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 427, 1905 (1906); Apia and Pago Pago, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 104, 1907; Luzon, Bacon, Philippines. Chapman, *Albatross* Philippine Collection, 1907-1909; Batan Island, Batanes Province; Canimo Island, near mouth of Daet River, and Maculabo Island, Camarines Norte Province; Gubat Bay, Sorsogon Province, Luzon; Cebu and Mactan Island, Cebu Province; Bais, Oriental Negros Province; Biri Channel, north of Samar; Pandanan and Simaluc Islands, Sulu Province; from Chapman manuscript. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 284, 1908; Palawan, Cagayan, Cagayancillo, Philippines. Ogilby, Mem. Queensland Mus., vol. 1, p. 60, 1912; Queensland, Australia. Weber, *Siboga*-Exped., vol. 57, Fische, p. 529, 1913; Sumba; Sawan, Siau Island; Beo, Karakelang Island; Lirung, Salibabu Island; lagoon near Fau, Gebé Island; Binongka Island; Nusa Laut Island; Tiur Island; Elát, Kei Island; eastern tip of Timor; Pepelata Bay, Rotti Island. McCulloch and McNeil, Records Australian Mus., vol. 12, No. 2, p. 10, 1918; Murray and Darnley Islands, Torres Straits; Cape Grenville, Two Isles off Cape Bedford, Cardwell, Dunk and Masthead Islands, Queensland, Australia. McCulloch, Records Australian Mus., vol. 14, Part 2, p. 123, pl. 15, fig. 3, 1923; Lord Howe Island. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 72, 1923; Fiji. Fowler, Bull. Bishop Mus., vol. 22, p. 36, 1925; Samoa. Whitley, Australian Zoologist, vol. 4, Part 4, p. 235, 1926; Northwest Island, Capricorn Group, Australia. Whitley, Records Australian Mus., vol. 16, No. 1, p. 30, 1927; Michaelmas Cay, Queensland, Australia. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 295, 1927; Luzon, Bacon, Philippines. Whitley, Jour. Pan Pacific Research Inst., vol. 3, No. 1, p. 13, 1928; Santa Cruz Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 435, 1928; Pago Pago; Fiji; Ponapé, Carolines. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 344, 1929; Queensland. Pietschmann, Bull. Bishop Mus., vol. 73, p. 21, 1930; Suva, Fiji Islands. Fowler,

- Mem. Bishop Mus., vol. 11, No. 5, p. 363, 1931; compiled. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, No. 3, p. 97, 1932; PagoPago, Samoa. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete, Philippines. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Nasugbu, Luzon; Alabat, Tabayas; Negros and Dumaguete, Negros Oriental; Cebu; Mindanao, Zamboanga; Punta Flecha. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1934; Samoa; Fiji; New Caledonia; New Hebrides; Friendly Islands. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 349, 1939; Alabat Island, Bacon, Sorsogon; Bais, Negros Oriental; Cabalian, Leyte; Calapan, Mindoro; Cebu; Dumaguete, Negros Oriental; Iba, Zambales; Nasugbu, Batangas; Polillo; Punta Flecha, Zamboanga; Sibutu, Sitankai; Southern Negros. Also Ishigaki, RiuKiu Islands; Taruna, Sangir Islands; Singapore; Pelew Islands; Nukulau, Ovalau, and Suva, Fiji Islands; Apia, Samoa. Herre, Records Indian Mus., vol. 41, p. 362, 1939; compiled. Schultz, Bull. 180 U. S. Nat. Mus., p. 282, 1943; Tutuila Island, PagoPago, Samoa.
- Salaria ornatus* Ehrenberg, Symbolae physicae, vol. 4, p. 2.
- Erpichthys fasciatus* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 275, 1839; compiled.
- Salaria priamensis* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 268, 1853; Priaman, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 62, 1854; Ulakan and Priaman, Sumatra.
- Salaria rotundifrons* Thiolliere, Fauna Woodlark, p. 185, 1857; Woodlark Island.
- Salaria semilineatus* Kner, Sitzber. Akad. Wiss. Wien, vol. 56, p. 722, pl. 4, fig. 3, 1867; Samoa. Kner, Sitzber. Akad. Wiss. Wien, vol. 57, Part 1, p. 322, 1868; Kandavu, Fiji. Schmeltz, Cat. Mus. Godeffroy, vol. 5, p. 29, 1874; Samoa.
- Petroscirtes semilineatus* Günther, Fische der Südsee, vol. 2, p. 197, 1876-1881; compiled.
- Salaria lineolatus* Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, Part 4, p. 336, pl. 13, fig. 2, 1877; Darnley Island, Queensland. Jouan, Mem. Soc. Nat. Sci. Nat. Cherbourg, vol. 21, p. 332, 1877. Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 11, 1881; compiled.
- Salaria brasiliensis* Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 217, 1880; Sainte Catherine du Brezil.
- Salaria griseus* de Vis, Proc. Linn. Soc. New South Wales, vol. 8, No. 4, p. 450, 1884; South Seas.
- Salaria pauper* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, No. 3, p. 695, 1884; Cardwell, Queensland, Australia.
- Salaria sublineatus* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, No. 3, p. 695, 1884; Cardwell, Queensland, Australia.
- Salaria furvus* de Vis, Proc. Linn. Soc. New South Wales, vol. 9, No. 3, p. 696, 1884; Queensland.
- Salaria ceramensis* Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 458, 1902; Yaeyama, Ishigaki Island, Riukiu Islands; not of Bleeker.
- Alticus griseus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 424, 1905 (1906); compiled. Ogilby, Mem. Queensland Mus., vol. 3, p. 135, 1915; Queensland.
- Alticus pauper* Ogilby, Mem. Queensland Mus., vol. 3, p. 135, 1915; Queensland.
- Alticus sublineatus* Ogilby, Mem. Queensland Mus., vol. 3, p. 135, 1915; Queensland.
- Salaria fasciatus lineolatus* Whitley, Sci. Rept. Great Barrier Reef Exped., vol. 4, Part 9, p. 298, 1932; Low Isles, Australia.
- 2021.** *Salaria goesii* Bleeker.
- Salaria goesii* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 19, 1859; Doreh, New Guinea. Günther, Cat. Fishes British Mus., vol. 3, p. 253, 1861; after Bleeker. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; Doreh, New Guinea. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 431, 1906; after Bleeker. Fowler, Mem. Bishop Mus., vol. 10, p. 443, 1928; after Bleeker.
- Salaria colei* Herre, Fishes 1931 Philippine Exped., p. 96, 1934; Cullon, Philippines. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 351, 1939; on types.

Salarias bilineatus Herre, Fishes 1931 Philippine Exped., p. 96, 1934; Culion, Philippines. Not of Peters. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 356, 1939; Culion, Philippines.

Salarias martini Herre, Proc. Biol. Soc. Washington, vol. 55, p. 2, 1942; Estancia, Panay, Philippines.

2022. *Salarias guttatus* Cuvier and Valenciennes.

Salarias guttatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 308, 1836; Vanicolo. Günther, Cat. Fishes British Mus., vol. 3, p. 350, 1861; compiled. Schmeltz, Cat. Mus. Godeffroy, vol. 5, p. 29, 1874; Raratonga. Günther, Fische der Südsee, vol. 2, p. 204, 1876-1881; compiled. Chapman, Albatross Philippine Collection, 1907-09; Batan Island, Batanes Province; Camino Island, near Daet and Paracale, Camarines Norte Province; and Gubat Bay, Sorsogon Province, Luzon. San Pascual, Burias Island; Mactan Island, Cebu Province; Busuanga Island; Sirinao Island, on west coast of Palawan; Simalac Sibi Island, Sulu Province; from Chapman manuscript. Weber, Siboga-Exped., vol. 57, Fische, p. 530, 1913; Sumba; Haingsisi, Samau; Barang Island, near Makassar; Sanguisiapo, Sulu Archipelago; Sawan; Beo, Karakelang; Laiwui, Obi Major; Salayar; Nusa Laut Island; Tual, Kei Island; Buka Bay, Rotti Island, Whitley, Jour. Pan Pacific Research Inst., vol. 3, No. 1, p. 13, 1928; Santa Cruz Island. Fowler, Mem. Bishop Mus., vol. 10, p. 436, 1928; Apia, Samoa. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 365, 1931; South Sea Islands. Herre, Jour. Pan Pacific Research Inst., vol. 6, No. 4, p. 14, 1931; New Hebrides. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1934; compiled. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 409, 1936; Suva, Viti Levu Island, Nukulau Island, and Ovalau Island, Fiji Islands. Herre, Records Indian Mus., vol. 41, No. 4, p. 370, 1939; Blair Reef, Port Blair, South Andamans. Herre, Philippine Jour. Sci., vol. 70, p. 362, 1939; Nasugbu, Batangas Province, Luzon; Culion; Bais and Dumaguete, Negros Oriental Province; Punta Flecha, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Herre, 1940-41 Exped.; Jolo, Sulu Province.

Salarias celebicus Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 250, 1854; Kema, Northern Celebes. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 306, 1855; Batu. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 233, 1856; Batu. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 61, 1856; Buru. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, p. 45, 1860; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 250, 1861; after Bleeker.

Biennius guttatus Gray, Descript. Cat. Specimens Royal College Surgeons, London, p. 43, 1859; Indian Seas; Surinam; lists Owen as describer and *Salarias guttatus* Cuvier and Valenciennes as a synonym.

Salarias irroratus Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, No. 4, p. 337, pl. 13, fig. 4, 1877; Low Island, Australia. Macleay, Proc. Linn. Soc. New South Wales, vol. 6, No. 1, p. 12, 1881; compiled. Ogilby, Mem. Queensland Mus., vol. 1, p. 60, 1912; Queensland. McCulloch and McNeil, Records Australian Mus., vol. 12, p. 13, pl. 3, 1918; Low Island and Murray Island, Torres Strait; Two Isles, near Cape Bedford, Queensland; New Hebrides. Fowler, Mem. Bishop Mus., vol. 10, p. 438, 1928; compiled. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 344, 1929; Queensland, New Hebrides. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; Vila, New Hebrides.

Salarias harmandi Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 219, 1880; Poulo Condor.

Salarias griseus de Vis, Proc. Linn. Soc. New South Wales, vol. 8, p. 450, 1883; South Sea Islands.

Salarias calvus de Vis, Proc. Linn. Soc. New South Wales, vol. 9, p. 697, 1884; Murray Island, Queensland.

Salarias undecimalis Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 800, fig. 18, 1905; Negros, Negros Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; vicinity of Dumaguete. Herre, Fishes 1931 Philippine Exped., 1934, p. 98; Culion, Palawan Province; Negros, Dumaguete and vicinity, Negros Oriental Province; Punta Flecha, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 86, 1934; Sanoer, Bali.

Alticus griseus Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 424, 1905 (1906); compiled.

- Alticus guttatus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 424, 1905 (1906); Apia, Samoa.
Salarias atkinsoni Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 428, 1905 (1906); Pago Pago, Samoa.
Negoscartes irroratus Whitley, Sci. Rept. Great Barrier Reef Exped., vol. 4, Part 9, p. 298, 1932; Low Isles, Australia.

2023. *Salarias interruptus* Bleeker.

- Salarias interruptus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 68, 1857; Kajeli, Boero. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 149, 1865; Boero. Günther, Cat. Fishes British Mus., vol. 3, p. 250, 1861; after Bleeker. Schmeltz, Cat. Mus. Godeffroy, No. 4, p. 19, 1869; Samoa, a very questionable record. Chapman, *Albatross* Philippine Collection 1907-09; Maricaban Island in Verde Passage off Batangas Province; Camino Island and Maculabo Island off coast of Caurarines Norte Province; Gubat Bay, Sorsogon Province; Batan Island, Batanes Province; Nogas Point, Antique Province; Panay; Mactan Island, Cebu Province; from Chapman ms. Weber, *Siboga*-Exped., Fische, vol. 57, p. 533, 1913; Sanana, Sula Besi Island. Fowler, Mem. Bishop Mus., vol. 10, p. 443, 1928; compiled. Herre, Philippine Jour. Sci., vol. 70, p. 364, 1939; Nasugbu and Dumaguete.
Salarias schultzei Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, pp. 333 and 345, 1859; Karangbollong, Java. Günther, Cat. Fishes British Mus., vol. 3, p. 240, 1861; listed.
Salarias deani Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 284, 1908; Calayan Island, Babuyan Islands; not of Jordan and Seale.

Salarias periophthalmus Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Dumaguete; not of Cuvier and Valenciennes. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Currimao, Ilokos Norte Province; Nasugbu, Batangas Province, Luzon; Dumaguete and Punta Flecha, Zamboanga Province, Mindanao; in part. Herre, Philippine Jour. Sci., vol. 70, p. 352, 1939; Calayan Island, Babuyan Islands; Currimao, Ilokos Norte Province, and Nasugbu, Batangas Province, Luzon; Cullion; Punta Flecha, Zamboanga Province, Mindanao; also Fiji, New Hebrides, and Waigi; in part.

2024. *Salarias lineatus* Cuvier and Valenciennes.

- Salarias lineatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 314, 1836; Java. Bleeker, Verh. Bat. Gen., vol. 22, Bijdrage kennis Blennioiden, pp. 3, 5, 7, and 18, 1849; Java and Madura. Bleeker, Verh. Bat. Gen., vol. 23, Ichth. fauna Java, p. 9, 1850; Pagotang, Central Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 238 and 241, 1850; Java. Bleeker, *Ibid.*, vol. 15, p. 403, 1858; Pagotang, Java. Bleeker, *Ibid.*, vol. 19, pp. 331 and 333, 1859; Pajitan and Karangbollong, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 203, 1859; Karangbollong, Java. Bleeker, Acta Soc. Sci. Indo-Neerl., ser. 2, vol. 6, p. 5, 1859; Doreh, New Guinea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 22, pp. 100 and 245, 1861; New Guinea; Batoesendi. Günther, Cat. Fishes British Mus., vol. 3, p. 254, 1861; compiled. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 57, p. 996, 1868. Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, pp. 284 and 288, 1868; Solor. Day, Proc. Zool. Soc. London, p. 695, 1870 and p. 111, 1873; India. Day, Fishes India, p. 332, pl. 70, fig. 8, 1876; Andaman Islands; Seas of India. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 54, 1878; Doreh, New Guinea. Day, Fishes India, supplement, p. 798, 1888; mistakenly synonymizes *Salarias caudolineatus* Günther with this species. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, no. 1, p. 1411, 1906; Savaii. Seale, Occas. Papers Bishop Mus. vol. 4, Part 1, p. 86, 1906; Faté, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 426, 1905 (1906); Apia and Pago Pago, Samoa. Jordan and Dickerson, Proc. U. S. Nat. Mus., vol. 34, p. 617, 1908; Suva, Fiji Islands. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, No. 7, p. 326, 1911; Arhno Atoll, Marshall Islands; Fakarava, Tuamotus. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 158, 1912; Mangareva. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 448, 1912; Tanegashima, Japan. Weber, *Siboga*-Exped., vol. 57, Fische, p. 534, 1913; Pidjot Bai, Lombok; Labuan Pandan, Lombok. De Beaufort, Bijdr. Dierk. Amsterdam, vol. 19, p. 149, 1913; Saonek, Waigi. Zugmayer, Abh. Bayerisch

- Akad. Wiss München, vol. 26, No. 6, p. 15, 1913; Oman, Baluchistan. Jordan, Tanaka, and Snyder, Jour. College Sci., Tokyo, vol. 32, No. 1, p. 384, 1913; compiled. McCulloch and McNeil, Records Australian Mus., vol. 12, No. 2, p. 18, pl. 4, fig. 1, 1918; Murray Island, Torres Straits; Andaman Islands; New Hebrides. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 15, 1927; Tahiti. Fowler, Bull. Bishop Mus., vol. 38, p. 30, 1927; Tongareva. Fowler, Mem. Bishop Mus., vol. 10, p. 442, 1928; Faté, New Hebrides; Mangareva; Arhno Atoll; Fiji; Apia; Fakarava. Whitley, Jour. Pan Pacific Research Inst., vol. 3, No. 1, p. 13, 1928; Santa Cruz Islands. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 345, 1929; Queensland; Andaman Islands; East Indies; New Hebrides. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 364, 1931; compiled. Fowler, Proc. U. S. Nat. Mus., vol. 81, No. 8, p. 9, 1932; Niafoou Island. Whitley, Sci. Rept. Great Barrier Reef Exped., vol. 4, Part 9, p. 298, 1932; Low Islands, Australia. Giltay, Mem. Mus. Roy. Hist. Nat. Belgique, Hors Ser., vol. 5, No. 3, p. 102, 1933; Preloeo Endoe, Aro Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, No. 4, p. 11, 1933; Negros and Dumaguete; in part. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; New Hebrides and Santa Cruz Islands. Herre, Fish. 1931 Philippine Exped., p. 97, 1934; Nasugbu, Negros, and Dumaguete, Philippines; in part. Smith, Jour. Siam Soc. Nat. Hist., Supplement, vol. 9, No. 3, p. 319; 1934; Koh Chan, Gulf of Siam. Suvatti, Index Fishes Siam, p. 161, 1936; Ko Can, near Chumphon, Siam. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 410, 1936; Ovalau Island, Fiji. Herre, Philippine Jour. Sci., vol. 70, p. 355, 1939; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province, Philippines; also Lembeh Straits, Celebes; Sembilan Islands on the west coast of Malay Peninsula; Ovalau, Fiji; PagoPago, Samoa; in part. Herre, Records Indian Mus., vol. 41, p. 365, 1939; Port Blair, South Andamans, South Island, North Andamans, Andaman Islands. Herre, 1940-41 Exped.; Kolambugan, Lanao Province, Mindanao. Schultz, Bull. 180, U. S. Nat. Mus., p. 282, 1943; Canton; Swain's, and Enderbury Islands; Apia, Samoa.
- Salarias kingii* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 334, 1836; Northwestern Australia. Bleeker, Verh. Akad. Amsterdam, vol. 2, p. 11, 1855; compiled. Günther, Cat. Fishes British Mus., vol. 3, p. 240, 1861; listed as doubtful species. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 344, 1929; compiled.
- Salarias hasseltii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 238, 241, and 257, 1850; Tjilankahan, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, pp. 168, 170-171, 178, and 448, 1855; Cocos. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, pp. 403 and 460, 1858; Cocos; Tjilankahan, Java. Günther, Cat. Fishes British Mus., vol. 3, p. 258, 1861; Fiji Islands. Day, Fishes India, p. 332, 1876; Andaman Islands. Günther, Fische der Südsee, vol. 2, p. 210, 1876-1881; Fiji and Loyalty Islands. Schmeltz, Cat. Mus. Godeffroy, vol. 7, p. 49, 1879; South Seas. Pöhl, Cat. Mus. Godeffroy, vol. 9, p. 34, 1884; South Seas. Seale, Occas. Papers Bishop Mus., vol. 4, No. 1, p. 87, 1906; Faté, New Hebrides. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 430, 1905 (1906); compiled. Regan, Proc. Zool. Soc. London, p. 405, 1909; Christmas Island, Indian Ocean. Whitley, Jour. Pan Pacific Research Inst., vol. 1, No. 2, p. 7, 1927; Fiji. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 364, 1931; compiled. Herre, Records Indian Mus., vol. 39, No. 4, p. 368, 1939; compiled.
- Salarias mccullochi* Fowler, Proc. U. S. Nat. Mus., vol. 63, p. 25, 1923; Bellingshausen Island. Fowler, Mem. Bishop Mus., vol. 10, p. 441, 1928; on type.
- Salarias multilineatus* Fowler, Proc. Acad. Nat. Sci. Phila., vol. 97, p. 68, 1945; Saipan Island, Marianas.

2025. *Salarias mülleri* Klunzinger.

- Salarias mülleri* Klunzinger, Sitzber. Akad. Wiss. Wien, vol. 80, Part 1, p. 388, 1880; Hobson's Bay, Victoria, Australia; this locality is believed to be erroneous. Weber, *Siboga*-Exped., Fische, vol. 57, p. 535, 1913; Beo, Karakelang Island; Salibabu Island, Lirung; Sanana, Sula Besi Island; Amboina; Klur Island. McCulloch and McNeil,

- Records Australian Mus., vol. 12, Part 2, p. 16, 1918; compiled. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 344, 1929; compiled.
- Salarias oortii* Herre, Fishes 1931 Philippine Exped., p. 97, 1934; (not of Bleeker). Herre, Philippine Jour. Sci., vol. 70, p. 356, 1939; Iba, Zambales Province, and Mindoro, Philippines.
- Istiblennius mülleri* Whitley, Australian Zoologist, vol. 10, No. 2, p. 186, 1943; on type.

2026. *Salarias periophthalmus* Cuvier and Valenciennes.

- Salarias periophthalmus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 311, 1836; Ticopia, Santa Cruz Islands. Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 267, 1853; Priamu, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 7, p. 62, 1854; Priamu, Sumatra. Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 361, 1855; Ternate. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, pp. 199, 220, and 233, 1856-57; Ternate; Batoe. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, pp. 372 and 479, 1857; Sangir, Prigi, Java. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 403, 1858; Prigi, Java. Bleeker, Acta Soc. Sc. Indo-Neerl., vol. 8, pp. 43 and 45, 1860; Borneo; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 251, 1861; compiled. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 236, 1863; Ternate. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 293, 1865; Amboina. Peters, Monatsber. Akad. Wiss. Berlin, p. 269, 1868; Samar, Lauang, Philippines. Kner, Sitzber. Akad. Wiss. Wien, vol. 58, No. 1, p. 333, 1868; Kanathia, Viti Islands. Schmeltz, Cat. Mus. Godeffroy, vol. 4, p. 19, 1869; Savaii. Bleeker, Recherches faune, Madagascar, Poissons, p. 74, 1875; Madagascar. Günther, Fische der Südsee, vol. 2, p. 207, pl. 114, fig. E (not fig. D), 1876-1881; Savaii in part. Schmeltz, Cat. Mus. Godeffroy, vol. 7, p. 48, 1879; Savaii, Samoa. Pöhl, Cat. Mus. Godeffroy, vol. 9, p. 34, 1884; Savaii. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522, 1891; Madagascar. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 373, 1897; Rotuma. Seale, Occas. Papers Bishop Mus., vol. 1, Part 3, p. 126, 1900; Guam. Chapman, Albatross Philippine Collection 1907-09; Batan Island, Batanes Province; Gubat Bay, Sorsogon Province; Luzon; Basa Reef, Zamboanga Province, Mindanao; from Chapman ms. Weber, Siboga-Exped., vol. 57, Fische, p. 532; Sanana, Sula Besi I.; Tieur I. Fowler, Bull. Bishop Mus., vol. 22, p. 36, 1925; Guam. Norman, Ann. Mag. Nat. Hist., ser. 9, vol. 9, p. 322, 1922; Natal. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 15, 1927; Tahiti. Fowler, Bull. Bishop Mus., vol. 38, p. 30, 1927; Fanning, Christmas and Howland Islands. Barnard, Ann. South African Mus., vol. 21, Part 2, p. 848, 1927; Natal coast. Whitley, Jour. Pan Pacific Research Inst., vol. 3, Part 1, p. 13, 1928; Santa Cruz Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 439, 1928; Baker's Island. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 364, 1931; compiled. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; Funafuti; Samoa; Pleasant Island; New Hebrides; Vaitupu, Ellice Islands; Suva, Fiji Islands; Pileni Islands, Santa Cruz Group; Dufaure Islands, New Guinea. Smith, Jour. Siam Soc., Nat. Hist., Supplement, vol. 9, No. 3, p. 320, 1934; Koh Chan, Gulf of Siam. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Dumaguete specimens in part. Suvatti, Index Fishes of Siam, p. 161, 1936; after Smith. Herre, Philippine Jour. Sci., vol. 70, Part 4, p. 352, 1939; Dumaguete specimens only, and in part. Herre, Records Indian Mus., vol. 41, Part 4, p. 363, 1939; Andaman specimens in part. Schultz, Bull. U. S. Nat. Mus., 180, p. 284, 1943; Swain's, Enderbury, Tutuila, Tau, Rose, Canton, and Hull Island specimens in part.
- Salarias biseriatus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 311, 1836; Indian Archipelago.
- Salarias cyanostigma* Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 491, 1871; Red Sea; (not of Bleeker).
- Salarias paulus* Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, Part 1, p. 136, 1903; Marcus Island. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 431, 1905 (1906) compiled.
- Atticus periophthalmus* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 422, 1905 (1906); Apia, Samoa, specimens in part. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, Part 7, p. 325, 1911;

Makembo, Paumoto Islands. Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 155, 1912; Mangareva, Marquesas Islands.
Salarias muscarus Snyder, Proc. U. S. Nat. Mus., vol. 35, p. 109, 1908; Naha, Okinawa, RiuKiu Islands. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 519, pl. 70, fig. 1, 1912; Naha, Okinawa, RiuKiu Islands.

2027. *Salarias sinuosus* Snyder.

Salarias sinuosus Snyder, Proc. U. S. Nat. Mus., vol. 35, p. 109, 1908; Naha, Okinawa, RiuKiu Islands. Chapman (ms.), *Albatross* Philippine Collection, 1907-09; Batan Island, Batanes Province. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 519, pl. 70, fig. 2, 1912; Naha, Okinawa, RiuKiu Islands.

Salarias crenulatus Weber, Notes Leiden Mus., vol. 31, p. 144, 1909; Sanana, Sula Besi Island; Tiur Island. Weber, *Siboga* Exped., Fische, vol. 57, p. 532, 1913; Sanana, Sulu Besi Island; Tiur Island. McCulloch, Records Australian Mus., vol. 14, Part 2, p. 124, pl. 16, figs. 1-2, 1923; Masthead Island off Port Curtis, Queensland, Australia. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 446, 1934; compiled.

Salarias aldabrensis Regan, Trans. Linn. Soc. London, vol. 15, p. 302, 1912; Dunes de Maistre, Aldabra, Indian Ocean.

Salarias monochrous Boulenger, Cat. Fresh-water Fishes Africa, British Mus., vol. 4, p. 111, fig. 67, 1909-16; compiled.

Salarias crenulatus pallidus Whitley, Australian Zoologist, vol. 4, No. 4, p. 235, 1926; on types. Whitley, Records Australian Mus., vol. 16, No. 6, p. 303, 1928; Fairfax Island, Great Barrier Reef, Queensland.

Salarias saliens Fowler and Bean, Proc. U. S. Nat. Mus., vol. 71, p. 15, 1927; Tahiti. Fowler, Bull. Bishop Mus., vol. 38, p. 29, 1927; Latei, Tonga Island. Fowler, Mem. Bishop Mus., vol. 10, p. 434, 1928; compiled. Herre, Jour. Pan Pacific Research Inst., vol. 6, No. 4, p. 14, 1931; New Hebrides. Fowler, Proc. U. S. Nat. Mus., vol. 81, p. 6, 1932; Niuafoou Island, Tongas. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1934; New Hebrides. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 412, 1936; New Hebrides. Fowler, Acad. Nat. Sci., Philadelphia, Monograph 2, p. 81, 1938; Nukuhiva, Marquesas. Herre, Records Indian Mus., vol. 41, No. 4, p. 362, 1939; compiled.

Salarias pallidus McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 345, 1929; Queensland.

Crenalticus crenulatus pallidus Whitley, Mem. Queensland Mus., vol. 5, No. 1, p. 21, 1930; on types.

Rupiscartes saliens Schultz, Bull. 180, U. S. Nat. Mus., p. 276, 1943; Tutuila, Tau, and PagoPago, Samoa.

Genus 646. **ATROSALARIAS** Whitley.

Atrosalarias Whitley, Records Australian Mus., vol. 19, p. 93, 1933; Type, *Salarias phaiosoma* Bleeker=*Salarias fuscus* Rüppell.

2028. *Atrosalarias fuscus* (Rüppell).

Salarias fuscus Rüppell, Neue Wirbelt. Fische Rothen Meeres, vol. 12, p. 135, pl. 32, fig. 2, 1835; Massaua, Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 245; 1861; Amboina; Haslar Collection. Bleeker, Ned. Tijds. Dierk., vol. 2, pp. 191 and 293, 1865; Piru and Wahi, Ceram. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 489, 1871; Red Sea. Day, Fishes India, p. 33, pl. 70, fig. 2, 1876; Kurrachee, Sind. Günther, Fische der Südsee, vol. 2, p. 202, pl. 116, fig. C, 1876-1881; Pelew Islands; Vavau. Schmeltz, Cat. Mus. Godefroy, vol. 7, p. 49, 1879; Boston Island. Day, Fishes India, Supplement, p. 797, 1888; compiled. Borsieri, Ann. Mus. Genova, ser. 3, vol. 1, No. 41, p. 209, 1904; Massaua and Dissei on Daalac Islands, Eritrea. Weber, *Siboga*-Exped., vol. 57, Fische, p. 530, 1913; Beo, Karakelang Island; Damar or Sabmakië Island. McCulloch and McNeil, Records Australian Mus. vol. 12, No. 2, p. 12, 1918; Murray Island, Torres Straits; Masthead Island off Port Curtis, Queensland; Sind, India; Friendly Islands; New Hebrides. Fowler, Copeia, p. 65, June 18, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 295, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 435, 1928; Fiji. McCulloch, Mem. 5, Australian Mus., Checklist Fishes Australia, Part 3, p. 343, 1929; Queensland; India; South-western Pacific. Fowler, Mem. Bishop Mus., vol. 11, No. 5, p. 363, 1931; compiled. Fowler, Occas. Papers Bishop Mus., vol. 9, No. 20,

- p. 12, 1932; Suva, Fiji. Fowler, Mem. Bishop Mus., vol. 11, No. 6, p. 445, 1934; Friendly Islands. Herre, Records Indian Mus., vol. 41, No. 4, p. 361, 1939; compiled. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 348, 1939; Sibutu and Sitankai, Sulu Province. Herre, 1940-41 Exped.; Coron, Busuanga.
- Salarias ruficaudus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 328, 1836; Red Sea. Günther, Cat. Fishes British Mus., vol. 3, p. 240, 1861; listed as doubtful species. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 489, 1871; is not *Salarias frontalis*. Day, Fishes India, Supplement, p. 797, 1888; *S. ruficaudus*=*S. fuscus*.
- Salarias phaiosoma* Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, pp. 306 and 317, 1855; Batoe. Bleeker, Nat. Tijds. Ned.-Ind., vol. 10, p. 381, 1855; Ternate. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, pp. 199, 215, and 233, 1856-57; Ternate, Nias; Batu. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, pp. 61 and 372, 1857; Buru; Sangir. Bleeker, Act Soc. Sci. Indo-Neerl., vol. 8, p. 43, 1860; Borneo. Bleeker, Ned. Tijds. Dierk., vol. 1, pp. 236, 249, and 252, 1863; Flores. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 149, 1865; Buru.
- Salarias holomelas* Günther, Ann. Mag. Nat. Hist., ser. 4, vol. 10, p. 399, 1872; Cebu, Cebu Province, Philippines. Schmeltz, Cat. Mus. Godeffroy, vol. 6, p. 15, 1877; Pelew Islands. Schmeltz, Cat. Mus. Godeffroy, vol. 7, p. 49, 1879; Pelew Islands. Pöhl, Cat. Mus. Godeffroy, vol. 9, p. 34, 1884; Pelew Islands. Meyer, Ann. Soc. Esp. Hist. Nat. Madrid, vol. 14, pp. 6 and 31, 1885; Cebu, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 431, 1905 (1906); compiled. Herre, Fishes 1931 Philippine Exped., p. 97, 1934; Jolo and Sitankai, Sulu Province, Philippines.
- Salarias niger* Kossmann and Räuber, Zoologische Ergebnisse Reise Rothen Meeres, Leipzig, p. 21, pl. 2, fig. 8, 1877; Massaua, Eritrea; not of Cuvier and Valenciennes.
- Atrosalarias phaiosoma* Whitley, Records Australian Mus., vol. 19, No. 1, p. 93, 1933; compiled.

Genus 647. ALTICUS Lacépède.

- Alticus Lacépède*, Hist. Nat. Poissons, vol. 2, p. 479, 1800; from Commerson ms. Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 337, 1836; type, *A. saltatorius* (Commerson) Lacépède=*Salarias alticus* Cuvier and Valenciennes=*Blennius saliens* Forster.
- Rupiscartes* Swainson, Nat. Hist. Animals, vol. 2, Fishes, pp. 79, 182, and 275, 1839; type, *Salarias alticus* Cuvier and Valenciennes.
- Basilisciscartes* Fowler, Notulae Naturae, Acad. Nat. Sci. Phila., vol. 26, p. 2, 1939; type, *Blennius saliens* Forster.

2029. Alticus bilineatus (Peters).

- Salarias biseriatus* Kner, Reise Novara, Fische, vol. 2, p. 198, 1865; possibly in part, Tahiti; not of Cuvier and Valenciennes. Günther, Fische der Südsee, vol. 2, p. 208, 1876-1881; Tahiti, in part. Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, No. 1, p. 1411, 1906; Savaii. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 427, 1905 (1906); Aua, Tutuila, Apia and PagoPago, Samoa.
- Salarias bilineatus* Peters, Monatsber. Akad. Wiss. Berlin, p. 268, 1868; coral reef east of Lauang, Samar Island, Philippines. Herre, Fishes 1931 Philippine Expedition, p. 96, 1934; Culiön specimens only. Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 356, 1939, Culiön specimens only.
- Salarias alboguttatus* Day, Fishes India, p. 334, 1876; Andaman Islands; not of Kner. Johnstone, Rept. Government Ceylon Pearl Oyster Fisheries, Gulf Manaar, vol. 2, p. 213, 1904; Muttu Varata Paar, Ceylon (description vague; record doubtful).
- Salarias sindonis* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 427, fig. 105, 1905 (1906); PagoPago, Samoa; type=*S. edentulus* juveniles, but description and figure mostly from young *bilineatus* which form most of the co-type series; not of Jordan and Seale.
- Alticus margaritarius* Snyder, Proc. U. S. Nat. Mus., vol. 35, p. 106, 1908; Tanegashima, Japan. Snyder, Proc. U. S. Nat. Mus., vol. 42, p. 448, pl. 61, fig. 3, 1912; Tanegashima. Jordan, Tanaka, and Snyder, Jour. Coll. Sci., Tokyo Imp. Univ., vol. 33, No. 1, p. 381, 1913; compiled.
- Alticus margaritatus* Kendall and Radcliffe, Mem. Mus. Comp. Zool., vol. 35, p. 137, pl. 7, fig. 3, pl. 8, fig. 1, 1912; PagoPago, Samoa.

- Salarias* new species Whitley, Jour. Pan Pacific Research Inst., vol. 3, No. 1, p. 13, 1927; Santa Cruz Islands.
- Salarias macneilli* Whitley, Records Australian Mus., vol. 16, No. 4, p. 227, pl. 18, fig. 1, 1928; New Hebrides.
- Salarias macneilli coloratus* Whitley, Records Australian Mus., vol. 16, No. 4, p. 229, 1928; Carlisle Bay, Santa Cruz Islands.
- Salarias dayi* Whitley, Records Australian Mus., vol. 17, No. 3, p. 136, 1929; new name for *S. alboguttatus* Day, preoccupied.
- Salarias sanna* Whitley, Records Australian Mus., vol. 17, No. 3, p. 137, 1929; new name for *Salarias macneilli coloratus* Whitley, preoccupied.
- Salarias meleagris* Seale, Proc. Calif. Acad. Sci., vol. 21, No. 27, p. 374, 1935; Bellona Island, Solomon Islands; not of Cuvier and Valenciennes.
- Salarias margaritatus* Seale, Proc. California Acad. Sci., vol. 21, No. 27, p. 374, 1935; Bellona Island, Solomon Islands. Schultz, Bull. 180, U. S. Nat. Mus., p. 284, 1943; Tutuila and Tau Islands, Samoa.
- Salarias belemnites* Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 405, 1936; Wala and Malo Islands, New Hebrides; not of de Vis.
- Alticus margaritarium* Okada, Cat. Vertebrates, Japan, p. 254, 1938; compiled.
- Salarias raoi* Herre, Records Indian Mus., vol. 41, No. 4, p. 366, 1939; Andamans; Port Blair, East Ross Island; Murdakhari Bay, Corbyn's Cove; new name for *S. alboguttatus* Day, already occupied by *S. dayi* Whitley.

2030. *Alticus saliens* (Forster).

- Blennius saliens* Forster, Itin., vol. 2, p. 343, 1788; Tanna Islands. Lacépède, Hist. Nat. Poissons, vol. 2, p. 103, 1800; New Britain.
- Blennius amphibiis* Walbaum, Artedi Piscium, Part 3, p. 187, 1792; after Forster. Donndori, Zool. Beyträge, vol. 3, p. 314, 1798; after Forster.
- Alticus saltatorius* Lacépède, Hist. Nat. Poissons, vol. 2, p. 104, 1800; New Britain; from Commerson manuscript. Sauvage, in Grandidier, Hist. Phys. Nat. Poissons Madagascar, p. 522, 1891; Madagascar.
- Blennius tridactylus* Bloch and Schneider, Syst. Ichth., p. 176, 1801; Tanna Islands; not of Lacépède, 1800.
- Salarias alticus* Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 11, p. 337, 1836; New Ireland; Java; Ganges River mouth; Trinquemale; Red Sea. Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. kennis Blennioiden, pp. 3, 5, 7, and 9, 1849; Java; Soenda-Moluks. Bleeker, Verh. Bat. Gen., vol. 25, p. 48, 1853; compiled. Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 403, 1858; Java. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 191, 1865; Wahai, Ceram. Kner, Reise Novara, Fische, p. 168, 1868; Nicobar Islands.
- Rupiscartes alticus* Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 275, 1839; after Cuvier and Valenciennes.
- Blennius gobioides* Forster, Descript. Animal., Lichtenstein ed., p. 283, 1844; Tanna Islands.
- Salarias tridactylus* Günther, Cat. Fishes British Mus., vol. 3, p. 242, 1861; compiled. Bleeker, Ned. Tijds. Dierk., vol. 1, pp. 249, 252, 1863, Flores. Steindachner, Sitzber. Akad. Wiss. Wien, p. 994, 1868. Klunzinger, Verh. Zool.-Bot. Gesell. Wien, vol. 21, p. 489, 1871; Red Sea; lists *Salarias scandens* Ehrenberg in synonymy. Day, Fishes India, p. 330, pl. 70, fig. 3, 1876; compiled. Günther, Fische der Südsee, vol. 2, p. 200, pl. 117, figs. C-D, 1876-1881; Vavaii; Society Islands. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, p. 522, 1891; Madagascar. Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 373, 1897; Rotuma. Zugmayer, Abh. Bayerisch. Akad. Wiss. München, vol. 26, No. 6, p. 15, 1913; Oman, Baluchistan. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, art. 3, p. 97, 1932; Nukuhiva, Marquesas Islands.
- Blennius Jouan*, Mem. Soc. Sci. Nat. Cherbourg, vol. 9, p. 107, 1863; Port de France, New Caledonia.
- Alticus monochrus* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 234, 1869; Madagascar, in the Samberano River. Bleeker, Recherches faune Madagascar, Poissons, 1874; on type. Sauvage, in Grandidier, Hist. Phys. Nat. Madagascar, Poissons, pp. 392 and 522, 1891; Sambirano River and east coast of Madagascar; Réunion.

- Alticus aspilus* Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 3, p. 235, 1869; Samberano River, Madagascar. Bleeker Recherches faune, Madagascar Poissons, 1874; on type.
- Salarias andersonii* Day, Fishes India, p. 331, 1876; Galle, India. Herre, Records Indian Mus., vol. 41, No. 4, p. 363, 1939; Ross Island, Brookesabad and Perseverance Point, North Bay, Port Blair, Andaman Islands.
- Salarias sertatus* Garman, Bull. Mus. Comp. Zool., vol. 39, p. 237, pl. 4, fig. 2, 1903; Solo Island, North Astrolabe Reef, Fiji. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 426, 1905 (1906); compiled.
- Alticus saliens* Seale, Occas. Papers Bishop Mus., vol. 4, No. 1, p. 88, 1906; Nukuhiva, Marquesas Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 421, fig. 111, 1905 (1906); Apia and Pago-Pago, Samoa. Chapman, *Albatross* Philippine Exped., 1907-09; Parong Island, Palumbanes Group, Philippines; from Chapman ms.
2031. *Alticus tanegasimae* (Jordan and Starks).
- Salarias tanegasimae* Jordan and Starks, Proc. U. S. Nat. Mus., vol. 30, p. 704, fig. 12, 1906; Tanegashima, Japan; also Miyanuora, Yakushima.
- Alticus tanegasimae* Chapman, *Albatross* Philippine Collection, 1907-09; Luzon; Observatory Rock, west coast of Palawan; Port Ciego, Balabac; Silino Island near Point Tagolo, Zamboanga Province, Mindanao; Chapman ms. Herre, 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Kolambugan, Lanao Province, Mindanao.
- Salarias tanegashimae* Jordan, Tanaka, and Snyder, Jour. College Sci., Tokyo Imp. Univ., vol. 33, No. 1, p. 384, fig. 349; 1913; compiled. Okada, Cat. Vertebrates Japan, p. 255, 1938; Tanegasima, Miyakozima.
- Salarias bilineatus* Herre, Fishes 1931 Philippine Exped., p. 96, 1934; Nasugbu specimens only; not of Peters.
- Salarias frenatus* Herre, Philippine Jour. Sci., vol. 70, No. 4, p. 360, 1939; Nasugbu specimens in part; not of Cuvier and Valenciennes.
- Genus 648. **ANDAMIA** Blyth.
- Andamia* Blyth, Jour. Asiatic Soc. Bengal, vol. 27, p. 270, 1858; type. *Andamia expansa* = *Salarias heteropterus* Bleeker. Herre, Philippine Jour. Sci., vol. 70, p. 340, 1939.
2032. *Andamia heteroptera* (Bleeker).
- Salarias heteropterus* Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, p. 65, 1857; Amboina. Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 372, 1857; Sangir. Günther, Cat. Fishes British Mus., vol. 3, p. 240, 1861; listed as a doubtful species.
- Andamia expansa* Blyth, Jour. Asiatic Soc. Bengal, vol. 27, No. 3, p. 271, 1858; Port Blair, Andamans. Günther, Cat. Fishes British Mus., vol. 3, p. 294, 1861; compiled. Day, Proc. Zool. Soc. London, p. 518, 1869; Andaman Islands. Day, Fishes India, p. 336, pl. 71, fig. 2, 1876; Andaman Islands.
- Andamia heteroptera* Day, Fauna British India, Fishes, vol. 2, p. 323, fig. 104, 1889; compiled. Annandale and Hora, Records Indian Mus., vol. 27, p. 39, 1925; compiled. Mukerji, Records Indian Mus., vol. 35, No. 1, p. 121, 1933; Port Blair, Andamans. Giltay, Mem. Mus. Roy. Hist. Nat. Belgique, Hors Ser., vol. 5, Part 3, p. 103, 1933; Aru Islands.
- Andamia cyclocheilus* Weber, Notes Leyden Mus., vol. 31, p. 143, 1909; Atjatuning, western New Guinea, on reef. Weber, *Siboga*-Exped., vol. 57, Fische, p. 538, pl. 3, fig. 3, 1913; Atjatuning, western New Guinea; southern coast of Flores Island. Herre, Philippine Jour. Sci., vol. 59, p. 370, 1936; Puerto Galera, Mindoro; near Menado, Celebes.
- Salarias reyi* Herre, Philippine Jour. Sci., vol. 70, p. 341, 1939; Nasugbu and Layia, Batangas Province, Luzon; Calapan and Puerto Galera, Mindoro; south coast of Cotabato Province, Mindanao; Taruna, Sangi Island, Sangir Islands; Lembeh Straits, Celebes; and Sarawak, Borneo; not of Sauvage.
2033. *Andamia reyi* (Sauvage).
- Salarias reyi* Sauvage, Bull. Soc. Philom. Paris, ser. 7, vol. 4, p. 219, 1880; Luzon, Philippines.
- Andamia raoi* Hora, in Rao and Hora, Records Indian Mus., vol. 40, pp. 396 and 398, 1938; Andaman Islands.

Genus 649. PHOLIDICHTHYS Bleeker.

Elongate, naked blennies. East Indies and Philippines.

Pholidichthys Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 406, 1856; type, *Pholidichthys leucotaenia* Bleeker. Günther, Cat. Fishes British Mus., vol. 3, p. 293, 1861.

2034. *Pholidichthys leucotaenia* Bleeker.

Pholidichthys leucotaenia Bleeker, Nat. Tijds. Ned.-Ind., vol. 11, p. 406, 1856; Buru. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 149, 1865; Buru. Herre, Collection Motorship *Spencer F. Baird*, December 1947, at Albay Island, Candaraman Inlet, Northeast of Balabac Island, Philippines.

Family 184. XIPHASIIDÆ

Genus 650. XIPHASIA Swainson.

Eel-like naked blennies of the tropical Indian Ocean, East Indies, Philippines, and north to Japan.

Xiphasia Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 259, 1839; type, *Xiphasia setifer* Swainson. Barnard, Ann. South African Mus., vol. 21, p. 849, 1927. Herre, Philippine Jour. Sci., vol. 70, p. 368, 1939. *Xiphogadus* Günther, Cat. Fishes British Mus., vol. 4, p. 374, 1862.

2035. *Xiphasia setifer* Swainson.

Distribution as for the genus. Our Philippine specimens seem to represent more than one species, but the differences may be due to age and sex.

Xiphasia setifer Swainson, Nat. Hist. Animals, Fishes, vol. 2, p. 259, 1839; on Russell, Fishes Coromandel, vol. 1, p. 28, pl. 39, 1803; Vizagapatam, India. Day, Fishes India, p. 337, pl. 73, fig. 1, 1878. Tanaka, Jour. College Sci., Imp. Univ. Tokyo, vol. 23, art. 7, p. 49, pl. 4, fig. 1, 1908. Herre, Philippine Jour. Sci., vol. 31, p. 224, text fig. 1 and pl. 1, 1926; Dumaguete, Negros Oriental Province. Barnard, Ann. South African Mus., vol. 21, p. 849, 1927; Natal coast. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete. Herre, Philippine Jour. Sci., vol. 70, p. 368, 1939; Dumaguete, Philippines; Lembeh Strait, Celebes, Dutch East Indies; Sagami Sea, Japan. Herre and Herald, Philippine Fisheries Program, January-April, 1948; Manila Bay and market at Batangas, Batangas Province, Luzon; between Pilas Island and Jolo; in the Sulu Sea east of Cagayan Sulu Island; and in Sibutu Passage, Sulu Province.

Xiphogadus setifer Günther, Cat. Fishes, vol. 4, p. 374, 1862; Vizagapatam.

Family 185. CONGROGADIDÆ

Genus 651. CONGROGADUS Günther.

Philippines and East Indies to Australia.

Machaerium Richardson, Ann. Mag. Nat. Hist., vol. 12, p. 175, 1843; type, *Machaerium subducens* Richardson; preoccupied.

Congrogadus Günther, Cat. Fishes British Mus., vol. 4, p. 388, 1862; type, *Machaerium subducens* Richardson. Herre, Philippine Jour. Sci., vol. 70, p. 369, 1939.

Congrogadoides Borodin, Copeia, No. 3, p. 141, 1933.

2036. *Congrogadus hierichthys* Jordan and Richardson. Tamayo.

A Philippine species.

Congrogadus hierichthys Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 285, fig. 11, 1908; Cuyo, Cuyo Islands, Sulu Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Dumaguete; Jolo, Sulu Province.

Congrogadoides hierichthys Herre, Philippine Jour. Sci., vol. 70, p. 371, 1939; Cuyo, Cuyo Islands, Palawan Province; Jolo and Sitankai, Sulu Province.

2037. *Congrogadus subducens* (Richardson). Batad.

Distribution as above. Abundant on shallow reefs in the Sulu Archipelago.

Machaerium subducens Richardson, Ann. Mag. Nat. Hist., vol. 12, p. 175, pl. 6, 1843; Port Essington, Australia. Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 72, pl. 44, figs. 1-6, 1844-48.

Machaerium reticulatum Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 734, 1852; Banka.

Congrogadus subducens Günther, Cat. Fishes British Mus., vol. 4, p. 388, 1862; Port Essington; Abrolhos; Australia; East Indian Archipelago. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 285, 1908; Cuyo, Cuyo Islands, Sulu Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Lemery, Batangas Province, Luzon; Culion; Dumaguete; Jolo and Sitankai, Sulu Province. Herre, Fishes 1936-37 Exped.; Jolo and Sibutu Islands, Sulu Province.

Congrogadus reticulatus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 2, p. 203, 1868; Bintang.

Family 186. ZOARCIDÆ. Eel-pouts

Genus 652. BASSOZETUS Gill.

Deep-sea fishes of the Indo-Pacific and Atlantic Oceans.

Bathynectes Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 2, p. 20, 1878; type, *Bathynectes laticeps* Günther; preoccupied.

Bassozetus Gill, Proc. U. S. Nat. Mus., vol. 6, p. 259, 1883; type, *Bassozetus normalis* Gill. Goode and Bean, Oceanic Ichthyology, p. 321, 1895.

Bathyonus Goode and Bean, Proc. U. S. Nat. Mus., vol. 8, p. 603, 1886; type, *Bathyonus catena* Goode and Bean.

2038. *Bassozetus compressus* (Günther).

Atlantic and Pacific Oceans.

Bathynectes compressus Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 2, p. 20, 1878; southeast of New Guinea, in 1,400 fathoms.

Bathyonus compressus Günther, Report Voy. *Challenger*, Zoology, vol. 22, Deep-Sea Fishes, p. 109, pl. 22, fig. A, 1887; Philippines, Station 205, at 1,050 fathoms.

2039. *Bassozetus robustus* Smith and Radcliffe.

A Philippine species.

Bassozetus robustus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 156, pl. 11, fig. 3, 1913; Palawan Passage, west coast of Palawan, at a depth of 730 fathoms.

Family 187. BROTULIDÆ

A large family of fishes in the Indo-Pacific and Atlantic, mostly deep-sea forms.

Genus 653. ACANTHONUS Günther.

Occurs in the Philippines, north of New Guinea, and in the mid-Pacific; but one species known.

Acanthonus Günther, Ann. Mag. Nat. Hist., ser. 5, vol. 2, p. 23, 1878; type, *Acanthonus armatus* Günther.

2040. *Acanthonus armatus* Günther.

Acanthonus armatus Günther, Report Voy. *Challenger*, Zoology, vol. 22, Deep-Sea Fishes, p. 117, 1887; Station 205, Philippines, at 1,050 fathoms, also station 218, north of New Guinea, and in the mid-Pacific at 1,050 to 1,070 fathoms.

Genus 654. BROTULA Cuvier.

Deep-sea blennoid fishes of the Atlantic and Indo-Pacific Oceans.

Brotula Cuvier, Règne Animal, ed. 2, vol. 2, p. 335, 1829; type, *Enchelyopus barbatus* Bloch and Schneider. Günther, Cat. Fishes British Mus., vol. 4, p. 371, 1862. Day, Fishes India, p. 419, 1878. Jordan and Evermann, Fishes North and Middle America, vol. 3, pp. 2500 and 3498, 1898. Günther, Fische der Südsee, vol. 3, p. 331, 1910. Hubbs, Copeia, No. 3, p. 163, 1944.

2041. *Brotula multibarbata* Schlegel.

From the Red Sea and South Africa to the East Indies, Philippines, Formosa, Japan, the Caroline, Hawaiian, Pelew, New Hebrides, Society, and Tuamotu Islands. For the complete bibliography see Hubbs.

Brotula multibarbata Schlegel, Fauna Japonica, Pisces, p. 251, pl. 111, fig. 2, 1842; Simabara Bay, Japan. Günther, Cat. Fishes British Mus., vol. 4, p. 371, 1862; Japan; Celebes; Amboina; Buru. Day, Fishes India, Supplement, p. 804, 1888; Saddle Island off Kyoukphoo, Aracan, Madras. Jordan and Richardson, Mem. Carnegie Mus., vol. 10, p. 204, 1909; Takao, Formosa. Günther, Fische der Südsee, vol. 3, p. 332, 1910; Japan; Celebes; Amboina; Buru. Fowler, Acad. Nat. Sci. Phila., Monograph 2, p. 115, 1927; Takaroa, Tuamotu Islands. Hubbs, Copeia, No. 3, p. 170, 1944; Port San Pio V, Camiguin Islands, Babuyan Islands, north of Luzon; Pagapas Bay, Batangas Province, Luzon; Puerto Galera and Varadero Bay, Mindoro, the Philippines; also Honolulu, Hawaii, Sagami, Japan, and Maitara Island, Dodinga Bay, Halmahera Island, Dutch East Indies.

Brotula burbonensis Kaup, Archiv Naturges., vol. 24, p. 92, 1857; Réunion Island, Indian Ocean.

Brotula ensiformis Günther, Cat. Fishes British Mus., vol. 4, p. 372, 1862; Aneiteum, New Hebrides. Fowler, Mem. Bishop Mus., vol. 11, p. 364, 1931; Pelew Islands.

Brotula maculata Day, Proc. Zool. Soc. London, p. 196, 1868; Madras.

Brotula multicirrata Vaillant and Sauvage, Revue Mag. Zool., vol. 38, ser. 3, vol. 3, p. 282, 1875; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 507, fig. 225, 1905; Honolulu.

Brotula japonica Steindachner and Döderlein, Denks. Akad. Wiss. Wien, vol. 53, p. 279; Tokyo, Japan.

Brotula townsendi Fowler, Proc. Acad. Nat. Sci. Phila., p. 518, pl. 20, fig. 3, 1900; Hawaiian Islands.

Brotula marginalis Jenkins, Bull. U. S. Fish Comm., vol. 19, p. 403, fig. 16, 1901; Honolulu.

Brotula formosae Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 364, fig. 27, 1902; Formosa.

Nematobrotula ensiformis Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 436, 1906; Aneiteum, New Hebrides.

Brotula mulleri Günther, Fische der Südsee, vol. 3, p. 334, 1910; Ponapé, Caroline Islands; Tahiti, Society Islands.

Brotula palmietensis Smith, Records Albany Mus., vol. 4, p. 220, pl. 21, fig. C, 1935; Great Fish Point, South Africa.

Genus 655. BROTULOPHIS Kaup.

A Philippine genus with but one species known.

Brotulophis Kaup, Archiv Naturges., vol. 24, p. 93, 1858; type, *Brotulophis argentistriatus* Kaup. Günther, Cat. Fishes British Mus., vol. 4, p. 376, 1862.

2042. *Brotulophis argentistriatus* Kaup.

Brotulophis argentistriatus Kaup, Archiv Naturges., vol. 24, p. 93, 1858; Sulu, (Jolo) Sulu Province. Günther, Cat. Fishes British Mus., vol. 4, p. 376, 1862; Island of Sulu=Jolo.

Genus 656. BYTHITES Reinhardt.

One species from Greenland and a Philippine species which probably belongs in some other genus.

Bythites Reinhardt, Dansk. Vidensk. Selsk. Afhandl., vol. 7, p. 178, 1838; type, *Bythites fuscus* Reinhardt. Günther, Cat. Fishes British Mus., vol. 4, p. 375, 1862. Gill, Proc. Acad. Nat. Sci. Phila. p. 253, 1863. Jordan and Gilbert, Bull. 16, U. S. Nat. Mus., p. 795, 1891. Goode and Bean, Oceanic Ichthyology, p. 316, 1895. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 172, 1913.

2043. *Bythites lepidogenys* Smith and Radcliffe.

Bythites lepidogenys Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 172, pl. 16, fig. 3, 1913; east of Masbate Island, Philippines, at 218 fathoms.

Genus 657. CATAETYX Günther.

Deep sea fishes of the Indo-Pacific; about 5 species.

Cataetyx Günther, Report Voy. Challenger, Zoology, vol. 22, Deep-Sea Fishes, p. 104, 1887; type, *Sirembo messieri* Günther. Goode and Bean, Oceanic Ichthyology, p. 317, 1895. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 169, 1913.

2044. *Cataetyx platycephalus* Smith and Radcliffe.
East Indies and Philippines.
Cataetyx platycephalus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 169, pl. 16, fig. 1, 1913; off Camp Overton, Lanao Province, Mindanao, Philippines. Also Molucca Passage, Dutch East Indies.
- Genus 658. **DICROLENE** Goode and Bean.
Deep-sea fishes from the Philippines, the Bay of Bengal, and the Atlantic Ocean.
Dicrolene Goode and Bean, Bull. Mus. Comp. Zool., vol. 10, p. 202, 1883; type, *Dicrolene intronigra* Goode and Bean. Günther, Report Voy. Challenger, Zoology, vol. 22, Deep-Sea Fishes, p. 107, 1887. Goode and Bean, Oceanic Ichthyology, p. 337, 1895. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 144, 1913.
2045. *Dicrolene longimana* Smith and Radcliffe.
A Philippine species.
Dicrolene longimana Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 144, pl. 8, fig. 1, 1913; off San Ricardo Point, Panaon Island, south of Leyte, in 772 fathoms; also at Ponson Island, Camotes Islands, Cebu Province, taken from the stomach of a specimen of *Lophiodes infra-brunneus* Smith and Radcliffe. Norman, Scientific Reports Murray Exped., vol. 7, p. 76, 1939; Gulf of Aden, Indian Ocean; Philippines.
2046. *Dicrolene tristis* Smith and Radcliffe.
The Philippines and East Indies.
Dicrolene tristis Smith and Radcliffe; Proc. U. S. Nat. Mus., vol. 44, p. 145, pl. 8, fig. 2, 1913; Lagonoy Gulf, Albay Province, Luzon, at a depth of 480 fathoms. Also Sibuko Bay, British North Borneo, and Celebes, Dutch East Indies.
- Genus 659. **DINEMATICTHYS** Bleeker.
Only two species known.
Dinematichthys Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 318, 1855; type, *Dinematichthys iluocoeteoides* Bleeker. Günther, Cat. Fishes British Mus., vol. 4, p. 374, 1860.
2047. *Dinematichthys iluocoeteoides* Bleeker.
The East Indies, Philippines, and Malaya, east to the Caroline, Samoan, and Society Islands.
Dinematichthys iluocoeteoides Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 319, 1855; Batu Islands. Bleeker, *ibid.* vol. 12, p. 215, 1856-57; Nias Island. Günther, Cat. Fishes British Mus., vol. 4, p. 374, 1862; Batu; Nias; Gorani. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 435, 1906; Apia and Pago Pago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 286, 1908; Ticao Island. Günther, Fische der Südsee, vol. 3, p. 336, 1910; Ponape, Caroline Islands; Tahiti, Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Dumaguete; Jolo and Sitanaki, Sulu Province. Herre, Fishes 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Coron, Busuanga Island; Estancia, Iloilo Province, Panay; Jolo, Sulu Province.
- Genus 660. **DIPLACANTHOPOMA** Günther.
Deep-sea fishes of the Indo-Pacific and Atlantic Oceans; known species very few.
Diplacanthopoma Günther, Report Voy. Challenger, Zoology, vol. 22, Deep-Sea Fishes, p. 115, 1887; type, *Diplacanthopoma brachysoma* Günther. Goode and Bean, Oceanic Ichthyology, p. 318, 1895.
Diplacanthopoma subgenus *Sarcocara* Radcliffe, Proc. U. S. Nat. Mus. vol. 44, p. 166, 1913.
2048. *Diplacanthopoma (Sarcocara) brunnea* Smith and Radcliffe.
A Philippine species.
Diplacanthopoma (Sarcocara) brunnea Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 167, pl. 13, fig. 3, 1913; Palawan Passage, west coast of Palawan, at a depth of 375 fathoms.

Genus 661. GLYPTOPHIDIUM Alcock.

Bay of Bengal, Philippines, and East Indies.

Glyptophidium Alcock, Ann. Mag. Nat. Hist., p. 390, 1889; type, *Glyptophidium argenteum* Alcock. Goode and Bean, Oceanic Ichthyology, p. 324, 1895.

2049. Glyptophidium lucidum Smith and Radcliffe.

East Indies and the Philippines.

Glyptophidium lucidum Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 161, pl. 12, fig. 3, 1913; Palawan Passage, west coast of Palawan, Philippines; between Halmahera and Kayoa Islands, Dutch East Indies.

2050. Glyptophidium oceanium Smith and Radcliffe.

A Philippine species.

Glyptophidium oceanium Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 162, pl. 12, fig. 4, 1913; Atalay Point, Batag Island, North coast of Samar, at a depth of 308 fathoms; vicinity of Port Matalvi, Zambales Province, at 178 fathoms, and Batangas Bay, Batangas Province, Luzon, at a depth of 140 fathoms.

Genus 662. GRAMMONUS Gill.

Two species known, one in the Mediterranean, and one in the Philippines.

Grammonus Gill, ms.; type, *Oligopus ater* Risso. Goode and Bean, Oceanic Ichthyology, p. 317, 1895; type, *Oligopus ater* Risso. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 168, 1913.

Oligopus Risso, Ichth. Nice, p. 141, 1810.

Pteridium Günther, Cat. Fishes British Mus., vol. 4, p. 375, 1862; not of Scopoli.

2051. Grammonus robustus Smith and Radcliffe.

A Philippine species.

Grammonus robustus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 168, pl. 13, fig. 4, 1913; between Cebu and Leyte, at a depth of 189 fathoms. Norman, Scientific Reports Murray Exped., vol. 7, p. 79, 1939; Gulf of Aden, Indian Ocean; Philippines.

Genus 663. HOMOSTOLUS Smith and Radcliffe.

A Philippine genus, with but one species known.

Homostolus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 146, 1913; type, *Homostolus acer* Smith and Radcliffe.

2052. Homostolus acer Smith and Radcliffe.

A Philippine species.

Homostolus acer Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 147, pl. 8, fig. 3, 1913; Iligan Bay, Lanao Province, Mindanao, at 270 fathoms.

Genus 664. LUCIOBROTULA Radcliffe.

A Philippine genus with only one species known.

Luciobrotula Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 170, 1913; type, *Luciobrotula bartschi* Smith and Radcliffe.

2053. Luciobrotula bartschi Smith and Radcliffe.

A Philippine species.

Luciobrotula bartschi Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 171, pl. 16, fig. 2, 1913; Palawan Passage, west coast of Palawan, at 375 fathoms.

Genus 665. MASTIGOPTERUS Smith and Radcliffe.

A Philippine and East Indian genus.

Mastigopterus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 158, 1913; type, *Mastigopterus imperator* Smith and Radcliffe.

2054. Mastigopterus imperator Smith and Radcliffe.

A Philippine species.

Mastigopterus imperator Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 159, pl. 12, fig. 1, 1913; off Diwata Point, Butuan Bay, Agusan Province, Mindanao, at a depth of 976 fathoms.

Genus 666. MONOMITOPUS Alcock.

Fishes of the Andaman Sea, Philippines, China Sea, and coast of Japan.

Monomitopus Alcock, Ann. Mag. Nat. Hist., ser. 16, vol. 6, p. 297, 1890;
type, *Sirembo nigripinnis* Alcock.

2055. *Monomitopus microlepis* Smith and Radcliffe.

A Philippine species.

Monomitopus microlepis Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 150, pl. 9, fig. 3, 1913; off Bagacay Point, east coast of Cebu, at a depth of 385 fathoms.

2056. *Monomitopus pallidus* Smith and Radcliffe.

A Philippine species.

Monomitopus pallidus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 148, pl. 9, fig. 1, 1913; off Caluya Island, Semirara Islands, south-east of Mindoro, in 312 fathoms.

Genus 667. **NEOBYTHITES** Goode and Bean.

Several species of the Indo-Pacific and Atlantic Oceans.

Neobythites Goode and Bean, Proc. U. S. Nat. Mus., vol. 8, p. 600, 1885; type, *Neobythites gilli* Goode and Bean. Günther, Report Voy. *Challenger*, Zoology, vol. 22, p. 100, 1887. Goode and Bean, Oceanic Ichthyology, p. 325, 1895. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 138, 1913; not synonymy.

2057. *Neobythites longipes* Smith and Radcliffe.

A species of the Philippines and Borneo.

Neobythites longipes Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 139, pl. 7, fig. 1, 1913; off Jolo Island, Sulu Province, at 258 fathoms.

Genus 668. **WATASEA** Jordan and Snyder.

Deep-sea fishes from Japan to the Philippines and Borneo.

Watasea, Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 23, p. 765, 1901; type, *Watasea sivicola* Jordan and Snyder. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 759, 1902.

2058. *Watasea fasciatus* (Smith and Radcliffe).

A Philippine species.

Neobythites (Watasea) fasciatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 142, pl. 7, fig. 4, 1913; Batangas Bay, Batangas Province, Luzon.

2059. *Watasea purus* (Smith and Radcliffe).

A Philippine species.

Neobythites (Watasea) purus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 141, pl. 7, fig. 3, 1913; near Destacado Island, between Masbate Island and Samar, at a depth of 135 fathoms.

Genus 669. **XENOBYTHITES** Smith and Radcliffe.

A Philippine genus with one known species.

Xenobythites Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 173, 1913; type, *Xenobythites armiger* Smith and Radcliffe.

2060. *Xenobythites armiger* Smith and Radcliffe.

Xenobythites armiger Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 44, p. 173, pl. 16, fig. 4, 1913; Macajalar Bay, Misamis Oriental Province, at a depth of 200 fathoms.

Family 188. **OPHIDIIDÆ**

Genus 670. **UMALIUS** Herre.

A Philippine genus with but one species known.

Lepophidium Umali, Philippine Jour. Sci., vol. 56, p. 323, 1936; not of Gill.

2061. *Umalius heraldi* Herre.

A Philippine fish.

Lepophidium marmoratum Umali, Philippine Jour. Sci., vol. 56, p. 323, pl. 1, fig. 3, 1935; not of Goode and Bean; specimen from Divisoria market, Manila, Luzon.

Fishes of warm seas, entering cavities in various invertebrates.

Genus 671. CARAPUS Rafinesque.

Species few, mainly entering the cavities of holothurians and mollusks.

Carapus Rafinesque, Indice Ittiol. Siciliana, pp. 37 and 57, 1810; type,

Gymnotus acus L. Gill. Proc. Acad. Nat. Sci. Phila., p. 152, 1864.

Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 750, 1902.

Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1074, 1936.

Pierasfer Oken, Isis, p. 1182, 1817; type, *Ophidium imberbe* L.

Echiodon Thompson, Proc. Zool. Soc. London, vol. 5, p. 55, 1837; type,

Echiodon Drummondii Thompson.

Diaphasia Lowe, Proc. Zool. Soc. London, vol. 11, p. 92, 1843; type,

Gymnotus acus Brünnich.

Oxybeles Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 74, 1846; type,

Oxybeles homei Richardson.

Porobronchus Kaup, Ann. Mag. Nat. Hist., ser. 3, vol. 6, p. 272, 1860;

type, *Porobronchus linearis* Kaup.

Vexillifer Gasco, Bull. Assoc. Nat. Med. Napoli, p. 59, 1870; type

Vexillifer dephillifi Gasco; on larva of *Pierasfer acus*.

Lefroyia Jones, Zoologist, vol. 2, p. 3837, 1874; type, *Lefroyia bermudensis* Jones.

2062. Carapus homei (Richardson).

Throughout the tropical Indo-Pacific, from Bourbon Island to the Philippines, East Indies, Australia, Samoan, Hawaiian, and Society Islands.

Oxybeles homei Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 74, pl. 44, figs. 7-18, 1844-48; Timor; Tasmania (?).

Oxybeles brandesu Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, pp. 276-278, figs. 1-3, 1851; Banda Neira.

Pierasfer homei Kaup, Cat. Apodal Fishes British Mus., p. 158, 1856.

Günther, Cat. Fishes British Mus., vol. 4, p. 382, 1862; Tasmania;

Amboina; Fiji Islands. Fowler, Proc. Acad. Nat. Sci. Phila., p. 523,

1900; Tahiti. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25,

p. 435, 1906; Apia and PagoPago, Samoa. Jordan and Seale, Bull.

U. S. Bur. Fisheries, vol. 26, p. 48, 1907; Cavite, Cavite Province, Luzon.

Jordan and Snyder, Bull. U. S. Bur. Fisheries, vol. 26, p. 217, 1907;

Honolulu. Günther, Fische der Südsee, vol. 3, p. 338, 1910; Fiji;

Samoa; Tahiti and Raiatea, Society Islands; Rotuma; New Britain.

Carapus homei Fowler, Bull. 22, Bishop Mus., p. 38, 1925; Tahiti. Fowler,

Mem. Bishop Mus., vol. 10, p. 445, 1928; Tahiti, Society Islands;

Honolulu; Samoa; Marshall Islands; Gilbert Islands. Herre, Fishes

1931 Philippine Exped., p. 100, 1934; Legaspi, Albay Province, Luzon;

Capiz, Capiz Province, Panay; Sitankai, Sulu Province. Herre, Fishes

1940-41 Exped.; Dumaguete, Negros Oriental Province. Herre, Mem.

Indian Mus., vol. 13, p. 397, 1941; from the Isle of Bourbon to Aus-

tralia, Tahiti, Hawaii, and the Philippines.

2063. Carapus parvipinnis (Kaup).

Tropical Indo-Pacific from Mauritius to the Philippines, Caroline, Samoan, and Society Islands.

Pierasfer parvipinnis Kaup, Cat. Apodal Fish. Brit. Mus., p. 160, pl. 16, fig. 2, 1856; Carteret Harbor, New Ireland. Günther, Cat. Fishes

British Mus., vol. 4, p. 383, 1862; New Ireland; after Kaup. Bleeker,

Verh. Akad. Amsterdam, vol. 18, p. 21, 1879; Mauritius. Fowler,

Proc. Acad. Nat. Sci. Phila., p. 523, 1900; Tahiti. Günther, Fische

der Südsee, vol. 3, p. 338, 1910; Ponapé and Kusaie, Carolines; New

Ireland and New Hanover, Bismarck Archipelago; Tahiti and Raiatea,

Society Islands; Rotuma.

Carapus parvipinnis Herre, Motorship *Spencer F. Baird*, October 1947;

Musa Bay, Fuga Island, Babuyan Islands, north of Luzon.

Genus 672. ENCHELIOPHIS Müller.

Only one species known; found from the Philippines to the Society Islands.

Encheliophis Müller, Abh. Akad. Wiss. Berlin, p. 153, 1843; type,

Encheliophis vermicularis Müller. Günther, Cat. Fishes British Mus.,

vol. 4, p. 384, 1862.

2064. *Encheliophis vermicularis* Müller.

Encheliophis vermicularis Müller, Abh. Akad. Wiss. Berlin, p. 154, pl. 4, figs. 4-5, 1843; Philippines. Günther, Cat. Fishes, vol. 4, p. 384, 1862; Philippines. Günther, Fische der Südsee, vol. 3, p. 339, 1910; Tahiti, Society Islands. Herre, Philippine Bureau Science Collection, 1921-27; Tubataha Reef, Sulu Sea; Banaran Island, Bungau Island, Sibutu Island, and Tandubas Island, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Cebu, Cebu. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 417, 1936; Moorea Island, Society Islands; "not rare in the Sulu Sea, Philippines; numerous specimens." *Fierasfer* sp., Semper, Zeitschrift Wiss. Zool., p. 104, 1862; Zamboanga, Mindanao, Philippines.

Family 190. **BATRACHOIDIDÆ. Toadfishes**

Genus 673. **CORYZICHTHYS** Ogilby.

Australia, New Guinea, the East Indies, Philippines, and India.

Coryzichthys Ogilby, Ann. Queensland Mus., No. 9, p. 50, 1908; type, *Batrachus diemensis* Richardson.

2065. *Coryzichthys diemensis* (Le Ssur).

Australia, to the Philippines, East Indies and India.

Batrachoides diemensis Le Ssur, Jour. Acad. Nat. Sci. Phila., vol. 3, 402, 1824; Shark's Bay, West Australia, Günther, Report Voy. Challenger. Zoology, vol. 1, Shore Fishes, p. 44, 1880; off New Guinea.

Batrachus dussumieri Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 474, pl. 367, 1837; Malabar, India.

Batrachus diemensis Richardson, Voy. *Erebus* and *Terror*, Fishes, p. 17, pl. 8, figs. 1-2, 1846. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 168, 1852; Timor. Bleeker, *ibid.*, p. 237; Ceram. Bleeker, *ibid.*, vol. 18, p. 370, 1859; Banka. Günther, Cat. Fishes British Mus., vol. 3, p. 170, 1861; Australia; coasts of Timor, Ceram, and Banka.

Coryzichthys diemensis Ogilby, Ann. Queensland Mus., No. 9, p. 61, 1908; 14 Australian localities. Fowler, Copeia, p. 65, 1918; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 296, 1927; the Philippines. Herre, Fishes Philippine Bureau Science Collection, 1921-27; Puerto Princesa, Palawan; Cebu, Cebu. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Culion; Capiz, Capiz Province, Panay. Herre, Fishes 1940-41 Exped.; Coron, Busuanga.

Marcgravia diemensis Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 282, 1908; Cuyo, Cuyo Islands, Sulu Sea.

2066. *Coryzichthys gangene* (Hamilton [né Buchanan]). Gatasan.

India to the Philippines and East Indies.

Batrachoides gangene Hamilton [né Buchanan], Fishes Ganges, pp. 34 and 365, pl. 14, fig. 8, 1822; salt estuaries of the Ganges River, Bengal, India.

Batrachus grunniens Günther, Cat. Fishes British Mus., vol. 3, p. 168, 1861; Amboina; East Indies; Ganges; in part.

Coryzichthys gangene Herre, Fishes 1936-37 Exped., Kuching, Sarawak, Borneo; Singapore. Herre, Copeia, No. 3, p. 149, 1945; Capiz, Capiz Province, Panay; Dumaguete, Negros Oriental Province.

Family 191. **GOBIESOCIDÆ. Cling fishes**

Small strictly marine shore fishes of temperate and tropical seas. Only one species is known from the Indian Ocean, East Indies, and Philippines.

Genus 674. **DIADEMICHTHYS** Pfaff.

Diademichthys Pfaff, Vidensk. Medded. fra Dansk Naturh. Forening., vol. 105, p. 413, 1942; type, *Diademichthys devorsor* Pfaff.

Coronichthys Herre, Stanford Ichth. Bull., vol. 2, p. 120, 1942; type, *Coronichthys ornata* Herre.

2067. *Diademichthys devorsor* Pfaff.

Diademichthys devorsor Pfaff, Vidensk. Medded. fra Dansk Naturh. Foren., vol. 105, p. 414, figs. 1-3, and pl. 3, figs. 1-5, 1942; Onrust, Java, Java Sea; Mauritius.

Coronichthys ornata Herre, Stanford Ichth. Bull. vol. 2, p. 122, fig. 1, 1942; Coron, Busuanga Island, Philippines. Herre, Fishes 1940-41 Exped.; Bungau, Sulu Province, Philippines.

Order FF. PLECTOGNATHI

Family 192. TRIACANTHIDÆ. Hornfishes; Sungay-sungayan

The most primitive group of the plectognaths. Each ventral is reduced to a single large strong spine. Genera and species are few, occurring in the Indo-Pacific from South Africa to the East Indies, Philippines, Japan, and south to Australia.

Genus 675. HALIMOCHIRURGUS Alcock.

Indian Ocean and Philippines; only 4 species known.

Halimochirurgus Alcock, Proc. Asiatic Soc. Bengal, p. 781, 1899; type, *Halimochirurgus centriscoides* Alcock.

2068. *Halimochirurgus macraurus* Fowler.

A Philippine species.

Halimochirurgus macraurus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 367, fig. 117, 1934; off Point Tagolo Light, Zamboanga Province, Mindanao, in 169 fathoms.

2069. *Halimochirurgus triacanthus* Fowler.

A Philippine species.

Halimochirurgus triacanthus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 365, fig. 116, 1934; off Corregidor Light in China Sea, near entrance to Manila Bay, Luzon, in 135 fathoms. Berg, Classification of Fishes, p. 339, fig. 189, 1940.

Genus 676. MACRORHAMPHOSODES Fowler.

Only one species known.

Macrorhamphosodes Fowler, Proc. Acad. Nat. Sci. Phila. vol. 85, p. 364, 1934; type, *Macrorhamphosodes platycheilus* Fowler.

2070. *Macrorhamphosodes platycheilus* Fowler.

A Philippine species.

Macrorhamphosodes platycheilus Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 365, fig. 115, 1934; off Sombrero Island, near Maricaban Island, Verde Island Passage, off Batangas Province, Luzon, in 340 fathoms.

Genus 677. PARATRIACANTHODES Fowler.

Only two species known, one from the Philippines and one from the China Sea near Formosa.

Paratriacanthodes Fowler, Proc. Acad. Nat. Sci. Phila., vol. 85, p. 362, 1934; type, *Paratriacanthodes retrospinis* Fowler.

2071. *Paratriacanthodes herrei* Myers.

A Philippine species.

Paratriacanthodes herrei Myers, Smithsonian Misc. Collections, vol. 91, No. 9, p. 9, 1934; off Point Tagolo Light, Zamboanga Province, Mindanao, in 182 fathoms. Norman, Scientific Reports Murray Exped., vol. 7, No. 1, Fishes, p. 108, text figure 38, 1939; near Zanzibar, Indian Ocean; off Point Tagolo Light, Philippines.

Genus 678. TRIACANTHUS (Cuvier) Oken. Hornfishes; sungay-sungayan.

Indo-Pacific from the Persian Gulf to the Philippines and Japan, and East Indies to Australia.

Triacanthus (Cuvier) Oken ("Les Triacanthus" Cuvier in Règne Animal, p. 153, 1817) Isis, 1817; type *Balistes biaculeatus* Bloch. Günther, Cat. Fishes British Mus., vol. 8, p. 209, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 253, 1902. Herre, Philippine Jour. Sci., vol. 25, p. 418, 1924.

2072. *Triacanthus biaculeatus* (Bloch).

China, the Philippines, East Indies, and Australia.

Balistes biaculeatus Bloch, Naturges. Ausländ. Fische, vol. 2, p. 17, pl. 148, fig. 2, 1786; "Japan" and East Indies, but not known from Japan.

Triacanthus biaculeatus Cuvier, Règne Animal, ed. 1, 1817. Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1342, pl. 9, fig. 3, 1850; Pinang; Malay Peninsula. Günther, Cat. Fishes British Mus., vol. 8, p. 210; 1870; not synonymy; Pinang; Java; East Indian Archipelago; Port Essington, Australia. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 45, 1885; Manila Bay, Luzon; Cebu, Cebu.

2073. *Triacanthus blochi* Bleeker.
East Indies and Philippines.
Triacanthus Blochii Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 81, 1852; Singapore.
Triacanthus blochi Bleeker, Atlas Ichth., vol. 5, p. 81, pl. 217, fig. 1, 1865; Pinang. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 272, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay, Philippines. Seale, Philippine Jour. Sci. vol. 5, sec. D, p. 284, 1910; Sandakan, British North Borneo; Philippines. Fowler, Copeia, p. 64, 1918; Philippines. Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 60, 1922; Cebu, Cebu, Philippines. Herre, Philippine Jour. Sci. vol. 25, p. 419, 1924; Lingayen Gulf at Alaminos, Pangasinan Province; Manila Bay; Calabanga, Camarines Sur Province, Luzon; Calapan, Mindoro; Barotac Nuevo, Iloilo Province, Panay. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 296, 1927; Philippines; Orani and Orion, Bataan Province, Luzon. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Curimao, Ilokos Norte Province, and Manila Bay, Luzon; Cebu, Cebu. Herre, Fishes 1940-41 Exped.; Manila Bay and Gulf of Ragay, Luzon.
2074. *Triacanthus brevirostris* Schlegel.
Japan and China, to the Philippines and East Indies.
Triacanthus brevirostris Schlegel. Fauna Japonica, Pisces, p. 294, pl. 129, fig. 2, 1842; Nagasaki. Hollard, Ann. Sci. Nat., Zoology, vol. 1, p. 45, pl. 2, fig. 1, 1854. Bleeker, Atlas Ichth., vol. 5, p. 91, pl. 231, fig. 3, 1865; Java; Madura; Sumatra; Singapore; Borneo; Celebes; Amboina; New Guinea; Buru; Batjan; China; Japan. Günther, Cat. Fishes British Mus., vol. 8, p. 209, 1870; China; Amboina; East Indies. Not synonymy and not Indian specimens. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 253, 1902; Suruga Bay and Kagoshima, Japan. Herre, Philippine Jour. Sci., vol. 26, p. 418, 1924; Manila Bay, Luzon, Philippines; Amoy, China.
2075. *Triacanthus oxycephalus* Bleeker.
East Indies and Philippines.
Triacanthus oxycephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 496, 1851; Riouw Islands; Batavia, Java; Padang, Sumatra. Bleeker, Verh. Bat. Gen., vol. 24, p. 27, p. 5, fig. 10, 1852. Bleeker, Atlas Ichth., vol. 5, p. 90, pl. 220, fig. 3, 1865; Java; Banka; Sumatra; Riouw; Amboina, Celebes; Singapore. Peters, Monatsber. Akad. Wiss. Berlin, p. 276, 1865; Catbalogan, Samar, Philippines. Regan, Proc. Zool. Soc. London, p. 183, 1903; East Indian Archipelago.
2076. *Triacanthus strigillifer* Cantor.
East Indies, Philippines, and China.
Triacanthus strigillifer Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1345, pl. 9, figs. 1-2, 1850; Pinang. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste Bijdr. vischfauna, p. 97, 1857; Amboina. Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 39, 1861; Singapore. Bleeker, Atlas Ichth., vol. 5, p. 89, pl. 229, fig. 3, 1865; Amboina; Singapore; Pinang; China. Günther, Cat. Fishes British Mus., vol. 8, p. 211, 1870; Philippines; Pinang; Amboina; China. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 422, 1924; Manila Bay, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete and vicinity, Negros Oriental Province.
Triacanthus longirostris Hollard, Ann. Sci. Nat., vol. 1, p. 46, pl. 2, fig. 3, 1854.

Family 193. BALISTIDAE. Triggerfishes

Widely distributed in the Indo-Pacific and tropical Atlantic Oceans, including the Mediterranean Sea.

Genus 679. ABALISTES Jordan and Seale.

A well-marked genus with but one species.

Abalistes Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 364, 1906; type, *Abalistes stellaris* (Bloch and Schneider). Herre, Philippine Jour. Sci., vol. 25, p. 445, 1924.

Leiurus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 326, 1839; type, *Leiurus macrophthalmus* Swainson=*Balistes stellaris* Bloch and Schneider.

2077. *Abalistes stellaris* (Bloch and Schneider).

Red Sea and coast of Mozambique to the Philippines, Fiji, and Australia.

Balistes stellaris Bloch and Schneider, Syst. Ichth., p. 476, 1801; Indian Sea. Lacépède, Hist. Nat. Poissons, vol. 1, pp. 333 and 350, pl. 15, fig. 1, 1799; Mauritius; as name was in French, it is ineligible. Hollard, Ann. Sci. Nat. Zool., vol. 1, p. 320, pl. 5, fig. 2, 1854; East Indies; New Ireland; Pacific Ocean; eastern Asia.

Balistes stellatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 51, 1852; Singapore. Bleeker, Verh. Bat. Gen., vol. 25, p. 78, 1853; Bengal in Hindustan. Günther, Cat. Fishes British Mus., vol. 8, p. 212, 1870; Red Sea; Zanzibar; Mauritius; Ceylon; Singapore; Ambonia; China Seas; Louisiade Archipelago; West Australia; Hope Island; north-east Australia.

Leturus stellatus Bleeker, Ned. Tijds. Dierk., vol. 2, p. 272, 1865. Bleeker, Atlas Ichth., vol. 5, p. 105, pl. 215, 1865; Amboina; Singapore.

Abalistes stellaris Herre, Philippine Jour. Sci., vol. 25, p. 445, 1924; Malampaya Sound, Palawan; Estancia, Iloilo Province, Panay; Basilan Island, Philippines. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Jolo, Sulu Province, Philippines. Herre, Fishes 1940-41 Exped.; Iloilo, Iloilo Province, Panay; Zamboanga, Zamboanga Province, Mindanao. Herre, Collection of Kauffman and Umali, Motorship *Theodore N. Gill*, June, 1947; Manila Bay, Luzon, 8 miles from Corregidor Island.

Genus 680. **BALISTAPUS** Tilesius. Pugut.

Small brightly colored balistids of the tropical Indo-Pacific.

Balistapus Tilesius, Mem. Acad. Nat. Sci. St. Petersburg, vol. 7, p. 302, 1802; type, *Balistes aculeatus* L.

2078. *Balistapus aculeatus* (Linnaeus).

From the Red Sea and east coast of Africa to the Philippines, China, the Caroline, Hawaiian, Fiji, Society, Tuamotu, and Marquesas Islands, and Australia.

Balistes aculeatus Linnaeus, Syst. Nat., ed. 10, p. 328, 1758; India. Bloch, Naturges. Ausländ. Fische, vol. 2, p. 19, pl. 149, 1786. Lacépède, Hist. Nat. Poissons, vol. 1, p. 367, pl. 17, fig. 1, 1799. Lay and Bennett, Fishes. Zoology Capt. Beechey's Voyage, p. 69, pl. 22, fig. 2, 1839. Bleeker, Jour. Indian Archipelago, vol. 2, p. 638, 1848; Sumbawa Island. Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 228, 1857; Banda Islands. Bleeker, Atlas Ichth., vol. 5, p. 120, pl. 216, fig. 3, 1865; numerous East Indian localities. Günther, Cat. Fishes British Mus., vol. 8, p. 223, 1870; Mauritius; Seychelles; Johanna Island; Zanzibar; east coast of Africa; Moluccas; Amboina; China Seas; Micronesia; Fiji Islands. Day, Fishes India, p. 690, pl. 178, fig. 3, 1878.

Balistes ornatissimus Lesson, Voy. *Coquille*, Zool., vol. 2, p. 119, 1830. Lesson, Atlas Poissons, pl. 10, fig. 1, 1826; BoraBora, Society Islands.

Balistapus aculeatus Fowler, Proc. Acad. Nat. Sci. Phila., p. 496, 1899; Thornton Island. Seale, Occas. Papers Bishop Mus., vol. 1, p. 115, 1900, Guam. Bryan and Herre, *ibid.*, vol. 2, p. 135, 1903; Marcus Island. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 414, pl. 62, 1905; Honolulu; Samoa. Seale, Occas. Papers Bishop Mus., vol. 4, p. 74, 1906; Tahiti; Rarotonga; Faté; Raiatea; Nukuhiva, Marquesas. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 100, 1907; Bacon, Sorsogon Province, Luzon; Zamboanga, Zamboanga Province, Mindanao, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fish., vol. 27, p. 272, 1908; Cuyo, Cuyo Islands, Sulu Sea. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 333, 1911; Kusaie Island, Caroline Islands; Rangiroa, Tuamotu Islands; Funafuti, Ellice Islands. Weber, *Siboga*-Exped., vol. 57, Fische, p. 576, 1913; Sanguisiapo Island, Sulu Province, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 440, 1924; Calapan and Puerto Galera, Mindoro; Bacon, Sorsogon Province, Luzon; Samal Island, Davao Gulf, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Also Guam. Fowler, Proc. Acad. Nat. Sci. Phila. vol. 79, p. 296, 1927; Bacon, Sorsogon Province, Luzon, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 452, pl. 46 A, 1928; Port Moresby,

New Guinea; Guam; Kusaie, Caroline Islands; Marcus Island; Guam; Honolulu, Hawaiian Islands; Laysan, Johnston, Thornton, Wake, Fanning, and Palmyra Islands; Rarotonga; Gilbert Islands; Tahiti and Raiatea, Society Islands; Rangiroa, Tuamotu Islands; Nukahiva, Marquesas Islands; Faté, New Hebrides. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Cullion; Jolo and Sitankai, Sulu Province, Philippines. Herre, Field Mus. Nat. Hist., Zool. Ser., vol. 21, p. 417, 1936; Viti Levu and Nukulau Islands, Fiji; Tahiti, Society Islands; Makatea Island, Tuamotu Islands.

2079. *Balistapus rectangulus* (Bloch and Schneider).

East coast of Africa to the Philippines, East Indies, Marcus Island, Hawaiian Islands, Samoa, Society, Tuamotu, and Marquesas Islands, and western Australia.

Balistes rectangulus Bloch and Schneider, Syst. Ichth., p. 465, 1801; Indian Ocean. Günther, Cat. Fishes British Mus., vol. 8, p. 225, 1870; Zanzibar; East Indian Archipelago. Day, Fishes India, p. 691, pl. 177, fig. 4, 1878. Günther, Fische der Südsee, vol. 3, p. 445, 1910; Pelew Islands; Guam; Ponapé, Ruk, and Mortlock Islands, Caroline Islands; New Hebrides; Marquesas; Samoa; Marcus Island; Hawaiian Islands.

Balistapus rectangulus Fowler, Proc. Acad. Nat. Sci. Phila., p. 514, 1900; Hawaii. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 413, pl. 63, 1905; Honolulu. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Calayan Island, Babuyan Islands, north of Luzon, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 442, 1924; Cabalian, Leyte. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Jolo and Sitankai, Sulu Province.

2080. *Balistapus undulatus* (Park).

Commonest coral-reef balistid from the Red Sea and Mozambique to the Philippines, China, Guam, the Caroline, Marshall, Samoa, Society, Tuamotu, and Marquesas Islands.

Balistes undulatus Park, Trans. Linn. Soc. London, vol. 3, p. 37, 1797; Sumatra. Günther, Cat. Fishes British Mus., vol. 8, p. 226, 1870; Red Sea; Zanzibar, Moluccas; Sumatra; Amboina; Ceram; China; Japan; Cebu, Cebu, Philippines. Weber, *Siboga*-Exped., vol. 57, Fische, p. 575, 1913; Sanguisiapo Island, Sulu Islands, Sulu Province, Philippines.

Balistes lineatus Bloch and Schneider, Syst. Ichth., p. 446, pl. 87, 1801; Coromandel, India. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 45, 1885; Cebu, Cebu.

Balistes lamouroux Quoy and Gaimard, Voy. *Uranie*, Zoologie, vol. 1, p. 208, pl. 47, fig. 1, 1824; Caroline Islands.

Balistes sesquilineatus Lay and Bennett, Fishes. Zoology Capt. Beechey's Voyage, p. 69, pl. 21, fig. 3, 1839; Tahiti.

Balistes (Balistapus) lineatus Bleeker, Atlas Ichth., vol. 5, p. 118, pl. 229, fig. 2, 1865.

Balistapus undulatus Fowler, Proc. Acad. Nat. Sci. Phila., p. 496, 1899; Thornton Island. Seale, Occas. Papers Bishop Mus., vol. 4, p. 74, 1906; Papeete and Raiatea, Society Islands; Faté, New Hebrides; Shortland Island, Solomon Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 35, 1907; Cavite, Cavite Province, Luzon, Philippines. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 100, 1907; Bacon, Sorsogon Province, Luzon. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Cagayancillo, Cagayan Islands, Sulu Sea. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 333, 1911; Jaluit and Arnoh Islands, Marshall Islands; Suva, Fiji. Fowler, Copeia, p. 64, 1918; Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 441, pl. 1, fig. 1, 1924; Iba, Zambales Province, Luzon; Calapan and Puerto Galera, Mindoro; Cabalian, Leyte; Puerto Princesa, Palawan; Balabac Island; Samal Island, Davao Gulf, Davao Province, Mindanao; Sitankai, Sulu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 296, 1927; Philippines; Bacon, Sorsogon Province, Luzon. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 62, 1930; Zamboanga, Philippines. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental

Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Dumaguete; Cebu, Cebu; Jolo and Sitankai, Sulu Province, Philippines. *Balistapus lineatus* Fowler and Bean, Proc. U. S. Nat. Mus., vol. 62, p. 59, 1922; Zamboanga, Zamboanga Province, Mindanao.

2081. *Balistapus verrucosus* (Linnaeus). Pugot gusu.

India, Mauritius, East Indies, Philippines, China, and the Pelew, Solomon, and Society Islands.

Balistes verrucosus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 328, 1758; India. Linnaeus, Mus. Adolphi Frederici, p. 57, pl. 27, fig. 4, 1764. Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 332, 1859; Java. Günther, Cat. Fishes British Mus., vol. 8, p. 225, 1870; Philippines; Mauritius; Sumatra; Amboina; Celebes. Günther, Report Voy. Challenger Zoology, vol. 1, Part 6, Shore Fishes, p. 54, 1880; Cebu, Philippines. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao. Günther, Fische der Südsee, vol. 3, p. 444, pl. 170, fig. A, 1910; Pelew Islands; Solomon Islands; New Britain; New Ireland; Huahine.

Balistes prasinensis Quoy and Gaimard, Voy. Uranie, Zoologie, Part 2, p. 205, pl. 46, fig. 1, 1824; Praslin Island; Waigiu.

Balistes prasinoides Lesson, Atlas Poissons, pl. 9, fig. 3, 1826; Port Praslin, New Ireland. Lesson, Voy. Coquille, Zool., vol. 2, p. 117, 1830.

Balistes (Balistapus) verrucosus Bleeker, Atlas Ichth., vol. 5, p. 120, pl. 216, fig. 2, 1865; Java; Sumatra; Celebes; Batjan; Ternate; Obi; Timor; Buru; Ceram; Amboina; Waigiu.

Balistapus verrucosus Seale, Occas. Papers Bishop Mus., vol. 4, p. 74, 1906; Shortland Island, Solomon Islands. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Cagayancillo Island, Cagayan Islands, Sulu Sea. Herre, Philippine Jour. Sci., vol. 25, p. 443, 1924; Iba, Zambales Province, and Cabasao, Camarines Sur Province, Luzon; Calapan, Mindoro; Cabalian, Leyte; Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Dumaguete; Cebu, Cebu.

Genus 681. **BALISTES** Linnaeus. Triggerfishes; Papakol; Pakol; Pugot. In all tropical seas.

Balistes Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 327, 1758; after Artedi; type, *Balistes vetula* L. Günther, Cat. Fishes British Mus., vol. 8, p. 212, 1870. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 407, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 424, 1924. Barnard, Ann. South African Mus., vol. 21, p. 950, 1927. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1083, 1936.

Parabalistes Bleeker, Ned. Tijds. Dierk., vol. 3, p. 10, 1866; type, *Balistes chrysocephalus* Bleeker.

Pseudobalistes Bleeker, *ibid.*, p. 11; type, *Balistes flavimarginatus* Rüppell.

Sufflamen Jordan, Copeia, No. 29, p. 27, 1916; type, *Balistes capistratus* Shaw. Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 84, 1922.

2082. *Balistes bursa* (Lacépède).

From the Red Sea, east coast of Africa and Madagascar, to the Philippines, Hawaiian, Society and Marquesas Islands.

Balistes bourse Lacépède, Hist. Nat. Poissons, vol. 1, pp. 335 and 375, pl. 7, fig. 1, 1798.

Balistes bursa Bloch and Schneider, Syst. Ichth., p. 476, 1801; Indian Ocean. Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 350, 1853; Amboina. Bleeker, Atlas Ichth., vol. 5, p. 116, pl. 223, fig. 3, 1865; Amboina; Ternate; Doreh, New Guinea. Günther, Cat. Fishes British Mus., vol. 8, p. 219, 1870; Africa; Mauritius; Amboina; Hawaiian Islands. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 46, 1885; Cebu, Cebu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 410, fig. 180, 1905; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 4, p. 73, 1906; Nukahiva, Marquesas Islands. Herre, Philippine Jour. Sci., vol. 25, p. 433, 1924; Calapan, Mindoro. Herre, Fishes Philippine Bureau Science Collection, 1926; Tablas Island. Fowler, Mem. Bishop Mus., vol. 10, p. 450, pl. 45 A, 1928; Honolulu; Hawaiian

Islands; Fiji; Society Islands; Nukahiva, Marquesas Islands. Herre, Field Mus. Nat. Hist., Zool. ser., vol. 21, p. 420, 1936; Moorea, Society Islands. Fowler, Acad. Nat. Sci. Phila. Monograph 2, pp. 23, 116, 244, 1938; Marquesas, Tuamotu, and Hawaiian Islands.

2083. *Balistes capistratus* Shaw. Bridled triggerfish.
East coast of Africa to the Philippines, Hawaiian, Tuamotu, and Marquesas Islands.
Balistes capistratus Shaw, General Zoology, vol. 5, p. 417, 1804. Jordan and Everman, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 412, fig. 181, 1905; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 4, p. 74, 1906; Nukahiva, Marquesas Islands. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 333, 1911; Makemo Island, Tuamotu Islands. Herre, Philippine Jour. Sci., vol. 25, p. 430, 1924; Hamilo, Batangas Province, Luzon; Zamboanga, Zamboanga Province, Mindanao. Barnard, Ann. South African Mus., vol. 21, p. 952, 1927; Natal coast, South Africa. Herre, Fishes 1931 Philippine Exped., p. 100, 1934; Jolo, Sulu Province.
Balistes frenatus Richardson, Voy. Sulphur, Ichth., p. 129, pl. 60, fig. 1, 1843; East Indies. Bleeker, Atlas Ichth., vol. 5, p. 114, pl. 223, fig. 2, 1865; Java, Celebes, Sumatra, Amboina, Obi.
Balistes mitis Günther, Cat. Fishes British Mus., vol. 4, p. 218, 1870; Zanzibar; Port Natal; Mauritius; India; China; Observatory and Gonzalez Islands.
Pachynathus capistratum Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 255, 1902; Japan.
Pachynathus capistratus Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 483, 1902; Honolulu.
2084. *Balistes chrysopterus* Bloch and Schneider.
From the Red Sea and Zanzibar to the Philippines, and the Pelew, Caroline, Gilbert, Marshall, Samoan, and Society Islands.
Balistes niger Park, Trans. Linn. Soc. London, vol. 3, p. 37, 1791; Sumatra; preoccupied. Günther, Cat. Fishes British Mus., vol. 8, p. 218, 1870; Red Sea; Zanzibar; Mauritius; Ceylon; Sumatra; Amboina; Aneiteum; Micronesia. Day, Fishes India, p. 688, pl. 181, fig. 1, 1878. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 99, 1907; Bacon, Sorsogon Province, Luzon. Günther, Fische der Südsee, vol. 3, p. 439, 1910; Pelew Islands; Ponape, Caroline Islands; New Hanover; Samoa; Friendly Islands; Gilbert Islands; Aneiteum and Faté, New Hebrides; Duke of York Islands.
Balistes (Balistapus) armatus Lacépède, Hist. Nat. Poissons, vol. 1, pp. 336 and 382, pl. 18, fig. 2, 1798. Bleeker, Atlas Ichth., vol. 5, p. 115, pl. 216, fig. 1, 1865; Celebes; Nias; Sangi Islands; Sumatra; Obi; Timor; Saparua.
Balistes chrysopterus Bloch and Schneider, Syst. Ichth., p. 466, 1801; Coromandel, India. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 362, 1906; Apia, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 272, 1908; Fuga Island, Babuyan Islands, north of Luzon. Herre, Philippine Jour. Sci., vol. 25, p. 429, 1924; Iba, Zambales Province, Monja Island at entrance to Manila Bay, and Hamilo, Batangas Province, Luzon. Siasi, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 450, pl. 44 C, 1928; Honolulu; Nukahiva, Marquesas Islands; Makemo, Tuamotu Islands. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Jolo, Sulu Province.
Balistes albicaudatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 54, pl. 16, fig. 1, 1835; Red Sea.
2085. *Balistes flavimarginatus* Rüppell.
Red Sea to the Philippines and north to Japan, southeast through Polynesia to the Society and Marquesas Islands.
Balistes flavimarginatus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 33, 1828. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 54, plate 15, figs. 1-2, 1835; Djedda, Red Sea. Bleeker, Atlas Ichth., vol. 5, p. 113, pl. 218, fig. 3, and pl. 224, fig. 3, 1865; Bawean; Celebes; Batjan; Ceram; as *flavomarginatus*. Günther, Cat. Fishes British Mus., vol. 8, p. 223, 1870; Red Sea; Amboina. Day, Fishes India, p. 690, pl. 178, fig. 1, 1878. Evermann and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 99, 1907; Bacon, Sorsogon Prov., Luzon.

Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 272, 1908; Cuyo, Cuyo Islands, Sulu Sea. Günther, Fische der Südsee, vol. 3, p. 443, 1910; South Sea; as *flavomarginatus*. Herre, Philippine Jour. Sci., vol. 25, p. 438, 1924; Monja Island and reefs, mouth of Manila Bay, Luzon; Calapan, Mindoro; Cebu, Cebu Province, Zamboanga, Zamboanga Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 452, 1928; Nukahiva, Marquesas Islands; Society Islands; Ebon Island, Marshall Islands; Fiji; Palmyra Island. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Calapan, Mindoro; Sitankai, Sulu Province.

Balistes brasiliensis Peters, Monatsber. Akad. Wiss. Berlin, p. 852, 1877; New Britain.

Balistes papuensis Macleay, Proc. Linn. Soc. New South Wales, vol. 8, p. 279, 1883; Hood Bay, New Guinea.

Pseudobalistes flavimarginatus Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 257, 1902; Wakanoura, Japan.

2086. *Balistes fuscus* Bloch and Schneider.

From the Red Sea and Mauritius to the Philippines, East Indies, New Hebrides, Fiji, Hawaiian, Gilbert, and Society Islands.

Balistes fuscus Bloch and Schneider, Syst. Ichth., p. 471, 1801. Günther, Cat. Fishes British Mus., vol. 8, p. 222, 1870; Red Sea; Zanzibar; Mauritius. Seale, Occas. Papers Bishop Mus., vol. 4, p. 73, 1906; Tahiti. Günther, Fische der Südsee, vol. 3, p. 442, pl. 168, 1910; Fiji; Ponapé, Caroline Islands; Gilbert Islands; Society Islands. Herre, Philippine Jour. Sci., vol. 25, p. 435, 1924; Tatayan Island, southern coast Cotabato Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 451, 1928; Honolulu; Society Islands; Apiang, Ellice Islands.

Balistes coeruleus Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 32, pl. 7, fig. 2, 1828; Red Sea.

Balistes chrysocephalus Bleeker, Atlas Ichth., vol. 5, p. 111, pl. 225, fig. 3, 1865; Solor.

2087. *Balistes humilis* Herre.

A Philippine species of somewhat doubtful validity, founded on juvenile specimens.

Balistes humilis Herre, Philippine Jour. Sci., vol. 25, p. 434, 1924; south coast of Cotabato Province, Mindanao.

2088. *Balistes niger* Bonnaterre.

Ranges from Madagascar to the Philippines, southern Japan, the Caroline Islands, New Guinea, and Fiji.

Balistes niger Bonnaterre, Tableau Encyclop. Ichth., p. 19, pl. 85, fig. 152, 1788; Mauritius; after Sonnerat. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 362, 1906; New Guinea; East Indies. Herre, Philippine Jour. Sci., vol. 25, p. 427, 1924; Cresta de Gallo, Romblon Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Balabac Island. Herre, Fishes Philippine Bureau Science Collection 1924-27; Bennett Island, near Masbate; Cebu, Cebu; Jolo, Sulu Province.

Balistes conspicillum Bloch and Schneider, Syst. Ichth., p. 474, 1801. Indian Seas. Lesson, Voy. Coquille, Zool., vol. 2, p. 112, 1830. Lesson, Atlas Poissons, pl. 9, fig. 1, 1826; Oceania; Caroline Islands; New Ireland; New Guinea. Schlegel, Fauna Japonica, Pisces, p. 289, pl. 129, fig. 1, 1842; Nagasaki, Japan. Bleeker, Atlas Ichth., vol. 5, p. 116, pl. 221, fig. 2, 1865; Singapore; Pinang; Solor; Celebes; Natuna; Timor; Amboina. Günther, Cat. Fishes British Mus., vol. 8, p. 220, 1870; Japan; Formosa. Day, Fishes India, p. 689, 1878. Günther, Fische der Südsee, vol. 3, p. 441, 1910, Ovalau, Fiji.

Pachynathus conspicillum Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 256, 1902; Nagasaki, Kagoshima, and Urakawa, Hokkaido; also Kii, Japan.

Balistes conspicillum Fowler, Mem. Bishop Mus., vol. 10, p. 451, 1928; after Günther.

2089. *Balistes rivulatus* Rüppell.

Red Sea to the Philippines and New Hebrides.

Balistes rivulatus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 56, pl. 16, fig. 2, 1835; Red Sea, at Djedda, Arabia. Günther, Cat. Fishes British Mus., vol. 8, p. 222, 1870; Djedda; after Rüppell. Herre,

Philippine Jour. Sci., vol. 25, p. 436, 1924; Layia, Batangas Province, Luzon.

Xanthichthys rivulatus Seale, Occas. Papers Bishop Mus., vol. 4, p. 73, 1906; Faté, New Hebrides.

2090. *Balistes vidua* Solander.

Philippines and East Indies, eastward to the Hawaiian, Society and Marquesas Islands.

Balistes vidua Solander, in Richardson, Voy. *Sulphur*, Fishes, p. 128, pl. 59, figs. 9-10, 1845; Tahiti; in Solander manuscript. Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 565, 1852; Amboina. Bleeker, *ibid.*, vol. 15, p. 462, 1858; Cocos Island. Hollard, Ann. Sci. Nat. Zool., vol. 1, p. 319, 1854; BoraBora, Society Islands. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 154, 1863; Halmahera. Günther, Cat. Fishes British Mus., vol. 8, p. 216, 1870; Tahiti; China; East Indian Archipelago. Jordan and Everman, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 409, pl. 61, 1905; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 4, p. 73, 1906; Nukahiva, Marquesas Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 361, 1906; PagoPago, Samoa. Günther, Fische der Südsee, vol. 3, p. 438, 1910; Hawaii; Ponapé and Mortlock, Caroline Islands; Gilbert Islands; Society Islands; Marquesas Islands. Herre, Philippine Jour. Sci., vol. 25, p. 426, 1924; Olongapo, Zambales Province; Monja Island, entrance to Manila Bay, Luzon; Puerto Galera, Mindoro. Herre, Fishes, Collection Philippine Bureau Science, 1924-27; Ambil Island, Lubang Islands, northwest of Mindoro; Iloilo, Iloilo Province, Panay; Bacuit Bay, Palawan. Fowler, Mem. Bishop Mus., vol. 10, p. 449, pl. 44, B, 1928; Honolulu; French Frigate Shoal; Johnston Island; Wake Island; Tahiti, Society Islands; Samoa; Nukahiva, Marquesas Islands. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Linapacan Island, Palawan Province.

Balistes fimpriatus Richardson, Voy. *Sulphur*, Ichth., p. 128, 1845; Tahiti.

Melichthys vidua Bleeker, Atlas Ichth., vol. 5, p. 109, pl. 217, fig. 2, 1865; Amboina; Cocos; Halmahera; Doreh, New Guinea.

Sufflamen vidua Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 84, 1922; Honolulu.

2091. *Balistes viridescens* Bloch and Schneider.

The largest *Balistes*. Occurs from the Red Sea and Zanzibar to the Philippines, New Guinea, and the Caroline Islands.

Balistes viridescens Bloch and Schneider, Syst. Ichth., p. 477, 1801; Mauritius. Hollard, Ann. Sci. Nat., Zoology, vol. 1, p. 324, 1854; Red Sea; New Guinea. Günther, Cat. Fishes British Mus., vol. 8, p. 220, 1870; Red Sea; Zanzibar; Mauritius. Day, Fishes India, p. 689, pl. 177, fig. 2, 1878. Weber, *Siboga*-Exped., vol. 57, Fische, p. 573, pl. 10, fig. 15, 1913; Sanguisiapo Island, Sulu Province, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 431, 1924; Manila Bay, Luzon; Calapan, Mindoro; Bantayan Island, Cebu Province, Estancia, Iloilo Province, Panay; Zamboanga, Zamboanga Province, and the southern coast of Cotabato Province, Mindanao. Herre, Fishes Philippine Bureau Science Collection, 1924-27; abundant on reefs, near Marinduque Island; Cebu, Cebu; Taytay, Palawan; Sibutu, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 3, p. 5, 1933; Sandakan, British North Borneo. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Culion; Jolo and Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Coron, Busuanga Island.

Balistes (Pseudobalistes) viridescens Bleeker, Atlas Ichth., vol. 5, p. 112, pl. 231, fig. 2, 1865; Batjan, Nias, Java, Goram, Bawean, Celebes, Ceram, Amboina, and New Guinea, Dutch East Indies.

Genus 682. CANTHIDERMIS Swainson.

An intertropical genus of the Indo-Pacific and Atlantic Oceans, the species few, ranging north in the Pacific to southern Japan and south to the Cape of Good Hope region.

2092. *Canthidermis viola* Herre.

A Philippine species.

Canthidermis viola Herre, Philippine Jour. Sci., vol. 3, p. 534, pl. 1, 1926; Manukan Island, Cagayan Islands, Sulu Sea; Bennett Island, west of

Masbate; reefs of Tablas and Marinduque Islands. Clark, Plectognath Coll. 1949-50; Pelew Islands.

Genus 683. MELICHTHYS Swainson.

A genus with apparently but a single species.

Melichthys Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 325, 1839; type, *Balistes ringens* Osbeck; not of Linnaeus. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 417, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 446, 1924. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 109, 1936.

2093. *Melichthys radula* (Solander).

Indo-Pacific from the Seychelles and Philippines to the Hawaiian Islands and the islands off the Pacific coast of Mexico.

Balistes ringens Osbeck, Reise nach Ost-Indien und China, p. 386, 1765; not of Linnaeus.

Balistes radula Solander, in Richardson, Voy. Samarang, Fishes, p. 21, pl. 6, figs. 1-4, 1848; in Solander ms., 1768.

Melichthys ringens Bleeker, Atlas Ichth., vol. 5, p. 108, pl. 220, fig. 2, 1865; Sumatra; East Indies.

Balistes niger Günther, in Playfair and Günther, Fishes Zanzibar, p. 135, pl. 19, fig. 1, 1866.

Balistes buniva Günther, Cat. Fishes British Mus., vol. 8, p. 227, 1870; Zanzibar; China Seas; Hawaiian Islands; in part.

Melichthys bispinosus Gilbert, Proc. U. S. Nat. Mus., vol. 13, p. 125; 1890; Clarion and Socorro Islands, off west coast of Mexico. Bryan and Herre, Occas. Papers Bishop Mus., vol. 2, p. 135, 1903; Marcus Island.

Balistes (Melanichthys) buniva Steindachner, Denks. Akad. Wiss. Wien, vol. 70, p. 517, 1901; Honolulu; Laysan Island.

Melichthys radula Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, p. 417, pl. 64, 1905; Honolulu; also Johnston Island. Herre, Philippine Jour. Sci., vol. 25, p. 446, 1924; Sibuyan Island, Philippines. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Linapacan Island, Palawan Province.

Melichthys buniva Fowler, Bull. 22, Bishop Mus., p. 30, 1925; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 455, pl. 46, fig. C, 1928; Honolulu, Hawaiian Islands; Thornton, Johnston, French Frigate Shoal, Gardner, Necker, Wake, and Laysan Islands; Marcus Island; Marshall Islands; Tuamotu Islands.

Genus 684. ODONUS Gistel.

Only one species known; in the tropical Indo-Pacific.

Xenodon Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 53, 1835; type, *Balistes niger* Lacépède; preoccupied.

Odonus Gistel, Naturgeschichte des Thierreichs, vol. 11, 238, 1848; type, *Balistes niger* Lacépède. Herre, Philippine Jour. Sci., vol. 25, p. 447, 1924.

Erythrodon Rüppell, Verzeich. Mus. Senckenberg. Naturf. Gesell. Sammlungen, Part 4, p. 34, 1852; type, *Balistes niger* Lacépède; substitute for *Xenodon* Rüppell.

2094. *Odonus niger* (Lacépède). Red-toothed triggerfish; Epet.

From the Red Sea and Réunion to the Philippines, East Indies; and Society Islands.

Balistes niger Lacépède, Hist. Nat. Poissons, vol. 1, pp. 335 and 378, pl. 15, fig. 2, 1798; originally given the French vernacular name of "Baliste noir" by Lacépède.

Xenodon niger Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 53, pl. 14, fig. 3, 1835; Red Sea.

Erythrodon niger Rüppell, Verzeich. Mus. Senckenberg. Naturf. Gesell. Sammlungen, Part 4, p. 34, 1852; Red Sea. Bleeker, Atlas Ichth., vol. 5, p. 106, pl. 219, 1865; Amboina; Indian Archipelago.

Balistes erythrodon Günther, Cat. Fishes British Mus., vol. 8, p. 228, 1870; Zanzibar; Mauritius; Ceram, Dutch East Indies. Day, Fishes India, p. 692, pl. 175, fig. 4, 1878.

Odonus niger Herre, Philippine Jour. Sci., vol. 25, p. 448, pl. 1, fig. 2, 1924; Olongapo, Zambales Province, Luzon; Sitankai, Sulu Province. Herre, Fishes, Philippine Bureau Science Collections, 1924-27; abundant on reefs near Marinduque; Cabalian, Leyte; Comiran

Island, east of Balabac; Bungau and Jolo market, Jolo, Sulu Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Capiz, Capiz Province, Panay; Linapacan Island, Palawan.
Odonus erythrodon Fowler, Mem. Bishop Mus., vol. 10, p. 455, 1928; Society Islands; Christmas and Fanning Islands.

Family 194. MONACANTHIDÆ

Shore and reef fishes of all tropical and most temperate seas.

Genus 685. CANTHERINES Swainson.

Fishes of the tropical Atlantic, Pacific, and Indian Oceans.

Cantherines Swainson, Nat. Hist., Animals, vol. 2, Fishes, p. 327, 1839; type, *Monacanthus nasutus* Quoy and Gaimard. Jordan and Everman, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 418, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 457, 1924. Barnard, Ann. South African Mus., vol. 21, p. 957, 1927.

2095. *Cantherines macrurus* (Bleeker).

East Indies and the Philippines.

Monacanthus macrurus Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 226, 1856-57; Nias. Günther, Cat. Fishes British Mus., vol. 8, p. 247, 1870; East Indian Archipelago. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 100, 1907; Bacon, Sorsogon Province, Luzon, Jolo Market, Jolo, Sulu Province.

Pseudomonacanthus macrurus Bleeker, Atlas Ichth., vol. 5, p. 134, pl. 228, fig. 1, 1865; Nias; Amboina; Singapore.

Cantherines macrurus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province. Herre, Philippine Jour. Sci., vol. 25, p. 458, pl. 2, fig. 1, 1924; Bacon, Sorsogon Province, Luzon. Calapan, Mindoro; Bantayan Island, Cebu Province; Dicuayan Island on the coast of Busuanga Island; Balabac Island. Herre, Fishes Philippine Bureau Science Collection, 1924-27; Samal Island, Davao Gulf, Davao Province, Mindanao; Jolo market, Jolo, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Alabat Island; Culion; Dumaguete. Herre, 1948 Coll.; Siaton, Negros Oriental Province, Siokun Bay, Zamboanga Province.

2096. *Cantherines pardalis* (Rüppell).

The tropical Indo-Pacific, from the Red Sea, Philippines, and East Indies to the Society and Tuamotu Islands.

Monacanthus pardalis Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 57, pl. 15, fig. 3, 1835; Tor, Red Sea. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 54, 1880; reefs off Cebu, Philippines. Günther, Fische der Südsee, vol. 3, p. 448, pl. 169, fig. 13, 1910; Society Islands.

Liomonacanthus pardalis Bleeker, Atlas Ichth., vol. 5, p. 136, pl. 230, fig. 2, 1865; Amboina; Bawean; Buru; Celebes; Ceram; Flores; Java; Sumatra; Ternate; Timor.

Cantherines pardalis Herre, Philippine Jour. Sci., vol. 25, p. 459, 1924; Calapan, Mindoro; Zamboanga, Zamboanga Province, Mindanao. Fowler, Bull. 22, Bishop Mus., p. 20, 1925; Guam. Fowler, Mem. Bishop Mus., vol. 10, p. 458, pl. 47, B, 1928; Maui and Honolulu, Hawaiian Islands; Ascension Island; Rarotonga. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Dumaguete; Jolo, Sulu Province.

2097. *Cantherines sandwichiensis* (Quoy and Gaimard).

From Mauritius in the Indian Ocean to the East Indies, Philippines, Hawaiian, Society, and Marquesas Islands.

Balistes sandwichiensis Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 214, 1824.

Cantherines sandwichiensis Fowler, Proc. Acad. Nat. Sci. Phila., p. 514, 1900; Hawaiian Islands. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 418, fig. 183, 1905; Honolulu, Hilo, and

Puako Bay, Hawaii, Hawaiian Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 364, 1906; Apia and PagoPago, Samoa. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 272, 1908; Romblon Island, Romblon Province. Herre, Philippine Jour. Sci., vol. 25, p. 461, pl. 2, fig. 2, 1924; Balabac Island. Fowler, Mem. Bishop Mus., vol. 10, p. 457, pl. 47 A, 1928; Honolulu; Guam; Johnston Island; Tahiti. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao.

Monacanthus carolae Günther, Fische der Südsee, vol. 3, p. 449, 1910; Tahiti; Marquesas Islands; Hawaiian Islands; Aneiteum, New Hebrides.

Monacanthus (Cantherines) sandwichiensis Weber, Siboga-Exped., vol. 57, Fische, p. 579, 1913; Sanguisiapo Island, Sulu Province, Philippines.

2098. *Cantherines tessellatus* (Günther).

A Philippine species.

Monacanthus tessellatus Günther, Report Voy. Challenger, Zoology, vol. 1, Shore Fishes, p. 54, pl. 23, fig. B, 1880; off Banton Island, Sibuyan Sea, Philippines, in 115 fathoms. Herre, Philippine Jour. Sci., vol. 25, p. 461, 1924; Banton Island; after Günther. Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, p. 254, 1925; Tokyo market and Misaki Japan. Herre, collected by Donald Kauffman on the motorship *Theodore N. Gill*, October, 1947; China Sea, 9.5 miles south of north shore of Manila Bay entrance, in 65 fathoms; also 4 juveniles taken 6.5 miles southwest of Monja Island at entrance of Manila Bay, in 54 fathoms. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao.

Cantherines nigromaculosus Tanaka, Figures and Descriptions Fishes Japan, pp. 144-146, pl. 38, fig. 145, 1912.

Genus 686. **MONACANTHUS** (Cuvier) Oken. Foolfish; Filefish; Leatherfish.

Monacanthus (Cuvier) Oken, Isis, p. 1181, 1817; (originally listed as "Les Monacanthes," by Cuvier, Règne Animal, ed. 1, p. 152, 1817; type, *Balistes chinensis* Bloch. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 262, 1902. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 365, 1906. Herre, Philippine Jour. Sci., vol. 25, p. 450, 1924. Barnard, Ann. South African Mus., vol. 21, p. 955, 1927.

2099. *Monacanthus chinensis* (Bloch).

China, RiuKiu Islands, Philippines, East Indies, and south to Australia. *Balistes chinensis* Osbeck, Reise nach Ostindien und China, p. 147, 1765. Osbeck, Iter Chinensis, p. 147, 1757; China. Bloch, Ichthyologie, vol. 5, p. 26, pl. 152, fig. 1, 1787; China.

Monacanthus chinensis Cuvier, Règne Animal, ed. 1, p. 152, 1817; name only. Bleeker, Atlas Ichth., vol. 5, p. 125, pl. 222, fig. 2, 1865; Amboina. Günther, Cat. Fishes British Mus., vol. 8, p. 236, 1870; Shanghai China; East Indian Archipelago; Pinang; Singapore. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 262, 1902; Hong Kong, China; RiuKiu Islands. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 100, 1907; Bulan, Sorsogon Province, Luzon. Herre, Philippine Jour. Sci., vol. 25, p. 451, pl. 1, fig. 3, 1924; "Northern Luzon"; Bulan, Sorsogon Province, Luzon; Culion; Bantayan Island, Cebu Province; Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Balabac Island; and Sandakan, British North Borneo. Herre, Fishes Philippine Bureau Science Collections, 1924-28; Monja Island at entrance to Manila Bay; Calapan, Mindoro; Sibutu Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, 1933, p. 5; Sandakan, British North Borneo; p. 11, Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Culion; Cebu, Cebu Prov.; Dumaguete; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Estancia, Iloilo Province, Panay; Singapore.

Genus 687. OXYMONACANTHUS Bleeker.

Tropical Indo-Pacific; only one species known.

Oxymonacanthus Bleeker, Atlas Ichth., vol. 5, pp. 100 and 137, 1865; type, *Oxymonacanthus chrysospilus* Bleeker=*Balistes longirostris* Bloch and Schneider. Bleeker, Ned. Tijds. Dierk., vol. 3, p. 13, 1866. Herre, Philippine Jour. Sci., vol. 25, p. 463, 1924.

2100. *Oxymonacanthus longirostris* (Bloch and Schneider).

From Mauritius to the Philippines, Guam, Fiji, and Samoa.

Balistes hispidus var. *longirostris* Bloch and Schneider, Syst. Ichth., p. 464, 1801; on Seba.

Monacanthus longirostris Cuvier, Règne Animal, ed. 1, vol. 2, p. 152, 1829. Günther, Cat. Fishes British Mus., vol. 8, p. 233, 1870; Amboina; Fiji Islands. Günther, Fische der Südsee, vol. 3, p. 450, 1910; New Britain; Fiji, Samoa; Rotuma; Guam.

Oxymonacanthus longirostris Bleeker, Atlas Ichth., vol. 5, p. 137, pl. 224, fig. 1, 1865; Buru; Ceram; Amboina. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 365, pl. 50, fig. 2, 1906; Apia and Pago Pago, Samoa. Herre, Philippine Jour. Sci., vol. 25, p. 463, pl. 2, fig. 3, 1924; Samal Island, Davao Gulf, Davao Province, Mindanao. Herre, Fishes Philippine Bureau Science Collection, May, 1926; Sibutu, Sibutu Island, Sulu Province.

Genus 688. STEPHANOLEPIS Gill.

Small reef fishes of the tropical Indo-Pacific and Atlantic Oceans.

Stephanolepis Gill, Proc. Acad. Nat. Sci. Phila., p. 78, 1861; type, *Monacanthus setifer* Bennett. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 263, 1902. Herre, Philippine Jour. Sci., vol. 25, p. 453, 1924.

2101. *Stephanolepis cryptodon* (Bleeker).

East Indies and Philippines.

Monacanthus cryptodon Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 431, 1855; Amboina. Günther, Cat. Fishes British Mus., vol. 8, p. 233, 1870; Amboina; Celebes.

Paramonacanthus cryptodon Bleeker, Atlas Ichth., vol. 5, p. 131, pl. 225, fig. 1, 1865; Celebes; Amboina.

Stephanolepis cryptodon Herre, Philippine Jour. Sci., vol. 25, p. 455, 1924; Balayan Bay, Batangas Province, Luzon. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Dumaguete. Herre, Fishes 1940-41 Exped.; Ragay Gulf, Luzon.

2102. *Stephanolepis melanocephalus* (Bleeker).

East Indies and the Philippines.

Monacanthus melanocephalus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 95, 1853; Lawajong, Solor. Bleeker, Atlas Ichth., vol. 5, p. 127, pl. 223, fig. 1, 1865; Amboina, Batjan, Batu, Ternate, Timor, Goram. Günther, Cat. Fishes British Mus., vol. 8, p. 242, 1870; East Indian Archipelago. Fowler, List Fishes Known from Malaya, Fisheries Bull. No. 1, Malay Federated States, p. 232, 1938; Singapore.

Monacanthus janthinosoma Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 504, 1854; Amboina.

Stephanolepis melanocephalus Herre, Philippine Jour. Sci., vol. 25, p. 456, 1925; Calapan, Mindoro. Herre, Fishes Philippine Bureau Science Collection, 1926; Sibuyan Island; Sibutu Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Dumaguete.

2103. *Stephanolepis nigrolineatus* Herre.

A Philippine species.

Stephanolepis nigrolineatus Herre, Philippine Jour. Sci., vol. 32, p. 415, 1927; Bungau, Sulu Province.

2104. *Stephanolepis retrospinis* Fowler.

A Philippine species.

Stephanolepis retrospinis Fowler, Bull. U. S. Nat. Mus., vol. 14, Part 2, p. 90, fig. 25, 1943; Cebu Island, Philippines.

2105. *Stephanolepis setifer* (Bennett).

Tropical Atlantic and Indo-Pacific Oceans, north to England and Japan.

Monacanthus setifer Bennett, Proc. Zool. Soc. London, p. 112, 1830; Start Bay, Devon, England. Hollard, Ann. Sci. Nat., Zoology, vol. 2, p. 342, pl. 12, fig. 4, 1854. Günther, Cat. Fishes British Mus., vol. 8, p. 239, 1870; Japan; North China; Zanzibar; Madeira; Lanzarote; Cape Verde Islands; Jamaica; Cuba; Trinidad; West Indies; Port Natal, South Africa. Regan, Trans. Linn. Soc. London, Zoology, ser. 2, vol. 12, p. 252, 1908; Seychelles, in 37 fathoms. Barnard, Ann. South African Mus., vol. 21, p. 955, 1927; Port Elizabeth to Natal and Zululand, South Africa; down to 33 fathoms.

Stephanolepis setifer Herre, Fishes 1940-41 Exped.; Bungau, Sulu Province, Philippines.

2106. *Stephanolepis tomentosus* (Linnaeus). Bitig; Pagnesan; Peleg.

East Indies, Philippines, China, Australia, and the Pelew, Solomon, and Fiji Islands.

Balistes tomentosus Linnaeus, Syst. Nat., ed. 10, vol. 1, p. 328, 1758.

Monacanthus tomentosus Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 235, 1852; Amboina. Bleeker, Atlas Ichth., vol. 5, p. 127, pl. 220, fig. 1, and pl. 229, fig. 1, 1865; numerous East Indian localities. Vaillant, Nouv. Arch. Hist. Nat., ser. 3, vol. 5, p. 57, 1893; Palawan, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 272, 1908; Lubang Island; Panay Island (Iloilo)?; Cuyo Island, Cuyo Islands.

Monacanthus hajam Bleeker, Verh. Bat. Gen., vol. 24, Balistini, p. 18, pl. 1, fig. 1, 1852. Bleeker, Atlas Ichth., vol. 5, p. 126, pl. 230, figs. 1 and 3, 1865; numerous East Indian localities. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 46, 1885; Cebu, Cebu. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 297, 1927; Philippines.

Monacanthus nemurus Bleeker, Verh. Bat. Gen., vol. 24, Balistini, p. 20, pl. 2, fig. 3, 1852; Java. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Manila, Luzon; Panay Islands.

Paramonacanthus nemurus Bleeker, Atlas Ichth., vol. 5, p. 132, pl. 225, fig. 2, 1865; Java; Singapore.

Monacanthus surothura Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province. Fowler, Copeia, p. 64, 1918; Philippines.

Stephanolepis tomentosus Herre, Philippine Jour. Sci., vol. 25, p. 453, pl. 1, fig. 4, 1924; Calapan and Puerto Galera, Mindoro; Ducuayan Island, on coast of Busuanga Island; Cuyo Island, Cuyo Islands; Puerto Princesa, Palawan; Dumaguete, Negros Oriental Province; Bantayan Island, Cebu Province; Samal Island, Davao Gulf, Davao Province, and Zamobanga and Caldera Bay, Zamboanga Province, Mindanao; Balabac Island; Jolo, Sulu Province; south coast of Cotabato Province, Mindanao. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 101, 1934; Culion; Dumaguete; Cebu, Cebu; Sitankai, Sulu Province. Herre, Fishes, 1940-41 Exped.; Estancia, Iloilo Province, Panay; Jolo and Bungau, Sulu Province, Philippines.

Genus 689. *Alutera* Oken.

There is probably but one widely distributed species; found in all warm seas.

Alutera Oken, Isis, p. 1183, 1817; type, *Balistes monoceros* Osbeck; on "*Les Aluteres*" Cuvier, Règne Animal, vol. 2, p. 153, 1817. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 23, p. 274, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 423, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 464, 1924.

2107. *Alutera monoceros* (Osbeck).

Distribution as for the genus.

Balistes monoceros Osbeck, Iter Chinensis, p. 110, 1757; China near Hong Kong. Jordan and Evermann, Fishes North and Middle America, vol. 2, p. 1720, 1898.

Alutera monoceros Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 274, 1902; Tokyo and Nagasaki, Japan. Jordan and Ever-

mann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 423, fig. 185, 1905; Honolulu. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Manila, Luzon, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 465, 1924; Manila, Luzon. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Alabat Island, on Pacific coast of Tayabas Province. Herre and Herald, Philippine Fishery Program; Balayan and Batangas Bays, Batangas Province, April 1948.

Aluterus berardi Lesson, Voy. *Coquille*, Zool., vol. 2, p. 108, pl. 7, 1830, New Guinea. Richardson, Voy. *Sulphur*, Ichth., p. 132, pl. 61, fig. 1, 1845.

Alutera cinerea Schlegel, Fauna Japonica, Pisces, p. 292, pl. 131, fig. 1, 1842; Nagasaki.

Alutarius obliterated Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1335, 1850; Pinang.

Alutarius macracanthus Bleeker, Verh. Bat. Gen., vol. 24, Balistini, p. 22, pl. 3, fig. 6, 1852. Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 374, 1859; Banka. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Achtste Bijdr. Sumatra, p. 65, 1860.

Alutarius amphacanthoides Bleeker, Verh. Bat. Gen., vol. 24, Balistini, p. 23, pl. 2, fig. 5, 1852. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 103, 1862; Batjan. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 273, 1865; Amboina.

Aluterus monoceros Bleeker, Atlas Ichth., vol. 5, p. 140, pl. 226, fig. 2, 1865.

Monacanthus monoceros Günther, Cat. Fishes, British Mus., vol. 8, p. 251, 1870; Zanzibar, Pinang; Amboina; East Indian Archipelago; China; Japan. Day, Fishes India, p. 693, pl. 179, fig. 2, 1878.

Genus 690. OSBECKIA Jordan and Evermann.

Only one species; circumtropical.

Osbeckia Jordan and Evermann, Fishes North and Middle America, p. 424, 1896; type, *Balistes scriptus* Osbeck. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 274, 1902. Herre, Philippine Jour. Sci., vol. 25, p. 466, 1924.

2108. *Osbeckia scripta* (Osbeck).

In all warm seas. Only a few references are given; Atlantic and Indian Ocean citations are omitted and only a few of the Pacific are given.

Balistes scriptus Osbeck, Iter Chinensis, vol. 1, p. 144, 1757; China.

Balistes laevis Bloch, Ichthyologie, vol. 12, p. 65, pl. 44, 1795; Morocco; Tranquebar.

Balistes liturosus Shaw, General Zoologie, vol. 5, p. 405, 1804; Tahiti.

Balistes ornatus Procé, Bull. Soc. Philom., p. 131, 1822; Waigiu.

Aluterus personatus, Lesson, Voy. *Coquille*, Zool., vol. 2, p. 105, 1830; "New Guinea" = Waigiu Island.

Aluterus pareva Lesson, Voy. *Coquille*, Zool., vol. 2, p. 106, 1830; Matavai Bay, Tahiti.

Aluterus Venosus Hollard, Ann. Sci. Nat. Zool., vol. 2, p. 14, pl. 1, fig. 3, 1854; New Ireland, Bismark Archipelago.

Aluterus scriptus Bleeker, Atlas Ichth., vol. 5, p. 141, pl. 227, fig. 4, 1865. Bleeker, Ned. Tijds. Dierk., vol. 3, Balistini, p. 28, 1866.

Alutarias laevis Bleeker; many references, all East Indian.

Osbeckia scripta Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 276, 1902; Kiusiu Island, and Nagasaki, Japan. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 422, fig. 184, 1905; Honolulu. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 100, 1907; Jolo, Sulu Province. Fowler, Copeia, p. 65, 1918; Philippines. Fowler, Proc. Acad. Sci., Phila., p. 97, vol. 79, 1927; Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 466, 1924; Iba, Zambales Province, Manila, and San Miguel Bay, Camarines Norte Province, Luzon; Calapan, Mindoro; Jolo, Sulu Province. Herre, Fishes Philippine Bureau Science Collection, 1926; Balanakan, Marinduque, Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Culion; Linapacan Island, Palawan Province; Cebu, Cebu; Dumaguete.

Alutera armata Garman, Bull. Mus. Comp. Zool., vol. 39, p. 240, pl. 5, fig. 1, 1903; Suva, Fiji.

Alutera liturosa Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 86, 1922; Hawaii.

Alutera scripta Fowler, Mem. Bishop Mus., vol. 10, p. 461, pl. 48 B, 1928; Honolulu.

Genus 691. PSEUDALUTARIUS Bleeker.

Only one species known.

Pseudalutarius Bleeker, Ned. Tijds. Dierk., vol. 2, p. 273, 1865; type, *Alutera nasicornis* Schlegel.

Pseudaluteres Bleeker, Atlas Ichth., vol. 5, p. 100, 1865; type, *Alutera nasicornis* Schlegel. Bleeker, Ned. Tijds. Dierk., vol. 3, p. 14, 1866. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 277, 1902. Herre, Philippine Jour. Sci., vol. 25, p. 468, 1924.

2109. Pseudalutarias nasicornis (Schlegel).

Japan to the Philippines, East Indies, and westward to Zanzibar and Mauritius.

Alutera nasicornis Schlegel, Fauna Japonica, Pisces, p. 223, pl. 131, fig. 2, 1842; Nagasaki. Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 352, 1853; Amboina.

Aluteres rhinoceros Hollard, Ann. Sci. Nat. Zool., vol. 4, p. 19, pl. 1, fig. 5, 1855.

Pseudalutarias nasicornis Bleeker, Ned. Tijds. Dierk., vol. 2, p. 273, 1865; Amboina.

Pseudaluteres nasicornis Bleeker, Atlas Ichth., vol. 5, p. 139, pl. 221, fig. 1, and pl. 224, fig. 2, 1865; Amboina. Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 277, 1902; Japan. Herre, Philippine Jour. Sci., vol. 25, p. 468, 1924; Dumaguete, Negros Oriental Province, south coast of Cotabato Province, Mindanao. Herre, Fishes, Philippine Bureau Science Collection, 1926; Sibutu Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Dumaguete, Negros Oriental Province. Abundant at Dumaguete, where it has been collected on numerous occasions in addition to those listed above. Herre, Fishes 1940-41 Exped.; Zamboanga, Zamboanga Province, Mindanao.

Monacanthus nasicornis Günther, Cat. Fishes British Mus., vol. 8, p. 254, 1870; Zanzibar; Amboina; also Japan.

Family 195. PSILOCEPHALIDÆ

A family with one genus and apparently a single species.

Genus 692. PSILOCEPHALUS Swainson.

Anacanthus Gray, Zoological Miscellany, vol. 1, p. 8, 1831; type, *Anacanthus barbatus* Gray; preoccupied. Günther, Cat. Fishes British Mus., vol. 8, p. 255, 1870.

Psilocephalus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 327, 1839; type, *Balistes barbatus* Gray.

Pogonognathus Bleeker, Jour. Indian Archipelago, vol. 3, p. 73, 1849; type, *P. barbatus* Bleeker.

2110. Psilocephalus barbatus (Gray).

East Indies, Philippines, India, and Australia.

Balistes (Anacanthus) barbatus Gray, Illustrations Indian Zoology, vol. 1, pl. 84, fig. 2, 1830-36; Singapore.

Anacanthus barbatus Gray, Zoological Miscellany, p. 8, 1831; Singapore. Bleeker, Jour. Indian Archipelago, vol. 3, p. 70, 1849; Celebes. Günther, Cat. Fishes British Mus., vol. 8, p. 255, 1870; Pinang.

Alutarius barbatus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1339, pl. 8, fig. 1, 1850; Pinang; Singapore.

Pogonognathus barbatus Bleeker, Jour. Indian Archipelago, vol. 3, p. 73, 1849; Celebes.

Aluteres barbatus Hollard, Ann. Sci. Nat. Zool., vol. 4, p. 17, pl. 1, fig. 4, 1855.

Psilocephalus barbatus Bleeker, Atlas Ichth., vol. 5, pp. 5 and 143, pl. 226, fig. 1, 1865; Celebes; Riouw; Banka; Bintang; Singapore; Pinang. Herre, Philippine Jour. Sci., vol. 25, p. 470, 1924; Bantayan Island,

Cebu Province. Herre, Fishes, Philippine Bureau Science Collection, 1926; Agutaya, Cuyo Islands, Sulu Sea. Herre, Mem. Indian Mus., vol. 13, p. 400, 1941; Andaman Islands; Philippines; East Indies.

Suborder OSTRACODERMI

Heavily armored fishes, the body 3-, 4-, or 5-sided; in all warm seas.

Family 196. OSTRACIIDAE

Only one genus occurs in Philippine waters.

Genus 693. OSTRACION Linnaeus. Trunk fishes; Tikung; Baca-baca. *Ostracion* Linnaeus, Syst. Nat., ed. 10, p. 330, 1758; type, *Ostracion cubicus* L. Günther, Cat. Fishes British Mus., vol. 8, p. 255, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 25, p. 278, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 441, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 472, 1924.

2111. *Ostracion cornutus* Linnaeus. Cowfish; Baca-baca; Obuluk-sungyan; Pega-pega; Tikung; Patagan.

Tropical Indo-Pacific from Natal, Africa, to the Philippines, Japan, Australia, the Hawaiian, Society, Tuamotu, and Marquesas Islands.

Ostracion cornutus Linnaeus, Syst. Nat., ed. 10, p. 331, 1758; India. Schlegel, Fauna Japonica. Pisces, p. 299, pl. 131, fig. 4, 1842; Nagasaki. Günther, Cat. Fishes British Mus., vol. 8, p. 265, 1870; Port Natal; Zanzibar; Seychelles; Indian Ocean; Pinang; East Indian Archipelago; Amboina; Siam; India; China; Fiji Islands; New Guinea; Micronesia. Day, Fishes India, p. 697, pl. 176, fig. 4, 1878. Vaillant, Bull. Soc. Philom., ser. 7, vol. 11, p. 52, 1886-87; Tahiti; Tuamotu Islands. Günther, Fische der Südsee, vol. 3, p. 457, pl. 171 and 10 text figures, 1910; Fiji; Society Islands. Herre, Philippine Jour. Sci., vol. 25, p. 476, 1924; Calapan, and Puerto Galera, Mindoro; Cuyo, Cuyo Islands; Puerto Princesa, Palawan; Davao, Davao Province, and Zamboanga, Zamboanga Province, Mindanao; Jolo, Sulu Province. Herre, Fishes Philippine Bureau Science Collection, 1926; Cagayancillo, Cagayan Islands, Sulu Sea. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 297, 1927; Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 464, 1928; Honolulu; Guam; Marcus Island; Shortland Island; Tahiti; Nukahiva; Fiji; Samoa; Tonga. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Unisan, Tayabas Province, Luzon, and Alabat Island on Pacific coast of Tayabas; Calapan, Mindoro; Culion; Cebu; Dumaguete. Herre, Fishes 1940-41 Exped.; Dapitan Bay, Zamboanga Province, Mindanao.

Ostracion arcus Bleeker, Atlas Ichth., vol. 5, p. 33, pl. 202, fig. 3 and pl. 204, fig. 4, 1865; Java; Cocos; Sumatra; Celebes; Termate; Ceram; Ball; Banda; Singapore; Solor; Nias; Batu; Goram; Rlouw; Banka; Sumbawa; Pinang; Batjan. Fowler, Copeia, p. 65, 1918; Philippines.

Ostracion cornutum Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 282, 1902; Misaki, Japan; Manila, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Cavite, Cavite Province, Luzon. Fowler, Copeia, p. 65, 1918; Philippines.

Lactoria cornuta Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province.

2112. *Ostracion gibbosus* Linnaeus.

Indo-Pacific from the Red Sea, Aden, and Zanzibar to the East Indies and Philippines, and north to Japan.

Ostracion gibbosus Linnaeus, Syst. Nat., ed. 10, p. 332, 1758; India. Günther, Cat. Fishes British Mus., vol. 8, p. 258, 1870; Zanzibar; Persian Gulf; India; Borneo; East Indian Archipelago. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 30, 1879; Japan. Herre, Philippine Jour. Sci., vol. 25, p. 472, 1924; Balayan Bay, Batangas Province, and Manila Bay, Luzon; Mindoro; Cebu and Bantayan Island, Cebu Province; Davao, Davao Province, Mindanao. Fowler, Mem. Bishop Mus., vol. 10, p. 461, 1928; South Sea Islands. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Jolo, Sulu Province.

- Ostracion turritus* Forskål, Descript. Animal., p. 75, 1775; Red Sea. Bleeker, Verh. Akad. Amsterdam, vol. 1, p. 15, 1853; Kaminoseki, Japan. Bleeker, Atlas Ichth., vol. 5, p. 31, pl. 203, fig. 3, 1865; Java; Celebes; Buru; Amboina. Day, Fishes India, p. 695, pl. 181, fig. 4, 1878.
- Ostracion gibbosum* Jordan and Seale; Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 101, 1907; Jolo, Sulu Province. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 297, 1917; Philippines. Fowler, Copeia, p. 65, 1918; Philippines.
- 2113. *Ostracion nasus* Bloch.**
East Indies, Philippines, the Pelew, Caroline, and Marquesas Islands. *Ostracion nasus* Bloch, Naturges. Ausländ. Fische, p. 118, pl. 138, 1785; "Nile," evidently an error. Bleeker, Verh. Bat. Gen., vol. 24, Balistini, p. 33, pl. 7, fig. 15, 1852. Hollard, Ann. Sci. Nat. Zool., vol. 7, p. 160, 1857; New Guinea. Bleeker, Atlas Ichth., vol. 5, p. 36, pl. 205, fig. 4, and pl. 203, fig. 5, 1865; Banka; Ceram; Amboina; Singapore; Pinang. Günther, Cat. Fishes British Mus., vol. 8, p. 263, 1870; Pinang; Pacific. Günther, Fische der Südsee, vol. 3, p. 456, 1910; Pelew Islands. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 334, 1911; Moen, Truk Group, Caroline Islands; Suva, Fiji. Herre, Fishes Bur. Sci. Coll., 1925; Estancia, Iloilo Province, Panay. Fowler, Mem. Bishop Mus., vol. 10, p. 463, 1928; Marcus Island; Guam; Suva, Fiji; Nukahiva, Marquesas Islands.
- Ostracion tesserula* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1349, pl. 8, figs. 2-3, 1850; Pinang.
- 2114. *Ostracion rhinorhynchus* Bleeker.**
The Philippines and East Indies to Australia. *Ostracion rhinorhynchus* Bleeker, Verh. Bat. Gen., vol. 24, Balistini; p. 34, pl. 6, fig. 12, 1852. Bleeker, Atlas Ichth., vol. 5, p. 37, pl. 201, fig. 1, and pl. 203, fig. 1, 1865; Solor; Duizend Islands; Biliton; Java; Ceram; Celebes. Günther, Cat. Fishes British Mus., vol. 8, p. 263, 1870; Pinang; East Indian Archipelago; Australia. Herre, Philippine Jour. Sci., vol. 25, p. 476, 1924; Manila Bay, Luzon; Estancia, Iloilo Province; Cebu, Cebu; Jolo, Sulu Province. Herre, Fishes, Philippine Bureau Science Collection, 1926; Tubataha Reef, Sulu Sea. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Miagao, Iloilo Province. Panay; Dapitan, Zamboanga Province, Mindanao.
- 2115. *Ostracion sebae* Bleeker.**
East Indies and Philippines, west through the tropical Indian Ocean and east to the Hawaiian and Society Islands. *Ostracion sebae* Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 259, 1851; Banda Neira. *Ostracion Sebae* Bleeker, Verh. Bat. Gen., vol. 24, Balistini, p. 32, pl. 6, fig. 13, 1852. Bleeker, Atlas Ichth., vol. 5, p. 41, pl. 204, fig. 2, 1865; Banda Neira, Amboina, and New Guinea. Günther, Cat. Fishes British Mus., vol. 8, p. 261, 1870; Zanzibar; East Indian Archipelago; Amboina; Java. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 442, fig. 195, 1905; Honolulu. Seale, Occas. Papers Bishop Mus., vol. 4, p. 77, 1906; Faté, New Hebrides; Rarotonga; Tahiti. Herre, Fishes, Philippine Bureau Science Collection, 1926; Balayan Bay, Batangas Province, Luzon.
- 2116. *Ostracion tuberculatus* Linnaeus.** Obuluk; Tabayong.
From the Red Sea and east coast of Africa to the East Indies and Philippines, north to Japan and Marcus Island, south to Australia and Samoa. *Ostracion tuberculatus* Linnaeus, Syst. Nat., ed. 10, p. 331, 1758; India. Peters, Monatsber. Akad. Wiss. Berlin, p. 852, 1877; New Britain. Herre, Philippine Jour. Sci., vol. 25, p. 474, 1924; Puerto Galera, Mindoro; Simara Island, southeast of Mindoro; Cabalian, Leyte; Samal Island, Davao Gulf, Davao Province, and Zamboanga, Zamboanga Province, Mindanao. Herre, Fishes, Philippine Bureau Science Collection, 1925-27; San Pedro Bay, near Tacloban, Leyte; Cagayancillo, Cagayan Islands, Sulu Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Prov-

- ince. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Cullon; Linapacan Island, Palawan Province; Dumaguete; Cebu, Cebu.
- Ostracion cubicus* Linnaeus, Syst. Nat., ed. 10, p. 332, 1758; India. Günther, Cat. Fishes British Mus., vol. 8, p. 260, 1870; Red Sea; Zanzibar; Seychelles; Mauritius; Ceylon; Amboina; Ceram; South Australia. Day, Fishes India, p. 696, pl. 181, fig. 3, 1878. Fowler, Mem. Bishop Mus., vol. 10, p. 461, 1928; Honolulu; Guam; New Guinea; the Caroline, Gilbert, Marshall, Society, Tuamotu, and Marquesas Islands.
- Ostracion argus* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 4, pl. 1, fig. 1, 1828; Red Sea.
- Ostracion cyanurus* Rüppell, *ibid.*, p. 4, pl. 1, fig. 2; Mohila, Red Sea.
- Ostracion immaculatus* Schlegel, Fauna Japonica, Pisces, p. 296, 1842; Nagasaki.
- Ostracion tetragonus* Bleeker, Atlas Ichth., vol. 5, p. 39, pl. 201, fig. 2, and pl. 203, fig. 2, 1865; Ceram; Amboina; Solor.
- Ostracion immaculatum* Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 25, p. 280, 1902; Tokyo, Misaki, Sagami, Enoshima, Wakanoura, Hakata, and Nagasaki, Japan.
- Ostracion tuberculatum* Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 367, 1906; Apia and Pago Pago, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, *ibid.*, p. 101; Jolo, Sulu Province, Philippines.

Family 197. TRIODONTIDÆ

A unique family with a single genus.

Genus 694. TRIODON Reinwardt.

Only one species known.

Triodon Reinwardt, in Cuvier, Règne Animal, ed. 2, p. 588, 1829; type, *Triodon bursarius* Reinwardt. Jordan and Snyder, Proc. U. S. Mus., vol. 24, p. 230, 1901.

2117. *Triodon bursarius* Reinwardt.

A singular fish, found in the East Indies and Philippines, North to Japan, and west to India and Mauritius.

Triodon macropterus Lesson, Atlas, Poissons, pl. 4, 1826; Mauritius. Lesson, Voy. Coquille, Zool., p. 103, 1830.

Triodon bursarius Reinwardt, in Cuvier, Règne Animal, ed. 2, p. 588, 1829; Sumatra. Cuvier, Règne Animal, Disciples ed., p. 340, pl. 112, figs. 1 and 1a, 1836. Bleeker, Atlas Ichth., vol. 5, p. 84, pl. 214, fig. 1, 1865; Banda Neira; Amboina, Harouka. Günther, Cat. Fishes British Mus., vol. 8, p. 270, 1870; Mauritius; India. Day, Fishes India, p. 698, 1878. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 230, 1901; Misaki, Japan. Herre, Philippine Jour. Sci., vol. 27, p. 168, 1925; Dumaguete, Negros Oriental Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Dumaguete. From 1925 to 1947, 4 examples of this strange fish were taken at Dumaguete.

Family 198. TETRAODONTIDÆ. Globefishes; Puffers, Swellfishes; Botete; Botiti.

Fishes capable of inflating themselves by swallowing air or water. The flesh is more or less poisonous. The globefishes occur in all warm seas. Three genera are known from Philippine waters.

Genus 695. CHELONODON Müller.

A single species of salt and brackish, and rarely, of fresh water.

Chelonodon Müller, Abh. Akad. Wiss. Berlin, p. 252, 1839; type, *Tetrodon patoca* (Hamilton [né Buchanan]). Herre, Philippine Jour. Sci., vol. 25, p. 486, 1924.

2118. *Chelonodon patoca* (Hamilton [né Buchanan]).

India to China, the Philippines, East Indies, and south to Australia.

Tetrodon patoca Hamilton [né Buchanan], Fishes Ganges, pp. 7 and 363, pl. 13, fig. 2, 1822; estuaries of the Ganges. Günther, Cat. Fishes British Mus., vol. 8, p. 288, 1870; Bengal, India, Pinang; Singapore; Amboina; East Indian Archipelago; China. Day Fishes India, p. 703,

- pl. 182, fig. 4, 1878. Günther, Report Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 54, 1880; Philippines.
- Tetraodon kappa* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 301, 1852; Amboina.
- Chelonodon kappa* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon.
- Leiodon patoca* Bleeker, Atlas Ichth., vol. 5, p. 76, pl. 210, fig. 2, 1865.
- Tetraodon patoca* Smith and Seale, Proc. Biol. Soc. Washington, vol. 19, p. 79, 1906; Rio Grande, Cotabato, Cotabato Province, Mindanao. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao.
- Chelonodon patoca* Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 274, 1908; Manila, Luzon. Herre, Philippine Jour. Sci., vol. 25, p. 487, 1924; Abra River, Ilokos Sur Province; Agno River, Pangasinan Province; Manila; Cavite, Cavite Province; and San Miguel Bay, Camarines Sur Province, Luzon. Calapan, Mangarin, Tacligan, and Pinamalayan, Mindoro; Estancia, Iloilo Province, Panay; Guinobatan, Masbate; Borongan, Samar; Cabalian, Leyte; Balabac Island, Agusan River, Agusan Province; Davao, Davao Province; Cagayan, Misamis Oriental Province; Placer, Surigao Province; and Zamboanga, Zamboanga Province, Mindanao. McCulloch, Mem. 5, Australian Mus., p. 432, 1929; Philippines; East Indies; Northern Territory (Australia); India. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, 1931. Philippine Exped., p. 102, 1934; Nasugbu, Batangas Province, and Unisan, Tayabas Province, Luzon; Alabat Island; Cullion; Dumaguete; Cotabato, Cotabato Province, Mindanao; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Calatagan, Batangas Province, and Gulf of Ragay, Luzon; Brooke's Point, Palawan. Also Singapore.

Genus 696. SPHOEROIDES Lacépède.

In all warm seas.

Sphoeroides Lacépède, Allgemeine Literar. Zeitung, Berlin, 1798; on "Les Spheroïdes Lacépède, Hist. Nat. Poissons, vol. 2, p. 22, pl. 1, fig. 1, 1798; type, "*Le Sphéroïde tubercule*" Lacépède=*Tetraodon spengleri* Bloch. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1109, 1936.

Spheroïdes Duméril, Zoologie Analytique, p. 342, 1806. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 231, 1901. Herre, Philippine Jour. Sci., vol. 25, p. 481, 1924.

Arbidus Rafinesque, Analyse Nature, p. 90, 1815.

Crayracion Bleeker, Atlas Ichth., vol. 5, p. 65, 1865; type, *Tetraodon spengleri* Bloch.

2119. Sphoeroides hypselogeneion (Bleeker).

Red Sea and Zanzibar to Fiji, Samoa, and the Hawaiian Islands.

Tetraodon hypselogeneion Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 300, 1852; Amboina; Wahai, Ceram. Bleeker, Atlas Ichth., vol. 5, p. 61, pl. 213, fig. 5, 1866; Ceram; Amboina.

Tetraodon hypselogeneion Günther, Cat. Fishes, British Mus., vol. 8, p. 277, 1870; Zanzibar; Seychelles; East Indian Archipelago; Fiji Islands, Australia. Day, Fishes India, p. 702, pl. 183, fig. 5, 1878. Günther, Fische der Südsee, vol. 3, p. 462, pl. 172, fig. A, 1910; Hawaiian Islands; Fiji; Samoa.

Spheroïdes hypselogeneion Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 368, 1906; Apia and Pago Pago, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 100, 1907; Bulan, Sorsogon Province; Luzon, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 485, 1924; Odlogan, Tablas Island; Panacan, Palawan; Davao, Davao Province, Mindanao.

Sphoeroides hypselogeneion Fowler, Mem. Bishop Mus., vol. 10, p. 468, 1928; Marshall Islands; Laysan and Honolulu, Hawaiian Islands; Faté, New Hebrides; Samoa; Funafuti. Herre, Fishes 1940-41 Exped.; Nasugbu, Batangas Province, Luzon; Dumaguete, Negros Oriental Province. Herre, 1948 Coll.; Zamboanga, Zamboanga Province, Mindanao.

2120. Sphoerodon lunaris (Bloch and Schneider). Botiting saging.

Very abundant in the Philippines and East Indies, ranging north to Japan, and west to India, the Red Sea, and the coast of South Africa.

Tetrodon lunaris Bloch and Schneider, Syst. Ichth., p. 505, 1801; Malabar. Schlegel, Fauna, Japonica, Pisces, p. 277, pl. 122, fig. 1, 1842; Nagasaki. Günther, Cat. Fishes British Mus., vol. 8, p. 274, 1870; Philippines; China; Japan; East Indian Archipelago; Borneo; Sarawak; Malabar and Vizagapatam, India; Pinang; Zanzibar; Cape Seas. Day. Fishes India, p. 701, pl. 182, fig. 2, 1878.

Tetrodon spadiceus Richardson, Voy. *Sulphur*, Ichth., p. 123, pl. 58, figs. 4 and 5, 1845; Canton, China. Bleeker, Atlas Ichth., vol. 5, p. 64, pl. 207, fig. 1, 1865; Java; Sumatra; Banka; Borneo; Celebes; Amboina.

Tetraodon lunaris Bleeker, Atlas Ichth., vol. 5, p. 63, pl. 205, fig. 2, 1865; Singapore; Borneo; Banka; Manila Bay; Amboina. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon, Philippines.

Spherooides spadiceus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 234, 1901; Tokyo and Nagasaki, Japan.

Spherooides lunaris Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Cavite, Cavite Province, and Manila, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 101, 1907; San Fabian, Pangasinan Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Manila, Luzon; Iloilo, Iloilo Province, Panay. Herre, Philippine Jour. Sci., vol. 25, p. 482, pl. 2, fig. 4, 1924; Alaminos, Pangasinan Province; Manila Bay, Manila, and Cavite, Cavite Province; Balayan Bay, Batangas Province; Guinyangan, Bondoc Peninsula, Tayabas Province; San Miguel Bay, Camarines Sur Province, Luzon. Estancia and Barotac Nuevo, Iloilo Province, Panay; Cebu, Cebu; Cayagan, Misamis Oriental Province, Mindanao. Also Sandakan, British North Borneo; Amoy and Hong Kong, China. Herre, Fishes 1931 Philippine Exped., p. 102, 1934; Manila Bay; Nasugbu, Batangas Province; Unisan, Tayabas Province, Luzon; Cebu, Cebu.

Spherooides lunaris Herre, Fishes 1940-41 Exped.; Ragay Gulf; Luzon; Dumaguete, Negros Oriental Province.

2120b. *Spherooides oblongus* (Bloch).

India to China, the Philippines, East Indies, and Australia.

Tetraodon oblongus Bloch, Naturges. Ausländ. Fische, vol. 2, p. 6, pl. 146, fig. 1, 1786; Surate, East Indies. Bleeker, Atlas Ichth., vol. 5, p. 62, pl. 208, fig. 4, 1865; Riouw; Borneo; Banka; Singapore.

Gastrophysus oblongus Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, p. 374, 1859; Banka.

Tetrodon oblongus Günther, Cat. Fishes British Mus., vol. 8, p. 484, 1870; Bombay; Madras; Pinang; East Indian Archipelago.

Spherooides ocellatus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 791, 1905; Bais, Negros Oriental Province. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 36, 1907; Manila, Luzon; not of Osbeck.

Spherooides oblongus Herre, Philippine Jour. Sci., vol. 25, p. 484, 1924; Masbate Island; Panacan, Palawan; also Amoy, China.

Spherooides oblongus Herre, 1948 Coll.; China Sea, coast of Batangas Province, Luzon.

2121. *Spherooides ocellatus* (Osbeck).

China, Japan, and the Philippines.

Diodon ocellatus Osbeck, Iter Chinensis, p. 226, 1757; Canton, China.

Tetrodon ocellatus Linnaeus, Syst. Nat., ed. 12, vol. 1, p. 411, 1766; after Osbeck. Richardson, Voy. *Sulphur*, Ichth. p. 120, pl. 58, figs. 1-2, 1845; Canton, China; Japan. Günther, Cat. Fishes British Mus., vol. 8, p. 279, 1870; China. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 243, 1901; Canton and coasts of China; Japan; after Günther and Richardson.

Spherooides ocellatus Herre, Philippine Jour. Sci., vol. 25, p. 486, 1924; coasts of Luzon, Philippines, no definite locality.

2122. *Spherooides scleratus* (Gmelin). Tinga-tinga.

A very poisonous fish. Ranges from the east coast of Africa to the Philippines, southern Japan, Australia, and Tahiti.

Tetrodon sceleratus Gmelin, in Linnaeus, Syst. Nat., p. 1444, 1788; based on Forster; New Caledonia. Günther, Cat. Fishes British Mus., vol. 8, p. 276, 1870; Philippines; Zanzibar; Ceylon; Madras; Amboina; East Indian Archipelago; Formosa; South Australia.

Tetrodon argenteus Lacépède, Ann. Mus. Hist. Nat., p. 211, pl. 58, fig. 2, 1803; west coast Australia. Schlegel, Fauna Japonica, Pisces, p. 275, pl. 121, fig. 2, 1842; Nagasaki. Bleeker, Atlas Ichth., vol. 5, p. 64, pl. 209, fig. 1, 1865; Java; Bali; Singapore; Banka; Billiton; Borneo; Celebes; Amboina.

Tetrodon argyropleura Bennett, Proc. Zool. Sci. London, vol. 2, p. 184, 1832; Ceylon.

Tetrodon argentatus Blyth, Prodromus Faunae Zeylanicae, vol. 1, appendix, p. 49, 1852; Ceylon.

Tetrodon bicolor Brevoort, Narr. Perry's Exped. China Seas and Japan, p. 283, 1856; Shimoda, Japan.

Spheroides sceleratus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 234, 1901; Nagasaki, Kagoshima, and Shimoda, Japan; after Günther. Herre, Philippine Jour. Sci., vol. 25, p. 482, 1924; Basilan Island, Philippines. Herre, Fishes Philippine Bur. Sci. Collection, 1925-28; Estancia, Iloilo Province, Panay; Zamboanguita, Negros Oriental Province; Dulag, Leyte; Zamboanga market, Zamboanga Province, Mindanao; Jolo and Siasi, Sulu Province. Herre, Fishes, 1931 Philippine Exped., p. 102, 1934; Cebu, Cebu.

Sphaeroides sceleratus Fowler, Mem. Bishop Mus., vol. 10, p. 467, 1928; Bonin Islands; after Günther.

Genus 697. TETRAODON Linnaeus.

In all warm seas.

Tetraodon Linnaeus, Syst. Nat., ed. 10, p. 332, 1758; type, *Tetraodon lineatus* L. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 249, 1901. Herre, Philippine Jour. Sci., vol. 25, p. 488, 1924.

"*Les Ovoides*" Lacépède, Hist. Nat. Poissons, vol. 1, p. 256, 1797.

Opum Bloch and Schneider, Syst. Ichth., p. 530, 1801.

Ovoides Duméril, Zoologie Analytique, pp. 108, 342, 1806; after Lacépède.

Oonidus Rafinesque, Analyse Nature, p. 90, 1815.

Arothron Müller, Abh. Akad. Wiss. Berlin, p. 252, 1839; type, *Arothron testudinarius* Müller=*Tetrodon reticularis* Bloch and Schneider.

Branchycephalus Holland, Ann. Sci. Nat. Zool., vol. 8, p. 275, 1857.

Crayracion Bleeker, Atlas Ichth., vol. 5, p. 65, 1865.

Tetrodon Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 112, 1936.

2123. *Tetraodon aerostaticus* (Jenyns).

East Indies and the Philippines, north to Japan, south and east to Australia.

Tetraodon lineatus Bloch, Naturges, Ausländ Fische, vol. 1, p. 128, pl. 141, 1785; not of Linnaeus. Schlegel, Fauna Japonica, Pisces, p. 287, pl. 125, fig. 2, 1847; Nagasaki. Day, Fishes India, pl. 180, fig. 3, 1878.

Tetraodon aerostaticus Jenyns, Zoology, Voy. *Beagle*, Fishes, p. 152, 1842.

Crayracion lineatus Bleeker, Atlas Ichth., vol. 5, p. 70, pl. 206, fig. 1, and pl. 212, fig. 1, 1865; Amboina; Bali; Celebes; Singapore.

Tetraodon aerostaticus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 250, 1901; Misaki and Houmoku, Japan. Herre, Philippine Jour. Sci., vol. 25, p. 495, 1924; Manila Bay, at Manila, Luzon; Calapan, Mindoro. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 10, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Unisan, Tayabas Province, Luzon; Dumaguete.

2124. *Tetraodon fluviatilis* Hamilton [né Buchanan].

Coasts and river mouths from India to the Philippines and East Indies.

Tetraodon fluviatilis Hamilton [né Buchanan], Fishes Ganges, pp. 16 and 362, pl. 30, fig. 1, 1822; fresh waters of Lower Bengal. Seale, Philippine Jour. Sci., vol. 5, sec. D, p. 285, 1910; Sandakan, British North Borneo; Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 497, 1924; Manila, Philippines; Sandakan, British North Borneo. Herre, Fishes 1936-37 Exped.; Kabil River, Sandakan Bay, British North Borneo; Pinang.

Tetraodon nigroviridis Procè, Bull. Sci. Soc. Philom. Paris, p. 130, 1822; Manila, Luzon.

Crayracion fluviatilis Bleeker, Atlas Ichth., vol. 5, p. 51, pl. 210, fig. 4, 1865; Manila, Luzon, Philippines.

Tetrodon fluviatilis Günther, Cat. Fishes British Mus., vol. 8, p. 290, 1870; Philippines; East Indian Archipelago; Borneo; Singapore; Pinang; India; Malabar; Ceylon.

2125. *Tetraodon hispidus* Linnaeus.

Red Sea and east coast of Africa to the East Indies, Philippines, RiuKiu, Marshall, Hawaiian, New Hebrides, Samoan, and Society Islands, south to Australia.

Tetraodon hispidus Linnaeus, Syst. Nat., ed. 10, p. 333, 1758; India. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 251, 1901; Okinawa and Ishigaki Islands, RiuKiu Islands; Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 427, pl. 66, 1905; Hilo; Moanalua; Honolulu; Waikiki. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 319, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 319, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Manila, Luzon; Panay, Philippines. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Cuyo, Cuyo Islands, Philippines. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 585, 1913; Sanguisiapo, Sulu Province, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 492, 1924; Calapan, Mindoro; Cuyo Islands; Culion; Dumaguete, Negros Oriental Province; Cabalian, Leyte; Cagayan, Misamis Oriental Province, and Caldera Bay and Zamboanga, Zamboanga Province, Mindanao; Sitankai, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Manila Bay, Luzon; Culion; Jolo, Sulu Province. Herre, Fishes 1940-41 Exped.; Malabon, Rizal Province, and Nasugbu, Batangas Province, Luzon.

Tetrodon hispidus Lacépède, Hist. Nat. Poissons, vol. 1, pl. 24, fig. 1, 1798. Richardson, in Adams, Zoology. Voy. *Samarang*, Fishes, p. 17, pl. 9, figs. 3 and 4, 1848. Günther, Cat. Fishes British Mus., vol. 8, p. 297, 1870; Red Sea; Zanzibar; Mozambique; Port Natal; Ceylon; East Indian Archipelago; Amboina; Australia; Aneiteum. Dav. Fishes India, p. 706, pl. 183, fig. 2, 1878. Günther, Fische der Südsee, vol. 3, p. 466, pls. 176 and 177, 1910; Fanning Island; Society Islands. Barnard, Ann. South African. Mus., vol. 21, p. 975, 1927; East London to Natal and Portuguese East Africa.

Tetrodon perspicillaris Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 63, 1828; Red Sea.

Tetraodon stellatus Eydoux and Souleyet, Voy. *Bonite*, Poissons, p. 212, pl. 10, fig. 2, 1841; Hawaii; not of Lacépède.

Tetraodon implutus Jenyns, Zoology, Voy. *Beagle*, Fishes, p. 152, 1842; Vanikoro.

Tetraodon laterna Richardson, Voy. *Sulphur*, Ichth., p. 124, pl. 61, fig. 2, 1843; Canton, China.

Arothron laterna Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 332, 1859-60; Aru Islands.

Crayracion implutus Bleeker, Atlas Ichth., vol. 5, p. 71, 1865; Sumatra; Cocos; Solor; Timor; Batjan; Amboina; Banda.

Crayracion laterna Bleeker, Atlas Ichth., vol. 5, pl. 205, fig. 3, 1865.

2126. *Tetraodon immaculatus* Bloch and Schneider. Mosi.

From the Red Sea and east coast of Africa to the Philippines, East Indies, Australia, Guam, Marshall, Gilbert, Samoan, and Fiji Islands.

Tetraodon immaculatus Bloch and Schneider, Syst. Ichth., p. 507, 1801; on Lacépède. Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 790, 1905; Bais, Negros Oriental Province, Philippines. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 370, 1906; Apia, Samoa. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 510, 1907; Manila, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1908; Zamboanga, Zamboanga Province, Mindanao. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Lubang Island northwest of Mindoro; Cuyo Island, Cuyo Islands, Sulu Sea; Ticao Island; Iloilo, Iloilo Province, Panay. Weber, *Siboga-Exped.*, vol. 57, Fische, p. 583, 1913; Sanguisiapo, Sulu

Archipelago, and Sulu Sea, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 489, 1924; very common in the Philippines; Malabon, Rizal Province; Manila; Cavite, Cavite Province; Batangas, Batangas Province, Luzon. Calapan and Mangarin, Mindoro; Busuanga Island; Dumaguete, Negros Oriental Province; Cebu and Bantayan Island, Cebu Province; Cabalian, Leyte; Davao, Davao Province, Gigaquit, Surigao Province, Cagayan, Misamis Oriental Province, and Zamboanga, Zamboanga Province, Mindanao. Also Sandakan, British North Borneo. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Manila Bay, Luzon; Dumaguete; Leyte; Jolo, Sulu Province. Herre, Fishes 1936-37 and 1940-41 Expeds.; Nasugbu, Batangas Province, and Ragay Gulf, Luzon; Estancia, Iloilo Province, and Capiz, Capiz Province, Panay; Murcielagos Bay, Misamis Occidental Province, and Dapitan Bay, Zamboanga Province, Mindanao; Sitankai, Sulu Province.

Tetraodon manillensis Procè, Bull. Sci. Soc. Philom. Paris, p. 130, 1822; Manila, Philippines.

Tetraodon sordidus Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 60, pl. 16, fig. 4, 1835; Massaua, Red Sea.

Tetraodon scaber Eydoux and Souleyet, Voy. Bonite, Zool., vol. 1, p. 214, pl. 10, fig. 1, 1842; Macao, China.

Tetraodon virgatus Richardson, Voy. Erebus and Terror, Zoology, Fishes, p. 62, pl. 39, figs. 8 and 9, 1846; Port Jackson, Australia. Richardson, in Forbes, Zoology, Voy. Herald, p. 163, pl. 28, figs. 6-8, 1854.

Tetraodon carduus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1357, 1850; Pinang Sea.

Tetraodon kunhardtii Bleeker, Nat. Tijds. Ned.-Ind., vol. 1, p. 97, 1851; Padang, Sumatra.

Tetraodon aspilos Bleeker, Nat. Tijds. Ned.-Ind., vol. 2, p. 495, 1851; Riouw, East Indies.

Tetraodon longicauda Duméril, Revue Mag. Zool., ser. 2, vol. 7, p. 279, 1855.

Arothron virgatus Bleeker, Verh. Akad. Amsterdam, vol. 2, p. 16, 1855; Van Diemensland. Bleeker, Nat. Tijds. Ned.-Ind., vol. 20, p. 332, 1859-60. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 13, 1860. Bleeker, Versl. Akad. Amsterdam, vol. 14, p. 103, 1862; Batjan. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 31, 1865; Manila Bay, Luzon, Philippines.

Arothron scaber Bleeker, Nat. Tijds. Ned.-Ind., vol. 15, p. 243, 1858; Singapore.

Crayracion immaculatus Bleeker, Atlas Ichth., vol. 5, p. 75, pl. 211, fig. 1, 1865; Amboina; Singapore.

Crayracion manillensis Bleeker, Atlas Ichth., vol. 5, p. 69, pl. 208, fig. 2, 1865; Manila Bay, Philippines, Amboina.

Crayracion carduus Bleeker, Atlas Ichth., vol. 5, p. 70, 1865; after Cantor.

Tetraodon immaculatus Günther, Cat. Fishes British Mus., vol. 8, p. 291, 1870; Philippines; Ceram; Amboina; Cape York, Port Jackson, and Sydney, Australia; Micronesia; New Caledonia; Pinang; Mauritius; Zanzibar; Port Natal. Day, Fishes India, p. 703, pl. 183, fig. 4, 1878. Günther, Report Voy. Challenger, Zoology, vol. 1, Pelagic Fishes, p. 54, 1889; Philippines. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 297, 1927; Orani and Orion, Bataan Province, Luzon. Philippines.

Tetraodon immaculatus var. *virgata* Barnard, Ann. South African Mus., vol. 21, p. 974, 1927; Natal, Delagoa Bay, South Africa.

Ovooides manillensis Whitley, Great Barrier Reef Exped., vol. 4, No. 9, Fishes, p. 312, 1932; Low Isles, Great Barrier Reef, Queensland, Australia.

2127. *Tetraodon mappa* Lesson.

East Indies, Philippines, and east to the Society Islands.

Tetraodon mappa Lesson, Voy. Coquille, Zool., vol. 2, Poissons, p. 102, pl. 5, 1826; Doreh Bay, New Guinea. Herre, Philippine Jour. Sci., vol. 25, p. 494, 1924; Calapan, Mindoro; Mindanao. Herre, Fishes, 1931 Philippine Exped., p. 103, 1934; Jolo and Sitankai, Sulu Province.

Arothron mappa Bleeker, Versl. Akad. Amsterdam, vol. 12, p. 30, 1861; Singapore. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 172; 1865; Siam. Bleeker, *ibid.*, p. 183; Ceram.

- Crayracion mappa* Bleeker, Atlas Ichth., vol. 5, p. 72, pl. 210, fig. 1, 1865; Amboina; Ceram.
- Tetrodon mappa* Günther, Cat. Fishes British Mus., vol. 8, p. 293, 1870; Zanzibar; East Indian Archipelago. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 47, 1885; Cebu, Cebu, Philippines. Günther, Fische der Südsee, vol. 3, p. 464, 1910; Pelew Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 469, 1928; Society Islands.
- 2128. *Tetraodon meleagris* (Lacépède).**
East Indies and Philippines and east to the Hawaiian and Tuamotu Islands.
- Tetrodon meleagris* Lacépède, Hist. Nat. Poissons, vol. 1, pp. 476 and 505, 1799; Asia. Bloch and Schneider, Syst. Ichth., p. 507, 1801; on Lacépède. Richardson, Voy. Sulphur, Ichth., p. 122, pl. 47, figs. 1-3, 1844; Tahiti. Günther, Cat. Fishes British Mus., vol. 8, p. 299, 1870; Polynesia. Günther, Fische der Südsee, vol. 3, p. 469, pl. 173-174, 1910; Samoa; Ponapé, Caroline Islands; Gilbert Islands; Tonga; Tahiti, Society Islands; Tuamotu Islands; Marquesas Islands. Fowler, Mem. Bishop Mus., vol. 10, p. 472, pl. 48C, 1928; Honolulu, Oahu, Hawaiian Islands; Laysan Island; Tuamotu Islands; Johnston Island, Wake Island, and Lisiansky Island; Gilbert and Marshall Islands.
- Tetraodon meleagris* Bleeker, Nat. Tijds. Ned-Ind., vol. 5, p. 91, 1853; Solor. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Dumaguete; Sitankai, Sulu Province.
- Crayracion meleagris* Bleeker, Ned. Tijds. Dierk., vol. 3, p. 37, 1866.
- 2129. *Tetraodon nigropunctatus* Bloch and Schneider.**
From the east coast of Africa to the Philippines, East Indies, Fiji, Samoa, and Society Islands.
- Tetraodon nigropunctatus* Bloch and Schneider, Syst. Ichth., p. 507, 1801; Tranquebar. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 369, pl. 35 and text fig. 70, 1906; Apia and PagoPago, Samoa. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 101, 1906; Bacon, Sorsogon Province, Luzon. Herre, Philippine Jour. Sci., vol. 25, p. 496, 1924; Calapan and Puerto Galera, Mindoro; Bacon, Sorsogon Province, Luzon. Herre, Fishes, Philippine Bureau Science Collection, 1925; Ambil Island, northwest of Mindoro, in China Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Culion; Dumaguete; Jolo, Sulu Province. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province.
- Tetraodon diadematus* Rüppell, Atlas Reise Nördl. Afrika, Fische Rothen Meeres, p. 65, pl. 17, fig. 3, 1828; Red Sea.
- Tetraodon trichoderma* Bleeker, Nat. Tijds. Ned-Ind., vol. 5, p. 532, 1853; Sumatra.
- Tetraodon trichodermatoides* Bleeker, Nat. Tijds. Ned-Ind., vol. 6, p. 336 1854; Flores. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 265, 1863; Timor.
- Arothron melanorhynchus* Bleeker, Nat. Tijds. Ned-Ind., vol. 9, p. 111, 1855; Halmahera. Bleeker, *ibid.*, vol. 12, p. 218, 1856-57; Nias.
- Arothron melanorhynchus* Bleeker, Ned. Tijds. Dierk., vol. 1, p. 154, 1863; Halmahera.
- Crayracion nigropunctatus* Bleeker, Atlas Ichth., vol. 5, p. 74, pl. 206, fig. 4, 1865; East Indies.
- Tetrodon nigropunctatus* Günther, Cat. Fishes British Mus., vol. 8, p. 293, 1870; Zanzibar; Amboina; East Indian Archipelago; Flores; Sumatra; Halmahera. Day, Fishes India, p. 704, pl. 180, fig. 4, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 47, 1885; Cebu, Cebu, the Philippines. Günther, Fische der Südsee, vol. 3, p. 468, 1910; Mortlock Island; Fiji; Society Islands.
- Tetrodon nigropunctatus* var. *citrinella* Günther, Cat. Fishes British Mus., vol. 8, p. 293, 1870; Fiji Islands. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 369, 1906; PagoPago, Samoa.
- 2130. *Tetraodon reticularis* Bloch and Schneider.**
India, East Indies, and the Philippines, south to Fiji and Australia.
- Tetrodon testudineus* Bloch, Ichthyologie, vol. 4, p. 122, pl. 139, 1787; not of Linnaeus; in part.

- Tetraodon reticularis* Bloch and Schneider, Syst. Ichth., p. 506, 1801; Malabar. Günther, Cat. Fishes British Mus., vol. 8, p. 296, 1870; East Indian Archipelago; Amboina; Celebes; Pinang; Indian Ocean. Peters, Monatsber. Akad. Wiss. Berlin, p. 653, 1876; New Britain. Day, Fishes India, p. 705, pl. 180, fig. 5, 1878. Meyer, An. Soc. España Hist. Nat. Madrid, vol. 14, p. 47, 1885; Cebu, Cebu, Philippines. Duncker, Mitt. Naturh. Mus. Hamburg, vol. 21, p. 191, 1904; Singapore. Günther, Fische der Südsee, vol. 3, p. 466, 1910. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 297, 1927; Orion, Bataan Province, Luzon, Philippines. Fowler, Mem. Bishop Mus., vol. 10, p. 470, 1928.
- Tetraodon testudinarius* Müller, Wiegmann's Archiv Naturges., vol. 9, p. 330, 1843.
- Tetraodon reticulatus* Bleeker, Verh. Bat. Gen., vol. 22, Bijdr. Ichth. fauna Madura, p. 16, 1849; Madura. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Cavite, Cavite Province, Luzon. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao.
- Tetraodon testudineus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 3, p. 78, 1852; Singapore.
- Arothron reticularis* Bleeker, Verh. Akad. Amsterdam, vol. 2, Vischen van Diemansland, p. 16, 1855.
- Arothron testudineus* Bleeker, Nat. Tijds. Ned.-Ind., vol. 18, 1859; p. 357, Bawean; p. 374, Banka.
- Crayracion testudineus* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 271, 1865; Amboina. Bleeker, Atlas Ichth., vol. 5, p. 71, pl. 212, fig. 3, 1865; Banka; Bawean; Amboina; Celebes; Sumatra; Buru, Singapore, Pinang.
- Tetraodon reticularis* Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 791, 1905; Bais, Negros Oriental Province. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 273, 1908; Lubang Island, off northwest corner of Mindoro. Herre, Philippine Jour. Sci., vol. 25, p. 491, 1924; Visayas, Samal Island, Davao Gulf, Mindanao, Manila and Manila Bay, Luzon; Calapan, Mindoro; Cebu, Cebu. Herre, Fishes, Philippine Bureau Science Collection, 1926; Tubigan Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Sitankai, Sulu Province.

Family 199. CANTHIGASTERIDÆ.

Sharp-nosed puffers; Ornate puffers.

Small puffers of the tropical Indo-Pacific and Atlantic Oceans, north to southern Japan and Florida.

Genus 698. CANTHIGASTER Swainson.

- Canthigaster* Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 194, 1839; type, *Tetraodon rostratus* Bloch: called *Psilonotus* later in the text. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 430, 1905. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 371, 1906. Herre, Philippine Jour. Sci., vol. 25, p. 499, 1924. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 114, 1936.
- Psilonotus* Swainson, Nat. Hist., vol. 2, Fishes, p. 328, 1839; a slip for *Canthigaster* Swainson.
- Prilonotus* (Müller) Richardson, in Forbes, Zoology Voy. *Herald*, p. 162, 1854; type, *Prilonotus caudacinctus* Richardson.
- Tropidichthys* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 501, 1854; type, *Tetraodon margaritatus* Rüppell.
- Rhynchotus* Bibron, Revue Mag. Zool., vol. 8, p. 280, 1854; type, *Tetraodon gronovii* Cuvier.
- Anosmius* Peters, Monatsber. Akad. Wiss. Berlin, vol. 21, p. 274, 1855; type, *Tetraodon taeniatus* Peters.
- Eumycterias* Jenkins, Bull. U. S. Fish Comm., vol. 19, p. 399, 1899; type, *Eumycterias bitaeniatus* Jenkins. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 254, 1901.

2131. *Canthigaster amboinensis* (Bleeker).

East Indies and Philippines.

- Psilonotus amboinensis* Bleeker, Ned. Tijds. Dierk., vol. 2, pp. 180 and 272, 1865; Amboina. Bleeker, Atlas Ichth., vol. 5, pl. 213, fig. 7, 1865.

- Canthogaster amboinensis* Bleeker, Atlas Ichth., vol. 5, p. 79, 1865; Amboina. Bleeker, Ned. Tijds. Dierk., vol. 3, p. 38, 1866.
- Tropidichthys psegma* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 22, p. 209, 1903; Honolulu. Jordan and Evermann, *ibid.*, vol. 23, Part 1, pl. 50, 1905.
- Canthigaster psegma* Jordan and Evermann, *ibid.*, p. 433, 1905. Borodin, Bull. Vanderbilt Marine Mus., vol. 1, p. 62, 1930; Philippines.
- Canthigaster amboinensis* Steindachner, Sitzber. Akad. Wiss. Wien, vol. 115, p. 1414, 1906; Samoa. Fowler, Mem. Bishop Mus., vol. 10, p. 465, 1928; Honolulu and Maui, Hawaiian Islands; Fiji.
- 2132. *Canthigaster bennetti* (Bleeker).**
Zanzibar to the East Indies and Philippines, the Caroline and Tuamotu Islands, and south to Australia.
- Tetrodon ocellatus* Bennett, Fishes Ceylon, p. 2, pl. 21, 1830; southern coast of Ceylon; preoccupied by *T. ocellatus* L. and *T. ocellatus* Richardson, 1845.
- Tropidichthys Bennettii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 504, 1854; Amboina.
- Anosmius Bennettii* Bleeker, Nat. Tijds. Ned.-Ind., vol. 13, p. 374, 1857; Sangi Islands.
- Psilonotus Bennettii* Bleeker, Acta Soc. Sci. Indi-Neerl., vol. 8, Achtste Bijdr. vischfauna Sumatra, p. 66, 1860; Sumatra. Bleeker, Atlas Ichth., vol. 5, pl. 214, fig. 5, 1865.
- Canthogaster ocellatus* Bleeker, Atlas Ichth., vol. 5, p. 80, 1865; Amboina; Sangi Islands; Sumatra; Goram; Bali; Celebes; Ternate; Buru; Ceram.
- Tetrodon bennetti* Günther, Cat. Fishes British Mus., vol. 8, p. 301, 1870; Zanzibar; East Indian Archipelago. Günther, Fische der Südsee, vol. 3, p. 466, 1910; Ponapé; Futuna; Tahiti.
- Canthigaster bennetti* Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 101, 1907; Bacon, Sorsogon Province, Luzon. Herre, Philippine Jour. Sci., vol. 25, p. 502, 1924; Bacon, Sorsogon Province, Luzon; Cabalian, Leyte; Caldera Bay, Zamboanga Province; Mindanao; Sitankai, Sulu Province. Herre, Philippine Fishes, Bureau Science Collection, 1926; Sibutu, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Dumaguete.
- Tropidichthys bennetti* Weber, Siboga-Exped. vol. 57, Fische, p. 586, 1913; North Ubian, Sulu Archipelago, Sulu Province, Philippines.
- 2133. *Canthigaster cinctus* (Richardson).**
From the coast of Africa to the Philippines, East Indies and east to Guam, the Hawaiian and Society Islands.
- Tetraodon cinctus* Richardson, Voy. Samarang, Ichth., pp. 19-20, 1848; Tahiti; on a drawing by Solander.
- Tetraodon valentini* Bleeker, Nat. Tijds. Ned.-Ind., vol. 4, p. 130, 1853; Amboina.
- Holacanthus balistaeformis* Gray, in Cat. Fishes described by Gronow, p. 25, 1854; "Mari Indico."
- Psilonotus Valentyni* Bleeker, Ned. Tijds. Dierk., vol. 2, p. 183, 1865; Ceram.
- Psilonotus Valentini* Bleeker, Atlas Ichth., pl. 208, fig. 1, 1865.
- Canthogaster Valentyni* Bleeker, Ned. Tijds. Dirk., vol. 3, p. 38, 1866.
- Canthogaster valentyni* Bleeker, Atlas Ichth., vol. 5, p. 80, 1865; Amboina; Ceram.
- Tetrodon valentini* Günther, Cat. Fishes, British Mus., vol. 8, p. 305, 1870; Amboina; Zanzibar.
- Tetraodon (Anosmius) coronatus* Vaillant and Sauvage, Revue Mag. Zool., ser. 3, vol. 3, p. 286, 1875; Hawaiian Islands.
- Canthigaster cinctus* Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 433, fig. 189, 1905; Hawaiian Islands; Polynesia. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 25, p. 373, 1906; Hawaii. Fowler, Bull. 22, Bishop Mus., p. 20, 1925; Guam. Fowler, Mem. Bishop Mus., vol. 10, p. 466, 1928; Honolulu; Lisiansky Island. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Province.

Tetrodon valentyni Pellégrin, Bull. 18, Mus. Nat. Hist. Paris, p. 206, 1912; Port Sandwich, New Hebrides.
Canthigaster valentini Herre, Philippine Jour. Sci., vol. 25, p. 499, 1924; Cabalian, Leyte; Puerto Princesa, Palawan. Herre, Fishes, Philippine Bureau Science Collections 1926-27; Calapan, Mindoro; Cebu, Cebu; Sibutu Island, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Dumaguete; Jolo and Sitankai, Sulu Province.
Tropidichthys cinctus Barnard, Ann. South African Mus., vol. 21, p. 976, 1927; Mozambique.

2134. *Canthigaster compressus* (Procé).

Philippines, East Indies and southeast to the New Hebrides.
Tetrodon compressus Procé, Bull. Sci. Soc. Philom. Paris, p. 130, 1822; Manila, Luzon.
Tetraodon striolatus Quoy and Gaimard, Voy. Uranie, Zoologie, p. 203, 1824; Timor.
Tropidichthys striolatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 503, 1854; Amboina.
Anosmius striolatus Bleeker, Nat. Tijds. Ned.-Ind., vol. 19, p. 438, 1859; Sumbawa.
Ptilonotus striolatus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 13, 1860. Bleeker, Atlas Ichth., vol. 5, pl. 213, fig. 6, 1865.
Canthogaster striolatus Bleeker, Atlas Ichth., vol. 5, p. 82, 1865; Amboina, Sumbawa; Celebes; Ternate; Timor; Buru; Philippines.
Tetrodon striolatus Günther, Cat. Fishes British Mus., vol. 8, p. 304, 1870; Philippines; Amboina; East Indian Archipelago.
Canthigaster compressus Jordan and Seale, Proc. U. S. Nat. Mus., vol. 28, p. 791, 1905; Bais, Negros Oriental Province. Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, p. 510, 1906; Zamboanga, Zamboanga Province, Mindanao. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 37, 1907; Cavite, Cavite Province, Luzon. Evermann and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 101, 1907; Philippines. Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, p. 248, 1907; Zamboanga, Zamboanga Province, Mindanao. Herre, Philippine Jour. Sci., vol. 25, p. 500, pl. 2, fig. 5, 1924; Sorsogon Province, Luzon; Bantayan Island, Cebu Province. Herre, Fishes, Philippine Bureau Science Collections, 1926-27; Calapan, Mindoro; Sibutu, Sulu Province; Cuyo Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Manila Bay and Unisan, Tayabas Province, Luzon; Dumaguete; Cebu, Cebu; Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Kolambugan, Lanao Province, and Murcielagos Bay, Misamis Occidental Province, Mindanao; Jolo, Sulu Province.

2135. *Canthigaster janthinopterus* (Bleeker).

East Indies and Philippines to the Caroline Islands and New Hebrides.
Tropidichthys janthinopterus Bleeker, Nat. Tijds. Ned.-Ind., vol. 8, p. 429, 1855; Amboina.
Ptilonotus janthinopterus Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 13, 1860; Celebes. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 272, 1865; Amboina.
Canthogaster janthinopterus Bleeker, Atlas Ichth., vol. 5, p. 82, pl. 213, fig. 2, 1865; Amboina; Celebes.
Tetrodon janthinopterus Günther, Cat. Fishes British Mus., vol. 8, p. 302, 1870; Celebes and Amboina. Günther, Fische der Südsee, vol. 3, p. 471, 1910; Ponapé, Caroline Islands.
Canthigaster janthinopterus Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes, Philippine Bureau Science Collection, 1926; Sibutu Islands, Sulu Province. Fowler, Mem. Bishop Mus., vol. 10, p. 466, 1928. Fowler, Mem. Bishop Mus., vol. 11, p. 449, 1934; Santo, New Hebrides; material in Australian Museum (Whitley). Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Dumaguete. Herre, Fishes 1940-41 Exped.; Sitankai, Sulu Province.

2136. *Canthigaster papua* (Bleeker).

- East Indies and Philippines to the Marianas and Bismarck Archipelago. *Tetraodon papua* Bleeker, Jour. Indian Archipelago, vol. 2, p. 638, 1848; Sumbawa.
- Tetraodon papua* Günther, Cat. Fishes British Mus., vol. 8, p. 301, 1870; Amboina. Günther, Fische der Südsee, vol. 3, p. 471, 1910; New Britain.
- Tropidichthys papua* Weber, *Siboga*-Exped., vol. 57, Fische, p. 587, 1913; North Ubian, Sub Province, Philippines.
- Canthigaster papua* Herre, Philippine Jour. Sci., vol. 25, p. 501, 1924; Dumaguete, Negros Oriental Province; Bantayan Island, Cebu, Cebu Province; also Guam. Herre, Fishes, Philippine Bureau Science Collection, 1926; Sibutu, Sulu Province. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 103, 1934; Dumaguete. Herre, Fishes 1940-41 Exped., Coron, Busuanga Island; Bungau, Sulu Province. Herre, 1948 Coll.; Dumaguete; Zamboanga, Zamboanga Province, Mindanao.

Family 200. DIODONTIDÆ. Porcupine fish; Botiting laut

A small group of fishes found in all warm seas.

Genus 699. CHILOMYCTERUS Bibron. Burrfish, Rabbitfish.

Only one species is found in the Philippines.

- Chilomycterus* Bibron, Revue Zoologique, p. 40, 1846; type, *Diodon reticulatus* L.=*Diodon atinga* L. Bleeker, Ned. Tijds. Dierk., p. 17, 1866. Günther, Cat. Fishes British Mus., vol. 8, p. 309, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 258, 1901. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 438, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 507, 1924. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1118, 1936.
- Cyclichthys* Kaup, Archiv Naturges., p. 231, 1855; type, *Cyclichthys orbicularis* Kaup; not of Bloch.
- Cyanichthys* Kaup, *ibid.*, type, *Cyanichthys coeruleus* Kaup; not of Quoy and Gaimard.

2137. *Chilomycterus orbicularis* (Bloch).

East Indies and Philippines, also the tropical Indian and eastern Atlantic Oceans.

- Diodon orbicularis* Bloch, Naturges. Ausländ. Fische, vol. 1, p. 73, pl. 127, 1785; Molucca Islands and Cape of Good Hope. Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 92, 1853; Solor. Bleeker, *ibid.*, vol. 21, p. 57, 1860; Cape of Good Hope. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 271, 1865; Amboina. Bleeker, Atlas Ichth., vol. 5, p. 55, pl. 205, fig. 4, 1865; Solor; Amboina; Pinang.
- Diodon caeruleus* Quoy and Gaimard, Voy. *Uranie*, Zoologie, p. 201, pl. 65, fig. 5, 1824; north of New Guinea.
- Diodon triedricus* Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1353, 1850; Pinang.
- Chilomycterus orbicularis* Günther, Cat. Fishes British Mus., vol. 8, p. 312, 1870; Pinang; Ceram; East Indian Archipelago; Indian Ocean. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 121, 1873; China. Günther, Rept. Voy. *Challenger*, Zoology, vol. 1, Shore Fishes, p. 54, 1880; off coast of Cebu Island, Philippines. Herre, Philippine Jour. Sci., vol. 25, p. 508, 1924; Manila; Manila Bay; Cavite, Cavite Province, and Batangas, Batangas Province, Luzon; Mindoro; Tandag, Surigao Province, Mindanao. Herre, Fishes, Philippine Bureau Science Collection, 1926; Cebu market, Cebu; Sibutu, Sulu Province. Herre, Fishes 1940-41 Exped.; Miagao, Iloilo Province, Panay.

Genus 700. DIODON Linnaeus.

In all tropical and warm temperate seas.

- Diodon* Linnaeus, Syst. Nat., ed. 10, p. 335, 1758; type, *Diodon hystrix* L. Günther, Cat. Fishes British Mus., vol. 8, p. 306, 1870. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 256, 1901. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 436, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 504, 1924. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 116, 1936.

Orbis Müller, *Delineationes Naturae*, vol. 2, p. 141, 1767; type, *Diodon hystrix* L.

Paradiodon Bleeker, *Atlas Ichth.*, vol. 5, p. 49, 1865; type, *Diodon hystrix* L.

2138. *Diodon bleekeri* Günther.

East Indies, Philippines, and eastward to the Society Islands.

Paradiodon novemmaculatus Bleeker, *Atlas Ichth.*, vol. 5, p. 57, pl. 206, fig. 3, 1865; Priaman, Sumatra; Batu; Nias; Singapore; Manado, Celebes; Buro; Amboina; New Guinea; not of Cuvier.

Diodon maculatus var. B, Günther, *Cat. Fishes British Mus.*, vol. 8, p. 308, 1870; East Indian Archipelago; Amboina.

Diodon bleekeri Günther, *Fische der Südsee*, vol. 3, p. 475, pl. 178, 1910; Society Islands. Herre, *Philippine Jour. Sci.*, vol. 25, p. 506, 1924; Manila, Luzon. Herre, *Fishes, Philippine Bureau Science Collection*, 1926, Tubataha Reef, Sulu Sea. Herre, *Fishes 1931 Philippine Exped.*, p. 104, 1934; Culion. Herre, *Fishes 1940-41 Exped.*; Miagao, Iloilo Province, Panay. Herre, 1948 Coll.; Layla Batangas Province, Luzon; Sulu Sea, South of Pilas Island.

2139. *Diodon holacanthus* Linnaeus. Balloonfish; Porcupinefish; Botiting laut.

In all warm seas, north to Japan in the Pacific.

Diodon holacanthus Linnaeus, *Syst. Nat.* ed. 10, p. 335, 1758, on Artedi; misprint for *D. holacanthus*.

Diodon holacanthus Jordan and Evermann, *Fishes North and Middle America*, vol. 2, *Bull.* 47, U. S. Nat. Mus., p. 1746, 1898; Florida Keys. Jordan and Snyder, *Proc. U. S. Nat. Mus.*, vol. 24, p. 257, 1901; Misaki and Wakanoura, Japan. Jordan and Evermann, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 436, 1903; Laysan Island. Herre, *Philippine Jour. Sci.*, vol. 25, p. 505, 1924; Cavite, Cavite Province, Luzon; Calapan, Mindoro; Jolo, Sulu Province. Fowler, *Mem. Bishop Mus.*, vol. 10, p. 473, 1928; Honolulu, Oahu, Hawaiian Islands; French Frigate Shoal; Laysan Island; Tahiti. Herre, *Collection Motorship Spencer F. Baird*, March 9, 1948; Celebes Sea, lat. 6° N., long. 123° E., due west of Kling, Cotabato Province, Mindanao.

Diodon liturosus Shaw, *General Zoology*, vol. 5, p. 436, pl. 2, 1806.

Diodon spinosissimus Cuvier, *Mem. Mus. Hist. Nat. Paris*, vol. 4, p. 134, 1818.

Diodon novemmaculatus Cuvier, *Mem. Mus. Hist. Nat. Paris*, vol. 4, pl. 6, p. 134, 1818. Schlegel, *Fauna Japonica, Pisces*, p. 289, pl. 128, fig. 2, 1842; Nagasaki.

Diodon quadrimaculatus Cuvier, *Mem. Mus. Hist. Nat. Paris*, vol. 4, p. 137, pl. 6, 1818; Tahiti.

Diodon seamaculatus Cuvier, *ibid.*, pl. 7, 1818.

Diodon multimaculatus Cuvier, *ibid.*, p. 137, 1818.

Diodon melanopsis Kaup, *Wiegmann's Archiv Naturges.*, p. 228, 1855.

Paradiodon quadrimaculatus Bleeker, *ibid.*, p. 58, pl. 212, fig. 2, 1865; Lawajong, Solor; Amboina.

Diodon maculatus Günther, *Cat. Fishes British Mus.*, vol. 8, p. 307, 1870; Sulu Sea, Philippines; China; Indian Ocean; Hawaiian Islands; South America; Panama; Jamaica; St. Croix; West Indies; Cape of Good Hope; Bourbon; Formosa. Günther, *Fische der Südsee*, vol. 3, p. 475, 1910; Hawaii; Pelew Islands; Ponape, Ruk, and Mortlock Islands, Caroline Islands.

2140. *Diodon hystrix* Linnaeus.

Occurs in the tropical Indo-Pacific and Atlantic Oceans.

Diodon hystrix Linnaeus *Syst. Nat.*, ed. 10, vol. 1, p. 335, 1758; after Artedi. Günther, *Cat. Fishes British Mus.*, vol. 8, p. 306, 1870; Gaboon, Fernando Po, and Calabar, west Africa; West Indies; Jamaica; Cape Seas; Amboina; Indian Ocean; Society Islands. Day, *Fishes India*, p. 708, pl. 179, fig. 4, 1878. Jordan and Evermann, *Fish North and Middle America*, U. S. Nat. Mus., *Bull.* 47, vol. 2, p. 1746, pl. 266, fig. 648, 1898. Jordan and Evermann, *Bull. U. S. Fish Comm.*, vol. 23, Part 1, p. 437, fig. 192, 1905; Honolulu, Hawaiian Islands; Johnston Island. Günther, *Fische der Südsee*, vol. 3, p. 474, 1910; Hawaiian Islands; Society Islands. Herre, *Philippine Jour. Sci.*, vol. 25, p. 504, 1924; Manila Bay; Cavite, Cavite Province; Paracale,

- Camarines Norte Province, Luzon; Surigao, Surigao Province, Mindanao; Sitankai, Sulu Province. Herre, Fishes, Philippine Bureau Science Collection, 1926; Tubataha Reef, Sulu Sea. Barnard, Ann. South African Mus., vol. 21, p. 980, 1927; False Bay, Agulhas Bank, Natal. Herre, Fishes 1931 Philippine Exped., p. 104, 1934: Cullion; Jolo, Sulu Province. Herre, 1948 Coll.; Siluag Island, Sulu Province. *Diodon atinga* Bloch, Ichthyologie, vol. 4, p. 75, pl. 125, 1787. *Diodon attinga* Rüppell, Verzeich. Senckenberg. Mus. Gesell. Sammlungen, p. 35, 1852. *Paradiodon hystriæ* Bleeker, Atlas Ichth., vol. 5, p. 56, pl. 207, fig. 2, 1865: Batavia, Java; Sumatra; Batu; Makassar, Celebes; Larantuka, Flores; Timor; Ternate; Amboina; Wahai, Ceram; Banda. *Diodon punctatus* Peters, Monatsber. Akad. Wiss. Berlin, p. 276, 1868; Paracale, Camarines Norte Province, Luzon.

Family 201. MOLIDÆ. Headfishes

Fishes mainly of the open sea. Three genera, each with a single species.

Genus 701. MASTURUS Gill.

A single species in all warm seas.

Masturus Gill, Proc. U. S. Nat. Mus., vol. 7, 425, 1884; type, *Orthogoriscus oxyuropterus* Bleeker.

2141. *Masturus lanceolatus* (Liénard).

Attains a length of 2½ meters and a weight of more than two tons.

Orthogoriscus lanceolatus Liénard, Revue Zoologique, Paris, p. 291, pl. 4, 1841; Mauritius. Lowe, Trans. Zool. Soc. London, vol. 3, p. 18, 1849; Madeira. Günther, Cat. Fishes British Mus., vol. 8, p. 319, 1870; after Liénard. Bleeker, Recherches Faune Madagascar, Pisces, p. 69, 1875. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 23, 1879; Mauritius.

Orthogoriscus oxyuropterus Bleeker, Versl. Akad. Amsterdam, ser. 2, vol. 7, p. 151, with one plate, 1873; near Amboina.

Masturus lanceolatus Jordan and Jordan, Mem. Carnegie Mus., vol. 10, p. 89, fig. 7, 1925; Honolulu. Fowler, Mem. Bishop Mus., vol. 10, p. 474, fig. 80, 1928; Honolulu Market. Domantay, specimen collected 1940; Sangboy Island, off Basilan Island, Zamboanga Province, Mindanao. Magdamo, specimens collected 1938-40; Dumaguete, Negros Oriental Province. Gudger, Proc. Zool. Soc. London, ser. A, pp. 353-396, pls. 1-5, and 22 text figures, 1937.

Mola lanceolatus Barnard, Ann. South African Mus., vol. 21, p. 987, fig. 31, 1927; Table Bay, Cape Colony, South Africa.

Genus 702. MOLA Koelreuter.

A single species in all tropical and temperate seas.

Mola Koelreuter, Piscium rarorum, Novi Comm. Acad. Petropolit., vol. 8, p. 337, 1770; type, *Mola aculeata* Koelreuter=*Tetrodon mola* L. Linck, Magazine Neuestes Physick Naturges. vol. 6, p. 37, 1790; type, *Diodon mola* L. Cuvier, Tableau Elementaire, p. 323, 1798; type, *Diodon mola* L. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 260, 1901. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1121, 1936.

Orthogoriscus Bloch and Schneider, Syst. Ichth., p. 510, 1801; type, *Diodon mola* (Bloch); misprinted *Orthogoriscus*.

Cephalus Shaw, General Zoology, vol. 5, p. 432, 1804; type, *Tetrodon mola* L.

Orithragus Rafinesque, Caratteri Alcuni Nuovi Generi Sicilia, p. 17, 1810; type, *Tetraodon mola* L.

Diplanchias Rafinesque, ibid., p. 17, 1810; type, *Diplanchias nasus* Rafinesque.

Tympanomium Ranzani, Novi Comment. Acad. Sci. Inst. Bonon., vol. 3, p. 3, plate after p. 81, 1837; type, *Tympanomium planci* Ranzani.

Trematopsis Ranzani, ibid.; type, *Trematopsis willughbeii* Ranzani.

Ozodura Ranzani, ibid., pl. 6; type, *Ozodura orsini* Ranzani.

Pedalion Swainson, Nat. Hist. Animals, Fishes, vol. 1, p. 199, 1838; Swainson, ibid., vol. 2, pp. 195, 329, 1839; type, *Tetrodon mola* L.; from Guilding ms.

Molacanthus Swainson, Nat. Hist. Animals, vol. 2, Fishes, p. 329, 1839; type, *Molacanthus pallasi* Swainson=*Diodon mola* Pallas.

- Pallasina* Nardo, Ann. Sci. Lombardo-Venet., vol. 10, pp. 10-12, 1839; type, *Pallasina pallasii* Nardo.
Acanthosoma Dekay, Zoology of New York, p. 350, 1842; type, *Acanthosoma carinatum* DeKay.
Centaurus Kaup, Wiegmann's Archiv Naturges., vol. 21, p. 221, 1855; type, *Ostracion boops* Richardson.
Aledon Castelnau, Mem. Poissons l'Afrique Australe, Compte Rendu Acad. Sci., Paris, p. 76, 1861; type, *Aledon storeri* Castelnau.

2142. *Mola mola* (Linnaeus).

Found in all warm seas; one of the largest of fishes, attaining a great size and weight. Wanders northward to Tokyo, San Francisco, the Gulf of Maine, and England. Only a few references are given here from the very extensive bibliography.

Tetrodon mola Linnaeus, Syst. Nat., ed. 10, pp. 334, 412, 1758; Mediterranean Sea.

Diodon mola Pallas, Spicilegia Zoologica, vol. 8, p. 39, pl. 4, fig. 7, 1770; Guinea.

Orthogoriscus mola Bloch and Schneider, Syst. Ichth., p. 510, 1801. Schlegel, Fauna Japonica, Pisces, p. 238, pl. 127, 1842; Nagasaki. Günther, Cat. Fishes, British Mus., vol. 8, p. 317, 1870; Ireland; Portsmouth and Plymouth, England; Adriatic Sea; North Atlantic. Bleeker, Ned. Tijds. Dierk., vol. 4, p. 121, 1873; China.

Mola mola Collett, Pois., Camp. l'Hirondelle, Monaco, vol. 10, p. 163, pl. 6, fig. 1, 1896; west of the Azores, in the north Atlantic. Jordan and Evermann, Fishes North and Middle America, Bull. 47, U. S. Nat. Mus., vol. 2, p. 1753, 1898. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, 1901; Tokyo and Nagasaki, Japan. Waite, Trans. New Zealand Institute, vol. 14, p. 223, pl. 9, 1913. Jordan, Copeia, No. 93, p. 28, 1921; Kauai, Hawaiian Islands. Barnard, Ann. South African Mus., vol. 21, p. 986, 1927; Table Bay, Agulhas Bank, Durban. Herre, Fishes 1936-37 Exped.; Sitankai, Sulu Province; an enormous specimen 2½ meters high; specimen measured by Perry L. Machlan in October, 1935. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1123, fig. 469, 1936; New Jersey, U. S. A.

Genus 703. *RANZANIA* Nardo.

Pelagic sunfishes in all warm seas; not reaching a gigantic size. Apparently but one species.

Ranzania Nardo, Ann. Sci. Lombardo-Veneto, vol. 10, pp. 10 and 105, 1839; type, *Tetrodon truncatus* Retzius. Jordan and Snyder, Proc. U. S. Nat. Mus., vol. 24, p. 262, 1901. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 439, 1905. Herre, Philippine Jour. Sci., vol. 25, p. 509, 1924. Barnard, Ann. South African Mus., vol. 21, p. 989, 1927. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1123, 1936.

2143. *Ranzania truncata* (Retzius).

Tetrodon truncatus Retzius, Svenska Vet. Akad. Nya Handlingar, vol. 6, Part 2, p. 116, 1785.

Ranzania truncata Nardo, Ann. Sci. Lombardo-Veneto, vol. 10, p. 105, 1840. Günther, Fische der Südsee, vol. 3, p. 477, 1910; Hawaiian Islands. Barnard, Ann. South African Mus., vol. 21, p. 989, fig. 32, 1927; Table Bay and False Bay, South Africa. Herre, Fishes, Philippine Bureau Science Collection, 1925-31; Manila Bay and Balayan Bay, Batangas Province, Luzon; near New Washington, north coast Capiz Province, Panay; Sibuyan Island; Catbalogan, Samar. Fowler, Mem. Bishop Mus., vol. 10, p. 475, 1928; Honolulu, Hawaiian Islands. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1123, fig. 470, 1936. Manacop, Collection, Philippine Bureau Fisheries, 1939; Cagayan, Misamis Oriental Province, Mindanao.

Ranzania makua Jenkins, Proc. California Acad. Sci., ser. 2, vol. 5, pp. 780 and 784, with colored frontispiece, 1895; Pearl Harbor, near Honolulu. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 440, fig. 194, 1905; Pearl Harbor and Honolulu, Oahu. Herre, Philippine Jour. Sci. vol. 25, p. 509, 1924; Pacific coast of Samar.

Order GG. PEDICULATI. The anglers

Family 202. LOPHIIDÆ. The fishing frogs

Genus 704. LOPHIODES Goode and Bean.

Deep-sea fishes of the Indo-Pacific Ocean.

Lophiodes Goode and Bean, *Oceanic Ichthyology*, p. 537, 1895; type, *Lophius mutilus* Alcock.

Chirolophius Regan, *Ann. Mag. Nat. Hist.*, ser. 7, vol. 11, p. 279, 1903; type, *Lophius naresi* Günther. *Barnard, Ann. South African Mus.*, vol. 21, p. 996, 1927.

2144. *Lophiodes infrabrunneus* Smith and Radcliffe.

A Philippine species.

Lophiodes infrabrunneus Smith and Radcliffe, *Proc. U. S. Nat. Mus.*, vol. 42, p. 202, pl. 16, fig. 3, and text fig. 2, 1912; off Panaon Island, south coast of Leyte, in 772 fathoms; specimens also from 8 other unspecified stations at depths of 270 to 772 fathoms.

2145. *Lophiodes naresi* (Günther).

A Philippine species.

Lophius Naresii Günther, *Report Voy. Challenger, Zoology*, vol. 1, *Shore Fishes* p. 56, pl. 25, 1880; Station 204, Philippines, at 115 fathoms; north of New Guinea at 150 fathoms; and at the Admiralty Islands. *Chirolophius naresii* Regan, *Ann. Mag. Nat. Hist.*, ser. 7, vol. 11, p. 279, 1903; Philippines.

2146. *Lophiodes olivaceus* Smith and Radcliffe.

A Philippine species.

Lophiodes olivaceus Smith and Radcliffe, *Proc. U. S. Nat. Mus.*, vol. 42, p. 200, pl. 16, fig. 2, and text fig. 1, 1912; Station 5505 off Macabalan Point, near Cagayan, Misamis Oriental Province, Mindanao, at 220 fathoms; also specimens from various other unspecified stations, at depths from 83 to 395 fathoms.

Genus 705. LOPHIOMUS Gill.

Japan, the Philippines and China Sea to the east coast of Africa.

Lophiomus Gill, *Proc. U. S. Nat. Mus.*, vol. 5, p. 552, 1882; type, *Lophius setigerus* Vahl. *Jordan and Sindo, Proc. U. S. Nat. Mus.*, vol. 24, p. 362, 1902. *Barnard, Ann. South African Mus.*, vol. 21, p. 998, 1927. *Agco, Philippine Jour. Sci.*, vol. 69, p. 161, 1939.

2147. *Lophiomus setigerus* (Vahl). Fishing frog.

Lophius setigerus Vahl, *Skrivt. Naturh.*, vol. 4, p. 214, pl. 3, figs. 5 and 6, 1797; China Sea. *Cuvier and Valenciennes, Hist. Nat. Poissons*, vol. 12, p. 383, 1837; after Vahl and a Japanese drawing. *Schlegel, Fauna Japonica, Pisces*, p. 158, pl. 80, 1842. *Richardson, Ichth. China Japan*, p. 203, 1846; Canton; Japan and China Seas. *Günther, Cat. Fishes British Mus.*, vol. 3, p. 180, 1861; Japan; China. *Jordan and Sindo, Proc. U. S. Nat. Mus.*, vol. 24, p. 363, 1902; Wakanoura and Nagasaki, Japan; not *Lophiomus setigerus* Gilbert and of Jordan and Evermann, which is an American species, *Lophiomus caulinaris* Garman. *Barnard, Ann. South African Mus.*, vol. 21, p. 998, 1927; Natal coast, in 25 to 90 fathoms. *Agco, Philippine Jour. Sci.*, vol. 69, p. 162, pl. 1, figs. 1 and 3, 1939; off San Narciso, Zambales Province, Luzon, Philippines; China Sea, in 30 fathoms.

Family 203. ANTENNARIIDÆ. Frogfishes

Tropical shore and reef fishes, and some pelagic, associated with *Sargassum* algae.

Genus 706. ANTENNARIUS Cuvier.

In all warm seas.

Antennarius (Commerson) Lacépède, *Hist. Nat. Poissons*, vol. 1, p. 327 (421) footnote, 1798. *Cuvier, Règne Animal*, ed. 1, vol. 2, p. 310, 1817; on "Les Chironectes (*Antennarius* Commerson)," *Cuvier*; type, *Lophius commersonianus* Lacépède. *Günther, Cat. Fishes British Mus.*, vol. 3, p. 183, 1861. *Gill, Proc. Acad. Nat. Sci. Phila.*, vol. 15, p. 90, 1863. *Jordan and Gilbert, Bull. U. S. Nat. Mus.*, p. 845, 1883. *Goode and Bean, Oceanic Ichthyology*, p. 486, 1895; wrongly

credited to Commerson, who was not binomial. Jordan and Sindo, Proc. U. S. Nat. Mus., vol. 24, p. 371, 1902. Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, Part 1, p. 517, 1905. Barnard, Ann. South African Mus., vol. 21, p. 1000, 1927.

2148. *Antennarius altipinnis* Smith and Radcliffe.

A Philippine species.

Antennarius altipinnis Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 204, fig. 3, 1912; Nogas Point, Antique Point, Panay.

2149. *Antennarius bigibbus* (Lacépède).

From Madagascar and Mauritius to the East Indies, Philippines, Hawaiian, Society, and Tuamotu Islands.

Lophius bigibbus Lacépède, Hist. Nat. Poissons, vol. 1, p. 325, 1798.

Antennarius bigibbus Günther, Cat. Fishes British Mus., vol. 3, p. 199, 1861; Madagascar. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 184, 1865; Ceram. Bleeker, *ibid.*, p. 274; Amboina. Bleeker, Recherches faune Madagascar, Poissons, p. 71, 1875. Bleeker, Verh. Akad. Amsterdam, vol. 18, p. 20, 1879; Mauritius. Günther, Fische der Südsee, vol. 2, p. 165, pl. 105, fig. 5, 1876-1881; Tuamotu Islands. Kendall and Goldsborough, Mem. Mus. Comp. Zool., vol. 26, p. 337, 1911; Fakarava, Tuamotu Islands. Barnard, Ann. South African Mus., vol. 21, p. 1001, 1927; Natal coast. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 106, 1934; Dumaguete.

2150. *Antennarius chironectes* (Lacépède).

East Indies and the Philippines.

Lophius chironectes Lacépède, Hist. Nat. Poissons, vol. 1, p. 321, pl. 14, fig. 2, 1798.

Chironectes variegatus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 422, 1837.

Antennarius chironectes Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 104, 1854; Banda Neira. Günther, Cat. Fishes British Mus., vol. 3, p. 197, 1861; Seas of Banda Neira and Amboina. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 274, 1865; Amboina. Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 286, 1908; Cagayancillo, Cagayan Islands, Sulu Sea.

2151. *Antennarius coccineus* (Lesson and Garnot).

From Mauritius to the East Indies and Philippines.

Chironectes coccineus Lesson and Garnot, Voy. *Coquille*, Poissons, p. 143, pl. 16, fig. 1, 1826-30; Mauritius.

Antennarius coccineus Günther, Cat. Fishes British Mus., vol. 3, p. 191, 1861; Mauritius. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 184, 1865; Ceram. Bleeker, *ibid.*, p. 275; Amboina. Bleeker, Atlas Ichth., vol. 5, p. 22, pl. 197, fig. 2, 1865; Ceram; Amboina; Singapore, Herre, Fishes 1931 Philippine Exped., p. 106, 1934; Dumaguete, Negros Oriental Province.

2152. *Antennarius commersoni* (Lacépède).

From Zanzibar and Mauritius to the Philippines and East Indies, Hawaiian and Society Islands.

Lophius commersonii Lacépède, Hist. Nat. Poissons, vol. 1, p. 327, 1798; South Seas.

Chironectes commersonii Cuvier, Mem. Mus. Hist. Nat., vol. 3, p. 431, pl. 18, fig. 1, 1817.

Antennarius commersoni Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1178, 1850; Singapore. Günther, Cat. Fishes British Mus., vol. 3, p. 192, 1861; Mauritius; Amboina; Singapore. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 184, 1865; Ceram; Amboina. Günther, Fische der Südsee, vol. 2, p. 163, pl. 100, figs. B-C and pl. 106, 1876-81; Raiatea, Haubaine, and Tahiti, Society Islands; Kusaie, Caroline Islands; Samoa; Zanzibar. Fowler, Proc. Acad. Nat. Sci. Phila., p. 519, 1900; Hawaii. Weber, *Siboga*-Exped., vol. 57, Fische, p. 563, 1913. Herre, Fishes, Philippine Bureau Science Collections, 1922-27; Calapan, Mindoro; Catbalogan, Samar. Fowler, Mem. Bishop Mus., vol. 10, p. 477, pl. 49 B, 1928; Honolulu and Maui, Hawaiian Islands; Society Islands. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p.

106, 1934; Dumaguete; Sitankai, Sulu Province. Herre, Collection Motorship *Spencer F. Baird*, 1948; Celebes Sea, West of Cotabato Province, Mindanao.

2153. *Antennarius dorehensis* Bleeker.

East Indies and the Philippines.

Antennarius dorehensis Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 6, p. 21, 1859; Doreh Bay, New Guinea. Bleeker, Atlas Ichth., vol. 5, p. 19, pl. 199, fig. 7, 1865; Doreh Bay, New Guinea. Bleeker, Arch. Neerl. Sci. Nat., vol. 13, p. 55, 1878. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

2154. *Antennarius hispidus* (Bloch and Schneider).

East Indies and Philippines to India and eastward to the Society Islands. *Lophius hispidus* Bloch and Schneider, Syst. Ichth., p. 142, 1801; Indian Ocean at Coromandel, India.

Chironectes lophotes Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 3, p. 428, pl. 17, fig. 2, 1817.

Chironectes hispidus Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 303, 1837; BoraBora and Tahiti, Society Islands.

Antennarius hispidus Cantor, Jour. Asiatic Soc. Bengal, vol. 18, p. 1185, 1850; Pinang; Singapore. Günther, Cat. Fishes British Mus., vol. 3, p. 189, 1861; East Indian Seas. Bleeker, Atlas Ichth., vol. 5, p. 14, pl. 194, fig. 2, and pl. 198, fig. 11, 1865; Singapore; Pinang; Amboina; Buru; Ceram. Day, Fishes India, p. 271, pl. 60, fig. 2, 1878. Jordan and Seale, Bull. U. S. Bur. Fish., vol. 26, p. 48, 1907; Manila; Cavite, Cavite Province, Luzon; Panay Island. Barnard, Ann. South African Mus., vol. 21, p. 1001, 1927; Natal coast, from 0 to 50 fathoms. Herre, Fishes 1936-37 Exped., Manila Bay, Luzon; Singapore.

2155. *Antennarius lithinostomus* Jordan and Richardson.

A Philippine species.

Antennarius lithinostomus Jordan and Richardson, Bull. U. S. Bur. Fisheries, vol. 27, p. 286, fig. 12, 1908; Cuyo, Cuyo Islands, Sulu Sea, Philippines. Herre, Fishes 1931 Philippine Exped., p. 106, 1934; Sitankai Reef, Sitankai, Sulu Province. Herre, Fishes 1940-41 Exped.; Estancia, Iloilo Province, Panay.

2156. *Antennarius notophthalmus* Bleeker.

East Indies and Philippines.

Antennarius notophthalmus Bleeker, Nat. Tijds. Ned.-Ind., vol. 5, p. 544, 1853. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 215, 1856-57; Nias. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 8, Dertiende Bijdr. vischfauna Celebes, p. 15, 1860; Celebes. Günther, Cat. Fishes British Mus., vol. 3, p. 196, 1861; East Indian Archipelago; after Bleeker. Bleeker, Ned. Tijds. Dierk., vol. 1, p. 152, 1863; Batjan. Bleeker, *ibid.*, p. 265; Timor. Bleeker, Ned. Tijds. Dierk., vol. 2, 1865; p. 184, Ceram; p. 275; Amboina. Herre, Fishes 1931 Philippine Exped., p. 106, 1934; Unisan, Tayabas Province, Luzon. Herre, Collection of Herald, Wade, Kauffman, and Umali, June, 1947; Manila Bay, near Corregidor, in 13-25 fathoms.

2157. *Antennarius nummifer* Cuvier.

East Indies and Philippines and west to India and the Red Sea; also Polynesia?

Antennarius nummifer Cuvier, Mem. Mus. Hist. Nat. Paris, vol. 3, p. 430, pl. 17, fig. 14, 1817. Rüppell, Neue Wirbelt., Fische Rothen Meeres, p. 141, 1835; Red Sea. Bleeker, Nat. Tijds. Ned.-Ind., vol. 6, p. 497, 1854; Amboina. Bleeker, *ibid.*, vol. 12, p. 216, 1856-57; Nias. Bleeker, *ibid.*, vol. 13, p. 372, 1857; Sangi Islands. Bleeker, *ibid.*, vol. 15, p. 202, 1858; Goram Archipelago. Bleeker, *ibid.*, vol. 15, p. 460, 1858; Cocos Island. Bleeker, *ibid.*, vol. 19, p. 331, 1859; Java. Bleeker, *ibid.*, vol. 20, pp. 238 and 447, 1859-60; Singapore. Günther, Cat. Fishes British Mus., vol. 3, p. 195, 1861; East Indian Seas; Red Sea. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 106, 1934; Dumaguete.

2158. *Antennarius pinniceps* (Cuvier and Valenciennes).

Tropical Indian Ocean, East Indies and the Philippines, south to Australia.

Antennarius pinniceps Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 13, p. 410, 1837; near Mauritius; on Commerson. Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 1, p. 49, 1856; Amboina. Bleeker, Nat. Tijds. Ned.-Ind., vol. 12, p. 302, 1856-57; Bali. Günther, Cat. Fishes British Mus., vol. 3, p. 190, 1861; Mauritius; Indian Ocean; Amboina; not synonymy. Herre, Fishes 1940-41 Exped.; Dapitan Bay, Zamboanga Province, Mindanao.

Antennarius pinniceps var. *fasciata* Steindachner, Sitzber. Akad. Wiss. Wien, vol. 53, p. 457, 1866; Port Jackson, Australia.

2159. *Antennarius rosaceus* Smith and Radcliffe.

A Philippine species.

Antennarius rosaceus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 203, pl. 17, fig. 2, 1912; Romblon, Romblon Province.

2160. *Antennarius subteres* Smith and Radcliffe.

A Philippine species.

Antennarius subteres Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 205, pl. 17, fig. 1, 1912; Gulf of Lingayen, off Dagupan, east of Guecet Point, Pangasinan Province, Luzon, at 45 fathoms.

2161. *Antennarius melas* Bleeker.

Known from the East Indies and Philippines.

Antennarius melas Bleeker, Acta Soc. Sci. Indo-Neerl., vol. 2, Achtste bijdrage kennis vischfauna Amboina, p. 70, 1857. Günther, Cat. Fishes British Mus., vol. 3, p. 194, 1861; after Bleeker; Sea of Amboyna. Bleeker, Atlas Ichth., vol. 5, p. 20, plate 199, fig. 6, 1865; Amboina. Herre and Domantay, 1948 Coll.; 2 specimens from Zamboanga, Zamboanga Province, Mindanao.

2162. *Antennarius polyophthalmus* Bleeker.

Antennarius polyophthalmus Bleeker, Nat. Tijds. Nederl. Indies, vol. 3, p. 644, 1852; Banda Neira. Bleeker, Nat. Tijds. Nederl. Indies, vol. 15, p. 202, 1858; Goram. Günther, Catalogue Fishes British Museum, vol. 3, p. 198, 1861; after Bleeker. Seas of Banda Neira and Goram. Herre, determination of kodachrome picture of living fish, taken by Dr. James W. Chapman of Silliman University, Dumaguete, Negros Oriental Province, 1949. This is a notable find, as Bleeker had but two specimens and no one seems to have collected it since his time.

Genus 707. **HISTRIO** Fischer.

Only one species.

Histrio Fischer, Zoognosia, ed. 3, vol. 1, pp. 70 and 78, 1813; type *Lophius histrio* L. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1129, 1936.

Pterophryne Gill, Proc. Acad. Nat. Sci. Phila., p. 90, 1863; type, *Chironectes laevigatus* Cuvier. Jordan and Sindo, Proc. U. S. Nat. Mus., vol. 24, p. 367, 1902.

Pterophrynoides Gill, Proc. U. S. Nat. Mus., vol. 1, p. 215, 1878; type, *Lophius histrio* L.

2163. *Histrio histrio* (Linnaeus).

Pelagic and circumtropical, north to Japan.

Lophius histrio Linnaeus, Syst. Nat., ed. 10, p. 237, 1758; China; pelagic among *Fucus*.

Lophius raninus Tilesius, Mem. Soc. Nat. Moscow, vol. 11, pl. 16, fig. 2, 1809; Japan.

Chironectes marmoratus Lesson, Voy. *Coquille*, Zool., vol. 2, p. 144, pl. 16, fig. 2, 1830; New Guinea. Schlegel, Fauna Japonica, Pisces, p. 159, pl. 81, fig. 1, 1842; Nagasaki.

Antennarius marmoratus Günther, Cat. Fishes British Mus., vol. 3, p. 185, 1861; Atlantic and Indian Oceans; Chinese and Japanese Seas; China; Pinang; west coast of Africa; Australia; Madagascar; West Indies; Molucca Sea. Bleeker, Ned. Tijds. Dierk., vol. 2, p. 184, 1865; Ceram. Bleeker, Atlas Ichth., vol. 5, p. 23, pl. 198, fig. 4, and pl. 199, fig. 1, 1865; Ceram; Amboina; New Guinea. Günther, Fische der Südsee, vol. 2, p. 162, pl. 100, fig. A, 1876-81; South Sea.

Pterophryne histrio Jordan and Sindo, Proc. U. S. Nat. Mus., vol. 24, p. 368, fig. 2, 1902; Kisaki and Enoshima, Japan. Jordan and Seale, Bull. U. S. Bur. Fisheries, vol. 26, p. 48, 1907; Manila, Luzon.

Pterophryne ranina Jordan and Sindo, Proc. U. S. Nat. Mus., vol. 24, p. 369, fig. 3, 1902.

Histrio histrio Fowler, Mem. Bishop Mus., vol. 10, p. 476, figs. 81-82, 1928; circumtropical. Herre, Jour. Pan Pacific Research Inst., vol. 8, p. 11, 1933; Dumaguete, Negros Oriental Province. Herre, Fishes 1931 Philippine Exped., p. 106, 1934; Dumaguete. Fowler, Bull. Amer. Mus. Nat. Hist., vol. 70, p. 1129, 1936; Gulf stream, off eastern United States; Sargasso Sea, Atlantic Ocean. Herre, Fishes 1940-41 Exped.; Dipolog, Zamboanga Province, Mindanao. Herre and Herald, motorship *Spencer F. Baird*, Feb. 1948; Celebes Sea, lat. 4°55' N., long. 124°5' E., south of Cotabato Province, Mindanao.

Family 204. OGCOEPHALIDÆ. Batfishes; Sea bats

Fishes of warm seas, some in shallow water, others deep-sea fishes.

Genus 708. COELOPHRYNS Brauer.

A group of deep-sea fishes.

Coelophrys Brauer, Zool. Anzeiger, vol. 25, p. 291, 1902; type, *Coelophrys brevicaudata* Brauer. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 212, 1912.

2164. *Coelophrys arca* Smith and Radcliffe.

A Philippine fish.

Coelophrys arca Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 213, pl. 24, fig. 2, pl. 26, fig. 4, and pl. 27, fig. 4, 1912; Verde Island Passage, near Escarceo Point, Mindoro, in 231 fathoms.

2165. *Coelophrys brevipes* Smith and Radcliffe.

The Philippines and East Indies.

Coelophrys brevipes Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 213, pl. 25, fig. 2, pl. 26, fig. 2, and pl. 27, fig. 2, 1912; Point Lambayon, Baganga Bay, Davao Province, Mindanao; Gulf of Boni, Celebes, Dutch East Indies, at a depth of 510 fathoms.

2166. *Coelophrys mollis* Smith and Radcliffe.

A Philippine species.

Coelophrys mollis Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 212, pl. 24; fig. 1, pl. 26, fig. 5; pl. 27, fig. 5, 1912; Palawan Passage, Palawan, lat. 10°57' N., long. 118°38' E. at a depth of 375 fathoms.

Genus 709. DERMATIAS Smith and Radcliffe.

One species known.

Dermatias Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 206, 1912; type, *Dermatias platynogaster* Smith and Radcliffe.

2167. *Dermatias platynogaster* Smith and Radcliffe.

A Philippine species.

Dermatias platynogaster Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 206, pl. 17, fig. 3, 1912; off Sialat Point Light, Catanduanes Island, at a depth of 300 fathoms.

Genus 710. DIBRANCHUS Peters.

Atlantic and Indo-Pacific Oceans.

Dibranchus Peters, Monatsber. Akad. Wiss. Berlin, p. 736, 1875; type, *Dibranchus atlanticus* Peters. Gill, Proc. U. S. Nat. Mus., vol. 1, p. 231, 1878. Goode and Bean, Oceanic Ichthyology, p. 500, 1895.

2168. *Dibranchus simulus* Smith and Radcliffe.

A Philippine species.

Dibranchus simulus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 211, pl. 22, fig. 1, and pl. 23, fig. 1, 1912; near Malavatuan Island, one of the Lubang Islands, China Sea, northwest of Mindoro, at 280 fathoms.

Genus 711. HALICMETUS Alcock.

Deep-sea fishes of the Indo-Pacific.

Halicmetus Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 27, 1891; type, *Halicmetus ruber* Alcock.

2169. *Halicmetus reticulatus* Smith and Radcliffe.

A Philippine species.

Halicmetus reticulatus Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 208, pl. 20, fig. 2, and pl. 21, fig. 2, 1912; off Sombrero Island, off the northwest end of Maricaban Island, Verde Island Passage, south of Luzon, at a depth of 159 fathoms.

:2170. *Halicometus ruber* Alcock.

Indian Ocean and the Philippines.

Halicometus ruber Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 27, 1891; Andaman Sea. Alcock, Illustrations Zoology Investigator, Fishes, pl. 19, fig. 5, 1899. Alcock, Descript. Cat. Indian Deep-Sea Fishes Indian Mus., p. 66, 1899. Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 209, pl. 20, fig. 3 and pl. 21, fig. 3, 1912; off east coast of Mindoro. 32.5 miles from Malabrigo Light, Batangas Province, Luzon, in 159 to 200 fathoms.

Genus 712. *HALIEUTOPSIS* Garman.

The Panamic region of the eastern Pacific, the Philippines and Japan.

Halieutopsis Garman, Mem. Mus. Comp. Zool., vol. 24, p. 89, 1899; type, *Halieutopsis tumifrons* Garman. Agco, Philippine Jour. Sci., vol. 69, p. 163, 1939.

:2171. *Halieutopsis vermicularis* Smith and Radcliffe.

A Philippine species.

Halieutopsis vermicularis Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 209, pl. 20, fig. 1 and pl. 21, fig. 1, 1912; Balayan Bay, Batangas Province, Luzon, in 214 fathoms. Kamohara, Annot. Zool. Japon., vol. 16, p. 12, 1937; Japan. Agco, Philippine Jour. Sci., vol. 69, p. 164, pl. 1, figs. 2 and 4, 1939; off San Narciso, Zambales Province, Luzon, at a depth of 30 fathoms.

Genus 713. *MALTHOPSIS* Alcock.

Indian Ocean and Philippines.

Malthopsis Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 26, 1891; type, *Malthopsis lutea* Alcock.

:2172. *Malthopsis lutea* Alcock.

Andaman Islands to the Philippines.

Malthopsis lutea Alcock, Ann. Mag. Nat. Hist., ser. 6, vol. 8, p. 26, pl. 8, figs. 2 and 2a, 1891; Andaman Sea. Alcock, Illustrations Zoology Investigator, Fishes, pl. 19, fig. 4, 1899. Alcock, Descript. Cat. Indian Deep-Sea Fishes Indian Mus., p. 64, 1899. Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 208, pl. 18, fig. 2, and pl. 19, fig. 2, 1912; off Point Tagolo Light, Zamboanga Province, Mindanao, in 169 fathoms.

:2173. *Malthopsis ocellata* Smith and Radcliffe.

A Philippine species.

Malthopsis ocellata Smith and Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 207, pl. 18, fig. 1, and pl. 19, fig. 1, 1912; between Samar and Masbate, in 136 fathoms. Also other stations at depths of 38 to 425 fathoms.

:2174. *Malthopsis triangularis* Lloyd.

Andaman Sea to the Philippines.

Malthopsis triangularis Lloyd, Illus. Investigator, Fishes, pl. 45, figs. 1 and 1a, p. 169, 1909; Station 332, Andaman Sea, from 279 fathoms. Radcliffe, Proc. U. S. Nat. Mus., vol. 42, p. 208, pl. 18, fig. 3, and pl. 19, fig. 3, 1912; Atlaya Point, Batag Island, north coast of Samar, in 308 fathoms.

Genus 714. *HALIEUTAEA* Cuvier and Valenciennes.

Seas of China, Japan, and the East Indies.

Halieutaea Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 455, 1837; haplotype *Lophius stellatus* Vahl. Günther, Cat. Fishes British Mus., vol. 3, p. 203, 1861.

:2175. *Halieutaea stellata* Vahl.

Distribution that of the genus.

Lophius stellatus Vahl, Skrivt. Naturh. Selsk. Kiobenhavn, vol. 4, p. 214, plate 3, figs. 3 and 4, 1798; Japan.

Halieutaea stellata Cuvier and Valenciennes, Hist. Nat. Poissons, vol. 12, p. 340 (456) plate 366, 1837; China; Japan. Schlegel, Faunä Japonica, Poissons, p. 160, plate 72, 1847. Bleeker, Nat. Tijds. Ned. Ind., vol. 3, p. 279, 1852; Ceram. Günther, Cat. Fishes Brit. Museum, vol. 3, p. 203, 1861; China. Bleeker, Atlas Ichthyologique, vol. 5, p. 4, plate 198, fig. 3 and plate 200, fig. 2, 1865; Ceram; Nagasaki, Kamino-seki, Murotso, and Mitarai, Japan. Day, Fishes India, p. 273, plate 54, fig. 1, 1878; Madras. Herre, 1948 Collection; China Sea, coast of Batangas Province, in 65 fathoms, and coast of Cavite Province, Luzon.

Order SYNBRANCHIA

Eel-like scaleless fishes, without ventrals, gills well developed or rudimentary. They live in swamps, ponds, sluggish streams, and rice fields. Occur from Japan to India and on adjacent islands, tropical West Africa, and Central and South America.

Family FLUTIDÆ

Gills rudimentary, on three arches. Gill membranes confluent, gill slits merging into a single opening. One genus and a single species known.

Genus FLUTA Bloch and Schneider.

Fluta Bloch and Schneider, Syst. Ichth., p. 565. 1801; *Fluta javanensis*.

Fluta alba (Zuiew). White rice-field eel.

Occurs from Northern China and Japan to Borneo, Java, Sumatra, and Burma, from sea level to 3,000 feet. Rare in the Philippines. Buries in mud and can live some time out of water.

Synonymy extensive; only Philippine references and very few others given here.

Muraena alba Zuiew, Nov. Act. Acad. Sci. Petropol., p. 299, plate VII, fig. 2, 1793.

Monopterus albus Jordan and Snyder, Proc. U. S. Nat. Mus., vol. XXIII, p. 838, 1901. Weber and De Beaufort, Fishes Indo-Austral. Arch., vol. III, p. 412, figs. 210 and 211, 1916. Fowler, Copeia, p. 62, 1918; Philippines.

Fluta alba Herre, Phil. Jour. Sci., vol. 23, p. 125, 1923; compiled. Fowler, Proc. Acad. Nat. Sci. Phila., vol. 79, p. 259, 1927; Orion, Bataan Province, Luzon; Philippines.

Genus SYNBRANCHUS Bloch.

Synbranchus Bloch, Naturgesch. Ausländ. Fische, vol. 9, p. 86, 1795.

Weber and DeBeaufort, Fishes Indo-Austr. Arch., vol. 3, 415, 1916.

Herre, Jour. Phil. Sci., vol. 23, p. 126, 1923.

Four gill arches, bearing well developed gills; a single narrow gill opening on ventral side. Occurs from India to the Philippines, New Guinea, and the Dampier Archipelago, and also in tropical West Africa, Central and South America.

Synbranchus bengalensis (McClelland). Rice-field eel; Tale—rec.

Ranges from India to the Philippines, New Guinea, and islands off the coast of West Australia.

Ophisternon bengalensis McClelland, Calcutta Jour. Nat. Hist., vol. 5, pp. 197 and 200, figs. 1 and 2, 1845.

Synbranchus bengalensis Bleeker, Atlas Ichth., vol. 4, p. 119, plate 48, fig. 1, 1864. Peters, Monatsber. Akad. Wiss. Berlin, p. 275, 1868; Quingoa River, Calumpit, Pampanga Province, Philippines. Günther, Cat. Fishes, vol. 8, p. 16, 1870; Philippine Islands. Weber and De Beaufort, Fishes Indo-Austr. Arch., vol. 3, p. 416, fig. 213, 1916; Philippines. Herre, Phil. Jour. Science, vol. 23, p. 126, 1923; Manila Bay; Bulacan and Pampanga Provinces; Lake Buhi, Camarines Sur Province; San Narciso, Zambales Province, Luzon; Apo Reef, on west coast of Mindoro; Tawi-Tawi, Sulu Province.

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