



Indian Council of Agricultural Research
Central Marine Fisheries Research Institute

Ministry of Science and Technology
Department of Biotechnology

CMFRI Training Manual Series No.15/2018

Training Manual

In the frame work of the project:
DBT sponsored Three Months National Training in

Molecular Biology and Biotechnology for Fisheries Professionals

2015-18



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This is a limited edition of the CMFRI Training Manual provided to participants of the “DBT sponsored Three Months National Training in Molecular Biology and Biotechnology for Fisheries Professionals” organized by the Marine Biotechnology Division of Central Marine Fisheries Research Institute (CMFRI), from 2nd February 2015 - 31st March 2018.

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Foreword

Central Marine Fisheries Research Institute (CMFRI), Kochi along with CIFE, Mumbai and CIFA, Bhubaneswar within the Indian Council of Agricultural Research (ICAR) and Department of Biotechnology of Government of India organized a series of training programs entitled “DBT sponsored Three Months National Training in Molecular Biology and Biotechnology for Fisheries Professionals”. The scope of this training is to promote development of trained human resource for application of molecular tools to research problems in fisheries and aquaculture, to help them adapt to such facilities and work programs and to include analyses that comply with worldwide regulatory acts in the field of biotechnology.

At present, mostly traditional methods are being used in the fisheries sector and only a few researchers are applying molecular methodologies. The emphasis of this training program is to enhance the capabilities of research personnel already employed in fisheries Institutes, Universities and Colleges, but working in the area of marine biology/fisheries/aquaculture. The contents of this training course are intended to teach molecular techniques to laboratory personnel with a good level of analytical knowledge, but with no or little expertise in this specific domain.

The 3 months training program comprises of theory classes with hands-on practical sessions and research work. All basic molecular biology, genetic engineering and molecular genetics techniques are included in the course along with their applications in various aspects of aquaculture and fisheries. Each institute offers specialized modules based on areas of expertise. The course content at CMFRI is designed to cover all kinds of applications of molecular methods in fisheries. The emphasis is on hands-on experience and skill development of the participants. Technical details were provided to trainees as oral presentations and brief written outlines. Aware of the need for a permanent source of information, the Marine Biotechnology Division of CMFRI developed this manual as background information for course participants and is intended to provide the theoretical and practical information on methodologies and protocols currently used, which describes some of the techniques used in our laboratory.

It is our hope that the structure and content of this manual will help course participants (as well as other users) in the diffusion and dissemination of the acquired skills in the context of the different working environments according to needs. This manual aims to complement existing information in the specialised literature.

Dr. P. Vijayagopal supervised the preparation of this manual and the contributors are mentioned in the Table of contents. A special recognition and acknowledgment to all personnel who, even not individually mentioned, contributed to the successful preparation of the manual. Thanks are also extended to Dr. Reynold Peter, Ms. Adithya C. and Ms. Swetha Damodharan P.V. for their support for the preparation of this manual.

Dr. A. Gopalakrishnan
Director, CMFRI

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An Overview of the Fish Diversity of Indian Waters

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There are 20,000-30,000 species of fish in a multitude of diverse marine aquatic ecosystems worldwide, and in freshwater environments many new fish species continue to be 'discovered' by science. About 22000 species of fishes have been recorded in the world; of which, about 11% are found in Indian waters. Out of the 2200 species so far listed, 73 (3.32%) belong to the cold freshwater regime, 544 (24.73%) to the warm fresh waters domain, 143 (6.50%) to the brackish waters and 1440 (65.45%) to the marine ecosystem.

Fishing is one of the oldest human activities and it developed gradually, when our ancestors moved from the collection of plants and animals to hunting by using tools and weapons. The oldest fishing implements so far identified are harpoons, found in the territory of Congo, and dating about 90,000 years. Interestingly, these harpoons were found associated with the bones of a species of now extinct giant catfish. In India too, it is believed that the development of fishing must have been parallel. There are reports that fishes were grown in reservoirs as early as 320 BC. There are several evidences of fish capture and culture since then. There were evidences to indicate over-fishing in the River Ganges as early as 1785. Russell made the first systematic study of the Indian fish fauna from 1785 to 1789 AD. Sir Francis Day studied the systematics of Indian fishes for over 20 years and listed 351 genera and 1418 species of marine, brackish water and freshwater fishes in 1868. Later, Alcock added 86 new genera and 200 species to the list. Jones and Kumaran (1980) recorded 603 species of fish from the Laccadive archipelago. Of the 603 species of marine fishes belonging to 126 families that are reported from the islands, at least 300 species belong to the

ornamental fish category. At present, of the recorded 24,000 species of finfishes in the world, about 2364 species are known to occur in India (www. fishbase. org). Rao (2009) recorded 1371 species in 77 families from the Andaman and Nicobar islands.

Fish biodiversity

The Indian fish fauna is divided into two classes, viz., Chondrichthyes and Osteichthyes. The Chondrichthyes are represented by 131 species under 67 genera, 28 families and 10 Orders in the Indian region. The Indian Osteichthyes are represented by 2,415 species belonging to 902 genera, 226 families and 30 orders.

Classification and Diversity

Class Actinopterygii-the ray finned fishes

Numerically, actinopterygians are the dominant class of vertebrates, comprising nearly 99% of the over 30,000 species of fish. Traditionally actinopterygians have been divided into the subclasses Chondrostei and Neopterygii. Neopterygii, in turn, have been divided into the infraclasses Holostei and Teleostei.

Important characters of the class are

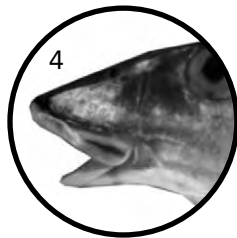
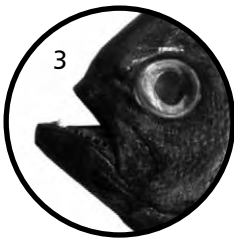
- Scales ganoid, cycloid, or ctenoid
- Spiracles usually absent
- Pectoral radials attached to the scapula-coracoid complex except in Polypteriformes
- Interopercle and branchiostegal rays usually present

Infraclass teleostei

Teleost are the most species rich and diversified group of all the vertebrates

Though teleosts are a group wide variation is noticed in the parts of the fish.

Mouth



1. Terminal
2. Sub Terminal
3. Superior
4. Inferior
5. Protrusible

Different mouth patterns are noticed in fish. They are

Terminal: Fish with a terminal mouth position have a mouth in the middle, or center of the head. These fish are mostly predators who either chase their food or feed on what is seen in front of them. The terminal mouth position is the “normal” position of mouth for most of the fishes inhabiting the middle levels of the water column of oceans or lakes.

Superior: This kind of fish has scoop-like mouth which is designed to feed on prey that swims above the fish (on the surface of the water), such as insects or plankton.

Inferior: Bottom feeding fish generally have inferior or sub-terminal mouths. Mouths located under the fishes head that are adapted for scavenging or grazing on algae, molluscs or bottom dwelling invertebrates.

Protrusible: Protrusible or protractile mouth in fish is a structural arrangement of the jaws that enables the animal to extend the mouth at will. When fully protruded, the cavity of the mouth is enlarged to form a funnel-like space facilitating the uptake of food. Fishes which feeds on small invertebrates in hidings has protrusible mouth.

Teeth

These serve as a very important taxonomic character. Generally, five types of teeth are recognised in fish based on their structure-cardiform, villiform, caniniform, incisiform and molariform.



Teeth types: The following teeth patterns are encountered in the fishes seen in tropical waters.

Canine teeth: They are sharp, highly pointed teeth seen in predatory fishes which are seen to attack and hold prey in their sharp teeth. The teeth are also used to tear off flesh from the prey. Sharks are best examples of fishes with canine teeth.

Incisor teeth: Incisors are used for cutting and they come in variety of shapes. These are flattened tooth with chisel like or saw edges.

Molar teeth: These are blunt, rounded, broad tooth adapted for crushing and grinding shellfish. They are generally found in bottom dwelling fish.

Villiform teeth: Villiform teeth are elongated teeth they are very long, slender and crowded having the appearance of velvet or fine bristles of a brush.

They are more common on deep sea fishes used for stabbing and direction.

Dental plates: Teeth fused to form beak like plates.

There are four different types of fish scale, each with their own characteristics and variations.

Placoid Scales: Placoid scales are formed of a rectangular base plate that is embedded within the skin of the fish and some of spine externally. The interior of the scale is a pulp that receives blood from the fish's vascular system, while the outside is made of an enamel-like substance called vitrodentine. The shape of the spines can vary greatly depending on species. However, almost all give the fish a rough texture. Sharks and rays are examples of fish with placoid scales.

Cosmoid Scales: Cosmoid scales have evolved from placoid scales fusing together. This is because cosmoid scales have two base plates and similar external spines composed of vitrodentine. The base plates are made from bone and new bone is added as the fish grows. Lungfishes and coelacanth have cosmoid scales.

Ganoid Scales: Ganoid scales have a bony base layer similar to that of cosmoid scales. and are modified cosmoid scales. However, they differ in that their outer layer is made of an inorganic bone salt called ganoine and that they are diamond-shaped and interconnected. Between ganoid scales are peg-and-socket joints that articulate. Ganoid scales are found on sturgeons, bowfish, paddlefishes and gars.

Cycloid and Ctenoid Scales: Cycloid and ctenoid scales have different shapes but the same composition and positioning. Both are composed of collagen and calcium carbonate, rather than bone, and both are overlapping. This means that they are more flexible than the other types of scales. While the edges of cycloid scales are smooth, those of ctenoid scales have tiny teeth-like protrusions called ctenii, giving them a rougher texture. The majority of bony fish have cycloid or ctenoid scales.

Caudal Fin types

The caudal fin is the tail fin, located at the end of the caudal peduncle and is used for propulsion. Types of

caudal fin encountered in the present study are

Heterocercal: the vertebrae extend into the upper lobe of the tail, making it longer. Eg., sharks.

Homocercal: the vertebrae extend for a very short distance into the upper lobe of the fin, but the fin appears superficially symmetric. Most modern fishes are homocercal tailed fishes. In homocercal tail patterns, the following subpatterns are noticed.

Emarginate: ending in a slight inward curve

Lunate: ending in crescent shape

Forked: ending in two prolonged edges

Deeply forked: with the caudal fin deeply cut into two

Truncate: ending in vertical edge

Rounded: ending in round shape

Rhomboid: ending in rhomboid shape.

Notched or double emarginate: with two inward curves and a central point.

Pointed: trailing to a final point.

The list presented is tentative and adopted from Froese and Pauly (2006)

Order: Anguilliformes (Apodes)

The Order Anguilliformes, or true eels, contains 20 families and about 820 species. Species are usually elongate and slender, with single dorsal and anal fins that are continuous with the caudal fin (if present) in most species. All species lack fins and skeleton while some groups lack pectoral fins. Scales are usually absent, or if present, are cycloid and embedded in skin. All have *leptocephalus* larvae.

Most true eels are predators and belong to one of three families Congridae (Conger eels), Muraenidae (Moray Eels) and Ophichthidae (snake eels and worm eels). Some species are excellent food fish and form the basis of very important commercial fisheries.

In August 2011, a new family, the Protoanguillidae, comprising a single genus and species, with a separate caudal fin and many other primitive characters was described. Johnson *et al.* (2011) reports that

based on morphological and molecular data this species is the most primitive living member of the order Anguilliformes

Family Anguillidae (Freshwater eels)

Members in this family undertake long migrations to breed offshore in the deep water (catadromous); body elongate, one genus with 15 species. In India, 2 species has been reported.

- *Anguilla bengalensis bengalensis*-Indian longfin eel, Indian mottled eel
- *Anguilla bicolor bicolor*-Shortfin eel, Indonesian shortfin eel

Family Colocongridae (Short tail Eels)

Body stubby, snout blunt, pectoral fins present. One genus, *Coloconger* with about 5 species; one species reported from India

- *Coloconger raniceps*-Froghead eel

Family Congridae (Conger and garden eels)

Body elongate, lack scales, possess pectoral fins. These feed on crustaceans and small fish and do not migrate to breed.

Three subfamilies with 32 genera and roughly 160 species; 11 species recorded from Indian waters.

Subfamily Heterocongrinae (Garden Eels) with 2 genera-*Gorgasia* and *Heteroconger*

Subfamily Bathymyrinae with about 5 genera-*Ariosoma*, *Bathymyrus*, *Chiloconger*, *Parabathymyrus* and *Paraconger*.

Subfamily Congrinae with about 25 genera.

Species recorded from India

- *Ariosoma anago*
- *Bathymyrus echinorhynchus*
- *Conger cinereus*-Longfin African conger
- *Gorgasia maculata*-Whitespotted garden eel
- *Promyllantor purpureus*
- *Uroconger lepturus*-Slender conger
- *Xenomystax trucidans*

Family Moringuidae (Worm or spaghetti eels)

Small eels with a maximum size of 50 cm. Body moderately or very elongate, cylindrical except near tip of tail. Scales absent, eyes small covered with skin.

Species recorded from India

- *Moringua abbreviata*
- *Moringua bicolor*-Bicolor spaghetti eel
- *Moringua javanica*-Java spaghetti eel
- *Moringua microchir*-Lesser thrush eel

Family Muraenesocidae (Pike congers)

Elongated body with large eyes, covered with skin; dorsal fin origin over or slightly before the pectoral base. Teeth well developed; conspicuous lateral line

Four genera, *Congresox*, *Cynoponticus*, *Muraenesox* and *Sauromuraenesox* with about eight species recorded worldwide. Four species recorded from India.

Species recorded from India

- *Congresox talabon*-Yellow pike conger
- *Congresox talabonoides*-Indian pike conger
- *Muraenesox bagio*-Common pike conger, pike eel
- *Muraenesox cinereus*-Dagger-tooth pike conger

Family Muraenidae (Moray eels)

Efficient predators on reefs and rocky shores. Smaller sized eels like *Gymnothorax* are reported to be involved in ciguatera fish poisoning. This is said to be due to the eels feeding on a ciguatoxic fish mainly plant eaters feeding on a particular algae. About 15 genera with about 185 species reported worldwide; 35 species said to occur in India.

Family Muraenidae is divided into 2 subfamilies-sub family Uropterygiinae with four genera *Anarchias*, *Channomuraena*, *Scuticaria* and *Uropterygius* and subfamily Muraeninae with about 11 genera, *Echidna*, *Enchelycore*, *Enchelynassa*, *Gymnomuraena*, *Gymnothorax*, *Siderea*, *Strophidon* and *Thyrsoidea*

Species recorded from India

- *Anarchias allardicei*-Allardice's moray

- *Anarchias cantonensis*-Canton Island moray
- *Echidna delicatula*-Mottled moray
- *Echidna leucotaenia*-Whiteface moray
- *Echidna nebulosa*-Snowflake moray
- *Echidna polyzona*-Barred moray
- *Enchelynassa canina*-Viper moray
- *Gymnomuraena zebra*-Zebra moray
- *Gymnothorax buroensis*-Vagrant moray
- *Gymnothorax enigmaticus*-Enigmatic moray
- *Gymnothorax favagineus*-Laced moray
- *Gymnothorax fimbriatus*-Fimbriated moray
- *Gymnothorax flavimarginatus*-Yellow-edged moray
- *Gymnothorax hepaticus*-Liver-colored moray eel
- *Gymnothorax javanicus*-Giant moray
- *Gymnothorax meleagris*-Turkey moray
- *Gymnothorax monochrous*-Drab moray
- *Gymnothorax monostigma*-One-spot moray
- *Gymnothorax pictus*-Peppered moray
- *Gymnothorax pseudothyroideus*-Highfin moray
- *Gymnothorax punctatofasciatus*-Bars'n spots moray
- *Gymnothorax punctatus*-Red Sea whitespotted moray
- *Gymnothorax reticularis*
- *Gymnothorax richardsonii*-Richardson's moray
- *Gymnothorax rueppellii*-Banded moray
- *Gymnothorax thyroideus*-Greyface moray
- *Gymnothorax tile*-Freshwater moray
- *Gymnothorax undulatus*-Undulated moray
- *Scuticaria tigrina* (native) Tiger reef-eel
- *Strophidon sathete*-Gangetic moray, slender giant moray
- *Uropterygius concolor*-Unicolor snake moray
- *Uropterygius macrocephalus*-Needle-tooth moray
- *Uropterygius marmoratus*-Marbled reef-eel

Family Nemichthyidae (Snipe eels)

Snipe eels are found in every ocean and generally occupy depths of 300-600 m. Body elongate with extremely long, upper and lower jaws and large eyes. Three genera reported in the family *Avocettina*, *Labichthys*, *Nemichthys* with about nine species

Species recorded from India

- *Nemichthys scolopaceus*-Slender snipe-eel

Family Nettastomatidae (Duckbill eels)

Body elongate with slender tail which is regenerated

when broken. Mouth large. Family represented by six genera, *Facciolella*, *Hoplunnis*, *Nettastoma*, *Nettenchelys*, *Saurenchelys* and *Venefica*, with about 38 species.

Species recorded from India

- *Nettenchelys taylori*

Family Ophichthidae (Snake eels)

Ophichthids are found worldwide in tropical to warm temperate waters. They inhabit a wide range of habitats, from coastal shallows, and even rivers, to depths of above 750 m (2,460 ft). Most species are bottom dwellers, hiding in mud or sand to capture their prey of crustaceans and small fish, but some are pelagic. The family is supported by two subfamilies-subfamily Myrophinae (worm eels) with 11 genera, *Benthenchelys*, *Ahlia*, *Asarcenchelys*, *Glenoglossa*, *Mixomyrophis*, *Muraenichthys*, *Myrophis*, *Neenchelys*, *Pseudomyrophis*, *Schismorhynchus* and *Schultzidia* and Subfamily Ophichthinae (Snake eels) with 41 genera

Species recorded from India

- *Bascanichthys deraniyagalai*-Indian longtailed sand-eel
- *Bascanichthys longipinnis*
- *Caecula pterygera*-Finny snake-eel
- *Callechelys catostoma*-Black-striped snake eel
- *Lamnostoma orientalis*-Oriental worm-eel, Oriental sand-eel
- *Lamnostoma polyopthalma*-Ocellated sand-eel
- *Leiuranus semicinctus*-Saddled snake eel
- *Muraenichthys schultzei*-Maimed snake eel
- *Myrichthys colubrinus*-Harlequin snake eel
- *Neenchelys buitendijki*-Fintail serpent eel
- *Ophichthus altipennis*-Highfin snake eel
- *Ophichthus apicalis*-Bluntnose snake-eel
- *Ophichthus cephalozona*-Dark-shouldered snake eel
- *Pisodonophis boro*-Rice-paddy eel
- *Pisodonophis cancrivorus*-Longfin snake-eel
- *Scolecenchelys macroptera*-Slender snake eel
- *Skythrenchelys zabra*-Angry worm eel
- *Xestochilus nebulosus*-Nebulous snake eel

Order Atheriniformes

The order has six families in 2 suborders -

Suborder Atherinopsoidei

Family Atherinopsidae-new world silversides

11 genera and about 108 species in two subfamilies

Suborder Atherinoidei

Family Notocheiridae-Surf sardines

Species recorded from India

- *Iso natalensis*-Surf sprite

Family Atherinidae-Silversides

The Atherinidae is a large family of principally marine and euryhaline (living in varied salinities) fishes that is circumglobal in distribution. A few species are strictly confined to fresh water.

Species recorded from India

- *Atherinomorus duodecimalis*-Tropical silverside
- *Atherinomorus lacunosus*-Hardyhead silverside
- *Atherinomorus pinguis*-Narrow-banded hardyhead silverside
- *Hypoatherina barnesi*-Barnes' silverside
- *Hypoatherina valenciennesi*-Sumatran silverside

Family Melanotaeniidae-rainbow fishes and blue eyes

Seventeen genera with 113 species recorded worldwide.

Order Aulopiformes

Suborder Chlorophthalmoidei includes 5 families

Family Bathysauroididae-Bathysauroidids

One species *Bathysauroides gigas* (not reported from India)

Family Chlorophthalmidae-Greeneyes

Large eye with teardrop-shaped pupil and distinctive lensless space anteriorly. A hermaphroditic species.

Species recorded from India

- *Chlorophthalmus agassizi*-Shortnose greeneye
- *Chlorophthalmus bicornis*-Spiny jaw greeneye

Family Ipnopidae-Deepsea tripod fishes

The family Ipnopidae includes five genera *Bathymicrops*, *Bathypterois*, *Bathytyphlops*, *Discoverichthys* and *Ipnops* and 29 species of slender deep-sea fishes (Nelson, 2006) distributed worldwide demersally in tropical and temperate seas, at depths between 476 and 6000 m (McEachran & Fechtel 1998). Eyes minute or plate like, directed dorsally.

Species recorded from India

- *Bathypterois atricolor*-Attenuated spider fish
- *Bathypterois guentheri*-Tribute spiderfish
- *Bathypterois insularum*

Family Paraulopidae-Cucumber Fishes

One genus *Paraulopus*, with 10 species; no species recorded from Indian waters.

Family Synodontidae-Lizardfishes

These are generally small with a slender cylindrical body and head that superficially resemble those of lizards. They have a dioecious mode of reproduction. Worldwide, four genera with about 57 species have been recorded.

In India 22 species have been reported in three genera-*Harpadon*, *Saurida*, *Trachinocephalus* and *Synodus*

Subfamily Synodontinae (Lizard Fishes)

Two genera, *Synodus* and *Trachinocephalus* with about 37 species

Species recorded from India

- *Synodus englemani*-Engleman's lizardfish
- *Synodus indicus*-Indian lizardfish
- *Synodus jaculum*-Lighthouse lizardfish
- *Synodus macrocephalus*
- *Synodus macrops*-Triplecross lizardfish
- *Synodus variegatus*-Variegated lizardfish
- *Trachinocephalus myops*

Subfamily Harpadontinae- Bombay Ducks

Two genera *Harpadon* and *Saurida*, with about 20 species

Species recorded from India

- *Harpadon nehereus*-Bombay duck
- *Saurida gracilis*-Gracile lizardfish
- *Saurida isarankurai*-Shortjaw saury
- *Saurida longimanus*-Longfin lizardfish
- *Saurida micropectoralis*-Shortfin lizardfish
- *Saurida nebulosa*-Clouded lizardfish
- *Saurida tumbil*-Greater lizardfish
- *Saurida undosquamis*-Brushtooth lizardfish
- *Saurida wanieso*-Wanieso lizardfish

Family Aulopidae (Flagfins)

Two genera *Aulopus* and *Hime*

Family Pseudotrichonotidae (Sandiving Lizardfishes)

Family Cimolichthyidae

one genus *Cimolichthys*

Family Enchodontidae

With five genera *Enchodus*, *Eurypholis*, *Palaeolycus*, *Parenchodus*, *Rharbichthys*, *Saurorhamphus*

Family Scopelarchidae

Pearleyes with four genera, *Benthalbella*, *Rosenblattichthys*, *Scopelarchoides* and *Scopelarchus*

Family Evermannellidae (Sabertooth Fishes)

Three genera, *Coccorella*, *Evermannella* and *Odontostomus* with seven species

Family Alepisauridae (Lancetfishes)

Slender elongated body with a large mouth and strong teeth. Two genera, *Alepisaurus* and *Omosudis* reported worldwide (Nelson 2006). However as per Eschmeyer (2015), only one genus *Alepisaurus* has been recorded.

Species recorded from India

- *Alepisaurus ferox*-Longnose lancetfish

Order Batrachoidiformes

Family Batrachoididae (Toadfishes)

Species recorded from India

- *Allenbatrachus grunniens* (native) Frog fish, Grunting toadfish
- *Austrobatrachus dussumieri* (native) Flat toadfish

Order Beloniformes

Family Adrianichthyidae (Ricefishes)

Species recorded from India

- *Horaichthys setnai*-Thready top-minnow, Malabar ricefish
- *Oryzias carnaticus*
- *Oryzias dancena*

Family Belonidae (Needlefishes)

Needlefishes have slender, stream-lined bodies, and very long jaws filled with very sharp teeth. They are voracious predators and feed mostly on small fishes. In most species, the upper jaw only reaches its full length in adulthood, so the juveniles have a half-beak appearance, with an elongated lower jaw, but a much smaller upper one. During this stage of their lifecycle, they eat plankton, switching to fish once the beak fully develops. Needlefish reproduce through mating and lay eggs. The male usually rides the female on the waves as they mate.

5 genera are recorded from India with 9 species

Species recorded from India

- *Ablennes hians*-Flat needlefish
- *Platybelone argalus platyura*-Keeled needlefish
- *Strongylura incisa*-Reef needlefish
- *Strongylura leiura*-Banded needlefish
- *Strongylura strongylura*-Spottail needlefish
- *Tylosurus acus melanotus*-Keel-jawed needle fish
- *Tylosurus crocodilus*-Houndfish, Crocodile needlefish
- *Xenentodon cancila*-Freshwater garfish

Family Exocoetidae (Flyingfishes)

Elongate bodied fishes with cylindrical shape, flattened ventrally in some species. Head short. Snout blunt. Worldwide, five subfamilies with 52 species in 8 genera has been reported. Represented in Indian waters by 18 species in 6 genera.

Species recorded from India

- *Cheilopogon abei*-Abe's flyingfish
- *Cheilopogon cyanopterus*-Margined flyingfish
- *Cheilopogon furcatus*-Spotfin flyingfish
- *Cheilopogon intermedius*
- *Cheilopogon nigricans*-African flyingfish
- *Cheilopogon spilopterus*-Manyspotted flyingfish
- *Cheilopogon suttoni*-Sutton's flyingfish
- *Cypselurus naresii*-Pharao flyingfish
- *Cypselurus oligolepis*-Largescale flyingfish
- *Exocoetus monocirrus*-Barbel flyingfish
- *Exocoetus volitans*-Tropical two-wing flyingfish
- *Hirundichthys coromandelensis*-Coromandel flyingfish
- *Hirundichthys oxycephalus*-Bony flyingfish
- *Hirundichthys speculiger*-Mirrorwing flyingfish
- *Parexocoetus brachypterus*-Sailfin flyingfish
- *Parexocoetus mento*-African sailfin flyingfish
- *Prognichthys brevipinnis*-Shortfin flyingfish

Family Hemiramphidae (Halfbeaks)

Elongate fishes with a prolonged lower jaw and a short triangular upper jaw. Spines absent in fins. Represented in Indian waters by 17 species in 7 genera.

Species recorded from India

- *Dermogenys brachynotopterus*-Gangetic halfbeak
- *Dermogenys pusilla*-Freshwater halfbeak, Wrestling halfbeak
- *Euleptorhamphus viridis*-Ribbon halfbeak
- *Hemiramphus archipelagicus*-Jumping halfbeak
- *Hemiramphus far*-Blackbarred halfbeak
- *Hemiramphus lutkei* -Lutke's halfbeak
- *Hyporhamphus affinis* -Tropical halfbeak
- *Hyporhamphus balinensis* -Balinese garfish
- *Hyporhamphus dussumieri* -Dussumier's halfbeak
- *Hyporhamphus limbatus*-Congaturi halfbeak, *Hyporhamphus quoyi*-Quoy's garfish
- *Hyporhamphus sindensis* -Sind halfbeak

- *Hyporhamphus unicuspis* -Simpletooth halfbeak
- *Hyporhamphus xanthopterus* -Red-tipped halfbeak
- *Oxyporhamphus micropterus micropterus* -Bigwing halfbeak
- *Rhynchorhamphus georgii* -Long billed half beak
- *Rhynchorhamphus malabaricus* -Malabar halfbeak
- *Zenarchopterus buffonis*-Buffon's river-garfish
- *Zenarchopterus dispar* -Viviparous half beak, Feathered river-garfish
- *Zenarchopterus ectuntio* -Ectuntio halfbeak
- *Zenarchopterus gilli* -Viviparous halfbeak
- *Zenarchopterus pappenheimi* -Bangkok halfbeak
- *Zenarchopterus striga* -Hooghly halfbeak

Order Beryciformes

The Order has 7 families with 29 genera and 144 species. All species are marine. Four families represented in Indian waters.

Family Berycidae (Alfonsinos)

Dorsal fin without notch, with 4-7 spines increasing in length from first to last, and 12-20 soft rays. 2 genera with about 9 species.

Species recorded from India

- *Beryx decadactylus*-Alfonsino
- *Beryx splendens*-Splendid alfonsino
- *Centroberyx rubricaudus*-Red alfonsino

Family Holocentridae (Squirrelfishes, soldierfishes)

Species with a long dorsal fin with spiny portion and soft rayed portion divided by a notch. Holocentrids (squirrelfish and soldierfish) are vocal reef fishes whose calls and sound-producing mechanisms have been studied in some species only. Worldwide, eight genera with 78 species has been reported. In India, 18 species in 4 genera have been recorded.

Species recorded from India

- *Myripristis adusta*-Shadowfin soldierfish
- *Myripristis botche*-Blacktip soldierfish
- *Myripristis hexagona*-Doubletooth soldierfish
- *Myripristis murdjan*-Pinecone soldierfish
- *Neoniphon argenteus*-Clearfin squirrelfish

- *Neoniphon opercularis*-Blackfin squirrelfish
- *Neoniphon sammara*-Sammara squirrelfish
- *Ostichthys acanthorhinus*
- *Ostichthys japonicus*-Brocade perch
- *Sargocentron caudimaculatum*-Silverspot squirrelfish
- *Sargocentron diadema*-Crown squirrelfish
- *Sargocentron ittodai*-Samurai squirrelfish
- *Sargocentron microstoma*-Smallmouth squirrelfish
- *Sargocentron praslin*-Dark-striped squirrelfish
- *Sargocentron punctatissimum*-Speckled squirrelfish
- *Sargocentron rubrum*-Redcoat
- *Sargocentron spiniferum*-Sabre squirrelfish
- *Sargocentron violaceum*-Violet squirrelfish

Family Monocentridae (Pinecone fishes)

The family contains just four species in two genera, one of which is monotypic. Worldwide two genera with four species recorded. In India, one species in one genus has been recorded.

Species recorded from India

- *Monocentris japonica* -Japanese pinecone fish

Order Carcharhiniformes

Family Carcharhinidae (Requiem sharks)

- *Carcharhinus altimus*-Bignose shark
- *Carcharhinus amblyrhynchoides*-Graceful shark
- *Carcharhinus amboinensis*-Pigeye shark
- *Carcharhinus brevipinna*-Spinner shark
- *Carcharhinus dussumieri*-Whitecheek shark
- *Carcharhinus falciformis*-Blackspot shark, Silky shark
- *Carcharhinus hemiodon*-Pondicherry shark
- *Carcharhinus leucas*-Bull shark
- *Carcharhinus limbatus*-Blacktip shark
- *Carcharhinus longimanus*-Oceanic whitetip shark
- *Carcharhinus macloti*-Maclot's shark
- *Carcharhinus melanopterus*-Blacktip reef shark
- *Carcharhinus sealei*-Blackspot shark
- *Carcharhinus sorrah*-Sorrah, Spottail shark
- *Galeocerdo cuvier*-Tiger shark
- *Lamiopsis temminckii*-Broadfin shark
- *Loxodon macrorhinus*-Sliteye shark
- *Negaprion acutidens*-Sicklefin lemon shark
- *Prionace glauca*-Blue shark
- *Rhizoprionodon acutus*-Milk shark
- *Rhizoprionodon oligolinx*-Grey dog shark

- *Scoliodon laticaudus*-Spadenose shark
- *Triaenodon obesus*-Whitetip reef shark

Family Hemigaleidae (Weasel sharks)

- *Chaenogaleus macrostoma*-Hooktooth shark
- *Hemipristis elongata*-Elliot's grey shark, Snaggletooth shark

Family Proscylliidae (Finback catsharks)

- *Eridacnis radcliffei*-Pygmy ribbontail catshark

Family Scyliorhinidae (Cat sharks)

- *Apristurus investigatoris*-Broadnose catshark
- *Atelomycterus marmoratus*-Marbled cat shark, Coral catshark
- *Cephaloscyllium silasi*-Indian swellshark
- *Halaelurus hispidus*-Bristly catshark
- *Halaelurus quagga*-Quagga catshark

Family Sphyrnidae (Hammerhead sharks)

- *Eusphyrna blochii*-Winghead shark
- *Sphyrna lewini*-Scalloped hammerhead
- *Sphyrna mokarran*-Great hammerhead
- *Sphyrna zygaena*-Round-headed hammerhead

Family Triakidae (Houndsharks)

- *Iago omanensis*-Bigeye houndshark
- *Mustelus mosis*-Arabian smooth-hound

Order Clupeiformes

Herrings are certainly among the most valuable commercial fishes in the world, being important food fishes in many countries and serving as a chief source of fish meal for animal feeds. The order Clupeiformes include anchovies, herrings, sardines, shads, gizzard shads, wolf herrings and their relatives. The current classification by Nelson (2006), divided the Clupeoidei into four families: the Engraulidae with two subfamilies with 139 species in 16 genera, the Pristigasteridae with two subfamilies and 37 species in 9 genera, the Chirocentridae with 2 species in one genus and the Clupeidae with five subfamilies with 216 species in 66 genera.

Family Chirocentridae (Wolf herring)

Species recorded from India

- *Chirocentrus dorab*-Dorab wolf-herring
- *Chirocentrus nudus*-Whitfin wolf-herring

Family Clupeidae (Herring, shads and sardines)

The family consists over 31 species in 16 genera.

Species recorded from India

- *Amblygaster clupeoides*-Bleeker smoothbelly sardinella
- *Amblygaster leiogaster* -Smooth-belly sardinella
- *Amblygaster sirm*-Spotted sardinella
- *Anodontostoma chacunda* -Chacunda gizzard shad
- *Dayella malabarica* -Day's round herring
- *Ehirava fluviatilis*-Malabar sprat
- *Escualosa thoracata* -White sardine
- *Gonialosa manmina* -Ganges river gizzard shad
- *Gudusia chapra*-Indian river shad
- *Herklotsichthys quadrimaculatus* -Bluestripe herring
- *Hilsa kelee* -Kelee shad
- *Nematalosa galathea*-Galathea gizzard shad
- *Nematalosa nasus* -Hairback, Bloch's gizzard shad
- *Opisthopterus tardoore* -Tardoore
- *Sardinella albella* -White sardinella
- *Sardinella brachysoma*-Deepbody sardinella
- *Sardinella fimbriata* -Fringescale sardinella
- *Sardinella gibbosa* -Goldstripe sardinella
- *Sardinella jussieu* -Mauritian sardinella
- *Sardinella longiceps* -Indian oil sardine
- *Sardinella melanura*-Blacktip sardinella
- *Sardinella sindensis* -Sind sardinella
- *Spratelloides delicatulus*-Delicate round herring
- *Spratelloides gracilis* -Silver-stripe round herring
- *Tenualosa ilisha*-Ilish
- *Tenualosa toli*-Toli shad

Family Dussumieriidae (Round herring)

Though two genera are recorded worldwide, one genus with two species are reported.

Species recorded from India

- *Dussumieria acuta*-Rainbow sardine
- *Dussumieria elopsoides*-Slender rainbow sardine

Family Engraulidae (Anchovies)

The anchovies are small herring-like fishes; but they are easily distinguishable from the herrings by the fact that their mouths are much larger and gape much farther back, but are on the lower side of the head, and are overhung by the upper jaw, which projects like a short piglike snout in some species.

Though 16 genera with 139 species are recorded worldwide, five genera with 35 species are recorded from India.

Species recorded from India

- *Coilia dussumieri*-Goldspotted grenadier anchovy
- *Coilia grayii*-Gray's grenadier anchovy
- *Coilia neglecta*-Neglected grenadier anchovy
- *Coilia ramcarati*-Ramcarat grenadier anchovy
- *Encrasicholina devisi*-Devis' anchovy
- *Encrasicholina heteroloba*-Shorthead anchovy
- *Encrasicholina punctifer*-Buccaneer anchovy
- *Setipinna breviceps* Shorthead hairfin anchovy
- *Setipinna brevifilis* (endemic) Short-hairfin anchovy
- *Setipinna phasa* (endemic) Gangetic hairfin anchovy
- *Setipinna taty*-Scaly hairfin anchovy
- *Setipinna tenuifilis*-Common hairfin anchovy
- *Stolephorus andhraensis*-Andhra anchovy
- *Stolephorus baganensis*-Bagan anchovy
- *Stolephorus commersonii*-Commerson's anchovy
- *Stolephorus dubiosus*-Thai anchovy
- *Stolephorus indicus*-Indian anchovy
- *Stolephorus insularis*-Hardenberg's anchovy
- *Stolephorus waitei*-Spotty-face anchovy
- *Thryssa baelama*-Baelama anchovy
- *Thryssa dayi*-Day's thryssa
- *Thryssa dussumieri*-Dussumier's thryssa
- *Thryssa encrasicholoides*-False baelama anchovy
- *Thryssa gautamiensis*-Gautama thryssa
- *Thryssa hamiltonii*-Hamilton's thryssa
- *Thryssa kammalensoides*-Godavari thryssa
- *Thryssa malabarica*-Malabar thryssa
- *Thryssa mystax*-Moustached thryssa
- *Thryssa polybranchialis*-Humphead thryssa
- *Thryssa purava*-Oblique-jaw thryssa
- *Thryssa setirostris*-Longjaw thryssa
- *Thryssa spinidens*-Bengal thryssa
- *Thryssa stenosoma*-Slender thryssa
- *Thryssa vitrirostris*-Orangemouth anchovy

Family Pristigasteridae (Pristigasterids)

- *Ilisha elongata*-Elongate ilisha
- *Ilisha filigera*-Coromandel ilisha
- *Ilisha kampeni*-Kampen's ilisha
- *Ilisha megaloptera*-Bigeye ilisha
- *Ilisha melastoma*-Indian ilisha
- *Ilisha striatula*-Banded ilisha
- *Pellona dayi*-Day's pella
- *Pellona ditchela*-Indian pella

Order Elopiformes

Family Elopidae (Tenpounders)

- *Elops machnata* (native) Ladyfish, tenpounder

Family Megalopidae (Tarpons)

- *Megalops cyprinoides* (native) Oxeye tarpon, Indo-Pacific tarpon

Order Gadiformes

Family Bregmacerotidae (Codlets)

- *Bregmaceros maclellandi* (native) Spotted codlet

Family Macrouridae (Grenadiers or rattails)

- *Bathygadus furvescens* (native)
- *Caelorinchus flabellispinnis* (native)
- *Caelorinchus parallelus* (native) Spiny grenadier
- *Coryphaenoides hextii* (native)
- *Coryphaenoides maculophus* (native)
- *Coryphaenoides woodmasoni* (native)
- *Gadomus multifilis* (native)
- *Sphagemacrurus pumiliceps* (native)

Order Gasterosteiformes

Family Pegasidae (Seamoths)

- *Eurypegus draconis* (native) Short dragonfish
- *Pegasus laternarius* (native)
- *Pegasus volitans* (native) Longtail seamo

Family Chanidae (Milkfish)

Chanos chanos (native) Milkfish

Order Hexanchiformes

Family Hexanchidae (Cow sharks)

- *Heptranchias perlo* (native) Sharpnose sevengill shark

Order Lamniformes

Family Alopiidae (Thresher sharks)

- *Alopias pelagicus* (native) Pelagic thresher
- *Alopias superciliosus* (native) Bigeye thresher
- *Alopias vulpinus* (native) Thintail thresher

Family Lamnidae (Mackerel sharks or white shark)

- *Isurus oxyrinchus* (native) Shortfin shark, Shortfin mako

Family Odontaspidae (Sand tigers)

- *Carcharias taurus* (native), Sand tiger shark
- *Carcharias tricuspidatus* (native) Blue nurse sand-tiger, Indian sand tiger

Order Lampriformes

Family Lophotidae (Crestfishes)

- *Eumecichthys fiski* (native), Unicorn crestfish

Family Veliferidae (Velifers)

- *Velifer hypselopterus* (native), Sailfin velifer

Order Lophiiformes

Family Antennariidae (Frogfishes)

- *Antennarius coccineus* (native), Scarlet frogfish
- *Antennarius hispidus* (native), Shaggy angler
- *Antennarius indicus* (native), Indian frogfish
- *Antennarius nummifer* (native), Spotfin frogfish
- *Antennarius pictus* (native), Painted frogfish
- *Antennarius striatus* (native), Striated frogfish
- *Histrio histrio* (native), Sargassum fish

Family Chaunacidae (Sea toads)

- *Chaunax pictus* (native), Pink frogmouth

Family Diceratiidae (Double anglers)

- *Diceratias bispinosus* (native), Two-rod anglerfish

Family Lophiidae (Goosefishes)

- *Lophiodes gracilimanus* (native)
- *Lophiodes mutilus* (native), Smooth angler

- *Lophiomus setigerus* (native), Blackmouth angler

Family Ogcocephalidae (Batfishes)

- *Dibranchius nasutus* (native)
- *Halicmetus ruber* (native)
- *Haliutaea coccinea* (native)
- *Haliutaea indica* (native), Indian handfish
- *Haliutaea stellata* (native), Starry handfish

Family Oneirodidae (Dreamers)

- *Lophodolos indicus* (native)

Order Myctophiformes

Family Myctophidae (Lanternfishes)

- *Bolinichthys pyrsobolus* (native)
- *Benthoosema petrotum* Skinnycheek lantern fish
- *Diaphus luetkeni* (native)
- *Diaphus splendidus* (native)
- *Hygophum reinhardtii* (native), Reinhardt's lantern fish
- *Myctophum affine* (questionable), Metallic lantern fish
- *Myctophum aurolateratum* (native), Golden lanternfish
- *Myctophum indicum* (native)
- *Myctophum spinosum* (native), Spiny lantern fish
- *Symbolophorus evermanni* (native), Evermann's lantern fish

Order Notacanthiformes

Family Halosauridae (Halosaurs)

- *Aldrovandia affinis* (native), Gilbert's halosaurid fish
- *Aldrovandia mediostris* (native)
- *Aldrovandia phalacra* (native), Hawaiian halosaurid fish
- *Halosaurus parvipennis* (native)

Order Ophidiiformes

Family Bythitidae (Viviparous brotulas)

- *Dinematichthys iluocoeteoides* (native), Yellow pigmy brotula

Family Carapidae (Pearlfishes)

- *Carapus boraborensis* (native), Pinhead pearlfish

- *Carapus mourlani* (native), Star pearlfish
- *Encheliophis gracilis* (native), Graceful pearlfish
- *Encheliophis homei* (native), Silver pearlfish

Family Ophidiidae (Cusk-eels)

- *Bassozetus glutinosus* (native)
- *Brotula multibarbata* (native), Goatsbeard brotula
- *Dicrolene introniger* (questionable), Digitate cusk eel
- *Enchelybrotula paucidens* (native)
- *Glyptophidium argenteum* (native)
- *Holcomycteronus pterotus* (native)
- *Monomitopus conjugator* (native)
- *Monomitopus nigripinnis* (native)
- *Neobythites steatiticus* (native)
- *Porogadus trichiurus* (native)
- *Tauredophidium hextii* (native)

Order Orectolobiformes

Family Ginglymostomatidae (Nurse sharks)

- *Nebrius ferrugineus* (native) Giant sleepy shark, Tawny nurse shark

Family Hemiscylliidae (Bamboo sharks)

- *Chiloscyllium arabicum* (native), Arabian carpetshark
- *Chiloscyllium griseum* (native) Grey bambooshark
- *Chiloscyllium indicum* (native) Slender bambooshark
- *Chiloscyllium plagiosum* (native), Whitespotted bambooshark
- *Chiloscyllium punctatum* (native), Brownbanded bambooshark

Family Rhincodontidae (Whale shark)

- *Rhincodon typus* (native) Whale shark, Whale shark

Family Stegostomatidae (Zebra sharks)

- *Stegostoma fasciatum* (native) Zebra shark, Zebra shark

Order Osmeriformes

Family Alepocephalidae (Slickheads)

- *Aulastomatomorpha phospherops* (native)
- *Bathytroctes squamosus* (questionable)

- *Narcetes erimelas* (native)

Family Platyroctidae (Tubeshoulders)

- *Platyroctes apus* (native), Legless searsid
- *Platyroctes mirus* (native), Leaf searsid

Order Perciformes

Family Acanthuridae (Surgeonfishes, tangs, unicornfishes)

- *Acanthurus gahhm*, Black surgeonfish
- *Acanthurus leucosternon* (native), Powderblue surgeonfish
- *Acanthurus lineatus* (native) Blue lined surgeonfish
- *Acanthurus mata* (native), Elongate surgeonfish
- *Acanthurus nigricans* (native), Whitecheek surgeonfish
- *Acanthurus nigrofuscus* (native), Brown surgeonfish
- *Acanthurus nigroris* (native), Bluelined surgeonfish
- *Acanthurus tennentii* (native), Doubleband surgeonfish
- *Acanthurus thompsoni* (native), Thompson's surgeonfish
- *Acanthurus triostegus* (native), Convict surgeonfish
- *Acanthurus xanthopterus* (native), Yellowfin surgeonfish
- *Ctenochaetus striatus* (native), Striated surgeonfish
- *Ctenochaetus strigosus* (questionable), Spotted surgeonfish
- *Naso brachycentron* (native), Humpback unicornfish
- *Naso brevirostris* (native), Spotted unicornfish
- *Naso lituratus* (misidentification), Orangespine unicornfish
- *Naso tonganus* (native), Bulbnose unicornfish
- *Naso tuberosus* (native), Humpnose unicornfish
- *Naso unicornis* (native), Bluespine unicornfish
- *Naso vlamingii* (native), Bignose unicornfish
- *Paracanthurus hepatus* (native), Palette surgeonfish
- *Zebrasoma flavescens* (questionable), Yellow tang

- *Zebrasoma veliferum*
- *Zebrasoma xanthurum* (native), Yellowtail tang

Family Acropomatidae (Lanternbellies,

- *Acropoma japonicum* (native), Glowbelly
- *Synagrops philippinensis* (native)

Family Ambassidae (Asiatic glassfishes)

- *Ambassis ambassis* (native) Commerson's glassy perchlet
- *Ambassis buton* (native) Buton glassy perchlet
- *Ambassis dussumieri* (native) Malabar glassy perchlet
- *Ambassis gymnocephalus* (native) Bald glassy perchlet
- *Ambassis interrupta* (native) Interrupta glassy perchlet, Long-spined glass perchlet
- *Ambassis kopsii* (native) Singapore glassy perchlet, Freckled hawkfish
- *Ambassis macracanthus* (native), Estuarine glass perchlet
- *Ambassis miops* (native) Myops glassy perchlet, Flag-tailed glass perchlet
- *Ambassis nalua* (native) Nalua-chanda, Scalloped perchlet
- *Ambassis urotaenia* (native) Banded-tail glassy perchlet, Banded-tail glassy perchlet
- *Chanda nama* (native) Elongate glass-perchlet
- *Parambassis dayi* (endemic) Day's glass fish
- *Parambassis lala* (native) Highfin glassy perchlet
- *Parambassis ranga* (native) Indian glassy fish
- *Parambassis thomassi* (endemic) Western Ghat glassy perchlet
- *Pseudambassis baculis* (native) Himalayan glassy perchlet

Family Ammodytidae (Sand lances)

- *Bleekeria kallepis* (native)

Family Anabantidae (Climbing gouramies)

- *Anabas cobojus* (native) Gangetic koi
- *Anabas testudineus* (native) Climbing perch

Family Apogonidae (Cardinalfishes)

- *Apogon coccineus* (native), Ruby cardinalfish
- *Apogon fasciatus* (native), Broad-banded cardinalfish

- *Apogon fleurieu* (native), Cardinalfish
- *Apogon fraenatus* (native), Bridled cardinalfish
- *Apogon guamensis* (native), Guam cardinalfish
- *Apogon holotaenia* (native), Copperstriped cardinalfish
- *Apogon kallopterus* (native), Iridescent cardinalfish
- *Apogon leptacanthus* (native), Threadfin cardinalfish
- *Apogon moluccensis* (native), Moluccan cardinalfish
- *Apogon novemfasciatus*, Sevenstriped cardinalfish
- *Apogon oxina* (native)
- *Apogon poecilopterus* (native), Pearly-finned cardinalfish
- *Apogon quadrifasciatus* (native), Twostripe cardinal
- *Apogon sangiensis* (native), Sangi cardinalfish
- *Apogon savayensis* (native), Samoan cardinalfish
- *Apogon taeniophorus* (native), Reef-flat cardinalfish
- *Apogonichthys ocellatus* (native), Ocellated cardinalfish
- *Archamia bleekeri* (native)
- *Archamia fucata* (native), Orangelined cardinalfish
- *Cheilodipterus arabicus* (native), Tiger cardinal
- *Cheilodipterus quinquelineatus* (native), Five-lined cardinalfish
- *Foa brachygramma* (native), Weed cardinalfish
- *Fowleria aurita* (native), Crosseyed cardinalfish
- *Gymnapogon africanus* (questionable), Crystal cardinal
- *Pseudamia gelatinosa* (native), Gelatinous cardinalfish
- *Rhabdamia cypselura* (native), Swallowtail cardinalfish
- *Rhabdamia gracilis* (native), Luminous cardinalfish

Family Ariommatidae (Ariommatids)

Ariomma indica (native), Indian ariomma

Family Badidae

- *Badis assamensis* (native)
- *Badis badis* (native) Blue perch
- *Badis blosyrus* (native)
- *Badis kanabos* (native)

- *Badis tuivaiei* (native)
- *Dario dario* (native) Scarlet badis

Family Bathyclupeidae

- *Bathyclupea hoskynii* (native)

Family Blenniidae (Combtooth blennies)

- *Alticus kirkii* (native) Kirk's blenny
- *Andamia reyi* (native) Suckerlip blenny
- *Antennablennius bifilum* (native) Horned rockskipper
- *Aspidontus tractus* (native)
- *Blenniella leopardus* (native)
- *Blenniella periophthalmus* (native) Blue-dashed rockskipper
- *Cirripectes castaneus* (native) Chestnut eyelash-blenny
- *Cirripectes filamentosus* (native) Filamentous blenny
- *Cirripectes perustus* (native) Flaming blenny
- *Cirripectes polyzona* (native)
- *Cirripectes quagga* (native) Squiggly blenny
- *Cirripectes stigmaticus* (native) Red-streaked blenny
- *Cirripectes variolosus* (questionable) Red-speckled blenny
- *Ecsenius midas* (native) Persian blenny
- *Ecsenius pulcher* (native)
- *Enchelyurus kraussii* (native) Krauss' blenny
- *Entomacrodus striatus* (native) Reef margin blenny
- *Entomacrodus vermiculatus* (native) Vermiculated blenny
- *Exallias brevis* (native) Leopard blenny
- *Haptogenys bipunctata* (native)
- *Hirculops cornifer* (native) Highbrow rockskipper
- *Istiblennius dussumieri* (native) Streaky rockskipper
- *Istiblennius edentulus* (native) Rippled rockskipper
- *Istiblennius lineatus* (native) Lined rockskipper
- *Istiblennius spilotos* (native) Spotted rockskipper
- *Meiacanthus smithi* (native) Disco blenny
- *Mimoblennius atrocinctus* (native)
- *Omobranchus elongatus* (native) Cloister blenny
- *Omobranchus fasciolatus* (native) Arab blenny
- *Omobranchus ferox* (native) Gossamer blenny
- *Omobranchus obliquus* (native)
- *Omobranchus punctatus* (native) Muzzled blenny
- *Omobranchus zebra* (native) Zebra blenny
- *Parablennius thysanius* (native) Tasseled blenny
- *Petroscirtes breviceps* (native) Striped poison-fang blenny mimic
- *Petroscirtes mitratus* (native) Floral blenny

- *Petroscirtes xestus* (native) Xestus sabretooth blenny
- *Plagiotremus rhinorhynchus* (native) Bluestriped fangblenny
- *Plagiotremus tapeinosoma* (native) Piano fangblenny
- *Salarias fasciatus* (native) Jewelled blenny
- *Salarias reticulatus* (*sp. nov.*)[6]
- *Scartella emarginata* (native) Maned blenny
- *Xiphasia setifer* (native) Hairtail blenny

Family Caesionidae (Fusiliers)

- *Caesio caerulea* (native), Blue and gold fusilier
- *Caesio cuning* (native), Redbelly yellowtail fusilier
- *Caesio lunaris* (native), Lunar fusilier
- *Caesio teres* (native), Yellow and blueback fusilier
- *Caesio varilineata* (native), Variable-lined fusilier
- *Caesio xanthonota* (native), Yellowback fusilier
- *Dipterygonotus balteatus* (native), Mottled fusilier
- *Gymnocaesio gymnoptera* (native), Slender fusilier
- *Pterocaesio chrysozona* (native), Goldband fusilier
- *Pterocaesio digramma* (questionable), Double-lined fusilier
- *Pterocaesio pisang* (native), Banana fusilier
- *Pterocaesio tessellata* (native), One-stripe fusilier
- *Pterocaesio tile* (native), Dark-banded fusilier

Family Callionymidae (Dragonets)

- *Bathycallionymus kaianus* (native)
- *Callionymus carebares* (native), Indian deepwater dragonet
- *Callionymus erythraeus* (native), Smallhead dragonet
- *Callionymus fluviatilis* (native) River dragonet, River dragonet
- *Callionymus japonicus* (questionable)
- *Callionymus kotthausi* (native)
- *Callionymus margaretae* (native), Margaret's dragonet
- *Callionymus megastomus* (native)
- *Callionymus sagitta* (native) Arrow headed dragonet, Arrow dragonet
- *Eleutherochir opercularis* (native) Indian dragonet, Flap-gilled dragonet

Family Carangidae (Jacks and pompanos)

- *Alectis ciliaris* (native), African pompano
- *Alectis indicus* (native), Indian threadfish
- *Alepes djedaba* (native), Shrimp scad
- *Alepes kleinii* (native), Razorbelly scad

- *Alepes melanoptera* (native), Blackfin scad
- *Alepes vari* (native), Herring scad
- *Atropus atropos* (native), Cleftbelly trevally
- *Atule mate* (native), Yellowtail scad
- *Carangoides armatus* (native), Longfin trevally
- *Carangoides chrysophrys* (native), Longnose trevally
- *Carangoides ciliaris* (questionable)
- *Carangoides coeruleopinnatus* (native), Coastal trevally
- *Carangoides dinema* (native), Shadow trevally
- *Carangoides ferdau* (native), Blue trevally
- *Carangoides fulvoguttatus* (native), Yellowspotted trevally
- *Carangoides gymnostethus* (native), Bludger
- *Carangoides hedlandensis* (native), Bumpnose trevally
- *Carangoides humerosus* (native), Duskyshoulder trevally
- *Carangoides malabaricus* (native), Malabar trevally
- *Carangoides oblongus* (native), Coachwhip trevally
- *Carangoides orthogrammus* (native), Island trevally
- *Carangoides plagiotænia* (native), Barcheek trevally
- *Carangoides praeustus* (native) Brown-backed trevally, Brownback trevally
- *Carangoides talamparoides* (native), Impostor trevally
- *Caranx heberi* (native), Blacktip trevally
- *Caranx hippos* (questionable) Blacktailed trevally, Creville jack
- *Caranx ignobilis* (native) Giant kingfish, Giant trevally
- *Caranx lugubris* (native), Black jack
- *Caranx melampygus* (native), Bluefin trevally
- *Caranx papuensis* (native), Brassy trevally
- *Caranx sexfasciatus* (native), Bigeye trevally
- *Caranx tille* (native), Tille trevally
- *Decapterus macarellus* (native), Mackerel scad
- *Decapterus macrosoma* (native), Shortfin scad
- *Decapterus russelli* (native), Indian scad
- *Elagatis bipinnulata* (native), Rainbow runner
- *Gnathanodon speciosus* (native), Golden trevally
- *Megalaspis cordyla* (native) Torpedo scad, Torpedo scad
- *Naucrates ductor* (native), Pilotfish
- *Parastromateus niger* (native) Brown pomfret, Black pomfret
- *Scomberoides commersonianus* (native), Talang queenfish
- *Scomberoides lysan* (native) Double-spotted

- queenfish, Doublespotted queenfish
- *Scomberoides tala* (native), Barred queenfish
- *Scomberoides tol* (native), Needlescaled queenfish
- *Selar boops* (native), Oxeye scad
- *Selar crumenophthalmus* (native), Bigeye scad
- *Selaroides leptolepis* (native), Yellowstripe scad
- *Seriola lalandi* (native), Yellowtail amberjack
- *Seriola rivoliana* (native), Almaco jack
- *Seriolina nigrofasciata* (native), Blackbanded trevally
- *Trachinotus bailloni* (native), Smallspotted dart
- *Trachinotus blochii* (native), Snubnose pompano
- *Trachinotus botla* (native), Largespotted dart
- *Trachinotus mookalee* (native), Indian pompano
- *Ulua mentalis* (native), Longrakered trevally
- *Uraspis helvola* (native), Whitemouth jack
- *Uraspis secunda* (native), Cottonmouth jack
- *Uraspis uraspis* (native), Whitetongue jack

Family Centrogenyidae

- *Centrogenys vaigiensis* (native), False scorpionfish

Family Centrolophidae (Medusafishes)

- *Psenopsis cyanea* (native), Indian ruff

Family Cepolidae (Bandfishes)

- *Acanthocephala indica* (native)

Family Chaetodontidae (Butterflyfishes)

- *Chaetodon andamanensis* (native)
- *Chaetodon auriga* (native), Threadfin butterflyfish
- *Chaetodon bennetti* (native), Bluelashed butterflyfish
- *Chaetodon citrinellus* (native), Speckled butterflyfish
- *Chaetodon collare* (native), Redtail butterflyfish
- *Chaetodon decussatus* (native), Indian vagabond butterflyfish
- *Chaetodon falcula* (native), Blackwedged butterflyfish
- *Chaetodon kleinii* (native), Sunburst butterflyfish
- *Chaetodon lunula* (native), Raccoon butterflyfish
- *Chaetodon melannotus* (native), Blackback butterflyfish
- *Chaetodon meyeri* (native), Scrawled butterflyfish
- *Chaetodon octofasciatus* (native), Eightband butterflyfish
- *Chaetodon punctatofasciatus* (questionable), Spotband butterflyfish
- *Chaetodon speculum* (native), Mirror butterflyfish
- *Chaetodon trifascialis* (native), Chevron butterflyfish

- *Chaetodon trifasciatus* (native), Melon butterflyfish
- *Chaetodon vagabundus* (native), Vagabond butterflyfish
- *Chaetodon xanthocephalus* (native), Yellowhead butterflyfish
- *Chelmon rostratus* (native), Copperband butterflyfish
- *Forcipiger longirostris* (native), Longnose butterflyfish
- *Hemitaurichthys zoster* (native), Brown-and-white butterflyfish
- *Heniochus acuminatus* (native) Pennant coral fish, Pennant coralfish
- *Heniochus chrysostomus* (native), Threeband pennantfish
- *Heniochus monoceros* (native), Masked bannerfish
- *Heniochus pleurotaenia* (native), Phantom bannerfish
- *Heniochus singularis* (native), Singular bannerfish
- *Parachaetodon ocellatus* (native), Sixspine butterflyfish

Family Champsodontidae

- *Champsodon capensis* (questionable), Gaper
- *Champsodon vorax* (questionable)

Family Cichlidae (Cichlids)

- *Eetroplus maculatus* Orange Chromide
- *Eetroplus canarensis* (endemic) Canara pearlspot
- *Eetroplus maculatus* (native) Orange chromide
- *Eetroplus suratensis* (native) Green chromide
- *Oreochromis mossambicus* (introduced) Mozambique cichlid
- *Oreochromis niloticus* (introduced), Nile tilapia

Family Cirrhitidae (Hawkfishes)

- *Cirrhitichthys aureus* (native), Yellow hawkfish
- *Cirrhitichthys bleekeri* (native)
- *Cirrhitus pinnulatus* (native), Stocky hawkfish
- *Paracirrhites forsteri* (native), Blackside hawkfish

Family Coryphaenidae (Dolphinfishes)

- *Coryphaena hippurus* (native), Common dolphinfish

Family Datnioididae

- *Datnioides polota* (native) Four-barred tigerfish

Family Drepaneidae (Sicklefishes)

- *Drepane longimana* (native), Concertina fish

- *Drepane punctata* (native) Spotted sicklefish

Family Echeneidae (Remoras)

- *Echeneis naucrates* (native), Live sharksucker
- *Phtheichthys lineatus* (native), Slender suckerfish
- *Remora osteochir* (native), Marlin sucker
- *Remora remora* (native) Common remora
- *Remorina albescens* (native), White suckerfish

Family Eleotridae (Sleepers)

- *Bostrychus sinensis* (native), Four-eyed sleeper
- *Butis amboinensis* (native), Olive flathead-gudgeon
- *Butis butis* (native) Duckbill sleeper
- *Butis gymnopomus* (native)
- *Butis koilomatodon* (native), Mud sleeper
- *Butis humeralis* (native) Blackspot sleeper
- *Eleotris fusca* (native) Dusky sleeper
- *Eleotris lutea* (native) Lutea sleeper
- *Eleotris melanosoma* (native) Broadhead sleeper
- *Incara multisquamatus* (native) Incara
- *Odonteleotris macrodon* (native) Gangetic sleeper
- *Ophiocara porocephala* (native) Flathead sleeper

Family Emmelichthyidae (Rovers)

- *Erythrocles schlegelli*

Family Ehippidae (Spadefishes, batfishes and scats)

- *Ehippus orbis* (native), Orbfish
- *Platax teira* (native), Tiera batfish

Gempylidae (Snake mackerels)

- *Epinnula magistralis* (native), Domine
- *Gempylus serpens* (native), Snake mackerel
- *Neopinnula orientalis* (native), Sackfish
- *Promethichthys prometheus* (native), Roudi escolar
- *Rexea bengalensis* (native), Bengal escolar
- *Rexea prometheoides* (native), Royal escolar
- *Ruvettus pretiosus* (native), Oilfish

Gerreidae (Mojarras)

- *Gerres erythrourus* (native), Deep-bodied mojarra
- *Gerres filamentosus* (native) Whiptail silver-biddy
- *Gerres limbatus* (native), Saddleback silver-biddy
- *Gerres longirostris* (native) Strongspine silver-biddy
- *Gerres macracanthus* (native)
- *Gerres oblongus* (native), Slender silverbiddy
- *Gerres oyena* (native) Common silvery-biddy

- *Gerres setifer* (native) Small Bengal silver-biddy
- *Pentaprion longimanus* (native), Longfin mojarra

Gobiidae (Gobies)

- *Acentrogobius bontii* (native)
- *Acentrogobius caninus* (native), Tropical sand goby
- *Acentrogobius cyanomos* (native)
- *Acentrogobius griseus* (endemic) Grey goby
- *Acentrogobius masoni* (native)
- *Acentrogobius viridipunctatus* (native), Spotted green goby
- *Amblyeleotris gymnocephala* (native), Masked shrimp goby
- *Amblygobius albimaculatus* (native), Butterfly goby
- *Amblyotrypauchen arctocephalus* (native)
- *Acentrogobius madraspatensis* (native)
- *Apocryptes bato* (native)
- *Apocryptodon madurensis* (native)
- *Asterropteryx semipunctata* (native), Starry goby
- *Awaous grammepomus* (native), Scribbled goby
- *Awaous guamensis* (native)
- *Awaous melanocephalus* (native), Largesnout goby
- *Awaous ocellaris* (native)
- *Bathygobius cyclopterus* (native), Spotted frillgoby
- *Bathygobius fuscus* (native), Dusky frillgoby
- *Bathygobius niger* (native), Black minigoby
- *Bathygobius petrophilus* (questionable)
- *Bathygobius smithi* (native)
- *Boleophthalmus dussumieri* (native)
- *Brachyamblyopus brachysoma* (native)
- *Brachygobius nunus* (native) Bumblebee goby
- *Callogobius hasseltii* (native), Hasselt's goby
- *Callogobius seshaiyai* (endemic)
- *Ctenogobiops crocineus* (native), Silverspot shrimp goby
- *Paratrypauchen microcephalus* (native) Comb goby
- *Drombus globiceps* (native) Bighead goby
- *Egglestonichthys melanoptera* (native)
- *Pseudogobiopsis oligactis* (native)
- *Eviota distigma* (native), Twospot pygmy goby
- *Exyrias puntang* (native), Puntang goby
- *Favonigobius reichei* (native), Indo-Pacific tropical sand goby
- *Fusigobius neophytus* (native), Common fuse goby
- *Glossogobius giuris* (native) Tank goby
- *Glossogobius kokius* (native)
- *Glossogobius mas* (native)
- *Pseudogobiopsis oligactis* (native)

- *Gobiodon citrinus* (native), Poison goby
- *Gobiodon rivulatus* (native), Rippled coralgoby
- *Gobiopsis canalis* (native), Checkered goby
- *Gobiopsis macrostomu* (native), Longjaw goby
- *Gobiopsis woodsi* (native)
- *Gobiopterus chuno* (native), Glass goby
- *Hemigobius hoevenii* (questionable)
- *Heteroleotris zonata* (native), Goggles
- *Istigobius diadema* (native)
- *Istigobius ornatus* (native), Ornate goby
- *Istigobius spence* (native), Pearl goby
- *Mahidolia mystacina* (native) Smiling goby, Flagfin prawn goby
- *Obliuogobius cometes* (native)
- *Odontamblyopus roseus* (native)
- *Odontamblyopus rubicundus* (native) Rubicundus eelgoby
- *Oligolepis acutipennis* (native) Sharptail goby
- *Oligolepis cylindriceps* (native)
- *Oxuderces dentatus* (native)
- *Oxyurichthys dasi* (native)
- *Oxyurichthys formosanus* (native)
- *Oxyurichthys microlepis* (native) Maned goby
- *Oxyurichthys ophthalmonema* (native), Eyebrow goby
- *Oxyurichthys paulae* (native) Jester goby
- *Oxyurichthys tentacularis* (native)
- *Aulopareia ocellatus* (native)
- *Parachaeturichthys polynema* (native) Taileyed goby
- *Paragobiodon echinocephalus* (native), Redhead goby
- *Parapocryptes rictuosus* (native)
- *Parapocryptes serperaster* (native)
- *Periophthalmodon schlosseri* (native), Giant mudskipper
- *Periophthalmodon septemradiatus* (native)
- *Periophthalmus argentilineatus* (native), Barred mudskipper
- *Periophthalmus barbarus* (questionable), Atlantic mudskipper
- *Periophthalmus chrysospilos* (native)
- *Periophthalmus minutus* (native)
- *Periophthalmus novemradiatus* (native) Pearse's mudskipper
- *Periophthalmus waltoni* (questionable), Walton's mudskipper
- *Periophthalmus weberi* (questionable) Weber's mudskipper
- *Pleurosicya bilobata* (native), Bilobed ghost goby
- *Priolepis eugenius* (native), Noble goby
- *Priolepis inhaca* (native), Brick goby
- *Psammogobius biocellatus* (native) Sleepy goby
- *Pseudapocryptes elongatus* (native)
- *Pseudogobius javanicus* (native)
- *Pseudogobius gastrospinos*
- *Pseudogobius poicilosoma* (native)
- *Pseudotrypauchen multiradiatus* (native)
- *Scartelaos cantoris* (native)
- *Scartelaos histophorus* (native), Walking goby
- *Scartelaos tenuis* (questionable), Indian Ocean slender mudskipper
- *Schismatogobius deraniyagalai* (native), Redneck goby
- *Sicyopterus griseus* (native)
- *Sicyopterus microcephalus* (native)
- *Silhouettea indica* (native)
- *Stenogobius gymnopomus* (native)
- *Stenogobius laterisquamatus* (questionable)
- *Stigmatogobius minima* (native)
- *Stigmatogobius sadanundio* (native)
- *Taenioides anguillaris* (native) Anguilla eelgoby
- *Taenioides buchanani* (native) Burmese gobyeel
- *Taenioides cirratus* (native) Hooghly gobyeel
- *Taenioides gracilis* (native), Slender eel goby
- *Trimma annosum* (native), Greybearded pygmy goby
- *Trypauchen vagina* (native) Burrowing goby
- *Trypauchenichthys sumatrensis* (native)
- *Valenciennea muralis* (native), Mural goby
- *Valenciennea sexguttata* (native), Sixspot goby
- *Valenciennea strigata* (native), Blueband goby
- *Yongeichthys nebulosus*
- *Yongeichthys tuticorinensis* (native)

Haemulidae (Grunts)

- *Plectorhinchus pictum* (native), Painted sweetlips
- *Plectorhinchus albivittatus* (native), Two-striped sweetlips
- *Plectorhinchus chubbi* (native), Dusky rubberlip
- *Plectorhinchus diagrammus* (questionable), Striped sweetlips
- *Plectorhinchus gibbosus* (native), Harry hotlips
- *Plectorhinchus lineatus* (native), Yellowbanded sweetlips
- *Plectorhinchus picus* (native), Painted sweetlip
- *Plectorhinchus schotaf* (native), Minstrel sweetlip
- *Pomadasy argenteus* (native) Silver grunt
- *Pomadasy argyreus* (native) Bluecheek silver grunt

- *Pomadasys commersonnii* (native) Spotted grunter
- *Pomadasys furcatus* (native), Banded grunter
- *Pomadasys guoraca* (native)
- *Pomadasys kaakan* (native), Javelin grunter
- *Pomadasys maculatus* (native), Saddle grunt
- *Pomadasys multimaculatum* (native), Cock grunter
- *Pomadasys olivaceus* (native), Olive grunt
- *Pomadasys stridens* (native), Striped piggy

Istiophoridae (Billfishes)

- *Istiophorus platypterus* (native) Sailfish, Indo-Pacific sailfish
- *Istiompax indica* (native) Short nosed sword fish, Black marlin
- *Makaira mazara* (native), Indo-Pacific blue marlin
- *Tetrapturus angustirostris* (native), Shortbill spearfish

Kraemeriidae (Sand darters)

- *Kraemeria samoensis* (native), Samoan sand dart

Kuhliidae (Aholeholes)

- *Kuhlia mugil* (native) Barred flagtail
- *Kuhlia rupestris* (native) Rock flagtail

Kurtidae (Nurseryfishes)

- *Kurtus indicus* (native) Indian humphead, Indian hump head

Kyphosidae (Sea chubs)

- *Kyphosus bigibbus* (native), Grey sea chub
- *Kyphosus cinerascens* (native), Blue seachub
- *Kyphosus vaigiensis* (native), Brassy chub

Labridae (Wrasses)

- *Anampses caeruleopunctatus* (native), Bluespotted wrasse
- *Anampses meleagrides* (native), Spotted wrasse
- *Bodianus neilli* (native), Bay of Bengal hogfish
- *Cheilinus chlorourus* (native), Floral wrasse
- *Cheilinus fasciatus* (native), Redbreast wrasse
- *Cheilinus oxycephalus* (native), Snooty wrasse
- *Cheilinus trilobatus* (native), Tripletail wrasse
- *Cheilinus undulatus* (native), Humphead wrasse
- *Cheilio inermis* (native), Cigar wrasse
- *Choerodon anchorago* (native), Orange-dotted tuskfish
- *Choerodon robustus* (native), Robust tuskfish
- *Cirrhilabrus exquisitus* (native), Exquisite wrasse

- *Coris aygula* (native), Clown coris
- *Coris formosa* (native), Queen coris
- *Coris gaimard* (questionable), Yellowtail coris
- wrasse
- *Gomphosus caeruleus* (native), Green birdmouth wrasse
- *Gomphosus varius* (native), Bird wrasse
- *Halichoeres hortulanus* (native), Checkerboard wrasse
- *Halichoeres marginatus* (native), Dusky wrasse
- *Halichoeres nebulosus* (native), Nebulous wrasse
- *Halichoeres nigrescens* (native), Bubblefin wrasse
- *Halichoeres scapularis* (native), Zigzag wrasse
- *Halichoeres timorensis* (native), Timor wrasse
- *Halichoeres zeylonicus* (native), Goldstripe wrasse
- *Hemigymnus fasciatus* (native), Barred thicklip
- *Hemigymnus melapterus* (native), Blackeye thicklip
- *Hologymnosus annulatus* (native), Ring wrasse
- *Hologymnosus doliatus* (native), Pastel ringwrasse
- *Iniistius pavo* (native), Peacock wrasse
- *Labroides dimidiatus* (native), Bluestreak cleaner wrasse
- *Leptojulius cyanopleura* (native), Shoulder-spot wrasse
- *Macropharyngodon meleagris* (native), Blackspotted wrasse
- *Novaculichthys taeniourus* (native), Rockmover wrasse
- *Oxycheilinus bimaculatus* (native), Two-spot wrasse
- *Oxycheilinus digramma* (native), Cheeklined wrasse
- *Pseudocheilinus hexataenia* (native), Sixline wrasse
- *Pseudodax moluccanus* (native), Chiseltooth wrasse
- *Pteragogus flagellifer* (native), Cocktail wrasse
- *Stethojulis albobittata* (native), Bluelined wrasse
- *Stethojulis balteata* (questionable), Belted wrasse
- *Stethojulis strigiventer* (native), Three-ribbon wrasse
- *Stethojulis trilineata* (native), Three-lined rainbowfish
- *Thalassoma amblycephalum* (native), Bluntheaded wrasse
- *Thalassoma hardwicke* (native), Sixbar wrasse
- *Thalassoma janseni* (native), Jansen's wrasse
- *Thalassoma lunare* (native), Moon wrasse
- *Thalassoma purpurium* (native), Surge wrasse
- *Thalassoma quinquevittatum* (native), Fivestripe wrasse
- *Choerodon typus* (native), Blue-banded wrasse
- *Iniistius bimaculatus* (native), Two-spot razorfish

- *Xyrichtys cyanifrons* (native)
- *Iniistius pentadactylus* (native), Fivefinger wrasse
- *Novaculops rajagopalani* (native)

Lactariidae (False trevallies)

- *Lactarius lactarius* (native) Big-jawed jumper

Latidae (Lates perches)

- *Lates calcarifer* (native) Barramundi, Barramundi
- *Psammoperca waigiensis* (native) Waigiu seaperch, Waigiu seaperch
- Leionathidae (Slimys, slipmouths, or ponyfishes)
- *Gazza achlamys* (native), Smalltoothed ponyfish
- *Gazza minuta* (native) Toothpony, Toothpony
- *Gazza rhombea* (native), Rhomboid toothpony
- *Leiognathus berbis* (native), Berber ponyfish
- *Photopectoralis bindus* (native) Orangefin ponyfish
- *Nuclequula blochii* (native) Twoblotch ponyfish
- *Leiognathus brevirostris* (native), Shortnose ponyfish
- *Leiognathus daura* (native), Goldstripe ponyfish
- *Nuclequula decorus* (native) Shortnose ponyfish
- *Karalla dussumieri* (native), Dussumier's ponyfish
- *Equulites elongatus* (native), Slender ponyfish
- *Leiognathus equula* (native) Common ponyfish
- *Aurigequula fasciatus* (native), Striped ponyfish
- *Equulites leuciscus* (native), Whipfin ponyfish
- *E. lineolatus* (native), Ornate ponyfish
- *Aurigequula longispinis* (questionable)
- *Eubleekeria splendens* (native), Splendid ponyfish
- *Leiognathus striatus* (native)
- *Deveximentum insidiator* (native) Pugnose ponyfish
- *Secutor ruconius* (native) Deep pugnose ponyfish

Lethrinidae (Emperors or scavengers)

- *Gnathodentex aureolineatus* (native), Striped large-eye bream
- *Gymnocranius elongatus* (native), Forktail large-eye bream
- *Gymnocranius grandoculis* (native), Blue-lined large-eye bream
- *Gymnocranius griseus* (native), Grey large-eye bream
- *Lethrinus conchyliaius* (native), Redaxil emperor
- *Lethrinus erythracanthus* (native), Orange-spotted emperor
- *Lethrinus harak* (native), Thumbprint emperor
- *Lethrinus lentjan* (native) Pig-face bream, Pink ear emperor
- *Lethrinus mahsena* (native), Sky emperor

- *Lethrinus microdon* (native), Smalltooth emperor
- *Lethrinus miniatus* (questionable), Trumpet emperor
- *Lethrinus nebulosus* (native), Spangled emperor
- *Lethrinus obsoletus* (native), Orange-striped emperor
- *Lethrinus olivaceus* (native), Longface emperor
- *Lethrinus ornatus* (native), Ornate emperor
- *Lethrinus rubrioperculatus* (native), Spotcheek emperor
- *Lethrinus semicinctus* (native), Black blotch emperor
- *Lethrinus variegatus* (native), Slender emperor
- *Lethrinus xanthochilus* (native), Yellowlip emperor
- *Monotaxis grandoculis* (native), Humpnose big-eye bream
- *Wattsia mossambica* (native), Mozambique large-eye bream

Lobotidae (Tripletails)

- *Lobotes surinamensis* (native) Tripletail

Lutjanidae (Snappers)

- *Aphareus furca* (native), Small toothed jobfish
- *Aphareus rutilans* (native), Rusty jobfish
- *Aprion virescens* (native), Green jobfish
- *Apsilus fuscus* (questionable), African forktail snapper
- *Etelis carbunculus* (native), Ruby snapper
- *Etelis coruscans* (native), Flame snapper
- *Etelis radiosus* (native), Scarlet snapper
- *Lipocheilus carnolabrum* (native), Tang's snapper
- *Lutjanus argentimaculatus* (native), Mangrove red snapper
- *Lutjanus bengalensis* (native), Bengal snapper
- *Lutjanus biguttatus* (native), Two-spot banded snapper
- *Lutjanus bohar* (native), Two-spot red snapper
- *Lutjanus carponotatus* (native), Spanish flag snapper
- *Lutjanus decussatus* (native), Checkered snapper
- *Lutjanus ehrenbergii* (native) Blackspot snapper
- *Lutjanus erythropterus* (native), Crimson snapper
- *Lutjanus fulviflamma* (native), Dory snapper
- *Lutjanus fulvus* (native), Blacktail snapper
- *Lutjanus gibbus* (native), Humpback red snapper
- *Lutjanus gilcheri* (native), Yellowfin red snapper
- *Lutjanus johnii* (native) John's snapper
- *Lutjanus kasmira* (native), Common bluestripe snapper

- *Lutjanus lemniscatus* (native), Yellowstreaked snapper
- *Lutjanus lunulatus* (native), Lunartail snapper
- *Lutjanus lutjanus* (native), Bigeye snapper
- *Lutjanus madras* (native), Indian snapper
- *Lutjanus malabaricus* (native), Malabar blood snapper
- *Lutjanus monostigma* (native), Onespotsnapper
- *Lutjanus quinquelineatus* (native), Five-lined snapper
- *Lutjanus rivulatus* (native), Blubberlip snapper
- *Lutjanus rufolineatus* (questionable), Yellow-lined snapper
- *Lutjanus russellii* (native), Russell's snapper
- *Lutjanus sanguineus* (native), Humphead snapper
- *Lutjanus sebae* (native), Emperor red snapper
- *Lutjanus vitta* (native), Brownstripe red snapper
- *Macolor niger* (native), Black and white snapper
- *Paracaesio sordida* (native), Dirty ordure snapper
- *Paracaesio xanthura* (native), Yellowtail blue snapper
- *Pinjalo lewisi* (native), Slender pinjalo
- *Pinjalo pinjalo* (native), Pinjalo
- *Pristipomoides filamentosus* (native), Crimson jobfish
- *Pristipomoides multidentatus* (native), Goldbanded jobfish
- *Pristipomoides sieboldii* (native), Lavender jobfish
- *Pristipomoides typus*, Sharptooth jobfish
- *Pristipomoides zonatus*, Oblique-banded snapper

Malacanthidae (Tilefishes)

- *Hoplostethus atlanticus* (native), Pastel tilefish

Menidae (Moonfish)

- *Mene maculata* (native), Moonfish

Monodactylidae (Moonyfishes or fingerfishes)

- *Monodactylus argenteus* (native) Silvery moony
- *Monodactylus falciformis* (native) Full moony

Mugilidae (Mullet)

- *Crenimugil crenilabis* (native), Fringelip mullet
- *Planiliza carinata* (native), Keeled mullet
- *Planiliza klunzingeri* (native), Klunzinger's mullet
- *Planiliza macrolepis* (native) Largescale mullet
- *Planiliza mandapamensis* (native), Indian mullet

- *Planiliza melinoptera* (native) Giantscale mullet, Otomebora mullet
- *Planiliza parsia* (native) Goldspot mullet
- *Planiliza subviridis* (native) Greenback mullet
- *Planiliza tade* (native) Tade mullet, Tade mullet
- *Ellochelon vaigiensis* (native) Squaretail mullet
- *Mugil cephalus* (native) Flathead mullet
- *Plicomugil labiosus* (native), Hornlip mullet
- *Rhinomugil corsula* (native) Corsula mullet
- *Minimugil cascasia* (native) Yellowtail mullet
- *Sicamugil hamiltonii* (questionable) Burmese mullet
- *Crenimugil buehleri* (native) Bluetail mullet
- *Osteomugil cunnesius* (native) Longarm mullet
- *Crenimugil seheli* (native) Bluespot mullet
- *Osteomugil speigleri* (native) Speigler's mullet

Mullidae (Goatfishes)

- *Mulloidichthys flavolineatus* (native), Yellowstripe goatfish
- *Parupeneus barberinus* (native), Dash-and-dot goatfish
- *Parupeneus ciliatus* (native), Whitesaddle goatfish
- *Parupeneus cyclostomus* (native), Goldsaddle goatfish
- *Parupeneus heptacanthus* (native), Cinnabar goatfish
- *Parupeneus indicus* (native), Indian goatfish
- *Parupeneus macronemus* (native), Longbarbel goatfish
- *Parupeneus margaritatus* (questionable), Pearly goatfish
- *Parupeneus multifasciatus* (native), Manybar goatfish
- *Parupeneus pleurostigma* (native), Sidespot goatfish
- *Parupeneus trifasciatus* (native), Doublebar goatfish
- *Upeneus japonicus*, Bensasi goatfish
- *Upeneus luzonius*, Dark-barred goatfish
- *Upeneus moluccensis* (native), Goldband goatfish
- *Upeneus sulphureus* (native), Sulphur goatfish
- *Upeneus sundaicus* (native), Ochre-banded goatfish
- *Upeneus taeniopterus* (native), Finstripe goatfish
- *Upeneus tragula* (native), Freckled goatfish
- *Upeneus vittatus* (native), Yellowstriped goatfish

Nemipteridae (Threadfin breams, Whiptail breams)

- *Nemipterus bipunctatus* (native), Delagoa threadfin bream

- *Nemipterus furcosus* (native), Fork-tailed threadfin bream
- *Nemipterus japonicus* (native), Japanese threadfin bream
- *Nemipterus marginatus* (questionable), Red filament threadfin bream
- *Nemipterus mesoprion* (questionable), Mauvelip threadfin bream
- *Nemipterus nematophorus* (native), Doublewhip threadfin bream
- *Nemipterus nemurus* (questionable), Redspine threadfin bream
- *Nemipterus peronii* (native), Notchedfin threadfin bream
- *Nemipterus randalli* (native), Randall's threadfin bream
- *Nemipterus zysron* (native), Slender threadfin bream
- *Parascolopsis aspinosa* (native), Smooth dwarf monocle bream
- *Parascolopsis boesemani* (endemic), Redfin dwarf monocle bream
- *Parascolopsis eriomma* (native), Rosy dwarf monocle bream
- *Parascolopsis inermis* (native), Unarmed dwarf monocle bream
- *Scolopsis bilineata* (native), Two-lined monocle bream
- *Scolopsis bimaculata* (native), Thumbprint monocle bream
- *Scolopsis ciliata* (native), Saw-jawed monocle bream
- *Scolopsis frenata* (native), Bridled monocle bream
- *Scolopsis ghanam* (native), Arabian monocle bream
- *Scolopsis lineata* (native), Striped monocle bream
- *Scolopsis margaritifera* (questionable), Pearly monocle bream
- *Scolopsis taeniata* (native), Black-streaked monocle bream
- *Scolopsis taenioptera* (questionable), Lattice monocle bream
- *Scolopsis vosmeri* (native), Whitecheek monocle bream
- *Scolopsis xenochrous* (native), Oblique-barred monocle bream

Nomeidae (Driftfishes)

- *Cubiceps whiteleggu* (native), Indian driftfish

- *Psenes cyanophrys* (native), Freckled driftfish

Pempheridae (Sweepers)

- *Parapriacanthus ransonneti* (native), Pigmy sweeper
- *Pempheris mangula* (native), Black-edged sweeper
- *Pempheris molucca* (questionable)
- *Pempheris oualensis* (native), Silver sweeper
- *Pempheris vanicolensis* (native), Vanikoro sweeper

Percophidae (Duckbills)

- *Bembrops caudimacula* (native)
- *Bembrops platyrhynchus* (native), Natal duckbill

Pinguipedidae (Sandperches)

- *Parapercis alboguttata* (native), Whitespot sandsmelt
- *Parapercis hexophthalma* (native), Speckled sandperch
- *Parapercis maculata* (native), Harlequin sandperch
- *Parapercis pulchella* (native), Harlequin sandsmelt
- *Parapercis punctata* (native)
- *Parapercis quadrispinosa* (native)
- *Parapercis tetracantha* (native), Reticulated sandperch

Plesiopidae (Roundheads)

- *Acanthoplesiops indicus* (native), Scottie
- *Plesiops coeruleolineatus* (native), Crimsontip longfin
- *Plesiops corallicola* (native), Bluegill longfin

Polynemidae (Threadfins)

- *Eleutheronema tetradactylum* (native) White salmon, Fourfinger threadfin
- *Filimanus heptadactyla* (native) Sevenfinger threadfin
- *Filimanus similis* (native)
- *Filimanus xanthonema* (native), Yellowthread threadfin
- *Leptomelanosoma indicum* (native) Indian threadfin, Indian threadfin
- *Polydactylus macrochir* (native), King threadfin
- *Polydactylus microstoma* (native), Small-mouthed threadfin
- *Polydactylus mullani* (native)
- *Polydactylus plebeius* (native), Striped threadfin
- *Polydactylus sexfilis* (native), Sixfinger threadfin
- *Polydactylus sextarius* (native) Blackspot threadfin
- *Polynemus dubius* (questionable) Borneo threadfin, Eastern paradise fish

- *Polynemus paradiseus* (native) Paradise threadfin, Paradise threadfin

Pomacanthidae (Angelfishes)

- *Apolemichthys xanthurus* (native), Yellowtail angelfish
- *Centropyge bicolor* (native), Bicolor angelfish
- *Centropyge multispinis* (native), Dusky angelfish
- *Chaetodontoplus melanosoma* (native), Black-velvet angelfish
- *Pomacanthus annularis* (native) Ringed angle fish
- *Pomacanthus imperator* (native), Emperor angelfish
- *Pomacanthus semicirculatus* (native), Semicircle angelfish
- *Neopomacentrus taeniurus* (native), Freshwater demoiselle
- *Plectroglyphidodon dickii* (native), Blackbar devil
- *Plectroglyphidodon lacrymatus* (native), Whitespotted devil
- *Plectroglyphidodon leucozonus* (native), Singlebar devil
- *Pomacentrus pavo* (native), Sapphire damsel
- *Premnas biaculeatus* (native), Spinecheek anemonefish
- *Pristotis obtusirostris* (native), Gulf damselfish
- *Stegastes albifasciatus* (native), Whitebar gregory
- *Stegastes lividus* (native), Blunt snout gregory
- *Stegastes nigricans* (native), Dusky farmerfish
- *Stegastes obreptus* (native), Western gregory

Pomacentridae (Damsel-fishes)

- *Abudefduf bengalensis* (native), Bengal sergeant
- *Abudefduf septemfasciatus* (native), Banded sergeant
- *Abudefduf sexfasciatus* (native), Scissortail sergeant
- *Abudefduf sordidus* (native), Blackspot sergeant
- *Abudefduf vaigiensis* (native), Indo-Pacific sergeant
- *Amphiprion bicinctus*, Twoband anemonefish
- *Amphiprion chrysogaster*, Mauritian anemonefish
- *Amphiprion ephippium* (native), Saddle anemonefish
- *Amphiprion frenatus*, Tomato clownfish
- *Amphiprion nigripes*, Maldive anemonefish
- *Amphiprion ocellaris* (native), Clown anemonefish
- *Amphiprion percula*, Orange clownfish
- *Amphiprion sebae* (native), Sebae anemonefish
- *Cheiloprion labiatus* (native), Big-lip damsel
- *Chromis dimidiata* (native), Chocolatedip chromis
- *Chromis opercularis* (native), Doublebar chromis
- *Chromis ternatensis* (native), Ternate chromis
- *Chromis viridis* (native), Blue green damselfish
- *Chromis weberi* (native), Weber's chromis
- *Chrysiptera biocellata* (native), Twin-spot damselfish
- *Chrysiptera brownriggii* (native), Surge damselfish
- *Chrysiptera cyanea* (native), Sapphire devil
- *Chrysiptera glauca* (native), Grey demoiselle
- *Chrysiptera unimaculata* (native), Onespot demoiselle
- *Dascyllus aruanus* (native), Whitetail dascyllus
- *Dascyllus trimaculatus* (native), Threespot dascyllus
- *Dischistodus perspicillatus* (native), White damsel
- *Dischistodus prosopotaenia* (native), Honey-head damsel
- *Lepidozygus tapeinosoma* (native), Fusilier damselfish

Pomatomidae (Bluefishes)

- *Pomatomus saltatrix* (native), Bluefish

Priacanthidae (Bigeyes or catalufas)

- *Heteropriacanthus cruentatus* (native), Glasseye
- *Priacanthus hamrur* (native), Moontail bullseye
- *Priacanthus macracanthus* (native), Red bigeye
- *Priacanthus prolixus* (native), Elongate bulleye
- *Priacanthus tayenus* (native), Purple-spotted bigeye
- *Pristigenys nipponia* (native), Japanese bigeye

Pseudochromidae (Dottybacks)

- *Congrogadus subducens* (native), Carpet eel-blenny
- *Halidesmus thomaseni* (native), Thomasen's snakelet
- *Pseudochromis caudalis* (native)
- *Pseudochromis tapeinosoma* (native), Blackmargin dottyback

Ptereleotridae

- *Ptereleotris evides* (native), Blackfin dartfish
- *Ptereleotris microlepis* (native), Blue gudgeon

Rachycentridae (Cobia)

- *Rachycentron canadum* (native), Cobia

Scaridae (Parrotfishes)

- *Calotomus spinidens* (native), Spinytooth parrotfish
- *Calotomus viridescens*, Viridescent parrotfish
- *Chlorurus enneacanthus* (native), Captain parrotfish
- *Chlorurus gibbus* (native), Heavybeak parrotfish
- *Chlorurus oedema* (native), Knothead parrotfish
- *Chlorurus sordidus* (native), Daisy parrotfish
- *Hipposcarus harid* (native), Candellamo parrotfish

- *Leptoscarus vaigiensis* (native), Marbled parrotfish
- *Scarus ghobban* (native), Blue-barred parrotfish
- *Scarus globiceps* (native), Globehead parrotfish
- *Scarus niger* (native), Dusky parrotfish
- *Scarus prasiognathos* (native), Singapore parrotfish
- *Scarus psittacus* (native), Common parrotfish
- *Scarus quoyi* (native), Quoy's parrotfish
- *Scarus rubroviolaceus* (native), Ember parrotfish
- *Scarus russelii* (native), Eclipse parrotfish
- *Scarus scaber* (native), Fivesaddle parrotfish
- *Scarus tricolor* (native), Tricolour parrotfish

Scatophagidae (Scats)

- *Scatophagus argus* (native) Spotted scat

Schindleriidae

- *Schindleria pietschmanni* (questionable)
- *Schindleria praematura* (questionable), Schindler's fish

Sciaenidae (Drums or croakers)

- *Argyrosomus amoyensis* (native), Amoy croaker
- *Argyrosomus hololepidotus* (misidentification), Madagascar meagre
- *Argyrosomus japonicus* (native), Japanese meagre
- *Atrobucca alcocki* (native)
- *Atrobucca antonbruun* (native)
- *Atrobucca nibe* (native), Longfin kob
- *Atrobucca trewavasae* (native)
- *Bahaba chaptis* (native) Chaptis bahaba
- *Chrysochir aureus* (native), Reeve's croaker
- *Daysciaena albida* (native) Two-bearded croaker, Bengal corvina
- *Dendrophysa russelii* (native) Goatee croaker
- *Johnius amblycephalus* (native), Bearded croaker
- *Johnius belangerii* (native) Belanger's croaker
- *Johnius borneensis* (native), Sharpnose hammer croaker
- *Johnius carouna* (native) Caroun croaker
- *Johnius carutta* (native) Karut croaker
- *Johnius coitor* (native) Coitor croaker
- *Johnius dussumieri* (native) Sharptooth hammer croaker
- *Johnius elongatus* (native), Spindle croaker
- *Johnius gangeticus* (endemic) Gangetic bola
- *Johnius glaucus* (native), Pale spotfin croaker
- *Johnius macropterus* (native), Largefin croaker
- *Johnius macrorhynchus* (native), Big-snout croaker
- *Johnius mannarensis* (native), Mannar croaker

- *Johnius plagiostoma* (native), Large-eye croaker
- *Kathala axillaris* (native), Kathala croaker
- *Nibea maculata* (native), Blotched croaker
- *Nibea soldado* (native), Soldier croaker
- *Otolithes cuvieri* (native), Lesser tigertooth croaker
- *Otolithes ruber* (native), Tiger-toothed croaker
- *Otolithoides biauritus* (native) Bronze croaker
- *Otolithoides pama* (native), Pama croaker
- *Panna heterolepis* (native) Hooghly croaker
- *Panna microdon* (misidentification) Panna croaker
- *Paranibea semiluctuosa* (native), Half-mourning croaker
- *Pennahia anea* (native), Greyfin croaker
- *Pennahia macrocephalus* (questionable), Big-head Pennah croaker
- *Pennahia ovata* (native)
- *Protonibea diacanthus* (native) Spotted croaker
- *Pterotolithus maculatus* (native) Blotch
- *Umbrina canariensis* (native), Canary drum

Scombridae (Mackerels, tunas, bonitos)

- *Acanthocybium solandri* (native), Wahoo
- *Auxis rochei* (native), Bullet tuna
- *Auxis thazard* (native), Frigate tuna
- *Euthynnus affinis* (native) Mackerel tuna, Kawakawa
- *Grammatorcynus bicarinatus* (questionable), Shark mackerel
- *Gymnosarda unicolor* (native) Dogtooth tuna, Dogtooth tuna
- *Katsuwonus pelamis* (native), Skipjack tuna
- *Rastrelliger brachysoma* (native), Short mackerel
- *Rastrelliger faughni* (native), Island mackerel
- *Rastrelliger kanagurta* (native), Indian mackerel
- *Sarda orientalis* (native) Oriental bonito, Striped bonito
- *Scomber japonicus* (native), Chub mackerel
- *Scomberomorus commerson* (native) King seer
- *Scomberomorus guttatus* (native) Spotted Spanish mackerel, Indo-Pacific king mackerel
- *Scomberomorus lineolatus* (native) Streaked seer
- *Thunnus albacares* (native) Yellow fin tuna
- *Thunnus obesus* (native), Bigeye tuna
- *Thunnus orientalis* (native), Pacific bluefin tuna
- *Thunnus tonggol* (native) Blue fin tuna, Longtail tuna

Serranidae (Sea basses: groupers and fairy basslets)

- *Aethaloperca rogaea* (native), Redmouth grouper

- *Anyperodon leucogrammicus* (native), Slender grouper
- *Cephalopholis argus* (native) Balufana, Peacock hind
- *Cephalopholis aurantia* (native), Golden hind
- *Cephalopholis boenak* (native), Chocolate hind
- *Cephalopholis formosa* (native), Bluelined hind
- *Cephalopholis leopardus* (native), Leopard hind
- *Cephalopholis miniata* (native), Coral hind
- *Cephalopholis sexmaculata* (native), Sixblotch hind
- *Cephalopholis sonnerati* (native), Tomato hind
- *Cephalopholis urodeta* (native), Darkfin hind
- *Chelidoperca investigatoris* (native)
- *Cromileptes altivelis* (native), Humpback grouper
- *Diploprion bifasciatum* (native), Barred soapfish
- *Epinephelus areolatus* (native), Areolate grouper
- *Epinephelus bleekeri* (native), Duskytail grouper
- *Epinephelus chabaudi* (native), Moustache grouper
- *Epinephelus chlorostigma* (native), Brownspotted grouper
- *Epinephelus coeruleopunctatus* (native), Whitespotted grouper
- *Epinephelus coioides* (native), Orange-spotted grouper
- *Epinephelus corallicola* (questionable), Coral grouper
- *Epinephelus diacanthus* (native), Spinycheek grouper
- *Epinephelus epistictus* (native), Dotted grouper
- *Epinephelus erythrurus* (native), Cloudy grouper
- *Epinephelus fasciatus* (native), Blacktip grouper
- *Epinephelus faveatus* (native), Barred-chest grouper
- *Epinephelus flavocaeruleus* (native), Blue and yellow grouper
- *Epinephelus fuscoguttatus* (native), Brown-marbled grouper
- *Epinephelus hexagonatus* (native), Starspotted grouper
- *Epinephelus lanceolatus* (native) Bridlebass, Giant grouper
- *Epinephelus latifasciatus* (native), Striped grouper
- *Epinephelus longispinis* (native), Longspine grouper
- *Epinephelus macropilos* (native), Snubnose grouper
- *Epinephelus maculatus* (native), Highfin grouper
- *Epinephelus malabaricus* (native) Malabar rockcod, Malabar grouper
- *Epinephelus marginatus* (questionable), Dusky grouper
- *Epinephelus melanostigma* (native), One-blotch grouper

- *Epinephelus merra* (native), Honeycomb grouper
- *Epinephelus morrhua* (native), Comet grouper
- *Epinephelus octofasciatus* (native), Eightbar grouper
- *Epinephelus poecilonotus* (native), Dot-dash grouper
- *Epinephelus polylepsis* (native), Smallscaled grouper
- *Epinephelus polyphekadion* (native), Camouflage grouper
- *Epinephelus quoyanus* (native), Longfin grouper
- *Epinephelus radiatus* (native), Oblique-banded grouper
- *Epinephelus rivulatus* (native), Halfmoon grouper
- *Epinephelus spilotoceps* (native), Foursaddle grouper
- *Epinephelus tauvina* (native) Greasy rockcod, Greasy grouper
- *Epinephelus undulosus* (native), Wavy-lined grouper
- *Plectropomus areolatus* (native), Squartail coral grouper
- *Plectropomus maculatus* (questionable), Spotted coral grouper
- *Pogonoperca sp.* (native), Soapfish
- *Pseudanthias conspicuus* (native)
- *Pseudanthias squamipinnis* (native), Sea goldie
- *Variola louti* (native), Yellow-edged lyretail
- *Variola albimarginata*

Siganidae (Rabbitfishes)

- *Siganus argenteus* (native), Streamlined spinefoot
- *Siganus canaliculatus* (native), White-spotted spinefoot
- *Siganus corallinus* (native), Blue-spotted spinefoot
- *Siganus fuscescens* (native), Mottled spinefoot
- *Siganus guttatus* (native), Orange-spotted spinefoot
- *Siganus javus* (native), Streaked spinefoot
- *Siganus lineatus* (native), Golden-lined spinefoot
- *Siganus punctatus* (questionable), Goldspotted spinefoot
- *Siganus spinus* (native), Little spinefoot
- *Siganus stellatus* (native), Brownspotted spinefoot
- *Siganus vermiculatus* (native), Vermiculated spinefoot
- *Siganus virgatus* (native), Barhead spinefoot

Sillaginidae (Smelt-whitings)

- *Sillago aeolus* (native), Oriental sillago
- *Sillago chondropus* (native), Clubfoot sillago
- *Sillago indica* (endemic), Indian sillago
- *Sillago ingenuua* (native), Bay sillago

- *Sillago intermedius* (native), Intermediate sillago
- *Sillago maculata* (questionable), Trumpeter sillago
- *Sillago parvisquamis* (questionable), Small-scale sillago
- *Sillago sihama* (native) Silver sillago
- *Sillago soringa* (endemic), Soringa sillago
- *Sillago vincenti* (endemic) Estuarine whiting

Sparidae (Porgies)

- *Acanthopagrus berda* (native) Riverbream, Picnic seabream
- *Acanthopagrus bifasciatus* (native), Twobar seabream
- *Acanthopagrus latus* (native) Yellow seabream
- *Argyrops spinifer* (native), King soldierbream
- *Cheimerus nufar* (native), Santer seabream
- *Crenidens crenidens* (native), Karenteen seabream
- *Rhabdosargus sarba* (native) Natal stumpnose
- *Sparidentex hasta* (native), Sobaity seabream

Sphyraenidae (Barracudas)

- *Sphyraena acutipinnis* (native), Sharpfin barracuda
- *Sphyraena barracuda* (native), Great barracuda
- *Sphyraena flavicauda* (native), Yellowtail barracuda
- *Sphyraena forsteri* (native), Bigeye barracuda
- *Sphyraena jello* (native), Pickhandle barracuda
- *Sphyraena obtusata* (native), Obtuse barracuda
- *Sphyraena putnamae* (native) Sawtooth barracuda
- *Sphyraena qenie* (native), Blackfin barracuda
- *Pampus argenteus* (native) Silver pomfret
- *Pampus chinensis* (native) Chinese pomfret

Symphysanodontidae

- *Symphysanodon andersoni* (native)

Terapontidae (Grunters or tigerperches)

- *Pelates quadrilineatus* (native) Fourlined terapon
- *Helotes sexlineatus* (questionable), Six-lined trumpeter
- *Terapon jarbua* (native) Jarbua terapon
- *Terapon puta* (native) Smallscale terapon
- *Terapon theraps* (native) Banded grunter

Toxotidae (Archerfishes)

- *Toxotes chatareus* (native) Spotted archerfish
- *Toxotes jaculatrix* (native) Banded archerfish

Trichiuridae (Cutlassfishes)

- *Benthodesmus oligoradiatus* (native), Sparse-rayed frostfish
- *Eupleurogrammus glossodon* (native), Longtooth hairtail
- *Eupleurogrammus muticus* (native), Smallhead hairtail
- *Lepidopus caudatus* (questionable), Silver scabbardfish
- *Lepturacanthus pantului* (native) Coromandal ribbonfish
- *Lepturacanthus savala* (native) Small headed ribbon fish
- *Trichiurus auriga* (native), Pearly hairtail
- *Trichiurus gangeticus* (native) Gangetic ribbonfish
- *Trichiurus lepturus* (native), Largehead hairtail
- *Trichiurus russelli* (native), Short-tailed hairtail

Trichonotidae (Sand divers)

- *Trichonotus cyclograptus* (native)
- *Trichonotus setiger* (native), Spotted sand-diver

Tripterygiidae (Threefin blennies)

- *Enneapterygius elegans* (native), Hourglass triplefin
- *Enneapterygius fasciatus* (native)
- *Enneapterygius pusillus* (native), Highcrest triplefin
- *Helcogramma ellioti* (native)

Uranoscopidae (Stargazers)

- *Ichthyoscopus lebeck* (native), Longnosed stargazer
- *Uranoscopus crassiceps* (native)
- *Uranoscopus guttatus* (native)

Xenisthmidae

- *Gobiopterus smithi* (endemic)

Xiphiidae (Swordfish)

- *Xiphias gladius* (native), Swordfish

Zanclidae (Moorish idol)

- *Zanclus cornutus* (native), Moorish idol

Pleuronectiformes

Bothidae (Lefteye flounders)

- *Arnoglossus aspilos* (native), Spotless lefteye flounder
- *Arnoglossus tapeinosoma* (native)
- *Bothus leopardinus* (questionable), Pacific leopard flounder

- *Bothus myriaster* (native), Indo-Pacific oval flounder
- *Bothus pantherinus* (native), Leopard flounder
- *Chascanopsetta lugubris* (native), Pelican flounder
- *Engyprosopon grandisquama* (native), Largescale flounder
- *Grammatobothus polyophthalmus* (native), Threespot flounder

Cynoglossidae (Tonguefishes)

- *Cynoglossus arel* (native), Largescale tonguesole
- *Cynoglossus bilineatus* (native), Fourlined tonguesole
- *Cynoglossus carpenteri* (native), Hooked tonguesole
- *Cynoglossus cynoglossus* (native), Bengal tongue sole
- *Cynoglossus dubius* (native), Carrot tonguesole
- *Cynoglossus lida* (native) Shoulder spot tongue, Roughscale tonguesole
- *Cynoglossus lingua* (native) Long tonguesole
- *Cynoglossus macrostomus* (native) Malabar-sole
- *Cynoglossus puncticeps* (native) Speckled tonguesole
- *Cynoglossus semifasciatus* (native) Malabar sole
- *Paraplagusia bilineata* (native) Fingerlip tonguesole, Doublelined tonguesole
- *Paraplagusia blochii* (native), Bloch's tonguesole

Paralichthyidae (Large-tooth flounders)

- *Cephalopsetta ventrocellatus* (native)
- *Pseudorhombus arsius* (native) Largetooth flounder
- *Pseudorhombus duplici-cellatus* (native), Ocellated flounder
- *Pseudorhombus elevatus* (native), Deep flounder
- *Pseudorhombus javanicus* (native), Javan flounder
- *Pseudorhombus malayanus* (native), Malayan flounder
- *Pseudorhombus natalensis* (native), Natal flounders
- *Pseudorhombus triocellatus* (native) Three spot flounder

Pleuronectidae (Righteye flounders)

- *Poecilopsetta colorata* (native), Coloured righteye flounder
- *Poecilopsetta praelonga* (native), Alcock's narrow-body righteye flounder

Psettodidae (Psettodids)

- *Psettodes erumei* (native) Indian halibut

Samaridae (Flounders)

- *Samaris cristatus* (native), Cockatoo righteye flounder
- *Samariscus longimanus* (native), Longfinned flounder

Soleidae (Soles)

- *Aesopia cornuta* (native), Unicorn sole
- *Brachirus orientalis* (native) Oriental-sole
- *Brachirus pan* (native) Pan sole
- *Heteromycteris oculus* (native), Eyed sole
- *Liachirus melanospilos* (native)
- *Pardachirus marmoratus* (native), Finless sole
- *Pardachirus pavoninus* (native), Peacock sole
- *Solea elongata* (native) Elongate sole, Elongate sole
- *Solea ovata* (native), Ovate sole
- *Soleichthys heterorhinos* (native)
- *Dagetichthys albomaculatus* (native) Kaup's sole
- *Dagetichthys commersonii* (native), Commerson's sole
- *Zebrias altipinnis* (native)
- *Zebrias annandalei* (native)
- *Zebrias keralensis* (native)
- *Zebrias quagga* (native), Fringefin zebra sole
- *Zebrias synapturoides* (native), Indian zebra sole
- *Zebrias zebra* (questionable), Zebra sole

Polymixiiformes

Polymixiidae (Beardfishes)

- *Polymixia fusca* (native)
- *Polymixia japonica* (questionable), Silver eye

Pristiformes

Pristidae (Sawfishes)

- *Anoxypristis cuspidata* (native), Knifetooth sawfish
- *Pristis microdon* (native) Smalltooth sawfish, Largetooth sawfish
- *Pristis zijsron* (native), Longcomb sawfish

Rajiformes

Dasyatidae (Stingrays)

- *Hemirhynchus bennetti* (native), Bennett's stingray
- *Negaprion kuhlii* (native), Bluespotted stingray
- *Megaprion microps* (native), Smalleye stingray
- *Dasyatis pastinaca* (questionable), Common stingray

- *Telatrygon zugei* (native) Pale-edged stingray
- *Pateobatis bleekeri* (native) Whiptail stingray
- *Himantura chaophraya* (questionable), Freshwater whipray
- *Himantura fai* (native), Pink whipray
- *Maculabatis gerrardi* (native), Sharpnose stingray
- *Brevitrygon imbricata* (native) Scaly stingray
- *Pateobatis jenkinsii* (native), Pointed-nose stingray
- *Himantura marginatus* (native) Blackedged stingray
- *Himantura uarnak* (native) Leopard stingray, Honeycomb stingray
- *Himantura undulata* (native), Leopard whipray
- *Brevitrygon walga*, Dwarf whipray
- *Pastinachus sephen* (native) Feathertail stingray, Cowtail stingray
- *Taeniura lymma* (native), Bluespotted ribbontail ray
- *Taeniura meyeni* (native), Blotched fantail ray
- *Urogymnus asperrimus* (native), Porcupine ray

Gymnuridae (Butterfly rays)

- *Gymnura tentaculata* (native), Tentacled butterfly ray
- *Aetoplatea zonura* (native), Zonetail butterfly ray
- *Gymnura japonica*, Japanese butterflyray
- *Gymnura micrura*, Smooth butterfly ray
- *Gymnura poecilura* (native), Longtail butterfly ray

Myliobatidae (Eagle and manta rays)

- *Aetobatus flagellum* (native) Plain eagleray
- *Aetobatus narinari* (native) Spotted eagleray
- *Aetobatus ocellatus* (native)
- *Aetomylaeus maculatus* (native), Mottled eagle ray
- *Aetomylaeus milvus* (native)
- *Aetomylaeus nichofii* (native) Nieuhof's eagle ray, Banded eagle ray
- *Mobula birostris* (native), Giant manta
- *Mobula eregoodootenkee* (native), Pygmy devilray
- *Mobula japonica* (native), Spinetail mobula
- *Mobula kuhlii* (native), Shortfin devil ray
- *Mobula mobular* (questionable), Devil fish
- *Rhinoptera javanica* (native), Javanese cownose ray

Plesiobatidae (Deepwater stingray)

- *Plesiobatis daviesi* (native), Deepwater stingray

Rajidae (Skates)

- *Dipturus johannisdavisi* (native), Travancore skate
- *Fenestrata mamillidens* (native), Prickly skate
- *Orbiraja powelli* (native), Indian ringed skate

Rhinobatidae (Guitarfishes)

- *Rhina ancylostoma* (native), Bowmouth guitarfish
- *Rhinobatos annandalei* (native) Annandale's guitarfish
- *Glaucostegus granulatus* (native), Sharpnose guitarfish
- *Glaucostegus halavi* (native), Halavi's guitarfish
- *G. obtusus* (native), Widenose guitarfish
- *G. thouin* (native), Clubnose guitarfish
- *G. typus* (questionable), Giant shovelnose ray
- *Acroteriobatus variegatus* (native), Stripenose guitarfish
- *Rhynchobatus djiddensis* (native), Giant guitarfish

Salmoniformes

Salmonidae (Salmonids)

- *Oncorhynchus mykiss* (introduced) Rainbow trout
- *Salmo trutta fario* (introduced) Brown trout
- *Salmo trutta* (introduced), Sea trout
- *Salvelinus fontinalis* (introduced) Brook trout

Scorpaeniformes

Apistidae

- *Apistus carinatus* (native), Ocellated waspfish

Aploactinidae (Velvetfishes)

- *Acanthosphex leurynnis* (native)
- *Cocotropus roseus* (native)

Caracanthidae (Orbicular velvetfishes)

- *Caracanthus maculatus* (native), Spotted coral croucher
- *Caracanthus unipinna* (native), Pygmy coral croucher

Dactylopteridae (Flying gurnards)

- *Dactyloptena gilberti* (native)
- *Dactyloptena macracantha* (native), Spotwing flying gurnard
- *Dactyloptena orientalis* (native), Oriental flying gurnard
- *Dactyloptena peterseni* (native), Starry flying gurnard

Peristediidae (Armored searobins or armored gurnards)

- *Scalicus investigatoris* (native)
- *Satyrichthys laticeps* (native)

Platycephalidae (Flatheads)

- *Cociella crocodilus* (native) Crocodile flathead
- *Sunagocia carbunculus* (native), Papillose flathead
- *Grammoplites scaber* (native) Rough flathead
- *Grammoplites suppositus* (native), Spotfin flathead
- *Inegocia japonica* (native), Japanese flathead
- *Kumococius rodericensis* (native), Spiny flathead
- *Platycephalus indicus* (native) Bartail flathead
- *Rogadius asper* (native), Olive-tailed flathead
- *Rogadius serratus* (native), Serrated flathead
- *Rogadius tuberculata* (native), Tuberculated flathead
- *Suggrundus macracanthus* (native), Large-spined flathead
- *Sunagocia otaitensis* (native), Fringelip flathead
- *Thysanophrys chiltonae* (native), Longsnout flathead

Scorpaenidae (Scorpionfishes or rockfishes)

- *Brachypterois serrulata* (native)
- *Dendrochirus brachypterus* (native), Shortfin turkeyfish
- *Ebosia falcata* (native)
- *Parascorpaena picta*, Northern scorpionfish
- *Pteroidichthys amboinensis* (native)
- *Pterois antennata* (native), Broadbarred firefish
- *Pterois mombasae* (native), Frillfin turkeyfish
- *Pterois radiata* (native), Radial firefish
- *Pterois russellii* (native) Russell's fire fish, Plaintail turkeyfish
- *Pterois volitans* (native), Red lionfish
- *Scorpaenodes parvipinnis* (native), Lowfin scorpionfish
- *Scorpaenopsis gibbosa* (native), Humpback scorpionfish
- *Taenianotus triacanthus* (native), Leaf scorpionfish

Setarchidae

- *Setarches guentheri* (native), Deepwater scorpionfish

Synanceiidae (Stonefishes)

- *Choridactylus multibarbus* (native), Orangebanded stingfish
- *Inimicus caledonicus* (native), Chinese ghoull
- *Inimicus sinensis* (native), Spotted ghoull
- *Minous dempsterae* (native), Obliquebanded stingfish
- *Minous inermis* (native), Alcock's scorpionfish

- *Minous monodactylus* (native) Grey goblin fish
- *Synanceia verrucosa* (native), Stonefish
- *Trachicephalus uranoscopus* (native), Stargazing stonefish

Tetrarogidae (Wasp fishes)

- *Ocosia ramaraoi* (native)
- *Paracentropogon longispinis* (native), Wispy waspfish
- *Pseudovespicula dracaena* (native), Draco waspfish
- *Richardsonichthys leucogaster* (native), Whiteface waspfish
- *Snyderina guentheri* (native), Günther's waspfish
- *Tetraroge niger* (native)

Triglidae (Searobins)

- *Lepidotrigla bispinosa* (native), Bullhorn gurnard
- *Lepidotrigla faurei* (native), Scalybreast gurnard
- *Lepidotrigla longipinnis* (native)
- *Lepidotrigla omanensis* (native), Oman gurnard
- *Pterygotrigla hemisticta* (native), Blackspotted gurnard

Siluriformes

Ariidae (Sea catfishes)

- *Arius arius* (native) Threadfin sea catfish
- *Netuma bilineatus* (native), Bronze catfish
- *Plicofollis tonggol* (native), Roughback sea catfish
- *Plicofollis dussumieri* (native), Blacktip sea catfish
- *Arius gagora* (native) Gagora catfish
- *Arius maculatus* (native) Spotted catfish
- *Nemapteryx nenga* (native)
- *Arius parvipinnis* (native)
- *Plicofollis platystomus* (native), Flatmouth sea catfish
- *Hexanematichthys sagor* (native) Sagor catfish
- *Hemiarius sona* (native) Sona sea-catfish
- *Arius subrostratus* (native), Shovelnose sea catfish
- *Hemiarius sumatranus* (native), Goat catfish
- *Plicofollis layardi* (native) Thinspine sea catfish
- *Netuma thalassina* (native), Giant seacatfish
- *Arius venosus* (native), Veined catfish
- *Batrachcephalus mino* (native) Frog-headed catfish

Dalatiidae (Sleeper sharks)

- *Centroscyllium ornatum* (native), Ornate dogfish

Echinorhinidae (Bramble sharks)

- *Echinorhinus brucus* (native), Bramble shark

Stomiiformes**Gonostomatidae (Bristlemouths)**

- *Cyclothone signata* (questionable), Showy bristlemouth
- *Gonostoma elongatum* (native), Elongated bristlemouth fish

Sternoptychidae

- *Polyipnus spinosus* (questionable)
- Stomiidae (Barbeled dragonfishes)
- *Chauliodus pammelas* (native)
- *Chauliodus sloani* (native), Sloane's viperfish
- *Stomias affinis* (native), Günther's boafish

Synbranchiformes**Chaudhuriidae****Synbranchidae (Swamp-eels)**

- *Monopterus albus* (native) Rice swampeeel
- *Monopterus cuchia* (native) Cuchia
- *Monopterus digressus* (native)
- *Monopterus eapeni* (endemic)
- *Monopterus fossorius* (endemic) Malabar swampeeel
- *Monopterus hodgarti* (endemic) Indian spaghetti-eel
- *Monopterus indicus* (endemic) Bombay swampeeel
- *Monopterus roseni* (native)
- *Ophisternon bengalense* (native) Bengal mudeel

Syngnathiformes**Aulostomidae (Trumpetfishes)**

- *Aulostomus chinensis* (native), Chinese trumpetfish

Centriscidae (Snipefishes and shrimpfishes)

- *Centriscus scutatus* (native), Grooved razor-fish

Fistulariidae (Cornetfishes)

- *Fistularia petimba* (native), Red cornetfish

Solenostomidae (Ghost pipefishes)

- *Solenostomus cyanopterus* (native), Ghost pipefish

Syngnathidae (Pipefishes and seahorses)

- *Choeroichthys brachysoma* (native), Short-bodied pipefish
- *Choeroichthys sculptus* (native), Sculptured pipefish
- *Doryrhamphus excisus* (native), Bluestripe pipefish

- *Hippichthys cyanospilos* (native), Blue-spotted pipefish
- *Hippichthys penicillus* (native), Beady pipefish
- *Hippichthys spicifer* (native), Bellybarred pipefish
- *Hippocampus fuscus* (questionable) Chilka seahorse, Sea pony
- *Hippocampus histrix* (native), Thorny seahorse
- *Hippocampus kelloggi* (native), Great seahorse
- *Hippocampus kuda* (native), Spotted seahorse
- *Hippocampus trimaculatus* (native), Longnose seahorse
- *Microphis brachyurus* (native) Short-tailed pipefish
- *Microphis cuncalus* (native) Crocodile-tooth pipefish
- *Microphis insularis* (native) Andaman pipefish
- *Phoxocampus belcheri* (native), Rock pipefish
- *Syngnathoides biaculeatus* (native), Alligator pipefish
- *Trachyrhamphus serratus* (native)

Tetraodontiformes**Balistidae (Triggerfishes)**

- *Abalistes stellaris* (native), Starry triggerfish
- *Balistapus undulatus* (native), Orange-lined triggerfish
- *Balistes rotundatus* (native)
- *Balistes vetula*, Queen triggerfish
- *Balistoides conspicillum* (native), Clown triggerfish
- *Balistoides viridescens* (native), Titan triggerfish
- *Melichthys niger* (native), Black triggerfish
- *Odonus niger* (native), Redtoothed triggerfish
- *Pseudobalistes flavimarginatus* (native), Yellowmargin triggerfish
- *Pseudobalistes fuscus* (native), Yellow-spotted triggerfish
- *Rhinecanthus aculeatus* (native), Blackbar triggerfish
- *Rhinecanthus rectangulus* (native), Wedge-tail triggerfish
- *Sufflamen chrysopterum* (native), Halfmoon triggerfish
- *Sufflamen fraenatum* (native), Masked triggerfish

Diodontidae (Porcupinefishes)

- *Cyclichthys orbicularis* (native), Birdbeak burrfish
- *Cyclichthys spilostylus* (native), Spotbase burrfish
- *Diodon holocanthus* (native) Bloched porcupine fish, Long-spine porcupinefish
- *Diodon hystrix* (native) Spotted porcupine fish
- *Lophodiodon calori* (native), Four-bar porcupinefish

Molidae (Molas or Ocean Sunfishes)

- *Mola mola* (native), Ocean sunfish

Monacanthidae (Filefishes)

- *Aluterus monoceros* (native), Unicorn leatherjacket
- *Aluterus scriptus* (native), Scrawled filefish
- *Anacanthus barbatus* (native), Bearded leatherjacket
- *Lalmohania velutina* (native)
- *Oxymonacanthus longirostris* (native), Harlequin filefish
- *Paraluteres prionurus* (native), Blacksaddle filefish
- *Paramonacanthus choirocephalus* (questionable) Pig faced leather jacket
- *Paramonacanthus japonicus* (native), Hairfinned leatherjacket
- *Paramonacanthus oblongus* (native), Hair-finned filefish

Paramonacanthus tricuspidus (native)

Thamnaconus modestoides (native), Modest filefish

Ostraciidae (Boxfishes)

- *Lactoria cornuta* (native), Longhorn cowfish
- *Ostracion cubicus* (native), Yellow boxfish
- *Ostracion meleagris* (native), Whitespotted boxfish
- *Ostracion nasus* (native), Shortnose boxfish
- *Tetrosomus gibbosus* (native), Humpback turretfish

Tetraodontidae (Puffers)

- *Arothron hispidus* (native) White spotted blow fish, White-spotted puffer
- *Arothron immaculatus* (native) Immaculate blow fish
- *Arothron meleagris* (native), Guineafowl puffer
- *Arothron nigropunctatus* (native) Black spotted blow fish
- *Arothron reticularis* (native) Reticulated blowfish
- *Arothron stellatus* (native) Star blaasop
- *Canthigaster amboinensis* (native), Spider-eye puffer
- *Canthigaster bennetti* (native), Bennett's sharpnose puffer
- *Canthigaster coronata* (native), Crowned puffer
- *Canthigaster margaritata* (native)
- *Carinotetraodon imitator* (endemic)
- *Carinotetraodon travancoricus* (endemic) Malabar pufferfish
- *Lagocephalus guentheri* (native), Diamondback puffer
- *Lagocephalus inermis* (native) Smooth-

backed blowfish

- *Lagocephalus lagocephalus* (native), Oceanic puffer
- *Lagocephalus lunaris* (native) Moontail blaasop, Green rough-backed puffer
- *Lagocephalus spadiceus* (native) Chinese blaasop
- *Takifugu oblongus* (native) Lattice blaasop, Lattice blaasop
- *Leiodon cutcutia* (native) Ocellated pufferfish, Ocellated pufferfish
- *Dichotomyctere fluviatilis* (native) Green pufferfish
- *Dichotomyctere nigroviridis* (native) Burmese pufferfish
- *Torquigener hypselogeneion* (native), Orange-spotted toadfish
- *Tylerius spinosissimus* (native), Spiny blaasop

Triacanthidae (Triplespines)

- *Pseudotriacanthus strigillifer* (native) Long spined tripod fish
- *Triacanthus biaculeatus* (native) Short-nosed tripodfish, Short-nosed tripodfish
- *Triacanthus nieuhofii* (native), Silver tripodfish
- *Tripodichthys oxycephalus* (native), Short-tail tripodfish

Triacanthodidae (Spikefishes)

- *Macrorhamphosodes platycheilus* (native), Trumpetsnout spikefish
- *Triacanthodes ethiops* (native), Shortsnout spikefish

Order Torpediniformes

Narcinidae (Numbfishes)

- *Benthobatis moresbyi* (native), Dark blind ray
- *Narcine brunnea* (native), Brown numbfish
- *Narcine lingula* (native), Chinese numbfish
- *Narcine prodorsalis* (questionable), Tonkin numbfish
- *Narcine timplei* (native), Blackspotted numbfish
- *Narke dipterygia* (native), Spottail sleeper ray

Torpedinidae (Electric rays)

- *Torpedo fuscomaculata* Black-spotted torpedo
- *Torpedo panthera* (native), Panther electric ray
- *Torpedo sinuspersici* (native), Marbled electric ray

Zeiformes

Caproidae (Boarfishes)

- *Antigonia indica* (native)

- *Antigonia rubescens* (questionable), Indo-Pacific boarfish

Parazenidae (Parazen)

- *Cyttopsis rosea* (native), Rosy dory

Zeidae (Dories)

- *Zenopsis conchifer* (native), Silvery John dory
- *Zenopsis nebulosa* (native), Mirror dory

Suggested readings

Froese, R. and D. Pauly. Editors. 2006. FishBase. World Wide Web electronic publication. [1], version (05/2006)

Raghavan, R., J. Tharian, A. Ali, S. Jadhav & N. Dahanukar (2013). *Balitora jalpalli*, a new species of stone loach (Teleostei: Cypriniformes: Balitoridae) from Silent Valley, southern Western Ghats, India. *J. Threatened Taxa* 5(5): 3921-3934; doi:10.11609/JoTT. o3277.3921-34.

Vishwanath, W. & K. Nebeshwar Sharma (2005) A new Nemacheiline fish of the genus *Schistura* McClelland

(Cypriniformes: Balitoridae) from Manipur, India. *J. Bombay Nat. Hist. Soc.* 102(1):79-82

Vishwanath, W. and K. S. Devi (2005) A new fish species of the genus *Garra* Hamilton-Buchanan (Cypriniformes: Cyprinidae) from Manipur, India. *J. Bombay Nat. Hist. Soc.* 102(1):86-88

Beevi, K.S.J. and A. Ramachandran (2005) A new species of *Puntius* (Cyprinidae, Cyprininae) from Kerala, India. *J. Bombay Nat. Hist. Soc.* 102(1):83-85

Kurup, B. M., T. G. Manojkumar and K. V. Radhakrishnan. 2005. *Salarias reticulatus*, a new freshwater blenny from Chalakudy river, Kerala, South India. *J. Bombay Nat. Hist. Soc.* 101(2):195-197

Fishbase

Ralf Britz, Krishna Kumar & Fabin Baby, 2012. *Pristolepis rubripinnis*, a new species of fish from southern India (Teleostei: Percomorpha: Pristolepididae). *Zootaxa* 3345: 59-68

Ng, Heok Hee (2005) *Amblyceps carinatum*, a new species of hill stream catfish from Myanmar (Teleostei: Amblycipitidae). *The Raffles Bull. Zool* 53(2): 243-249

Kosygin, L. and W. Vishwanath (2005) Validity and redescription of *Glyptothorax manipurensis* Menon and record of *G. sinense* (Regan) from India. *J. Bombay Nat. Hist. Soc.* 102(1):61-65

Vishwanath, W and Linthoingambi I. 2005. A new Sisorid catfish of the genus *Glyptothorax* Blyth from Manipur, India. *J. Bombay Nat. Hist. Soc.* 102(2):201-203