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**ANNOTATED CHECKLIST OF THE EPIPELAGIC AND SHORE FISHES OF
THE MALDIVE ISLANDS**

by

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ABSTRACT

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A historical resume of fish collecting in the Maldive Islands is presented, beginning with the collection of J. Stanley Gardiner in 1899-1900. Specimens of Maldives fishes have been examined at the Marine Research Section of the Ministry of Fisheries and Agriculture, Republic of Maldives and the five museums which house most of the fishes that have been collected in the islands: the Natural History Museum, London; Bernice P. Bishop Museum, Honolulu; California Academy of Sciences, San Francisco; Field Museum of Natural History, Chicago; and the Senckenberg Museum, Frankfurt.

A total of 899 species of epipelagic and shore fishes are recorded from the Maldives; 201 of these are new records for the islands. Thirty-two of the 899 are recorded by generic name only. Some of these could not be identified to species due to poor condition or to their being juveniles, but most appear to be undescribed.

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ANNOTATED CHECKLIST OF THE EPIPELAGIC AND SHORE FISHES OF THE MALDIVE ISLANDS

by

John E. Randall¹ and R. Charles Anderson²

INTRODUCTION

The Republic of Maldives consists of 26 atolls (grouped into 19 administrative units) that lie southwest of the southern tip of India from 7°N to slightly south of the equator. The islands of Lakshadweep (Laccadives) lie directly to the north and the Chagos Archipelago to the south. Jones and Kumaran (1980) wrote a book on the fishes of Lakshadweep, and Winterbottom et al. (1989) prepared an annotated checklist of the fishes of the Chagos Archipelago. The present checklist of Maldives fishes includes all of the epipelagic and shallow-water species (occurring in less than 200 m) that are known from the islands.

J. Stanley Gardiner made the first collections of fishes from the Maldives in 1899-1900. They were deposited in what was until recently the British Museum (Natural History) and reported on by Regan (1902, 1908). The 65 species listed in 1902 were taken by trawls or dredges in lagoons or from freshwater pools. Of the 185 Gardiner species of fishes from the Indian Ocean recorded in 1908, 69 were taken in the Maldives.

Norman (1939) reported on the fishes of the John Murray Expedition of 1933-1934. Forty-six species were listed from the Maldives. Only three of these are included in the present report; the others all occur at depths greater than 200 m. Deraniyagala (1956) reported on a collection of 22 fishes that he made in the Maldives in 1932. Several of his identifications are questionable.

Palmer (1958) reported on a collection of 11 fishes made by Major W.W.A. Phillips in 1956. Phillips made a second collection of Maldives fishes in 1957, but many of these arrived in the British Museum (Natural History) in a poor state of preservation and had to be destroyed. Palmer (1963) reported on the 42 species of fishes which were in "reasonable condition"; 35 of these were regarded as new records for the islands. The work of Palmer (1958, 1963) brought the known number of Maldivian fishes to 163.

The "Xarifa" Expedition of 1957-58, led by Hans Hass, was the first diving expedition to the Maldives. It resulted in a large collection of fishes for the Senckenberg Museum. Popular accounts of the expedition were written by Hass (1961), Klauswitz (1958), and Eibl-Eibesfeldt (1964, 1982). Klauswitz published a series of 15 scientific papers (1959-1974) dealing with specific fishes or groups of fishes from the "Xarifa" collections. He also prepared a summary list of Maldives fishes which was included in Hass (1961) and in a revised form in Eibl-Eibesfeldt's books on the Maldives (1964, 1982). The revised list totals 413

species, some reported only by generic name. Unfortunately, there are many misidentifications. Since the names are not tied by museum numbers to specific specimens, it has not been possible to relate all the fishes on the list to currently recognized species. Fröiland (1976) published a separate report on the cirrhitid fishes of the "Xarifa" Expedition, and Gon (1987) on the apogonids.

During the International Indian Ocean Expedition of 1964, two major collections of fishes were made in the Maldives. The Field Museum of Natural History was the recipient of the collections made by Loren P. Woods and associates. The collections of Margaret Bradbury and her colleagues, made from the "Te Vega" were deposited in the California Academy of Sciences. These two large collections have not been reported per se, but specimens of some species have been cited in review papers.

The fisheries of the Maldives have traditionally concentrated on tunas, with livebait pole-and-line fishing for surface-swimming species being the major fishing method (Anderson, 1985, 1988; Hafiz, 1986; Anderson and Hafiz, 1988). Surveys carried out by the Ministry of Fisheries of the Republic of Maldives of the existing fisheries and of unexploited offshore and inshore resources (Anderson and Waheed, 1990; Van der Knaap et al., 1991; Anderson et al., 1992) have resulted in many new records of fishes. Several are published here for the first time; others were published in the volumes of the *Catalogue of Fishes of the Maldives* prepared by the staff of the Marine Research Section. This *Catalogue* included 320 species, each with a black and white drawing and a brief account in English and Maldivian. All of the fishes are represented by specimens (or for the larger species, photographs) maintained at the Marine Research Section.

Over the last two decades the Maldives has developed as a major tourist destination. Most of the visitors have come to the islands for snorkelling or SCUBA diving on the lovely coral reefs of these atolls. The reef fishes are a major attraction. Several tourist guidebooks and souvenir booklets have been published that feature underwater pictures of Maldivian fishes (e.g. Voightmann et al., 1986; Anon., 1987). It should be noted, however, that several other such books include photographs of fishes that are not from the Maldives.

Anderson and Hafiz (1987, 1989) published two small books on common Maldivian fishes, illustrating each species with an underwater photograph in colour; a total of 152 species of fishes are included. Nahke and Wirtz (1991) produced a popular book on 150 Maldives fishes, well illustrated with underwater photographs in colour; but it is clear that not all of their fishes were photographed in the Maldives. We have not seen the sweeper identified as *Pempheris adusta* on p. 83, nor the grunt *Plectorhinchus flavomaculatus* in the same picture, and we suspect that the

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photograph was taken outside the Maldives, perhaps in Sri Lanka. Similarly, the Picasso Triggerfish, *Rhinacanthus assasi*, of p. 149 (misidentified as *R. aculeatus*), remains unknown from the Maldives; the photograph may have been taken in the Red Sea. Fifteen other misidentifications are corrected in the synonymy below.

Randall (1992) also wrote a popular book on Maldives fishes, but with minimal text. There is no specimen documentation, and references are lacking. The species in this book will not be cited herein. Anderson (1992) illustrated 14 species of sharks of the Maldives, but many of the photographs were not taken in the Maldives.

Fricke and Randall (1992) reviewed the tripterygiid fishes of the Maldives, and Randall and Goren (1993) the gobioid fishes.

The senior author has made five trips to the Maldivian Islands to collect and photograph fishes, the first in 1975 and the most recent in 1988. His collections are deposited in the Bishop Museum. The junior author began working for the Ministry of Fisheries of the Republic of Maldives in 1983. The Marine Research Section was formed in 1984. In 1989 the Ministry of Fisheries became the Ministry of Fisheries and Agriculture.

The principal collections of Maldives fishes are housed in the Natural History Museum, London [formerly the British Museum (Natural History)] (BMNH); Bernice P. Bishop Museum, Honolulu (BPBM); California Academy of Sciences, San Francisco (CAS); Field Museum of Natural History, Chicago (FMNH); Marine Research Section, Ministry of Fisheries and Agriculture, Malé (MRS); and Senckenberg Museum, Frankfurt (SMF). A few Maldives specimens are reported below from other institutions: Australian Museum, Sydney (AMS); J.L.B. Smith Institute of Ichthyology, Grahamstown (RUSI); Staatliches Museum für Naturkunde, Stuttgart (SMNS); Nationaal Natuurhistorisch Museum, Leiden (formerly Rijksmuseum van Natuurlijke Historie) (RMNH); South African Museum, Cape Town (SAM); U.S. National Museum of Natural History, Washington, D.C. (USNM); and Western Australian Museum, Perth (WAM).

The senior author visited the four museums with the largest collections of Maldives fishes. Specimens which have been examined are listed below by museum number. Not all of the specimens that needed to be seen were found, especially at London and Frankfurt, and data were not taken on all the lots of the common species.

We have included some diagnostic information for a few species for which identification by name only might be questioned and for those we cannot identify to species. We have cited the first publication reporting a species from the Maldives. We have also cited those publications that include colour photographs of the fishes. We have accepted some literature records of fishes without adequate documentation when their occurrence in the Maldives is expected.

Our list below totals 899 species, of which 201 are new records for the Maldives (indicated by asterisk). When available, we have included a photograph for the new records. Some of the new records are based only on our photographs, and a few are sight records. All photographs are by J.E. Randall unless designated otherwise.

Lengths of most specimens are standard length, taken from the tip of the snout to the base of the caudal fin. The length given for sharks and eels is total length. A few other fishes are recorded by total length (TL) or fork length (FL), the latter from the tip of the snout to the end of the shortest median caudal ray.

GINGLYMOSTOMATIDAE

Nebrius ferrugineus (Lesson, 1830); Compagno in Fischer and Bianchi, 1984; Shiham et al., 1988; Anderson et al., 1992; Anderson, 1992.

STEGOSTOMATIDAE

Stegostoma fasciatum (Hermann, 1783); Compagno in Fischer and Bianchi, 1984; Anderson, 1992.

Stegostoma varium: Shiham et al., 1988.

RHINCODONTIDAE

Rhincodon typus Smith, 1829; Shiham et al., 1988; Anderson, 1992. *Rhiniodon typus*: Compagno, 1984.

ODONTASPIDIDAE

Odontaspis ferox (Risso, 1810). MRS 402-92 (jaws).

ALOPIIDAE

Alopias superciliosus (Lowe, 1839); Gubanov, 1978.

Alopias vulpinus (Bonnaterre, 1788); Gubanov, 1978; Compagno, 1984.

LAMNIDAE

Isurus oxyrinchus Rafinesque, 1809; Compagno, 1984; Shiham et al., 1988; Anderson, 1992. MRS P310/88, 150 cm.

CARCHARHINIDAE

Carcharhinus albimarginatus (Rüppell, 1837); Shiham et al., 1988; Anderson, 1992. MRS P311/88, 225 cm.

**Carcharhinus altimus* (Springer, 1950). Two jaws from A. Ukulhas: MRS 380-92 and SAM 32754.

Carcharhinus amblyrhynchus (Bleeker, 1856); Shiham et al., 1988; Anderson and Hafiz, 1989; Anderson, 1992.

Carcharhinus menisorrhachis: Klausewitz, 1958: fig. 9; Eibl-Eibesfeldt, 1964: figs. 64-66.

Carcharhinus falciformis (Bibron, 1839); Shiham et al., 1988; Anderson, 1992.

Carcharhinus limbatus (Valenciennes, 1839); four specimens, 77-111 cm TL, were caught at Laamu Atoll (none from other atolls); photographs were taken of the largest, and the jaws of a 823-mm specimen were preserved (MRS 0433-93). No interdorsal ridge; snout long and moderately pointed; second dorsal fin origin is slightly anterior to that of anal fin; 14 rows of teeth in upper jaw; black on tips of both dorsal fins, paired fins, and leading edge of caudal fin (not on anal or lower lobe of caudal fin); reported by name only by Anderson et al., 1992.

Carcharhinus longimanus (Poey, 1861); Compagno, 1984; Shiham et al., 1988; Anderson, 1992. MRS P313/38, 128 cm.

Carcharhinus melanopterus (Quoy and Gaimard, 1824); Shiham et al., 1988; Anderson, 1992; *Carcharhinus melanoptera*: Klausewitz, 1958.

Carcharhinus sorrah (Valenciennes, 1839); Shiham et al., 1988; Anderson et al., 1992. MRS P318/88, 840 mm.

Galeocerdo cuvier (Peron and Lesueur, 1822); Compagno in Fischer and Bianchi, 1984; Shiham et al., 1988; Anderson, 1992. MRS P314/88, 210 cm.

Loxodon macrorhinus Müller and Henle, 1839; Shiham et al., 1988. MRS P330/88, 890 mm.

Negaprion acutidens (Rüppell, 1837); Compagno in Fischer and Bianchi, 1984. MRS 375-92, jaws.

Prionace glauca (Linnaeus, 1758); Gubanov, 1978; Shiham et al., 1988; Anderson, 1992. MRS P315/88, 246 cm.

Triakonodon obesus (Rüppell, 1837); Randall, 1977; Shiham et al., 1988; Anderson and Hafiz, 1987: 12; Anderson, 1992. This shark has been placed in the Triakidae and Hemigaleidae; we follow Compagno (1973) in classifying it in the Carcharhinidae.

TRIAKIDAE

Mustelus manazo Bleeker, 1854; BPBM 34733, 710 mm; identified by Phillip C. Heemstra who is revising the genus. He noted that the specimen is unusual in having the internarial space greater than other specimens he has examined.

Mustelus mosis: Shiham et al. 1988.

HEMIGALEIDAE

Hemipristis elongatus (Klunzinger, 1871); photograph of the jaws of a specimen on file at the Marine Research Section, Ministry of Fisheries and Agriculture (MRS P0376/92).

SPHYRNIDAE

Fishermen in the Maldives have reported hammerhead sharks to nearly 6 m in length which suggests the presence of *Sphyrna mokarran* (Rüppell).

Sphyrna lewini (Griffith and Smith, 1834); Compagno in Fischer and Bianchi, 1984; Shiham et al., 1988; Anderson, 1992; MRS P317/88, 503 mm; BPBM 34731, 385 mm.

TORPEDINIDAE

**Torpedo* sp. No specimens collected. Pl. 1, Fig. A.

RHINOBATIDAE

**Rhina ancylostoma* (Bloch and Schneider, 1801). No specimens collected; Fig. 1.

RHYNCHOBATIDAE

Rhynchobatus djiddensis (Forsskål, 1775); Nahke and Wirtz, 1991: 25 upper fig. BPBM 34993, 940 mm precaudal length.

MYLIOBATIDAE

Aetobatus narinari (Euphrasen, 1790); Anderson and Hafiz, 1987: 13. *Aetobatis narinaris*: Nahke and Wirtz, 1991: 23.

DASYATIDIDAE

**Himantura granulata* (Macleay, 1883). BPBM 34745, 55 cm disk length, 106 cm TL; SMF 4746, 325 mm disk length; SMF 4747, 333 mm disk length; USNM 320017, 91 cm disk length, 97 cm disk width, 195 cm TL; Fig. 2.

Himantura fai Jordan and Seale, 1906.

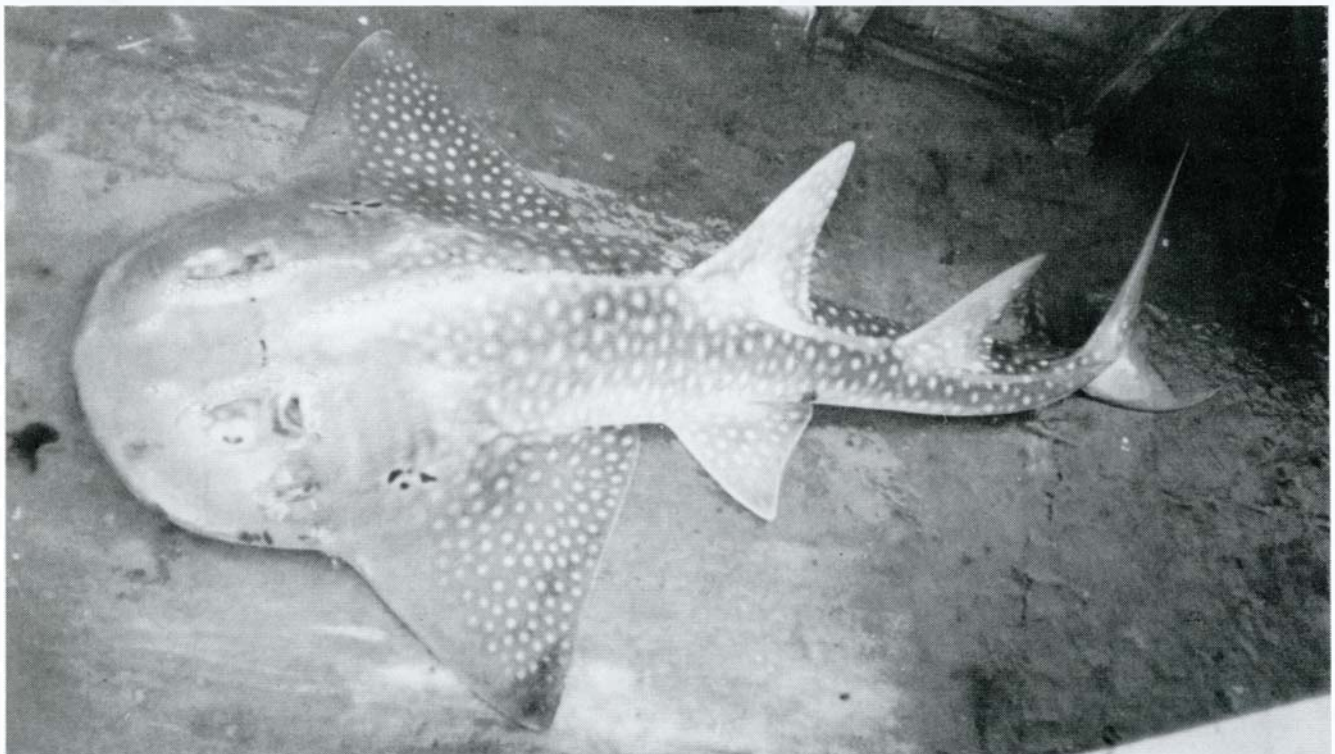


Figure 1. *Rhina ancylostoma*. Photograph by R.C. Anderson

Himantura marginata: Klausewitz in Eibl-Eibesfeldt, 1982. SMF 4740, male, skin, disc length 500 mm; TL 177 cm. Identified by Peter Last.

**Hypolophus sephen* (Forsskål, 1775); photograph taken of a captive individual in a pond at Villingili Beach Resort, North Malé Atoll; Fig. 3.

Taeniura meyeni Müller and Henle, 1841; Anonymous, 1987, unidentified photograph of p. 39.

Taeniura melanospila: Anderson and Hafiz, 1989; 5; Nahke and Wirtz, 1991, fig. at bottom of p. 25; Peter Last (pers. comm.) informed us that *T. melanospilos* Bleeker is a junior synonym of *T. meyeni*.

Taeniura lymma (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982. This species was not seen by us.

Urogymnus africanus (Bloch and Schneider, 1801); Klausewitz in Eibl-Eibesfeldt, 1982; SMF 4739, disc length 500 mm, TL 950 mm. Bernard Seret (pers. comm.) regards *U. asperrimus* (Bloch and Schneider) as a junior synonym of *africanus*.

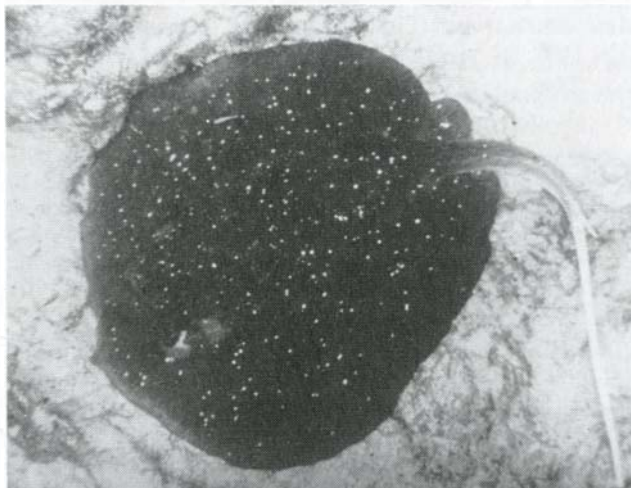


Figure 2. *Himantura granulata*, BPBM 34745, 55 cm disc length.

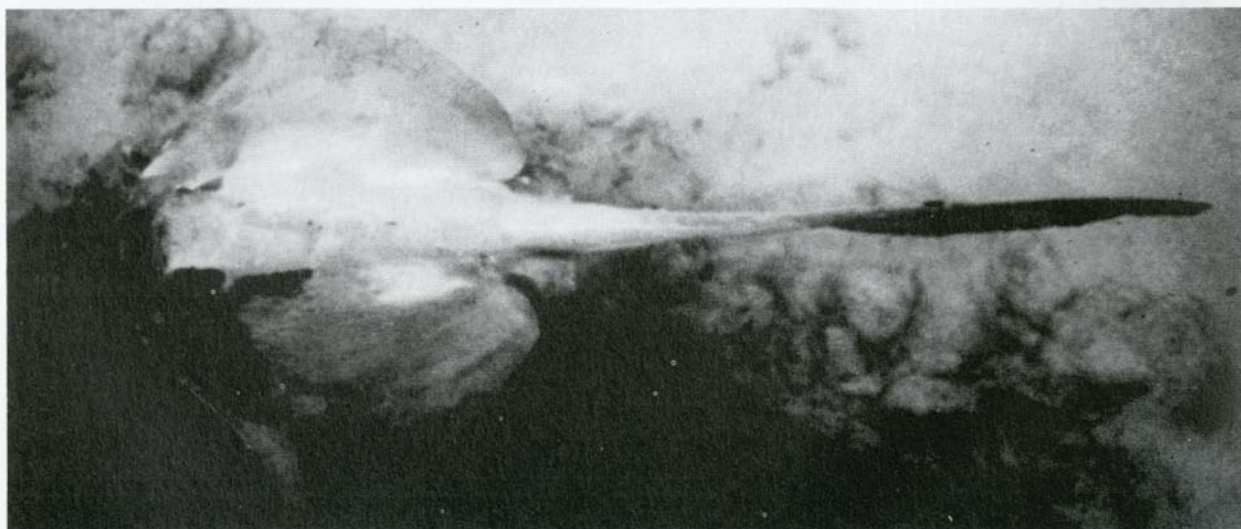


Figure 3. *Hypolophus sephen*.

MOBULIDAE

Manta birostris (Donndorff, 1798); Anderson and Hafiz, 1989: 6.

Manta sp. Voigtmann et al., 1986 (unidentified photographs, pp. 110-111).

**Mobula tarapacana* (Philippi, 1892); A female 180 cm TL, 195 cm in width, and 52 kg in weight was taken in a gill net in November, 1988 at 5°28'N, 74°34'E; photographs and measurements were sent to G. Notarbartolodi-Sciara who identified the species; Fig. 4.

Mobula diabolus: Anderson and Waheed, 1990.

MEGALOPIDAE

Megalops cyprinoides (Broussonet, 1782); Deraniyagala, 1956; Klausewitz in Eibl-Eibesfeldt, 1982. MRS 307-88: 210 mm SL.

ANGUILLIDAE

**Anguilla bicolor bicolor* McClelland, 1884; BPBM 33102, 200 mm. This specimen was collected from a high tidepool in 0-0.2 m next to a seawall on the ocean side of Malé Island, North Malé Atoll; there was some freshwater seepage to the pool.

CONGRIDAE

**Conger cinereus* Rüppell, 1830. FMNH 75482, 568 mm; FMNH 75535, 210 mm.

**Conger wilsoni* (Bloch and Schneider, 1980). BPBM 34989, 540 mm.

**Gorgasia maculata* Klausewitz and Eibl-Eibesfeldt, 1959. BPBM 32889, 8: 425-690 mm; Fig. 5.

Gorgasia preclara Böhlke and Randall, 1981. BPBM 22597, 215 mm.

Heteroconger hassi (Klausewitz and Eibl-Eibesfeldt, 1959).

Xarifania hassi: Klausewitz and Eibl-Eibesfeldt, 1959: 138, figs. 6, 8-10, 15, 16; (Maldives; SMF 4556-8). Nahke and Wirtz, 1991: 33. BPBM 27982, 262 mm.

Taenioconger haasi: Allen and Steene, 1987.

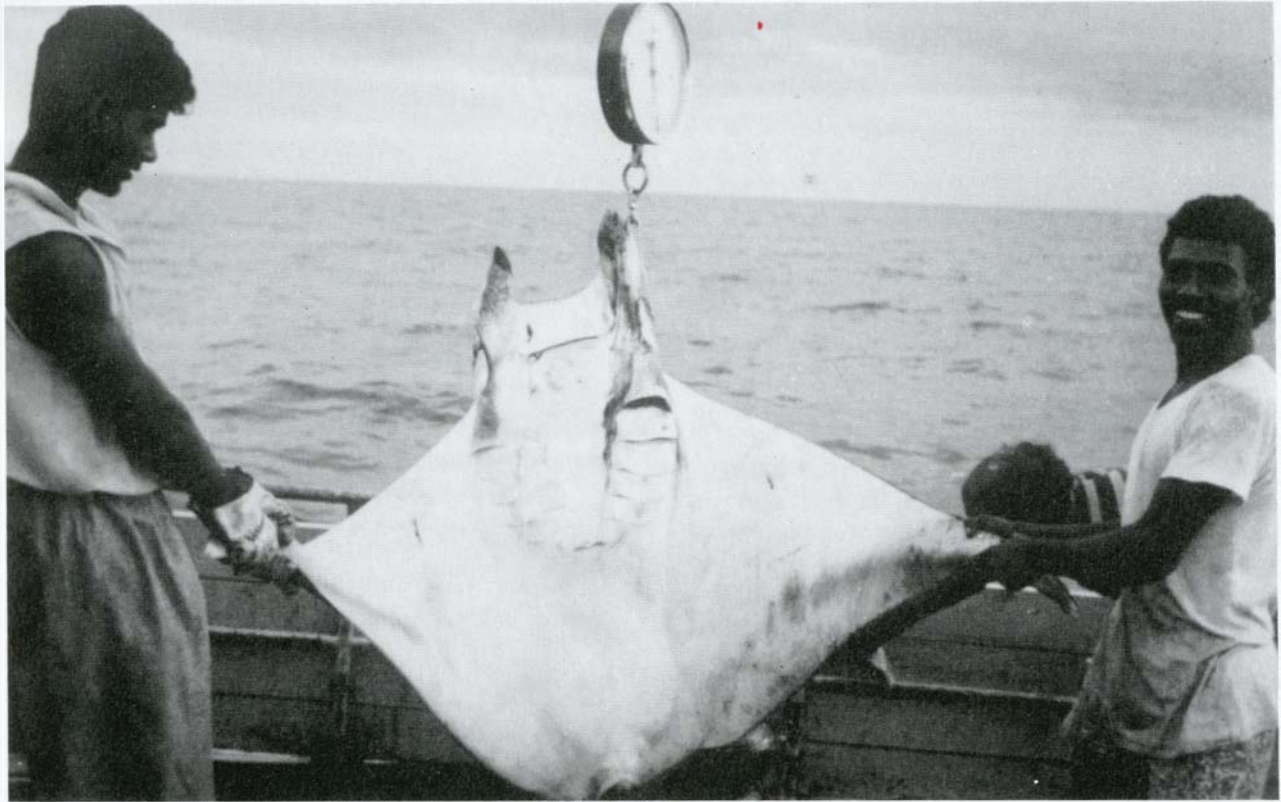


Figure 4. *Mobula tarapacana*, 195 cm disc width, 52 kg. Photograph by R.C. Anderson.

OPHICHTHIDAE

**Apterichtus klazingai* (Weber, 1913). FMNH 75552, 4: 190-253 mm; data on largest: depth 53 in TL; snout to anus 2.2 in TL; head length 13.7 in TL; teeth in a single row in jaws; a large median tooth at front of upper jaw in line with anterior premaxillary teeth; no minute papillae on head; pale with no dark spots. Identified by John E. McCosker.

Brachysomophis crocodilinus (Bennett, 1833); Nahke and Wirtz, 1991: fig. at bottom of p. 33. FMNH 75526, 98 mm; FMNH 75541, 520 mm; data on largest: depth 21 in TL, head 6.6 in TL; eye 26 in head; snout 16 in head; mouth 2.7 in head; predorsal length 5.15 in TL; lateral-line pores from gill opening to anus 47 (46 on 98-mm specimen); brown, paler ventrally, with scattered blackish dots on back and dorsally on head; each lateral-line pore in a small dark brown spot; fins pale.

**Callechelys catostomus* (Bloch and Schneider, 1801). *C. melanotaenia* (Bleeker) is a synonym (see Randall and Wheeler, 1991). FMNH 75532, 7: 350-640 mm; FMNH 75561, 4: 310-330 mm.

**Callechelys marmorata* (Bleeker, 1853). BPBM 34700, 316 mm; FMNH 75558, 187 mm; Fig. 6.

Ophichthus melanochir Bleeker, 1864. Regan's (1908) specimen was not found.

Leiuranus semicinctus (Lay and Bennett, 1839); Palmer, 1958. BPBM 33043, 3: 172-217 mm; SMF 7487, 24: 140-270 mm.

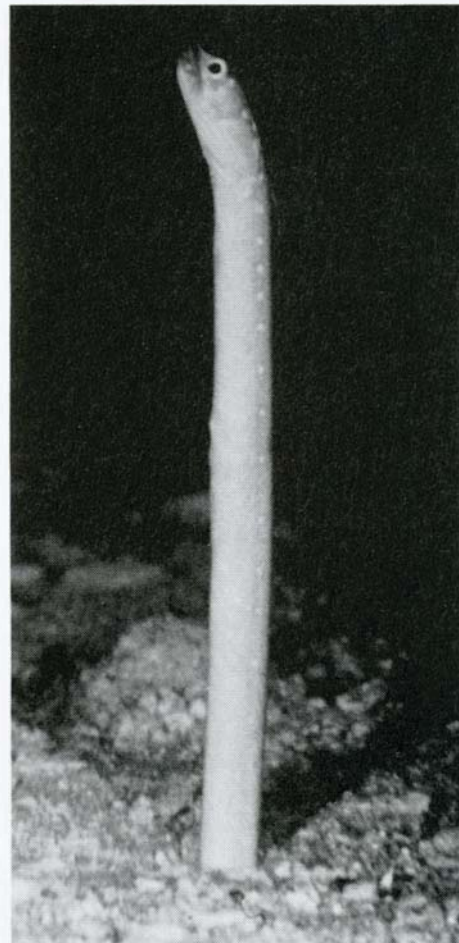


Figure 5. *Gorgasia maculata*.

Muraenichthys macropterus Bleeker, 1857; Palmer, 1963. FMNH 87994, 6: 115-144 mm.

**Muraenichthys schultzei* Bleeker, 1857. Snout to anus 2.3 in TL; head length 7.8 in TL; eye nearly equidistant to tip of chin and corner of mouth (a little closer to corner of mouth); eye 16.5 in head; dorsal fin origin 9.5 mm posterior to anus; 31 lateral-line pores posterior to gill opening, ending 5.5 mm before anus. FMNH 87990, 90 mm.

Myrichthys colubrinus (Boddaert, 1781); Palmer, 1958. BPBM 33044, 405 mm.

**Myrichthys maculosus* (Cuvier, 1817). BPBM 33045, 426 mm; Fig. 7.

**Schultzidia* sp. Dorsal-fin origin 1.5 head lengths posterior to anus; snout shorter and more blunt than *S. johnstonensis*; most of eye posterior to a vertical at rictus; a broad, low, median dorsal ridge anteriorly on body; a band of blackish dots at base of ridge on either side broadening posteriorly to cover all of body (but not fins). BPBM 32969, 81 mm. John E. McCosker examined this specimen; he regards it as a juvenile too small to permit identification.

**Schultzidia johnstonensis* (Schultz and Woods, 1949). FMNH 84319, 91 mm.

Schizmorhynchus labialis (Seale, 1917).

Leptenchelys labialis: Klausewitz in Eibl-Eibesfeldt, 1982. FMNH 84318, 100 mm; SMF 7512, 90 mm.

Yirrkala maculata (Klausewitz, 1964). Not seen by us.

CHLOPSIDAE

**Kaupichthys* sp. A new species which will be described by Kenneth A. Tighe. FMNH 75553, 87 mm.

**Kaupichthys diodontus* (Schultz, 1943). Tighe (pers. comm.) regards *K. diodontus* from the Indo-Pacific as distinct from *K. hyoprорoides* (Strömman, 1896) of the Atlantic. BPBM 33030, 147 mm.

MORINGUIDAE

Moringua ferruginea (Bliss, 1883). Lateral-line pores prior to anus, 74. SMF 7510, 3: 220-280 mm.

Moringua abbreviata: Klausewitz in Eibl-Eibesfeldt, 1982.

**Moringua javanica* (Kaup, 1856). Vertebrae 156; lateral-line pores between head and anus 96; body depth 85 in TL; head 17 in TL. BPBM 33041, 442 mm.

MURAENIDAE

Anarchias allardicei Jordan and Starks, 1906.

Anarchias maldiviensis Klausewitz, 1964 is a synonym of *allardicei* (Erling Holm, pers. comm.). CAS 35658, 2: 65-96 mm; FMNH 75453, 129 mm; FMNH 75490-91, 15: 61-108 mm; FMNH 75518-19, 3: 102-116 mm.

**Anarchias cantonensis* (Schultz, 1943). FMNH 75491, 5: 87-125 mm.

**Anarchias seychellensis* Smith, 1962. Identified by Erling Holm, who indicated the possibility that this species may be a junior synonym of *A. leucurus* (Snyder). CAS 48459, 157 mm; FMNH 75554, 111 mm.

**Echidna nebulosa* (Ahl, 1789). BPBM 33111, 2: 71-114 mm; Pl. 1, Fig. B.

Echidna polyzona (Richardson, 1844). Klausewitz in Eibl-Eibesfeldt, 1982; SMF 7236, 4: 133-237 mm.

**Echidna unicolor* Schultz, 1953. Dentition of largest as illustrated by Schultz (in Schultz *et al.*), 1953: fig. 21d.

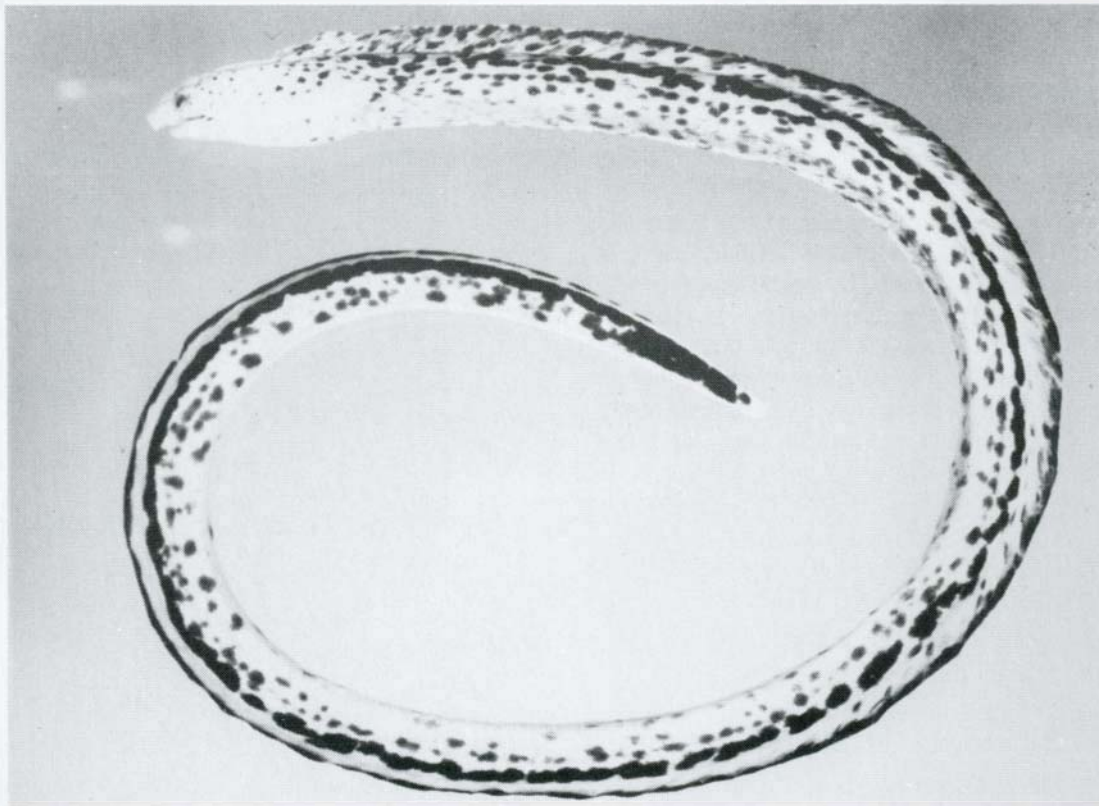


Figure 6. *Callechelys marmorata*, BPBM 34700, 187 mm TL.

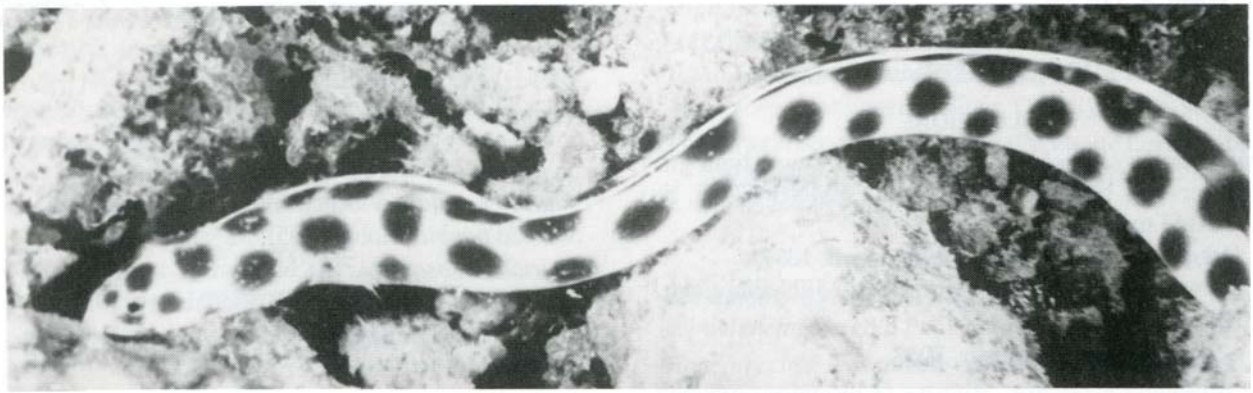


Figure 7. *Myrichthys maculosus*.

- Brown, the margins of the fins paler; blackish ring around eye (more evident on smaller specimens). FMNH 75555, 3: 160-308 mm.
- **Enchelycore bayeri* (Schultz, 1953). BPBM 32963, 260 mm; FMNH 75567, 3: 315-545 mm; **Pl. 1, Fig. C.**
- Gymnomuraena zebra* (Shaw, 1797). SMF 4489, 250 mm.
Echidna zebra: Klausewitz in Eibl-Eibesfeldt, 1982.
- **Gymnothorax berndti* Snyder, 1904. BPBM 34711, 2: 580-850 mm; BPBM 34980, 2: 635-1150 mm; **Pl. 1, Fig. D.**
- Gymnothorax breedeni* McCosker and Randall, 1977; Anonymous, 1987: 60, upper left fig. (unidentified); Anderson and Hafiz, 1989: 8.
Gymnothorax sp. Anderson and Hafiz, 1987: 15.
- **Gymnothorax buroensis* (Bleeker, 1857). BPBM 18893: 209 mm.
- **Gymnothorax elegans* Bliss, 1883. BPBM 34735, 485 mm; **Pl. 1, Fig. E.**
- Gymnothorax enigmaticus* McCosker and Randall, 1982. CAS 35663, 470 mm.
Gymnothorax ruppelli: Klausewitz in Eibl-Eibesfeldt, 1982.
- Gymnothorax favagineus* (Bloch and Schneider, 1801); Nahke and Wirtz, 1991: fig. on p. 29.
- Gymnothorax fimbriatus* (Bennett, 1831); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 33067, 125 mm; BPBM 34990, 540 mm.
- Gymnothorax flavimarginatus* (Rüppell, 1828); Allen and Steene, 1987: pl.12, fig. 1.
Gymnothorax undulatus: Deraniyagala, 1956.
- **Gymnothorax fuscomaculatus* (Schultz, 1953). FMNH 75562, 125 mm.
- Gymnothorax javanicus* (Bleeker, 1859); Klausewitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987.
- **Gymnothorax margaritophorus* Bleeker, 1864. BPBM 32964, 218 mm; FMNH 75523, 105 mm; **Pl. 1, Fig. F.**
- **Gymnothorax melatremus* Schultz, 1953. BPBM 32937, 182 mm; BPBM 32983, 164 mm; **Pl. 1, Fig. G.**
- **Gymnothorax meleagris* (Shaw and Nodder, 1795). **Pl. 1, Fig. H.** We are unable to identify the moray listed as *G. meleagris* by Palmer (1958), but it is clearly not this species.
- Gymnothorax monostigmus* (Regan, 1909).
Gymnothorax boschi: Palmer, 1958. BMNH 1958.6.24.3, 312mm; BPBM 33042, 230 mm.
- Gymnothorax pindae* (Smith, 1962). Randall and McCosker, 1975.
- Gymnothorax richardsoni* (Bleeker, 1852); Palmer, 1963. BMNH 1958.6.24.1, 225 mm; BMNH 1962.1.22.10, 235 mm; BPBM 33042, 230 mm.
- **Gymnothorax rueppelliae* (McClelland, 1845). BPBM 33088, 397 mm. **Pl. 1, Fig. I.**
- Gymnothorax undulatus* (Lacepède, 1803); Anderson and Hafiz, 1989: 7.
Gymnothorax flavimarginatus: Nahke and Wirtz, 1991: 31.
- Gymnothorax zonipectis* Seale, 1906.
Gymnothorax zonipectes: Klausewitz in Eibl-Eibesfeldt, 1982. SMF 7349, 230 mm; BPBM 32966, 242 mm.
- **Gymnothorax* sp. BPBM 32868, 3: 91-104 mm; **Pl. 1, Fig. J.**
- Pseudechidna brummeri* (Bleeker, 1859).
Gymnothorax brummeri: Palmer, 1958. BMNH 1958.6.24.4, 560 mm.
- **Rhinomuraena quaesita* Garman, 1888; **Pl. 2, Fig. A.**
- Siderea delicatula* (Kaup, 1856).
Echidna delicatulus: Klausewitz in Eibl-Eibesfeldt, 1982. SMF 7427, 11: 112-185.
- **Siderea picta* (Ahl, 1789). BMNH 1962.1.22.7, 113 mm.
Muraena picta: Regan, 1908.
- Siderea thyrsoidea* (Richardson, 1845).
Gymnothorax thyrsoides: Klausewitz in Eibl-Eibesfeldt, 1982. CAS 35657-58, 14: 66-141; FMNH 75502, 148 mm; SMF 7393, 2: 190-200 mm.
- **Strophidon sathete* (Hamilton, 1822). BPBM 34947, 200 cm; BPBM 34960, 127 cm; **Fig. 8.**
- **Uropterygius concolor* Rüppell, 1838. BPBM 32967, 202 mm; FMNH 75559, 2: 112-129 mm; **Pl. 2, Fig. B.**
- **Uropterygius fuscoguttatus* Schultz, 1953. BPBM 32985, 176 mm; **Pl. 2, Fig. C.**
- Uropterygius polyspilus* (Regan, 1909). Klausewitz in Eibl-Eibesfeldt, 1982, by name only; no specimen examined by us.

**Uropterygius supraforatus* (Regan, 1909). Identified by John E. McCosker. FMNH 75525, 201 mm; FMNH 75479, 2: 140-229 mm.

**Uropterygius xanthopterus* Bleeker, 1859. BPBM 33113, 132 mm; FMNH 75580, 230 mm.

CLUPEIDAE

**Dussumieria elopsoides* Bleeker, 1849. Lower-limb gill rakers 22; body depth 19.6% SL. FMNH 77475, 5: 26-143 mm.

Herklotsichthys quadrimaculatus (Rüppell, 1837).

Harengula punctata: Klausewitz in Eibl-Eibesfeldt, 1982.

Clupea melanura: Palmer, 1963.

Sardinella melanura: Ministry of Fisheries, Republic of Maldives, 1986. BMNH 1962.1.22.1, 70 mm; FMNH 77468, 19: 90-114 mm; SMF 7113, 52: 50-96 mm. MRS 33/86, 68 mm.

Spratelloides delicatulus (Bennett, 1831); Palmer, 1963. CAS 52509, 21 mm; FMNH 77479, 5: 29-48 mm.

Spratelloides gracilis (Temminck and Schlegel, 1846).

Spratelloides japonicus: Ministry of Fisheries, Republic of Maldives, 1986. A major tuna livebait species (Anderson and Hafiz, 1988). MRS 34/86, 55 mm.

ENGRAULIDIDAE

Encrasicholina heteroloba (Rüppell, 1837).

Stolephorus sp. Anderson and Hafiz, 1988.

Stolephorus heterolobus: Milton et al., 1990 (this and *Stolephorus* sp. reported by name only). Anal rays 16, the first 2 unbranched; lower-limb gill rakers 22-24 (5 counts); a silvery band as broad as eye on side of body; a blackish spot at front of snout, continuing as a mid-dorsal band into interorbital space. BPBM 35047, 8: 52-67 mm; BPBM 35048, 7: 55-63 mm;

CHANIDAE

Chanos chanos (Forsskål, 1775); Palmer, 1963.

Chanos salmoneus: Regan, 1902.

Chanos gardineri Regan, 1902: 280, Malé, Maldives.

PLOTOSIDAE

Plotosus lineatus (Thunberg, 1787); Ministry of Fisheries, Republic of Maldives, 1986. MRS 61/86, 135 mm.

SYNODONTIDAE

Saurida gracilis (Quoy and Gaimard, 1824). Cressey and Waples in Fischer and Bianchi, 1984; Anderson and Hafiz, 1987: 14.

Saurida nebulosa Valenciennes, 1849; Regan 1902.

Saurida tumbil (Bloch, 1795); Regan, 1902.

Saurida undosquamis (Richardson, 1848); Regan, 1902.

Synodus binotatus Schultz, 1953; Cressey, 1981.

Synodus dermatogenys Fowler, 1912.

Synodus variegatus: Cressey, 1981.

**Synodus jaculum* Russell and Cressey, 1979. BPBM 32881, 111 mm; Pl. 2, Fig. D.

Synodus variegatus (Lacepède, 1803). BPBM 18904, 118 mm.

Synodus englemani: Cressey, 1981.

BREGMACEROTIDAE

**Bregmaceros* sp. BPBM 34967, 24: 30-41 mm; taken from the stomach of *Wattsia mossambica* caught NE of Ari Atoll in 100 m; partially digested.

ALEPISAUROIDAE

Alepisaurus ferox Lowe, 1833; Shiham et al., 1988.

OPHIDIIDAE

**Brotula multibarbata* Temminck and Schlegel, 1848. BPBM 32968, 196 mm.

**Ophidion* sp. BPBM 34741, 32 mm; C. Richard Robins examined this specimen; from a radiograph he found 17 precaudal vertebrae, 51 caudal vertebrae, about 124 dorsal rays, and about 103 anal rays; the fin ray counts fall in the range of *O. smithi* (Fowler), known from the Red Sea to Natal, but it has 15 precaudal vertebrae. This juvenile specimen may, therefore, represent an undescribed species. If so, in Robins' opinion, its description should wait the collection of an adult.

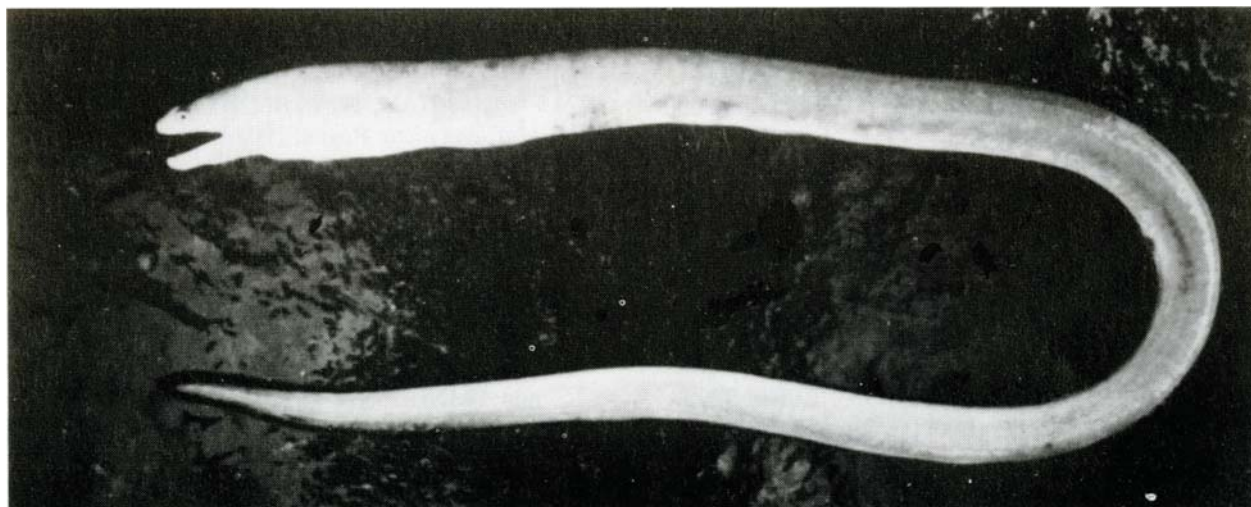


Figure 8. *Strophidon sathete*, BPBM 34947, 200 cm TL. Photograph by R.C. Anderson.

CARAPODIDAE

- **Enchelyophis boraboraensis* Kaup, 1856. CAS 58743, 3: 248-300 mm (identified by John L. Olney).
Enchelyophis gracilis (Bleeker, 1856); Palmer, 1958.
Onuxodon fowleri (Smith, 1955); Markle and Olney, 1991: fig. 90. BPBM 34985, 10: 49-112 mm; from *Pteria shells* on black coral; CAS 48975, 91 mm.
Onuxodon parvibrachium (Fowler, 1927); Markle and Olney, 1991: fig. 87.

BYTHITIDAE

- **Dinematichthys* sp. BPBM 33057, 50 mm (yellow in life).
**Bromophyciops pautzkei* Schultz, 1966. BPBM 32950, 58 mm.

ANTENNARIIDAE

- Antennarius coccineus* (Cuvier in Lesson, 1831); Pietsch and Grobecker, 1987. CAS 58684, 19 mm; MRS 188/88, 55 mm.
Antennarius commersoni (Latreille, 1804); Pietsch and Grobecker, 1987. BPBM 18854, 14 mm; MRS 180/88, 129 mm.
Antennarius nummifer (Cuvier, 1817); Regan, 1902; Pietsch and Grobecker, 1987.
**Histrio histrio* (Linnaeus, 1758). MRS 179/88, 80 mm; MRS 259/88, 3: 9.5-19 mm.

EXOCOETIDAE

- Exocoetus monocirrhus* Richardson, 1846; Ministry of Fisheries, Republic of Maldives, 1986. MRS 18/86, 70 mm.
Exocoetus volitans Linnaeus, 1758; Klauswitz in Eibl-Eibesfeldt, 1982. FMNH 75869, 145 mm.
**Cheilopogon cyanopterus* (Valenciennes, 1846). FMNH 88050, 168 mm.
**Cheilopogon nigricans* (Bennett, 1840). FMNH 75871, 197 mm.
**Cypselurus poecilopterus* (Valenciennes, 1846). CAS 35342: 2: 184-203 mm.
Hirundichthys speculiger (Valenciennes, 1846).
Cypsilurus speculiger: Palmer, 1963. BMNH 1962.1.22.13, 155 mm; BPBM 34685, 180 mm.

HEMIRAMPHIDAE

- Euleptorhamphus viridis* (van Hasselt, 1824); Parin et al., 1980.
**Hemiramphus lutkei* (Valenciennes, 1846). BPBM 34717, 2: 222-224 mm.
Hyporhamphus affinis (Günther, 1866); Parin et al., 1980. BPBM 34948, 132 mm.
Hyporhamphus dussumieri (Valenciennes, 1846); Parin et al., 1980.
Hemiramphus quoyi: Palmer, 1963. BMNH 1962.1.22.12, 140 mm; BPBM 32811, 270 mm.
Oxyporhamphus micropterus (Valenciennes, 1846); Parin et al., 1980.

BELONIDAE

- Ablennes hians* (Valenciennes, 1846); Deraniyagala, 1956.

- Platybelone argalus platyura* (Bennett, 1832); Collette in Fischer and Bianchi, 1984.
Strongylura leiura (Bleeker, 1851).
Tylosurus leiurus: Klauswitz in Eibl-Eibesfeldt, 1982.
Tylosurus acus melanotus (Bleeker, 1850).
Strongylura appendiculata: Deraniyagala, 1956.
Tylosurus crocodilus crocodilus (Peron and Lesueur, 1821).
Strongylura crocodilus: Deraniyagala, 1956. BPBM 33034, 428 mm.

ATHERINIDAE

- Atherinomorus lacunosus* (Bloch and Schneider, 1801).
Alanetta forskali: Palmer, 1963.
Hypoatherina temminckii (Bleeker, 1853). Pectoral rays 17-18; gill rakers 21-23; ascending process of premaxillary twice as long as wide. BPBM 33033, 7: 49-56 mm; BPBM 34954, 3: 27-48 mm; CAS 587254, 28: 40.5-77 mm.
Allenetta barnesi: Ministry of Fisheries, Republic of Maldives, 1986. MRS 26/86, 81 mm.

ANOMALOPIDAE

- **Photoblepharon steinitzi* Abe and Haned, 1973. BPBM 34747, 67 mm; **Pl. 2. Fig. E.**

HOLOCENTRIDAE

- Myripristis adusta* Bleeker, 1853; Shiham et al., 1988; Anderson and Hafiz, 1987: 17. MRS 322/88, 181 mm.
Myripristis berndti Jordan and Evermann, 1903; Shiham et al., 1988. BPBM 32882, 137 mm; MRS 323/88, 152 mm.
Myripristis kuntee Valenciennes, 1831; Randall in Fischer and Bianchi, 1984. MRS 195/88, 116 mm.
Myripristis melanosticta Bleeker, 1863; Shiham et al., 1988; Randall and Guézé, 1981; Allen and Steene, 1987. BPBM 26365, 2: 130-132 mm; MRS 326/88, 168 mm.
Myripristis murdjan (Forsskål, 1775); Randall and Guézé, 1981. BPBM 18914, 148 mm; MRS 327/88, 144 mm.
Myripristis pralinia Cuvier, 1829; Shiham et al., 1988.
Myripristis pralinus: Burgess and Axelrod, 1973: fig. 175. BPBM 34661, 108 mm; MRS 194/88, 121 mm.
Myripristis violacea Bleeker, 1851; Allen and Steene, 1987; Shiham et al., 1988; Anderson and Hafiz, 1989: 11. MRS 194/88, 121 mm.
Myripristis vittata Valenciennes, 1831; Anderson and Hafiz, 1987: 16; Shiham et al., 1988. MRS 197/88, 114 mm.
Myripristis murdjan: Eibl-Eibesfeldt, 1964: fig. 2.
Neoniphon argenteus (Valenciennes, 1831).
Flammeo laeve: Burgess and Axelrod, 1973: fig. 173.
Neoniphon aurolineatus (Liénard, 1839); Shiham et al., 1988. MRS 325/88, 146 mm.
Neoniphon opercularis (Valenciennes, 1831); Randall and Heemstra, 1985. MRS 298/88, 225 mm.
Neoniphon sammara (Forsskål, 1775); Allen and Steene, 1987; Anderson and Hafiz, 1989: 9.
Flammeo sammara: Klauswitz in Eibl-Eibesfeldt, 1982.

Holocentrus sammara: Ministry of Fisheries, Republic of Maldives, 1986. MRS 60/86, 65 mm.

Sargocentron caudimaculatum (Rüppell, 1838); Allen and Steene, 1987; Shiham et al., 1988; Anderson and Hafiz, 1989: 10.

Adioryx andamanensis: Burgess and Axelrod, 1973: fig. 169. BPBM 34675, 145 mm; MRS 192/88, 140 mm. *Adioryx caudimaculatus*: Burgess and Axelrod, 1973: fig. 170.

Sargocentron diadema (Lacepède, 1801).

Holocentrum diadema: Regan, 1908. BPBM 34994, 56 mm, from the stomach of *Lethrinus olivaceus*; partly digested; MRS190/88, 71 mm.

Sargocentron macrosquamis* Golani, 1984. A retrorse spine on nasal bone dorsal to nasal fossa; 2 1/2 rows of scales above lateral line to middle dorsal spines; lateral-line scales 42. BPBM 33062, 46 mm. **Pl. 2, Fig. F.

Sargocentron microstoma (Günther, 1859); Randall and Heemstra, 1985. BPBM 18919, 3: 133-135 mm.

Sargocentron punctatissimum (Cuvier, 1829).

Adioryx lacteoguttatus: Burgess and Axelrod, 1973: fig. 172. BPBM 33010, 86 mm; MRS 191/88, 77 mm.

Sargocentron spiniferum (Forsskål, 1775); Anderson and Hafiz, 1987: 18; Allen and Steene, 1987; Shiham et al., 1988.

Holocentrus: Klausewitz, 1958: fig. 7.

Adioryx spinifer: Burgess and Axelrod, 1973: fig. 167. MRS P113/87, 298 mm.

Sargocentron tiere* (Cuvier, 1829). BPBM 34670, 183 mm; **Pl. 2, Fig. G.

Sargocentron tiereoides (Bleeker, 1853); Shiham et al., 1988. BPBM 32883, 122 mm; MRS 189/88, 90 mm;

Sargocentron violaceum (Bleeker, 1853); Randall and Heemstra, 1985; Shiham et al., 1988. MRS 193/88, 179 mm.

PEGASIDAE

Eurypegus draconis (Linnaeus, 1766); Palsson and Pietsch, 1989. *Pegasus draconis*: Regan, 1902.

AULOSTOMIDAE

Aulostomus chinensis (Linnaeus, 1766); Klausewitz, 1972a; Anderson and Hafiz, 1987: 19.

Aulostomus: Klausewitz, 1958: fig. 7. SMF 7623-24, 2: 335-431 mm.

FISTULARIIDAE

Fistularia commersonii Rüppell, 1838; Anderson and Hafiz, 1987: 20.

Fistularia petimba: Klausewitz, 1972a; Ministry of Fisheries, Republic of Maldives, 1986. MRS 56/86, 191 mm; BPBM 33036, 208 mm; SMF 4493, 649 mm.

Fistularia petimba Lacepède, 1803; Shiham et al., 1988.

Fistularia villosa: Norman, 1939; Klausewitz, 1972a. BMNH 1939.5.24.666-667, 319 mm; unusual in the 37-m depth of capture; MRS 308/88, 151 mm, from the stomach of *Thynnus albacares*; another half-digested specimen, 280 mm SL, taken from the stomach of *Carcharhinus albimarginatus*, not retained.

SOLENOTOMIDAE

Solenostomus cyanopterus Bleeker, 1854; Orr and Fritzsche, 1993. MRS 352/91, 2: 33-41 mm.

Solenostomus paradoxus (Pallas, 1770); Klausewitz, 1972a; Voigtmann et al., 1986, unidentified photograph, p. 108.

Solenostomus paradoxus: Regan, 1902. BMNH 1901.12.21.1436, 51.5 mm.

SYNGNATHIDAE

Choeroichthys brachysoma (Bleeker, 1855); Dawson, 1976.

Choeroichthys sculptus (Günther, 1870): Dawson, 1976.

Cosmocampus banneri*. (Herald and Randall, 1972). BPBM 32993, 36 mm; **Fig. 9.

Corythoichthys flavofasciatus (Rüppell, 1838); Dawson, 1977.

Corythoichthys haematopterus (Bleeker, 1851); Klausewitz, 1972a.

Corythoichthys fasciatus: Palmer, 1963.

Corythoichthys intestinalis: Ministry of Fisheries, Republic of Maldives. BMNH 1958.6.24.13-16, 4: 56-94 mm; BPBM 18877, 132 mm; CAS 58732, 2: 112-119 mm; SMF 5263-64, 5: 110-139 mm; MRS 22/86, 124 mm.

Corythoichthys insularis Dawson, 1977.

Corythoichthys haematopterus: Nahke and Wirtz, 1991: fig. 37. BPBM 32992, 76 mm.

Corythoichthys schultzi Herald, 1953.

Corythoichthys intestinalis: Burgess and Axelrod, 1973: figs. 180-181.

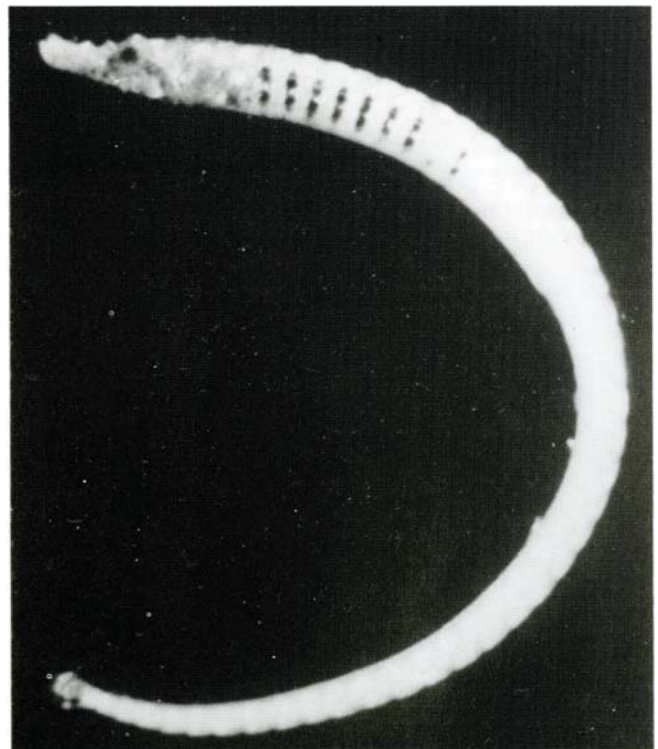


Figure 9. *Cosmocampus banneri*, BPBM 32993, 36 mm SL.

- Doryrhamphus excisus excisus* Kaup, 1856; Dawson, 1981.
Dunckerocampus multiannulatus (Regan, 1903);
 Klauswitz, 1972a. BPBM 32994, 113 mm; SMF
 5261-62, 2: 110.5-115 mm.
Festucalex erythraeus (Gilbert, 1905).
Ichthyocampus townsendi Duncker, 1915; Klauswitz,
 1972a. BMNH 1901.12.31.145, 51 mm.
Phoxocampus belcheri (Kaup, 1856).
Ichthyocampus belcheri: Regan, 1902. BPBM 34744,
 29 mm; CAS 58724, 68 mm.
 **Trachyrhamphus bicoarctatus* (Bleeker, 1857).

DACTYLOPTERIDAE

- **Dactyloptena orientalis* (Cuvier, 1829). BPBM 34681, 37 mm.

SCORPAENIDAE

- Dendrochirus biocellatus* (Fowler, 1938).
Nemapterois biocellatus: Klauswitz, 1969. SMF
 5447, 102 mm.
Dendrochirus brachypterus (Cuvier, 1829).
Dendrochirus brachyptera: Palmer, 1958.
Dendrochirus zebra (Cuvier, 1829); Burgess and Axelrod,
 1973: fig. 128; Voigtmann et al, 1986, unidentified
 photograph, p. 101.
Pterois zebra: Regan, 1902.
Inimicus filamentosus (Cuvier, 1829).
Pelor didactylum: Regan, 1902 (correction by Esch-
 meyer, Rama Rao and Hallacher, 1979).
Minous sp.; Regan (1908) identified the three small speci-
 mens of BMNH 1901.12.31.21-23 from the Maldives
 as *Minous monodactylus* (Bloch and Schneider, 1801);
 Eschmeyer, Hallacher and Rama Rao (1979) accepted
 this identification without seeing specimens. The sen-
 ior author examined the specimens and decided they are
 not *M. monodactylus*. He arranged to send them to W.
 N. Eschmeyer who concluded that they either represent
 an undescribed species or are the young of one of three
 known species. Adult specimens are needed.
 **Pontinus nigerimum* Eschmeyer, 1983; BPBM 34984, 195
 mm; North Malé Atoll in 190 m; previously known
 only from the holotype taken off Natal in 146 m.
Pterois antennata (Bloch, 1787); Burgess and Axelrod,
 1973: fig. 126; Allen and Steene, 1987; Anderson and
 Hafiz, 1987: 74. BPBM 32927, 75 mm.
Pterois miles (Bennett, 1828).
Pterois volitans: Regan, 1908; Palmer, 1963; Anderson
 and Hafiz, 1987: 73; Ministry of Fisheries, Republic of
 Maldives, 1986. MRS 57/86, 91 mm.
Pterois radiata Cuvier, 1829; Klauswitz in Eibl-Eibes-
 feldt, 1982; Anderson and Hafiz, 1989: 79.
 **Scorpaenodes albaiensis* (Evermann and Seale, 1907).
 BPBM 32928, 60 mm; FMNH 75831, 37 mm; FMNH
 75837, 2: 25-30 mm; **Pl. 2, Fig. H**.
Scorpaenodes guamensis (Quoy and Gaimard, 1824); Pal-
 mer, 1963. SMF 9835, 46 mm.
 **Scorpaenodes kelloggi* (Jenkins, 1903). CAS 58719, 25
 mm; FMNH 75830, 23 mm.
 **Scorpaenodes parvipinnis* (Garrett, 1864). BPBM 33020,
 25 mm; CAS 58696. 4: 34-65 mm; FMNH 75823, 63
 mm; **Pl. 2, Fig. I**.
 **Scorpaenodes scaber* (Ramsay and Ogilby, 1886). CAS
 58734, 24: 24-61 mm.
Scorpaenodes varipinnis Smith, 1957; Klauswitz in Eibl-
 Eibesfeldt, 1982.
 **Scorpaenopsis* sp. FMNH 75824, 2: 119-125 mm; FMNH
 75835, 2: 90-111 mm; FMNH 75839, 2: 65-74 mm; to
 be described by W. N. Eschmeyer and K. Rama Rao.
 **Scorpaenopsis brevifrons* Eschmeyer and Randall, 1975.
 FMNH 75839, 35 mm (identified by W. N. Esch-
 meyer).
 **Scorpaenopsis diabolus* Cuvier, 1829. CAS 58730, 25
 mm; FMNH 75829, 53.5 mm.
Scorpaenopsis fowleri (Pietschmann, 1934).
Sebastapistes hassi Klauswitz, 1970; Eschmeyer and
 Rama Rao (MS) examined the holotype of *S. hassi* from
 Addu Atoll, Maldives and reidentified it as *Scor-
 paenopsis fowleri*. Although lacking palatine teeth,
 this small species does not fit well in *Scorpaenopsis* and
 warrants placement in a new genus. BPBM 32988, 22
 mm.
Scorpaenopsis oxycephala (Bleeker, 1849). Voigtmann et
 al., 1986 (unidentified photograph, p. 107).
Scorpaenopsis cirrhosus: Burgess and Axelrod, 1973:
 fig. 123; Nahke and Wirtz, 1991: 51.
Scorpaenopsis sp. Anderson and Hafiz, 1987: 72.
 BPBM 27207, 215 mm.
 **Sebastapistes* sp. BPBM 32872, 31 mm. An apparently
 undescribed species; coronal spines absent; 3 spines on
 lacrymal; longitudinal ridge under eye with 3 spines, all
 behind centre of eye; pectoral rays 15; **Pl. 2, Fig. J**.
 **Sebastapistes cyanostigma* (Bleeker, 1856). CAS 58708,
 7: 37-46 mm; FMNH 75834, 4: 34-40 mm; SMF 9805,
 32 mm.
Sebastapistes strongia (Cuvier, 1829).
Sebastapistes oglinus: Burgess and Axelrod, 1973: fig.
 122. BPBM 33048, 46 mm; FMNH 75827, 27 mm;
 FMNH 75843, 36 mm.
Synanceia verrucosa Bloch and Schneider, 1801; Regan,
 1908.
Taenianotus triacanthus Lacepède, 1802; Voigtmann et al.,
 1986 (unidentified photographs, pp. 104, 105). BPBM
 34679, 85 mm.

APLOACTINIDAE

- Ablabys macracanthus* (Bleeker, 1852).
Amblyapistus macracanthus: Regan, 1902. The Gard-
 ner specimen from the Maldives (BMNH
 1901.12.31.25) was correctly identified to species by
 Regan (Stuart Poss, pers. comm.).
Cocotropis roseus Day, 1875; Regan, 1902. Poss (pers.
 comm.) reports two specimens from the Maldives, the
 Gardiner specimen recorded by Regan (BMNH
 1902.12.31.20) and one in Leiden (RMNH 993).

CARACANTHIDAE

Caracanthus madagascariensis (Guichenot, 1869). William N. Eschmeyer (pers. comm.) advised the use of this name for the Maldive specimens.

Caracanthus maculatus: Klausewitz in Eibl-Eibesfeldt, 1982. CAS 58710, 4: 26-33 mm.

Caracanthus unipinna (Gray, 1831); Klausewitz in Eibl-Eibesfeldt, 1982. SMF 5329 (not measured).

TRIGLIDAE

Satyrichthys sp. Dorsal rays VII-15; anal rays 15; pectoral rays 14 + 2; lateral scutes from behind middle of gill opening 24; rostral extensions short, converging (lost on smallest specimen; three-fifths orbit diameter in length on largest). Illustrated in colour by Anderson et al. (1992). BPBM 34965, 2: 275-425 mm, from outside North Malé Atoll in 180 m.

PLATYCEPHALIDAE

Onigocia sp.

Platycephalus spinosus: Regan, 1902.

Onigocia pedimacula (Regan, 1908). BMNH 1901.12.31.45, 49 mm (holotype).

Platycephalus pedimacula Regan, 1908: 238 (Kolumadulu, Maldives)

Rogadius pristiger (Cuvier, 1829).

Platycephalus asper: Regan, 1902. BPBM 34969, 96 mm; CAS 58561, 83 mm.

Sorsogona sp.

Platycephalus subfasciatus: Regan, 1902; the Maldives specimen could not be located at the British Museum (Natural History); the type specimen of *Platycephalus subfasciatus* Günther was examined; it is a species of *Sorsogona*.

Sorsogona tuberculata (Cuvier, 1829).

Platycephalus tuberculatus: Regan, 1902.

**Thysanophrys chiltonae* Schultz, 1966. BPBM 34743, 97 mm; BPBM 34701, 34 mm; Fig. 10.

**Thysanophrys otaitensis* (Cuvier, 1829). FMNH 91313, 3: 89-113 mm; FMNH 91735, 5: 106-166 mm.

SERRANIDAE

Burgess and Axelrod (1973: 644, fig. 108) reported *Cephalopholis boenack* (Bloch) from the Maldives; their illustration is *C. formosa* (Shaw), which we have not seen in these islands. We suspect that this is a locality error; the same gorgonian background for the aquarium photograph of *C. formosa* was used for the labrid fish *Bodianus luteopunctatus* (= *neilli*), which is found in Sri Lanka but not the Maldives. The listing of *Plectropomus maculatus* (Bloch) from the Maldives by Klausewitz in Eibl-Eibesfeldt (1982) is probably a misidentification.

Aethaloperca rogae (Forsskål, 1775); Shiham et al., 1987; Allen and Steene, 1987: pl. 26, fig. 6; Anderson and Hafiz, 1989: 15; Randall and Heemstra, 1991: pl. 29 B. *Cephalopholis rogae*: Burgess and Axelrod, 1973: fig. 111. MRS 109/87, 2: 123-190 mm; SMF 22019, 184 mm; SMF 22028, 104 mm; SMF 22030, 219 mm.

Anyperodon leucogrammicus (Valenciennes, 1828); Burgess and Axelrod, 1973: fig. 112; Allen and Steene, 1987; Anderson and Hafiz, 1987: 24. MRS 78/86, 278 mm.

**Aporops allfreei* Smith, 1953. CAS 58700, 2: 36.5-37 mm.

Belonoperca chabanaudi Fowler and Bean, 1930; Randall et al., 1980; Allen and Steene, 1987. BPBM 18880, 106 mm; BPBM 22905, 115 mm.

Cephalopholis argus Bloch and Schneider, 1801; Eibl-Eibesfeldt, 1964: fig. 56; Burgess and Axelrod, 1973: fig. 106; Allen and Steene, 1987; Anderson and Hafiz, 1987: 25; Randall and Heemstra, 1991: pl. 29 E.

Epinephelus argus: Regan, 1908. MRS 53/86, 219 mm; SMF 22012, 2: 19-125 mm.

Cephalopholis aurantia (Valenciennes, 1828); Shiham et al., 1987. MRS 156/87, 166 mm; BPBM 32893, 190 mm.

**Cephalopholis boenack* (Bloch, 1790). Fig. 11.

Cephalopholis leopardus (Lacepède, 1802); Burgess and Axelrod, 1973: fig. 118; Allen and Steene, 1987. BPBM 34668, 5: 94-119 mm; CAS 58701, 65 mm; MRS 200/88, 113 mm; SMF 22025, 89 mm.

Cephalopholis miniata (Forsskål, 1775); Eibl-Eibesfeldt, 1964: 56; Shiham et al., 1987; Allen and Steene, 1987; Anderson and Hafiz, 1987: 26; Randall and Heemstra, 1991: pl. 30 H, pl. 31 A. BPBM 34669, 113 mm; MRS 141/87, 218 mm.

Cephalopholis sexmaculata (Rüppell, 1830); Shiham et al., 1988; Allen and Steene, 1987; Anderson and Hafiz, 1989: 17; Randall and Heemstra, 1991: pl. 31 E. MRS P142/87, 240 mm.

Cephalopholis sonnerati (Valenciennes, 1828); Shiham et al., 1987; BPBM 32831, 37 mm. MRS 138/87, 380 mm.

Cephalopholis spiloparaea (Valenciennes, 1828); Shiham et al., 1988; Randall and Heemstra, 1991: pl. 32 C.

Cephalopholis sp. Allen and Steene, 1987; pl. 28, fig. 7. BPBM 18860, 115 mm; BPBM 34728, 119 mm; MRS 324/88, 2: 113-134 mm.

Cephalopholis urodeta (Forster, 1801) Randall and Heemstra, 1991: pl. 32 E.

Cephalopholis nigripinnis: Shiham et al., 1987; Anderson and Hafiz, 1989: 16. MRS 102/87, 163 mm. SMF 22026, 132 mm.

Diploprion bifasciatum Cuvier, 1828; Klausewitz in Eibl-Eibesfeldt, 1982; Shiham et al., 1988. MRS 212/88, 112 mm.

Epinephelus areolatus (Forsskål, 1775); Shiham et al., 1987; Anderson et al., 1992: 23. MRS 139/87, 294 mm.

Epinephelus caeruleopunctatus (Bloch, 1790); Anderson and Hafiz, 1987: 27; Shiham et al. 1987; Randall and Heemstra, 1991: fig. 51, pl. 34 A. MRS 101/87, 74 mm; SMF 22039, 62.5 mm.

Epinephelus chlorostigma (Valenciennes, 1828); Shiham et al., 1987. MRS 169/87, 423 mm.

Epinephelus fasciatus (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 18. MRS 04/88, 181 mm; SMF 22020, 47 mm.

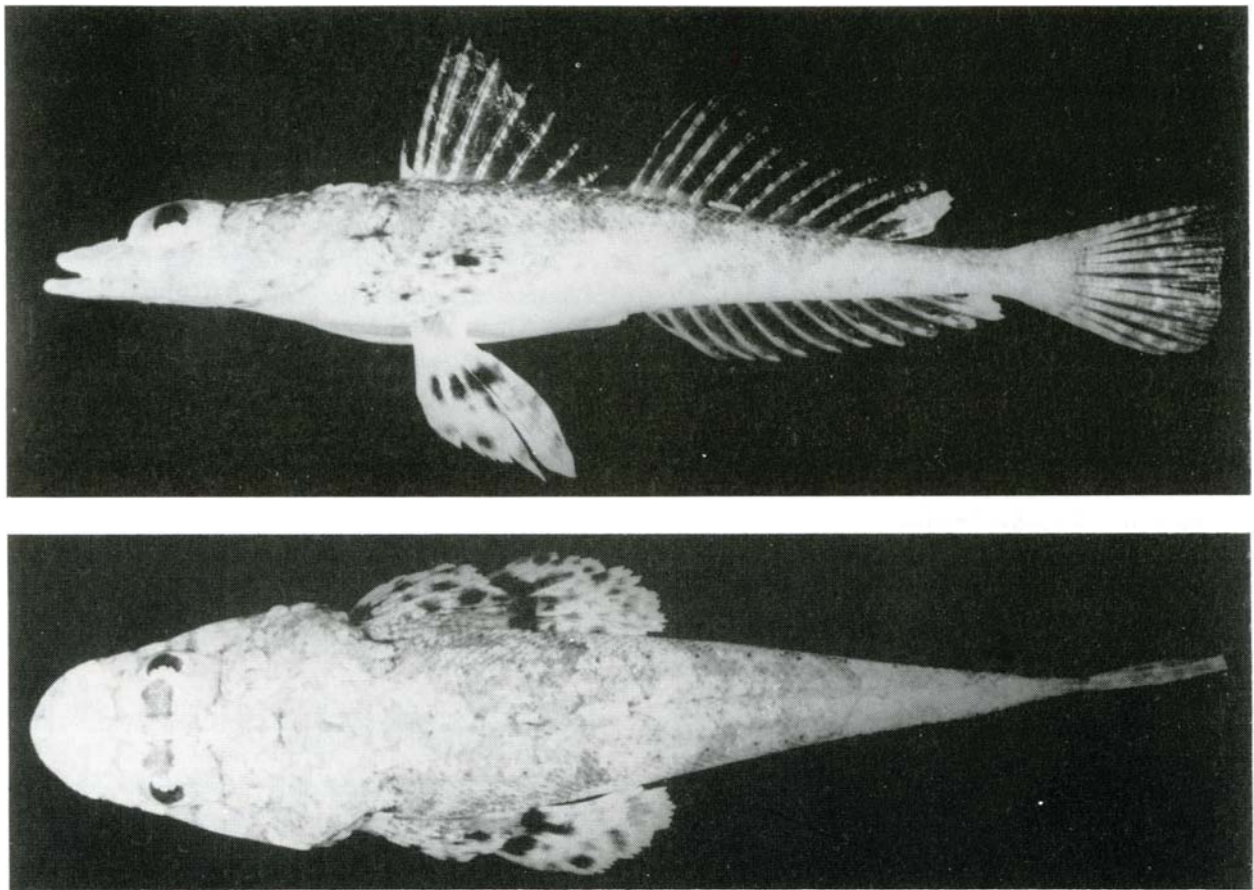


Figure 10. *Thysanophrys chiltonae*, BPBM 34743, 97 mm SL; lateral and dorsal view.

Epinephelus flavocaeruleus (Lacepède, 1802); Shiham et al., 1987. MRS 165/87, 2: 340-565 mm.

Epinephelus fuscoguttatus (Forsskål, 1775); Heemstra and Randall in Fischer and Bianchi, 1984; Shiham et al., 1987; Randall and Heemstra, 1991: pl. 35 H. MRS P129/87, 413 mm.

**Epinephelus lanceolatus* (Bloch, 1790). The Marine Research Section has colour photographs of two specimens that were landed at the Malé market, one of 204 cm TL on Oct. 17, 1989 and one of 187 cm TL on Oct. 25, 1989; also the second author observed this species while diving on the wreck of the "Skipjack I" at Gaaerifalu in Lhaviyani Atoll on Nov. 20, 1988.

Epinephelus longispinis (Kner, 1865); Shiham et al., 1987; Randall and Heemstra, 1991: pl. 36 F. BPBM 33830, 47 mm; BPBM 33920, 342 mm; MRS P117/87, 365 mm.

Epinephelus macrospilos (Bleeker, 1855).

Epinephelus faveatus: Shiham et al., 1987; Randall and Heemstra, 1991: pl. 36 H. MRS P159/87, 230 mm. SMF 22018, 114 mm.

Epinephelus melanostigma Schultz, 1953; Klauswitz in Eibl-Eibesfeldt, 1982; Randall and Heemstra, 1991; FMNH 98271, 83 mm.

Epinephelus merra Bloch 1793; Regan, 1908; Burgess and Axelrod, 1973: fig. 110.

Epinephelus megachir: Palmer, 1963. BMNH 1962.1.22.18, 85 mm; FMNH 89724, 9: 69-121 mm; MRS 52/86, 165 mm; SMF 22032, 2: 121-158 mm.



Figure 11. *Cephalopholis boenak*. Photograph by R.C. Anderson

- Epinephelus miliaris* (Valenciennes, 1830); Shiham et al., 1987. MRS 170/87, 411 mm.
- Epinephelus morrhua* (Valenciennes, 1833); Shiham et al., 1988; Randall and Heemstra, 1991: pl. 18 C. BPBM 34955, 350 mm; MRS P303/88, 502 mm.
- Epinephelus multinotatus* (Peters, 1876); Shiham et al., 1987. BPBM 34974, 515 mm; MRS 68/87, 558 mm.
- Epinephelus octofasciatus* (Griffin, 1926).
Epinephelus septemfasciatus: Shiham et al., 1988. MRS P328/88, 440 mm. BPBM 33912, 430 mm.
- Epinephelus ongus* (Bloch, 1790); Shiham et al., 1988.
Epinephelus summana: Allen and Steene, 1987. MRS 302/88, 250 mm.
- Epinephelus poecilonotus* (Temminck and Schlegel, 1842); Randall and Heemstra, 1991: pl. 19 B. BPBM 33919, 520 mm; BPBM 34981, 490 mm.
- Epinephelus polyphkadion* (Bleeker, 1849).
Epinephelus fuscoguttatus: Eibl-Eibesfeldt, 1964: fig. 57; Allen and Steene, 1987.
Epinephelus microdon: Randall and Ben-Tuvia, 1983; Anderson and Hafiz, 1989: 19. MRS P148/87, 358 mm.
- **Epinephelus retouti* Bleeker, 1868. BPBM 34966, 292 mm.
- Epinephelus spilotoceps* Schultz, 1953; Shiham et al., 1987; Anderson and Hafiz, 1989: 20; Randall and Heemstra, 1991: pl. 39 G.
- Epinephelus melanostigma*: Klausewitz in Eibl-Eibesfeldt, 1982. MRS 103/87, 2: 194-202 mm; SMF 22011, 187 mm.
- Epinephelus tauvina* (Forsskål, 1775); Shiham et al., 1987. MRS P173/87, 330 mm.
- Gracila albomarginata* (Fowler and Bean, 1930); Shiham et al., 1988; Smith-Vaniz et al., 1988; Anderson and Hafiz, 1989: 21. MRS 321/88, 229 mm.
- Grammistes sexlineatus* (Thunberg, 1792); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 33010, 39 mm; MRS 211/88, 95 mm; SMF 22024, 57.5 mm.
- Liopropoma africanum* (Smith, 1954); Randall and Taylor, 1988. BPBM 32942, 2: 38-48 mm; MRS 201/88, 31 mm.
- **Liopropoma susumi* (Jordan and Seale, 1906). FMNH 75790, 2: 60-62 mm.
- Luzonichthys earlei* Randall, 1981; Randall and McCosker, 1992. BPBM 34695, 2: 31-34.5 mm; dorsal rays IX-X-16; anal rays III,7; pectoral rays 21; lateral-line scales 65-68; gill rakers 7-8 + 20-21.
- Nemanthias carberryi* Smith, 1954. *Nemanthias carburyi*: Allen and Steene, 1987. BPBM 18865, 3: 45-48 mm; BPBM 18938, 6: 31-40 mm; BPBM 33095: 54-65 mm.
- **Plectranthias winniensis* (Tyler, 1966); specimen lost.
- Plectropomus areolatus* (Rüppell, 1830); Randall and Hoese, 1986; Shiham et al., 1987. MRS P135/87, 395 mm. *Plectropoma* sp. Allen and Steene, 1987.
- Plectropomus laevis* (Lacepède, 1802); Randall and Hoese, 1986; Anderson and Hafiz, 1987; Shiham et al., 1987.
Plectropomus leopardus (non Lacepède): Allen and Steene, 1987. MRS P163/87, 530 mm.
- Plectropomus pessuliferus pessuliferus* (Fowler, 1904); Randall and Hoese, 1986.
Plectropomus pessuliferus: Shiham et al., 1987. MRS P126/87, 485 mm.
- Pseudanthias bicolor* (Randall, 1979); Randall and Lubbock, 1981.
- Pseudanthias bimaculatus* (Smith, 1955); Randall and Hutomo, 1988. BPBM 34696, 3: 25-72 mm.
- Pseudanthias cooperi* (Regan, 1902). BPBM 33093, 5: 36-66 mm; MRS 62/86, 86 mm.
Anthias cooperi Regan, 1902: 273 (Maldives).
- Pseudanthias evansi* (Smith, 1954); Anderson and Hafiz, 1989: 22.
Anthias evansi: Allen and Steene, 1987; Nahke and Wirtz, 1991: fig. at top of p. 59.
Mirolabrichthys evansi: Burgess and Axelrod, 1973: figs. 114, 116, 117.* BPBM 18855, 77 mm; BPBM 33072, 2: 34-50 mm.
- Pseudanthias hypselosoma* Bleeker, 1878. BPBM 18868, 2: 67-69 mm.
- Pseudanthias ignitis* (Randall and Lubbock, 1981: fig. 12). BPBM 18858, 58.3 mm.
- Pseudanthias parvirostris* (Randall and Lubbock, 1981).
Anthias parvirostris: Debelius, 1987. BPBM 34697, 5: 35-50 mm.
- Pseudanthias pulcherrimus* (Heemstra and Randall, 1986). BPBM 18881, 7: 33-55 mm.
- Pseudanthias squamipinnis* (Peters, 1855). *Anthias squamipinnis*: Burgess and Axelrod, 1973: fig. 115; Allen and Steene, 1987; Anderson and Hafiz, 1987: 30; Nahke and Wirtz, 1991: figs. at bottom of p. 59. BPBM 32943, 13: 25-52 mm.
- Pseudogramma polyacantha* (Bleeker, 1856); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 32903, 42 mm. BPBM 32987, 38 mm.
- Rabaulichthys stigmaticus* Randall and Pyle, 1989: 2, figs. 1, 2 (Ari Atoll, Maldives). BPBM 32751, 49.8 mm (holotype); BPBM 32752, 38 mm; RUSI 28149, 46.1 mm; and USNM 298470, 40.5 mm (paratypes).
- Variola albimarginata* Baissac, 1953; Shiham et al., 1987; Randall and Heemstra, 1991: pl. 41 D, F. BPBM 32832, 36 mm; MRS P128/87, 320 mm.
- Variola louti* (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 28; Allen and Steene, 1987; Randall and Heemstra, 1991: pl. 41 H. MRS P162/87, 325 mm; SMF 22014, 257 mm.

LOBOTIDAE

- Lobotes surinamensis* (Bloch, 1790); Shiham et al., 1988. MRS P320/88, 372 mm.

KUHLIIDAE

- Kuhlia mugil* (Bloch and Schneider, 1801); Ministry of Fisheries, Republic of Maldives, 1986. MRS 27/86, 35 mm.
Kuhlia taeniura: Burgess and Axelrod, 1973: fig. 295.

PRIACANTHIDAE

- Heteropriacanthus cruentatus* (Lacepède, 1801).
Priacanthus cruentatus: Klausewitz in Eibl-Eibesfeldt, 1982. SMF 22009-10, 2: 187-198 mm.
- Priacanthus hamrur* (Forsskål, 1775); Burgess and Axelrod, 1973: fig. 177; Allen and Steene, 1987; Anderson and Hafiz, 1989: 23.
Priacanthus arenatus: Eibl-Eibesfeldt, 1964: fig. 81; Klausewitz in Eibl-Eibesfeldt, 1982.

CIRRHITIDAE

- Amblycirrhites bimacula* Jenkins, 1903; Fröiland, 1976.
Paracirrhites bimaculatus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18888, 51 mm; FMNH 90628, 2: 50-52 mm; FMNH 90630, 5: 46-58.5 mm; SMF 12841, 39 mm.
- **Cirrhitichthys falco* Randall, 1963. BPBM 18947, 55 mm; **Pl. 3, Fig. A.**
- Cirrhitichthys oxycephalus* (Bleeker, 1855); Regan, 1902; Fröiland, 1976.
Cirrhitichthys aprinus: Klausewitz in Eibl-Eibesfeldt, 1982.
- Cirrhites pinnulatus* (Bloch and Schneider, 1801); Palmer, 1963; Fröiland, 1976. BPBM 33005, 3: 106-118 mm.
- **Cyprinocirrhites polyactis* (Bleeker, 1875); **Pl. 3, Fig. B.**
Oxycirrhites typus Bleeker, 1857; Allen and Steene, 1987. BPBM 32933, 45 mm.
- Paracirrhites arcatus* (Cuvier, 1829); Randall, 1963; Burgess and Axelrod, 1973: fig. 130; Fröiland, 1976; Anderson and Hafiz, 1989: 80. SMF 12840, 12897 (not measured).
- Paracirrhites forsteri* (Bloch and Schneider, 1801); Eibl-Eibesfeldt, 1964: fig. 54; Fröiland, 1976; Anderson and Hafiz, 1987: 65. FMNH 90698, 2: 107-118 mm.

TERAPONIDAE

- Terapon jarbua* (Forsskål, 1775).
Terapon jarbua: Klausewitz in Eibl-Eibesfeldt, 1982; Ministry of Fisheries, Republic of Maldives, 1986. MRS 8/96, 41 mm; SMF 22022-23, 2: 22-22.5 mm.

PSEUDOCROMIDAE

- **Chlidichthys inornatus* Lubbock, 1976; AMS I.18169-001, 26 mm (paratype); BMNH 1973.12.20.251, 24 mm (paratype); BPBM 32925-26, 13: 29-39 mm; BPBM 32941, 3: 29-34 mm; BPBM 32973, 10: 29-36 mm; **Pl. 3, Fig. C.**
- **Pseudochromis coccinicauda* Tickell in Day, 1888; BPBM 33018, 4: 36-39 mm; CAS 58697, 37 mm; previously confused with *P. cyanotaenia* Bleeker and *P. tapeinosoma* Bleeker (A. C. Gill, pers. comm.); **Pl. 3, Fig. D.**
- **Pseudoplesiops* sp. CAS 58686, 2: 26-28 mm; an undescribed species allied to *P. revillei* Schultz, to be named by A. C. Gill and A. Edwards.
Pseudoplesiops sp. Randall, Allen and Steene, 1990.
- **Pseudoplesiops* sp. BPBM 32871, 2: 17-26 mm; also a new species to be described by Gill and Edwards; close to *P. rosae* Schultz; Gill informed us that he found a damaged specimen from the Gardiner Maldives fish

collection in the The Natural History Museum, London which had been misidentified as *Belonepterygion fasciolatum*; **Pl. 3, Fig. E.**

PLESIOPIDAE

- Calloplesiops altivelis* (Steindachner, 1903); Debelius, 1987. BPBM 18879, 77 mm.
- Plesiops caeruleolineatus* Rüppell, 1835. Palmer, 1963. BPBM 32997, 47 mm; BPBM 33089, 2: 28-45 mm SL.

APOGONIDAE

- Apogon abrogramma* Fraser and Lachner, 1985. BPBM 32897, 3: 36-49 mm.
- Apogon angustatus* (Smith and Radcliffe, 1911).
Ostorhinchus endekataenia: Burgess and Axelrod, 1973: figs. 164, 166. BPBM 32895, 2: 41-57 mm.
- Apogon apogonides* (Bleeker, 1856); Anderson and Hafiz, 1989: fig. 24.
- **Apogon coccineus* Rüppell, 1838. FMNH 75661, 34 mm.
- **Apogon crassiceps* Garman, 1903. BPBM 32930, 2: 32-35 mm.
- Apogon cyanosoma* Bleeker, 1853; Gon, 1987. BPBM 33050, 3: 25-35 mm.
- **Apogon doryssa* (Jordan and Seale, 1906). BPBM 33051, 28 mm; BPBM 34688, 30 mm.
- Apogon ellioti* Day, 1875. Regan's (1902) specimens, identified as this species, could not be located at the Natural History Museum, London.
- **Apogon evermanni* Jordan and Snyder, 1904. BPBM 24762, 56 mm; **Pl. 3, Fig. F.**
- Apogon fasciatus* (Shaw, 1790).
Apogon quinquestriatus Regan, 1908: 226 (S. Nilandu, Maldives; BMNH 1901.12.31.8-9,2: 34-37 mm, syntypes).
- Apogon fraenatus* Valenciennes, 1832; Fraser and Lachner, 1985.
- Apogon fuscus* Quoy and Gaimard, 1825.
Apogon savayensis: Burgess and Axelrod, 1973: fig. 152; Ministry of Fisheries, 1986; Gon, 1987. MRS 28/86, 57 mm; BPBM 33049, 62 mm.
- Apogon guamensis* Valenciennes, 1832; Gon, 1987.
Apogon bandanensis: Palmer, 1963.
Apogon nubilus: Burgess and Axelrod, 1973: fig. 154.
- Apogon kallopterus* Bleeker, 1856; Fraser and Lachner, 1985. BMNH 1962.1.22.20, 40 mm.
- **Apogon leptacanthus* Bleeker, 1856; **Fig. 12.**
- Apogon maculipinnis* Regan, 1908: 227, Pl. 27, Fig. 3 (Haddumati, Maldives).
- Apogon moluccensis* Valenciennes, 1832; Gon, 1987.
- ?*Apogon nigripinnis* Cuvier, 1828; Regan, 1902; Regan's material was not examined.
- Apogon nigrofasciatus* Lachner, 1953.
Apogon robustus: Allen and Steene, 1987. BPBM 32901, 5: 38-51 mm; CAS 56678, 8: 33-50 mm.
- Apogon taeniophorus* Regan, 1908: 226 (Maldives: BMNH 1908.3.23.90-92, 3: 43-47 mm syntypes); BPBM 33001, 4: 42-69 mm.
- Ostorhinchus* sp. Burgess and Axelrod, 1973: figs. 165.

- **Apogon talboti* Smith, 1961. BPBM 33052, 49 mm.
Archamia fucata (Cantor, 1850); Ministry of Fisheries, Republic of Maldives, 1986; Gon, 1987. BPBM 33053, 4: 30-38 mm; BPBM 34737, 53 mm; MRS 35/86, 40 mm.
Cheilodipterus artus Smith, 1961; Allen and Steene, 1987; Anderson and Hafiz, 1989: 25.
Cheilodipterus lachneri: Burgess and Axelrod, 1973: fig. 157. BPBM 33054, 4: 42-77 mm. BPBM 32875, 84 mm; BPBM 33054, 4: 42-77 mm.
Cheilodipterus macrodon (Lacepède, 1802).
Cheilodipterus lineatus: Burgess and Axelrod, 1973: figs. 155, 156; Allen and Steene, 1987; Gon, 1987. BPBM 32931, 2: 67-76 mm.
 **Cheilodipterus quinquelineatus* Cuvier, 1828; Fig. 13.
 **Foa brachygramma* (Jenkins, 1903). BPBM 33031, 3: 31-42 mm; Fig. 14. Further study may reveal that these specimens are specifically distinct from *brachygramma*, the type locality of which is the Hawaiian Islands.
 **Fowleria abocellata* Goren and Karplus, 1980. BPBM 32861, 6: 28-36; BPBM 33097, 26 mm; BPBM 34698, 21 m; BPBM 34749, 20 mm; Pl. 3, Fig. G.
Fowleria aurita (Valenciennes, 1831); Gon, 1987.
Apogon auritus: Norman, 1939. BPBM 32913, 2: 21-39 mm.
 **Fowleria punctulata* (Rüppell, 1837). FMNH 75791-93, 112: 16-83 mm.
 **Fowleria variegata* (Valenciennes, 1832). BPBM 33032, 4: 36-49 mm; Pl. 3, Fig. H.

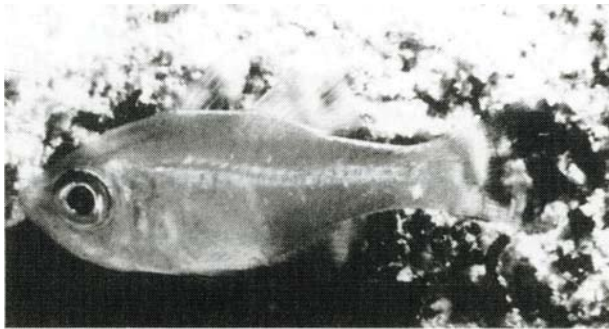


Figure 12. *Apogon leptacanthus*.

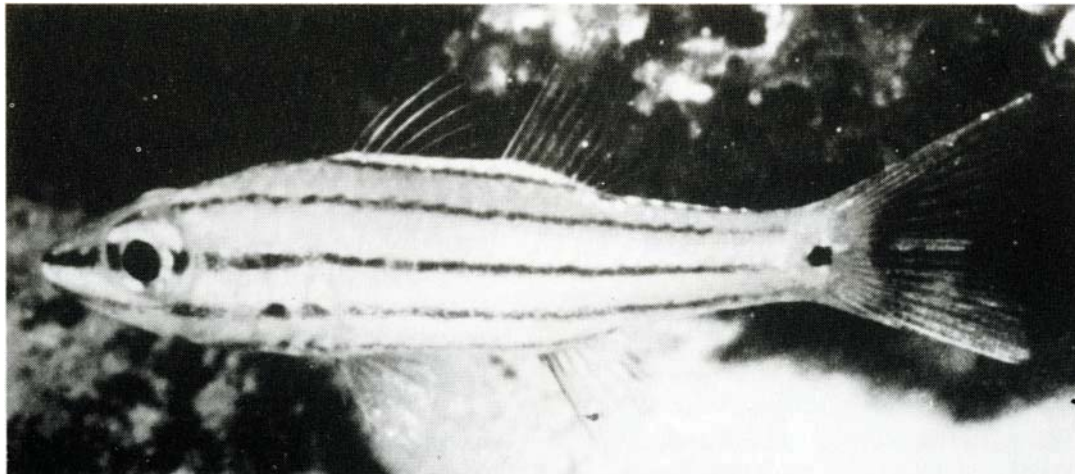


Figure 13: *Cheilodipterus quinquelineatus*.

- **Gymnapogon* sp. BPBM 33002, 2: 29-34 mm; data from largest: dorsal fin VI+I,9; anal fin II,8; pectoral rays 14; gill rakers 2 + 11 (including one upper and one lower rudiment); body depth at origin of pelvic fins 8.0 mm; head length 13.0 mm, orbit diameter 3.1 mm; caudal fin 9.2 mm; caudal concavity 3.8 mm; caudal lobes rounded; preopercular spine short; lines of papillae on head forming a cross-hatch pattern; Pl. 3, Fig. I.
Neamia octospina Smith and Radcliffe, 1912; Gon, 1987.
Pseudamia gelatinosa Smith, 1955; Gon, 1987. BPBM 32945, 59 mm.
Rhabdamia cypselura Weber, 1913; Gon, 1987. Ministry of Fisheries, Republic of Maldives, 1986. MRS 36/86, 47 mm; BPBM 33055, 10: 36-40 mm.
Rhabdamia gracilis (Bleeker, 1856); Gon, 1987. BPBM 34738, 44 mm.

MALACANTHIDAE

- Malacanthus brevirostris* Guichenot, 1848.
Malacanthus hoedtii: Klausowitz in Eibl-Eibesfeldt, 1982.
 **Malacanthus latovittatus* (Lacepède, 1801). Pl. 3, Fig. J.

RACHYCENTRIDAE

- Rachycentron canadum* (Linnaeus, 1766); Shiham et al., 1987. MRS P137/87, 860 mm.

ECHENEIDIDAE

- Echeneis naucrates* Linnaeus, 1758; Klausowitz in Eibl-Eibesfeldt, 1982.
 **Remora osteochir* (Cuvier, 1829). BPBM 34964, 2: 54-102 mm, taken from *Istiophorus platypterus*.
Remora remora (Linnaeus, 1758); Ministry of Fisheries, Republic of Maldives, 1986. MRS 16/86, 320 mm.
 **Remorina albescens* (Temminck and Schlegel, 1850). MRS 367/91, 100 mm, from *Mobula tarapacana*.

CARANGIDAE

- Alectis ciliaris* (Bloch, 1788); Shiham et al., 1987. MRS P167/87, 346 mm.
Carangoides caeruleopinnatus (Rüppell, 1830). Shiham et al., 1987. MRS P146/87, 299 mm.

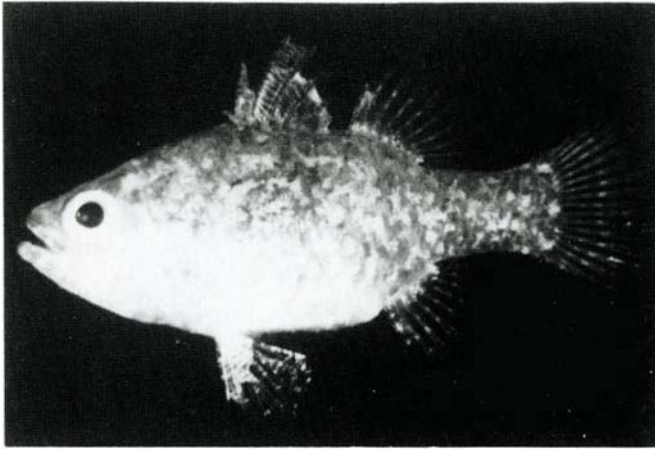


Figure 14. *Foa brachygramma*, BPBM 33031, 42 mm SL.

- Carangoides ferdau* (Forsskål, 1775); Shiham et al., 1987. MRS P140/87, 293 mm.
- Carangoides fulvoguttatus* (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982.
- Carangoides orthogrammus* Jordan and Gilbert, 1881; Shiham et al., 1987. MRS P157/87, 335 mm.
- Carangoides plagiotaenia* Bleeker, 1857; Shiham et al., 1987. MRS P130/87, 332 mm.
- Caranx ignobilis* (Forsskål, 1775); Shiham et al., 1987. MRS P149/87, 491 mm.
- Caranx lugubris* (Poey, 1860); Smith-Vaniz in Fischer and Bianchi, 1984; Voigtman et al., 1986, unidentified photograph, p. 112; Anderson et al., 1992: 23. MRS P127/87, 560 mm.
- Caranx melampygus* Cuvier, 1833; Eibl-Eibesfeldt, 1964: fig. 20; Allen and Steene, 1987. Anderson and Hafiz, 1987: 23.
- Caranx janthinospilus*: Deraniyagala, 1956. MRS 49/86, 184 mm.
- Caranx sexfasciatus* Quoy and Gaimard, 1825; Deraniyagala, 1956; Voigtman et al., 1986, unidentified photo-

graph, p. 113; Anderson and Hafiz, 1989: 14. MRS 13/86, 321 mm.

Decapterus macarellus (Cuvier, 1833).

Decapterus mackerellus: Ministry of Fisheries, Republic of Maldives, 1986. MRS 70/86, 152 mm.

Elagatis bipinnulata (Quoy and Gaimard, 1825); Eibl-Eibesfeldt, 1964: fig. 67. BPBM 32886, 330 mm. MRS 9/86, 330 mm.

Gnathanodon speciosus (Forsskål, 1775); Shiham et al., 1988. MRS P333/88, 455 mm.

Naucrates ductor (Linnaeus, 1758); Shiham et al., 1988. BPBM 34714, 144 mm; MRS 183/88, 269 mm.

Scomberoides lysan (Forsskål, 1775); Shiham et al., 1987. MRS P123/87, 480 mm.

Selar crumenophthalmus (Bloch, 1793).

Caranx crumenophthalmus: Regan, 1908. MRS 11/86, 245 mm; SMF 22037, 92 mm.

Seriola rivoliana (Valenciennes, 1833); Shiham et al., 1987. MRS P119/87, 455 mm.

Trachinotus baillonii (Lacepède, 1801); Burgess and Axelrod, 1973: fig. 322; Anderson and Hafiz, 1989: 13. MRS P122/87, 315 mm.

Trachinotus blochii (Lacepède, 1801); Shiham et al., 1987. MRS P111/87, 467 mm.

Trachinotus blochi: Palmer, 1963.

CORYPHAENIDAE

Coryphaena equisetis Linnaeus, 1758; Shiham et al., 1987.

Coryphaena hippurus equisetus: Deraniyagala, 1956. MRS 118/87, 275 mm.

Coryphaena hippurus Linnaeus, 1758; Collette in Fischer and Bianchi, 1984. MRS 51/86, 295 mm.

BRAMIDAE

**Brama dussumieri* Cuvier, 1831. BPBM 34684, 152 mm.

**Taratichthys steindachneri* (Döderlein, 1883); our only record is the photograph of a fish taken in October, 1986 off Raa Atoll; Fig. 15.

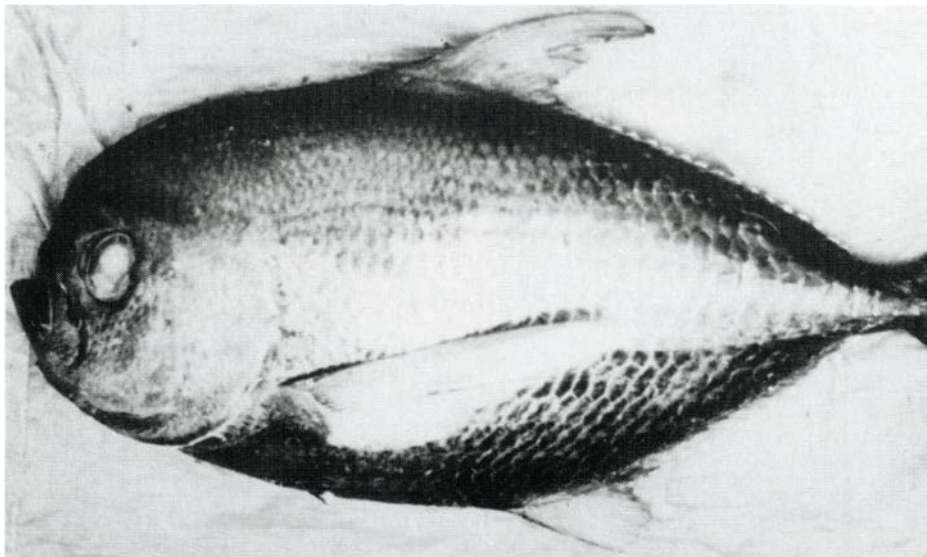


Figure 15. *Taratichthys steindachneri*, Raa Atoll (photographer not known).

LUTJANIDAE

- Aphareus furca* (Lacepède, 1801); Burgess and Axelrod, 1973: fig. 148; Anderson and Hafiz, 1989: 26; Shiham et al., 1987. MRS P136/87, 238 mm.
- Aphareus rutilans* Cuvier, 1830; Shiham et al., 1987. BPBM 34708, 596 mm; MRS P147/87, 473 mm.
- Aprion virescens* Valenciennes, 1830; Ministry of Fisheries, Republic of Maldives, 1986; Anderson et al., 1992: 23. MRS P160/87, 187 mm.
- **Etelis coruscans* Valenciennes, 1832. BPBM 34709, 557 mm. **Pl. 4, Fig. A.**
- Lutjanus argentimaculatus* (Forsskål, 1775); Shiham et al., 1987. MRS P160/87, 375 mm.
- Lutjanus bengalensis* (Bloch, 1790); Ministry of Fisheries, Republic of Maldives, 1986. MRS 65/86, 121 mm.
- Lutjanus biguttatus* (Valenciennes, 1830); Allen and Talbot, 1985; Anderson and Hafiz, 1989: 27. MRS 176/87, 2: 172-175 mm.
- Lutjanus bohar* (Forsskål, 1775); Allen and Talbot, 1985; Anderson and Hafiz, 1989: fig. on p. 28; Anderson et al., 1992: 23. MRS 3/86, 180 mm.
- Lutjanus bouton* (Lacepède, 1803); Shiham et al., 1987. BPBM 34722, 212 mm; MRS 174/87, 2: 217-220 mm.
- Lutjanus ehrenbergii* Peters, 1869; Allen and Talbot, 1985.
- Lutjanus fulvus* (Bloch and Schneider, 1801); Allen and Talbot, 1985. MRS 121/87, 180 mm.
- Lutjanus gibbus* (Forsskål, 1775); Allen and Talbot, 1985; Allen and Steene; Anderson and Hafiz, 1987: 31. MRS 2/86, 216 mm.
- **Lutjanus gilcheri* Fourmanoir, 1959; Anderson et al., 1992, by name only. BPBM 34945, 430 mm; **Fig. 16.**
- Lutjanus kasmira* (Forsskål, 1775); Eibl-Eibesfeldt, 1964: fig. 21; Anderson and Hafiz, 1987: 32. MRS P114/87, 232 mm.
- Lutjanus madras* (Valenciennes, 1831); Shiham et al., 1987. BPBM 34723, 163 mm; MRS 171/87, 190 mm.
- Lutjanus monostigma* (Cuvier, 1828); Allen and Talbot, 1985; Ministry of Fisheries, Republic of Maldives, 1986; Allen and Steene, 1987; Anderson and Hafiz, 1989: 29;
- Lutjanus johni*: Klausewitz in Eibl-Eibesfeldt, 1982. SMF 21941, 199 mm. MRS 29/86, 32 mm.
- Lutjanus sebae* (Cuvier, 1828); Shiham et al., 1987. MRS P166/87, 595 mm.
- **Lutjanus timorensis* (Quoy and Gaimard, 1824); Anderson et al., 1992, by name only. BPBM 34946, 366 mm.
- Macolor macularis* Fowler, 1931; Shiham et al., 1988.
- Macolor niger*: Anderson and Hafiz, 1987: 33; Allen and Steene, 1987: pl. 44, figs. 4, 5; Nahke and Wirtz, 1991: 69. 332/88, 346 mm.
- Macolor niger* (Forsskål, 1775); Burgess and Axelrod, 1973: fig. 147; Shiham et al., 1987.
- Lutjanus nigra*: Day, 1888. MRS P144/87, 384 mm; SMF 22017, 97 mm.
- Paracaesio sordidus* (Abe and Shinohara, 1962); Shiham et al., 1987. MRS P161/87, 248 mm.
- Paracaesio xanthurus* (Bleeker, 1869); Shiham et al., 1987. MRS 177/87, 247 mm.
- Pinjalo lewisi* Randall, Allen and Anderson, 1987. Shiham et al., 1987. MRS P133/87, 380 mm.
- Pristipomoides auricilla* (Jordan, Evermann and Tanaka, 1927); Shiham et al., 1988. BPBM 34734, 243 mm; MRS P320/88, 372 mm.

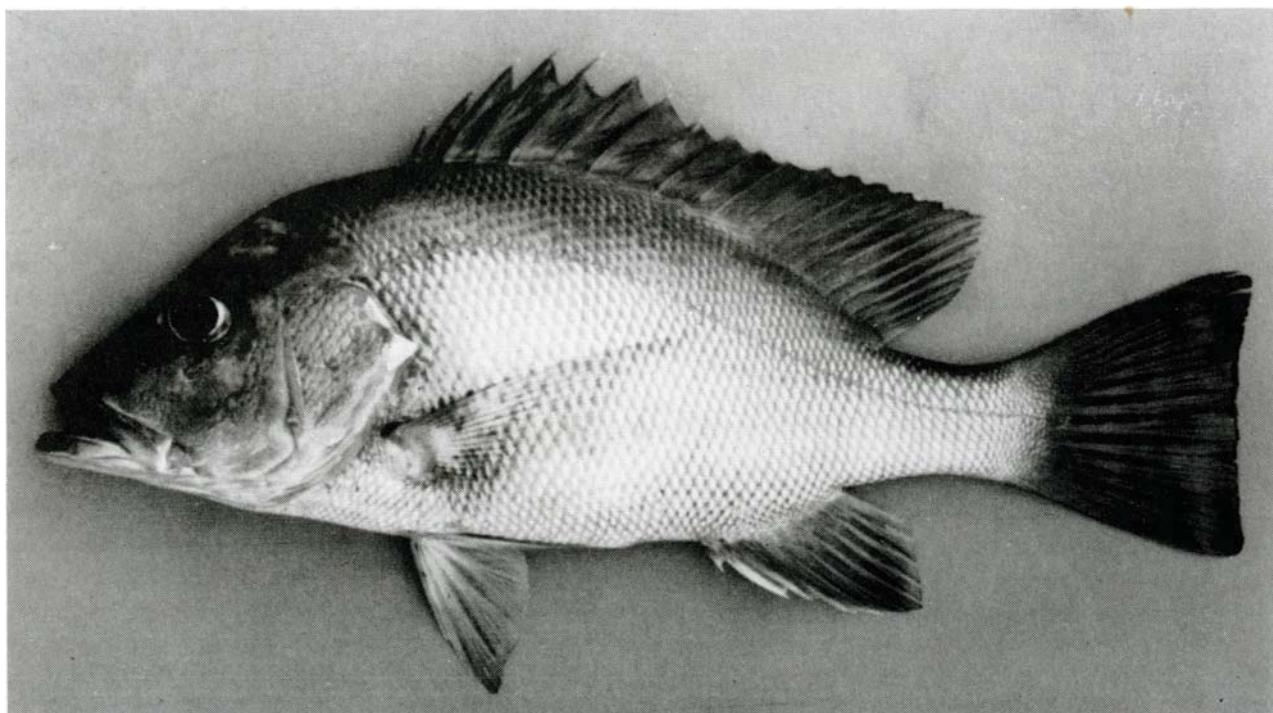


Figure 16. *Lutjanus gilcheri*, BPBM 34945, 430 mm SL.

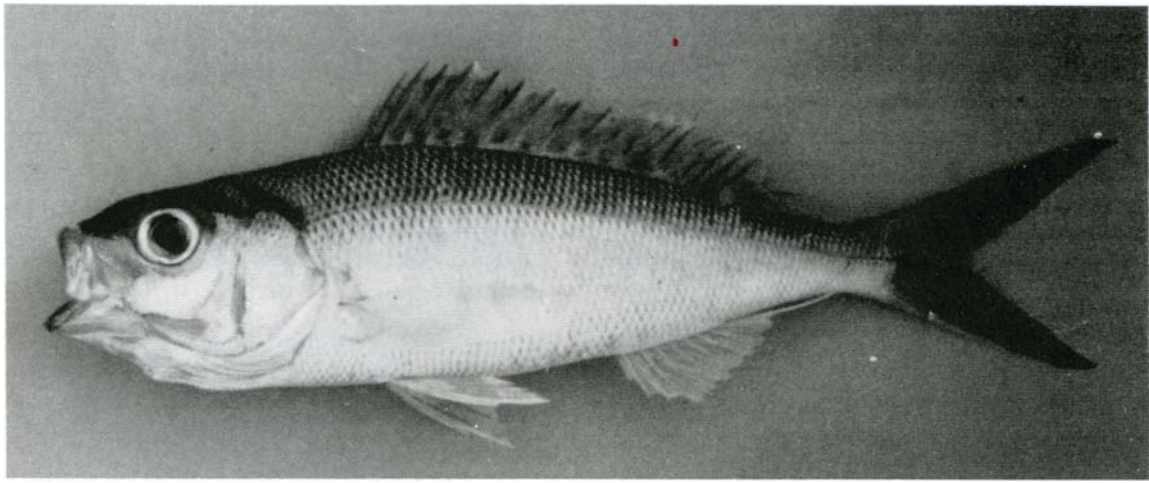


Figure 17. *Pristipomoides sieboldii*, BPBM 34978, 295 mm SL. Photograph by R.C. Anderson.

Pristipomoides filamentosus (Valenciennes, 1830); Allen, 1985. BPBM 34710, 620 mm; BPBM 34724, 230 mm; MRS 175/87, 2: 244-370 mm.

**Pristipomoides multidentis* (Day, 1870). BPBM 34953, 308 mm.

Pristipomoides sieboldii* (Bleeker, 1857). BPBM 34978, 2: 295-300 mm; taken in 140 m off Laamu Atoll; **Fig. 17.

Pristipomoides zonatus (Valenciennes, 1830); Allen, 1985. BPBM 34979, 370 mm.

CAESIONIDAE

Caesio caerulea Lacepède, 1801; Klausewitz in Eibl-Eibesfeldt, 1982; Carpenter, 1987; Allen and Steene, 1987; Anderson and Hafiz, 1989: 31. SMF 17647, 10: 92-103 mm.

Caesio lunaris Cuvier, 1830; Carpenter, 1987; Anderson and Hafiz, 1989: 30.

Caesio teres Seale, 1906; Carpenter (1987) reported an uncatalogued specimen at the Senckenberg Museum from Addu Atoll.

Caesio varilineata Carpenter, 1987.

Caesio caerulea: Anderson and Hafiz, 1989: 31.

Pterocaesio diagramma: Nahke and Wirtz, 1991: 77. BPBM 30717, 5: 180-197 mm.

Caesio xanthonota Bleeker, 1853; Ministry of Fisheries, Republic of Maldives, 1986; Carpenter, 1987; Anderson and Hafiz, 1987: 35.

Caesio cuning: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18916, 4: 25-140 mm; MRS 19/86, 87 mm; SMF 17652, 117 mm; SMF 22034, 260 mm.

Dipterygonotus balteatus (Valenciennes, 1830); Carpenter, 1988.

Gymnocaesio gymnoptera (Bleeker, 1856); Carpenter, 1987. BPBM 30713, 49 mm; BPBM 30718, 84.5 mm; BPBM 34703, 2: 112-113 mm; BPBM 34751, 80 mm.

Pterocaesio chrysozona (Cuvier, 1830); Ministry of Fisheries, Republic of Maldives, 1986.

Caesio chrysozonus: Klausewitz in Eibl-Eibesfeldt, 1982. MRS 47/86, 125 mm.

Pterocaesio lativittata* Carpenter, 1987. **Pl. 4, Fig. B (identified by K.E. Carpenter).

Pterocaesio pisang (Bleeker, 1856); Carpenter, 1987. BPBM 30714, 58: 57-108.5 mm; SMF 10714, 23: 72-93 mm.

Pterocaesio tessellata* Carpenter, 1987. **Pl. 4, Fig. C (identified by K.E. Carpenter).

Pterocaesio tile (Cuvier, 1830); Burgess and Axelrod, 1973: figs. 150, 238; Allen and Steene, 1987; Anderson and Hafiz, 1987: 34; Carpenter, 1987. BPBM 30715, 3: 177-180 mm.

HAEMULIDAE

Diagramma pictum (Thunberg, 1792); Voigtman et al., 1986: unidentified photographs, pp. 68-69. BPBM 34975, 337 mm.

Plectorhinchus albovittatus* (Rüppell, 1838). BPBM 19017, 345 mm; BPBM 34716, 305 mm; R. J. McKay (pers. comm.) has informed us that *P. obscurum* (Günther) and *P. harrawayi* (Smith) are synonyms; **Fig. 18.

Plectorhinchus chaetodonoides Lacepède, 1800; Allen and Steene, 1987.

Plectorhinchus picus: Anderson and Hafiz, 1987: 38.

Plectorhynchus pictus: Nahke and Wirtz, 1991: fig. at bottom of p. 79.

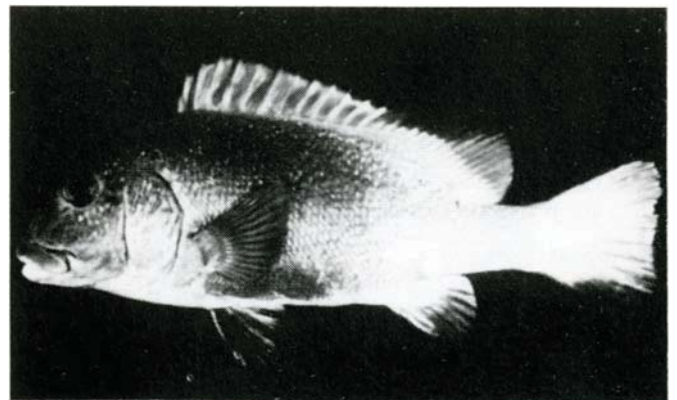


Figure 18. *Plectorhinchus albovittatus*, BPBM 34716, 305 mm SL.

**Plectorhynchus gibbosus* (Lacepède, 1802). BPBM 34682, 31 mm; Pl. 4 Fig. D.

Plectorhynchus vittatus (Linnaeus, 1758).

Plectorhynchus lineatus: Klausowitz, 1958: fig. 8.

Plectorhynchus sp. Eibl-Eibesfeldt, 1964: figs. 42, 43.

Plectorhynchus diagrammus: Eibl-Eibesfeldt, 1964: fig. 46.

Gaterin orientalis: Burgess and Axelrod, 1973: fig. 142.

Plectorynchus orientalis: Anderson and Hafiz, 1987: 37. FMNH 89736, 302 mm.

LETHRINIDAE

Gnathodentex aurolineatus (Lacepède, 1802); Burgess and Axelrod, 1973: fig. 135; Allen and Steene, 1987; Anderson and Hafiz, 1989: 34; Carpenter and Allen, 1989.

**Gymnocranius elongatus* Senta, 1973. BPBM 34719, 213 mm.

Gymnocranius grandoculis (Valenciennes, 1830); Carpenter and Allen, 1989.

**Gymnocranius* sp. BPBM 34959, 285 mm; BPBM 34977, 248 mm; apparently undescribed.

Lethrinus sp. 1 Carpenter and Allen, 1989. BPBM 33878, 4: 228-284 mm; BPBM 34968, 282 mm; to be described by K. E. Carpenter.

**Lethrinus conchyliatus* (Smith, 1959). BPBM 34956, 390 mm; BPBM 34959, 440 mm.

Lethrinus erythracanthus Valenciennes, 1830; Carpenter and Allen, 1989.

Lethrinus kallopterus: Allen and Steene, 1987; Anderson and Hafiz, 1989: 33; Nahke and Wirtz, 1991: 73.

Lethrinus harak (Forsskål, 1775); Anderson and Hafiz, 1989: 32; Carpenter and Allen, 1989.

Lethrinus lentjan (Lacepède, 1802); Carpenter and Allen, 1989. SMF 5612, 238 mm.

Lethrinus mahsena (Forsskål, 1775); Klausowitz in Eibl-Eibesfeldt, 1982; Carpenter and Allen, 1989.

Lethrinus microdon Valenciennes, 1830; Carpenter and Allen, 1989. BPBM 33878, 310 mm.

Lethrinus nebulosus (Forsskål, 1775); Klausowitz in Eibl-Eibesfeldt, 1982; Carpenter and Allen, 1989.

Lethrinus obsoletus (Forsskål, 1775); Carpenter and Allen, 1989.

Lethrinus ramak: Klausowitz in Eibl-Eibesfeldt, 1982. BPBM 33040, 5: 44-117 mm.

Lethrinus olivaceus Valenciennes, 1830; Carpenter and Allen, 1989.

Lethrinus miniatus: Klausowitz in Eibl-Eibesfeldt, 1982.

Lethrinus rubrioperculatus Sato, 1978. Ministry of Fisheries, Republic of Maldives, 1986. MRS 10/86, 310 mm.

Lethrinus xanthochilus Klunzinger, 1870; Carpenter and Allen, 1989.

Monotaxis grandoculis (Forsskål, 1775); Burgess and Axelrod, 1973: figs. 131, 134; Allen and Steene, 1987; Anderson and Hafiz, 1987: 39; Carpenter and Allen, 1989.

Wattsia mossambica (Smith, 1957); Carpenter and Allen, 1989; BPBM 34707, 396 mm.

NEMIPTERIDAE

**Nemipterus bipunctatus* (Valenciennes, 1830). BPBM 34992, 125 mm.

Scolopsis bilineatus (Bloch, 1793); Burgess and Axelrod, 1973: fig. 138; Anderson and Hafiz, 1987: 36.

Scolopsis xenochrous Günther, 1872; Russell, 1990.

Scolopsis auratus (Park, 1797); Russell, 1990. BPBM 18906, 207 mm.

GERREIDAE

Gerres acinaces Bleeker, 1854; Woodland in Fischer and Bianchi, 1984. BPBM 19019, 230-233 mm SL;

Gerres punctatus: Deraniyagala, 1956.

Gerres abbreviatus Bleeker, 1850. 2: 279.

Gerres maldivensis Regan, 1902: 279 (Maldives); D. J. Woodland (pers. comm.) examined Regan's holotype and believes that it is *G. abbreviatus*.

**Gerres oblongus* Cuvier, 1830. BPBM 34753, 2: 177-283 mm. Lateral-line scales 47; pectoral rays 17; lower-limb gill rakers 8; body depth 2.95 in SL; vertical rows of faint dark spots on upper half of body; no dark margins on fins. Identified by D. J. Woodland.

Gerres oyena (Forsskål, 1775); Deraniyagala, 1956. *G. argyreus* (Bloch and Schneider, 1801) may be a junior synonym (Woodland, pers. comm.). BPBM 35044, 53 mm.

Gerres lucidus: Ministry of Fisheries, Republic of Maldives, 1986. MRS 64/86, 91 mm.

MULLIDAE

Mulloidichthys flavolineatus (Lacepède, 1801); Burgess and Axelrod, 1973: fig. 233.

Mulloidichthys auriflamma: Deraniyagala, 1956.

Mulloidichthys samoensis: Klausowitz in Eibl-Eibesfeldt, 1982.

Mulloides flavolineatus Nahke and Wirtz, 1991: figs. at bottom of p. 85. BPBM 34673, 119 mm; FMNH 88033, 160 mm; SMF 22016, 2: 132-165 mm.

Parupeneus barberinus (Lacepède, 1801); Klausowitz in Eibl-Eibesfeldt, 1982. SMF 22029, 289 mm; SMF 22031, 231 mm.

Parupeneus bifasciatus (Lacepède, 1801); Klausowitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 40; Allen and Steene, 1987. SMF 22015, 183 mm; SMF 22027, 161 mm.

Parupeneus cyclostomus (Lacepède, 1801); Anderson and Hafiz, 1989: 38.

Pseudupeneus luteus: Klausowitz in Eibl-Eibesfeldt, 1982. BPBM 34676, 197 mm; FMNH 87080, 72 mm; SMF 22035, 240 mm.

**Parupeneus indicus* (Shaw, 1803). Observed inshore over sand on the lagoon side of Villingili Island, North Malé Atoll by the senior author in 1988.

Parupeneus macronemus (Lacepède, 1801); Klausowitz in Eibl-Eibesfeldt, 1982. FMNH 87084, 3: 72-103 mm; MRS 68/86, 150 mm; SMF 22021, 49 mm.



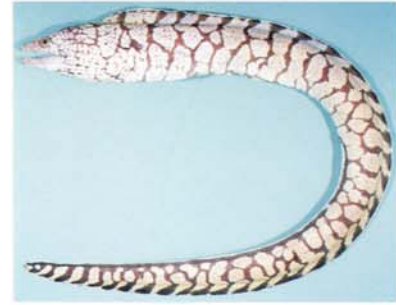
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Plate 1. (A) *Torpedo* sp. (B) *Echidna nebulosa*. (C) *Enchelycore bayeri*, BPBM 32963, 290 mm TL. (D) *Gymnothorax berndti*, BPBM 34711, 603 mm TL. (E) *G. elegans*, BPBM 34735, 485 mm TL. (F) *G. margaritophorus*, BPBM 32964, 218 mm TL. (G) *G. melatremus*, BPBM 32983, 164 mm TL. (H) *G. meleagris*. (I) *G. rueppeliae*, BPBM 33088, 397 mm TL. (J) *G.* sp., BPBM 32868, 104 mm TL. Photographs by J.E. Randall except (A) by R.C. Anderson.



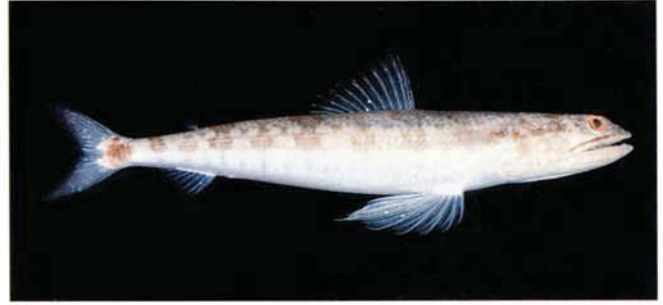
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Plate 2. (A) *Rhinomuranea quaesita*. (B) *Uropterygius concolor*, BPBM 32967, 202 mm TL. (C) *U. fuscoguttatus*, BPBM 32985, 176 mm TL. (D) *Synodus jaculum*, BPBM 32881, 111 mm SL. (E) *Photoblepharon steinitzi*, BPBM 34747, 67 mm SL. (F) *Sargocentron macrosquamis*, BPBM 33062, 46 mm SL. (G) *S. tiere*, BPBM 34670, 183 mm SL. (H) *Scorpaenodes albaiensis*, BPBM 32928, 60 mm SL. (I) *S. parvipinnis*, BPBM 33020, 25 mm SL. (J) *Sebastapistes* sp., BPBM 32872, 31 mm SL.



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Plate 3. (A) *Cirrhitichthys falco*. (B) *Cyprinocirrhites polyactis*. (C) *Chlidichthys inornatus*, BPBM 32925, 31.5 and 33 mm SL. (D) *Pseudochromis coccinicauda*, BPBM 33018, 36 mm SL. (E) *Pseudopleysiops* sp., BPBM 32871, 26 mm SL. (F) *Apogon evermanni*. (G) *Fowleria abocellata*, BPBM 32861, 36 mm SL. (H) *Fowleria variegata*, BPBM 33032, 36 mm SL. (I) *Gymnapogon* sp., BPBM 33002, 34 mm SL. (J) *Malacanthus latovittatus*.



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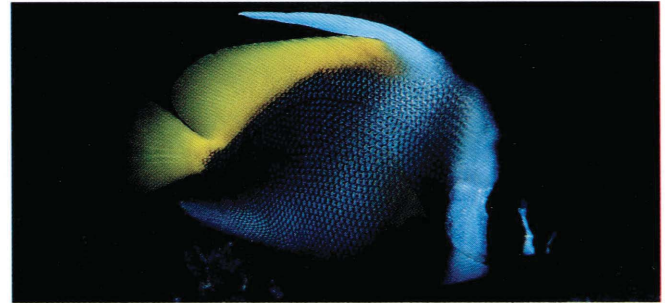
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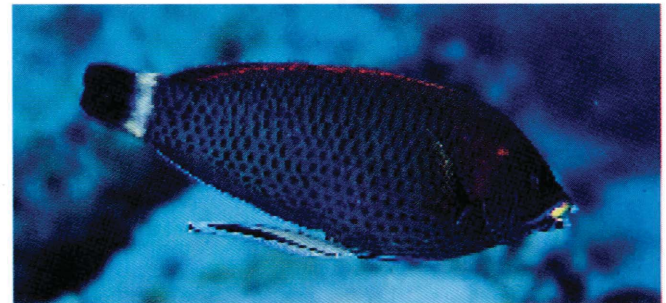
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Plate 4. (A) *Etelis coruscans*, BPBM 34709, 557 mm SL. (B) *Pterocaesio lativittata*. (C) *P. tessellata*. (D) *Plectorhinchus gibbosus*. (E) *Chaetodon plebeius*. (F) *Heniochus singularius*. (G) *Apolemichthys armitagei*. (H) *Centropyge flavicauda*. (I) *C. flavipectoralis*. (J) *Sphyræna novaehollandiae*.



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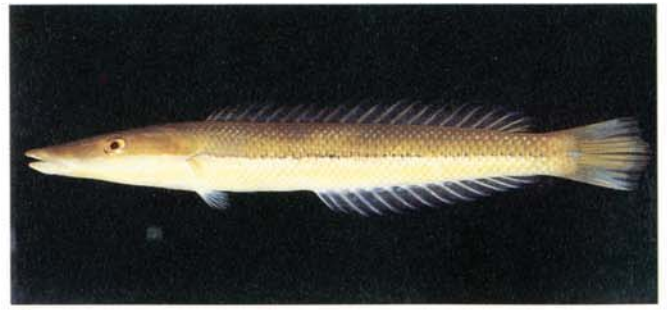


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Plate 5. (A) *Abudefduf notatus*. (B) *Chromis atripectoralis*. (C) *C. opercularis*. (D) *C. weberi*. (E) *Anampses lineatus*. (F) *A. meleagrides*. (G) *A. twistii*. (H) *Bodianus bimaculatus*. (I) *Cheilinus arenatus*. (J) *C. chlorourus*.



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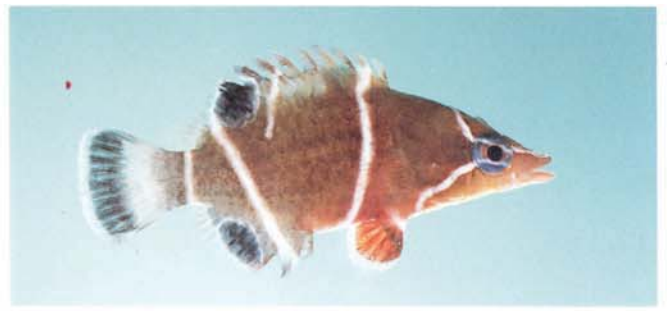


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Plate 6. (A) *Cheilinus oxycephalus*. (B) *Cheilio inermis*, BPBM 33039, 167 mm SL. (C) *Cirrhilabrus rubrisquamis*. (D) *Halichoeres nebulosus*, BPBM 32296, 52 and 80 mm SL. (E) *Halichoeres zeylonicus*. (F) *Labropsis xanthonota*. (G) *Macropharyngodon ornatus*. F(H) *Pseudodax moluccanus*. (I) *Pseudojuloides* sp. (J) *Pseudojuloides* sp.



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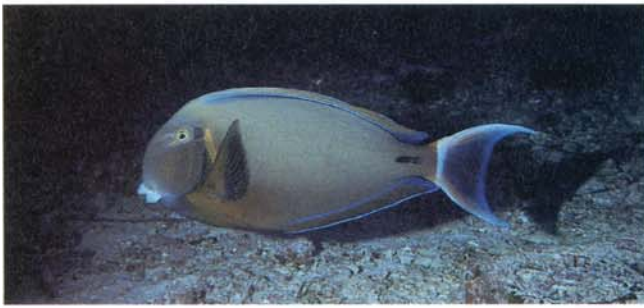


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Plate 7. (A) *Stethojulis trilineata*. (B) *Wetmorella albbofasciata*, BPBM 32981, 33 mm SL. (C) *Calotomus viridescens*. (D) *Scarus psittacus*. (E) *Scarus quoyi*. (F) *Scarus rubroviolaceus*. (G) *Scarus russelli*, BPBM 34665, 184 mm. (H) *Parapercis schauinslandi*. (I) *Cirripectes auritus*. (J) *C. quagga*.



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Plate 8. (A) *Acanthurus bariene*. (B) *A. tennentii*. (C) *Ctenochaetus binotatus*. (D) *Sufflamen fraenatus*. (E) *Cantherhines fronticinctus*. (F) *Paraluteres prionurus*. (G) *Canthigaster amboinensis*, BPBM 33023, 79 mm SL. (H) *C. cronata*. (I) *C. smithae*. (J) *Cyclichthys orbicularis*, BPBM 34680, 149 mm.

Parupeneus pleurostigma (Bennett, 1830); Ministry of Fisheries, Republic of Maldives, 1986. MRS 66/86, 112 mm.

Upeneus tragula Richardson, 1845. Regan's (1902) specimen not found.

Upeneus taeniopterus Cuvier, 1829.

Upeneus vittatus: Deraniyagala, 1956. BPBM 18863, 220 mm.

PEMPHERIDIDAE

Parapriacanthus ransonneti Steindachner, 1870; Allen and Steene, 1987; Anderson and Hafiz, 1989: 36.

Pempheris vanicolensis (Cuvier, 1831); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 37. BPBM 27210, 3: 107-138 mm; BPBM 32902, 132 mm.

KYPHOSIDAE

Kyphosus cinerascens (Forsskål, 1775); Ministry of Fisheries, Republic of Maldives, 1986. MRS 48/86, 128 mm.

Kyphosus vaigiensis (Quoy and Gaimard, 1825). SMF specimen examined, but number not recorded.

Kyphosus sp. Anderson and Hafiz, 1989: 35.

CHAETODONTIDAE

Allen (1979: 322) recorded *Chaetodon gardineri* from the Maldives. As we have not observed this species in the islands, we asked him for the basis of his record; he replied that he was mistaken in listing it from the Maldives. The record of *Chaetodon larvatus*, a Red Sea species, from the Maldives by Klausewitz in Eibl-Eibesfeldt (1982: 306) is also a probable error. In addition, we question the record of *Heniochus varius* from the Maldives by Burgess and Axelrod (1973: fig. 266). We have not seen this species in the Maldives and suspect their illustration is of a fish from a Pacific locality.

Chaetodon auriga Forsskål, 1775; Burgess and Axelrod, 1973: fig. 245, 246; Anderson and Hafiz, 1987: 44; Allen and Steene, 1987; Shiham et al., 1987. MRS 82/86, 2: 142-143 mm.

Anisochaetodon auriga: Palmer, 1963.

Chaetodon bennetti Cuvier, 1831; Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 47; Allen and Steene, 1987; Shiham et al., 1987. MRS 151/87, 145 mm.

Chaetodon citrinellus Cuvier, 1831; Burgess and Axelrod, 1973: fig. 253.

Chaetodon collare Bloch, 1787; Eibl-Eibesfeldt, 1964: fig. 45; Anderson and Hafiz, 1987: 46; Allen and Steene, 1987. BPBM 18920, 102 mm; MRS 77/86, 132 mm.

Chaetodon decussatus Cuvier, 1831; Burgess and Axelrod, 1973: fig. 262; Shiham et al., 1987. MRS 88/66, 128 mm.

Chaetodon falcula Bloch, 1793; Burgess and Axelrod, 1973: figs. 258, 260; Anderson and Hafiz, 1987: 45; Allen and Steene, 1987; Shiham et al., 1987. MRS 17/86, 133 mm.

Chaetodon guttatissimus Bennett, 1832; Burgess and Axelrod, 1973: figs. 250, 251; Shiham, et al., 1987; Anderson and Hafiz, 1989: 58. MRS 164/87, 2: 65-68 mm.

Chaetodon kleinii Bloch, 1790; Burgess and Axelrod, 1973: fig. 240; Shiham et al., 1987; Anderson and Hafiz, 1989: 59. BPBM 34666, 69 mm; MRS 83/86, 102 mm.

Chaetodon lineolatus Cuvier, 1831; Klausewitz in Eibl-Eibesfeldt, 1982; Allen, 1979.

Chaetodon lunula (Lacepède, 1803); Klausewitz in Eibl-Eibesfeldt, 1982; Shiham et al., 1987; Anderson and Hafiz, 1989: 60. MRS 85/86, 116 mm.

Chaetodon madagaskariensis Ahl, 1923.

Chaetodon madagascariensis: Shiham et al., 1987; Allen and Steene, 1987; Anderson and Hafiz, 1989: 61. MRS 153/87, 72 mm; BPBM 18918, 2: 59-77 mm.

Chaetodon "chrysurus": Burgess and Axelrod, 1973: fig. 248.

Chaetodon melannotus Bloch and Schneider, 1801; Burgess and Axelrod, 1973: fig. 249; Anderson and Hafiz, 1987: 42; Allen and Steene, 1987; Shiham et al., 1987. BPBM 18920, 102 mm; MRS 9/86, 91 mm.

Chaetodon meyeri Bloch and Schneider, 1801; Burgess and Axelrod, 1973: figs. 255, 257; Anderson and Hafiz, 1987: 43; Shiham et al., 1987. BPBM 34667, 73 mm; MRS 95/87, 116 mm.

Chaetodon mitratus Günther, 1860; Allen, 1979; Shiham et al., 1987. BPBM 34575, 2: 56-62 mm; BPBM 34689, 60 mm; MRS 145/87, 76 mm.

Chaetodon oxycephalus Bleeker, 1853; Allen and Steene, 1987; Shiham et al., 1987.

Chaetodon lineolatus: Burgess and Axelrod, 1973: figs. 263, 264. MRS 84/86, 164 mm.

**Chaetodon ornatissimus* Cuvier, 1831. One adult sighted by the junior author on the outer reef slope of Lohifushi, North Malé Atoll on 22 April 1988.

Chaetodon plebeius* Cuvier, 1831. **Pl. 4, Fig. E. BPBM 34986, 107 mm. This form of *plebeius*, found in Sri Lanka and the Maldives, lacks the broad bright blue streak on the upper side of the body; it merits further study.

Chaetodon triangulum Cuvier, 1831; Burgess and Axelrod, 1973: fig. 239; Allen and Steene, 1987; Shiham et al., 1987; Anderson and Hafiz, 1989: 62. MRS 76/86, 87 mm.

Chaetodon trifascialis Quoy and Gaimard, 1824; *Megaprotodon strigangulus*: Klausewitz in Eibl-Eibesfeldt, 1982; Ministry of Fisheries, Republic of Maldives, 1986. MRS 43/86, 84 mm.

Chaetodon trifasciatus Park, 1797; Burgess and Axelrod, 1973: fig. 254; Anderson and Hafiz, 1989: 63; Ministry of Fisheries, Republic of Maldives, 1986. MRS 39/86, 34 mm.

Chaetodon unimaculatus Bloch, 1787; Klausewitz in Eibl-Eibesfeldt, 1982; Shiham et al., 1987; Anderson and Hafiz, 1989. MRS 124/87, 129 mm.

Chaetodon vagabundus Linnaeus, 1758; Shiham et al., 1987. MRS 81/86, 130 mm.

Chaetodon xanthocephalus Bennett, 1832; Burgess and Axelrod, 1973: figs. 242, 243; Shiham et al., 1987. MRS 86/86, 141 mm.

Forcipiger flavissimus Jordan and McGregor, 1898; Burgess and Axelrod, 1973: fig. 270; Shiham et al., 1987. MRS 73/86, 2: 104-108 mm.

Forcipiger longirostris (Broussonet, 1782); Anderson and Hafiz, 1987: 48; Shiham et al., 1987. MRS 1116/86, 2: 125-152 mm.

Hemitaurichthys zoster (Bennett, 1831); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 49; Shiham et al., 1987. MRS 87/86, 123 mm.

Heniochus acuminatus (Linnaeus, 1758); Shiham et al., 1987. MRS 94/87, 53 mm.

Heniochus diphreutes Jordan, 1903; Anderson and Hafiz, 1987: 51; Allen and Steene, 1987; Shiham et al., 1987. *Heniochus acuminatus*: Klausewitz, 1969: fig. 11. MRS 172/87, 65 mm.

Heniochus monoceros Cuvier, 1832; Klausewitz, 1969: fig. 25; Anderson and Hafiz, 1987: 50; Allen and Steene, 1987. MRS P150, 180 mm; SMF 1814-15, 2: 123-167.5 mm.

Heniochus pleurotaenia Ahl, 1923; Klausewitz, 1969; Burgess and Axelrod, 1973: fig. 267; Allen and Steene, 1987; Shiham et al., 1987; Anderson and Hafiz, 1989: 65.

Heniochus varius: Eibl-Eibesfeldt, 1964: figs. 46, 47. BPBM 18874, 2: 126-146 mm; SMF 8713, 142 mm; SMF 8728, 122 mm; MRS 152/87, 145 mm.

**Heniochus singularius* Smith and Radcliffe, 1911. Pl. 4, Fig. F.

Prognathodes guyotensis (Yamamoto and Tameka, 1982); Randall and de Bruin, 1988. BPBM 30215, 85 mm.

POMACANTHIDAE

Steene (1978) erred in stating that *Centropyge eibli* Klausewitz was first collected and described from the Maldive Islands. The type locality for *eibli* is the Nicobar Islands. We have not seen this species in the Maldives.

**Apolemichthys armitagei* Smith, 1955. BPBM 32807, 67 mm; otherwise known only from the Seychelles; Richard L. Pyle (pers. comm.) suspects that this is a hybrid of *A. trimaculatus* and *A. xanthurus*; more specimens are needed. Pl. 4, Fig. G.

Apolemichthys trimaculatus (Lacepède, 1831); Klausewitz, 1972b; Burgess and Axelrod, 1973: fig. 289; Allen and Steene, 1987; Anderson and Hafiz, 1989: 66. BPBM 18944, 107 mm; SMF 5949, 2: 111-112 mm.

Apolemichthys xanthurus (Playfair, 1866); Burgess and Axelrod, 1973: figs. 287, 288; these illustrations, labelled as from Maldives, are probably based on photographs of a specimen from Sri Lanka where the species is common. As discussed above for *Cephalopholis formosa* and below for *Bodianus luteopunctatus*, a gorgonian used for the background is the same for all three fishes. *A. xanthurus* does occur in the Maldives, but it is not common. Voigtman et al., 1986: 80 published an unidentified photograph of it from the Maldives, and the Bishop Museum has a juvenile specimen, BPBM 34704, 25 mm.

Centropyge bispinosus (Günther, 1860); Burgess and Axelrod, 1973: fig. 283; Klausewitz in Eibl-Eibesfeldt, 1982.

**Centropyge flavicauda* Fraser-Brunner, 1933. BPBM 32869, 3: 26-32 mm; BPBM 34691, 58 mm. Richard L. Pyle (pers. comm.) doubts that this species is distinct from the Hawaiian *C. fisheri* (Snyder, 1904). Pl. 4, Fig. H.

**Centropyge flavipectoralis* Randall and Klausewitz, 1977. BPBM 33101, 36 mm; BPBM 34706, 2: 32-34 mm. Pl. 4, Fig. I.

Centropyge multispinis (Playfair, 1866); Klausewitz, 1972b; Burgess and Axelrod, 1973: fig. 284; Anderson and Hafiz. BPBM 18887, 2: 51-57 mm; BPBM 32870, 4: 23-59 mm; SMF 5944-45, 9: 23-56 mm.

Pomacanthus imperator (Bloch, 1787); Burgess and Axelrod, 1973: figs. 290, 291; Anderson and Hafiz, 1987: 52; Allen and Steene, 1987.

Pomacanthodes imperator: Klausewitz 1972b. SMF 4472-73, 2: 151-234 mm;

**Pomacanthus semicirculatus* (Cuvier, 1831). Rare in the Maldives; a pair of adults have lived for several years on the wreck of the "Maldive Victory" in the lagoon of North Malé Atoll. Fig. 19.

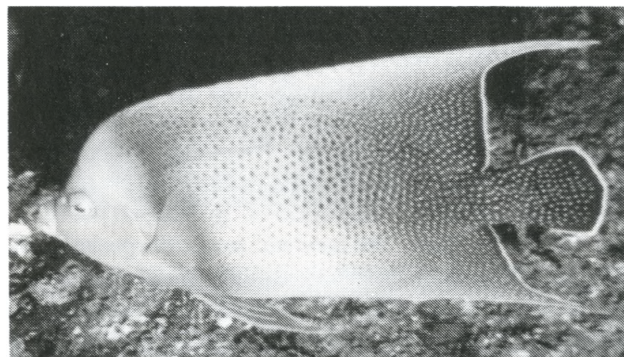


Figure 19. *Pomacanthus semicirculatus*.
Photograph by R.C. Anderson.

Pomacanthus xanthometopon (Bleeker, 1853); Anderson and Hafiz, 1987: 53.

Euxhiphops xanthometopon: Klausewitz, 1972b; Allen and Steene, 1987. SMF 4468, 235 mm.

Pygoplites diacanthus (Boddaert, 1772); Klausewitz 1972b; Anderson and Hafiz, 1987: 54; Allen and Steene, 1987. BPBM 33069, 40 mm; SMF 5884, 147 mm.

MUGILIDAE

Crenimugil crenilabis (Forsskål, 1775); Anderson and Hafiz, 1987: 22.

**Oedalechilus labiosus* (Valenciennes, 1836). Fig. 20.

**Moolgarda seheli* (Forsskål, 1775). This mullet has been classified in recent years in the genus *Valamugil* Smith 1948; however, Hiroshi Senou has advised us that *Valamugil* is a synonym of *Moolgarda* Whitley, 1945. BPBM 34973, 88 mm.

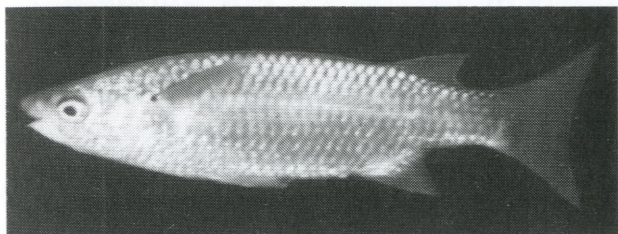


Figure 20. *Oedalechilus labiosus*.

POLYNEMIDAE

Deraniyagala (1956) recorded a 280-mm specimen of threadfin from North Malé Atoll as *Polynemus kuru* Bleeker. Since this species is not known west of Indonesia, his record should be confirmed; the specimen may have been *Polydactylus sexfilis*.

**Polydactylus plebeius* (Broussonet, 1782). BPBM 27733, 37 mm.

**Polydactylus sexfilis* (Valenciennes, 1831). FMNH 91312, 2: 72-75 mm; MRS P112/87: 320 mm.

SPHYRAENIDAE

Sphyraena barracuda (Walbaum, 1792); Palmer, 1963.

Sphyraena picuda: Klauswitz in Eibl-Eibesfeldt, 1982.

Sphyraena forsteri Cuvier, 1829; anonymous, 1987 (unidentified photograph, p. 43).

Sphyraena jello Cuvier, 1829; Van der Knaap et al., 1991; Anderson et al., 1992 (both publications by name only).

**Sphyraena obtusata* Cuvier, 1829. BPBM 34730, 160 mm.

Sphyraena novaehollandiae* Günther, 1860. BPBM 34729, 435 mm; **Pl. 4, Fig. J.

Sphyraena qenie Klunzinger, 1870; Voigtman et al., 1986 (unidentified photograph, p. 115).

Sphyraena putnamiae: Nahke and Wirtz, 1991: fig. at top of p. 87.

POMACENTRIDAE

Regan (1902) recorded *Dascyllus melanurus* Bleeker from the Maldives, a species not yet known from the Indian Ocean; his specimen at the Natural History Museum in London could not be located.

Klauswitz in Eibl-Eibesfeldt (1982) listed 35 species of damselfishes from the Maldives, only 12 of which are correct as presently documented (Allen, 1991). Most of the incorrect ones are assigned to synonymy below. His Maldivian records of *Amphiprion ephippium* (Bloch), not recorded east of the Andaman Islands, *Chromis pembae* Smith, known only from the Red Sea and East Africa, *Neopomacentrus taeniurus* (Bleeker) found only in continental waters of the Indian Ocean, *Pomacentrus melanopterus* Bleeker (= *P. brachialis* Cuvier), known only from the western Pacific, and *Pomacentrus trichourus* Günther, continental in the western Indian Ocean, are probable errors. His listings of *Paraglyphidodon melas* (Cuvier) (= *Neoglyphidodon melas*) and *Pomacentrus sulfurus* Klunzinger

from the Maldives are also questionable but remain as possibilities to be confirmed by specimens or photographs.

Allen (1991: Tables 1,2,5,6) recorded *Amphiprion akalopisos*, *Chromis agilis*, *Neoglyphidodon melas*, *Neopomacentrus azyron*, *Plectroglyphidodon johnstonianus*, and *P. phoenixensis* from the Maldives. Since we have never observed these species in the islands nor know of any specimens, we asked Allen for the basis of his records. He checked his notes and admitted that he was in error in listing these species from the Maldives. However, any of them might be expected to be found there.

Abudefduf notatus* (Day, 1869). **Pl. 5, Fig. A.

Abudefduf septemfasciatus (Cuvier, 1830); Klauswitz in Eibl-Eibesfeldt, 1982; Ministry of Fisheries, Republic of Maldives, 1986. MRS 59/86, 165 mm.

Abudefduf sexfasciatus (Lacepède, 1802); Klauswitz in Eibl-Eibesfeldt, 1982; Allen, 1991. Not seen by us.

Abudefduf sordidus (Forsskål, 1775); Burgess and Axelrod, 1973: figs. 216-218; Ministry of Fisheries, Republic of Maldives, 1986. MRS 24/86, 39 mm.

Abudefduf vaigiensis (Quoy and Gaimard, 1825); Burgess and Axelrod, 1973: fig. 230.

Abudefduf saxatilis: Klauswitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 41.

Amblyglyphidodon leucogaster (Bleeker, 1847); Allen and Steene, 1987; Allen, 1991: 31 (Allen has noted that the Indian Ocean population of this damselfish may represent a distinct species).

Amblyglyphidodon curacao Klauswitz in Eibl-Eibesfeldt, 1982.

Chromis caerulea: Nahke and Wirtz, 1991: fig. at top of p. 93. BPBM 18901, 83 mm; BPBM 18924, 7: 58-97 mm; BPBM 32970, 2: 49-53 mm.

Amphiprion clarkii (Bennett, 1830); Burgess and Axelrod, 1973: figs. 186, 190, 198; Allen, 1975: figs. 189, 193; Anderson and Hafiz, 1987: 56; Allen and Steene, 1987. BPBM 18870, 82 mm.

Amphiprion nigripes Regan, 1908: 230. **Pl. 24, Fig. 2** (Maldives); Burgess and Axelrod, 1973: figs. 193-198; Allen, 1975: figs. 177, 199, 215; Anderson and Hafiz, 1987: 55; Allen and Steene, 1987; Allen, 1991: 47.

Amphiprion melanopus: Eibl-Eibesfeldt, 1964: fig. 19. BPBM 18853, 66 mm.

Amphiprion sebae Bleeker, 1953; Allen, 1975; Ministry of Fisheries, Republic of Maldives, 1986. MRS 7/86, 54 mm.

Chromis atripectoralis* Welander and Schultz, 1951; FMNH 74903: 33: 32-53 mm. **Pl. 5, Fig. B.

Chromis delta Randall, 1988a; Allen, 1991: 66. BPBM 18949, 8: 33-45 mm; BPBM 32938, 3: 33-43 mm; BPBM 33070, 2: 50-52 mm.

Chromis dimidiata (Klunzinger, 1871); Klauswitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 42. FMNH 74905, 24: 19-45 mm.

Chromis elerae Fowler and Bean, 1928; Allen and Steene, 1987. BPBM 18878, 2: 31-37 mm; BPBM 32939, 12: 31-44 mm.

Chromis flavipectoralis Randall, 1988b. WAM P.26514-002, 53.8 mm (paratype).

- Chromis lepidolepis* Bleeker, 1877; Allen, 1991. BPBM 18940, 50 mm; FMNH 74953-54, 6: 29-48 mm.
- Chromis nigroanalis* Randall, 1988b. BPBM 34692, 79 mm.
- Chromis nigrura* Smith, 1960; Allen, 1991. BPBM 18931, 3: 31.5-33 mm.
- Chromis opercularis* (Günther, 1867); Allen, 1991. BPBM 18856, 95 mm; **Pl. 5, Fig. C.**
- Chromis ternatensis* (Bleeker, 1856); Burgess and Axelrod, 1973: fig. 203; Klausewitz in Eibl-Eibesfeldt, 1982; Ministry of Fisheries, Republic of Maldives, 1986; Anderson and Hafiz, 1989: 43; Allen, 1991: 83. BPBM 18910, 47 mm; BPBM 32971, 7: 31-59 mm; MRS 23/86, 38 mm.
- Chromis viridis* (Cuvier, 1830); Anderson and Hafiz, 1989: 44.
Chromis caeruleus: Klausewitz, 1958; Ministry of Fisheries, Republic of Maldives, 1986. MRS 32/86, 63 mm; BPBM 18933, 5: 34-56 mm; SMF 22038, 5: 57-62 mm.
- Chromis weberi* Fowler and Bean, 1928; Allen, 1991; **Pl. 5, Fig. D.**
- Chromis xutha* Randall, 1988: 54, Figs. 5 & 6 (North Malé Atoll, Maldives). BPBM 18864, 44.2 mm; (holotype). BPBM 32704, 7: 43.7-54.4 mm (paratypes).
- Chrysiptera biocellata* (Quoy and Gaimard, 1825); Allen and Steene, 1987; Allen, 1991: 90.
Abudefduf biocellatus: Palmer, 1963; Burgess and Axelrod, 1973: figs. 221-224; Ministry of Fisheries, Republic of Maldives, 1986.
Glyphiodontops biocellatus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18903, 66 mm; MRS 45/86, 34 mm.
- Chrysiptera glauca* (Cuvier, 1830).
Abudefduf aureus: Palmer, 1963.
Glyphiodontops glaucus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 32889, 60 mm; CAS 58749, 14: 20-67 mm.
- Chrysiptera leucopoma* (Cuvier, 1830).
Glyphiodontops leucopomus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 32900, 31 mm; BPBM 33014, 3: 34-44 mm.
- Chrysiptera unimaculata* (Cuvier, 1830).
Glyphiodontops unimaculatus: Klausewitz in Eibl-Eibesfeldt, 1982; Burgess and Axelrod, 1973: fig. 205.
- Dascyllus aruanus* (Linnaeus, 1758); Regan, 1908; Klausewitz, 1958; Burgess and Axelrod, 1973: fig. 183; Ministry of Fisheries, Republic of Maldives, 1986; Anderson and Hafiz, 1989: 45. MRS 4/86, 80 mm.
- Dascyllus carneus* Fischer, 1885; H. Randall and Allen, 1977; Anderson and Hafiz, 1989: 46.
Dascyllus nigripinnis Regan, 1908: 228, Pl. 24, Fig. 5. (Maldives).
Dascyllus reticulatus: Klausewitz in Eibl-Eibesfeldt, 1982. FMNH 74920, 31 mm;
- Dascyllus trimaculatus* (Rüppell, 1829); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 47.
- Lepidozygus tapeinosoma* (Bleeker, 1856); Ministry of Fisheries, Republic of Maldives, 1986; Allen and Steene, 1987; Anderson and Hafiz, 1989: 48.
Lepidozygus anthioides: Burgess and Axelrod, 1973: fig. 200; Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18873, 58 mm; BPBM 32986, 2: 63-64 mm; MRS 20/86, 80 mm.
- Neopomacentrus cyanomos* (Bleeker, 1856); Allen, 1991.
Pomacentrus cyanomos Klausewitz in Eibl-Eibesfeldt, 1982.
- Plectroglyphidodon dickii* (Linéard, 1839); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 49. BPBM 18932, 59 mm; CAS 58682, 4: 55-69 mm.
- Plectroglyphidodon imparipennis* (Vaillant and Sauvage, 1875); Klausewitz in Eibl-Eibesfeldt, 1982. SMF 22033, 3: 34-39.5 mm.
- **Plectroglyphidodon johnstonianus* Fowler and Ball, 1924. Observed and photographed by R.C. Anderson.
- Plectroglyphidodon lacrymatus* (Quoy and Gaimard, 1825); Anderson and Hafiz, 1989: 50.
Abudefduf lacrymatus: Burgess and Axelrod, 1973; figs. 220, 227.
- Plectroglyphidodon leucozonus* (Bleeker, 1865); Klausewitz in Eibl-Eibesfeldt, 1982.
Abudefduf leucozona; Palmer, 1963. BPBM 33017, 42 mm; BPBM 33090, 57 mm.
- Pomacentrus caeruleus* Quoy and Gaimard, 1825.
Pomacentrus pulcherrimus: Burgess and Axelrod, 1973: fig. 215; Nahke and Wirtz, 1991: fig. at bottom of p. 93.
- Pomacentrus chrysurus* (Broussonet, 1782).
Pomacentrus albicaudatus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18907, 2: 544-59 mm; BPBM 33016: 2: 40-51 mm; CAS 58683, 9: 34-55 mm.
- Pomacentrus indicus* Allen, 1991: 148, 229 (North Malé Atoll, Maldives).
Pomacentrus sp. Burgess and Axelrod, 1973; fig. 214. BPBM 18923, 7: 42-75 mm (paratypes); BPBM 32940, 2: 68-69 mm; BPBM 32972, 2: 61-65 mm; CAS 58681,10: 51-70 mm.
- Pomacentrus pavo* (Bloch, 1787); Ministry of Fisheries, Republic of Maldives, 1986. BPBM 18899, 45 mm; BPBM 33071, 3: 42-54 mm; MRS 44/86, 44 mm.
- Pomacentrus philippinus* Evermann and Seale, 1907; Allen, 1991: 154.
Pomacentrus sp. Burgess and Axelrod, 1973: fig. 207. BPBM 18869, 3: 50-66 mm; BPBM 32884, 73 mm;
- Stegastes albifasciatus* (Schlegel and Müller, 1839-44); Allen, 1991: 167.
Eupomacentrus albofasciatus Klausewitz in Eibl-Eibesfeldt, 1982. This species not seen by us.
- Stegastes fasciolatus* (Ogilby, 1889); Allen and Steene, 1987; Allen, 1991: 172, 173. BPBM 18948, 71 mm; BPBM 33017, 3: 33-78 mm; SMNS 8458, 40 mm.
- Stegastes lividus* (Bloch and Schneider, 1801); Allen, 1991: 178.
- Stegastes nigricans* (Lacepède, 1802).
Eupomacentrus nigricans: Klausewitz in Eibl-Eibesfeldt, 1982. CAS 76303, 50 mm.

LABRIDAE

Klausewitz in Eibl-Eibesfeldt (1982) listed 30 wrasses from the Maldives, but four of the names are of species extralimital to these islands: *Cheilinus mentalis* is known from the Red Sea and Gulf of Aden; *Stethojulis axillaris* is a synonym of *S. baleatus*, a Hawaiian endemic; *Thalassoma cupido* is a Japanese species; and *T. comersoni* (= *genivittatum*) occurs from Mauritius to Natal. In addition to listing *Halichoeres scapularis*, he included a subspecies of the same, *Halichoeres scapularis caeruleovittatus*. He recorded one fish as *Thalassoma trimaculatus*; we know of no such species of *Thalassoma*; if *Halichoeres trimaculatus* were intended, this still would not be a valid record, because the species does not occur in the western Indian Ocean. Three other labrids were recorded only by generic name.

The record of the labrid fish *Bodianus luteopunctatus* (= *neilli*) from the Maldives by Burgess and Axelrod (1973: figs. 29-31) seems to be an error. We suspect that the photographs were taken of a specimen from Sri Lanka. The gorgonian in the background for the aquarium photographs of their fig. 31 is the same as that for three other photographs of fishes in the book that were probably collected in Sri Lanka (see accounts for *Cephalopholis formosa* and *Apolemichthys xanthurus* above and of *Halichoeres zeylonicus* below). Similarly, their record of *Halichoeres melanochir* from the Maldives, otherwise known only from the western Pacific, is a probable mistake; the dead coral background of the photograph is the same as that used in their fig. 299 labelled *Acanthurus tennentii* (actually *A. olivaceus*, a Pacific species).

**Anampses caeruleopunctatus* (Rüppell, 1829). Fig. 21.

**Anampses lineatus* Randall, 1972. Pl. 5, Fig. E.

**Anampses meleagrides* Valenciennes, 1840. Pl. 5, Fig. F.

**Anampses twistii* Bleeker, 1856. Pl. 5, Fig. G.

Bodianus anthioides (Bennett, 1830).

Lepidaplois anthioides: Klausewitz in Eibl-Eibesfeldt, 1982.

Bodianus axillaris (Bennett, 1831); Burgess and Axelrod, 1973: figs. 32, 33; Allen and Steene, 1987.

Lepidaplois axillaris: Klausewitz in Eibl-Eibesfeldt, 1982.

**Bodianus bimaculatus* Allen, 1973. Pl. 5, Fig. H.

Bodianus diana (Lacepède, 1801).

Lepidaplois diana: Eibl-Eibesfeldt, 1964: fig. 83; Klausewitz in Eibl-Eibesfeldt, 1982.

**Cheilinus arenatus* Valenciennes, 1840. Pl. 5, Fig. I.

Cheilinus bimaculatus Valenciennes, 1840.

Cheilinus ceramensis: Regan, 1908.

Cheilinus digrammus (Lacepède, 1801). Klausewitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987.

Pseudocheilinus sp. Burgess and Axelrod, 1973: fig. 79.

**Cheilinus chlorourus* (Bloch, 1791). Pl. 5, Fig. J.

Cheilinus fasciatus (Bloch, 1791); Burgess and Axelrod, 1973: figs. 3-5; Anderson and Hafiz, 1989: 51.

Cheilinus fasciatus fasciatus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 32923, 103 mm.

**Cheilinus oxycephalus* Bleeker, 1853. BPBM 32924, 2: 34-63 mm. Pl. 6, Fig. A.

Cheilinus trilobatus Lacepède, 1801; Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 33038, 3: 33-54 mm; CAS 52614, 7: 26-81.5 mm.

Cheilinus undulatus Rüppell, 1835; Anderson and Hafiz, 1987: 57; Allen and Steene, 1987.

**Cheilio inermis* (Forsskål, 1775); BPBM 33039, 3: 58-167 mm; Pl. 6, Fig. B.

Cirrhilabrus exquisitus Smith, 1957; Burgess and Axelrod, 1973: fig. 18; Allen and Steene, 1987. BPBM 18866, 64 mm; BPBM 18942, 4: 47-59 mm.

**Cirrhilabrus rubrisquamis* Randall and Emery, 1983. BPBM 33094, 6: 38-72 mm; Pl. 6, Fig. C.

Coris africana Smith, 1957.

Coris gaimard: Klausewitz in Eibl-Eibesfeldt, 1982.

Coris aygula Lacepède, 1801. SMF 22013, 290 mm.

Coris angulata: Klausewitz in Eibl-Eibesfeldt, 1982.

Coris batuensis (Bleeker, 1856).

Coris variegata: Klausewitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987; Nahke and Wirtz, 1991: fig. at bottom of p. 101. BPBM 18897, 75 mm; BPBM 32907, 56 mm.

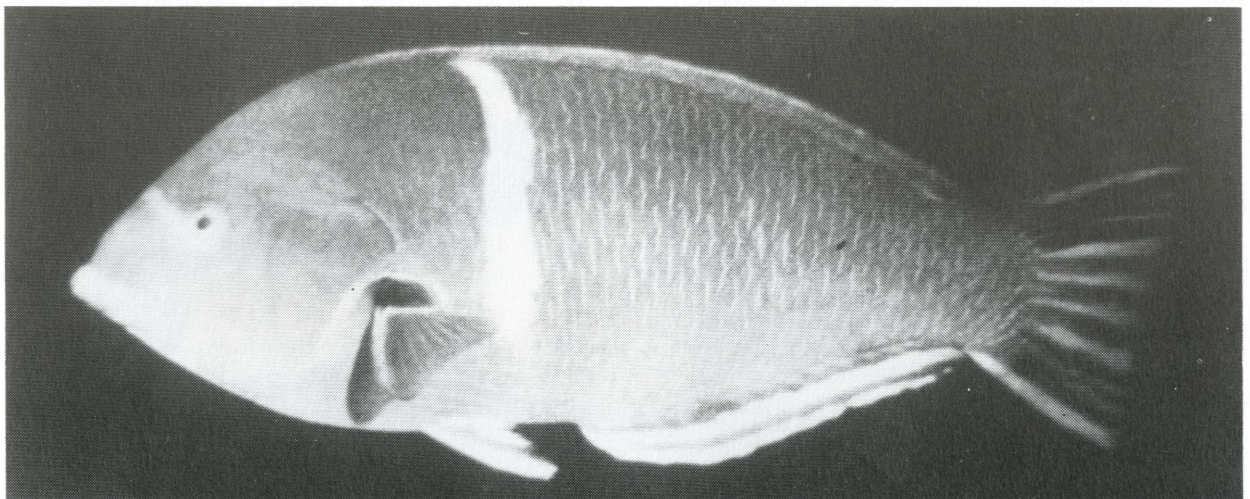


Figure 21. *Anampses caeruleopunctatus*.

- Coris frerei* Playfair and Günther, 1867.
Labrus formosa Bennett, 1829 (preoccupied by *Labrus formosus* Shaw, 1803).
Coris formosa: Allen and Steene, 1987.
- Cymolutes praetextatus* (Quoy and Gaimard, 1834).
Cymolutes lecluse: Palmer, 1963. BPBM 18896, 73 mm.
- Epibulus insidiator* (Pallas, 1770); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 52. BPBM 32960, 140 mm; CAS 52617, 2: 35-50 mm.
- Frontilabrus caeruleus* Randall and Condé, 1989: 90, Figs. 1-3 (Maldives; BPBM 31976, 94 mm, holotype).
- Gomphosus caeruleus* Lacepède 1801; Klausewitz, 1962; Anderson and Hafiz, 1989: 53; Allen and Steene, 1987.
Gomphosus varius: Burgess and Axelrod, 1973: fig. 26; Klausewitz in Eibl-Eibesfeldt, 1982. CAS 52609, 85 mm.
- Halichoeres cosmetus* Randall and Smith, 1982: 15, Pl. 6 C, 7A & B (Malé Atoll, Maldives; BPBM 18925, 72 mm holotype); Allen and Steene, 1987.
- Halichoeres hortulanus* (Lacepède, 1801); Anderson and Hafiz, 1989: 54.
Halichoeres centriquadratus: Burgess and Axelrod, 1973: figs. 51, 54.
Halichoeres centriquadrus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 34671, 157 mm
- Halichoeres leucoxanthus* Randall and Smith, 1982: 20: pl. 8 C; Allen and Steene, 1987. BPBM 18911, 49.4 mm; BPBM 32908, 79 mm.
- Halichoeres marginatus* Rüppell, 1835; Palmer, 1963; Allen and Steene, 1987.
Halichoeres notopsis: Burgess and Axelrod, 1973: fig. 50.
PlatyGLOSSUS marginatus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 33011, 2: 52-64 mm; CAS 52610, 8: 29-57 mm.
- **Halichoeres nebulosus* Valenciennes, 1839. BPBM 32296, 2: 54-80 mm; **Pl. 6, Fig. D.**
- Halichoeres scapularis* (Bennett, 1831); Palmer, 1963; Burgess and Axelrod, 1973: figs. 55, 57; Ministry of Fisheries, Republic of Maldives, 1986; Allen and Steene, 1987. BPBM 18907, 66 mm; BPBM 32998, 3: 49-82 mm; CAS 52612, 43: 22-88 mm; MRS 46/86, 74 mm.
- Halichoeres trispilus* Randall and Smith, 1982: 18, Pl. 8 A & B. (North Malé Atoll, Maldives; BPBM 18882, 50.4 mm holotype).
- Halichoeres vrolikii* (Bleeker, 1855). As noted by Randall, Allen and Steene (1990), *H. hoevenii* (Bleeker) is the female form of *H. melanurus* (Bleeker).
Halichoeres hoeveni: Burgess and Axelrod, 1973: fig. 49; Randall and Smith, 1982: pl. 4 A, B; Allen and Steene, 1987. BPBM 18871, 2: 44 mm; BPBM 32878, 2: 62-76 mm; BPBM 32961, 4: 24-58 mm; CAS 52611, 50 mm.
- **Halichoeres zeylonicus* (Bennett, 1832). BPBM 34963, 140 mm, from the stomach of *Aprion virescens* and partly digested; Burgess and Axelrod (1973: fig. 46) recorded this species (as *H. bimaculatus*) from the Maldives; however, their aquarium photograph was taken with a gorgonian background which was used only for other photographs of species that are not known from the Maldives but common in Sri Lanka; hence our specimen (and **Pl. 6, Fig. E**) represents the first record for the Maldivian Islands.
- Hemigymnus fasciatus* (Bloch, 1792). Burgess and Axelrod, 1973: fig. 21; Klausewitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987. CAS 52616, 2: 24-24.5 mm.
- Hemigymnus melapterus* (Bloch, 1791); Allen and Steene, 1987: pl. 93, fig. 3.
- **Hologymnosus annulatus* (Lacepède, 1801). **Fig. 22.**
- Labrichthys unilineata* (Guichenot, 1847). Burgess and Axelrod, 1973: figs. 38, 39; Allen and Steene, 1987. CAS 52606, 47 mm.
- Labroides bicolor* Fowler and Bean, 1928. Burgess and Axelrod, 1973: fig. 36. BPBM 18909, 61 mm.
- Labroides dimidiatus* (Valeniennes, 1839). Regan, 1902; Eibl-Eibesfeldt, 1964: figs. 40, 41; Ministry of Fisheries, Republic of Maldives, 1986; Anderson and Hafiz, 1987: 59. BPBM 32935, 46 mm; MRS 42/86, 64 mm.
- **Labropsis xanthonota* Randall, 1981. **Pl. 6, Fig. F.**
- Macropharyngodon bipartitus* Smith, 1957; Randall, 1978; Allen and Steene, 1987. BPBM 18885, 2: 58-78 mm; BPBM 32936, 44 mm.
- **Macropharyngodon ornatus* Randall, 1978. **Pl. 6, Fig. G.**

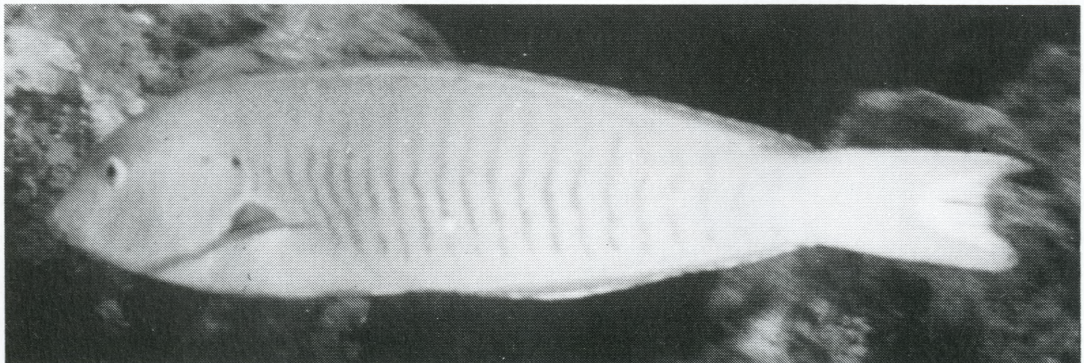


Figure 22. *Hologymnosus annulatus*.

- Novaculichthys taeniourus* (Lacepède, 1801). BPBM 34664, 168 mm.
Xyrichtys taeniourus: Palmer, 1963.
- Paracheilinus mccooskeri* Randall and Harmelin-Vivien, 1977; Randall and Lubbock, 1981: pl. I C. BPBM 22590, 57 mm; BPBM 32865, 15: 30-45 mm.
- Pseudocheilinus evanidus* Jordan and Evermann, 1903; Allen and Steene, 1987. BPBM 32866, 2: 40-45 mm.
- Pseudocheilinus hexataenia* (Bleeker, 1857); Burgess and Axelrod, 1973: fig. 80; Klausowitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987. BPBM 18934, 36 mm; BPBM 32962, 3: 25-40 mm.
- **Pseudocoris yamashiroi* Schmidt, 1930. BPBM 18930, 87 mm; BPBM 32980, 38 mm; BPBM 32980, 3: 20-32 mm.
- Pseudodax moluccanus* (Valenciennes, 1839). BPBM 18937, 150 mm; **Pl. 6, Fig. H.**
- **Pseudojuloides* sp. BPBM specimens from Maldives and Indonesia; to be described by the senior author; **Pl. 6, Figs. I, J.**
- Stethojulis albovittata* (Bonnaterre, 1788); Klausowitz in Eibl-Eibesfeldt, 1982.
Stethojulis axillaris: Palmer, 1963. BPBM 18926, 4: 69-83 mm; BPBM 33064, 52 mm; CAS 52608, 21: 23-70 mm
- Stethojulis strigiventer* (Bennett, 1832); Burgess and Axelrod, 1973: fig. 42. BPBM 32879, 75 mm.
- **Stethojulis trilineata* (Bloch and Schneider, 1801). BPBM 33012, 68 mm; **Pl. 7, Fig. A.**
- Thalassoma amblycephalum* (Bleeker, 1856); Burgess and Axelrod, 1973: figs. 61 & 64; Klausowitz in Eibl-Eibesfeldt, 1982.
Thalassoma sp.
- Thalassoma hardwicke* (Bennett, 1828); Burgess and Axelrod, 1973: figs. 67-69; Klausowitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 58; Allen and Steene, 1987; Nahke and Wirtz, 1991: fig. at top of p. 99. CAS 52607, 8: 32-81 mm; MRS 5/86, 169 mm.
- Thalassoma janseni* (Bleeker, 1856); Burgess and Axelrod, 1973: fig. 75. BPBM 33086, 77 mm.
- Thalassoma lunare* (Linnaeus, 1758); Klausowitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1989: 55.
- Thalassoma quinquevittatum* (Lay and Bennett, 1839); Burgess and Axelrod, 1973: fig. 71.
Thalassoma purpureum (non Forsskål): Allen and Steene, 1987: pl. 98, fig. 5. BPBM 33013, 3: 33-74 mm; CAS 52516, 5: 61.5-98 mm.
- Thalassoma purpureum* (Forsskål, 1775); Klausowitz in Eibl-Eibesfeldt, 1982. BPBM 34672, 192 mm.
- **Wetmorella albofasciata* Schultz and Marshall, 1954. BPBM 32981, 33 mm; CAS 52615, 22 mm; **Pl. 7, Fig. B.**
- Wetmorella nigropinnata* (Seale, 1901); Randall, 1983. FMNH 80027, 50 mm; FMNH 80108, 31 mm; FMNH 80126, 4: 23.5-52 mm; BPBM 32982, 44 mm; BPBM 33065, 2: 36-49 mm.
- **Xyrichtys aneitensis* (Günther, 1862). Observed by the authors in the lagoon of North Malé Atoll. Photograph on file at the Marine Research Section, Maldives.
- The record of *Scarus schlegeli* (as *Pseudoscarus schlegeli*) from the Maldives by Klausowitz in Eibl-Eibesfeldt (1982) is a probable error; this species is not yet known from the Indian Ocean.
- **Bolbometopon muricatum* (Valenciennes, 1840). An individual about 65 cm seen by the junior author on the lagoon side of Hululhe Island, North Malé Atoll. Reported by dive instructors from Lankanfinolhu-Kanifinolhu, North Malé Atoll.
- Calotomus spinidens* (Quoy and Gaimard, 1824). BPBM 33046, 2: 36-85 mm.
Cryptotomus spinidens: Klausowitz in Eibl-Eibesfeldt, 1982.
- **Calotomus viridescens* (Rüppell, 1835). Previously believed to be endemic to the Red Sea, but **Pl. 7, Fig. C** clearly shows small red spots posteriorly on the head and in the pectoral region. The presence of these spots on *C. viridescens* in the Red Sea (though more numerous and darker) and their previously reported absence on the allopatric *C. carolinus* (Valenciennes) from elsewhere in the Indo-Pacific region was the basis for separating the two forms as species (see Bruce and Randall, 1985). We therefore provisionally place *C. carolinus* in the synonymy of *viridescens*. It is possible that both *viridescens* and *carolinus* coexist in the Maldives. More specimens and photographs are needed from there and other western Indian Ocean localities to be certain of the decision to synonymise *carolinus*.
- Cetoscarus bicolor* (Rüppell, 1829); Anderson and Hafiz, 60; Allen and Steene, 1987. SMF 6259 (not measured).
- Hipposcarus harid* (Forsskål, 1775); Allen and Steene, 1987.
Scarus harid: Klausowitz in Eibl-Eibesfeldt, 1982.
- Leptoscarus vaiigiensis* (Quoy and Gaimard, 1824); Burgess and Axelrod, 1973: fig. 85; Klausowitz in Eibl-Eibesfeldt, 1982.
- **Scarus capistratoides* Bleeker, 1849. BPBM 34705, 240 mm.
- Scarus caudofasciatus* (Günther, 1862); Randall and Bruce, 1983. BPBM 19021, 345 mm.
Hipposcarus caudovittatus: Allen and Steene, 1987: pl. 103, fig. 6.
- Scarus enneacanthus* Lacepède, 1802; Randall and Bruce, 1983. BPBM 34736, 2: 201-223 mm.
- Scarus festivus* Valenciennes, 1840; Randall and Bruce, 1983.
- Scarus frenatus* Lacepède, 1802; Randall and Bruce, 1983: pl. 2 F; Allen and Steene, 1987: pl. 103, fig. 8.
- Scarus ghobban* Forsskål, 1775; Klausowitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 62.
Scarus guttatus: Klausowitz in Eibl-Eibesfeldt, 1982.
- Scarus niger* Forsskål, 1775; Anderson and Hafiz, 1987: 64; Allen and Steene, 1987.
Scarus madagascariensis: Burgess and Axelrod, 1973: fig. 86. SMF 6273 (not measured).

- Scarus prasiognathos* Valenciennes, 1840; Randall and Bruce, 1983: pl. 6 I, J; Allen and Steene, 1987; Anderson and Hafiz, 1989: 56. BPBM 19018, 4: 225-303 mm.
- **Scarus psittacus* Forsskål, 1775. BPBM 33047: 7: 33-47 mm. **Pl. 7, Fig. D.**
- **Scarus quoyi* Valenciennes, 1840. **Pl. 7, Fig. E.**
- **Scarus rubroviolaceus* Bleeker, 1847. **Pl. 7, Fig. F.**
- **Scarus russelli* Valenciennes, 1840. BPBM 34665, 184 mm. **Pl. 7, Fig G.**
- Scarus scaber* Valenciennes, 1840; Randall and Bruce, 1983. SMF 6269 (not measured).
- Scarus oviceps*: Klausewitz in Eibl-Eibesfeldt, 1982.
- Scarus pectoralis*: Klausewitz in Eibl-Eibesfeldt, 1982.
- Scarus sordidus* Forsskål, 1775; Klausewitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987: pl. 103, fig. 3.
- Scarus erythron*: Klausewitz in Eibl-Eibesfeldt, 1984.
- Scarus frenatus*: Anderson and Hafiz, 1987: 61.
- Scarus strongylocephalus* Bleeker, 1854.
- Callyodon* sp. Eibl-Eibesfeldt, 1964: fig. 44.
- Scarus* sp. Burgess and Axelrod, 1973: fig. 89.
- Scarus gibbus*: Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 63; Allen and Steene, 1987: pl. 101, figs. 4, 5.
- Scarus frenatus*: Nahke and Wirtz, 1991: fig. on p. 108. SMF 12842 (not measured).
- Scarus tricolor* Bleeker, 1847. BPBM 34727, 209 mm.
- Hipposcarus harid*: Anderson and Hafiz, 1989: 57.
- Scarus viridifucatus* (Smith, 1956); Randall and Bruce, 1983: pl. 5, Figs. 1 & J. BPBM 18950, 7: 120-170 mm.

OPISTOGNATHIDAE

- **Opistognathus* sp. BPBM 32706, 36 mm SL; this and the following species will be described by William F. Smith-Vaniz.
- **Opistognathus* sp. BPBM 32707, 77 mm SL.

PINGUIPEDIDAE

- Parapercis hexophthalma* (Cuvier, 1829); Anderson and Hafiz, 1989: 40.
- Parapercis cylindrica*: Burgess and Axelrod, 1973: figs. 277, 278. BPBM 18935, 143 mm; CAS 35436, 110 mm; CAS 56685, 114 mm.
- Parapercis millipunctata* (Günther, 1860).
- Parapercis cephalopunctatus*: Burgess and Axelrod, 1973: figs. 279, 280. BPBM 18927, 2: 107-115 mm; CAS 35435, 4: 81-109 mm; CAS 56684, 55 mm.
- **Parapercis schauinslandi* (Steindachner, 1900). BPBM 27209, 41 mm; BPBM 34742, 48 mm. **Pl. 7, Fig. H.**
- Parapercis signata* Randall, 1984: 46, Figs. 6-8. (North Malé Atoll, Maldives; BPBM 18045, 92.2 mm, holotype). BMNH 1982.6.17.52, 60.4 mm; BPBM 18044, 71.3 mm; RUSI 17148, 85.9 mm; USNM 235920, 78.3 mm (paratypes). BPBM 32890, 2: 57-71 mm.
- Parapercis punctulata*: Regan, 1908.
- Parapercis bivittata*: Allen and Steene, 1987.
- Parapercis ventromaculata* Manilo, 1990: 1016, Fig. 1; Malé, Maldives.

TRICHONOTIDAE

- Trichonotus* sp.; Klausewitz in Eibl-Eibesfeldt, 1982. No specimen seen by us.

TRIPTERYGIIDAE

- Enneapterygius elegans* (Peters, 1877); Fricke and Randall, 1992. BPBM 33023, 8: 18-25 mm; BPBM 33091, 4: 16-22 mm.
- Enneapterygius obscurus* Clark, 1980; Fricke and Randall, 1992. SMNS 11518, 14 mm.
- Helcogramma fuscopinna* Holleman, 1982; Fricke and Randall, 1992. BPBM 33025, 30 mm.
- Helcogramma larvata* Fricke and Randall, 1992: 6, Figs. 5, 6. (N. Malé Atoll, Maldives; BPBM 34518, 19.8 mm, holotype; BPBM 33091, 4: 16.2-22.2 mm, paratypes).
- Helcogramma maldivensis* Fricke and Randall, 1992: 9, Figs. 7, 8, Pl. 1. (S. Malé, Maldives; SMNS 11468, 25.4 mm, holotype. Paratypes: BMNH 1991.4.15.1, 17.5 mm; BPBM 18889, 5: 19.4-25.3 mm; BPBM 32904, 3: 20.3-24.9 mm; BPBM 32976, 27.6 mm; BPBM 34521, 21.4 mm; CAS 75979, 21.6 mm; MNHN 1991-0700, 21.7 mm; NSMT P34632, 17.6 mm; RUSI 36705, 20.3 mm, SMNS 11469-73, 10: 15.1-23.3 mm; USNM 31648, 24.9 mm.

BLENNIIDAE

- **Aspidontus dussumieri* (Valenciennes, 1836). BPBM 34699, 55 mm.
- Aspidontus taeniatus* Quoy and Gaimard, 1834; Smith-Vaniz, 1976; Klausewitz in Eibl-Eibesfeldt, 1982.
- Aspidontus filamentosus*: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 34952, 43 mm (postlarval specimen from stomach of *Tylosurus* sp.).
- **Cirripectes auritus* Carlson, 1981. **Pl. 7, Fig. I.**
- **Cirripectes castaneus* (Valenciennes, 1836). CAS 58689, 5: 36-62 mm; FMNH 90637, 47.5 mm; FMNH 101059, 4: 38-45 mm.
- **Cirripectes filamentosus* (Alleyne and Macleay, 1877). CAS 58695, 2: 20-55 mm.
- Cirripectes polyzona* (Bleeker, 1868); Williams, 1988. BPBM 33004, 4: 24-38 mm; BPBM 33076, 2: 42-57 mm; CAS 76301, 3: 36-43.5 mm; SMF 13590, 3: 40-46 mm.
- **Cirripectes quagga* (Fowler and Ball, 1924). BPBM 33075, 2: 50-54 mm. **Pl. 7, Fig. J.**
- Cirripectes stigmaticus* Strasburg and Schultz, 1953. BPBM 18912, 66 mm; BPBM 33027, 51 mm; CAS 76302, 56 mm; FMNH 90629, 2: 39-56 mm; FMNH 90636, 58.5 mm; FMNH 90704, 47 mm.
- Ecsenius bicolor* (Day, 1888); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 32946, 4: 39-62 mm; BPBM 33056, 48 mm; FMNH 90703, 2: 42-49 mm.
- Ecsenius lineatus* Klausewitz, 1962: 145, Fig. 1. (Fadiffulu Atoll, Maldives; SMF 5532, 66.5 mm, holotype). Anderson and Hafiz, 1989: 39. BPBM 22591, 52 mm.
- Ecsenius midas* Starck, 1969; Nahke and Wirtz, 1991: upper fig. on p. 135.

- Ecsenius minutus* Klausewitz, 1963: 357, Figs. 1 & 2 (Addu Atoll, Maldives. SMF 6367, 19.9 mm, holotype). BPBM 18055, 38 mm; BPBM 32947, 30 mm.
- **Entomacrodus striatus* (Quoy and Gaimard, 1836). BPBM 33077, 2: 55-70 mm; **Fig. 23.**
- **Entomacrodus thalassinus* (Jordan and Seale, 1906). BPBM 33079, 6: 27-36 mm; **Fig. 24.**
- **Entomacrodus vermiculatus* (Valenciennes, 1836). BPBM 33078, 2: 85-138 mm; **Fig. 25.**
- **Exallias brevis* (Kner, 1868). Brock Stanaland and Linda McCarthy observed a specimen about 12 cm TL at Villingili, North Malé Atoll; also seen by the junior author on two occasions.
- **Glyptoparus delicatulus* Smith, 1959. CAS 67725, 2: 16.5-25 mm.
- **Istiblennius chrysospilos* (Bleeker, 1857). BPBM 33080, 2: 44-71 mm; CAS 58690, 2: 61.5-62.5 mm.
- **Istiblennius dussumieri* (Valenciennes, 1836). SMNS 8459, 34 mm.

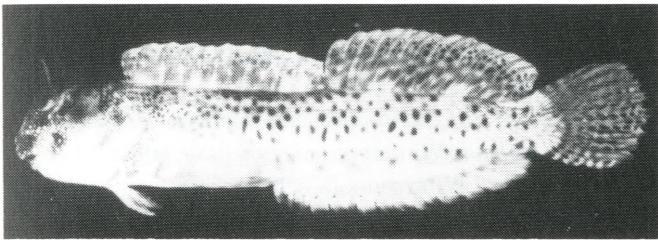


Figure 23. *Entomacrodus striatus*, BPBM 33077, 70 mm SL.

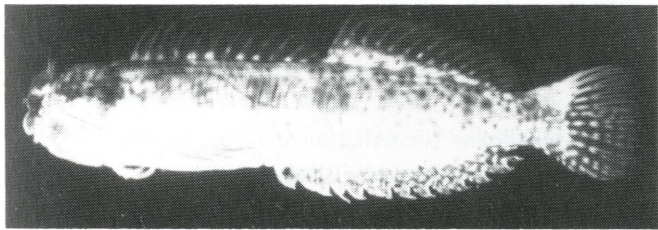


Figure 24. *Entomacrodus thalassinus*, BPBM 33079, 36 mm SL.

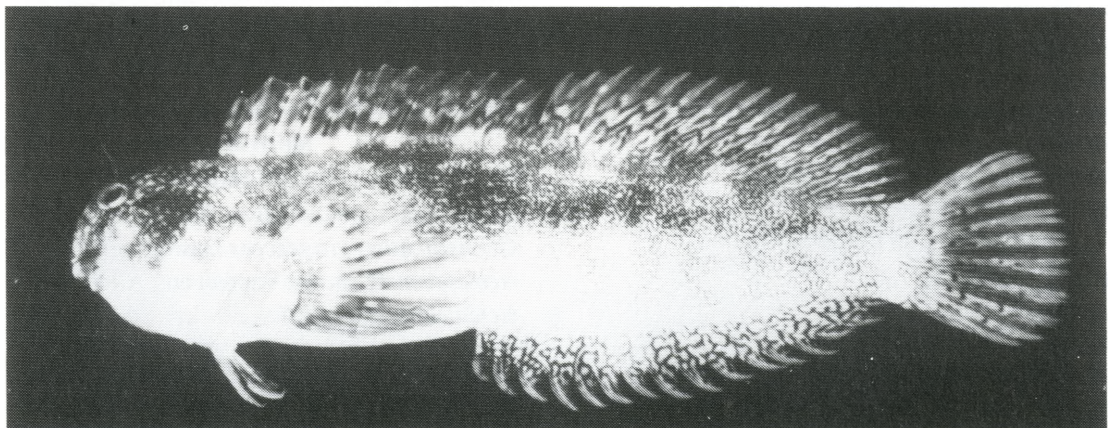


Figure 25. *Entomacrodus vermiculatus*, BPBM 33078, 138 mm SL.

- Istiblennius edentulus* (Bloch and Schneider, 1801); Palmer, 1963. BPBM 33104, 2: 65-82 mm; CAS 58688, 5: 36-72 mm; CAS 58693, 4: 19-51 mm; CAS 58723, 6: 26-44 mm; CAS 58739, 5: 55.5-76.5 mm; FMNH 90619, 87 mm; FMNH 90706, 74 mm; FMNH 10157, 2: 56.5-59.5 mm.
- Istiblennius lineatus* (Valenciennes, 1836); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 33105, 3: 57-77 mm; USNM 290934, 3: 59-80.5 mm.
- Istiblennius periophthalmus* (Valenciennes, 1836); Palmer, 1963; Klausewitz in Eibl-Eibesfeldt, 1982.
- Istiblennius periophthalmus biseriatus* Klausewitz, 1963. BPBM 33081, 2: 57-64 mm; BPBM 33103, 85 mm; CAS 58746, 51: 31-99 mm; FMNH 90629, 63: 32.5-79.5 mm; SMF 5571, 42: 53-132 mm; USNM 197596, 15: 44-90 mm.
- Meiacanthus smithi* Klausewitz, 1962: 17, Fig. 1. (Addu Atoll, Maldives; SMF 5439, 54 mm, holotype); Allen and Steene, 1987. BPBM 18895, 53 mm; BPBM 32995, 55 mm.
- **Parenchelyurus hepburni* (Snyder, 1908). FMNH 71366, 3: 23-27 mm.
- Petroscirtes mitratus* Rüppell, 1830; Smith-Vaniz, 1976. BPBM 33035, 36 mm.
- Petroscirtes xestus* Jordan and Seale, 1906; Smith-Vaniz, 1976.
- Plagiotremus phenax* Smith-Vaniz, 1976; Allen and Steene, 1987.
- Plagiotremus* sp. Burgess and Axelrod, 1973: fig. 97. BPBM 32948, 33 mm; FMNH 71350, 41 mm (paratype).
- Plagiotremus rhinorhynchus* (Bleeker, 1852); Smith-Vaniz, 1976; Allen and Steene, 1987. BPBM 32932, 50 mm; FMNH 71353, 61 mm; MRS 30/86, 59 mm.
- Plagiotremus tapeinosoma* (Bleeker, 1857); Smith-Vaniz, 1976. FMNH 71354, 68 mm.
- Salarias fasciatus* (Bloch, 1786); Palmer, 1963. BPBM 18915, 72 mm; FMNH 90625, 18 mm; FMNH 90689, 3: 24.5-39 mm.
- **Xiphasia matsubarai* Okada and Suzuki, 1952. BPBM 34683, 292 mm; dorsal rays 111; pectoral rays 10 (11 other side); BPBM 34958, 375 mm, from stomach of *Aprion virescens*; partly digested; vertebrae 115.

CALLIONYMIDAE

- Callionymus cooperi* Regan, 1908: 247 (Maldives).
**Callionymus delicatulus* Smith, 1963. BPBM 32877, 2: 31-38 mm; SMNS 8362-66, 13: 19-37.5 mm;
Callionymus gardineri Regan, 1908.
Callionymus maldivensis Regan, 1908: 247, Pl. 30, Fig. 3 (S. Nilandu, Maldives).
Calliurichthys gardineri: Klausewitz in Eibl-Eibesfeldt, 1982.
Callionymus persicus Regan, 1906; BPBM 34962, 59 mm, from the stomach of *Aprion virescens*.
Callionymus affinis Regan, 1908: 248 (S. Nilandu, Maldives).
Callionymus tenuis Fricke, 1981: 387, Fig. 1 (S. Nilandu Atoll, Maldives; FMNH 78916, 18.3 mm, holotype).
**Synchiropus sechellensis* Regan, 1908. BPBM 32708, 2: 36-38 mm.
Synchiropus minutulus Fricke, 1981: 119, Fig. 38 (Maldives; FMNH 78793, 14.3 mm, holotype). BPBM 34750, 5: 8-23 mm.
Synchiropus stellatus Smith, 1963; Allen and Steene, 1987. BPBM 32891, 31 mm; SMNS 12275, 53.5 mm.

GOBIIDAE

A detailed account of the gobioid fishes of the Maldives has been published by Randall and Goren (1993). Only the species names with authors and dates are listed here.

- Amblyeleotris aurora* (Polunin and Lubbock, 1977).
Amblyeleotris diagonalis Polunin and Lubbock, 1979.
Amblyeleotris periophthalma (Bleeker, 1853).
Amblyeleotris steinitzi (Klausewitz, 1974).
Amblyeleotris wheeleri (Polunin and Lubbock, 1977).
Amblygobius hectori (Smith, 1956).
Amblygobius semicinctus (Bennett, 1833).
Asterropteryx semipunctatus Rüppell, 1830.
Asterropteryx spinosus (Goren, 1981).
Bathygobius coalitus (Bennett, 1831).
Bathygobius cocosensis (Bleeker, 1854).
Bathygobius cyclopterus (Valenciennes, 1837).
Cabillus tongarevae (Fowler, 1927).
Callogobius centrolepis Weber, 1909.
Callogobius sclateri (Steindachner, 1880).
Callogobius sp.
Cryptocentrus fasciatus (Playfair and Günther, 1867).
Ctenogobiops crocineus Smith, 1959.
Ctenogobiops feroculus Lubbock and Polunin, 1977.
Eviota albolineata Jewett and Lachner, 1983.
Eviota guttata Lachner and Karnella, 1978.
Eviota nebulosa Smith, 1958.
Eviota nigripinna Lachner and Karnella, 1980.
Eviota prasina (Klunzinger, 1871).
Eviota seebrei Jordan and Seale, 1906.
Eviota zebrina Lachner and Karnella, 1978.
Eviota sp.
Flabelligobius latruncularius (Klausewitz, 1974).
Fusigobius duospilus Hoese and Reader, 1985.
Fusigobius neophytus (Günther, 1877).

- Fusigobius* sp. 1.
Fusigobius sp. 2.
Gnatholepis anjerensis (Bleeker, 1850).
Gnatholepis scapulostigma Herre, 1953.
Gobiodon citrinus (Rüppell, 1838).
Gobiodon sp.
Heteroleotris zanzibarensis (Smith, 1958).
Istigobius decoratus (Herre, 1927).
Macrodontogobius wilburi (Herre, 1936).
Oplopomus caninoides (Bleeker, 1852).
Oplopomus oplopomus (Valenciennes, 1837).
Opua maculipinna (Randall and Goren, 1993).
Palutris reticularis Smith, 1959.
Papillogobius reichei (Bleeker, 1853).
Paragobiodon lacunicolus (Kendall and Goldsborough, 1911).
Paragobiodon modestus (Regan, 1908).
Pleurosicya micheli Fourmanoir, 1971.
Priolepis cincta (Regan, 1908).
Priolepis nocturna (Smith, 1956).
Priolepis semidoliata (Valenciennes, 1837).
Priolepis sp.
Stonogobiops dracula Polunin and Lubbock, 1977.
Sueviota lachneri Winterbottom and Hoese, 1988.
Trimma emeryi Winterbottom, 1985.
Trimma flammeum (Smith, 1959).
Trimma naudei Smith, 1956.
Trimma striatum (Herre, 1945).
Trimma taylori Lobel, 1979.
Trimma tevegae Cohen and Davis, 1969.
Trimma sp. 1.
Trimma sp. 2.
Trimma sp. 3.
Trimma sp. 4.
Trimmaton nanus Winterbottom and Emery, 1981.
Valenciennea helsdingenii (Bleeker, 1858).
Valenciennea puellaris (Tomiya, 1956).
Valenciennea sexguttata (Valenciennes, 1837).
Valenciennea strigata (Broussonet, 1782).
Valenciennea sp.
Vanderhorstia ambanoro (Fourmanoir, 1957).
Vanderhorstia ornatissima Smith, 1959.
Vanderhorstia prealta Lachner and McKinney, 1981.

ELEOTRIDIDAE

- Eleotris melanosoma* Bleeker, 1852.

MICRODESMIDAE

- Gunnellichthys curiosus* Dawson, 1968.
Gunnellichthys monostigma Smith, 1958.
Gunnellichthys viridescens Dawson, 1968.
Nemateleotris decora Randall and Allen, 1973.
Nemateleotris magnifica Fowler, 1938.
Ptereleotris evides (Jordan and Hubbs, 1925).
Ptereleotris heteroptera (Bleeker, 1855).
Ptereleotris microlepis (Bleeker, 1856).
Ptereleotris zebra (Fowler, 1938).
Ptereleotris sp.

XENISTHMIDAE

Xenisthmus polyzonatus (Klunzinger, 1871).

BOTHIDAE

Asterorhombus sp.

Rhomboidichthys intermedius: Regan, 1902.

Engyprosopon intermedius: Regan, 1908.

Arnoglossus intermedius: (Norman, 1934. BMNH 1901.12.31.114-115, 2: 32-67 mm; BPBM 32949, 49 mm; these specimens are probably distinct from *intermedius*. Counts of two: D rays 79-81, the first ray slender, free, with an expanded membranous tip, the next 3 rays partially free with expanded fringed ends; A rays 59-61; pectoral rays 10 (8 on blind side); lateral-line scales 56-57; gill rakers short and spinulate.

Bothus mancus (Broussonet, 1782); Norman, 1934. A 115-mm specimen taken from the stomach of *Lethrinus microdon* 560 mm TL, but too digested to retain.

Bothus pantherinus (Rüppell, 1828); Norman, 1934.

Rhomboidichthys pantherinus: Regan, 1902.

Brachypleura novaezeelandiae Günther, 1862.

Brachypleura xanthosticta: Regan, 1902.

Engyprosopon* sp.; BPBM 32888, 2: 46-47 mm; D rays 80-82; A rays 59-61; pectoral rays 11-12 (10-11 on blind side); lateral-line scales 47- 48. **Fig. 26.

Engyprosopon filimanus (Regan, 1908).

Scaeops filimanus Regan, 1908: 234, Pl. 25, Fig. 2; Maldives; BMNH 1901.12.31.105: 3: 39-58 mm (syntypes; largest selected as lectotype by Norman, 1934).

Engyprosopon grandisquama (Temminck and Schlegel, 1846); Norman, 1934.

Rhomboidichthys poecilurus Regan, 1902.

Scaeops poecilurus Regan, 1908.

Engyprosopon maldivensis (Regan, 1908).

Scaeops maldivensis Regan, 1908: 234, Pl. 25, Fig. 1; Maldives. Norman (1934) selected the largest of Re-

gan's 3 syntypes (a male) as the lectotype, BMNH 1901.12.31.94. BMNH 1901.12.31.94.

Engyprosopon latifrons (Regan, 1908); Norman, 1934.

Scaeops latifrons Regan, 1908.

PLEURONECTIDAE

Samaris maculatus Günther, 1880; Regan, 1908.

Samariscus triocellatus* Woods, in Schultz *et al.*, 1966. **Fig. 27.

SOLEIDAE

**Aseraggodes* sp. BPBM 33022, 24 mm. D rays 68; A rays 49; lateral-line scales from above upper end of gill opening about 60; large and small dark blotches similar to the pattern shown for *A. melanostictus* (Peters) by Woods (Schultz *et al.*, 1966: Pl. 132B).

?*Aseraggodes poropterus* (Bleeker, 1851).

Achirus poropterus: Regan, 1908 (not found).

CYNOGLOSSIDAE

Cynoglossus kopsi (Bleeker, 1851). BMNH 1901.12.31, 80 mm TL; Menon, 1977.

Cynoglossus brachycephalus: Regan, 1908.

EPHIPPIDIDAE

Platax orbicularis (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982.

Platax teira (Forsskål, 1775).

Platax pinnatus: Anderson and Hafiz: 41.

SIGANIDAE

Siganus argenteus (Quoy and Gaimard, 1825); Woodland, 1990.

Siganus corallinus (Valenciennes, 1835); Klausewitz in Eibl-Eibesfeldt, 1982; Woodland, 1990. SMF 22036, 182 mm.

Siganus lineatus (Valenciennes, 1835); Ministry of Fisheries, Republic of Maldives, 1986. MRS 37/86, 92 mm; SMF 22040, 80 mm.

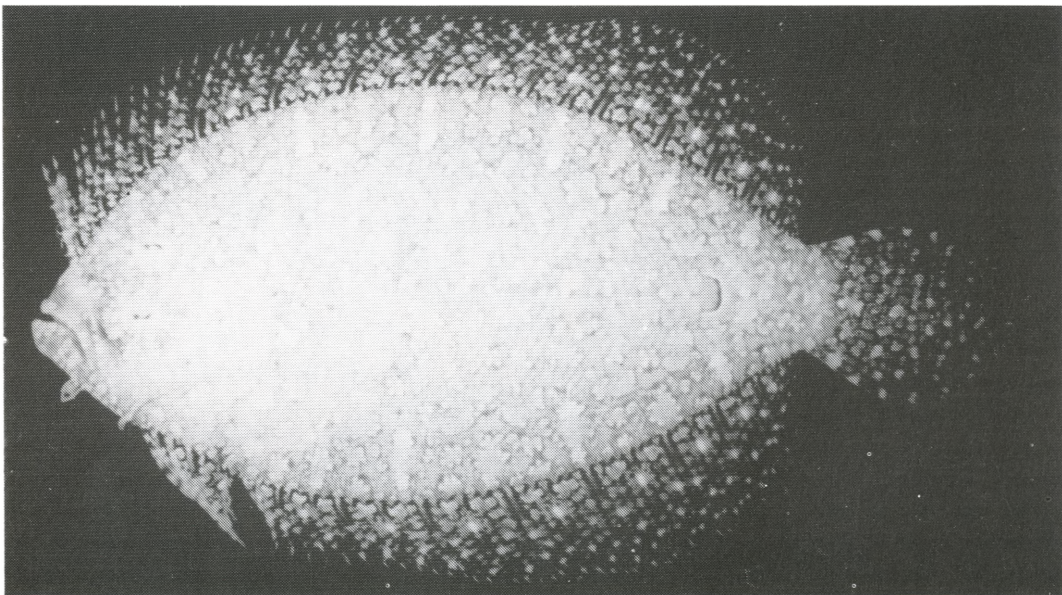


Figure 26. *Engyprosopon* sp., BPBM 32888, 46 mm SL.

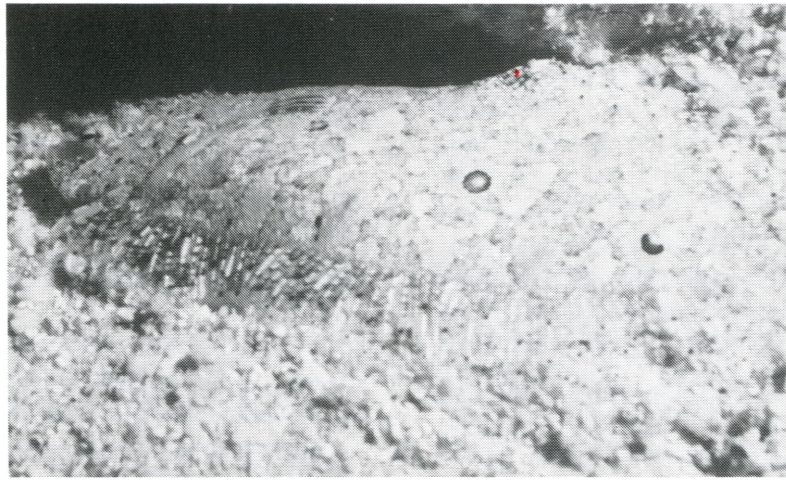


Figure 27. *Samariscus triocellatus*; head is in upper left corner of photograph. Photograph by R.C. Anderson.

Siganus puelloides Woodland and Randall, 1979: 391. (North Malé Atoll, Maldives; BPBM 18875, 205 mm holotype); Allen and Steene; Anderson and Hafiz, 1989: 72; Woodland, 1990: pl. 4 B.

Siganus stellatus (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982; Allen and Steene, 1987; Woodland, 1990. FMNH 89730, 2: 205-235 mm.

ZANCLIDAE

Zanclus cornutus (Linnaeus, 1758); Burgess and Axelrod, 1973: fig. 321; Anderson and Hafiz, 1987: 71; Allen and Steene, 1987.

Zanclus canescens: Ministry of Fisheries, Republic of Maldives, 1986; Nahke and Wirtz, 1991: 121. MRS 63/86, 75 mm.

ACANTHURIDAE

Acanthurus auranticavus* Randall, 1955. **Fig. 28.

Acanthurus bariene* Lesson, 1830. **Pl. 8, Fig. A.

Acanthurus dussumieri Valenciennes, 1835; Anderson and Hafiz, 1989: 69.

Acanthurus leucosternon Bennett, 1832; Eibl-Eibesfeldt, 1964: fig. 53; Burgess and Axelrod, 1973: fig. 302; Anderson and Hafiz, 1987: 67; Allen and Steene, 1987.

BPBM 32999, 55 mm (transforming); MRS 58/86, 72 mm.

Acanthurus leucocheilus Herre, 1927; Klausewitz in Eibl-Eibesfeldt, 1982. *A. melanosternon* Smith, 1955 is a synonym. BPBM 34712, 212 mm.

Acanthurus lineatus (Linnaeus, 1758); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 68. BPBM 33000, 112 mm.

Acanthurus mata Cuvier, 1829.

A. bleekeri: Klausewitz in Eibl-Eibesfeldt, 1982.

Acanthurus nigricauda Duncker and Mohr, 1929.

Acanthurus nigricans: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18862, 136 mm.

Acanthurus nigrofuscus (Forsskål, 1775).

Acanthurus elongatus: Klausewitz in Eibl-Eibesfeldt, 1982.

Acanthurus tennentii* Günther, 1861. BPBM 18936, 2: 133-153 mm. **Pl. 8, Fig. B.

Acanthurus thompsoni (Fowler, 1923); Anderson and Hafiz 1989: 70.

Acanthurus triostegus (Linnaeus, 1758); Klausewitz, 1958; Burgess and Axelrod, 1973: 297; Anderson and Hafiz, 1989: 68. MRS 25/86, 37 mm.

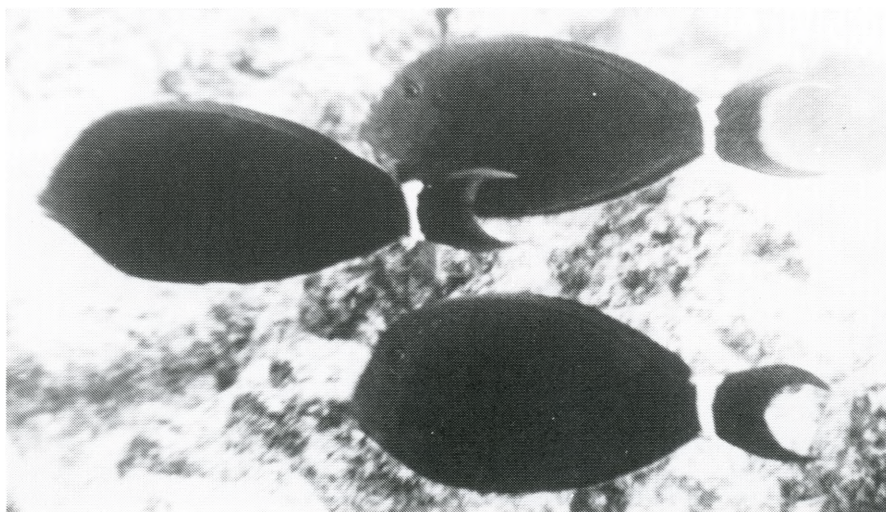


Figure 28. *Acanthurus auranticavus*.

- Acanthurus tristis* Tickell in Day, 1888; Randall, 1993. BPBM 34752, 126 mm.
- Acanthurus xanthopterus* Valenciennes, 1835; Klausewitz in Eibl-Eibesfeldt, 1982.
- **Ctenochaetus binotatus* Randall, 1955. BPBM 18929, 84 mm. **Pl. 8, Fig. C.**
- Ctenochaetus striatus* (Quoy and Gaimard, 1825); Burgess and Axelrod, 1973: figs. 309, 310.
- Ctenochaetus strigosus* (Bennett, 1828); Burgess and Axelrod, 1973: fig. 308. BPBM 18922, 6; 76-98 mm.
- Naso brachycentron* (Valenciennes, 1835).
Naso unicornis: Burgess and Axelrod, 1973: fig. 314. BPBM 19020, 422 mm.
- Naso brevirostris* (Valenciennes, 1835); Burgess and Axelrod, 1973: fig. 315; Anderson and Hafiz, 1987: 70; Allen and Steene, 1987, pl.123, fig. 5.
- Naso hexacanthus* (Bleeker, 1855).
Naso tapeinosoma: Eibl-Eibesfeldt, 1964.
- Naso lituratus* (Bloch and Schneider, 1801); Burgess and Axelrod, 1973: figs. 311-313; Allen and Steene, 1987; Anderson and Hafiz, 1989: 71.
- Naso thynnoides* (Valenciennes, 1835); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 34702, 3: 165-191 mm; BPBM 34746, 175 mm; BPBM 34748, 179 mm; SMF 4708, 253 mm.
- **Naso tuberosus* Lacepède, 1802. **Fig. 29.**
- Naso unicornis* (Forsskål, 1775); Klausewitz in Eibl-Eibesfeldt, 1982.

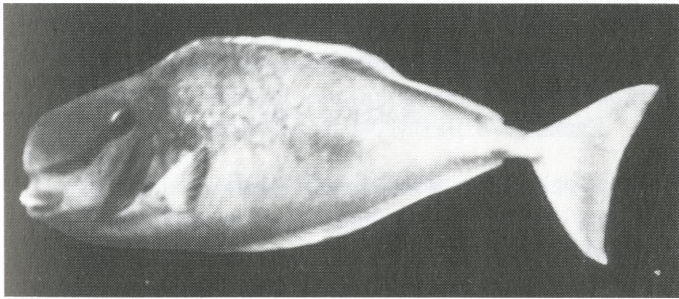


Figure 29. *Naso tuberosus*.

- Naso vlamingii* (Valenciennes, 1835); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 69; Allen and Steene, 1987: pl. 123, figs. 7, 8.
- Paracanthurus hepatus* (Linnaeus, 1766).
Paracanthurus theuthis: Klausewitz in Eibl-Eibesfeldt, 1982.
- Zebrasoma desjardini* (Bennett, 1835); Burgess and Axelrod, 1973: fig. 305.
Zebrasoma veliferum: Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 66; Nahke and Wirtz, 1991: fig. at bottom of p. 131.
- Zebrasoma scopas* (Cuvier, 1829); Burgess and Axelrod, 1973: fig. 306; Allen and Steene, 1987: pl. 124, fig. 1.
Zebrasoma flavescens: Palmer, 1963.
- Zebrasoma xanthurum* (Blyth, 1852); one adult observed by the junior author at North Malé Atoll.

GEMPYLIDAE

- Gempylus serpens* Cuvier, 1829; Shiham et al., 1988. MRS P196/88, 757 mm.
- Lepidocybium flavobrunneum* (Smith, 1849); Shiham et al., 1988. MRS P198/88, 567 mm.
- Promethichthys prometheus* (Cuvier 1832); Shiham et al., 1988. MRS P329/88.
- Rexea prometheoides* (Bleeker, 1856); Shiham et al., 1988. MRS 71/86, 150 mm.
- Ruvettus pretiosus* Cocco, 1829; Shiham et al., 1988. MRS 187/88, 186 mm.

SCOMBRIDAE

- Acanthocybium solandri* (Cuvier, 1831); Collette and Nauen, 1983; Anderson, 1988; Shiham et al., 1988.
- Auxis rochei* (Risso, 1810); Anderson, 1988; Shiham et al., 1988. MRS 43/87, 247 mm; not common.
- Auxis thazard* (Lacepède, 1800); Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 32887, 314 mm FL; BPBM 34662, 300 mm FL; MRS 77/86, 300 mm; a species of major fisheries importance in the Maldives.
- Euthynnus affinis* (Cantor, 1849); Collette and Nauen, 1983; Ministry of Fisheries, Republic of Maldives, 1986. MRS 75/86, 130 mm; a species of major fisheries importance in the Maldives.
- Gymnosarda unicolor* (Rüppell, 1836); Silas, 1963; Collette and Nauen, 1983; Anderson, 1988; Shiham et al., 1988.
- Katsuwonus pelamis* (Linnaeus, 1758); Klausewitz in Eibl-Eibesfeldt, 1982; Hafiz, 1986; Ministry of Fisheries, Republic of Maldives, 1986. MRS 50/86, 230 mm. The most important tuna landed by the Maldivian pole and line fishery; current catches exceed 50,000t per year.
Euthynnus katsuwonus pelamis: Deraniyagala, 1956.
- Rastrelliger kanagurta* (Cuvier, 1817); Shiham et al., 1988. MRS P155/87, 285 mm; uncommon in the Maldives.
- Scomberomorus commerson* (Lacepède, 1800); Anderson, 1988; Shiham et al., 1988.
- Thunnus albacares* (Bonnaterre, 1788); Anderson, 1985; Ministry of Fisheries, Republic of Maldives, 1986.
Thunnus neothunnus argentivittatus: Deraniyagala, 1956.
MRS 12/86, 234 mm. The second most important commercial fish (after *K. pelamis*) caught in the Maldives.
- Thunnus obesus* (Lowe, 1839); Collette and Nauen, 1983; Shiham et al., 1988; Anderson and Hafiz, 1991.
- ?*Thunnus tonggol* (Bleeker, 1851); not seen by us. The record of Collette and Nauen (1983) is based on Jones (1963) (Collette, pers. comm.). Jones and Kumaran (1980) did not list this species from the Laccadive Islands. We believe that Jones (1963) was in error in including the Maldives in the range of *T. tonggol*, an essentially neritic species of tuna. However, it is possible that it might occasionally stray to the northern atolls, so we will retain the record here, but regard it as questionable.

ISTIOPHORIDAE

Istiophorus platypterus (Shaw and Nodder, 1792); Nakamura, 1985; Shiham et al., 1988; Anderson and Waheed, 1990; Anderson et al., 1992: fig. on p. 26.

Istiophorus gladius: Deraniyagala, 1956. The most common billfish landed in the Maldives.

Makaira indica (Cuvier, 1832); Nakamura, 1985; Shiham et al., 1988.

Makaira marlina: Palmer, 1958.

Makaira mazara (Jordan and Snyder, 1901); Nakamura, 1985; Shiham et al., 1988; Anderson and Waheed, 1990. MRS P319/88, 1930 mm, 68 kg.

Tetrapterus angustirostris Tanaka, 1915; Nakamura, 1985.

Tetrapterus audax (Philippi, 1887); Nakamura, 1985.

XIPHIIDAE

Xiphias gladius Linnaeus, 1758; Klausewitz in Eibl-Eibesfeldt, 1982; Nakamura, 1985; Shiham et al., 1988; Anderson and Waheed, 1990.

NOMEIDAE

Psenes cyanophrys Valenciennes, 1833; Shiham et al., 1988. BPBM 34725, 199 mm.

BALISTIDAE

Abalistes stellatus (Lacepède, 1798); Norman, 1939. MRS P378/92, 438 mm TL.

Balistapus undulatus (Park, 1797); Palmer, 1963; Burgess and Axelrod, 1973: figs. 238, 329; Anderson and Hafiz, 1987: 78; Allen and Steene, 1987: pl. 127, Fig. 2. BPBM 32977, 50 mm.

Balistoides conspicillum (Bloch and Schneider, 1801); Burgess and Axelrod, 1973: figs. 323-324; Allen and Steene, 1987: pl. 127, fig. 3.

Balistes niger: Regan, 1902.

Balistoides conspiculum: Anderson and Hafiz, 1987: 76. SMF 5186-87 (not measured).

Balistoides viridescens (Bloch and Schneider, 1801); Regan, 1908; Burgess and Axelrod, 1973: fig. 327; Anderson and Hafiz, 1987: 77; Allen and Steene, 1987: pl. 128, fig. 4. SMF 5238 (not measured).

Canthidermis maculatus* (Bloch, 1786); BPBM 32894, 90 mm. MRS P132/87, 465 mm. **Fig. 30.

Melichthys indicus Randall and Klausewitz, 1973; Allen and Steene, 1987: pl. 127, fig. 5. ANSP 105838, 172 mm; SMF 5243, 173 mm (paratypes). The species illustrated in a feeding aggregation at Christmas Island, Indian Ocean as *M. indicus* by Allen and Steene, 1987: pl. 82, figs. 1-4 is *M. niger*.

Melichthys niger (Bloch, 1786); Randall and Klausewitz, 1973. SMF 5235, 255 mm.

Odonus niger (Rüppell, 1837); Eibl-Eibesfeldt, 1964: figs. 40, 41; Klausewitz, 1974; Anderson and Hafiz, 1987: 75. SMF 5226 (not measured).

Pseudobalistes flavimarginatus (Rüppell, 1829); Klausewitz, 1974; Anderson and Hafiz, 1989: 78. BPBM 34951, 25 mm.

Pseudobalistes fuscus (Bloch and Schneider, 1801); Palmer, 1963; Allen and Steene, 1987: pl. 128, figs. 1, 3.

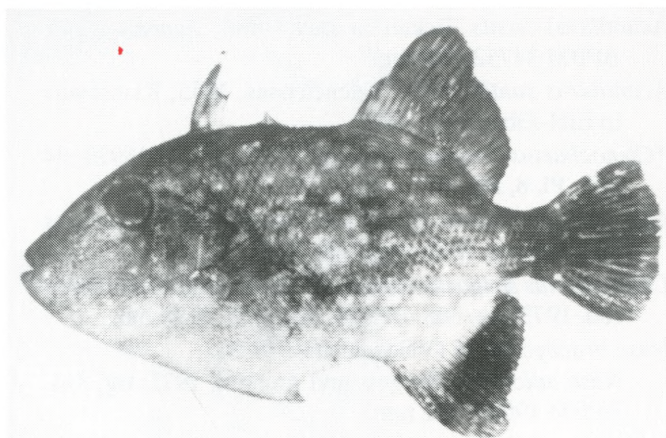


Figure 30. *Canthidermis maculatus*, BPBM 32894, 90 mm SL.

Rhinecanthus aculeatus (Linnaeus, 1758); Regan, 1908; Palmer, 1963; Burgess and Axelrod, 1973: fig. 326; Anderson and Hafiz, 1987: 79; Allen and Steene, 1987: pl. 128, fig. 5. MRS 54/86, 173 mm.

Rhinecanthus rectangulus (Bloch and Schneider, 1801); Klausewitz, 1974.

Sufflamen bursa (Bloch and Schneider, 1801); Burgess and Axelrod, 1973: fig. 325; Anderson and Hafiz, 1989: 76.

Sufflamen chrysopterus (Bloch and Schneider, 1801); Klausewitz, 1974; Ministry of Fisheries, Republic of Maldives, 1986; Allen and Steene, 1987: pl. 129, fig. 2; Anderson and Hafiz, 1989: 77. BPBM 33073, 40 mm. MRS 55/86, 150 mm.

Sufflamen fraenatus* (Latreille, 1804). **Pl. 8, Fig. D.

Xanthichthys auromarginatus (Bennett, 1831); Klausewitz, 1974. SMF 5253, 109 mm.

**Xanthichthys caeruleolineatus* Randall, Matsuura and Zama, 1978. BPBM 34713, 277 mm.

MONACANTHIDAE

The records of *Acreichthys tomentosus* (Linnaeus) (as *Pervagor tormentosus*) and *Paramonacanthus oblongus* (Temminck and Schlegel) from the Maldives by Klausewitz in Eibl-Eibesfeldt (1982) are questionable.

Aluterus scriptus (Osbeck, 1765); Klausewitz in Eibl-Eibesfeldt, 1982; Nahke and Wirtz, 1991: fig. on p. 148; one Maldives specimen in the Senckenberg Museum.

Amanses scopas Cuvier, 1829; Allen and Steene, 1987.

Brachaluteres sp.; Hutchins and Swainston, 1985.

Monacanthus oculus: Regan, 1902. BMNH 1901.12.31.149, 9.5 mm.

Cantherhines dumerilii* (Hollard, 1854). **Fig. 31.

Cantherhines frontocinctus* Günther, 1867. **Pl. 8, Fig. E.

Cantherhines pardalis (Rüppell, 1837); Allen and Steene 1987: pl. 129, Fig. 6.

Amanses pardalis: Klausewitz in Eibl-Eibesfeldt, 1982. FMNH 91150, 2: 76-78 mm.

Oxymonacanthus longirostris (Bloch and Schneider, 1801); Eibl-Eibesfeldt, 1964: fig. 55; Burgess and Axelrod, 1973: figs. 330, 331; Anderson and Hafiz, 1989: 75. BPBM 18894, 74 mm; FMNH 91151, 3: 63-66 mm.

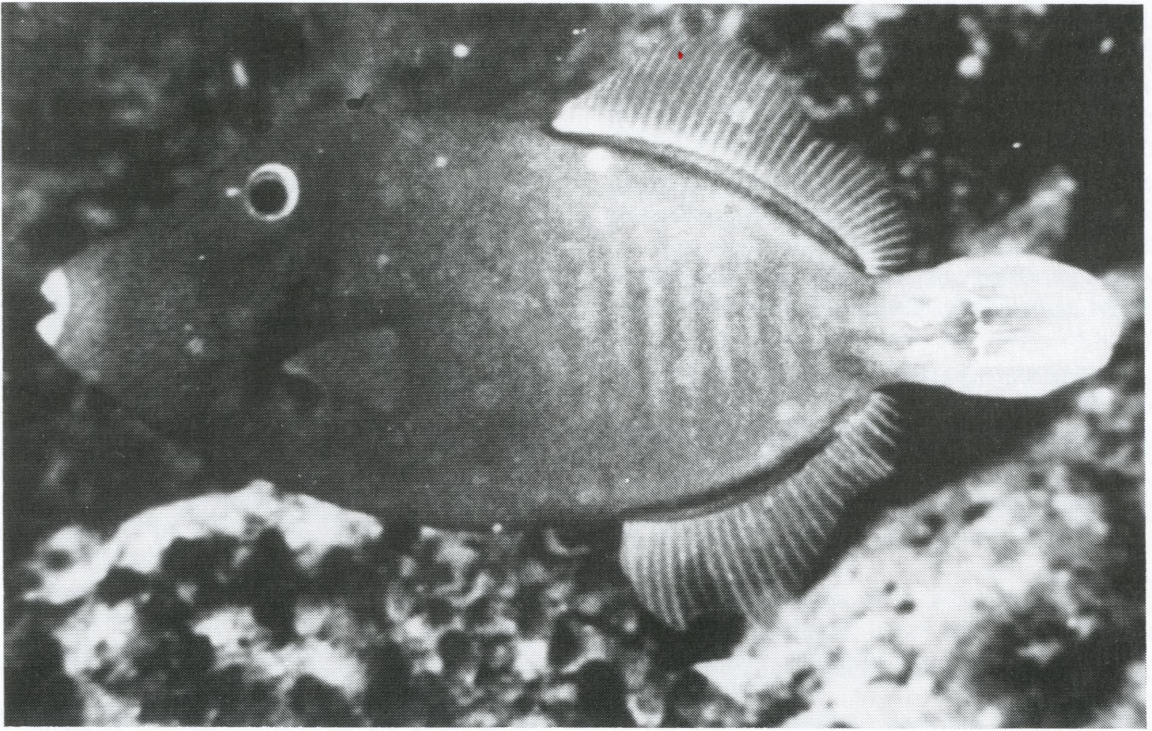


Figure 31. *Cantherhines dumerilii*.

**Paraluteres prionurus* (Bleeker, 1851). BPBM 18913, 69 mm; Pl. 8, Fig. F.

Pervagor janthinosoma (Bleeker, 1854).

Pervagor melanocephalus: Klausowitz in Eibl-Eibesfeldt, 1982.

Pseudaluteres nasicornis (Temminck and Schlegel, 1846). BPBM 34687, 4: 41-44 mm.

Monacanthus nasicornis: Regan, 1902.

OSTRACIIDAE

Lactoria sp.

Ostracion cornutus: Regan, 1902. BPBM 34957, 15 mm TL, from stomach of *Sphyraena forsteri*.

Ostracion cubicus Linnaeus, 1758; Anderson and Hafiz, 1987: 80; Allen and Steene, 1987: pl. 132, Fig. 1.

Rhynchostracion rhinorhynchus (non Bleeker): Klausowitz, 1973.

Ostracion tuberculatus: Klausowitz, 1973; Ministry of

Fisheries, Republic of Maldives, 1986. MRS 40/86, 82 mm. FMNH 77183, 17 mm.

Ostracion meleagris Shaw, 1796; Klausowitz, 1973; Anderson and Hafiz, 1989: 81. FMNH 77185, 50 mm.

**Rhynchostracion rhinorhynchus* (Bleeker, 1852). BPBM 34726, 285 mm. Fig. 32.

Tetrosomus gibbosus (Linnaeus, 1758).

Rhinesomus gibbosus: Klausowitz in Eibl-Eibesfeldt, 1982. BPBM 34949, 43 mm SL, from stomach of *Alectis ciliaris*.

TETRAODONTIDAE

Arothron hispidus (Linnaeus, 1758); Klausowitz in Eibl-Eibesfeldt, 1982. BPBM 34732, 265 mm; SMF 4495-99, 5: 129-207 mm.

Arothron immaculatus (Bloch and Schneider, 1801).

Tetraodon immaculatus: Ministry of Fisheries, Republic of Maldives, 1986. MRS 1/86, 149 mm.

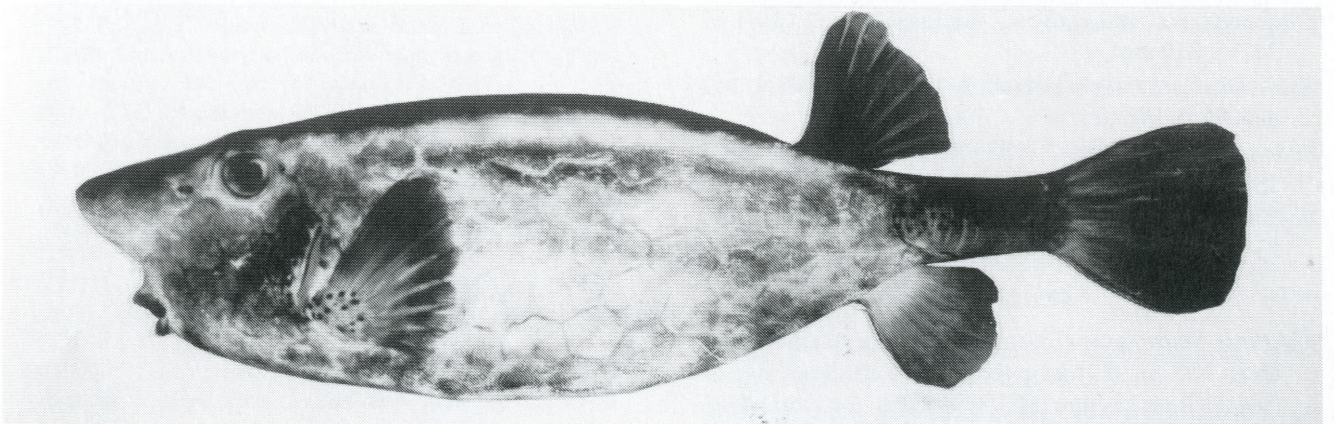


Figure 32. *Rhynchostracion rhinorhynchus*, BPBM 34726, 285 mm SL.

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- Arothron mappa* (Lesson, 1827). Anderson and Hafiz, 1989: 83.
- Arothron meleagris* (Lacepède, 1798); Palmer, 1963; Voigtmann *et al.*, 1986 (unidentified photograph, p. 99); Anderson and Hafiz, 1989: 82.
- Arothron nigropunctatus* (Bloch and Schneider, 1801); Klausewitz in Eibl-Eibesfeldt, 1982; Anderson and Hafiz, 1987: 81.
- Arothron stellatus* (Bloch and Schneider, 1801).
Arothron aerostaticus: Klausewitz in Eibl-Eibesfeldt, 1982.
- **Canthigaster amboinensis* (Bleeker, 1865). BPBM 33023, 79 mm. **Pl. 8, Fig. G.**
- Canthigaster bennetti* (Bleeker, 1854); Burgess and Axelrod, 1973; BPBM 18905, 53 mm.
Tropidichthys bennetti: Regan, 1908.
- **Canthigaster coronata* (Vaillant and Sauvage, 1875). **Pl. 8, Fig. H.**
- **Canthigaster janthinoptera* (Bleeker, 1855). BPBM 18892, 42 mm; FMNH 77190, 43 mm.
- **Canthigaster smithae* Allen and Randall, 1977. **Pl. 8, Fig. I.**
- Canthigaster solandri* (Richardson, 1844).
Canthigaster margaritatus: Klausewitz in Eibl-Eibesfeldt, 1982. BPBM 18887, 2: both 49 mm.
- Canthigaster tyleri* Allen and Randall, 1977. BMNH 1974.3.11.8, 45.9 mm; BPBM 18042, 52.2 mm (paratypes).
- Canthigaster valentini* (Bleeker, 1853); Burgess and Axelrod, 1973: figs. 337, 338; Anderson and Hafiz, 1987: 82. BPBM 18902, 60 mm; FMNH 77189, 38 mm.
Tetrodon valentini: Regan, 1902.
- Chelonodon patoca* (Hamilton, 1822); Klausewitz in Eibl-Eibesfeldt, 1982; not seen by us.
- Lagocephalus lagocephalus* Linnaeus, 1758); Ministry of Fisheries, Republic of Maldives, 1986. MRS 14/86, 227 mm.
- **Lagocephalus sceleratus* (Forster in Gmelin, 1788). BPBM 34971, 480 mm; BPBM 34976, 28 mm.
- Tylerius spinosissimus* (Regan, 1908); not seen by us.
Amblyrhynchotes spinosissimus: Klausewitz in Eibl-Eibesfeldt, 1982.

DIODONTIDAE

- **Chilomycteris reticulatus* (Linnaeus, 1758). BPBM 34715, 310 mm.
- **Cylichthys orbicularis* (Bloch, 1785). BPBM 34680, 149 mm. **Pl. 8, Fig. J.**
- Diodon hystrix* Linnaeus, 1758; Nahke and Wirtz, 1991: 159; rare in Maldives.
- Diodon liturosus* Shaw, 1804; Anderson and Hafiz, 1987: 83. FMNH 90227, 135 mm.

MOLIDAE

- **Masturus lanceolatus* (Liénard, 1840); one individual of about 150 cm TL was gaffed off the southeast side of Baa Atoll on 13 June 1963; reported in the local newspaper "Viyafaari Miadhu" by M. Yoosuf, 17 June 1963. The article included a good drawing of the fish.

REFERENCES

- ALLEN, G.R. 1975. *Anemonefishes*. 2nd ed. T.F.H. Publications, Neptune City, New Jersey. 352 pp.
- 1979. *Butterfly and Angelfishes of the World*. Vol. 2: 149-352. MERGUS Publishers Hans A. Baensch, Melle, Germany.
- 1985. FAO species catalogue. Snappers of the world. *FAO Fisheries Synopsis*, 6(125): 208 pp.
- 1991. *Damselfishes of the World*. MERGUS Publishers Hans A. Baensch, Melle, Germany. 271 pp.
- ALLEN, G.R. & R. C. STEENE. 1987. *Reef Fishes of the Indian Ocean*. T.F.H. Publications, Neptune City, New Jersey. 240 pp.
- ALLEN, G.R. & F. H. TALBOT. 1985. Review of the snappers of the genus *Lutjanus* (Pisces: Lutjanidae) from the Indo-Pacific, with the description of a new species. *Indo-Pacific Fishes*, 11: 1-87.
- ANDERSON, R.C. 1985. Yellowfin tuna in the Maldives. *IPTP (Colombo) Coll. Vol. Work. Docs.*, 1: 34-50.
- 1988. Small tunas, seerfishes and billfishes in the Maldives. *FAO Indo-Pacific Tuna Programme (Colombo) IPTP/87/GEN/13*: 38-45.
- 1992. *Divers' Guide to the Sharks of the Maldives*. Novelty Printers and Publishers, Malé, Republic of Maldives. 64 pp.
- ANDERSON, R.C. & A. HAFIZ. 1987. *Common Reef Fishes of the Maldives*. Novelty Printers and Publishers, Malé, Republic of Maldives. 83 pp.
- 1988. The Maldivian livebait fishery. *IPTP (Colombo) Coll. Vol. Work. Docs.* 3: 18-26.
- 1989. *Common Reef Fishes of the Maldives*. Part 2. Novelty Printers and Publishers, Malé, Republic of Maldives. 85 pp.
- 1991. How much bigeye in Maldivian tuna catches? Workshop on stock assessment of yellowfin tuna in the Indian Ocean. *IPTP (Colombo) Coll. Vol. Work. Docs.* 6: 50-52.
- ANDERSON, R.C. & A. WAHEED. 1990. Exploratory Fishing for Large Pelagic Species in the Maldives. *Bay of Bengal Programme, FAO, Madras, REP/46*: 1-44.
- ANDERSON, R.C., Z. WAHEED, M. RASHEED, & A. ARIF. 1992. Reef Fish Resources Survey in the Maldives - Phase II. *Bay of Bengal Programme, FAO, Madras, WP/80*: vi + 54 pp.
- ANONYMOUS. 1987. *Maldives: the Diver's Paradise*. Novelty Printers and Publishers, Malé, Republic of Maldives. 78 pp.
- BRUCE, R.W. & J.E. RANDALL. 1985. Revision of the Indo-Pacific parrotfish genera *Calotomus* and *Leptoscarus*. *Indo-Pacific Fishes*, 5: 1-32.
- BURGESS, W. & H.R. AXELROD. 1973. *Pacific Marine Fishes. Book 3. Fishes of Sri Lanka (Ceylon), the Maldiv Islands and Mombasa*. T.F.H. Publications, Neptune City, New Jersey. pp. 562-839.
- CARPENTER, K.E. 1987. Revision of the Indo-Pacific fish family Caesionidae (Lutjanoidae), with descriptions of five new species. *Indo-Pacific Fishes*, 15: 1-56.
- 1988. FAO species catalogue. Fusilier fishes of the world. *FAO Fisheries Synopsis*, 125, vol. 8: 1-75.
- CARPENTER, K.E. & G.R. ALLEN. 1989. FAO species catalogue. Emperor fishes and large-eye breams of the world (family Lethrinidae). *FAO Fisheries Synopsis*, 125, vol. 9: 1-118.
- COLLETTE, B.B. & C.E. NAUEN. 1983. FAO species catalogue. Scombrids of the world. *FAO Fisheries Synopsis*, 125, vol. 2: 1-137.
- COMPAGNO, L.J.V. 1973. Interrelationships of living elasmobranchs. Supplement no. 1. *Zool. Jour. Linn. Soc.*, 53: 15-61.
- 1984. FAO species catalogue. Sharks of the world. Part 1 - Hexanchiformes to Lamniformes. *FAO Fisheries Synopsis*, 125, vol. 4: 1-249.
- 1984. FAO species catalogue. Sharks of the world. Part 2 - Carcharhiniformes. *FAO Fisheries Synopsis*, 125, vol. 4: 251-655.
- CRESSEY, R. 1981. Revision of Indo-West Pacific lizardfishes of the genus *Synodus* (Pisces: Synodontidae). *Smithson. Contr. Zool.*, 342: 1-51.
- DAWSON, C.E. 1976. Review of the Indo-Pacific pipefish genus *Choeroichthys* (Pisces: Syngnathidae), with descriptions of two new species. *Proc. Biol. Soc. Wash.*, 89(3): 39-66.
- 1977. Review of the pipefish genus *Corythoichthys* with description of three new species. *Copeia*, 1977(2): 295-338.
- 1985. *Indo-Pacific Pipefishes (Red Sea to the Americas)*. Gulf Coast Research Laboratory, Ocean Springs, Mississippi. 230 pp.
- DAY, F. 1888. *Supplement to the Fishes of India*. Williams and Norgate, London. pp. 779-816.
- DEBELIUS, H. 1987. Exclusiv, sportlich, schön. *Sporttaucher*, 9: 4-7, 28-29.
- DERANIYAGALA, P.E.P. 1956. Zoological collecting at the Maldives in 1932. *Spolia Zeylanica*, 28(1): 7-28.
- EIBL-EIBESFELDT, I. 1964. *Im Reich der Tausend Atolle*. Deutscher Bücherbund, Stuttgart. 210 pp.
- 1982. *Die Maldivan Paradies im Indischen Ozean*. R. Piper and Co, München, Zürich. 323 pp.
- ESCHMEYER, W.N., K.V. RAMA-RAO, & L.E. HALLACHER. 1979. Fishes of the scorpionfish subfamily Choridactylinae from the Western Pacific and the Indian Ocean. *Proc. Calif. Acad. Sci. (Ser. 4)*, 41(21): 475-500.
- FISCHER, W. & G. BIANCHI (eds.) 1984. *FAO Species Identification Sheets for Fishery Purposes. Western Indian Ocean (Fishing Area 51)*. Vols. 1-5. FAO, Rome.
- FOWLER, H.W. & S.C. BALL. 1924. Description of new fishes obtained by the Tanager Expedition of 1923 in the Pacific Islands west of Hawaii. *Proc. Acad. Nat. Sci. Phila.* 76: 269-274.
- FRASER, T.H. & E.A. LACHNER. 1985. A revision of the cardinalfish subgenera *Pristiapogon* and *Zoramia* (Genus *Apogon*) of the Indo-Pacific region (Teleostei: Apogonidae). *Smithson. Contrib. Zool.*, 412: 1-47.
- FRICKE, R. 1981. Two new and a rare species of the genus *Callionymus* (Teleostei: Callionymidae). *Ann. Mus. Civ. Stor. nat. Genova*, 83: 387-400.
- 1981. Revision of the Genus *Synchiropus* (Teleostei: Callionymidae). *Theses Zoologicae*, 1: 3-194.
- FRICKE, R. & J.E. RANDALL. 1992. Tripterygiid fishes of the Maldives Islands, with descriptions of two new species (Teleostei: Blennioidei). *Stuttgart. Beitr. Naturk.*, ser. A (Biol.), 484: 1-13.
- FRÖILAND, O. 1976. Litoralfische der Malediven. V. The hawkfishes of the family Cirrhitidae (Pisces: Perciformes: Percoidei). *Senckenberg. Biol.* 57(1/3): 15-33.
- GON, O. 1987. The cardinal fishes (Perciformes; Apogonidae) collected in the Maldiv Islands during the Xarifa Expedition (1957/58). *J.L.B. Smith Inst. Ichth. Spec. Publ.*, 42: 1-18.
- GUBANOV, Y.P. 1978. The reproduction of some species of pelagic sharks from the equatorial zone of the Indian Ocean. *Jour. Ichth.* 18: 781-792.
- HAFIZ, A. 1986. Skipjack fishery in the Maldives. *IPTP (Colombo) Coll. Vol. Work. Docs.* 2: 11-22.
- HASS, H. 1961. *Expedition to the Unknown: a Report on the Expedition of the Ship "Xarifa" to the Maldiv and Nicobar Islands*. Hutchinson, London.

- HEEMSTRA, P.C. & J.E. RANDALL. 1986. Family Serranidae (pp 509-537). In: M.M. Smith & P.C. Heemstra (eds.) *Smiths' Sea Fishes*. Macmillan South Africa, Johannesburg, 1047 pp.
- HUTCHINS, J.B. & R. SWAINSTON. 1985. Revision of the monacanthid fish genus *Brachaluteres*. *Rec. West. Austral. Mus.*, 12(1): 57-78.
- JONES, S. 1963. Synopsis of biological data on the northern bluefin tuna *Kishinoella tonggol* (Bleeker) 1851 (Indian Ocean). *FAO Fisheries Biology Synopsis*, 74: 862-876.
- JONES, S. & M. KUMARAN. 1980. *Fishes of the Laccadive Archipelago*. The Nature Conservation and Aquatic Sciences Services, Trivandrum. 760 pp.
- KLAUSEWITZ, W. 1958. Die Atoll-Riffe der Malediven. *Natur und Volk*, 88(11): 380-390.
- 1962a. Taxionomische Untersuchungen an der Gattung *Gomphosus* (Pisces, Percomorphi, Labridae). *Senck. Biol.*, 43(1): 11-16.
- 1962b. *Meiacanthus smithi* n. sp. aus dem Indischen Ozean (Pisces, Percomorphi, Blenniidae). *Senck. Biol.*, 43(1): 17-19.
- 1962c. *Ecsenius lineatus* n. sp. von den Malediven (Pisces, Blenniidae). *Senck. Biol.*, 43(2): 145-147.
- 1963a. Der Rassenkreis von *Istiblennius periophthalmus* (Pisces, Salariaidae). *Senck. Biol.*, 44(2): 97-100.
- 1963b. *Ecsenius minutus* n. sp. von den Malediven (Pisces, Salariaidae). *Senck. Biol.*, 44(5): 357-358.
- 1964. Zwei neue Arten von aalartigen Fischen aus dem Indischen Ozean (Pisces, Apodes, Muraenidae, Ophichthidae). *Senck. Biol.*, 45(6): 665-669.
- 1969. Vergleichend-taxonomische Untersuchungen an Fischen der Gattung *Heniochus* (Pisces, Osteichthyes, Perciformes, Chaetodontidae). *Senck. Biol.*, 50(1/2): 49-89.
- 1970a. Biogeographische und osteologische Untersuchungen an *Ptereleotris tricolor* J.L.B. Smith (Pisces: Eleotridae). *Senck. Biol.*, 51(1/2): 67-71.
- 1970b. *Sebastapistes hassi* n. sp. von den Malediven (Pisces: Scleropareiformes: Scorpaenidae). *Senck. Biol.*, 51(1/2): 73-75.
- 1972a. Litoralfische der Malediven. I. Einleitung und Fische der Ordnung Syngnathiformes (Pisces: Teleostei). *Senck. Biol.*, 53(3/4): 199-217.
- 1972b. Litoralfische der Malediven. II. Kaiserfische der Familie Pomacanthidae (Pisces: Perciformes). *Senck. Biol.*, 53(5/6): 361-372.
- 1973. Litoralfische der Malediven. III. Kofferfische (Pisces: Tetraodontiformes: Ostraciotidae). *Senck. Biol.*, 54(1/3): 39-45.
- 1974a. Litoralfische der Maléediven. IV. Die Familie der Drückerfische, Balistidae (Pisces: Tetraodontiformes: Balistoidei). *Senck. Biol.*, 55(1/3): 39-67.
- 1974b. Vergleichend-taxonomische Untersuchungen an *Hemitaeniarichthys zoster* und *polylepis* (Pisces: Perciformes: Chaetodontidae). *Senck. Biol.*, 55(4/6): 213-221.
- KLAUSEWITZ, W. & I. EIBL-EIBESFELDT. 1959. Neue Röhrenaale von den Malediven und Nikobaren (Pisces, Apodes, Heterocongridae). *Senck. Biol.*, 40(3/4): 135-153.
- MANILO, L.G. 1990. New species of the genus *Parapercis* (Mugiloididae) from the region of the Maldive Islands. *Voprosy Ikhtiol.*, 30(6): 1016-1019.
- MARKLE, D.F. & J.E. OLNEY. 1990. Systematics of the pearlfishes (Pisces: Carapidae). *Bull. Mar. Sci.*, 47(2): 269-410.
- MENON, A.G.K. 1977. A systematic monograph of the tongue soles of the genus *Cynoglossus* Hamilton-Buchanan (Pisces: Cynoglossidae). *Smithson. Contr. Zool.*, 238: 1-129.
- MILTON, D.A., S.J.M. BLABER, G. TIROBA, J. LEQUATA, N.J.F. RAWLINSON & A. HAFIZ. 1990. Reproductive biology of *Spratelloides delicatulus*, *S. gracilis* and *Stolephorus heterolobus* from Solomon Islands and Maldives. In Blaber, S.J.M. and Copland J.W. (eds.), *Tuna Baitfish in the Indo-Pacific Region: Proceedings of a Workshop, Honiara, Solomon Islands, 11-13 Dec. 1989*. ACIAR Proc. 30: 211 pp.
- MINISTRY OF FISHERIES, REPUBLIC OF MALDIVES. 1986. *Catalogue of the Fishes of the Maldives*. Vol. 1. Malé, Republic of Maldives. 153 pp.
- NAHKE, P. & P. WIRTZ. 1991. *Underwater Guide Maldives Fish*. Verlag Stephanie Naglschmid, Stuttgart. 168 pp. (in German and English).
- NAKAMURA, I. 1985. FAO Species catalogue. Billfishes of the world. *FAO Fisheries Synopsis*, 125, vol. 5: 1-65.
- NORMAN, J.R. 1934. *A Systematic Monograph of the Flatfishes (Heterosomata)*. British Museum (Natural History), London. 459 pp.
- 1939. *The John Murray Expedition 1933-34. Scientific Reports*. Vol. 7, no. 1. Fishes. British Museum (Natural History), London. 116 pp.
- ORR, J.W. & R.A. FRITZSCHE. 1993. Revision of the ghost pipefishes, family Solenostomidae (Teleostei: Syngnathoidei). *Copeia*, 1993(1): 168-182.
- PALMER, G. 1958. Some observations on the fauna of the Maldive Islands. Part V—Fishes. *Jour. Bombay Nat. Hist. Soc.*, 55(2): 486-489.
- 1968. New records of fishes from the Maldive Islands, Indian Ocean. *Ann. Mag. Nat. Hist.*, Ser. 13, 5: 497-503.
- PARIN, N.V., B.B. COLLETTE, & Y.N. SCHERBACHAV. 1980. Preliminary review of the marine halfbeaks (Hemiramphidae, Beloniformes) of the tropical Indo-West Pacific. *Trans. P. P. Shirshov Inst. Ocean.*, 97: 1-173.
- PIETSCH, T.W. & D.B. GROBECKER. 1987. *Frogfishes of the World*. Stanford University Press, Stanford, California. 420 pp.
- RANDALL, H.A. & G.R. ALLEN. 1977. A revision of the damselfish genus *Dascyllus* (Pomacentridae) with the description of a new species. *Rec. Austral. Mus.*, 31(9): 349-385.
- RANDALL, J.E. 1963. Review of the hawkfishes (Family Cirrhitidae). *Proc. U.S. Nat. Mus.*, 114: 389-451.
- 1977. Contribution to the biology of the whitetip reef shark (*Triaenodon obesus*). *Pac. Sci.*, 31(2): 143-164.
- 1981. *Luzonichthys earlei*, a new anthiine fish from the Hawaiian Islands. *Freshw. Mar. Aquar.* 4(9): 13-18.
- 1983. Revision of the Indo-Pacific labrid fish genus *Wetmorella*. *Copeia*, 1983(4): 875-883.
- 1984. Two new Indo-Pacific mugiloid fishes of the genus *Parapercis*. *Freshw. Mar. Aquar.*, 7(12): 41-49.
- 1988a. Three new Indo-Pacific damselfishes of the genus *Chromis* (Pomacentridae). *Mem. Mus. Victoria*, 49(1): 73-81.
- 1988b. Three new damselfishes of the genus *Chromis* (Perciformes: Pomacentridae) from the Indian Ocean. *Rev. Fr. Aquariol.*, 15(2): 49-56.
- 1993. *Acanthurus tristis*, a valid Indian Ocean surgeonfish (Perciformes: Acanthuridae). *J.L.B. Smith Inst. Ichth. Spec. Publ.*, 54: 1-8.
- 1992. *Diver's Guide to Fishes of Maldives*. IMMEL Publishing. 103 pp.
- RANDALL, J.E., G.R. ALLEN, & W.D. ANDERSON, JR. 1987. Revision of the Indo-Pacific lutjanid genus *Pinjalo*, with description of a new species. *Indo-Pacific Fishes*, 14: 1-17.
- RANDALL, J.E., G.R. ALLEN, & R.C. STEENE. 1990. *Fishes of the Great Barrier Reef and Coral Sea*. University of Hawaii Press, Honolulu. 507 pp.

- RANDALL, J.E. & A. BEN-TUVIA. 1983. A review of the groupers (Pisces: Serranidae: Epinephelinae) of the Red Sea, with description of a new species of *Cephalopholis*. *Bull. Mar. Sci.*, 33(2): 373-426.
- RANDALL, J.E. & R.W. BRUCE. 1983. The parrotfishes of the subfamily Scarinae of the Western Indian Ocean with descriptions of three new species. *Ichth. Bull. J.L.B. Inst. Ichth.*, 47: 1-39.
- RANDALL, J.E. & G.H.P. DE BRUIN. 1988. The butterflyfish *Prognathodes guyotensis* from the Maldives Islands, a first record for the Indian Ocean. *Cybiun*, 12(2): 145-149.
- RANDALL, J.E. and B. CONDÉ. 1989. *Frontilabrus caeruleus*, nouveaux genre et espèce de Labridé des Maldives. *Rev. Franç. d'Aquariol.* 15(3): 89-92.
- RANDALL, J.E. & M. GOREN. 1993. The gobioid fishes of the Maldives Islands. *Bull. J.L.B. Smith Inst. Ichth.* 58: 1-37.
- RANDALL, J.E. & P. GUÉZÉ. 1981. The holocentrid fishes of the genus *Myripristis* of the Red Sea, with clarification of the *murđjan* and *hexagonus* complexes. *Contr. Sci. Nat. Hist. Mus. Los Angeles County.*, 334: 1-16.
- RANDALL, J.E. & P.C. HEEMSTRA. 1985. A review of the squirrelfishes of the subfamily Holocentrinae from the western Indian Ocean and Red Sea. *Ichth. Bull. J.L.B. Smith Inst. Ichth.*, 49: 1-29.
- 1991. Revision of Indo-Pacific groupers (Perciformes: Serranidae: Epinephelinae), with descriptions of five new species. *Indo-Pacific Fishes*, 20: 1-332.
- RANDALL, J.E. & D.F. HOESE. 1986. Revision of the groupers of the Indo-Pacific genus *Plectropomus* (Perciformes: Serranidae). *Indo-Pacific Fishes*, 13: 1-31.
- RANDALL, J.E. & M. HUTOMO. 1989. Redescription of the Indo-Pacific serranid fish *Pseudanthias bimaculatus* (Smith). *Copeia*, 1988(3): 669-673.
- RANDALL, J.E. & W. KLAUSEWITZ. 1973. A review of the triggerfish genus *Melichthys*, with description of a new species from the Indian Ocean. *Senck. Biol.*, 54(1/3): 57-69.
- RANDALL, J.E. & R. LUBBOCK. 1981a. Labrid fishes of the genus *Paracheilinus*, with descriptions of three new species from the Philippines. *Japan. Jour. Ichth.*, 28(1): 19-29.
- 1981b. A revision of the serranid fishes of the subgenus *Mirolabrichthys* (Anthiinae: *Anthias*), with descriptions of five new species. *Contr. Sci. Nat. Hist. Mus. Los Angeles County*, 333: 1-27.
- RANDALL, J.E. & J.E. McCOSKER. 1975. The eels of Easter Island with a description of a new moray. *Contr. Sci. Nat. Hist. Mus. Los Angeles County*, 264: 1-32.
- 1992. Revision of the fish genus *Luzonichthys* (Perciformes: Serranidae: Anthiinae), with descriptions of two new species. *Indo-Pacific Fishes*, 21: 1-21.
- RANDALL, J.E. & M. M. SMITH. 1982. A review of the labrid fishes of the genus *Halichoeres* of the western Indian Ocean, with descriptions of six new species. *Ichth. Bull. J.L.B. Smith Inst. Ichth.*, 45: 1-26.
- RANDALL, J.E. & L. TAYLOR. 1988. Review of the Indo-Pacific fishes of the serranid genus *Liopropoma*, with descriptions of seven new species. *Indo-Pacific Fishes*, 16: 1-47.
- RANDALL, J.E. & A. WHEELER. 1991. Reidentification of seven tropical Pacific fishes collected and observed by the Forsters during the voyage of HMS *Resolution*, 1772-75. *Copeia*, 1991(3): 760-767.
- REGAN, C.T. 1902. On the fishes from the Maldives Islands in *The Fauna and Geography of the Maldives and Laccadive Archipelagoes* Vol. I (ed. J.S. Gardiner); pp. 272-281.
- 1908. Report on the marine fishes collected by Mr. J. Stanley Gardiner in the Indian Ocean. *Trans. Linn. Soc., ser. 2, Zool.*, 12(14): 217-255.
- RUSSELL, B.C. 1990. FAO species catalogue. Nemipterid fishes of the world. *FAO Fisheries Synopsis*, (125) Vol. 12: 149 pp.
- SHIHAM, M., R.C. ANDERSON, & A. HAFIZ. 1988. *Catalogue of Fishes of the Maldives*. Vol. 3. Ministry of Fisheries, Republic of Maldives, Malé. pp. 333-490.
- SHIHAM, M., R.C. ANDERSON, A. HAFIZ, & H. ZAHIR. 1987. *Catalogue of Fishes of the Maldives*. Vol. 2. Ministry of Fisheries, Republic of Maldives, Malé. pp. 165-327.
- SCHULTZ, L.P., E.S. HERALD, E.A. LACHNER, A.D. WELANDER & L.P. WOODS. 1953. Fishes of the Marshall and Marianas Islands. Vol. 1. *Bull. U. S. Natl. Mus.* 202: 1-685.
- SCHULTZ, L.P., L.P. WOODS & E.A. LACHNER. 1966. Fishes of the Marshall and Marianas Islands. Vol. 3. *Bull. U.S. Natl. Mus.*, 202: 1-176.
- SILAS, E.G. 1963. Synopsis of biological data on dogtooth tuna *Gymnosarda unicolor* (Rüppell) 1838 (Indo-Pacific). *FAO Fish. Rep.* no. 6, vol. 2: 877-899.
- SMITH, M.M. & P.C. HEEMSTRA (eds.). 1986. *Smiths' Sea Fishes*. Macmillan South Africa, Johannesburg. 1047 pp.
- SMITH-VANIZ, W.F. 1976. The saber-toothed blennies, tribe Nemophini (Pisces: Blenniidae). *Monogr. Acad. Nat. Sci. Phila.*, 19: 1-196.
- STEENE, R.C. 1978. *Butterfly and Angelfishes of the World*. Vol. 1. Mergus Verlag, Melle, Germany. 144 pp.
- VAN DER KNAAP, M., Z. WAHEED, H. SHAREEF & M. RASHEED. 1991. *Reef Fish Resources Survey in the Maldives*. FAO Bay of Bengal Programme for Fisheries Development, Madras, WP/80: 1-61.
- VOIGHTMANN, H., M. THONIG & H. RITTER. 1986. Maldives. Bloom Verlag, Nürnberg. 207 pp.
- WEBER, M. Die Fische der Siboga-Expedition. E.J. Brill, Leiden. 710 pp.
- WILLIAMS, J.T. 1988. Revision and phylogenetic relationships of the blennioid fish genus *Cirripectes*. *Indo-Pacific Fishes*, 17: 1-78.
- WINTERBOTTOM, R., A.R. EMERY & E. HOLM. 1989. An annotated checklist of the fishes of the Chagos Archipelago Central Indian Ocean. *Roy. Ontario Mus. Life Sci. Contr.* 145: 1-226.
- WOODLAND, D.J. 1990. Revision of the fish family Siganidae with descriptions of two new species and comments on distribution and biology. *Indo-Pacific Fishes*, 19: 1-136.

Corrigenda .

Plate 4: Fig. B is printed upside down

Plate 4: Fig. H is *Pseudodax moluccanus* (not *Centropyge flavicauda*).

Plate 6: Fig. H is *Stethojulis trilineata* (not *Pseudodax moluccanus*).

Plate 7: Fig. A is *Centropyge flavicauda* (not *Stethojulis trilineata*).

Plate 7: Fig. C is *Ctenochaetus binotatus* (not *Calotomus viridescens*).

Plate 8: Fig. C is *Calotomus viridescens* (not *Ctenochaetus binotatus*).

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