An Annotated Checklist of the Fishes of the Chagos Archipelago Central Indian Ocean

Richard Winterbottom, Alan R. Emery and Erling Holm
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P. 20, left column, preceding Parascorpaena aurita: A small intertidal collection made for us by L. Taborsky in June 1987 contains the following scorpaenid previously unrecorded from the islands.

Dendrochirus zebra (Cuvier)

*Pterois zebra* Cuvier in Cuvier and Valenciennes, 1829b:367 (Mauritius and Moluccas)

*Dendrochirus zebra*—Allen and Steene, 1979:19 (“Indo-West Pacific”)

**MATERIAL**

One lot, 3 specimens, 47–75 mm SL, 0.6–0.9 m, intertidal at Diego Garcia. Range unassigned.

P. 24, right column, and p. 128, Fig. 135: The serranid identified as *Epinephelus hexagonatus* proves on further study to be *Epinephelus spilotoceps* Schultz, 1953:357 (Marshalls). Range unaffected by reidentification.

Schultz, L. P.


P. 35, right column, and p. 146, Fig. 194: *Aphareus furca* (not *furcatus*).

P. 44, right column, and p. 163, Fig. 249: *Abudedefuf coelestinus* is a junior synonym of *A. sexfasciatus* (Lacepède, 1801:477), as reported by Bauchot et al. (1978).

Bauchot, M.-L., M. Desoutter, and G. R. Allen


P. 56, right column, and p. 193, Fig. 338: *Thalassoma hardwicke* (not *hardwicki*).

P. 59, left column, and p. 204, Fig. 370: *Parapercis hexophtalma* (not *hexophthalma*).

P. 67, left column, and Pl. VIIIG: The soleid identified as “*Monochirus* sp.” proves on further examination to be the pleuronectid *Samariscus triocellatus* Woods, 1966:66.

Woods, L. P.

An Annotated Checklist of the Fishes of the Chagos Archipelago, Central Indian Ocean

Abstract
A two-and-a-half month collecting expedition to the Chagos Archipelago, central Indian Ocean (4°40′–7°30′ S and 71°00′–72°45′ E), plus two other smaller collections made in 1980 and 1985, yielded specimens of 585 species of fishes, with an additional 16 species seen but not collected. A further 100 species are recorded from the literature, and 2 additional species from Chagos were discovered in the collections of the British Museum (Natural History).

For species that we collected, we provide information on the number of lots, number and size range of specimens, range of depth of capture, major habitat, atoll/islands where collected, and standard lengths of specimens for which colour transparencies taken soon after death are available. A breakdown of habitat and depth associations for the more common species is provided, as well as a discussion of systematic problems where encountered. Black-and-white photographs of preserved specimens of species collected but not photographed in colour in the field are included, together with black-and-white prints of colour transparencies of species we did photograph in the field. Eight habitat photographs and 56 fish portraits are illustrated in 8 colour plates.

Faunal affinities were as follows: Indo-Pacific 50.4%, Indo–west Pacific 12.1%, Indo–west Pacific and marginally on the Pacific plate 8.4%, western Indian Ocean 6.0%, cosmopolitan 2.6%, Indian Ocean 2.3%, circumtropical 2.3%, Indian Ocean and western extremity of west Pacific 0.8%, endemic 0.4%, central Indian Ocean 0.3%, "Indo–west Pacific" 0.3%, Indo-Pacific and western Atlantic 0.1%, and Indo–west Pacific and Mediterranean 0.1%. Approximately half of the 13.9% of the fauna not assigned a faunal affinity (for a variety of reasons) consisted of gobiids (7.5% total fauna). Five families dominate the fauna (Gobiidae, Labridae, Pomacentridae, Serranidae, and Muridae) and together constitute 38% of the total fauna. The 100 species of the Gobioidae known from the archipelago (Gobiidae, Eleotrididae, Microdesmidae, and Kraemeriidae) have been treated in detail previously in this series, and are not included here.

Introduction
The Chagos Archipelago is a fragmented southerly portion of the Maldive/Laccadive ridge and consists of a complex system of low atolls and submerged banks bounded by 4°40′–7°30′ S and 71°00′–72°45′ E (Fig. 1). To the east lies the 5-km-deep Chagos Trench; to the west is the mid-Indian Ocean ridge, the sea-floor spreading centre separating the African and Indo-Australian plates. In some cases, very deep water (>2000 m) separates the atolls and banks; in other cases, they are separated by water less than 500 m deep (Fig. 1).

The structure of the outer reefs at Chagos is generally as follows (Fig. 2): the spur-and-groove formation gives way to a gently sloping reef-top, usually 20–50 m in width, dominated by tabular forms of Acropora (Pl. 1A,B). The lip of the drop-off occurs at 8–15 m (Pl. 1C); the drop-off slope is initially very steep and, in some cases, vertical (Fig. 2A; Pl. 1D). The more dendritic forms of hard corals are interspersed with gorgonians, and the sea-fans may occur in large numbers on the more gently sloping drop-offs (Pl. IE). At about 25–30 m, the slope of the drop-off becomes sandier, with outcrops of dead coral, limestonelike rock, and patches of living coral. On the eastern side of Peros Banhos, off Isle Fouquet, the sandy slope gives way at about 40 m to a vertical, 8-m-high cliff (Fig. 2B). The cliff is riddled with caves (Pl. IF), some of which extend at least 10 m into the island base. Below the cliff, the sandy slope continues for as far as we were able to see (to about 75 m). In the lagoons, the bottom generally slopes gently from the intertidal region towards the centre of the lagoon, with occasional knolls and bommies (Fig. 2C; Pl. IG, H). On the
Materials and Methods

During 1978/79, the Joint Services Trust of the British Armed Forces supported a nine-month scientific and training expedition to the Chagos Archipelago. Two of the authors (R. Winterbottom and A. R. Emery) joined the expedition for two-and-a-half months to survey the ichthyofauna, from the intertidal to a maximum depth of 48 m. A total of 124 collections was made, of which 80 were in the lagoons, 21 on the drop-offs, and 23 on the reef-tops and reef-flats. Seventy-one of the stations were made using rotenone (37 in lagoons, 14 on reef-tops and reef-flats, and 20 on drop-offs), and in many cases these stations were supplemented by spearing. A total of 193 L of rotenone was used. Collections were also made with gill nets, trap nets, seines, and baited traps, by angling, and by hand. The first collection was made at Diego Garcia on 4 February 1979; the last at Peros Banhos on 1 April 1979. Fishes were thus collected for 57 days, with an average of 2.2 collections/day, resulting in approximately 1.5 tonnes of fish specimens. With the assistance of other expedition members, a total of 460 man-hours was spent collecting fishes. The single small collection from Diego Garcia was supplemented by seven rotenone collections made at the atoll by J. Ryther and P. C. Menzie in May 1980 (which were forwarded to us for identification by the Museum of Comparative Zoology, Harvard University) and one seine and two rotenone collections made by L. Taborsky in 1985.

Wherever possible, an attempt was made to check the original descriptions of the species listed here. Cases in which we were unable to do so are marked with an asterisk at the end of the first mention of the species. We have also attempted to provide current geographical names for type localities. Species or subspecies that were positively identified are assigned a geographic range in one of the following categories: Indo-Pacific (western/central Indian Ocean to central Pacific plate, may include the eastern Pacific); Indo–west Pacific and marginally on the Pacific plate (may include the Caroline Islands, Marshall Islands, Gilbert Islands, and Samoa, as well as Pulu, Yap, and the Marianas on the Philippine plate); Indo–west Pacific (western/central Indian Ocean to the Andesite line); western Indian Ocean (southern tip of India westwards); Indian Ocean (including the Andaman Islands, Cocos [Keeling] Island, and Christmas Island); central Indian Ocean (Chagos Archipelago, Maldives/Laccadive Islands, Sri Lanka); Indian Ocean and western extremity of west Pacific (eastwards to Gulf of Thailand); cosmopolitan (tropical and temperate waters worldwide); circumtropical (tropical waters worldwide); Indo-Pacific and western Atlantic (including the Caribbean); Indo–west Pacific and Mediterranean; endemic to Chagos Archipelago; and un-

southwestern sides of Peros Banhos, however, a rich, coral-covered drop-off begins at about 5 m and ends on the sandy floor of the lagoon at about 20–25 m (Fig. 2D). Sea-grass beds are absent at Chagos except at the southern end of the lagoon at Diego Garcia, an area in which we did not collect.

There are five atolls—Diego Garcia, Egmont, the Great Chagos Bank (with only a few islands, such as Eagle Island and Three Brothers, remaining on the western side and one island on the northern side), Peros Banhos, and Salomon (Fig. 1). The approximate distances to the nearest land are as follows: 500 km to the north (Addu Atoll, Maldives); 1800 km to the west (Seychelles); and 3500 km to the east (Sumatra). The islands are bathed by the northern limits of the South Equatorial Current (westward flowing) during July, and by the Easterly Counter Current during January. Thus, recruitment of those organisms with pelagic larvae could come from the western Indian Ocean or from the western Pacific, although the large distances involved could be expected to filter out a fair proportion of those organisms with short pelagic stages.

The FAO Species Identification Sheets for the western Indian Ocean (1984) record a total of 168 species of fishes from the Chagos Archipelago, 75 of which were not obtained by us (although 15 of the latter had been recorded from Chagos by other authors prior to the publication of the FAO sheets). In certain cases we have reservations about the distribution maps including Chagos as a locality, but we have listed the species as present with reference to the source. In 1967 Adair Fehlmann from the Smithsonian Oceanographic Sorting Center spent six weeks on Diego Garcia and made 27 collections of fishes and other organisms to a maximum depth of about 3 m. These collections have been sorted and shelved at the Smithsonian Institution, and it is at present impossible to determine what species were taken without searching the major portion of the fish collection. Some records are available as a result of specialized studies. A fisheries feasibility study was conducted in the Indian Ocean (including Chagos) by the Japanese from 1971 to 1975. The published results (Kyushin et al., 1977) list 78 species from Chagos taken primarily by longline (mainly lethrinids, lujanids, and serranids), the majority of which were not taken by us. Regan (1908) recorded 32 shore fish from the islands (some of which we examined), but part of this collection has been lost (Wheeler, pers. comm.) and the identities of a number of the species he recorded are suspect.
assigned. Most authors (e.g., Allen and Steene, 1979; Russell, 1983) have used “west Pacific” or “Indo–west Pacific” to denote an area extending as far east as Hawaii and French Polynesia. In cases where we could not find specific localities for a species, these terms are given in quotation marks to indicate that the range may, in fact, include Pacific plate localities. Usually we have been reluctant to categorize species that are at present known only from Chagos as “endemics”. The number of such species from small island groups has been shrinking rapidly in recent years, as more scuba collections are made, and will no doubt continue to do so in the future. We feel that Springer’s (1982) delimitation of the west Pacific is likely to prove more useful in studies of fish distribution. However, distributions of Indo–west Pacific fishes are in many cases complicated by what Springer (op. cit.) refers to as the Caroline conduit, and the Kuroshio extension, through which many Indo–west Pacific fishes appear to have invaded the Pacific plate. Thus the actual ranges of many species were difficult to determine, because there are few reliable checklists of Pacific-plate fishes and those that exist usually cover island groups on the western rim of the plate within the Caroline conduit (e.g., Guam, Marianas, Marshall Islands) or the Kuroshio extension (Hawaii).

The ranges reported here are primarily from the literature, with an emphasis on establishing the easternmost record for each species. For the FAO sheets (1984), we refer to the author of the relevant account. These accounts consist of unnumbered pages—the page number given is from the original FAO sheets and is derived by simply counting the number of pages until the reference referred to is reached. The inclusion in this checklist of species from the FAO sheets that we neither saw nor collected is usually based on the range map and is listed as an occurrence rather than a record. If the species referred to has been previously recorded from the Chagos Archipelago, we have cited that paper. If the title of a paper on the title page is not in agreement with the title heading in the text (e.g., Bleeker, 1856e, f, Smith, 1962a), the former is cited.

The parenthetical addition of photo or photos at the end of many of the Material sections, for example, (photos: 44 and 110 mm), indicates that one or more 35-mm colour slides of freshly dead specimens of that species are available in the Department of Ichthyology and Herpetology, ROM. Standard length of the photographed specimen is given, except where otherwise indicated or where only a single specimen of that species was collected. The majority of the specimens listed under Material are housed in the Royal Ontario Museum. Some lots of common species have been sent to the following institutions: Australian Museum, Sydney; British Museum (Natural History), London; Bernice P. Bishop Museum, Honolulu; Museum of Comparative Zoology, Cambridge; National Museum of Natural History, Washington; National Museum of Natural Sciences, Ottawa; Northern Territories Museum, Darwin; Smith College, Grahamstown; and The Western Australian Museum, Perth.

In the text, “SL” refers to standard length, “TL” to total length, “BL” to body length (used by Kyushin et al., 1977, as a synonym for standard length), “FL” to fork length, and “DW” to disc width (batoids only). The colour plates are biased towards depicting undescribed species, species for which the description is based in whole or in part on Chagos material; species we did not collect, in underwater views; rare species; and finally those species that previously have not (or have seldom) been illustrated in colour.
Checklist of Chagos Fishes

Ginglymostomatidae

*Nebrius ferrugineus* (Lesson)  
Fig. 3  
*Scyllium ferrugineum* Lesson, 1830:95 (New Ireland; Waigeo)  
*Nebrius ferrugineus*—Compagno, 1984c:5 (Indo-Pacific east to Tahiti)

MATERIAL  
One lot, 1 specimen, 1100 mm TL, 0.5 m in lagoon at Peros Banhos (photo). Although only a single specimen was collected, this species was occasionally seen in the lagoons (and once cruising the drop-off). A school of 20 to 30 adults (estimated to be up to 3 m TL) occupied the lagoon at the northeast tip of Eagle Island while we were there, usually lying on the bottom (2–5 m) in small compact groups. Identified by Dr L. J. V. Compagno. Indo-Pacific.

Odontaspididae

A large (ca 2.5 m) odontaspid shark (possibly *Eugomphodus taurus*) escaped from a trap net during our efforts to secure it. We were unable to identify it positively.

Alopiidae

*Alopias vulpinus* (Bonnaterre)  
*Squalus vulpinus* Bonnaterre, 1788:9 (Mediterranean)  
*Alopias vulpinus*—Compagno, 1984a:7 (cosmopolitan, including Chagos)

No specimens collected; record based on Compagno (1984a). Cosmopolitan.

Carcharhinidae

*Carcharhinus albimarginatus* (Rüppell)  
Pl. IIA  
*Carcharias albimarginatus* Rüppell, 1837:64 (Red Sea)  
*Carcharhinus albimarginatus*—Garrick, 1982:116 (Indo-Pacific, including Chagos, east to Mexico)

MATERIAL  
One lot, 4 specimens, 1325–1910 mm TL, 20 m, drop-off at Peros Banhos. This shark was observed only along the drop-offs and on the reef-tops at all the islands (except Three Brothers). It was the most common carcharhinid observed, being seen on almost every dive made in this habitat. Indo-Pacific.

*Carcharhinus melanopterus* (Quoy and Gaimard)  
Fig. 4  
*Carcharias melanopterus* Quoy and Gaimard, 1824:194 (Waigeo; Marianas)  
*Carcharhinus melanopterus*—Garrick, 1982:96 (Indo-Pacific east to Tuamotu Islands)

MATERIAL  
Five lots, 10 specimens, 405–1100 mm TL, 0–2.5 m, lagoons at Peros Banhos and Salomon (photos: 440 and 1100 mm TL). The blacktip reef shark was the most abundant shark in the lagoons and was also common on the reef-tops. It was seldom seen on the drop-off. Juveniles were frequently seen patrolling the shoreline in less than 30 cm of water, and three individuals were observed feeding on a school of the atherinid *Atherinomorus lacunosus*. Indo-Pacific.

*Carcharhinus wheeleri* Garrick  
Pl. IIB  
*Carcharhinus wheeleri* Garrick, 1982:111 (Red Sea; also Gulf of Aden; Kenya; and Réunion)  
*Carcharhinus amblyrhynchos*—Kyushin et al., 1977:22 (four specimens from Chagos Archipelago) (non Bleeker, 1856)

MATERIAL  
Two lots, 3 specimens, 700–910 mm TL, 17–20 m, lagoon and drop-off at Peros Banhos. The blacktail reef shark was the second most abundant shark, most commonly seen outside the lagoons. It was somewhat more inquisitive and aggressive than *C. albimarginatus* and *C. melanopterus*, sometimes coming within 1 m of divers. This was especially true when fishes were being speared on the reef-top in the late afternoon; individuals less than 1 m in length would frequently escort the divers to the boats at this time. Western Indian Ocean.

*Prionace glauca* (Linnaeus)  
*Squalus glaucus* Linnaeus, 1758:235 (“Oceano Euro-paco”)  
*Prionace glauca*—Compagno, 1984b:65 (cosmopolitan, including Chagos)

No specimens seen or collected; occurrence based on Compagno (1984b). Cosmopolitan.

*Sphyrrinae*

*Sphyra* sp.  
We did not see or collect any hammerhead sharks, but other members of the expedition reported seeing very large
hammerheads (ca 5 m) on two occasions. These may have been S. mokarran (Rüppell, 1837).

**Myliobatididae**

Eagle rays were seen in the lagoon at Peros Banhos on two occasions, but we were unable to approach them closely enough to identify them even to genus.

**Mobulidae**

*Manta birostris* (Donndorf)*

*Raja birostris* Donndorf, 1798:876 (no type locality)

*Manta birostris*—Fowler, 1941:483 (circumtropical)

No specimens of this species were collected. Solitary manta rays were seen cruising along the edge of the drop-off at Peros Banhos on three occasions. Circumtropical.

**Dasyatidae**

*Dasyatis purpureus* (Müller and Henle)*

![Fig. 5](image)

*Trygon purpurea* Müller and Henle, 1841:160 (probably South Africa)

*Dasyatis purpureus*—Wallace, 1967:50 (western Indian Ocean)

**MATERIAL**

One lot, 1 specimen, 565 mm DW, 0.5 m, lagoon at Peros Banhos (photo). This species was occasionally seen cruising in shallow water in the lagoon at Peros Banhos. Western Indian Ocean.

*Hypolophus sephen* (Forsskål)*

*Raja sephen* Forsskål, 1775:17 (Red Sea)

*Dasyatis sephen*—Fowler, 1941:415 (Indo–west Pacific)

No material of this species was obtained. It was observed in the lagoons at Peros Banhos and Salomon. Identification was based on coloration and the well-developed ventral fin fold on the tail. Generic placement follows Compagno and Heemstra (1984). Indo–west Pacific.

*Urogymnus asperrimus* (Bloch and Schneider)*

![Fig. 6](image)

*Raja asperrima* Bloch and Schneider, 1801:367 (Bombay, Indian Ocean)

*Urogymnus asperrimus*—Fowler, 1941:438 (Indo–west Pacific)

(non Bloch and Schneider, 1801)

**MATERIAL**

One lot, 1 specimen, 540 DW, 0.3 m, lagoon at Eagle Island (photo). No other specimens of this species were seen or collected. Identification as *U. asperrimus* rather than *U. africana* follows Compagno and Heemstra (1984). Indo–west Pacific.

**Albulidae**

*Albula glossodonta* (Forsskål)*

*Argentia glossodonta* Forsskål, 1775:68 (Red Sea)

*Albula glossodonta*—Shaklee, 1984:5 (Indo-Pacific, including Chagos, east to Marquesas Islands)

We did not collect this species, but specimens from Diego Garcia are housed in the National Museum of Natural History, Washington, and have been identified and reported on by Shaklee (1984). We saw schools of *Albula* at both Diego Garcia and Salomon that were probably this species, but we were unable to catch any. Indo-Pacific.

**Moringuidae**

Species of *Moringua* are difficult to identify, and the separation of three species is based on a list of vertebral count differences supplied by Dr P. H. J. Castle. Virtually nothing is known of the biology of these eels, and they were seen only when they emerged from the sand in rotenone stations. The geographic ranges given are uncertain.

*Moringua ferruginea* Bliss*

![Fig. 7](image)

*Moringua ferruginea* Bliss, 1883:57 (Mauritius); Randall and McCosker, 1975:4 (Easter Island)

**MATERIAL**

Seven lots, 32 specimens, 119–296 mm SL, 0–10 m, intertidal, reef-flat, and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 126 and 182 mm). Vertebrae 120–130. Only a single specimen was taken in water deeper than 1 m. Indo-Pacific.

*Moringua javanica* (Kaup)*

![Fig. 8](image)

*Aphthalimichthys javanicus* Kaup, 1856a:105 (Java)

*Moringua javanica*—Randall, 1955c:24 (Gilbert Islands)

**MATERIAL**

Three lots, 3 specimens, 414–675 mm SL, 0–7 m, lagoon and intertidal at Eagle Island and Peros Banhos (photo: 675 mm). Vertebrae 150–170. Indo–west Pacific and marginally on the Pacific plate.

*Moringua microchir* Bleeker*

![Fig. 9](image)

*Moringua microchir* Bleeker, 1853a:124 (Ambon; Kauer); Russell, 1983:18 (“Indo–west Pacific”)

**MATERIAL**

Six lots, 12 specimens, 121–309 mm SL, 0–1 m, intertidal and reef-flat at Diego Garcia, Eagle Island, Peros Banhos.
Xenocongridae

The following identifications were provided by Dr D. G. Smith.

*Kaupichthys atronasus* Schultz

*Kaupichthys atronasus* Schultz, 1953b:65 (Marshall Islands); Allen and Steene, 1979:10 (Christmas Island)

**MATERIAL**
One lot, 1 specimen, 54 mm SL, 7 m, lagoon at Peros Banhos. Indo-west Pacific and marginally on the Pacific plate.

*Kaupichthys hyoproroides* (Strömmann)*

*Leptocephalus hyoproroides* Strömmann, 1896:39 (north of Bahamas)

*Kaupichthys hyoproroides*—Böhke and Smith, 1968:28 (Indo-west Pacific and west Atlantic); Randall, 1973:174 (Tahiti)

**MATERIAL**
Sixteen lots, 24 specimens, 62–183 mm SL, 6–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 136, 159, and 183 mm). Circumtropical.

*Kaupichthys nuchalis* Böhke

*Kaupichthys nuchalis* Böhke, 1967:95 (Grand Bahama Island; also other Caribbean islands)

**MATERIAL**
Two lots, 3 specimens, 58–200 mm SL, 18–43 m, drop-off at Peros Banhos and Salomon (photo: 58 mm). Circumtropical.

*Kaupichthys sp.*

**MATERIAL**
Two lots, 2 specimens, 107–144 mm SL, 13–25 m, lagoon and drop-off at Peros Banhos and Salomon. Range unassigned.

*Powellichthys sp.*

**MATERIAL**
One lot, 1 specimen, 155 mm SL, 18–24 m, drop-off at Salomon. Range unassigned.

Muraenidae

Since vertebral numbers and formulas are often important in muraenid systematics, this information is given for the 22 species for which it was gathered (Table 1).

*Anarchias allardicei* Jordan and Starks

*Anarchias allardicei* Jordan and Starks, in Jordan and Seale, 1906:204 (Samoa)

**MATERIAL**
Four lots, 19 specimens, 43–128 mm SL, 0–1 m, intertidal and reef-flat at Eagle Island, Peros Banhos, and Salomon. It is probable that *A. fuscus* Smith, 1962a, is a junior synonym of *A. allardicei*. Further studies (as part of a revision of the genus by E. Holm) are in progress to determine variation in these two nominal species. Indo-Pacific east to the Tuamotu Islands.

*Anarchias seychellensis* Smith

*Anarchias seychellensis* Smith, 1962a:429 (Assumption Island; also Mahé)

*Anarchias leucurus*—Schultz, 1953c:144 (Marshall Islands) (non Snyder, 1902)

**MATERIAL**
Eight lots, 19 specimens, 74–157 mm SL, 0.5–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo: 130 mm). This species is very close to *A. leucurus* Schultz, 1953c, but apparently differs in having higher dorsal-fin ray counts (>35 vs <35) and vertebral counts (>120 vs <118). Indo-Pacific east to Pitcairn Island.

*Echidna leucotaenia* Schultz

*Echidna leucotaenia* Schultz, 1943:22 (Phoenix Islands; also Samoa); Randall, 1973:175 (Tahiti)

**MATERIAL**
Six lots, 6 specimens, 49–298 mm SL, 0–24 m, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon. Indo-Pacific.

*Echidna nebulosa* (Ahl)

*Muraena nebulosa* Ahl, 1789:7 (East Indies); Regan, 1908:220 (Chagos Archipelago)

*Echidna nebulosa*—Randall, 1973:175 (Tahiti)

**MATERIAL**
Seven lots, 43 specimens, 35–421 mm SL, 0–1 m, intertidal and reef-flat at Eagle Island, Peros Banhos, and Salomon (photo: 123 mm). This series of specimens exhibits a gradual transition in colour pattern from uniform brown with a white snout in juveniles to the typical adult pattern of two rows of about 23 large blotches on the body. The transition occurs between 40–75 mm SL. Indo-Pacific.

*Echidna polyzona* (Richardson)*

*Muraena polyzona* Richardson, 1844:112 (no type locality); Regan, 1908:220 (Chagos Archipelago)

*Echidna polyzona*—Randall, 1973:175 (Tahiti)

**MATERIAL**
Three lots, 3 specimens, 54–200 mm SL, 0–1 m, intertidal and reef-flat at Eagle Island, Peros Banhos, and Salomon (photo: 130 mm). This species is one of the commonly taken species in the Indo-Pacific, being reasonably common at several localities in this region (e.g. Peros Banhos). It is very similar to *Echidna nebulosa* but can be distinguished by its paler, more uniform brown coloration and by the absence of the large black blotches typical of the latter species. An additional useful identifying characteristic is the absence of any black marks on the snout region, which is white in *E. polyzona* but black in *E. nebulosa*.
### Table 1. Vertebral counts for some Chagos muraenids, with comparative information from E. Böhleke (1982—column headings suffixed with B) and McClennengh (1976—column heading suffixed with M).

<table>
<thead>
<tr>
<th>Taxon</th>
<th>n</th>
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<th>TB</th>
<th>TM</th>
<th>PD</th>
<th>PDB</th>
<th>PA</th>
<th>PAB</th>
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<td><strong>Anarchias allardicei</strong></td>
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<td>97—102</td>
<td>97</td>
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<td>85</td>
<td>89—92</td>
<td>87</td>
<td>55—59</td>
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<tr>
<td><strong>A. seychellensis</strong></td>
<td>19</td>
<td>121—128</td>
<td>—</td>
<td>—</td>
<td>109—116</td>
<td>—</td>
<td>113—119</td>
<td>—</td>
<td>57—63*</td>
</tr>
<tr>
<td><strong>Echidna leucotaenia</strong></td>
<td>2</td>
<td>121—122</td>
<td>128—130</td>
<td>—</td>
<td>6—7</td>
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<td><strong>E. nebula</strong></td>
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<td>122—125</td>
<td>120—128</td>
<td>5—6</td>
<td>55—59</td>
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<td>65—69 (n = 2)</td>
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<td><strong>Gymnothorax buroensis</strong></td>
<td>5</td>
<td>109—116</td>
<td>114</td>
<td>110—119</td>
<td>4—6</td>
<td>5</td>
<td>46—48</td>
<td>46</td>
<td>53—55</td>
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<tr>
<td><strong>G. chilosipus</strong></td>
<td>3</td>
<td>126—131</td>
<td>127</td>
<td>—</td>
<td>5—6</td>
<td>5</td>
<td>50—52</td>
<td>50</td>
<td>56—58</td>
</tr>
<tr>
<td><strong>G. enigmaticus</strong></td>
<td>3</td>
<td>126—130</td>
<td>—</td>
<td>—</td>
<td>4—5</td>
<td>—</td>
<td>51—52</td>
<td>—</td>
<td>61—63</td>
</tr>
<tr>
<td><strong>G. fimbriatus</strong></td>
<td>3</td>
<td>128—133</td>
<td>—</td>
<td>—</td>
<td>5—6</td>
<td>—</td>
<td>52—53</td>
<td>—</td>
<td>62—63</td>
</tr>
<tr>
<td><strong>G. flavimarginatus</strong></td>
<td>6</td>
<td>133—135</td>
<td>134</td>
<td>134—138</td>
<td>4—6</td>
<td>6</td>
<td>55—58</td>
<td>54</td>
<td>66—67</td>
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<tr>
<td><strong>G. fuscomaculatus</strong></td>
<td>4</td>
<td>117—123</td>
<td>118—122</td>
<td>—</td>
<td>37—39</td>
<td>34—42</td>
<td>48—50</td>
<td>48—51</td>
<td>54—58</td>
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<td><strong>G. margaritophorus</strong></td>
<td>3</td>
<td>131—133</td>
<td>—</td>
<td>—</td>
<td>4—6</td>
<td>—</td>
<td>50—51</td>
<td>—</td>
<td>56—58</td>
</tr>
<tr>
<td><strong>G. melarameus</strong></td>
<td>6</td>
<td>133—139</td>
<td>137</td>
<td>—</td>
<td>3—4</td>
<td>—</td>
<td>49—53</td>
<td>52</td>
<td>60—65</td>
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<td><strong>G. pictus</strong></td>
<td>5</td>
<td>129—135</td>
<td>127—133</td>
<td>9—10</td>
<td>—</td>
<td>57—59</td>
<td>—</td>
<td>67—68</td>
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<tr>
<td><strong>G. pindae</strong></td>
<td>3</td>
<td>122—124</td>
<td>—</td>
<td>—</td>
<td>5—7</td>
<td>—</td>
<td>41—44</td>
<td>—</td>
<td>53</td>
</tr>
<tr>
<td><strong>G. rueppelliae</strong></td>
<td>8</td>
<td>128—134</td>
<td>125—126</td>
<td>4—6</td>
<td>4—5</td>
<td>—</td>
<td>51—54</td>
<td>50</td>
<td>60—65</td>
</tr>
<tr>
<td><strong>G. undulatus</strong></td>
<td>6</td>
<td>131—133</td>
<td>125—130</td>
<td>4—6</td>
<td>—</td>
<td>53—55</td>
<td>—</td>
<td>62—63</td>
<td></td>
</tr>
<tr>
<td><strong>Uropterygius fuscoguttatus</strong></td>
<td>1</td>
<td>120</td>
<td>113—120</td>
<td>—</td>
<td>100</td>
<td>93—101</td>
<td>106</td>
<td>100—107</td>
<td>63</td>
</tr>
<tr>
<td><strong>U. kamar</strong></td>
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<td>135—143</td>
<td>134—139</td>
<td>—</td>
<td>113—117</td>
<td>109—116</td>
<td>124—128</td>
<td>120—126</td>
<td>66—69</td>
</tr>
<tr>
<td><strong>U. polyspilus</strong></td>
<td>1</td>
<td>134</td>
<td>—</td>
<td>—</td>
<td>125</td>
<td>—</td>
<td>126</td>
<td>—</td>
<td>75?</td>
</tr>
<tr>
<td><strong>U. superforatus</strong></td>
<td>1</td>
<td>124</td>
<td>—</td>
<td>—</td>
<td>103</td>
<td>—</td>
<td>108</td>
<td>—</td>
<td>66</td>
</tr>
<tr>
<td><strong>U. xanthopterus</strong></td>
<td>1</td>
<td>125</td>
<td>—</td>
<td>—</td>
<td>111</td>
<td>—</td>
<td>115</td>
<td>—</td>
<td>66</td>
</tr>
</tbody>
</table>

*n = 9, last precaudal vertebra could not be determined with confidence in 10 of the X-rayed specimens.

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**Echidna unicolor** Schultz  
*Fig. 20*  
*Echidna unicolor* Schultz, 1953c:106 (Marshall Islands); Smith, 1962a:424 (east Africa); Randall, 1973:175 (Tahiti)

**Material**  
One lot, 2 specimens, 244–338 mm SL, 0–1 m, reef-flat, Peros Banhos. Indo-Pacific.

**Enchelycore bayeri** (Schultz)  
*Fig. 21*  
*Gymnothorax bayeri* Schultz, 1953c:124 (Marshall Islands)  
*Enchelycore bayeri*—Randall, 1973:175 (Tahiti)

**Material**  
Two lots, 3 specimens, 109–173 mm SL, 0–3 m, reef-flat and reef-top at Peros Banhos and Salomon (photos: 109 and 173 mm). The tooth pattern and red colour of the Chagos material are identical to that described by Schultz (1943), but our specimens have many vertical light bands on the body, rather than “white spots” (which appear to form the typical colour pattern of the Pacific variety). This species is included in *Enchelycore* on the advice of Dr J. E. McCosker. Indo-Pacific.

**Enchelycore schismatorhynchus** (Bleeker)  
*Fig. 22*  
*Muraena schismatorhynchus* Bleeker, 1853b:301 (Sumatra)  
*Enchelycore schismatorhynchus*—Randall, 1973:175 (Tahiti)
MATERIAL
Three lots, 4 specimens, 91–238 mm SL, 0–7 m, lagoon at Peros Banhos and Salomon (photos: 151 and 238 mm). Indo-Pacific.

*Enchelynassa canina* (Quoy and Gaimard) Fig. 23
*Muraena canina* Quoy and Gaimard, 1824:247 (Waigeo and Rawak)
*Enchelynassa canina*—Randall, 1973:175 (Tahiti)

MATERIAL
One lot, 1 specimen, 630 mm SL, 0–0.75 m, reef-flat at Salomon. Indo-Pacific.

*Gymnomuraena zebra* (Shaw and Nodder)* Fig. 24
*Gymnothorax zebra* Shaw and Nodder, 1797:pl. 322 (Pacific)
*Echidna zebra*—Smith, 1962a:423 (western Indian Ocean); McCosker and Rosenblatt, 1975:420 (Galápagos Islands)

MATERIAL
Five lots, 6 specimens, 272–810 mm SL, 0–10 m, lagoon, intertidal, reef-flat, and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 600 and 810 mm). Generic placement is on the advice of Dr McCosker. Indo-Pacific.

*Gymnothorax buroensis* (Bleeker) Fig. 25
*Muraena buroensis* Bleeker, 1857b:79 (Kayeli, Indonesia)
*Gymnothorax buroensis*—McCosker and Rosenblatt, 1975:420 (Indo-Pacific to off Costa Rica and Panama)

MATERIAL
Twenty-one lots, 94 specimens, 63–274 mm SL, 0–25 m, lagoon, intertidal, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photo: 112 mm). This species appeared in more collections than any other moray, although it was the second most abundant muraenid numerically. The largest collection contains 36 specimens and was made in the surf over the spur-and-groove formation on the south coast of Isle Boddam, Salomon. Three other collections contain 5–10 specimens; all other collections contain fewer than this. Indo-Pacific.

*Gymnothorax chilospilus* (Bleeker) Fig. 26
*Gymnothorax chilospilus* Bleeker, 1865:52 (Benkulen, Sumatra); Randall and Sinoto, 1978:296 (Rapa)
*Lycodontis chilospilus*—Smith, 1962a:438 (Malindi, Kenya)

MATERIAL
Four lots, 10 specimens, 88–186 mm SL, 0–1 m, intertidal and reef-flat at Diego Garcia and Eagle Island. The only area in which we collected this species was at Eagle Island, the Diego Garcia specimens being taken by Ryther and by Taborsky. It is surprising that specimens were not obtained from the two atolls where most of the collecting took place (Peros Banhos and Salomon). Indo-Pacific.

*Gymnothorax enigmaticus* McCosker and Randall Fig. 27
*Gymnothorax enigmaticus* McCosker and Randall, 1982:18 (Palau; range: Indo-Pacific)

MATERIAL
Five lots, 21 specimens, 47–340 mm SL, 0–1 m, intertidal and reef-flat at Eagle Island and Peros Banhos (photo: 298 mm). Juveniles of this species may be separated from *G. rueppelliae* (which has a similar banded pattern) by the lack of pigment on the snout (vs a brown snout). Indo-Pacific.

*Gymnothorax fimbriatus* (Bennett) Fig. 28
*Muraena fimbriata* Bennett, 1831:168 (Mauritius)
*Gymnothorax fimbriatus*—Randall, 1973:175 (Tahiti)

MATERIAL
Three lots, 11 specimens, 49–337 mm SL, 0–1 m, intertidal and reef-flat at Eagle Island and Peros Banhos (photo: 314 mm). Indo-Pacific.

*Gymnothorax flavimarginatus* (Rüppell) Fig. 29
*Muraena flavimarginata* Rüppell, 1830b:119 (Red Sea)
*Gymnothorax flavimarginatus*—Randall, 1973:175 (Tahiti)

MATERIAL
Fifteen lots, 129 specimens, 38–903 mm SL, 0–20 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 172 and 903 mm). This was the most abundant species of moray, although appearing in fewer collections than *G. buroensis*. Only two specimens were taken in water more than 2 m in depth. The characteristic dark blotch surrounding the Gill opening does not appear until specimens reach at least 80–100 mm SL. The smaller specimens were identified using the large developmental series represented in our collections, and by vertebral counts (132–134 total, vertebrae at anal-fin origin 54–57; n = 6 adult specimens). Indo-Pacific.

*Gymnothorax fuscomaculatus* (Schultz) Fig. 30
*Rhabula fuscomaculatus* Schultz, 1953c:147 (Marshall Islands, also Johnston Island)
*Gymnothorax fuscomaculatus*—Winterbottom, 1978:43 (Indo-Pacific)

MATERIAL
Eight lots, 11 specimens, 103–198 mm SL, 1–25 m,

**Gymnothorax griseus** (Lacepède)  
*Fig. 31*
*Muraenopsis grisea* Lacepède, 1803:629 (Madagascar)
*Siderea grisea*—Smith, 1962a:441 (western Indian Ocean and Red Sea)

**MATERIAL**
Three lots, 3 specimens, 342–408 mm SL, 0–1 m, lagoon, intertidal, and reef-flat at Diego Garcia and Peros Banhos (photos: 365 and 468 mm). This species is frequently cited as *Siderea grisea*. It is apparently confined to the western Indian Ocean and the Red Sea (Randall, 1983b). Western Indian Ocean.

**Gymnothorax javanicus** (Bleeker)  
*Fig. 32*
*Muraena javanica* Bleeker, 1859:347 (Java)
*Gymnothorax javanicus*—Randall, 1973:175 (Tahiti)

**MATERIAL**
Nine lots, 11 specimens, 78–1600 mm SL, lagoon, intertidal, reef-flat, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 274, 755, and 1300 mm). The two largest specimens (1350 and 1600 mm) were both taken on an overnight setline baited with fish. Only the head of the larger specimen was preserved. Indo-Pacific.

**Gymnothorax margaritophorus** Bleeker  
*Fig. 33*
*Gymnothorax margaritophorus* Bleeker, 1865:53 (Ambon); Randall, 1973:175 (Tahiti)

**MATERIAL**
Nine lots, 12 specimens, 50–315 mm SL, 0–10 m, lagoon, intertidal, and reef-top at Eagle Island, Peros Banhos, and Salomon (photos: 118, 292, and 315 mm). Indo-Pacific.

**Gymnothorax melatremus** Schultz  
*Pl. IIID*
*Gymnothorax melatremus* Schultz, 1953c:120 (Marshall Islands); Kailola, 1974:40 (Madang, Papua New Guinea); Allen and Steene, 1979:12 (Christmas Island, Indian Ocean); Randall, 1985:466 (Marquesas Islands)

**MATERIAL**
Ten lots, 25 specimens, 60–195 mm SL, 18–43 m, drop-off only at Peros Banhos and Salomon (photo: 119 mm). Schultz (1953c) does not mention the network of dark, fine lines on the body that are apparent in most of our specimens, although the rest of his description fits the Chagos material. These lines were mentioned in the subsequent description given by Kailola (1974). Our photographed specimen has a yellow anterior nostril; the black pigment around the eye is best developed along the posterior rim; a vertical, pupil-width bar passes through the eye; and the posterior regions of the dorsal and anal fins, as well as the caudal fin, are yellow. Indo-Pacific.

**Gymnothorax pictus** (Ahl)  
*Fig. 34*
*Muraenopsis picta* Ahl, 1789:8 (East Indies)
*Gymnothorax pseudothyrsoides*—Regan, 1908:220 (Peros Banhos) (*non* Bleeker, 1852b)
*Gymnothorax pictus*—McCosker and Rosenblatt, 1975:420 (eastern Pacific)
*Siderea picta*—Smith, 1962a:440 (western Indian Ocean)

**MATERIAL**
Six lots, 21 specimens, 47–753 mm SL, 0–1 m, intertidal and reef-flat at Eagle Island, Peros Banhos, and Salomon (photos: 60, 101, 181, and 486 mm). The specimen identified as *G. pseudothyrsoides* by Regan (1908) from Peros Banhos was examined and proved to be this species. The colour pattern of juveniles has been described by Smith (1962a). All but two of the specimens are from reef-flats. Specimens were observed during the day, and on one occasion an individual 40–50 cm long attacked, within a foot of us, a grasroid crab that had been frightened into the water by our approach. Indo-Pacific.

**Gymnothorax pindae** Smith  
*Fig. 35*
*Gymnothorax pindae* Smith, 1962a:430 (Pinda, Mozambique); Randall and McCosker, 1975:18 (Indo-Pacific, including Chagos, east to Tahiti)

**MATERIAL**
Eleven lots, 13 specimens, 49–280 mm SL, 3–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 182–189 mm). Indo-Pacific.

**Gymnothorax ruepelliae** (McClelland)*  
*Fig. 36*
*Dolphins ruepelliae* McClelland, 1845:213 (Red Sea)
*Gymnothorax ruepelliae*—McCosker and Randall, 1982:20 (Indo-Pacific east to Hawaii)

**MATERIAL**
Seven lots, 31 specimens, 53–537 mm SL, 0–1 m, intertidal and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 69, 76, and 537 mm). Juveniles of this species have brown snouts; snouts are unpigmented in the closely related *G. enigmaticus*. Indo-Pacific.

**Gymnothorax undulatus** (Lacepède)  
*Fig. 37*
*Muraenophis undulata* Lacepède, 1803:629 (no type locality)
*Gymnothorax undulatus*—Randall, 1973:176 (Tahiti)
*Lycodontis undulatus*—Smith, 1962a:439 (western Indian Ocean)
The Gymnothorax reticulations our MATERIAL 10 least specimens, least combination PI. specimens, specimen, 43, specimen, 73x654. The Gymnothorax Gymnothorax zonipectis Seale* Fig. 38 Gymnothorax zonipectis Seale, 1906:7 (Tahiti); Allen and Steene, 1979:12 (Christmas Island) MATERIAL Seven lots, 9 specimens, 51–360 mm SL, 0.5–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 138 and 195 mm). Indo-Pacific.

The following four records apparently represent discrete species, but we were unable to assign names to them and are reluctant to describe them as new in view of the limited material available.

**Gymnothorax sp. 1**

**MATERIAL**

One lot, 1 specimen, 148 mm SL, 23–25 m, drop-off at Salomon (photo). A pale, dusky-snouted moray with the tail 1.56 times in the snout-to-anus distance and with 10 predorsal, 40 preanal, 51 precaudal, and 126 total vertebrae (see Table 1 for definitions). Vomerine teeth biserial, maxillary teeth triserial; all teeth sharp and conical, the largest being the posterior median premaxillary tooth. We have examined one other specimen of this type, from Ponape, Caroline Islands, which has the following vertebral counts: 9, 43, 53, and 132, respectively. Distribution insufficiently known to categorize confidently, but, based on the above material, at least Indo–west Pacific and marginally on the Pacific plate.

**Gymnothorax sp. 2**

**MATERIAL**

One lot, 1 specimen, 50 mm SL, 42 m, drop-off at Peros Banhos (photo). A pattern of chainlike dark brown markings on a white background; gill opening in a black blotch; iris yellow, as is basal portion of posterior region of dorsal and anal fins; 3 predorsal, 40 preanal, 51 precaudal, and 106 total vertebrae. Range unassigned.

**Gymnothorax sp. 3**

**MATERIAL**

One lot, 1 specimen, 118 mm SL, 18–24 m, drop-off at Peros Banhos (photo). Brown background peppered from head to tail with darker brown spots about one-third of eye diameter in size; two rows of maxillary teeth with six teeth in inner row; 5 predorsal, 54 preanal, 70 precaudal, and 132 total vertebrae. We have examined two other specimens of this type from the Marianas, which had the following respective vertebral counts: 5–6, 57–59, 67–69, and 134–136. Distribution insufficiently known to categorize confidently, but at least Indo–west Pacific and marginally on the Pacific plate.

**Gymnothorax sp. 4**

**MATERIAL**

One lot, 1 specimen, 47 mm SL, 0–0.5 m, intertidal at Eagle Island. A rich chocolate brown moray; 55 precaudal and 124 total vertebrae; the entire lower jaw and the lower part of the upper jaw immaculately white (similar to juvenile G. margaritophorus, but lacking the dorsal light streak of that species). Range unassigned.

In addition to the above, we have 7 lots, 29 specimens of small morays (<70 mm SL) that we could not identify, but which may represent a combination of G. undulatus, G. flavimarginatus, G. fimbriatus, and at least one other unknown.

**Uropterygius concolor Rüppell**

**Fig. 40**

**Uropterygius concolor** Rüppell, 1838:83 (Red Sea); Gosline, 1958:226 (central Pacific)

**MATERIAL**

Two lots, 5 specimens, 108–147 mm SL, 7–13 m, lagoon at Salomon and Three Brothers. Three of our specimens are females with eggs. Indo-Pacific.

**Uropterygius fuscoguttatus Schultz**

**Fig. 41**

**Uropterygius fuscoguttatus** Schultz, 1953c:156 (Marshall Islands); Gosline, 1958:224 (Johnston Island)

**MATERIAL**

Seven lots, 10 specimens, 77–180 mm SL, 3–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo: 161 mm). The darker mottlings that appear on the posterior part of the body may be faint or absent in small specimens (<100 mm SL). This species differs from *U. supraforatus* in colour; in having 3–4 rows of maxillary teeth (vs 5–6); and in vertebral (117–119 vs 123 total), dorsal-fin ray (37–48 vs 67), and anal-fin ray (33–37 vs 48) counts. Our specimens appear to represent the first record of this species from the Indian Ocean. Indo-Pacific.

**Uropterygius inornatus Gosline**

**Fig. 42**

**Uropterygius inornatus** Gosline, 1958:225 (Hawaii)

**MATERIAL**

One lot, 1 specimen, 105 mm SL, 9 m, reef-top at Salomon.
This appears to be the first record of this species from the Indian Ocean. Indo-Pacific.

**Uropterygius kamar** McCosker and Randall  
*Fig. 43*  
*Uropterygius kamar* McCosker and Randall, 1977:164  
(Comoro Islands; also Indo-Pacific to Pitcairn Island)

**MATERIAL**

Four lots, 5 specimens, 56–200 mm SL, 10–25 m, reef-top and drop-off at Peros Banhos and Salomon. The only difference from the original description observed in the above material was that, based on X-rays of two specimens, the dorsal fin originates more than a head length away from the tail tip (as opposed to half a head length away). Indo-Pacific.

**Uropterygius polypterus** (Regan)  
*Fig. 44*  
*Gymnomuraena polyptila* Regan, 1909:438 (Tahiti; also Zanzibar)

**MATERIAL**

Two lots, 4 specimens, 58–271 mm SL, 0–1 m, intertidal at Eagle Island only (photo: 211 mm). Indo-Pacific.

**Uropterygius supraforatus** (Regan)  
*Fig. 45*  
*Gymnomuraena supraforata* Regan, 1909:439 (Savaii, Western Samoa)  
*Uropterygius supraforatus*—Randall, 1973:176 (Tahiti)

**MATERIAL**

One lot, 1 specimen, 269 mm SL, 3–7 m, lagoon at Peros Banhos. This appears to be the first record of this species from the Indian Ocean. Indo-Pacific.

**Uropterygius xanthopterus** Bleeker  
*Fig. 46*  
*Uropterygius xanthopterus* Bleeker, 1859:350 (Pajitan); Randall, 1973:176 (Tahiti)  
*Uropterygius alboguttatus* Smith, 1962a:427 (Assumption Island; also widespread in western Indian Ocean)

**MATERIAL**

Eight lots, 12 specimens, 68–343 mm SL, 5–36 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 180 and 343 mm). Indo-Pacific.

**Uropterygius sp. 1**  
Pl. IIH

**MATERIAL**

One lot, 1 specimen, 180 mm SL, 40–43 m, drop-off at Peros Banhos (photo). This specimen could not be identified. It is plain brown; the tail 1.4 times in the snout-to-anus distance; depth at anus 35 times in total length; 4 rows of maxillary teeth; 50 dorsal-fin rays; 123 precaudal, 131 preanal, 75 predorsal, and 142 total vertebrae. Range unassigned.

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**Congridae**

**Conger cinereus** Rüppell  
*Fig. 47*  
*Conger cinereus* Rüppell, 1830a:115 (Red Sea); Randall, 1973:176 (Tahiti)

**MATERIAL**

Nine lots, 34 specimens, 54–748 mm SL, 0–26 m, lagoon, intertidal, reef-flat, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 65, 157, and 183 mm). Only two of our specimens (in two lots) were collected in water deeper than 1 m and in habitats other than the reef-flats and intertidal region. Indo-Pacific.

**Gorgasia maculata** Klausewitz and Eibl-Eibesfeldt  
*Fig. 48*  
*Gorgasia maculata* Klausewitz and Eibl-Eibesfeldt, 1959:147 (Nicobar Islands)

**MATERIAL**

One lot, 3 specimens, 281–368 mm SL, 15–17 m, lagoon at Peros Banhos (photo: 283 mm). The only place in which we observed this and the following species of garden eel was on a sandy bottom adjacent to a patch reef approximately 500 m south of the pass between Isle Poule and Petite Sœur, Peros Banhos. *Gorgasia maculata* is apparently confined to the Indian Ocean east to Cocos (Keeling) Island (Smith-Vaniz, pers. comm.).

**Heteroconger hassi** (Klausewitz and Eibl-Eibesfeldt)  
*Fig. 49*  
*Xarifana hassi* Klausewitz and Eibl-Eibesfeldt, 1959:138 (Maldive Islands)  
**Heteroconger hassi**—Myers and Sheppard, 1980:312 (Marianas)

**MATERIAL**

One lot, 5 specimens, 140–320 mm SL, 15–17 m, lagoon at Peros Banhos (photo: 139 mm). We follow Böhlike and Randall (1981) in recognizing only two genera of garden eels (*Gorgasia* and *Heteroconger*). Indo–west Pacific and marginally on the Pacific plate.

**Ophichthidae**

**Brachysomophis crocodilinus** (Bennett)  
*Fig. 50*  
*Ophisurus crocodilinus* Bennett, 1833:32 (Mauritius)  
**Brachysomophis crocodilinus**—Randall, 1973:176 (Tahiti)

**MATERIAL**

Two lots, 2 specimens, 172–230 mm SL, 0–7 m, lagoon and intertidal at Eagle Island and Peros Banhos (photos: both). Identified by Dr. J. E. McCosker. Indo-Pacific.
Callochelys marmoratus (Bleeker)  Fig. 51
Dalophis marmorata Bleeker, 1853f:37 (Sibolga, Sumatra)
Callochelys marmoratus—Randall, 1973:177 (Tahiti)

MATERIAL
One lot, 1 specimen, 767 mm SL, 0.5 m, lagoon at Peros Banhos (photo). Indo-Pacific.

Lamnostoma orientalis (McClelland)*
Dalophis orientalis McClelland, 1845:213 (Coromandel Coast)
Lamnostoma orientalis—Castle, 1984:9 (Indian Ocean including Chagos); Randall, 1973:177 (Tahiti)

No specimens seen or collected. Castle’s (1984) distribution map for this species includes Chagos, and he states that its distribution is “southern Africa to India, and probably most other parts of the Indian Ocean.” However, he lists the habitat as being “estuaries and inshore areas of turbid waters”—conditions that do not occur at Chagos. Doubtful literature record, but assigned to the Indo-Pacific.

Leiuranus semicinctus (Lay and Bennett)  Fig. 52
Ophisurus semicinctus Lay and Bennett, 1839:66 (Hawaii)
Leiuranus semicinctus—Smith, 1962b:455 (Indo-Pacific)

MATERIAL
Eight lots, 96 specimens, 114–471 mm SL, 0–1 m, lagoon, intertidal, and reef-flat at Diego Garcia, Eagle Island, and Peros Banhos (photo: 194 mm). Indo-Pacific.

Muraenichthys laticaudata (Ogilby)*  Fig. 53
Myopterus laticaudata Ogilby, 1897:247 (Fiji)
Muraenichthys laticaudata—Smith, 1962b:462 (western Indian Ocean); Randall, 1973:177 (Tahiti)

MATERIAL
Six lots, 6 specimens, 53–184 mm SL, 0–26 m, lagoon, reef-flat, reef-top, and drop-off at Peros Banhos and Salomon (photo: 180 mm). Indo-Pacific.

Muraenichthys schultzei Bleeker  Fig. 54
Muraenichthys schultzei Bleeker, 1857c:366 (south Java); Gosline, 1955:444 (Johnston Island); Smith, 1962b:461 (Red Sea and western Indian Ocean)

MATERIAL
Five lots, 7 specimens, 75–100 mm SL, 0–13 m, lagoon, intertidal, and reef-flat at Eagle Island, Peros Banhos, and Salomon. Indo-Pacific.

Myrichthys colubrinus (Boddart)*  Fig. 55
Muraena colubrina Boddart, 1781:56 (Ambon)
Ophisurus colubrinus var. semicincta—Regan, 1908:220

(Chagos Archipelago)
Myrichthys colubrinus—McCosker, 1977:78 (Indo-Pacific)

MATERIAL
Five lots, 7 specimens, 172–645 mm SL, 0–3 m, lagoon, intertidal, and reef-flat at Eagle Island, Peros Banhos, and Salomon (photos: 395 and 565 mm). Indo-Pacific.

Myrichthys maculosa (Cuvier)  Fig. 56
Muraena maculosa Cuvier, 1817:232 (no locality given)
Myrichthys maculosa—McCosker, 1977:78 (Indo-Pacific)

MATERIAL
Nine lots, 27 specimens, 89–342 mm SL, 0–7 m, lagoon, intertidal, reef-flat, and reef-top at Diego Garcia, Eagle Island, and Peros Banhos (photos: 230, 276, and 342 mm). Indo-Pacific.

Ophisurus serpens (Linnaeus)  Fig. 57
Muraena serpens Linnaeus, 1758:244 (Atlantic)
Ophisurus serpens—McCosker, 1977:82 (Indo–west Pacific; eastern Atlantic and Mediterranean)

MATERIAL
Two lots, 2 specimens, 83–233 mm SL, 3–36 m, lagoon and drop-off at Peros Banhos (photo: 233 mm). Distribution anomalous, eastern Atlantic to Indo–west Pacific.

Schismorhynchus labialis (Seale)  Fig. 58
Muraenichthys labialis Seale, 1917:79 (Marshall Islands)
Schismorhynchus labialis—McCosker, 1977:61 (Indo-Pacific)

MATERIAL
One lot, 4 specimens, 63–72 mm SL, 0–0.5 m, lagoon at Eagle Island (photo: 65 mm). Indo-Pacific.

Schultzidia johnstonensis (Schultz and Woods)  Fig. 59
Muraenichthys johnstonensis Schultz and Woods, 1949:172 (Johnston Island)
Schultzidia johnstonensis—McCosker, 1977:62 (central and west Pacific)

MATERIAL
One lot, 1 specimen, 73 mm SL, 7 m, lagoon at Three Brothers. This is apparently the first record of this species from the Indian Ocean. Indo-Pacific.

Clupeidae

Spratelloides delicatulus (Bennett)  Fig. 60
Clupea delicatulus Bennett, 1831:168 (Mauritius)
Spratelloides delicatulus—Whitehead and Wongratana, 1984a:51 (Indo–west Pacific east to Samoa)
MATERIAL

Engraulididae

Thryssa setirostris (Broussonet)  
_Clupea setirostris_ Broussonet, 1782:unpaginated (Vanuatu)  
_Thryssa setirostris_—Whitehead and Wongratana, 1984b:26 (Indo–west Pacific, including Chagos)

No specimens seen or collected; occurrence is based on the range map given by Whitehead and Wongratana (1984b). Indo–west Pacific.

Synodontidae

Saurida gracilis (Quoy and Gaimard)  
*Saurus gracilis*_ Quoy and Gaimard, 1824:224 (Hawaii)  
*Saurida gracilis_*—Cressey and Waples, 1984:7 (Indo-Pacific, including Chagos)

**MATERIAL**
Twenty-four lots, 59 specimens, 50–180 mm SL, 0–32 m, primarily lagoon (4 lots from drop-off, 1 from reef-top) at Peros Banhos, Salomon, and Three Brothers (photos: 85, 115, and 149 mm). Only five specimens were collected in areas other than the lagoons. Within the lagoons, there were 4.2 specimens/lot in 0–5 m, 2.3 specimens/lot in both 6–15 m and 16–25 m, and one specimen from deeper water. Indo-Pacific.

*Saurida undosquamis* (Richardson)  
*Saurus undosquamis* Richardson, 1844–48:138 (northwest Australia)  
*Saurida undosquamis_*—Kyushin et al., 1977 (Chagos Archipelago); Cressey and Waples, 1984:3 (Indo–west Pacific, including Chagos)

No specimens seen or collected; the record is based on the above citations. Indo–west Pacific.

Synodus binotatus Schultz  
_Pl. IIIA_  
_Synodus binotatus_ Schultz, 1953a:35 (Marshall Islands); Cressey and Waples, 1984:13 (Indo-Pacific, including Chagos)

**MATERIAL**
Six lots, 10 specimens, 29–119 mm SL, 3–15 m, lagoon and reef-top (once) at Peros Banhos and Salomon (photo: 53 mm). Specimens of this genus were identified by Dr R. Cressey. Indo-Pacific.

*Synodus englemani* Schultz  
_Pl. IIIIB_  
*Synodus englemani* Schultz, 1953a:41 (Marshall Islands); Cressey and Waples, 1984:15 (Indo-Pacific, including Chagos)

**MATERIAL**
Ten lots, 21 specimens, 35–126 mm SL, 0–40 m, mainly lagoon (1 reef-top, 1 drop-off) at Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 35, 50, and 117 mm). Indo-Pacific.

*Synodus jaculum* Russell and Cressey  
_Pl. IIIIC_  
*Synodus jaculum* Russell and Cressey, 1979:169 (Great Barrier Reef); Cressey and Waples, 1984:21 (Indo-Pacific, including Chagos)

**MATERIAL**
Five lots, 6 specimens, 49–75 mm SL, 0–20 m, lagoon only at Eagle Island and Peros Banhos (photos: 49 and 51 mm). Indo-Pacific.

*Synodus variegatus* (Lacepède)  
_Pl. IIIB_  
*Salmo variegatus* Lacepède, 1803:157, 224 (Mauritius)  
*Synodus variegatus_*—Cressey and Waples, 1984:27 (Indo-Pacific, including Chagos)

**MATERIAL**
Nine lots, 45 specimens, 31–125 mm SL, 0–10 m, lagoon only at Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 48, 65, 96, and 106 mm). 

The specimen of _S. variegatus_ recorded from Chagos by Kyushin et al. (1977:24) appears, from the photograph, to be _S. englemani_. This is a shallow-water species; 66% of the specimens were taken in 0–5 m with a mean of 7.5 specimens/lot. Indo-Pacific.

Chanidae

*Chanos chanos* (Forsskål)  
*Mugil chanos* Forsskål, 1775:74 (Jiddah, Red Sea)  
*Chanos salmoneus_*—Regan, 1908:219 (Diego Garcia)  
*Chanos chanos_*—Whitehead, 1984:1 (Indo-Pacific)

No specimens collected, but we saw a number of them on several occasions. At Eagle Island, a small school of large (ca 1 m) _Chanos_ regularly fed by filtering the surface waters of the lagoon at about dusk. Approximately six similarly sized specimens were observed in a 50-m-diameter pool, separated from the sea by a vegetated sand-bar about 20 m wide and 2 m above the high-spring-tide mark, on the southeast end of Petite Sœur, Peros Banhos.
Gobiesocidae

Material of this family was identified by Dr J. C. Briggs.

Aspasmodes sp.
MATERIAL
One lot, 1 specimen, 7 mm SL, 0–3 m, spur-and-groove formation at Salomon. Range unassigned.

Lepadichthys bolini Briggs Fig. 63
Lepadichthys bolini Briggs, 1962:424 (Vanuatu); Briggs, 1969:464 (Seychelles)

MATERIAL
Two lots, 4 specimens, 11–16 mm SL, 3–13 m, lagoon at Peros Banhos and Salomon (photo: 15 mm). Indo–West Pacific.

Antennariidae

Antennarius coccineus (Cuvier) Fig. 64
Chironectes coccineus Cuvier in Lesson, 1830:143 (Mauritius)
Antennarius coccineus—Regan, 1908:250 (Peros Banhos); Schultz, 1957:97 (Indo–Pacific)

MATERIAL
Fourteen lots, 20 specimens, 7–65 mm SL, 3–25 m, lagoon, reef-top, and drop-off at Peros Banhos, Salomon, and Three Brothers (photos: 10, 18, 20, 21×2, 22, 32×2, 35, 44, and 65 mm). The specimens were identified by Dr T. W. Pietsch. Indo-Pacifc.

Ophidiidae

Brotula multibarbata Temminck and Schlegel Fig. 65
Brotula multibarbata Temminck and Schlegel, 1842:251 (Japan); Springer, 1982:66 (Indo–Pacific)

MATERIAL
Seven lots, 8 specimens, 47–245 mm SL, 0–36 m, reef-top and drop-off at Peros Banhos and Salomon (photos: 39, 86, and 105 mm). Indo–Pacific.

Bythitidae

Brosmophyciops pautzkei Schultz Fig. 66

MATERIAL
Fifteen lots, 26 specimens, 7–53 mm SL, 4–43 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 32, 34, 39, and 53 mm). Indo–Pacific.

Dinematichthys iluocoeteoides Bleeker
Dinematichthys iluocoeteoides Bleeker, 1855a:318 (Batu)

MATERIAL
Thirty-three lots, 150 specimens, 5–97 mm SL, 0–43 m, lagoon, intertidal, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photo: 91 mm).

Identification of this species is tentative since the genus is badly in need of revision. As a result, a statement of recorded range may well be inaccurate and is not attempted. The species was most abundant in the lagoons, where the 20 collections had a mean of 6.5 specimens/collection. The four reef-top collections had a mean of 2.3 specimens/collection; the other habitats had means of fewer than 2 specimens/lot. Most specimens (91%) were collected at a depth of 0–15 m, with a mean of 6 specimens/lot. The above analyses are dependent on there being only a single species in our material. Range unassigned.

Carapidae

Specimens of this family were identified by Dr D. F. Markle.

Carapus homei (Richardson) Fig. 68
Oxybelus homei Richardson, 1844–48:74 (“Seas of Australia?”)
Fiersafer homei—Regan, 1908:220 (Diego Garcia)
Fiersafer neglectus—Regan, 1908:220 (Salomon)
Carapus homei—Arnold, 1956:273 (Indo–Pacific)

MATERIAL
One lot, 3 specimens, 75–125 mm TL, 7 m, lagoon at Peros Banhos (photo: 125 mm). The three specimens were taken from large (ca 40 cm body length) sand-dwelling holothurians, which were a dirty white colour, sprinkled with dark specks (= Stichopus variegatus?).

Arnold (1956) synonymized Fiersafer neglectus Peters, and, with less certainty, Oxybelus lumbroicoides Bleeker with C. homei. Specimens of these two nominal species were recorded from Salomon by Regan (1908). The Gardiner collection contains two lots of carapids from Salomon at present identified as C. homei. One lot is correctly identified; the other represents the species below, to which we tentatively assign Regan’s (1908) record of Fiersafer lumbricooides. Indo–Pacific.

Encheliophis gracilis (Bleeker) Fig. 69
Oxybeles gracilis Bleeker, 1856c:105 (Banda)
?Fiersafer lumbroicoides—Regan, 1908:220 (Salomon)
Encheliophis gracilis—Arnold, 1956:299 (Indo–Pacific east to Tahiti)
MATERIAL
Three lots, 4 specimens, 73–136 mm TL, 0–1 m, intertidal at Eagle Island and Peros Banhos (photos: 73 and 136 mm). We follow Williams (1984) in regarding Jordanicus as a synonym of Encheliophis. Indo-Pacific.

Exocoetidae

No flyingfishes were collected during our expedition, and the following occurrences are based on the area shaded on the distribution maps in Parin (1984).

Regan (1908:220) recorded “Exocoetus nigripinnis Valenciennes” from Salomon. The specimen appears to be a juvenile Hirundichthys with two unbranched pectoral-fin rays. The only species listed by Parin (1984) with this condition is H. rondeletii (Valenciennes), which has not been recorded north of 35°S in the Indian Ocean. Status and range have, therefore, not been assigned.

Cheilopogon cyanopterus (Valenciennes)

Exocoetus cyanopterus Valenciennes in Cuvier and Valenciennes, 1846b:97 (Bahia)

Cheilopogon cyanopterus—Parin, 1984:7 (circumtropical, including Chagos)

Cheilopogon furcatus (Mitchill)

Exocoetus furcatus Mitchill, 1815:449 (New York)

Cheilopogon furcatus—Parin, 1984:9 (circumtropical, including Chagos)

Cheilopogon nigricans (Bennett)

Exocoetus nigricans Bennett, 1840:287 (Atlantic and Pacific oceans)

Cheilopogon nigricans—Parin, 1984:11 (circumtropical, including Chagos)

Cypselurus naresii (Günther)

Exocoetus naresii Günther, 1889:36 (between Fiji and Vanuatu)

Cypselurus naresii—Parin, 1984:15 (Indo-Pacific, including Chagos)

Cypselurus poecilopterus (Valenciennes)

Exocoetus poecilopterus Valenciennes in Cuvier and Valenciennes, 1846b:112 (New Britain)

Cypselurus poecilopterus—Parin, 1984:19 (Indo-Pacific, including Chagos)

Exocoetus monocirrhus Richardson

Exocoetus monocirrhus Richardson, 1846:265 (Sea of China); Parin, 1984:23 (Indo-Pacific, including Chagos)

Exocoetus volitans Linnaeus

Exocoetus volitans Linnaeus, 1758:316 (Atlantic Ocean);

Parin, 1984:21 (Indo-Pacific, including Chagos)

Hirundichthys speculiger (Valenciennes)

Exocoetus speculiger Valenciennes in Cuvier and Valenciennes, 1846b:94 (Indian Ocean)

Hirundichthys speculiger—Parin, 1984:27 (circumtropical, including Chagos)

Parexocoetus brachypterus (Richardson)

Exocoetus brachypterus Richardson, 1846:265 (Tahiti)

Parexocoetus brachypterus—Parin, 1984:33 (Indo-Pacific, including Chagos)

Prognichthys sealei Abe

Prognichthys sealei Abe, 1955:185 (Miyako Island); Parin, 1984 (Indo-Pacific, including Chagos)

Hemiramphidae

Hyporhamphus affinis (Günther)

Fig. 70

Hemiramphus affinis Günther, 1866b:267 (South Seas)

Hyporhamphus affinis—Parin et al., 1980:73 (Indo-Pacific)

MATERIAL

One lot, 1 specimen, 77 mm SL, 3–5 m, lagoon at Peros Banhos (photo). Identified by Dr B. B. Collette. Indo-Pacific.

Belonidae

No material of the first three species listed was obtained; occurrences are based on the literature cited.

Ablennes hians (Valenciennes)

Belone hians Valenciennes in Cuvier and Valenciennes, 1846a:432 (Cuba)

Ablennes hians—Collette, 1984a:3 (cosmopolitan, including Chagos)

Platybelone argalus platyura (Bennett)

Belone platyura Bennett, 1831:168 (Mauritius)

Platybelone argalus platyura—Collette, 1984a:5 (Indo-Pacific, including Chagos)

Tylosurus acus melanotus (Bleeker)

Belone melanotus Bleeker, 1851a:94 (Java)

Tylosurus acus melanotus—Collette, 1984a:11 (Indo-Pacific, including Chagos)

Tylosurus crocodilus crocodilus (Peron and Le Sueur)*

Fig. 71

Belone crocodilus Peron and Le Sueur in Le Sueur, 1821:129 (Mauritius)
Tylosurus crocodilus crocodilus—Collette, 1984a:13 (cosmopolitan)

**MATERIAL.**
Five lots, 6 specimens, 303–700 mm SL, 0–2 m, lagoon and reef-flat at Eagle Island, Peros Banhos, and Salomon (photos: 303, 404, and 700 mm). The identity of the above material was confirmed by Dr B. B. Collette.

**Atherinidae**
The atherinids collected were identified by Dr W. Ivantsoff.

*Atherinomorus lacunosus* (Schneider)  
Fig. 72  
*Atherina lacunosus* Schneider in Bloch and Schneider, 1801:112 (New Caledonia)  
*Atherinomorus lacunosus*—Ivantsoff, 1984:9 (Indo-Pacific)

**MATERIAL.**
Five lots, 108 specimens, 49–93 mm SL, 0.5–2.5 m, lagoon and reef-flat at Diego Garcia and Peros Banhos, (photo: 85 mm). A large school of this species was frequently observed in very shallow water (20–30 cm) between the jetty and the northwest shore of Isle du Coin, Peros Banhos. Indo-Pacific.

*Hypoatherina barnesi* Schultz  
Fig. 73  
*Hypoatherina barnesi* Schultz, 1953d:304 (Marshall Islands); Ivantsoff, 1984:13 (Indo-Pacific, including Chagos)

**MATERIAL.**
Four lots, 66 specimens, 15–45 mm SL, 3–15 m, lagoon and reef-top at Peros Banhos and Salomon. Indo-Pacific.

**Berycidae**
No specimens of this family were collected; occurrences are based on the literature cited.

*Beryx decadactylus* Cuvier  
*Beryx decadactylus* Cuvier in Cuvier and Valenciennes, 1829a:222 (locality unknown); Shimizu, 1984:3 (Chagos Archipelago); Woods and Sonoda, 1973:282 (cosmopolitan)

*Beryx splendens* Lowe  
*Beryx splendens* Lowe, 1833:142 (Madeira); Shimizu, 1984:5 (Chagos Archipelago); Woods and Sonoda, 1973:286 (cosmopolitan)

**Holocentridae**

*Myripristis adustus* Bleeker  
*Myripristis adustus* Bleeker, 1853a:108 (Ambon); Randall, 1984d:5 (Indo-Pacific, including Chagos)

**MATERIAL.**
Seven lots, 7 specimens, 39–225 mm SL, 0–43 m, lagoon, reef-top, and reef-flat at Diego Garcia, Peros Banhos, and Salomon (photo: 171 mm). Indo-Pacific.

*Myripristis berndti* Jordan and Evermann  
Fig. 75  
*Myripristis berndti* Jordan and Evermann, 1903:170 (Hawaii); Randall, 1984d:7 (Indo-Pacific, including Chagos)

**MATERIAL.**
Fifteen lots, 42 specimens, 41–168 mm SL, 0–43 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 78 and 146 mm). This species was most abundant in depths of 6–25 m (74% of specimens collected). The breakdown by habitat showed 46% of the total number of specimens were taken in lagoons, 18% from reef-tops, and 28% from drop-offs. Indo-Pacific.

*Myripristis kuntee* Valenciennes  
Fig. 76  
*Myripristis kuntee* Valenciennes in Cuvier and Valenciennes, 1831a:487 (Mauritius); Randall, 1984d:9 (Indo-Pacific)

**MATERIAL.**
Four lots, 11 specimens, 81–135 mm SL, 14–25 m, reef-top and drop-off at Eagle Island, Peros Banhos, and Salomon. Indo-Pacific.

*Myripristis murdjan* (Forsskal)  
Fig. 77  
*Sciaena murdjan* Forsskal, 1775:48 (Jiddah, Red Sea)  
*Myripristis murdjan* Randall, 1984d:13 (Indo-Pacific, including Chagos)

**MATERIAL.**
Twenty-three lots, 213 specimens, 38–178 mm SL, 0–43 m, intertidal, lagoon, reef-top, and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 98 and 158 mm). This species was collected primarily on the drop-offs (78%, x/lot = 24 specimens) in depths of 16–35 m (70% of total specimens, x/lot = 49 specimens). Indo-Pacific.

*Myripristis pralinius* Cuvier  
Fig. 78  
*Myripristis pralinius* Cuvier in Cuvier and Valenciennes, 1829a:170 (New Ireland); Greenfield, 1974:22 (Indo-Pacific)

**MATERIAL.**
Fourteen lots, 90 specimens, 51–149 mm SL, 3–43 m, lagoon, reef-top (1), and drop-off at Peros Banhos and Salomon (photo: 51 mm). This species was virtually confined to the lagoons and drop-offs (1 specimen from reef-
Myripristis violaceus Bleeker

Fig. 79
Myripristis violaceus Bleeker, 1851b:234 (Banda); Randall, 1984d:15 (Indo-Pacific)

MATERIAL
Seventeen lots, 79 specimens, 31–145 mm SL, 0–25 m, lagoon, reef-top, and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 98 and 130 mm). In collections in which it was taken, this species was fairly evenly distributed with respect to both habitat and depth (x/collection = 4.8 in lagoons, 7.5 on reef-tops, 3.2 on drop-offs, 5.2 in 0–5 m, 5.3 in 6–15 m, and 3.2 in 16–25 m). No specimens were collected deeper than 25 m. Indo-Pacific.

Myripristis vittatus Valenciennes
Pl. IIIID
Myripristis vittatus Valenciennes in Cuvier and Valenciennes, 1831a:492 (Mauritius); Greenfield, 1974:18 (Indo-Pacific)

MATERIAL
Twelve lots, 218 specimens, 55–146 mm SL, 15–48 m, drop-off only at Peros Banhos and Salomon (photos: 91 and 105 mm). The greatest numbers of this species were collected in caves on the drop-offs; it was somewhat more abundant at deeper depths (x/lot = 15.7 at 16–25 m, 20.7 at greater depths). Indo-Pacific.

Neoniphon argenteus (Valenciennes)
Fig. 80
Holocentrum argenteum Valenciennes in Cuvier and Valenciennes, 1831a:502 (New Guinea)
Neoniphon argenteus—Randall and Heemstra, 1985:3 (Indo-Pacific, including Chagos)

MATERIAL
Three lots, 12 specimens, 29–125 mm SL, 0–10 m, lagoon at Diego Garcia and Salomon. Indo-Pacific.

Neoniphon opercularis (Valenciennes)
Fig. 81
Holocentrum opercularis Valenciennes in Cuvier and Valenciennes, 1831a:501 (New Ireland)
Neoniphon opercularis—Randall, 1984d:17 (Indo-Pacific, including Chagos)

MATERIAL
Seven lots, 7 specimens, 89–231 mm SL, 0–43 m, lagoon and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 161 and 212 mm). Indo-Pacific.

Neoniphon sammara (Forsskål)
Fig. 82
Sciaena sammara Forsskål, 1775:48 (Jiddah, Red Sea)

Neoniphon sammara—Randall, 1984d:19 (Indo-Pacific, including Chagos)

MATERIAL
Ten lots, 29 specimens, 30–164 mm SL, 0–48 m, lagoon and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 49, 70, 75, 92 [x 2], 144, and 164 mm). This species was taken primarily in shallow lagoonal habitats (93% of specimens from lagoons, 90% in 0–5 m). Indo-Pacific.

Plectrypops lima (Valenciennes)
Fig. 83
Myripristis lima Valenciennes in Cuvier and Valenciennes, 1831a:493 (Mauritius)
Holotrichys lima—Gosline and Brock, 1965:144 (Hawaii); Randall, 1973:181 (Tahiti)

MATERIAL
Three lots, 3 specimens, 98–113 mm SL, 15–43 m, drop-off only at Peros Banhos and Salomon (photo: 113 mm). Indo-Pacific.

Sargocentron caudimaculatum (Rüppell)
Fig. 84
Holocentrus caudimaculatum Rüppell, 1838:97 (Red Sea)
Sargocentron caudimaculatum—Randall, 1984d:23 (Indo-Pacific, including Chagos)

MATERIAL
Nineteen lots, 50 specimens, 43–151 mm SL, 3–25 m, lagoon, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 130 mm). This species was most abundant on the reef-tops and drop-offs (83% of specimens collected), in 6–25 m (92% of specimens collected). Indo-Pacific.

Sargocentron diadema (Lacepède)
Fig. 85
Holocentrus diadema Lacepède, 1802b:335 (South Seas)
Adiorxyx diadema—Kyushin et al., 1977:54 (Chagos Archipelago)
Sargocentron diadema—Randall and Heemstra, 1985:8 (Indo-Pacific east to Society Islands)

MATERIAL
Nineteen lots, 110 specimens, 39–123 mm SL, 0–32 m, lagoon (except 2 reef-top, 2 reef-flat, 1 drop-off) at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 50 and 54 mm). This is primarily a shallow-water species (80% of specimens collected in 0–5 m) and was more concentrated on the reef-flats (23.5 specimens/lot) than in the lagoons (4.2 specimens/lot). Indo-Pacific.

Sargocentron inaequalis Randall and Heemstra
Pl. IIIE
Sargocentron inaequalis Randall and Heemstra, 1985:8
(Chagos Archipelago; also Seychelles and Comoro Islands)

MATERIAL
One lot, 1 specimen (holotype), 72 mm SL, 6–10 m, reef-top at Salomon (photo). Western Indian Ocean.

_Sargocentron macrosquamis_ (Golani) Fig. 86
_Sargocentron macrosquamis_ Golani, 1984:40 (Amirante Islands; also Red Sea); Randall and Heemstra, 1985:11 (western Indian Ocean, including Chagos)

MATERIAL
One lot, 1 specimen, 65 mm SL, 7–10 m, reef-top at Salomon. Western Indian Ocean.

_Sargocentron microstoma_ (Günther) Fig. 87
_Holocentrum microstoma_ Günther, 1859:34 (Ambon)
Adioryx microstoma—Randall and Heemstra, 1985:13 (Indo-Pacific, including Chagos)

MATERIAL
Four lots, 4 specimens, 92–147 mm SL, 3–17 m, lagoon and reef-top at Eagle Island and Peros Banhos (photos: 109 and 147 mm). Indo-Pacific.

_Sargocentron punctatissimum_ (Cuvier) Fig. 88
_Holocentrum punctatissimum_ Cuvier in Cuvier and Valenciennes, 1829a:215 (Caroline Islands)
_Sargocentron punctatissimum_—Randall and Heemstra, 1985:15 (Indo-Pacific east to Easter Island)

MATERIAL
Ten lots, 78 specimens, 45–103 mm SL, 0–20 m, lagoon, reef-flat, and reef-top at Eagle Island, Peros Banhos, and Salomon (photo: 93 mm). Only a single collection was made in the spur-and-groove formation, and this would seem to be the preferred habitat of this species (55 specimens, 71% of total, the next largest collection containing 6 specimens). Indo-Pacific.

_Sargocentron seychellense_ (Smith and Smith) Fig. 89
_Holocentrus seychellensis_ Smith and Smith, 1963:9 (Seychelles)
_Sargocentron seychellense_—Randall and Heemstra, 1985:18 (western Indian Ocean, including Chagos)

MATERIAL
One lot, 1 specimen, 166 mm SL, 1–3 m, reef-top at Diego Garcia. Western Indian Ocean.

_Sargocentron spiniferum_ (Forsskål) Fig. 90
_Sciaena spinifera_ Forsskål, 1775:49 (Jiddah, Red Sea)
_Sargocentron spiniferum_—Randall, 1984d:29 (Indo-Pacific, including Chagos)

MATERIAL
Twelve lots, 16 specimens, 41–319 mm SL, 0–25 m, lagoon and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 135 and 295 mm). Indo-Pacific.

_Sargocentron tiere (Cuvier) Fig. 91
_Holocentrum tiere_ Cuvier in Cuvier and Valenciennes, 1829a:202 (Tahiti)
_Sargocentron tiere_—Randall and Heemstra, 1985:20 (Indo-Pacific, including Chagos, east to Pitcairn Island)

MATERIAL
Three lots, 3 specimens, 200–222 mm SL, 7–25 m, reef-top and drop-off at Peros Banhos (photo: 222 mm). Indo-Pacific.

_Sargocentron tiereoides_ (Bleeker) Pl. IIIF
_Holocentrum tiereoides_ Bleeker, 1853e:334 (Ambon)
_Sargocentron tiereoides_—Randall and Heemstra, 1985:21 (Indo-Pacific, including Chagos, east to Tahiti)

MATERIAL
Six lots, 8 specimens, 29–129 mm SL, 0–25 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 38 and 111 mm). Indo-Pacific.

_Sargocentron violaceum_ (Bleeker) Fig. 92
_Holocentrum violaceum_ Bleeker, 1853e:335 (Ambon)
_Sargocentron violaceum_—Randall and Heemstra, 1985:21 (Indo-Pacific, including Chagos, east to Tahiti)

MATERIAL
Three lots, 4 specimens, 82–147 mm SL, 0–15 m, lagoon at Salomon (photo: 132 mm). Indo-Pacific.

_Aulostomidae_

_Aulostomus chinensis_ (Linnaeus) Fig. 93
_Fistularia chinensis_ Linnaeus, 1766:515 (India)
_Aulostomus chinensis_—Fritzsche, 1984a:3 (Indo-Pacific, including Chagos)

MATERIAL
Two lots, 2 specimens, 158–179 mm SL, 18–43 m, drop-off at Salomon (photo: 158 mm). Indo-Pacific.

_Fistulariidae_

_Fistularia commersonii_ Rüppell Fig. 94
_Fistularia commersonii_ Rüppell, 1838:142 (Red Sea); Fritzsche, 1984b:5 (Indo-Pacific, including Chagos)
**Material**

Four lots, 4 specimens, 137–254 mm SL, 0–1 m, lagoon at Peros Banhos and Salomon (photo: 137 mm). Indo-Pacific.

**Fistularia petimba Lacepède**

*Fistularia petimba* Lacepède, 1803:349 (New Britain; Réunion; equatorial Pacific); Fritzsche, 1984b:3 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence based on Fritzsche (1984b). Indo-Pacific.

**Syngnathidae**

The pipefishes were identified by Dr C. E. Dawson.

**Choeroichthys brachysoma (Bleeker)** Fig. 95

*Syngnathus brachysoma* Bleeker, 1855a:327 (Batui)

*Choeroichthys brachysoma*—Dawson, 1985:32 (Indo-Pacific, east to Society Islands)

**MATERIAL**

Four lots, 4 specimens, 22–39 mm SL, 0–7 m, lagoon and reef-top at Peros Banhos (photos: 22, 37, and 39 mm). Indo-Pacific.

**Choeroichthys sculptus (Günther)** Fig. 96

*Doryichthys sculptus* Günther, 1870:185 (Fiji)

*Choeroichthys sculptus*—Dawson, 1985:34 (Indo-Pacific, including Chagos, east to Tuamotu Islands)

**MATERIAL**

Three lots, 9 specimens, 33–56 mm SL, 0–1 m, reef-flat at Diego Garcia and Salomon. Indo-Pacific.

**Corythoichthys flavofasciatus (Rüppell)** Fig. 97

*Syngnathus flavofasciatus* Rüppell, 1838:144 (Jiddah, Red Sea)

*Corythoichthys flavofasciatus*—Dawson, 1985:396 (Indo-Pacific, including Chagos, east to Tuamotu Islands)

**MATERIAL**

Eleven lots, 45 specimens, 50–121 mm SL, 0–13 m, lagoon at Eagle Island, Peros Banhos, and Salomon (photos: 57, 108, and 115 mm). This shallow-water species was often observed on corals. The mean number of specimens/lot was 5.2 in 0–5 m and 3.3 in 5–15 m. Indo-Pacific.

**Corythoichthys schultzi Herald** Fig. 98

*Corythoichthys schultzi* Herald, 1953:271 (Marshall Islands); Dawson, 1985:46 (Indo-Pacific east to Marshall Islands)

**MATERIAL**

Two lots, 2 specimens, 80–128 mm SL, 3–20 m, lagoon at Peros Banhos (photo: 128 mm). Indo-west Pacific and marginally on the Pacific plate.

**Cosmocampus banneri (Herald and Randall)** Fig. 99

*Syngnathus banneri* Herald and Randall, 1972:135 (Ryukyus; also Marshall Islands)

*Cosmocampus banneri*—Dawson, 1985:51 (Indo-Pacific, including Chagos, east to Marshall Islands)

**MATERIAL**

Four lots, 4 specimens, 30–39 mm SL, 10–25 m, lagoon, reef-top, and drop-off at Eagle Island and Peros Banhos. Indo-west Pacific and marginally on the Pacific plate.

**Doryrhamphus excisus excisus Kaup** Fig. 100

*Doryrhamphus excisus excisus* Kaup, 1856b:54 (no locality)

*Doryrhamphus excisus excisus*—Dawson, 1985:61 (Indo-Pacific, including Chagos, east to Galápagos Islands)

**MATERIAL**

One lot, 2 specimens, 44–49 mm SL, lagoon at Diego Garcia. Indo-Pacific.

**Doryrhamphus multiannulatus (Regan)** Pl. IIIG

*Doryichthys multiannulatus* Regan, 1903:413 (Mauritius)

*Doryrhamphus multiannulatus*—Dawson, 1985:67 (western Indian Ocean, including Chagos)

**MATERIAL**

Four lots, 4 specimens, 119–126 mm SL, 10–25 m, lagoon and drop-off at Peros Banhos and Salomon (photo: 119 mm). Western Indian Ocean.

**Halicampus mataafae (Jordan and Seale)** Fig. 101

*Corythoichthys mataafae* Jordan and Seale, 1906:213 (Samoa)

*Halicampus mataafae*—Dawson, 1985:89 (Indo-Pacific, including Chagos, east to Marshall Islands)

**MATERIAL**

One lot, 1 specimen, 47 mm SL, 0–3 m, reef-flat at Salomon. Indo-west Pacific and marginally on the Pacific plate.

**Scorpaenidae**

Dr W. N. Eschmeyer identified most of the scorpaenids and provided the geographic ranges. In addition to the following list of species, there are 13 lots, 34 specimens of small (14–26 mm SL) scorpaenids that we were unable to identify.
**Parascorpaena aurita** (Rüppell)  
*Scorpaena aurita* Rüppell, 1838:106 (Red Sea)

**MATERIAL**

One lot, 1 specimen, 80 mm SL, 3–5 m, lagoon at Peros Banhos. The specimen collected agrees generally with the description of this species, but has 16, rather than the more usual 17–18, pectoral-fin rays. Indo-west Pacific.

**Pontinus sp.**

*Pontinus macrocephalus*—Kyushin et al., 1977:328 (Chagos Archipelago) (*non* Sauvage, 1882)

No specimens collected. The record of Kyushin et al. (1977) is based on a single specimen, 228 mm SL, taken by vertical longline in 80–160 m. Eschmeyer (1983) recognized three valid described forms of *Pontinus* from the Indo-Pacific, as well as several undescribed species. We were unable to place the specimen figured and described by Kyushin et al. (1977), but it is most unlikely to be *P. macrocephalus* which is apparently confined to the Hawaiian Islands (Eschmeyer, 1983). Range unassigned.

**Pterois antennata** (Bloch)  
*Scorpaena antennata* Bloch, 1787:21 (Ambon)  
*Pterois antennata*—Randall, 1973:184 (Tahiti)

**MATERIAL**

Eight lots, 10 specimens, 28–107 mm SL, 3–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 66 and 105 mm). Indo-Pacific.

**Pterois miles** (Bennett)  
*Scorpaena miles* Bennett, 1828:30 (Sri Lanka)

**MATERIAL**

Two lots, 2 specimens, 147–173 mm SL, 0–4 m, lagoon at Salomon (photo: 147 mm). This species is generally referred to as *P. volitans*. However, Schultz (pers. comm.) separates the Indian Ocean form from that of the west-central Pacific, based on the shape of the spots in the median fins and on certain meristic differences. It is confined to the Indian Ocean, but reaches eastwards to the west coast of Sumatra. Indian Ocean and western extremity of west Pacific.

**Scorpaenodes albaiensis** (Evermann and Seale)  
*Hypomacrus albaiensis* Evermann and Seale, 1907:102 (Philippines)

**MATERIAL**

Seventeen lots, 35 specimens, 19–73 mm SL, 5–43 m, primarily drop-off (3 lots, 4 specimens from lagoon) at Peros Banhos and Salomon (photos: 64, 66, and 73 mm). The majority of our specimens (86%) were collected on the drop-offs, with 84% of the total being collected in water 16 m or more in depth. Indo-west Pacific.

**Scorpaenodes guamensis** (Quoy and Gaimard)  
*Scorpaena guamensis* Quoy and Gaimard, 1824:326 (Guam)  
*Scorpaenodes guamensis*—Randall, 1973:184 (Tahiti)

**MATERIAL**

Five lots, 15 specimens, 7–37 mm SL, 5–25 m, reef-top and drop-off at Peros Banhos and Salomon (photo: 26 mm). This species differs from *S. scaber* in having a slimmer body and shorter dorsal spines (length of fourth spine equals snout length or less vs to mid-pupil, and fourth spine extends from coronal spine above mid-pupil to lower one-third of orbit vs to suborbital ridge); in having no spine on the posteroverentral margin of the first suborbital vs such a spine being present at sizes >30 mm SL, or an acute margin being present at lesser lengths; and in having a more blotchy colour pattern vs being speckled (especially on the caudal fin). *Scorpaenodes guamensis* was collected only in depths greater than 5 m on the outer reefs, whereas *S. scaber* was taken only in less than 5 m, usually (92%) in the lagoons. Indo-Pacific.

**Scorpaenodes hirsutus** (Smith)  
*Parascorpaena hirsuta* Smith, 1957a:63 (Islo do Bazaruto)  
*Scorpaenodes hirsutus*—Eschmeyer and Randall, 1975:277 (Indo-Pacific, including Chagos)

**MATERIAL**

Five lots, 8 specimens, 18–25 mm SL, 0–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon. Indo-Pacific.

**Scorpaenodes kelloggi** (Jenkins)  
*Sebastopsis kelloggi* Jenkins, 1904:492 (Hawaii)  
*Scorpaenodes kelloggi*—Eschmeyer and Randall, 1975:279 (Indo-Pacific)

**MATERIAL**

Eight lots, 31 specimens, 8–26 mm SL, lagoon, intertidal, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon. Most of our specimens (72%) were collected on reef-tops in depths of 5–10 m. Indo-Pacific.

**Scorpaenodes parvipinnis** (Garrett)  
*Scorpaena parvipinnis* Garrett, 1863:105 (Hawaii)  
*Scorpaenodes parvipinnis*—Eschmeyer and Randall, 1975:280 (Indo-Pacific)
Scorpaenodes scaber (Ramsey and Ogilby)  Fig. 110
Sebastes scaber Ramsey and Ogilby, 1885:577 (Shark Reef, Australia)

Scorpaenopsis diabolus (Cuvier)  Fig. 111
Scorpaena diabolus Cuvier in Cuvier and Valenciennes, 1829b:312 (New Guinea)
Scorpaenopsis diabolus—Eschmeyer and Randall, 1975:305 (Indo-Pacific)

Scorpaenopsis fowleri (Pietschmann)  Fig. 112
Scorpaenodes fowleri Pietschmann, 1934:99 (Hawaii)
Scorpaenopsis fowleri—Eschmeyer and Randall, 1975:297 (central Pacific)

Scorpaenopsis gibbosa (Schneider)  Fig. 113
Scorpaena gibbosa Schneider in Bloch and Schneider, 1801:192 (America)
Scorpaenopsis gibbosa—Eschmeyer and Randall, 1975:305 (Indian Ocean)

Scorpaenopsis oxycephala (Bleeker)  Fig. 114
Scorpaena oxycephalus Bleeker, 1849:7 (Java)

Scorpaenopsis sp. 1  Pl. IIIH
MATERIAL
Eight lots, 9 specimens, 33–123 mm SL, 3–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 44, 66, 88, 93, and 123 mm). The material represents an undescribed species that will be described by Eschmeyer and Rama-Rao. Range unassigned.

Scorpaenopsis sp. 2  Pl. IVA
MATERIAL
Two lots, 2 specimens, 250–270 mm SL, 10–24 m, drop-off at Peros Banhos and Salomon (photo: 270 mm). The material represents an undescribed species that will be described by Eschmeyer and Rama-Rao. Range unassigned.

Sebastapistes cyanostigma (Bleeker)  Fig. 115
Scorpaena cyanostigma Bleeker, 1856g:385 (Indonesia)
Sebastes strongensis—Regan, 1908:235 (Salomon and Egmont, Chagos Archipelago) (non Cuvier in Cuvier and Valenciennes, 1829b)
Sebastapistes albobrunnea—Schultz, 1966a:27 (Marshall Islands)

Sebastapistes strongia (Cuvier)  Fig. 116
Scorpaena strongia Cuvier in Cuvier and Valenciennes, 1829b:323 (Caroline Islands)
Sebastapistes strongia—Poss and Rama-Rao, 1984:13 (western Indian Ocean)

Synanceia verrucosa Bloch and Schneider  Fig. 117
Synanceia verrucosa Bloch and Schneider, 1801:195 (India); Eschmeyer and Rama-Rao, 1973:357 (Indo-Pacific)

Taenianotus triacanthus Lacepède  Fig. 117
Taenianotus triacanthus Lacepède, 1802b:303 (no type
locality); Regan, 1908:236 (Salomon); Randall, 1973:185 (Tahiti)

**MATERIAL**

Two lots, 2 specimens, 57–62 mm SL, 3–24 m, lagoon and drop-off at Peros Banhos and Salomon (photos: both). Indo-Pacific.

**Caracanthidae**

*Caracanthus madagascariensis* (Guichenot)  Fig. 118  
*Crossoderma madagascariensis* Guichenot, 1869:195 (Madagascar)  
*Caracanthus maculatus*—Regan, 1908:237 (Chagos Archipelago)

**MATERIAL**

Eleven lots, 32 specimens, 16–38 mm SL, 0–24 m, lagoon, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 27 and 38 mm). The species is confined to the western and central Indian Ocean (Eschmeyer, pers. comm.).

*Caracanthus unipinna* (Gray)  Fig. 119  
*Micropus unipinnus* Gray, 1831:20 (Pacific Seas)  
*Caracanthus unipinna*—Regan, 1908:237 (Chagos Archipelago)

**MATERIAL**

Sixteen lots, 46 specimens, 13–32 mm SL, 0–25 m, lagoon, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photo: 28 mm). The majority of our specimens (9 lots, 38 specimens) were collected on the reef-top (3/collection = 4.2); the other habitats had a mean of less than 1.3 specimens/collection in which this species was taken. Indo-Pacific.

**Platycephalidae**

The flatheads were identified by Dr L. W. Knapp, who also provided the geographic ranges.

*Rogadius serratus* (Cuvier)  Fig. 120  
*Platycephalus serratus* Cuvier in Cuvier and Valenciennes, 1829b:259 (Sri Lanka)

**MATERIAL**

One lot, 1 specimen, 76 mm SL, 7 m, lagoon at Peros Banhos (photo). Indo–west Pacific (Pakistan to northern Queensland).

*Thysanophrys arenicola* Schultz  Fig. 121  
*Thysanophrys arenicola* Schultz, 1966b:60 (Marshall Islands)

**MATERIAL**

One lot, 1 specimen, 53 mm SL, 4–7 m, reef-top at Salomon. Indo–west Pacific and marginally on the Pacific plate.

*Thysanophrys otaitensis* (Cuvier)  Fig. 122  
*Platycephalus otaitensis* Cuvier, 1829:242 (Tahiti)  
*Thysanophrys otaitensis*—Knapp, 1984:4 (western Indian Ocean)

**Dactyloptera orientalis** (Cuvier)

*Dactylopterus orientalis* Cuvier in Cuvier and Valenciennes, 1829b:134 (Mauritius; also Waigao, Vizagapatam)  
*Dactyloptera orientalis*—Gosline and Brock, 1965:290 (Hawaii); Poss, 1984:5 (Indo–west Pacific, including Chagos, east to Japan)

No specimens seen or collected; occurrence is based on the range map given by Poss (1984). Indo-Pacific.

**Serranidae**

We here follow Johnson (1983) in including the Grammistidae and Pseudogrammistidae in this family, but we retain (for the present) the Anthiidae, Pseudochromidae (which includes the Pseudoplesiopidae), and Plesiopidae as distinct families.

*Aethaloperca rogaa* (Forsskål)  Fig. 123  
*Perca rogaa* Forsskål, 1775:38 (Jiddah, Red Sea)  
*Aethaloperca rogaa*—Heemstra and Randall, 1984:9 (Indo–west Pacific, including Chagos)

**MATERIAL**

Four lots, 5 specimens, 215–338 mm SL, 3–15 m, lagoon only at Peros Banhos (photo: 291 mm). This species was seen only on rare occasions and was never sighted or collected outside the lagoons. Indo–west Pacific.

*Anyperodon leucogrammicus* (Valenciennes)  Fig. 124  
*Serranus leucogrammicus* Valenciennes in Cuvier and Valenciennes, 1828:347 (Moluccas and Seychelles)  
*Anyperodon leucogrammicus*—Heemstra and Randall, 1984:11 (Indo–west Pacific, including Chagos)

**MATERIAL**

One lot, 1 specimen, 205 mm SL, 3–7 m, lagoon at Peros
Banhos (photo). The species appears to be rare at Chagos, as the above specimen was the only one seen during the entire expedition. However, Kyushin et al. (1977) report obtaining two specimens from Chagos by vertical longline in a depth of 28 m. Indo-west Pacific.

**Aporops allfreei Smith**  
Pl. IVB  
*Aporops allfreei* Smith, 1953:553 (Kisiti Island and Pemba Island)

**Material**

Four lots, 10 specimens, 16–59 mm SL, 0–7 m, primarily reef-top (n = 9) and lagoon, Peros Banhos and Salomon (photos: 15, 19, 48, and 59 mm). This species appears to be confined to the western and central Indian Ocean: it is replaced by *A. bilinearis* from Taiwan (Shen, 1984) to the Great Barrier Reef (Russell, 1983) and on the western portion of the Pacific plate (Schultz, 1943), and by *A. japonicus* in Japan (Schultz, 1966c). Western Indian Ocean.

**Belonoperca chabanaudi Fowler and Bean**  
Fig. 125  
*Belonoperca chabanaudi* Fowler and Bean, 1930:182 (Sulawesi; Borneo); Randall, Smith, and Aida, 1980:2 (Indo-Pacific, east to Samoa and Marshall Islands)

**Material**

One lot, 1 specimen, 67 mm SL, 20–25 m, drop-off at Salomon (photo). This species was sighted on three occasions, usually at the interface of the reef-top and drop-off. The specimen collected was taken about 3 m below the lip of the drop-off. Indo-west Pacific and marginally on the Pacific plate.

**Cephalopholis analis (Valenciennes)**  
Fig. 126  
*Serranus analis* Valenciennes in Cuvier and Valenciennes, 1828:307 (New Ireland)  
*Cephalopholis analis*—Heemstra and Randall, 1984:17 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**Material**

Fifteen lots, 42 specimens, 31–145 mm SL, 18–48 m, drop-off only at Peros Banhos and Salomon (photo: 128 mm). Randall (1985), in an addendum, states that the name for French Polynesian specimens reported as *C. analis* should be *C. spiloparaea* (Valenciennes in Cuvier and Valenciennes, 1828:338). Since *C. analis* has page priority over *C. spiloparaea*, it seems better to await the publication of Randall’s results in more detail, and the name *C. analis* is tentatively used here. Indo-Pacific.

**Cephalopholis argus Schneider**  
Fig. 127  
*Cephalopholis argus* Schneider in Bloch and Schneider, 1801:311 (East Indies); Heemstra and Randall, 1984:19 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**Material**

Twenty-two lots, 57 specimens, 41–282 mm SL, 0–43 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 239 mm).

An earlier name for this species, *C. guttata* (Bloch), is currently under review by the International Commission for Zoological Nomenclature, and we follow Randall and Ben-Tuvia (1983) in using *C. argus*. The majority of the specimens (61%; 8.8 specimens/lot) were collected in the intertidal region, with 77% of the total from less than 5 m, and 89% from less than 15 m. Indo-Pacific.

**Cephalopholis leopardus (Lacepède)**  
Fig. 128  
*Labrus leopardus* Lacepède, 1802a:450 (Indo-Pacific)  
*Cephalopholis leopardus*—Heemstra and Randall, 1984:29 (Indo-Pacific, including Chagos, east to French Polynesia)

**Material**

Twenty-five lots, 159 specimens, 31–107 mm SL, 3–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo: 61 mm). This species is primarily an inhabitant of the drop-offs (68% of specimens, 8/lot = 10.8), with 85% of the total number of specimens being collected in depths of 6–25 m. Indo-Pacific.

**Cephalopholis miniata (Forsskål)**  
Fig. 129  
*Perca miniata* Forsskål, 1775:41 (Jiddah, Red Sea)  
*Cephalopholis miniata*—Heemstra and Randall, 1984:13 (Indo-Pacific, including Chagos)

**Material**

Five lots, 6 specimens, 68–290 mm SL, 6–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 68, 245, and 290 mm). Indo-Pacific.

**Cephalopholis nigripinnis (Valenciennes)**  
Fig. 130  
*Serranus nigripinnis* Valenciennes in Cuvier and Valenciennes, 1828:339 (no locality)  
*Cephalopholis nigripinnis*—Kailola, 1975:92 (New Guinea)

**Material**

Eighteen lots, 86 specimens, 36–193 mm SL, 4–26 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 66 and 146 mm).

Most of our specimens (76%; 8/lot = 7.1) were collected from the reef-tops, with 77% of the total in 6–15 m. Heemstra and Randall (1984:31) imply that this species is confined to the Indian Ocean. We note Kailola’s record (1975) from New Guinea, although we have not verified the identification of her single specimen. Distribution insuffi-
Cephalopholis sexmaculata Rüppell Fig. 131
Cephalopholis sexmaculatus Rüppell, 1830a:107 (Red Sea); Randall, 1973:186 (Tahiti)

MATERIAL
Four lots, 6 specimens, 82–283 mm SL, 18–43 m, drop-off only at Peros Banhos and Salomon (photos: 97 and 283 mm). Indo-Pacific.

Cephalopholis sp. Pl. IVC

MATERIAL
One lot, 1 specimen, 37 mm SL, 0–0.75 m, reef-flat at Salomon (photo). Neither we, nor Dr Heemstra, nor Dr Randall were able to identify this specimen. Dr Randall suggested (in litt.) that it could possibly be a juvenile of C. boenack or C. pachycentron—neither of which has yet been found at Chagos. Range unassigned.

Epinephelus caeruleopunctatus (Bloch) Fig. 132
Holocentrus caeruleopunctatus Bloch, 1790:94 (no locality)
Epinephelus caeruleopunctatus—Heemstra and Randall, 1984:59 (Indo-west Pacific, including Chagos, east to Japan and Australia)

MATERIAL
Three lots, 3 specimens, 184–315 mm SL, 0–25 m, intertidal, reef-flat, and drop-off at Peros Banhos (photos: 184, 223, and 315 mm). Indo-west Pacific.

Epinephelus chlorostigma (Valenciennes)
Serranus chlorostigma Valenciennes in Cuvier and Valenciennes, 1828:352 (Seychelles)
Epinephelus chlorostigma—Kyushin et al., 1977:206 (Chagos Archipelago); Heemstra and Randall, 1984:61 (Indo-Pacific east to Caroline Islands)

No specimens seen or collected, based on record by Kyushin et al. (1977) of a specimen (or specimens) taken by vertical longline from Chagos in depths of 32–150 m. Indo-west Pacific and marginally on the Pacific plate.

Epinephelus fasciatus (Forsskål) Fig. 133
Perca fasciata Forsskål, 1775:40 (Râs Muhammad, Red Sea)
Epinephelus fasciatus—Heemstra and Randall, 1984:47 (Indo-Pacific, including Chagos, east to Pitcairn Island)

MATERIAL
One lot, 1 specimen, 98 mm SL, 0–0.5 m, reef-flat at Peros Banhos (photo). This species was only seen on a search-and-recovery dive in the pass between Petite Soeur and Isle Poule at Peros Banhos and on another dive off the pass at the north tip of Eagle Island in 10 m. On the latter occasion, numerous specimens were observed at the beginning of the dive (1300 h), but none was observed one hour later. Indo-Pacific.

Epinephelus faveatus (Valenciennes) Fig. 134
Serranus faveatus Valenciennes in Cuvier and Valenciennes, 1828:329 (Mauritius and Sri Lanka)
Epinephelus faveatus—Heemstra and Randall, 1984:67 (Indo-Pacific, including Chagos, east to Marshall Islands)

MATERIAL
Five lots, 14 specimens, 55–197 mm SL, 0–1 m, intertidal and reef-flat at Diego Garcia, Eagle Island, and Peros Banhos (photo: 73 mm). This species is frequently referred to in the literature as E. megachir or E. macropilos. Indo-west Pacific and marginally on the Pacific plate.

Epinephelus flavocaeruleus (Lacepède)
Holocentrus flavocaeruleus Lacepède, 1802b:331 (Mauritius)
Epinephelus flavocaeruleus—Kyushin et al., 1977:194 (Chagos Archipelago); Heemstra and Randall, 1984:69 (Indo-Pacific east to Marshall Islands and Gilbert Islands)

This record is based on the report by Kyushin et al. (1977) of four specimens taken at Chagos, Andaman Islands, and the East Burma Sea by vertical longline in depths of 60–110 m. Indo-west Pacific and marginally on the Pacific plate.

Epinephelus hexagonatus (Schneider) Fig. 135
Holocentrus hexagonatus Schneider in Bloch and Schneider, 1801:323 (Tahiti)
Epinephelus hexagonatus—Kyushin et al., 1977:212 (Chagos Archipelago); Heemstra and Randall, 1984:71 (Indo-Pacific east to Marshall Islands)

MATERIAL
Twenty-one lots, 172 specimens, 45–224 mm SL, 0–25 m, lagoon, reef-flat, intertidal, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 112 and 162 mm). Most specimens were taken in the intertidal (20%) and reef-flat (67%) regions (x/lot = 8.5 and 18.5 specimens, respectively), with 92% of the total number of specimens collected in 0–5 m. Indo-west Pacific and marginally on the Pacific plate.

Epinephelus longispinis (Kner)
Serranus longispinis Kner, 1865:27 (Madras)
Epinephelus gaimardi—Kyushin et al., 1977:210 (non Valenciennes in Cuvier and Valenciennes, 1830b; Chagos Archipelago)
**Epinephelus longispinis**—Heemstra and Randall, 1984:75 (western Indian Ocean)

This record is from the figure and description of *E. gainardi* given by Kyushin et al. (1977) based on 12 specimens obtained at five localities (one of which was Chagos). Their specimens were taken by vertical longline in 32–65 m. As pointed out by Heemstra and Randall (1984), *E. longispinis* is frequently misidentified as *E. gainardi*, which itself is a junior synonym of *E. miliaris* (Valenciennes). The colour figures given by Kyushin et al. (1977) leave little doubt that their specimens are *E. longispinis*. Western Indian Ocean.

**Epinephelus merra** Bloch

![Fig. 136](image)

*Epinephelus merra* Bloch, 1793:17 (Japan); Kyushin et al., 1977:214 (Chagos Archipelago); Heemstra and Randall, 1984:83 (Indo-Pacific east to French Polynesia)

**MATERIAL**

Ten lots, 459 specimens, 43–157 mm SL, 0–7 m, lagoon, intertidal, and reef-flat at Eagle Island, Three Brothers, and Peros Banhos (photo: 63 mm). This species was the dominant small serranid in very shallow water. Ninety-nine per cent of the specimens were taken in less than 1 m, with 73% from the intertidal zone and 26% from the reef-flat. Indo-Pacific.

**Epinephelus microdon** (Bleeker)

![Fig. 137](image)

*Epinephelus microdon* Bleeker, 1856b:86 (Java)

*Epinephelus microdon*—Kyushin et al., 1977:230 (Chagos Archipelago); Randall, 1973:186 (Tahiti)

**MATERIAL**

Seven lots, 7 specimens, 170–417 mm SL, 0–43 m, lagoon, reef-flat, reef-top, and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 201 and 353 mm). Indo-Pacific.

**Epinephelus miliaris** (Valenciennes)

*Epinephelus miliaris* Valenciennes *in* Cuvier and Valenciennes, 1830b:520 (New Guinea)

*Epinephelus fuscus*—Kyushin et al., 1977:216 (Chagos Archipelago)

*Epinephelus miliaris*—Heemstra and Randall, 1984:87 (Indo–west Pacific)

No specimens seen or collected. Kyushin et al. (1977) record *E. fuscus* Fourmanoir, 1963, from Chagos, and their photograph of this species corresponds to *E. miliaris*. Heemstra and Randall (1984) point out that both *E. fuscus* and *E. dictiophorus* (Bleeker, 1856c) are synonyms of *E. miliaris*. Indo–west Pacific.

**Epinephelus morrhua** (Valenciennes)

*Serranus morrhua* Valenciennes *in* Cuvier and Valenciennes, 1833:434 (Mauritius)

*Epinephelus cometae*—Kyushin et al., 1977:198 (Chagos Archipelago)

*Epinephelus morrhua*—Kyushin et al., 1977:200 (Chagos Archipelago); Heemstra and Randall, 1984:91 (Indo–west Pacific, including Chagos)

No specimens seen or collected; the record is based on the reports of Kyushin et al. (1977) and Heemstra and Randall (1984). The latter authors synonymize *E. cometae* Tanaka, 1927, in *E. morrhua*. Indo–west Pacific.

**Epinephelus multinotatus** (Peters)

*Serranus multinotatus* Peters, 1876:435 (Mauritius/Seychelles)

*Epinephelus leprosus*—Kyushin et al., 1977:226 (Chagos Archipelago)

*Epinephelus multinotatus*—Heemstra and Randall, 1984:93 (western Indian Ocean)

No specimens seen or collected; the record is based on the report of Kyushin et al. (1977) of a specimen taken by vertical longline in 40–100 m (as *E. leprosus* Smith, 1955a, which Heemstra and Randall [1984] treat as a synonym of *E. multinotatus*). Western Indian Ocean.

**Epinephelus poecilonotus** (Temminck and Schlegel)

*Serranus poecilonotus* Temminck and Schlegel, 1842:6 (Japan)

*Epinephelus poecilonotus*—Kyushin et al., 1977:202 (Chagos Archipelago); Heemstra and Randall, 1984:97 (Indo–west Pacific, including Chagos)

No specimens seen or collected; the record is based on the above literature sources. Indo–west Pacific.

**Epinephelus radiatus** (Day)

*Serranus radiatus* Day, 1867:699 (India)

*Epinephelus radiatus*—Heemstra and Randall, 1984:103 (Indo–west Pacific, including Chagos)

No specimens seen or collected; the record is based on Heemstra and Randall (1984). Indo–west Pacific.

**Epinephelus retouti** Bleeker

*Epinephelus retouti* Bleeker, 1868b:339 (Réunion); Heemstra and Randall, 1984:105 (southwestern Indian Ocean, including Chagos)

No specimens seen or collected. Kyushin et al. (1977),
obtained two specimens of what they identified as *E. truncatus* Katayama, 1957, from Chagos (vertical longline, 25–90 m). This species has been tentatively regarded as a synonym of *E. retouti* by Heemstra and Randall (1984). Western Indian Ocean.

**Epinephelus septemfasciatus (Thunberg)**

*Perca septemfasciata* Thunberg, 1793:56 (Japan)

?*Epinephelus compressus*—Kyushin et al., 1977:224 (Chagos Archipelago)

*Epinephelus septemfasciatus*—Heemstra and Randall, 1984:109 (southwestern Indian Ocean, including Chagos)

No specimens seen or collected. Heemstra and Randall (1984) report it from Mauritius, Réunion, and Chagos, in addition to the type locality in Japan. Indo-west Pacific.

**Epinephelus tauvina (Forsskål)**

Fig. 138

*Perca tauvina* Forsskål, 1775:39 (Jiddah, Red Sea)

*Epinephelus tauvina*—Heemstra and Randall, 1984:53 (Indo-Pacific)

**Gracila albomarginata (Fowler and Bean)**

Fig. 139

*Cephalopholis albomarginatus* Fowler and Bean, 1930:235 (Borneo)

*Gracila albomarginata*—Randall, 1973:186 (Tahiti); Heemstra and Randall, 1984:119 (Indo-west Pacific, including Chagos)

**Grammistes sexlineatus (Thunberg)**

Fig. 141

*Perca sexlineata* Thunberg, 1792:142 (Japan)

*Grammistes sexlineatus*—Regan, 1908:224 (Chagos Archipelago); Randall, 1984c:5 (Indo-Pacific, including Chagos)

**Material**

Five lots, 22 specimens, 17–90 mm SL, 0–3 m, lagoon and reef-flat at Peros Banhos and Salomon (photo: 77 mm). Indo-Pacific.

**Liopropoma africana (Smith)**

Fig. 142

*Chorisistium africatum* Smith, 1954b:866 (Tekomaji Island, Mozambique)

**Material**

Eight lots, 9 specimens, 27–56 mm SL, 18–48 m, drop-offs only at Peros Banhos and Salomon (photos: 36 and 56 mm). The genus is under revision by Randall and Taylor, to whom we have sent our specimens. The identification given above is tentative. Range unassigned.

**Liopropoma susumi (Jordan and Seale)**

Fig. 143

*Chorisistium susumi* Jordan and Seale, 1906:256 (Samoa); Smith, 1954b:862 (East Africa)

**Material**

Four lots, 4 specimens, 36–46 mm SL, 6–25 m, lagoon, reef-top, and drop-off at Peros Banhos, Salomon, and Three Brothers (photos: 44 mm [x 2]). The remarks made under *L. africana* also apply to this species. Range unassigned.

**Plectropomus areolatus Rüppell**

Plectropoma areolatum Rüppell, 1830b:index footnote (Red Sea)

**Material**

Two lots, 2 specimens, 308–373 mm SL, 3–7 m, lagoon at Peros Banhos. This species is distributed from the Red Sea east to Samoa and the Phoenix Islands (Randall, pers. comm.). Indo-west Pacific and marginally on the Pacific plate.

**Plectropomus laevis (Lacepède)**

Figs. 144, 145 and Pl. IVD

*Labrus laevis* Lacepède, 1802a:431 ("grande golfe de l‘Inde")

*Plectropomus melanoleucus*—Randall, 1973:186 (Tahiti)

*Plectropomus laevis*—Heemstra and Randall, 1984:127 (Indo-Pacific, including Chagos)

*Plectropomus truncatus*—Kyushin et al., 1977:186 (Chagos Archipelago)
PLATE I

A. Reef-top, west coast of Salomon.

B. Reef-top, south coast of Salomon.

C. Lip of drop-off, Salomon.

D. Drop-off, north coast of Salomon.

E. Reef-top near drop-off, Salomon.

F. Inside cave, 40 m, Peros Banhos.

G. Lagoon floor at Peros Banhos.

H. Lagoon floor at Salomon.
A. Carcharhinus albimarginatus.

B. Carcharhinus wheeleri.

C. Enchelycore pardalis, 109 mm SL.

D. Gymnothorax melatremus, 119 mm SL.

E. Gymnothorax sp. 1, 148 mm SL.

F. Gymnothorax sp. 2, 50 mm SL.

G. Gymnothorax sp. 3, 118 mm SL.

H. Uropterygius sp. 1, 180 mm SL.
A. Synodus binotatus, 53 mm SL.
B. Synodus englemani, 117 mm SL.
C. Synodus jaculum, 51 mm SL.
D. Myripristis vittatus, 91 mm SL.
E. Sargocentron inaequalis, 72 mm SL.
F. Sargocentron tiereoides, 38 mm SL.
G. Doryrhamphus multiannulatus, 119 mm SL.
H. Scorpaeopsis sp. 1, 123 mm SL.
A. *Scorpaenopsis* sp. 2, 270 mm SL.

B. *Aporops allfreei*, 48 mm SL.

C. *Cephalopholis* sp., 37 mm SL.

D. *Plectropomus laevis*.

E. *Anthias* sp., female.

F. *Anthias* sp., male.

G. *Mirolabrichthys evansi*.

H. *Nemanthias carberryi*.
A. *Apogon abrogramma?*, 93 mm SL.

B. *Apogon evermanni*, 64 mm SL.

C. *Caesio teres*, 95 mm SL.

D. *Caesio xanthonota*, 166 mm SL.

E. *Pterocaesio sp.*, 99 mm SL.

F. *Parapriacanthus ransonneti*.

G. *Amblyglyphidodon sp.*

H. *Amblyglyphidodon sp.*, 85 mm.
A. *Amphiprion chagosensis*, 41 mm SL.

B. *Amphiprion sp.*, 22 mm SL.

C. *Amphiprion sp.*, 53 mm SL.

D. *Chromis opercularis*, 41 mm SL.

E. *Chromis pembae*, 77 mm SL.

F. *Dascyllus aruanus*.

G. *Dascyllus carneus*, 43 mm SL.

H. *Pomacentrus sp.* 1.
A. *Pomacentrus* sp. 1, juvenile.

B. *Pomacentrus* sp. 1, adult.

C. *Sphyraena nigripinnis*, Salomon.

D. *Cheilinus undulatus*, Salomon.

E. *Cirrhilabrus rubrisquamis*, 41 mm SL.

F. *Halichoeres cosmetus*, 62 mm SL.

G. *Halichoeres iridis*, 45 mm SL.

H. *Labropsis xanthonota*, 40 mm SL.
A. *Paracheilinus mccoskeri*, 40 mm SL.

B. *Pseudocoris heteroptera*, 39 mm SL.

C. *Pseudocoris yamashiroi*, 61 mm SL.

D. *Cirripectes* sp., Salomon.

E. *Enneapterygus* sp., Peros Banhos.

F. *Helcogramma fuscopinna*, 32 mm SL.

G. *Monochirus* sp., 19 mm SL.

H. *Pervagor janthinosoma*, 38 mm SL.
MATERIAL
Three lots, 3 specimens, 230–567 mm SL, 0.75–42 m, lagoon and drop-off at Peros Banhos (photos: 230, 304, and 567 mm). The specimen of *P. truncatus* from Chagos reported on by Kyushin et al. (1977) apparently belongs to this species (Randall, pers. comm.). Indo-west Pacific.

*Plectropomus pessuliferus* Fowler
*Plectropoma pessuliferus* Fowler, 1904:520 (Padang)
*Plectropomus maculatus*—Kyushin et al., 1977:184 (Chagos Archipelago); Heemstra and Randall, 1984:129 (Indo-west Pacific)

No specimens seen or collected; the record is based on Kyushin et al. (1977). Indo-west Pacific.

*Plectropomus punctatus* Quoy and Gaimard
*Plectropoma punctata* Quoy and Gaimard, 1824:318 (Mauritius)
*Plectropomus punctatus*—Heemstra and Randall, 1984:131 (western Indian Ocean, including Chagos)

No specimens seen or collected; the record is based on Heemstra and Randall (1984). Western Indian Ocean.

*Promicrops lanceolatus* (Bloch)
*Holocentrus lanceolatus* Bloch, 1790:92 (East Indies)
*Promicrops lanceolatus*—Randall, 1985:470 (Society Islands)

MATERIAL
One lot, 1 specimen, ca 900 mm SL (head only kept), 25 m, lagoon at Salomon (photo). Indo-Pacific.

*Pseudogramma polyacantha* (Bleeker)
*Pseudochromis polyacantha* Bleeker, 1856a:375 (Ternate, Indonesia)
*Pseudogramma polyacantha*—Randall, 1973:187 (Tahiti)

MATERIAL
Thirty-five lots, 245 specimens, 7–49 mm SL, 0–26 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 12, 13, and 37 mm). This species was collected primarily on the reef-tops (\(\bar{x}/\text{lot} = 10.6\)) and drop-off (\(\bar{x}/\text{lot} = 7.8\)), which combined represented 86% of the specimens collected. It preferred a depth range of 6–25 m (\(\bar{x}/\text{lot} = 7.8\); 92% specimens collected). Indo-Pacific.

*Variola albimarginata* Baissac
*Variola albimarginata* Baissac, 1953:214 (Mauritius); Heemstra and Randall, 1984:141 (Indo-west Pacific)

MATERIAL
One lot, 2 specimens, 210–222 mm SL, 20 m, drop-off at Peros Banhos (photo: 210 mm). Indo-west Pacific.

*Variola louti* (Forsskål)
*Perca louti* Forsskål, 1775:40 (Red Sea)
*Variola louti*—Randall, 1973:186 (Tahiti); Kyushin et al., 1977:178 (Chagos Archipelago)

MATERIAL
Two lots, 2 specimens, 357–370 mm SL, 15–20 m, lagoon and drop-off at Peros Banhos (photo: 370 mm). Indo-Pacific.

**Anthiidae**

*Anthias squamipinnis* (Peters)*
*Serranus squamipinnis* Peters, 1855b:429 (Mozambique)
*Anthias squamipinnis*—Randall, 1983b:52 (Indo-west Pacific)

MATERIAL
Nineteen lots, 187 specimens, 19–74 mm SL, 6–48 m, drop-off, reef-top, and lagoon at Eagle Island, Peros Banhos, and Salomon (photos: 3 specimens). Most of our specimens (68%; \(\bar{x}/\text{lot} = 10.7\) specimens) were collected on the drop-offs; 61% of the total (\(\bar{x}/\text{lot} = 12.7\) specimens) were taken in depths of 6–15 m. Indo-west Pacific.

*Anthias sp.*

**Pl. IVE,F**

MATERIAL
Four lots, 16 specimens, 16–53 mm SL, 33–48 m, drop-off only at Peros Banhos and Salomon (photos: 5 specimens). The material has been sent to Dr Heemstra, who suspects that it represents an undescribed species. Distribution insufficiently known to categorize. Range unassigned.

*Mirolabrichthys evansi* (Smith)
*Anthias evansi* Smith, 1954a:1 (Shimoni, Kenya)
*Anthias* (*Mirolabrichthys*) *evansi*—Randall and Lubbock, 1981a:4 (Indian Ocean, including Cocos[Keeling] Island)

MATERIAL
Seven lots, 16 specimens, 18–79 mm SL, 15–43 m, drop-off and lagoon (near pass) at Peros Banhos and Salomon (photos: 3 specimens). Indian Ocean.

*Nemanthias carberryi* Smith

**Pl. IVH**

*M. carberryi* Smith, 1954a:4 (Malindi, Kenya)

MATERIAL
Ten lots, 461 specimens, 19–65 mm SL, 15–43 m, drop-off and lagoon (near pass) at Peros Banhos and Salomon (photos: 3 specimens). Indian Ocean.
**Plectranthias longimanus** (Weber)*  
**Fig. 151**

*Plectranthias longimanus* Weber, 1913:209 (Paternoster Island, Indonesia)

**Plectranthias longimanus**—Randall, 1980:148 (Indo-west Pacific; Caroline Islands)

**MATERIAL**

One lot, 1 specimen, 12 mm SL, 33–43 m, drop-off at Salomon. The above specimen was identified using Randall’s key (1980). However, Randall states (op. cit., p. 151), “…this species seems more likely to be found on coral reefs of continental areas or large islands. By contrast, the closely related *P. nanus*, the color pattern of which is almost identical to *P. longimanus*, is more apt to be found around small oceanic islands.” Indo-west Pacific and marginally on the Pacific plate.

**Pseudochromidae**

**Chlidichthys inornatus** Lubbock  
**Fig. 152**

*Chlidichthys inornatus* Lubbock, 1976:169 (Sri Lanka; also Chagos Archipelago)

**Pseudopleisiops typus**—Regan, 1908:228 (Peros Banhos, Chagos Archipelago) *(non* Bleeker, 1858)

**MATERIAL**

Fifty-five lots, 635 specimens, 10–34 mm SL, 0–43 m, lagoon, drop-off, reef-top, reef-flat, and intertidal at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 19 and 23 mm). The only pseudochromid collected at Chagos, *C. inornatus* was very common. There were, however, certain patterns discernible in its distribution. The main habitats were the lagoons (x/lot = 12.7) and drop-offs (x/lot = 14.5), together accounting for 87% of the specimens collected. The preferred depth range was the same as that for *Pseudogramma polyacantha*: 84% of the specimens were collected between 6–25 m. The species is recorded only from Sri Lanka, the Maldives, and Chagos (Lubbock, 1976). Central Indian Ocean.

**Plesiopidae**

**Calloplesiops altivelis** (Steindachner)  
**Fig. 153**

*Calloplesiops altivelis* Steindachner, 1903:17 (Sumatra)

**Calloplesiops altivelis**—Springer, 1982:72 (Indo-west Pacific and marginally on the Pacific plate)

**MATERIAL**

Four lots, 5 specimens, 49–69 mm SL, 3–25 m, lagoon and drop-off at Peros Banhos and Salomon (photo: 62 mm). Although this species has been recorded from the Tuamotu Islands, Springer (1982) remains sceptical of this record and regards the species as being Indo-west Pacific in distribution with subsequent dispersal via the Caroline conduit onto the Pacific plate. Indo-west Pacific and marginally on the Pacific plate.

**Kuhlidae**

**Kuhlia mugil** (Schneider)  
**Fig. 154**

*Sciaena mugil* Schneider in Bloch and Schneider, 1801:541 (Tahiti)

**Kuhlia mugil**—Heemstra, 1984a:3 (Indo-Pacific, including Chagos)

**MATERIAL**

Two lots, 24 specimens, 21–87 mm SL, 0–1 m, reef-flat at Peros Banhos and Salomon (photo: 87 mm). Indo-Pacific.

**Priacanthidae**

**Priacanthus cruentatus** (Lacepède)  
**Fig. 155**

*Labrus cruentatus* Lacepède, 1802a:452 (America)

**Priacanthus cruentatus**—Starnes, 1984:5 (circumtropical, including Chagos)

**MATERIAL**

Three lots, 3 specimens, 88–173 mm SL, 3–25 m, lagoon and drop-off (photo: 172 mm). Circumtropical.

**Apogonidae**

**Apogon abrogramma** Fraser and Lachner  
**Pl. VA**

*Apogon abrogramma* Fraser and Lachner, 1985:5 (Indian Ocean, including Chagos, east to Philippines)

**MATERIAL**

Nineteen lots, 171 specimens, 22–86 mm SL, 0–32 m, lagoon, intertidal, reef-top, and drop-off at Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 24, 57, 66, 72 [× 2], 76, and 85 mm). This species was most abundant in 0–10 m in the lagoons, where 91% of our specimens were caught. It is similar to *A. exostigma*, but lacks a well-developed caudal spot.

Two specimens, 85 and 93 mm SL, are intermediate in several characters between *A. abrogramma* and *A. kallopterus*. The specimens are generally pale in colour (see Pl. VA). One of these two specimens has an obvious dark spot above the end of the lateral line; the other has a faint spot in this region. The leading edges of the caudal fin are black, more prominently so in the specimen with the faint caudal spot, and in both cases more prominently than in *A. abrogramma*. Dr T. H. Fraser examined a colour slide of
one of the specimens and suggested that it could be a pale *A. kallopterus*. However, the interorbital width of the two specimens is narrower (6.5–7.1% of SL vs 7.5–8.2% of SL in *A. kallopterus*), and the body is less deep (34.9–36.0% of SL vs 35.7–38.0% of SL; n = 7). The lengths of the first and second dorsal spines in the two specimens are intermediate between *A. abrogramma* and *A. kallopterus*, being 4.0–4.1%, 2.6–3.0%, and 4.2–5.0% SL for the first spine and 10.6%, 7.4–7.9%, and 11.8–12.1% SL for the second spine, respectively. Predorsal scale counts are 4–5 for the two specimens, with a mean of 5.6 in *A. abrogramma* and 5.0 in *A. kallopterus*. The above data, coupled with the abundance of *A. abrogramma* and *A. kallopterus* at Chagos, suggest that these two specimens could be hybrids. Indo-west Pacific.

**Apogon angustatus** (Smith and Radcliffe)  
*Fig. 156*  
*Amia angustata* Smith and Radcliffe in Radcliffe, 1912a:253 (Malanipa, Philippines)  
**Apogon angustatus**—Randall, 1973:183 (Tahiti)

**MATERIAL**  
Fourteen lots, 39 specimens, 15–60 mm SL, 5–25 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 28, 41, and 58 mm). Sixty-seven per cent of our specimens were collected on the reef-tops, and 87% of the total were taken in 15–25 m. Indo-Pacific.

**Apogon apogonides** (Bleeker)  
*Fig. 157*  
*Cheilodipterus apogonides* Bleeker, 1856e:37 (Manado, Celebes)  
**Apogon apogonides**—Randall, 1973:183 (Tahiti)

**MATERIAL**  
One lot, 49 specimens, 29–54 mm SL, 10–15 m, reef-top at Peros Banhos (photos: 30 and 54 mm). Indo-Pacific.

**Apogon coccineus** Rüppell  
*Fig. 158*  
*Apogon coccineus* Rüppell, 1838:88 (Red Sea); Randall, 1973:183 (Tahiti)  
*Amia doryssa* Jordan and Scale, 1906:245 (Samoa)

**MATERIAL**  
Forty lots, 150 specimens, 10–38 mm SL, 0–43 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photo: 32 mm). *Apogon coccineus* was fairly evenly distributed in four major habitats (lagoon 30%, intertidal 28%, reef-top 21%, and drop-off 18%). However, 82% of the specimens were collected in less than 15 m of water depth, and 97% in less than 25 m.

We tentatively regard *A. doryssa* as a synonym of *A. coccineus*, but feel that *A. erythrinus* is a distinct species.

The above specimens have 12 pectoral rays (vs 13–14 in *A. erythrinus*). The shape of the head in Rüppell’s figure (1838, pl. 22, fig. 5) matches the more pointed head of our specimens (more blunt in *A. erythrinus*). The single photographed specimen was pale with red scale margins on the nape and anterdorsal half of the body. Gill rakers 7–12 developed, with a total of 13–18 (n = 14). Indo-Pacific.

**Apogon crassiceps** Garman  
*Fig. 159*  
*Apogon crassiceps* Garman, 1903:230 (Fiji); Schultz, 1943:96 (Samoa)

**MATERIAL**  
Two lots, 2 specimens, 45–81 mm SL, 3–10 m, lagoon at Peros Banhos and Three Brothers (photo: 45 mm). Indo-Pacific.

**Apogon erythrinus** Snyder  
*Fig. 160*  
*Apogon erythrinus* Snyder, 1904:526 (Hawaii); Randall, 1955c:69 (Gilbert Islands)

**MATERIAL**  
Two lots, 7 specimens, 16–30 mm SL, 0–3 m, lagoon and reef-top at Diego Garcia and Salomon. This species is very similar to *A. coccineus*, but differs from it in the following ways: *A. erythrinus* has a shorter second dorsal spine (3.9–4.7 in SL vs 5.7–6.6 in SL); its melanophores on the predorsal extend onto the lateral body surface, cheeks, and opercles; and it possesses a vague dusky bar which passes posteroventrally from the posteroventral corner of the eye. Indo-Pacific.

**Apogon evermanni** Jordan and Snyder  
*Pl. VB*  
*Apogon evermanni* Jordan and Snyder, 1904:123 (Hawaii); Randall and Böhlike, 1981:131 (Indo-Pacific, including Chagos; Caribbean)

**MATERIAL**  
Two lots, 5 specimens, 41–69 mm SL, 18–43 m, drop-off at Peros Banhos and Salomon (photos: 64 and 68 mm). Indo-Pacific and western Atlantic.

**Apogon frenatus** Valenciennes  
*Fig. 161*  
*Apogon fraenatus* Valenciennes, 1832:57 (New Guinea and Guam); Fraser and Lachner, 1985:24 (Indo-Pacific, east to Tuamotu Islands)

**MATERIAL**  
Two lots, 8 specimens, 24–51 mm SL, 4–13 m, lagoon at Peros Banhos. Indo-Pacific.

**Apogon kallopterus** Bleeker  
*Fig. 162*  
*Apogon kallopterus* Bleeker, 1856e:33 (Manado, Celebes);
Apogon leptacanthus Bleeker

**Fig. 163**

*Apogon leptacanthus* Bleeker, 1856f:204 (Ternate, Indonesia); Fraser and Lachner, 1985:34 (Indo-Pacific, including Chagos, east to Marshall Islands and Samoa)

**MATERIAL**

Thirty-two lots, 193 specimens, 23–92 mm SL, 0–43 m. lagoon, intertidal, reef-flat, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 26, 36, 46, 61, 76, 84, and 91 mm). No major patterns of habitat or depth associations were found. The mean numbers of specimens/lot for the habitats listed above were 5.3, 6.5, 13.5, 4.0, and 6.5, respectively. Although the reef-flat seems significantly higher than other habitats (x/lot = 13.5), only two reef-flat stations (of a total of five) yielded specimens. Indo-Pacific.

Apogon savayensis Günther

**Fig. 164**

*Apogon savayensis* Günther, 1871:656 (Samoa and Celebes); Randall, 1973:18 (Tahiti)

**MATERIAL**

Two lots, 288 specimens, 15–36 mm SL, 1–15 m lagoon and reef-top at Diego Garcia and Peros Banhos. The vast majority of the specimens (n = 280) were collected by Ryther in the lagoon at Diego Garcia. Indo–west Pacific and marginally on the Pacific plate.

Apogon semiornatus Peters

**Fig. 165**

*Apogon semiornatus* Peters, 1876:436 (Mauritius); Allen and Steene, 1979:29 (“Indo–west Pacific”)

**MATERIAL**

Seven lots, 11 specimens, 11–23 mm SL, 5–26 m, reef-top and drop-off at Peros Banhos and Salomon (photo: 23 mm). “Indo–west Pacific.”

Apogon taeniophorus Regan

**Fig. 166**

*Apogon taeniophorus* Regan, 1908:226 (Maldive); Allen and Steene, 1979:29 (Indian Ocean to Christmas Island)

**MATERIAL**

Ten lots, 84 specimens, 18–73 mm SL, 0–7 m, lagoon, intertidal, reef-flat, and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 46 and 67 mm). The species was most abundant on the reef-flats where 68% of the specimens were collected, with a mean of 11.4 specimens/lot. Indian Ocean.

Apogon talboti Smith

**Fig. 167**

*Apogon talboti* Smith, 1961:387 (Zanzibar); Russell, 1983:50 (Great Barrier Reef)

**MATERIAL**

Three lots, 3 specimens, 38–53 mm SL, 18–43 m, drop-offs at Peros Banhos and Salomon. Indo–west Pacific.

Apogon sp. 1

**Fig. 168**

**MATERIAL**

One lot, 1 specimen, 48 mm SL, 40–43 m, drop-off at Peros Banhos.

This specimen has the following characteristics: D VI19; A 10 (sic); P 13 (first ray rudimentary and unbranched); 3 + 13 developed gill rakers on the first arch with two undeveloped rakers both dorsally and ventrally; preopercular ridge entire, edge of preopercle serrated; about 24 lateral-line scales; a midlateral and a dorsolateral dark stripe; a thin horizontal stripe of melanophores in the soft dorsal and anal fins just distal to their bases; and a dark eye-diameter-sized spot covering the hypural region of the caudal peduncle. The presence of 10 anal rays and no anal spines is most unusual and may indicate that this specimen is aberrant. It may, in addition, represent a new species. If we ignore the anal-fin ray count and lack of anal spines, it keys out to *Apogon (Nectamia)* using Fraser’s (1972) key. It could represent the same species as *A*. sp. of Burgess and Axelrod (1975:1440) and of Hayashi and Kishimoto (1983:34), and *A*. sp. 1 of Masuda et al. (1984:146, pl. 130-M) from Japan. Range unassigned.

Apogonichthys perditix Bleeker

**Fig. 169**

*Apogonichthys perditix* Bleeker, 1854b:321 (Flores Island, Indonesia); Smith, 1961:391 (east Africa and Red Sea); Randall, 1985:471 (Rapa)

? *Apogon variegatus*—Regan, 1908:224 (Diego Garcia, Chagos Archipelago—part)

**MATERIAL**

Five lots, 9 specimens, 15–26 mm SL, 0–7 m, lagoon, intertidal, and reef-flat at Diego Garcia and Peros Banhos. One of the three specimens from Diego Garcia identified as *Apogon variegatus* by Regan (1908) appears to be an *Apogongnichthys*. We were unable to identify it to species since the specimen is faded, but it seems likely to be *A*. perditix. Indo-Pacific.
**Archamia fucata** (Cantor)  
Fig. 170  
*Archamia fucata*—Cantor, 1849:986 (“Sea of Pinang”)

**Archamia fucata—and Lachner, 1953:477 (Marshall Islands)**

**MATERIAL**

Four lots, 251 specimens, 25–51 mm SL, 1–25 m, lagoon only at Diego Garcia, Peros Banhos, and Salomon (photos: 32, 49, and 50 mm). Most of the above specimens (n = 240) were taken from a cave in a large (ca 7-m diameter) hollowed-out bommie that rose about 4 m from a sandy bottom in 7 m at the east end of Isle du Coin, Peros Banhos. According to Lachner (1953), this species frequents the deeper waters of the lagoon, although we do have six specimens from 1–3 m in the lagoon at Diego Garcia. Indo–west Pacific and marginally on the Pacific plate.

**Cheilodipterus lachneri** Klausewitz  
Fig. 171  
*Cheilodipterus lachneri* Klausewitz, 1959:260 (Al Ghardaqua, Red Sea); Allen and Steene, 1979:29 (Indian Ocean, including Christmas Island)

**MATERIAL**

Eighteen lots, 95 specimens, 22–95 mm SL, 0–43 m, lagoon and drop-off at Peros Banhos, Salomon, and Three Brothers (photos: 57 and 68 mm). *Cheilodipterus lachneri* was collected only in the lagoons and on the drop-offs, with 50% of specimens being taken in 6–15 m, and 90% in a water depth of 6–35 m.

This species is often difficult to separate from *C. macrodon*, but possesses more formed gill rakers (11–17 vs 8–11, the number decreasing with age). Indian Ocean.

**Cheilodipterus macrodon** (Lacepède)  
Fig. 172  
*Centropomus macrodon* Lacepède, 1802b:252 (Mauritius and Réunion)

*Cheilodipterus macrodon*—Lachner, 1953:484 (Indo-Pacific east to Gambier Islands)

**MATERIAL**

Eleven lots, 63 specimens, 15–141 mm SL, 0–24 m, lagoon, intertidal, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 32, 47, 65, and 141 mm). This species appears to prefer shallow lagoonal waters less than 10 m deep, where 89% of our specimens were collected. Indo-Pacific.

**Cheilodipterus quinquelineatus** Cuvier  
Fig. 173  
*Cheilodipterus quinquelineatus* Cuvier in Cuvier and Valenciennes, 1828:167 (Society Islands)

*Cheilodipterus quinquelineatus*—Regan, 1908:224 (Diego Garcia, Chagos Archipelago)

**MATERIAL**

Twenty lots, 102 specimens, 12–77 mm SL, 0–40 m, lagoon and reef-top (1) at Diego Garcia, Peros Banhos, Salomon, and Three Brothers (photos: 2 missing specimens). Thirty-nine per cent of the above specimens are from less than 10 m, and 85% from less than 20 m. Indo-Pacific.

*Foa* sp.

*Apogon variegatus*—Regan, 1908:224 (Diego Garcia, Chagos Archipelago—part)

**MATERIAL**

One lot, 2 specimens, 24–29 mm SL, 18 m, Diego Garcia, BM(NH) 1908.3.23.81–83. Two of the three specimens identified by Regan (1908) as *Apogon variegatus* (currently placed in *Fowleria*) had an incomplete lateral line, palatine teeth, and a smooth preopercular edge. These characters are diagnostic for *Foa* in Fraser’s (1972) key. The specimens could not be identified to species since the colour pattern has faded. Range unassigned.

**Fowleria abocellata** Goren and Karplus  
Fig. 174  
*Fowleria abocellata* Goren and Karplus, 1980:232 (Gulf of Elat, Red Sea)

*Foa abocellata*—Hayashi and Kishimoto, 1983:19 (Ryukyu Islands)

**MATERIAL**

Two lots, 2 specimens, 26 (× 2) mm SL, 0–1 m, intertidal at Eagle Island (photo).

Like most apogonid genera, *Foa* and *Fowleria* are in need of revision. Lachner (1953) recognized four species in this complex, while Smith (1961) recognized only *Fowleria aurita* and remarked that a “few [specimens] lack the opercular ocellus” (p. 383). The above specimens differ from the original description in lacking the dark spot at the tips of the third to fifth dorsal spines (both in the photograph of the freshly dead and in the preserved specimens). In addition, the median fins lack any pigmentation other than iridocytes and scattered melanophores and are pale in the preserved material. The record by Hayashi and Kishimoto (1983) from the Ryukyu Islands may represent a different species. The Chagos specimens, and specimens from Fiji, lack palatine teeth and would, therefore, fall into *Fowleria* rather than *Foa* in Fraser’s (1972) key. However, Masuda et al. (1984) include this species in *Foa* because it retains the first suspensorious infrapharyngobranchial. Since Fraser’s character, lack of palatine teeth, is apparently an apomorphy, whereas Masuda et al.’s character, retention of the first pharyngobranchial, is a plesiomorphic one, we place this species in *Fowleria* rather than *Foa*, with the hint that it may be the plesiomorphic sister group of the other species of that genus. Indo–west Pacific.
**Fowleria aurita** (Valenciennes)  
*Fig. 175* 
*Apolon auritus* Valenciennes in Cuvier and Valenciennes, 1831a:443 (Mauritius); Kami, Ikehara, and DeLeon, 1968:106 (Guam)

**MATERIAL**
Fourteen lots, 37 specimens, 16–92 mm SL, 0–32 m, lagoon, intertidal (1), and reef-top (1) at Diego Garcia, Peros Banhos, Salomon, and Three Brothers (photos: 24 [×2], 29, 44, 68, and 92 mm).

Within this material, there are two main colour patterns—plain and barred. The latter colour pattern is identified as *F. marmorata* in Masuda et al. (1984, pl. 29-D), and other of our specimens are similar to what Masuda et al. (1984, pl. 29-C) identify as *F. isostigma*. No attempt has been made to separate the above specimens on the basis of colour pattern because of the intermediates which suggest that they are all one species. Randall (1985) records both species from French Polynesia. Whatever the resolution of the systematic problem turns out to be, it would appear that the distribution is Indo-Pacific.

**Fowleria variegata** (Valenciennes)  
*Fig. 176* 
*Apon variegatus* Valenciennes, 1832:55 (Mauritius); Lachner, 1953:475 (Guam)

**MATERIAL**
Six lots, 26 specimens, 20–75 mm SL, 0–15 m, lagoon at Diego Garcia and Salomon (photos; 70 and 75 mm).

This species was confined to the lagoons and was collected only in the two most sheltered lagoons sampled. A total of six rotenone stations was made in each of the lagoons, with 11 specimens collected from Salomon and 15 from Diego Garcia. The lagoon at Diego Garcia has openings to the sea only at its northern end, whereas Salomon, in addition to the main pass at the northwest corner of the atoll, has another 10 shallow, inter-island channels subject to tidal flow.

The opercular blotch is sometimes obscured by a patch of silvery pigment and may be absent in juveniles. Indo-west Pacific and marginally on the Pacific plate.

**Gymnapogon sp.**  
*Fig. 177* 
**MATERIAL**
Four lots, 4 specimens, 21–34 mm SL, 0–9 m, lagoon, reef-flat, and reef-top at Diego Garcia, Salomon, and Three Brothers.

Fraser (1972) tentatively recognizes six species of *Gymnapogon*. Smith (1961) records *G. africanaus* as the only member of the genus present in the western Indian Ocean and Red Sea. His description is very similar to that of *Henichthys philippinus* Herre, and the two nominal species may well be synonymous. In addition, Smith (1954c) felt that his series of specimens showed that the caudal fin changes from emarginate to forked with growth, and he cautioned against placing much emphasis on the degree of papillae development. Should these remarks prove valid, it would imply that the two above names would become synonyms of *G. vanderbilti* (Fowler). Range unassigned.

**Neamia octospina** Smith and Radcliffe  
*Fig. 178* 
*Neamia octospina* Smith and Radcliffe in Radcliffe, 1912b:441 (Philippines)

**MATERIAL**
One lot, 3 specimens, 15–31 mm SL, 7 m, lagoon at Three Brothers. Indo-west Pacific.

**Pseudamia gelatinosa** Smith  
*Fig. 179* 
*Pseudamia gelatinosa* Smith, 1955b:690 (Alkabra Islands); Randall, Lachner, and Fraser, 1985:9 (Indo-Pacific east to Austral Island)

**MATERIAL**
Twenty lots, 54 specimens, 13–80 mm SL, 0–32 m, lagoon, intertidal (1), reef-flat (1), and reef-top (2) at Diego Garcia, Peros Banhos, Salomon, and Three Brothers (photos: 24 and 57 mm). The majority of the above specimens (70%) are from 6–15 m in the lagoons, with 89% collected in lagoons (all depths combined). Indo-Pacific.

**Pseudamiops gracilicauda** (Lachner)  
*Fig. 180* 
*Gymnapogon gracilicauda* Lachner, 1953:497 (Marshall Islands)  
*Pseudamiops pellucidus* Smith, 1954c:785 (Malindi, Kenya)

**MATERIAL**
Seven lots, 9 specimens, 22–29 mm SL, 0.5–15 m, lagoon and reef-top at Peros Banhos and Salomon (photo: 23 mm).

There are several apparent differences between *P. gracilicauda* and *P. pellucida* (see table in Smith, 1954c:785, and Fraser, 1972:31). All but one of these differences fall away on our examination of the above material and six specimens (16–39 mm SL) from Fiji. Lachner (1953) mentioned that *P. gracilicauda* lacked scales on the head and body, whereas all our material possesses scales, as does *P. pellucida*. Ms Jewett reexamined Lachner’s type material at our request and found no scales, but did find evidence of scale pockets, particularly on the belly (in litt.). Fraser (1972) reported that *P. pellucida* has five suborbital bones and *P. gracilicauda* has six. Our material was not examined for this character. Fraser also stated that the two
species differed in the position of the first dorsal pterygiophore, which lies anterior to the third neural spine in *P. pellucida* and posterior to that spine in *P. gracilicauda*. In the Chagos material the pterygiophore lies behind the third neural spine in all specimens, as it does in two of the six Fiji specimens. In the holotype of *P. gracilicauda* the first pterygiophore is inserted anterior to the third neural spine, but in four paratypes (15–19 mm SL) the pterygiophore is inserted posterior to the third neural spine. There appears to be some correlation between the position of insertion of the pterygiophore and size—in most specimens less than 29 mm SL the insertion is posterior to the neural spine, while in most larger specimens it is anterior to this spine. *Pseudamiops pellucida* is supposed to have a single enlarged canine on the vomer, versus a single row of small vomerine teeth in *P. gracilicauda* (Fraser, 1972). Our material exhibits the latter condition, except for the largest of the Fiji specimens, which has two large canines on the vomer. *P. pellucida* has 14 pectoral-fins rays, a simple first dorsal-fin ray, 9 anal rays, and 5 lower gill rakers (Smith, 1954c), whereas corresponding data for *P. gracilicauda* is 15–16, branched, 8, and 7, respectively. Corresponding data for the Chagos material is 13–14, simple (but branched in largest specimen), 8 (once 7), and 6, respectively; and for the Fiji specimens, 13–16, branched, 8, and 6 or 7. We tentatively conclude that *P. pellucida* is a synonym of *P. gracilicauda* until a more detailed examination and additional material make a reevaluation possible. Indo-west Pacific.

**Pseudamiops sp.**

**Fig. 181**

**MATERIAL.**

Nine lots, 16 specimens, 14–21 mm SL, 3–36 m, lagoon and drop-off at Peros Banhos and Salomon.

This is a small species, with gravid females 17–18 mm SL, that apparently is undescribed. It is unique among apogonids in possessing only a single anal spine. It has many fine teeth on the vomer, palatines, and pterygoids; a rounded caudal fin; and a darkly pigmented peritoneum. It apparently lacks scales. We were unable to ascertain the position of the first dorsal-fin pterygiophore from radiographs, but it lies posterior to the third neural spine in our three cleared and stained specimens. Range unassigned.

**Rhabdamia cypsaeirus Weber**

**Fig. 182**

*Rhabdamia cypsaeirus* Weber, 1909:167 (Saraw)

*Apogon cypsaeirus*—Lachner, 1953:450 (Marshall Islands)

**MATERIAL.**

Two lots, 353 specimens, 25–44 mm SL, 5–7 m, lagoon at Peros Banhos (photo: 38 mm). Indo-west Pacific and marginally on the Pacific plate.

**Malacanthidae**

**Malacanthus brevirostris Guichenot**

**Fig. 183**

*Malacanthus brevirostris* Guichenot, 1848:14 (Madagascar; Réunion); Dooley, 1978:58 (Indo-Pacific)

**MATERIAL.**

One lot, 1 specimen, 168 mm SL, 13 m, lagoon at Peros Banhos (photo). Indo-Pacific.

**Malacanthus latovittatus (Lacepède)**

*Labrus latovittatus* Lacepède, 1802a:455 (“Great Equatorial Ocean”)

*Malacanthus latovittatus*—Dooley, 1978:60 (Indo-Pacific)

No specimens collected; record based on a sighting of two specimens on the reef-top, west coast of Salomon. Indo-Pacific.

**Lactariidae**

**Lactarius lactarius (Bloch and Schneider)**

*Scomer lactarius* Bloch and Schneider, 1801:31 (Trinquebar)

*Lactarius lactarius*—Kumaran, 1984:3 (Indo-west Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Kumaran (1984). Doubtful literature record, range unassigned.

**Rachycentridae**

**Rachycentron canadum (Linnaeus)**

*Gasterosteus canadum* Linnaeus, 1766:491 (Carolina, U.S.A.)

*Rachycentron canadum*—Collette, 1984c:3 (cosmopolitan, including Chagos)

No specimens seen or collected; occurrence is based on Collette (1984c). Cosmopolitan.

**Echeneididae**

**Echeneis naucrates Linnaeus**

**Fig. 184**

*Echeneis naucrates* Linnaeus, 1758:261 (Indian Ocean); Lachner and Collette, 1984:4 (cosmopolitan, including Chagos)

**MATERIAL.**

Two lots, 4 specimens, 108–270 mm SL, 1.5–10 m,
lagoon and reef-top at Eagle Island and Peros Banhos (photo: 248 mm). Cosmopolitan.

**Carangidae**

Most of the carangids were identified by Dr W. F. Smith-Vaniz.

**Carangoides orthogrammus (Jordan and Gilbert)** Fig. 185
*Caranx orthogrammus* Jordan and Gilbert, 1882:226 (Clarion Island)
*Caranx ferdwa*—Kyushin et al., 1977:266 (Chagos Archipelago) (*non* Forsskål, 1775)
*Carangoides orthogrammus*—Smith-Vaniz, 1984:63 (Indo-Pacific, including Chagos)

**MATERIAL**

Two lots, 2 specimens, 329–533 FL, 5–7 m, reef-top at Salomon (photo: 533 mm). Indo-Pacific.

**Carangoides plagiotaenia (Bleeker)**
*Caranx plagiotaenia* Bleeker, 1857a:59 (Ambon)
*Caranx compressus*—Kyushin et al., 1977:272 (Chagos Archipelago) (*non* Day, 1870)
*Carangoides plagiotaenia*—Smith-Vaniz, 1984:65 (Indo-Pacific)

No specimens seen or collected; the record is based on the report of *C. compressus* by Kyushin et al. (1977) from Chagos. Their specimens were taken by vertical longline in 22–120 m. Indo-Pacific.

**Caranx ignobilis (Forsskål)** Fig. 186
*Scobmer ignobilis* Forsskål, 1775:55 (Jiddah, Red Sea)
*Caranx ignobilis*—Smith-Vaniz, 1984:73 (Indo-Pacific, including Chagos)

**MATERIAL**

One lot, 1 specimen, 56 mm SL, 0–0.5 m, lagoon at Diego Garcia. Indo-Pacific.

**Caranx lugubris Poey**
*Caranx lugubris* Poey, 1858:222 (Cuba); Kyushin et al., 1977:264 (Chagos Archipelago); Smith-Vaniz, 1984:83 (circumtropical)

No specimens seen or collected; the record is based on the report and photograph of two specimens taken by vertical longline by Kyushin et al. (1977). Circumtropical.

**Caranx melampygus Cuvier** Fig. 187
*Caranx melampygus* Cuvier in Cuvier and Valenciennes, 1833:116 (Wageo; Rawak; Vanicolo; Buru; Mauritius); Smith-Vaniz, 1984:75 (Indo-Pacific, including Chagos)

**MATERIAL**

Four lots, 4 specimens, 70–519 mm FL, 0–17 m, lagoon and reef-flat at Peros Banhos (photo: 519 mm). Indo-Pacific.

**Caranx sexfasciatus Quoy and Gaimard** Fig. 188
*Caranx sexfasciatus* Quoy and Gaimard, 1824:358 (“Iles des Papous”); Smith-Vaniz, 1984:77 (Indo-Pacific, including Chagos)

**MATERIAL**

Six lots, 8 specimens, 60–594 mm FL, 0–25 m, lagoon, intertidal, and drop-off at Peros Banhos and Salomon (photos: 70, 119, and 594 mm). Indo-Pacific.

**Elagatis bipinnulata (Quoy and Gaimard)** Fig. 189
*Seriola bipinnulata* Quoy and Gaimard, 1824:363 (“Iles des Papous”)
*Elagatis bipinnulata*—Smith-Vaniz, 1984:99 (circumtropical, including Chagos)

**MATERIAL**

Two lots, 2 specimens, 494–510 mm FL, 0–15 m, lagoon and reef-top at Peros Banhos (photo: 510 mm). Circumtropical.

**Gnathanodon speciosus (Forsskål)** Fig. 190
*Scomber speciosus* Forsskål, 1775:54 (Jiddah, Red Sea)
*Gnathanodon speciosus*—Smith-Vaniz, 1984:101 (Indo-Pacific)

**MATERIAL**

Two lots, 2 specimens, 30–173 mm FL, 0.5–2 m, lagoon and intertidal at Peros Banhos (photos: both). Indo-Pacific.

**Naucrates ductor (Linnaeus)**
*Gasterosteus ductor* Linnaeus, 1758:295 (“in Pelago”)
*Naucrates ductor*—Smith-Vaniz, 1984:107 (circumtropical, including Chagos)

No specimens seen or collected; occurrence is based on Smith-Vaniz (1984). Circumtropical.

**Scomberoides lylsan (Forsskål)** Fig. 191
*Scomber lylsan* Forsskål, 1775:54 (Jiddah and Lohaja, Red Sea)
*Scomberoides lylsan*—Smith-Vaniz, 1984:115 (Indo-Pacific, including Chagos)

**MATERIAL**

Five lots, 8 specimens, 27–465 mm FL, 0–2 m, lagoon at Diego Garcia, Peros Banhos, and Salomon (photo: 83 mm). Indo-Pacific.
Selar crumenophthalmus (Bloch)  
Fig. 192  
Scomber crumenophthalmus Bloch, 1793:77 (Guinea, West Africa)  
Selar crumenophthalmus—Smith-Vaniz, 1984:121 (circumtropical)  

 MATERIAL  
Two lots, 4 specimens, 77–123 mm FL, 0–1 m, intertidal and reef-flat at Diego Garcia and Salomon. Circumtropical.

Seriola rivoliana Valenciennes  
Seriola rivoliana Valenciennes in Cuvier and Valenciennes, 1833:207 (uncertain); Smith-Vaniz, 1984:127 (circumtropical)  
Seriola songoro—Kyushin et al., 1977:278 (Chagos Archipelago)  
No specimens seen or collected; the record is based on the report in Kyushin et al. (1977) of S. songoro (Smith, 1959a) captured in 30–160 m by vertical longline. Circumtropical.

Trachinotus baillonii (Lacepède)  
Fig. 193  
Caesiomorus baillonii Lacepède, 1802a:92 (Madagascar)  
Trachinotus baillonii—Smith-Vaniz, 1984:135 (Indo-Pacific, including Chagos)  

 MATERIAL  
Five lots, 30 specimens, 63–337 FL, 0–4 m, pass, lagoon, intertidal, and reef-flat at Eagle Island, Peros Banhos, and Salomon (photos: 194 and 224 mm). Indo-Pacific.

Coryphaenidae  
Coryphaena equiselis Linnaeus  
Coryphaena equiselis Linnaeus, 1758:261 (“in alto Pelago”); Collette, 1984b:5 (cosmopolitan, including Chagos)  

 MATERIAL  
One lot, 1 specimen, 15 mm SL, 0.5 m, lagoon at Peros Banhos. Cosmopolitan.

Coryphaena hippurus Linnaeus  
Coryphaena hippurus Linnaeus, 1758:261 (“in Pelago”); Collette, 1984b:3 (cosmopolitan, including Chagos)  
No specimens seen or collected; occurrence is based on Collette (1984b). Cosmopolitan.

Menidae  
Mene maculata (Bloch and Schneider)  
Zeus maculata Bloch and Schneider, 1801:95 (Tranquebar)  
Mene maculata—Heemstra, 1984b:3 (Indo-Pacific, including Chagos)  
No specimens seen or collected; occurrence is based on Heemstra (1984b). Indo-Pacific.

Bramidae  
Brama dussumieri Cuvier  
Brama dussumieri Cuvier in Cuvier and Valenciennes, 1831a:294 (Indian Ocean); Haedrich and Nzioka, 1984a:5 (circumtropical, including Chagos)  
No specimens seen or collected; occurrence is based on the report of Haedrich and Nzioka (1984a). Circumtropical.

Lutjanidae  
Aphareus furcatus (Lacepède)  
Labrus furcatus Lacepède, 1802a:429 (Indian and Pacific oceans)  
Aphareus furcatus—Allen, 1984:15 (Indo-Pacific, including Chagos)  

 MATERIAL  
Two lots, 2 specimens, 261–262 mm SL, 0–20 m, lagoon at Peros Banhos (photo: 261 mm). Indo-Pacific.

Aprion virescens Valenciennes  
Fig. 195  
Aprion virescens Valenciennes in Cuvier and Valenciennes, 1830b:544 (Seychelles); Allen, 1984:17 (Indo-Pacific, including Chagos)  

 MATERIAL  
Three lots, 3 specimens, 425–445 mm SL, 0–20 m, lagoon and drop-off at Peros Banhos (photo: 445 mm). Indo-Pacific.

Caesio caeruleaureus Lacepède  
Fig. 196  
Caesio caeruleaureus Lacepède, 1802a:85 (Moluccas)  

 MATERIAL  
Two lots, 25 specimens, 34–101 mm SL, 3–7 m, lagoon at Peros Banhos (photos: 89 and 101 mm). The caesioin material was identified by K. Carpenter, who also provided the information on geographic ranges. Caesio caeruleaurea is known from east Africa to Tahiti. Indo-Pacific.

Caesio lunaris Cuvier  
Fig. 197  
Caesio lunaris Cuvier in Cuvier and Valenciennes, 1830b:441 (Indian Ocean; Red Sea; New Ireland)  

 MATERIAL  
Three lots, 6 specimens, 32–171 mm SL, 3–10 m, lagoon
at Peros Banhos (photos: 32, 153, and 166 mm). Indo-west Pacific east to Solomons.

**Caesio teres Seale** Pl. VC
*Caesio teres* Seale, 1906:44 (Shortland Island, Solomon Islands)

**MATERIAL.**
Three lots, 4 specimens, 41–169 mm SL, 1–20 m, lagoon at Peros Banhos and Salomon (photo: 95 mm). Indo–west Pacific and marginally on the Pacific plate (Gilbert Islands).

**Caesio xanthonotus Bleeker** Pl. VD
*Caesio xanthonotus* Bleeker, 1853:c:466 (Jakarta)

**MATERIAL.**
Two lots, 4 specimens, 129–169 mm SL, 1–20 m, lagoon and drop-off at Peros Banhos and Salomon (photo: 166 mm). Indo–west Pacific (east to Philippines and Great Barrier Reef.

**Etelis carbunculus Cuvier**
*Etelis carbunculus* Cuvier in Cuvier and Valenciennes, 1828:127 (Seychelles); Kyushin et al., 1977:116 (Chagos Archipelago); Randall, 1973:190 (Tahiti).

No specimens seen or collected; the record is based on the illustration and report of three specimens taken by vertical longline in 12–160 m by Kyushin et al. (1977). Indo-Pacific.

**Lutjanus bohar (Forsskål)** Fig. 198
*Sciaena bohar* Forsskål, 1775:46 (Red Sea)
*Sciaena bohar*—Allen, 1984:27 (Indo-Pacific, including Chagos)

**MATERIAL.**
Five lots, 7 specimens, 48–359 mm SL, 0–18 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 45 and 144 mm). This species was second in abundance to *L. gibbus* at Chagos and frequently appeared at rotenone stations picking up stunned fish. It was also reported from Chagos by Kyushin et al. (1977). Indo-Pacific.

**Lutjanus erythropterus Bloch**
*Sciaena erythropterus* Bloch, 1790:115 (Japan); Allen, 1984:39 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo-Pacific.

**Lutjanus fulviflammus (Forsskål)**
*Sciaena fulviflamma* Forsskål, 1775:45 (Red Sea)
*Sciaena fulviflamma*—Allen, 1984:29 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo-Pacific.

**Lutjanus fulvus (Schneider)** Fig. 199
*Holocentrus fulvus* Schneider in Bloch and Schneider, 1801:318 (Tahiti)
*Holocentrus fulvus*—Allen, 1984:61 (Indo-Pacific, including Chagos)

**MATERIAL.**
Two lots, 5 specimens, 126–168 mm SL, 1–2 m, lagoon and reef-flat at Diego Garcia. Indo-Pacific.

**Lutjanus gibbus (Forsskål)** Fig. 200
*Sciaena gibbus* Forsskål, 1775:46 (Red Sea)
*Sciaena gibbus*—Allen, 1984:31 (Indo-Pacific, including Chagos)

**MATERIAL.**
Nine lots, 12 specimens, 96–289 mm SL, 0–33 m, lagoon, intertidal, and drop-off at Diego Garcia, Peros Banhos, and Salomon (photos: 96, 126, 260, and 285 mm). This was the most abundant species of *Lutjanus* at Chagos and was frequently seen in huge schools on the reef-top at the edge of the drop-off. Indo-Pacific.

**Lutjanus kasmira (Forsskål)** Fig. 201
*Sciaena kasmira* Forsskål, 1775:46 (Red Sea)
*Sciaena kasmira*—Allen, 1984:63 (Indo-Pacific, including Chagos)

**MATERIAL.**
Five lots, 66 specimens, 32–190 mm SL, 0–42 m, lagoon, reef-flat, reef-top, and drop-off at Diego Garcia and Peros Banhos (photo: 151 mm). The main lot of this species (n = 57) was taken from a large, hollowed-out bommie near a shallow inter-island pass in 7 m at the south end of Isle du Coin, Peros Banhos. Indo-Pacific.

**Lutjanus lutjanus Bloch**
*Sciaena lutjanus* Bloch, 1790:107 (Japan); Allen, 1984:37 (Indo–west Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo–west Pacific.

**Lutjanus malabaricus (Bloch and Schneider)**
*Holocentrus malabaricus* Bloch and Schneider, 1801:39 (Tranquebar)
*Holocentrus malabaricus*—Allen, 1984:43 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo-Pacific.
**Lutjanus monostigma**s (Cuvier)  
*Mesoprion monostigma* Cuvier in Cuvier and Valenciennes, 1828:446 (Seychelles)  
*Lutjanus monostigma*—Allen, 1984:69 (Indo-Pacific, including Chagos)

**Material**
Nine lots, 22 specimens, 18–350 mm SL, 0–20 m, lagoon, intertidal, pass, reef-flat, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 134, 202, and 350 mm).

The largest specimen (350 mm SL), which was identified by Dr G. R. Allen, is apparently anomalous in lacking vomerine and palatine teeth. When freshly dead, the head was red, grading posteriorly into light yellow on the body. There was no trace of the dark spot on the lateral line, and all fins were bright yellow. Indo-Pacific.

**Lutjanus rivulatus** (Cuvier)
*Diacope rivulata* Cuvier in Cuvier and Valenciennes, 1828:414 (Coromandel Coast; Java; Red Sea; Malabar Coast)  
*Lutjanus rivulatus*—Allen, 1984:73 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo-Pacific.

**Lutjanus sebae** (Cuvier)
*Diacope sebae* Cuvier in Cuvier and Valenciennes, 1828:411 (no locality given)  
*Lutjanus sebae*—Kyushin et al., 1977:86 (Chagos Archipelago)

No specimens seen or collected; the record is based on the photographs and report by Kyushin et al. (1977) of specimens taken in 10–160 m by vertical longline and squid handline. Indo-west Pacific and marginally on the Pacific Plate.

**Macolor niger** (Forsskål)
*Sciaena niger* Forsskål, 1775:47 (Jiddah, Red Sea)  
*Macolor niger*—Allen, 1984:77 (Indo-Pacific, including Chagos)

**Material**
Three lots, 3 specimens, 180–452 mm SL, 3–26 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 180, 432, and 452 mm). This species was frequently observed in large schools high in the water column over the edge of the reef-top/drop-off interface and appeared to be feeding on plankton. Indo-Pacific.

**Paracaesio sordidus** Abe and Shinohara
*Paracaesio sordidus* Abe and Shinohara, 1962:163 (Okinawa, Japan); Kyushin et al., 1977:102 (Indo-west Pacific, including Chagos)

No specimens seen or collected; the record is based on the report by Kyushin et al. of specimens taken at Chagos by vertical longline in 26–120 m. Indo-west Pacific.

**Paracaesio xanthurus** (Bleeker)
*Caesio xanthurus* Bleeker, 1869:78 (Madagascar)  
*Paracaesio xanthurus*—Allen, 1984:79 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo-Pacific.

**Pristipomoides auricilla** (Jordan, Evermann, and Tanaka)
*Arnillo auricilla* Jordan, Evermann, and Tanaka, 1927:668 (Hawaii)  
*Pristipomoides auricilla*—Kyushin et al., 1977:112 (Chagos Archipelago); Kami, Ikehara, and DeLeon, 1968:108 (Guam)

No specimens seen or collected; the record is based on six specimens (295–321 mm BL) collected by vertical longline in 25–90 m at Chagos, as reported and figured by Kyushin et al. (1977). Indo-Pacific.

**Pristipomoides filamentosus** (Valenciennes)
*Serranus filamentosus* Valenciennes in Cuvier and Valenciennes, 1830b:508 (Réunion; Mauritius)  
*Pristipomoides filamentosus*—Kyushin et al., 1977:106 (Chagos Archipelago); Kami, 1973:107 (Indo-Pacific)

No specimens seen or collected; the record is based on a photograph and report in Kyushin et al. (1977) of specimens from Chagos taken by vertical longline in 24–130 m. Indo-Pacific.

**Pristipomoides multidens** (Day)
*Mesoprion multidens* Day, 1870:680 (Andaman Islands)  
*Pristipomoides multidens*—Kyushin et al., 1977:110 (Chagos Archipelago); Allen, 1984:87 (Indo-west Pacific)

No specimens seen or collected; the record is based on the photograph and report in Kyushin et al. (1977) of this species taken by vertical longline in 10–169 m. Indo-west Pacific.

**Pterocaesio chrysozonus** (Cuvier)
*Caesio chrysozonus* Cuvier in Cuvier and Valenciennes, 1830b:440 (East Indies)

37
**Pterocaesio chrysozona**—Carpenter, 1984:19 (Indo–west Pacific)

**MATERIAL**
Two lots, 93 specimens, 32–76 mm SL, 5–10 m, lagoon at Peros Banhos. The material of this genus was identified by K. Carpenter, who also supplied information on the geographic ranges of the species. Indo–west Pacific (east to Solomons).

**Pterocaesio marri** Schultz

**Fig. 205**

*Scolopsis* marri* Schultz, 1953:545 (Marshall Islands)

**MATERIAL**
Two lots, 12 specimens, 46–74 mm SL, 10 m, lagoon at Peros Banhos (photo: 74 mm). Indo–west Pacific and marginally on the Pacific plate (to Marshall Islands).

**Pterocaesio tile** (Cuvier)

**Fig. 206**

*Cae*si*o tile* Cuvier in Cuvier and Valenciennes, 1830b:428 (Caroline Islands)

**MATERIAL**
Two lots, 3 specimens, 108–166 mm SL, 10–43 m, lagoon and drop-off at Salomon (photos: 108 and 166 mm). Indo-Pacific (to Tahiti).

**Pterocaesio sp.**

*Pl. VE*

**MATERIAL**
Two lots, 2 specimens, 89–99 mm SL, 10–25 m, reef-top and drop-off at Peros Banhos and Salomon (photos: both). This new species will be described by K. Carpenter. Indo–west Pacific (east to Papua New Guinea).

**Tropidinius zonatus** (Valenciennes)

*Serranus zonatus* Valenciennes in Cuvier and Valenciennes, 1830b:509 (Mauritius)

*Tropidinius zonatus*—Allen, 1984:93 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Allen (1984). Indo-Pacific.

**Nemipteridae**

**Scolopsis frenatus** (Cuvier)

*Scolopsides frenatus* Cuvier in Cuvier and Valenciennes, 1830a:343 (Seychelles; Mauritius)

*Scolopsis frenatus*—Russell and Allen, 1984:33 (western Indian Ocean, including Chagos)

No specimens seen or collected; the record is based on Russell and Allen (1984). Western Indian Ocean.

**Gerreidae**

The material of this family was identified by Dr D. Woodland.

**Gerres acinaces** Bleeker

*Gerres acinaces* Bleeker, 1854a:194 (Java); Woodland, 1984:11 (Indo–west Pacific)

**MATERIAL**
Nine lots, 44 specimens, 29–245 mm SL, 0–2 m, lagoon and reef-flat (1) at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 245 mm). Indo–west Pacific.

**Gerres oblongus** Cuvier

*Gerres oblongus* Cuvier in Cuvier and Valenciennes, 1830b:479 (Trincomalee, Sri Lanka); Woodland, 1984:15 (Indo–west Pacific)

**MATERIAL**
Two lots, 40 specimens, 47–107 mm SL, 0–0.5 m, lagoon at Peros Banhos (photo: 50 mm). Indo–west Pacific.

**Gerres oyena** (Forsskål)

*Labrus oyena* Forsskål, 1775:35 (Jiddah, Red Sea)

**Gerres oyena**—Woodland, 1984:9 (Indo-Pacific)

**Haemulidae**

**Plectorhinchus orientalis** (Bloch)

*Plectorhinchus orientalis* Bloch, 1793:10 (Japan)

**Plectorhinchus orientalis**—McKay, 1984:29 (Indo-Pacific)

**MATERIAL**
Three lots, 24 specimens, 25–148 mm SL, 0–5 m, lagoon and intertidal at Diego Garcia, Peros Banhos, and Salomon (photos: 46 and 148 mm). Indo-Pacific.

**Lethrinidae**

**Gnathodentex aureolineatus** (Lacepède)

*Gnathodentex aureolineatus* Lacepède, 1802b:42 (no locality)

**Gnathodentex aureolineatus**—Sato and Walker, 1984:11 (Indo-Pacific)

**MATERIAL**
Gymnocranius griseus (Temminck and Schlegel)
Dentex griseus Temminck and Schlegel, 1842:72 (Java; Solor; Waigeo); Sato, 1978:22 (Indo–west Pacific, including Truk Islands, Caroline Islands)

No specimens seen or collected; the record is based on the report of Kyushin et al. (1977) of specimens taken by vertical longline in 10–100 m. Indo–west Pacific and marginally on the Pacific plate.

Gymnocranius robinsoni (Gilchrist and Thompson)
Dentex robinsoni Gilchrist and Thompson, 1909:226 (Natal, South Africa)
Gymnocranius robinsoni—Kyushin et al., 1977:126 (Indo–west Pacific, including Chagos)

No specimens seen or collected; the record is based on the photograph and description by Kyushin et al. (1977) of specimens collected by vertical longline in 15–160 m. Indo–west Pacific.

Lethrinus conchylatus (Smith)
Lethrinella conchylia Smith, 1959c:292 (Pinda)
Lethrinus conchylatus—Sato and Walker, 1984:27 (Indian Ocean, including Chagos)

No specimens seen or obtained; the record is based on Sato and Walker (1984). Indian Ocean.

Lethrinus elongatus Valenciennes
Lethrinus elongatus Valenciennes in Cuvier and Valenciennes, 1830b:289 (Suez); Sato and Walker, 1984:23 (Indo-Pacific, including Chagos)
Lethrinus miniatus—Kyushin et al., 1977:150 (Chagos Archipelago); (non Bloch and Schneider, 1801)

Two specimens, tentatively identified as this species, were seen chasing each other in the late afternoon on the reef-top at Salomon. No specimens were collected; the record is based on Sato and Walker (1984) and Kyushin et al. (1977). Indo-Pacific.

Lethrinus hypselopterus Bleeker
Lethrinus hypselopterus Bleeker, 1873:326 (Sumatra; Java; Solor; Waigeo); Sato, 1978:22 (Indo–west Pacific, including Truk Islands, Caroline Islands)

Lethrinus kallopterus Bleeker
Lethrinus kallopterus Bleeker, 1856c:47 (Sulawesi); Sato 1978:20 (Indo-Pacific to Marshall Islands and Marianas, including Chagos)

No specimens seen or collected; the record is based on Sato (1978). Indo–west Pacific and marginally on the Pacific plate.

Lethrinus mahsena (Forsskål)
Sciæna mahsena Forsskål, 1775:52 (Red Sea)
Lethrinus caeruleus—Kyushin et al., 1977:158 (Chagos Archipelago) (non Valenciennes)
Lethrinus enigmaticus—Kyushin et al., 1977:160 (Chagos Archipelago) (non Smith)
Lethrinus mahsena—Sato and Walker, 1984:35 (Indo-Pacific to Tuamotu Islands, including Chagos)

MATERIAL
Two lots, 2 specimens, 190–264 mm SL, 1–10 m, lagoon at Diego Garcia and Eagle Island (photo: 264 mm). The smaller specimen, from Diego Garcia, was keyed out to L. sanguineus in Sato (1978). That species was relegated to the synonymy of L. mahsena by Sato and Walker (1984). Indo-Pacific.

Lethrinus microdon Valenciennes
Lethrinus microdon Valenciennes in Cuvier and Valenciennes, 1830b:295 (Buru); Sato and Walker, 1984:37 (Indo–west Pacific)
Lethrinella microdon—Kyushin et al., 1977:152 (Chagos Archipelago)

No specimens seen or collected; the record is based on the reports of Kyushin et al. (1977) and Sato and Walker (1984). Indo–west Pacific.

Lethrinus nebulosus (Forsskål)
Sciæna nebulosa Forsskål, 1775:52 (Red Sea)
Lethrinella choerorhynchos—Kyushin et al., 1977:154 (Chagos Archipelago) (non Bloch and Schneider, 1801)
Lethrinus nebulosus—Sato and Walker, 1984:39 (Indo–west Pacific, including Samoa)

Lethrinus reticulatus Valenciennes
Lethrinus reticulatus Valenciennes in Cuvier and Valenciennes, 1830b:298 (New Guinea); Sato, 1978:53 (Indo–west Pacific)
Lethrinella sp. Kyushin et al., 1977:148 (Chagos Archipelago)

No specimens seen or collected; the record is based on a report by Kyushin et al. (1977) of specimens caught by vertical longline in 10–90 m. Indo–west Pacific.
No specimens seen or collected; the record is based on Kyushin et al. (1977). Sato (1978) records this species from the western Pacific, and from the Indian Ocean on the basis of the record of Kyushin et al. (1977). Sato and Walker (1984:9) list the species as being present in the area, but are dubious of its validity, feeling that it is “probably the young of some other species of the genus”. However, the Chagos specimen (caught by vertical longline in 23 m) is 306 mm BL, and other material examined by Sato (1978) includes specimens up to 263 mm SL; so the validity of the species is provisionally accepted here. Indo–west Pacific.

**Lethrinus rubrioperculatus** Sato

*Lethrinus rubrioperculatus* Sato, 1978:58 (Okinawa, Japan); Sato and Walker, 1984:43 (Indo–west Pacific, including Chagos)

*Lethrinus rubrioperculatus* —Kyushin et al., 1977:144 (Chagos Archipelago) *(non Valenciennes)*

No specimens seen or collected; the record is based on Sato and Walker (1984). The specimen of *L. variegatus* figured by Kyushin et al. (1977) is of this species, but since they report collecting specimens at three localities in the Indian Ocean, and since their material apparently consists of more than one species, it is not possible to decide whether the figured specimen is from Chagos or one of the other two localities in the Indian Ocean that they mention. Indo–west Pacific.

**Lethrinus variegatus** Valenciennes

*Lethrinus variegatus* Valenciennes in Cuvier and Valenciennes, 1830b:287 (Massawa and Suez, Red Sea); Sato and Walker, 1984:47 (Indo-Pacific, including Chagos)

No specimens seen or collected; the record is based on Sato and Walker (1984). Indo-Pacific.

**Lethrinus xanthochilus** Klunzinger

*Lethrinus xanthochilus* Klunzinger, 1870:753 (Red Sea); Sato and Walker, 1984:49 (Indo-Pacific, including Chagos)

No specimens seen or collected; the record is based on Sato and Walker (1984). Indo-Pacific.

**Monotaxis grandoculis** (Forsskål)

*Sciaena grandoculis* Forsskål, 1775:53 (Jiddah, Red Sea)

*Monotaxis grandoculis* —Kyushin et al., 1977:168 (Chagos Archipelago); Sato and Walker, 1984:51 (Indo-Pacific to Hawaii)

**Mullidae**

**Mulloides flavolineatus** (Lacepède)

Fig. 216

*Mullus flavolineatus* Lacepède, 1802a:384 (no locality)

*Mulloides flavolineatus* —Kumaran and Randall, 1984:5 (Indo-Pacific, including Chagos)

**MATERIAL**

Fourteen lots, 47 specimens, 58–192 mm SL, 0–10 m, lagoon and reef-flat at Diego Garcia, Peros Banhos, and Salomon (photos: 81, 90, and 151 mm). Indo-Pacific.

**Mulloides vanicolensis** (Valenciennes)

*Upeneus vanicolensis* Valenciennes in Cuvier and Valenciennes, 1831a:521 (Vanicoło)

*Mulloides vanicolensis* —Kumaran and Randall, 1984:7 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Kumaran and Randall (1984). Indo-Pacific.

**Parupeneus barberinus** (Lacepède)

Fig. 217

*Mullus barberinus* Lacepède, 1802a:406 (near Moluccas)

*Parupeneus barberinus* —Kumaran and Randall, 1984:11 (Chagos Archipelago); Lachner, 1960:16 (Indo-Pacific to the Low Archipelago and Hawaii)

**MATERIAL**

Three lots, 8 specimens, 80–160 mm SL, 0–1 m, lagoon only at Eagle Island and Peros Banhos. Indo-Pacific.

**Parupeneus bifasciatus** (Lacepède)

Fig. 218

*Mullus bifasciatus* Lacepède, 1802a:383 (no locality)

*Parupeneus bifasciatus* —Kumaran and Randall, 1984:9 (Indo-Pacific to Pitcairn Island)

**MATERIAL**

Two lots, 2 specimens, 130–131 mm SL, 1–10 m, reef-top and lagoon at Diego Garcia and Peros Banhos (photo:
130 mm). Although only two specimens were collected, this species was frequently seen on the reef-tops, either singly or in small groups. Indo-Pacific.

**Parupeneus cinnabarinus** (Cuvier)

*Parupeneus cinnabarinus* Cuvier in Cuvier and Valenciennes, 1829a:475 (Trincomalee, Sri Lanka)

*Parupeneus cinnabarinus*—Kumaran and Randall, 1984:17 (Indo-west Pacific, including Chagos, to Marshall Islands)

No specimens seen or collected; occurrence is based on Kumaran and Randall (1984). Indo-west Pacific and marginally on the Pacific plate.

**Parupeneus cyclostomus** (Lacepède)  
Fig. 219

*Parupeneus cyclostomus* Lacepède, 1802a:383 (no locality)

*Parupeneus cyclostomus*—Kumaran and Randall, 1984:21 (Indo-Pacific, including Chagos, to Hawaii and French Polynesia)

**MATERIAL**

Three lots, 3 specimens, 79–159 mm SL, 3–17 m, lagoon and reef-top at Eagle Island and Peros Banhos (photo: 79 mm). Indo-Pacific.

**Parupeneus macronema** (Lacepède)  
Fig. 220

*Parupeneus macronema* Lacepède, 1802a:383 (no locality)

*Parupeneus macronema*—Kumaran and Randall, 1984:13 (Indo-west Pacific to Philippines)

**MATERIAL**

Ten lots, 38 specimens, 34–126 mm SL, 0–20 m, lagoon and reef-top (1) at Diego García, Peros Banhos, Salomon, and Three Brothers (photos: 49, 52, 84, and 86 mm). Indo-west Pacific.

**Parupeneus pleurostigma** (Bennett)  
Fig. 221

*Parupeneus pleurostigma* Bennett, 1831:59 (Mauritius)

*Parupeneus pleurostigma*—Kumaran and Randall, 1984:25 (Indo-Pacific, including Chagos, to Hawaii and French Polynesia)

**MATERIAL**

One lot, 2 specimens, 61–98 mm SL, 13 m, lagoon at Peros Banhos (photo: 61 mm). Indo-Pacific.

**Upeneus tragulus** Richardson

*Upeneus tragula* Richardson, 1846:220 (Phoenix Islands); Kumaran and Randall, 1984:37 (Indo-west Pacific, including Chagos)

No specimens seen or collected; occurrence is based on Kumaran and Randall (1984).

**Pempheridae**

The pempherids were identified by J.-M. Rose, who also provided comments on distribution.

**Parapriacanthus ransonneti** Steindachner  
Pl. VF

*Parapriacanthus ransonneti* Steindachner, 1870:623 (Japan); Tominaga, 1963:271 (west Pacific east to Marshall Islands)

**MATERIAL**

Two lots, 412 specimens, 28–52 mm SL, 10–15 m, reef-top (photo: 51 mm). This genus is in need of revision, and the identification is tentative. The Chagos specimens have a teardrop-shaped patch of translucent skin just anterior to the anus, but none anterior to the pelvic-fin base. Indo-west Pacific and marginally on the Pacific plate.

**Pempheris schwenkii** Bleeker

*Pempheris schwenkii* Bleeker, 1855a:314 (Batu, Indonesia)

**MATERIAL**

Four lots, 236 specimens, 41–99 mm SL, 5–27 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 3 specimens). Indo-Pacific.

**Pempheris vanicolensis** Cuvier  
Fig. 224

*Pempheris vanicolensis* Cuvier in Cuvier and Valenciennes, 1831a:305 (Vanicolo)

**MATERIAL**

Five lots, 38 specimens, 73–136 mm SL, 3–33 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 3 specimens). Indo-Pacific.

**Kyphosidae**

**Kyphus cinerascens** (Forsskål)  
Fig. 225

*Sciaena cinerascens* Forsskål, 1775:53 (Arabia)

**Kyphus cinerascens**—Maugé, 1984b:5 (Indo-Pacific, including Chagos, to Easter Island)

**MATERIAL**

Three lots, 6 specimens, 148–215 mm SL, 0–1 m, lagoon and intertidal at Eagle Island and Peros Banhos (photo: 148 mm). Indo-Pacific.
**Drepaneidae**

*Drepane punctata* (Linnaeus)

*Chaetodon punctatus* Linnaeus, 1758:273 (Asia)

*Drepane punctata*—Maugé, 1984a:3 (Indo–west Pacific, including Chagos, to Japan and Samoa)

No specimens seen or collected; occurrence is based on Maugé (1984a). Indo–west Pacific.

**Ephippididae**

*Platax orbicularis* (Forsskål)  
Fig. 226

*Chaetodon orbicularis* Forsskål, 1775:59 (Jiddah, Red Sea)

*Platax orbicularis*—Maugé, 1984c:5 (Indo–west Pacific, including Chagos, to China and Queensland, Australia); Randall, 1973:193 (Tahiti)

**MATERIAL**

Four lots, 4 specimens, 55–138 mm SL, 0–2 m, lagoons at Peros Banhos and Salomon (photos: 75, 130, and 138 mm). Indo-Pacific.

**Chaetodontidae**

*Chaetodon auriga* Forsskål  
Fig. 227

*Chaetodon auriga* Forsskål, 1775:60 (Jiddah, Red Sea); Allen, 1980:322 (Indo-Pacific)

**MATERIAL**

Eleven lots, 60 specimens, 21–149 mm SL, 0–13 m, lagoon, intertidal, reef-flat, and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 130 mm). This species is primarily a very shallow water inhabitant, and all but two specimens were collected in the intertidal and reef-flat habitats. Indo-Pacific.

*Chaetodon falcula* Bloch  
Fig. 228

*Chaetodon falcula* Bloch, 1795:102 (no locality); Allen, 1980:322 (Indian Ocean only, east to India)

**MATERIAL**

Four lots, 6 specimens, 123–166 mm SL, 0–15 m, lagoons only at Peros Banhos, Salomon, and Three Brothers (photos: 123, 146, and 159 mm). Western Indian Ocean.

*Chaetodon guttatissimus* Bennett  
Fig. 229

*Chaetodon guttatissimus* Bennett, 1832a:183 (Sri Lanka); Allen, 1980:322 (Indo–west Pacific east to Thailand)

**MATERIAL**

Fifteen lots, 23 specimens, 26–86 mm SL, 0.5–30 m, primarily lagoons, also reef-top (2) and drop-off (5) at Peros Banhos, Salomon, and Three Brothers (photo: 69 mm). Indo–west Pacific.

*Chaetodon kleinii* Bloch  
Fig. 230

*Chaetodon kleinii* Bloch, 1790:7 (East Indies); Allen, 1980:322 (Indo-Pacific to Hawaii and Society Islands)

**MATERIAL**

Six lots, 6 specimens, 51–95 mm SL, 0–26 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 77 and 89 mm). Indo-Pacific.

*Chaetodon lineolatus* Cuvier  
Fig. 231

*Chaetodon lineolatus* Cuvier in Cuvier and Valenciennes, 1831a:40 (Mauritius); Allen, 1980:324 (Indo-Pacific to Hawaii and Society Islands)

No specimens collected; occurrence is based on a sight record in 15 m off the north tip of Eagle Island. Indo-Pacific.

*Chaetodon lunula* (Lacepède)  
Fig. 231

*Pomacentrus lunula* Lacepède, 1802b:507 (no locality)

*Chaetodon lunula*—Allen, 1980:324 (Indo-Pacific, to Hawaii and Marquesas Islands)

**MATERIAL**

Seven lots, 8 specimens, 68–208 mm SL, 0–24 m, lagoon, reef-flat, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 165 mm). Indo-Pacific.

*Chaetodon madagascariensis* Ahl  
Fig. 232

*Chaetodon madagascariensis* Ahl, 1923:162 (Madagascar); Allen, 1980:324 (Indian Ocean to Sri Lanka)

**MATERIAL**

Two lots, 3 specimens, 51–84 mm SL, 9–18 m, reef-top and drop-off at Eagle Island and Peros Banhos (photo: 51 mm). Western Indian Ocean.

*Chaetodon melanotus* Schneider  
Fig. 233

*Chaetodon melanotus* Schneider in Bloch and Schneider, 1801:224 (Bay of Bengal); Allen, 1980:324 (Indo-Pacific to Hawaii and Society Islands)

No specimens collected; the record is based on an underwater photograph taken by Ryther in the lagoon at Diego Garcia. Indo-Pacific.

*Chaetodon meyeri* Schneider  
Fig. 233

*Chaetodon meyeri* Schneider in Bloch and Schneider, 1801:223 (Moluccas); Allen, 1980:324 (Indo-Pacific east to Marshall Islands and Marianas)
MATERIAL.
Six lots, 6 specimens, 94–133 mm SL, 0–15 m, lagoon and reef-top at Peros Banhos and Salomon (photos: 126 and 133 mm). Indo-west Pacific and marginally on the Pacific plate.

*Chaetodon mitratus* Günther

*Chaetodon mitratus* Günther, 1860:16 (probably Mauritius); Allen, 1980:324 (Indian Ocean including Cocos[Keeling] Island and Christmas Island)

Five lots, 1 specimen, 193 mm, lagoon and reef-top at Peros Banhos (photo: 87 mm). Indian Ocean.

*Chaetodon trifascialis Quoy and Gaimard*

*Chaetodon trifascialis* Quoy and Gaimard, 1824:379 (Guam); Allen, 1980:326 (Indo-Pacific east to Hawaii and Rapa)

Three lots, 4 specimens, 69–87 mm SL, 40–48 m, drop-off at Peros Banhos (photo: 87 mm). Indian Ocean.

*Chaetodon trifasciatus trifasciatus* Park

*Chaetodon trifasciatus* Park, 1797:34 (Sumatra); Allen, 1980:326 (Indo-Pacific to Hawaii and Rapa)

Seven lots, 15 specimens, 42–127 mm SL, 3–20 m, lagoon and reef-top at Peros Banhos and Salomon (photos: 55 and 66 mm). Indo-Pacific.

*Chaetodon unimaculatus interruptus* Abl

*Chaetodon unimaculatus* Bloch, 1787:75 (East Indies); Allen, 1980:326 (Indo-Pacific to Hawaii and the Marquises Islands)

Burgess (1978:637–641) recognizes two subspecies, with approximately the same geographic distribution as that outlined for *C. trifasciatus*. Our specimens agree with the Indian Ocean form. Indian Ocean and western extremity of west Pacific.

*Chaetodon vagabundus Linnaeus*

*Chaetodon vagabundus* Linnaeus, 1758:276 (“Indiis”); Allen, 1980:326 (Indo-Pacific east to Tuamotu Islands)

One lot, 1 specimen, 48 mm SL, 0–3 m, lagoon at Salomon (photo). Indo-Pacific.

*Chaetodon xanthecephalus Bennett*

*Chaetodon xanthecephalus* Bennett, 1832a:182 (Sri Lanka); Allen, 1980:235 (Indian Ocean east to the Maldives)

Four lots, 4 specimens, 149–184 mm SL, 1–25 m, lagoon and drop-off at Diego Garcia, Peros Banhos, Salomon, and Three Brothers (photos: 181 and 184 mm). Western Indian Ocean.

*Chaetodon zanibarenseis Playfair*

*Chaetodon zanibarenseis* Playfair, 1866:33 (Zanzibar); 1980:326 (western Indian Ocean)

Four lots, 4 specimens, 53–113 mm SL, 2–17 m, lagoon and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 112 mm). Western Indian Ocean.

*Forcipiger flavissimus* (Cuvier)

*Forcipiger flavissimus* Cuvier in Cuvier and Valenciennes, 1831a:89 (Mauritius)

Four lots, 4 specimens, 90–116 mm SL, 7–43 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 90, 99, and 108 mm). Indo-Pacific.

*Hemitaurichthys zoster* (Bennett)

*Hemitaurichthys zoster* Bennett, 1831:61 (Mauritius)

Two lots, 3 specimens, 75–129 mm SL, 10–20 m, reef-top and drop-off at Eagle Island and Salomon (photo: 129 mm). Western Indian Ocean.
Heniochus monoceros Cuvier  
Fig. 243  
Heniochus monoceros Cuvier in Cuvier and Valenciennes, 1831a:100 (Mauritius); Allen, 1980:326 (Indo-Pacific east to Tuamotu Islands)

MATERIAL  
Two lots, 2 specimens, 95–310 mm SL, 0–7 m, lagoon at Salomon (photos: both). Indo-Pacific.

Pomacentridae

Apolemichthys trimaculatus (Cuvier)  
Fig. 244  
Holacanthus trimaculatus Cuvier in Cuvier and Valenciennes, 1831a:196 (Moluccas)  
Apolemichthys trimaculatus—Allen, 1980:328 (Indo-west Pacific east to Marshall Islands)

MATERIAL  
Three lots, 3 specimens, 96–150 mm SL, 0–15 m, lagoons at Eagle Island and Peros Banhos (photos: 96 and 150 mm). Indo-west Pacific and marginally on the Pacific plate.

Centropyge acanthops (Norman)  
Holacanthus acanthops Norman, 1922:318 (Natal)  
Centropyge acanthops—Allen, 1980:328 (western Indian Ocean)

No specimens collected; occurrence is based on a sight record of three specimens in 12 m on the reef-top off Isle Boddam, Salomon. Western Indian Ocean.

Centropyge bispinosus (Günther)  
Holacanthus bispinosus Günther, 1860:48 (Ambon)  
Centropyge bispinosus—Allen, 1980:328 (Indo-Pacific east to Tuamotu Islands)

MATERIAL  
One lot, 1 specimen, 56 mm SL, 33–43 m, drop-off at Salomon (photo). Indo-Pacific.

Centropyge multispinis (Playfair)  
Holacanthus multispinis Playfair, 1866:37 (Zanzibar)  
Centropyge multispinis—Allen, 1980:328 (Indian Ocean to Thailand)

MATERIAL  
Thirty-one lots, 84 specimens, 21–95 mm SL, 0–30 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 31, 66, 69, and 78 mm). This species was most common in depths between 6 and 25 m, where 81% of the specimens were collected, and was almost equally abundant in lagoonal and outer-reef habitats. Indo-west Pacific.

Pomacanthus imperator (Bloch)  
Fig. 247  
Chaetodon imperator Bloch, 1787:51 (Japan)  
Pomacanthus imperator—Allen, 1980:330 (Indo-Pacific to Pitcairn Island)

MATERIAL  
Three lots, 3 specimens, 36–242 mm SL, 10–15 m, lagoon at Peros Banhos (photos: 36 and 240 mm). Indo-Pacific.

Pygoplites diacanthus (Boddaert)  
Fig. 248  
Chaetodon diacanthus Boddaert, 1772, pl. 9 (Ambon; Moluccas)  
Pygoplites diacanthus—Allen, 1980:330 (Indo-Pacific east to Tuamotu Islands)

MATERIAL  
Six lots, 8 specimens, 31–176 mm SL, 5–33 m, lagoon and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 31, 61, 142, and 163 mm). Indo-Pacific.

Pomacentridae

Abudefdud coelestinus (Cuvier)  
Fig. 249  
Glyphisodon coelestinus Cuvier in Cuvier and Valenciennes, 1830a:464 (Indies; Mauritius; Malabar; Uliteea; Society Islands)  
Abudefdud coelestinus—Allen, 1975:114 (Indo-Pacific east to Rapa)

MATERIAL  
Three lots, 28 specimens, 13–58 mm SL, 0–3 m, lagoon and reef-top at Peros Banhos and Salomon (photo: 32 mm). Indo-Pacific.

Abudefdud septemfasciatus (Cuvier)  
Fig. 250  
Glyphisodon septemfasciatus Cuvier in Cuvier and Valenciennes, 1830a:463 (Mauritius)  
Abudefdud septemfasciatus—Allen, 1975:115 (Indo-Pacific east to Tuamotu Islands)

MATERIAL  
Two lots, 3 specimens, 114–138 mm SL, 1–2 m, lagoon at Peros Banhos. Indo-Pacific.

Abudefdud sordidus (Forsskål)  
Fig. 251  
Chaetodon sordidus Forsskål, 1775:62 (Jiddah, Red Sea)  
Abudefdud sordidus—Allen, 1975:115 (Indo-Pacific east to Pitcairn Island)

MATERIAL  
Five lots, 10 specimens, 16–138 mm SL, 0–1 m, lagoon and reef-flat at Diego Garcia, Peros Banhos, and Salomon (photos: 31, 38, and 119 mm). Indo-Pacific.
Abudesduf vaigiensis (Quoy and Gaimard)  Fig. 252
*Glyphisodon vaigiensis* Quoy and Gaimard, 1824:391
("Iles des Papous")

Abudesduf vaigiensis—Allen, 1976:33 (Indo-west Pacific)

**MATERIAL**

One lot, 1 specimen, 32 mm SL, 0–0.75 m, lagoon at Eagle Island. Indo-west Pacific.

**Amblyglyphidodon sp.**  Pl. VG,H

**MATERIAL**

Fourteen lots, 176 specimens, 7–97 mm SL, 1–24 m, lagoon and drop-off at Diego Garcia, Peros Banhos, Salomon, and Three Brothers (photo: 85 mm).

This species is similar to *A. leucogaster* (Bleeker), originally described from Java. There appear to be at least three forms, one in Oceania, a second in the southwest Pacific Ocean, and a third in the Indian Ocean. Both Pacific forms have black bars on the caudal lobes and a yellow venter. The Oceania form also has a black spot on the pectoral-fin base and a black margin to the dorsal fin. The Indian Ocean form is uniform in colour with a pale belly. Systematics are insufficiently known to categorize distribution. Range unassigned.

**Amphiprion chagosensis** Allen  Pl. VIA

Amphiprion chagosensis Allen, 1972:161 (Chagos Archipelago)

**MATERIAL**

Nine lots, 37 specimens, 22–69 mm SL, 10–25 m, primarily drop-off, also reef-top (1) and lagoon (1) at Peros Banhos and Salomon (photos: 41, 62, and 63 [× 2] mm).

The single collection from the reef-top contained seven specimens. The seven drop-off collections had a mean of 4.0 specimens/collection and comprised 76% of the total number of specimens, of which 81% were taken in 16–25 m. Endemic.

**Amphiprion sp. I**  Pl. VIB,C

**MATERIAL**

Six lots, 15 specimens, 19–74 mm SL, 3–20 m, lagoon and reef-top (1) at Peros Banhos and Salomon (photos: 22, 36, 53, and 74 mm).

These specimens could represent an undescribed species, but they are very similar to *A. chagosensis* (possessing two white bands, interorbital scales reaching anteriorly to mid-orbit, 13–15 anal rays, and 19 pectoral rays). They differ from *A. chagosensis* in the following ways: the anterior white bar is wider, the horizontal width of the bar at the lower margin of the eye (B) always being greater than 10% of SL (vs always less than 11% of SL); the width of the bar in the midline of the nape (A) usually increases with SL (vs decreasing or absent); the ratio A/B is usually greater than 1 (0.7–1.4) vs usually less than 1 (0–1.0); and juveniles (<25 m SL) have black markings in the soft dorsal and posterodorsal part of caudal fins (vs no dark markings in these fins). A single 30-mm SL specimen (from a depth of 23–25 m on the drop-off at Salomon) appears to be an intergrade between these two forms. Only one station (20 m in the lagoon at Peros Banhos) contained both forms (one specimen of each). Systematics insufficiently known to categorize distribution. Range unassigned.

**Chromis atripeoralis Welander and Schultz**  Fig. 253

Chromis atripeoralis Welander and Schultz, 1951:107 (central and western tropical Pacific); Allen, 1975:78 (Tuamotu Islands to Dampier Archipelago)

**MATERIAL**

Eight lots, 13 specimens, 26–69 mm SL, 4–29 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 45 and 64 mm). Indo-Pacific.

**Chromis atripes Fowler and Bean**  Fig. 254

Chromis atripes Fowler and Bean, 1928:43 (East Indies; Philippines); Allen, 1975:79 (Gilbert Islands; eastern part of western Pacific)

**MATERIAL**

Seventeen lots, 322 specimens, 22–55 mm SL, 15–48 m, drop-off only at Peros Banhos and Salomon (photos: 43, 44, and 46 mm). Sixty-nine per cent of our specimens were taken in 16–25 m, with a further 26% in water deeper than 36 m. *Chromis atripes* was recorded from the Indian Ocean for the first time by Allen and Steene (1979) at Christmas Island. Indo-west Pacific and marginally on the Pacific plate.

**Chromis dimidiata** (Klunzinger)  Fig. 255

*Heliases dimidiatus* Klunzinger, 1871:529 (Red Sea)

Chromis dimidiatus—Allen, 1975:86 (Red Sea and western Indian Ocean)

**MATERIAL**

Thirty-seven lots, 491 specimens, 14–51 mm SL, 0.5–36 m, lagoon, reef-top, and drop-off at Eagle Island. Peros Banhos, and Salomon (photos: 34 and 37 mm). This species was most abundant on the reef-tops (24%) and drop-offs (70%), which was reflected in the depth distribution (31% in 6–15 m, 66% in 16–25 m). It was ubiquitous along the rim of the drop-off, where it formed large associations feeding on plankton in the water column. Western Indian Ocean.

**Chromis lepidolepis** Bleeker  Fig. 256

Chromis lepidolepis Bleeker, 1876:389 (Timor); Allen, 1975:83 (Indo-Pacific to Line Islands and Fiji)
Chromis nigrura Smith

Chromis nigrura Smith. 1960:325 (Inhaca)
Chromis nigrura—Allen and Steene, 1979:42 (Indian Ocean to Christmas Island)

Chromis opercularis (Günther)

Pl. VID
Heliases opercularis Günther, 1866a:84 (Zanzibar)
Chromis opercularis—Smith, 1960:325 (western Indian Ocean)

Chromis pembae Smith

Pl. VIE
Chromis pembae Smith, 1960:323 (Pemba, Mozambique); Allen and Randall, 1980:29 (Gulf of Elat, Red Sea)

Chromis simulans Smith

Fig. 258
Chromis simulans Smith, 1960:326 (Mozambique Island)

Chromis ternatensis (Bleeker)

Fig. 259
Heliases ternatensis Bleeker, 1856a:377 (Ternate, Indonesia)


Chromis viridis (Cuvier)

Fig. 260
Pomacentrus viridis Cuvier in Cuvier and Valenciennes, 1830a:420 (Massawa, Red Sea)
Chromis viridis—Randall, Bauchot, and Desoutter, 1985:411 (Indo-Pacific to French Polynesia)

Chromis weberi Fowler and Bean

Fig. 261
Chromis weberi Fowler and Bean, 1928:41 (Java); Allen, 1975:86 (Indo-Pacific to Pitcairn Island and Line Islands)

Chrysiptera biocellata (Quoy and Gaimard)

Fig. 262
Glyphidodon biocellatus Quoy and Gaimard, 1824:389 (Guam)
Glyphidodontops biocellatus—Allen, 1975:150 (Indo-Pacific to Marshall Islands and Gilbert Islands)

Material

Twelve lots, 32 specimens, 12–53 mm SL, 15–43 m, lagoon (1), reef-top (1), and drop-off at Peros Banhos and Salomon (photos: 43 and 48 mm). Seventy-eight per cent of specimens were collected on drop-offs, where they showed a slight preference (53%) for depths of 16–25 m. Indo-Pacific.

Material

Fourteen lots, 194 specimens, 19–40 mm SL, 0–25 m, lagoon (1), reef-top, and drop-off (1) at Eagle Island, Peros Banhos, and Salomon (photo: 37 mm). Eighty-four per cent of our specimens were collected on the reef-top in 6–15 m (1/lot = 15 specimens). The single collection from 16–25 m on the drop-off contained 18 specimens. Indian Ocean.

Material

Nine lots, 10 specimens, 41–103 mm SL, 5–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 41, 80, and 103 mm). Western Indian Ocean.

Material

Two lots, 10 specimens, 77–96 mm SL, 40–48 m, drop-off at Peros Banhos and Salomon (photo: 77 mm). At Chagos, this species was confined to deep water, where it formed small schools close to the substrate. Western Indian Ocean and Red Sea.

Material

Seven lots, 10 specimens, 65–80 m SL, 4–25 m, reef-top and drop-off at Eagle Island, Peros Banhos, and Salomon. Western Indian Ocean.

Material

Five lots, 29 specimens, 16–65 mm SL, 3–15 m, lagoon and reef-top (1) at Peros Banhos (photo: 65 mm).

There is some doubt about the geographic range of this species. Although the range given in Allen (1975) is unambiguous, a subsequent publication (Allen and Randall, 1980:39) gives the range as being Indo-west Pacific “at least as far as the Fiji and Marshall Islands”. The latter range is followed here. Indo-west Pacific and marginally on the Pacific plate.

Material

Eleven lots, 50 specimens, 24–84 mm SL, 3–36 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 58 and 75 mm). This species was most abundant in the lagoons and on the drop-offs, and it was evenly distributed in a depth range of 6–36 m. Although the correct name for this species is C. caerulea, we retain C. ternatensis pending a request for suppression of the former name (see Randall, Bauchot, and Desoutter, 1985). Indo-west Pacific and marginally on the Pacific plate.
MATERIAL
Thirteen lots, 957 specimens, 10–77 mm SL, 0–2 m, lagoon and reef-flat (1 specimen) at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 45 mm). Indo-west Pacific and marginally on the Pacific plate.

Chrysiptera glauca (Cuvier) Fig. 263
Glyphisodon glauces Cuvier in Cuvier and Valenciennes, 1830a:475 (Guam)
Glyphidodontops glaucus—Allen, 1975:154 (Indo-Pacific to Pitcairn Island)

MATERIAL
Thirteen lots, 1161 specimens, 12–64 mm SL, 0–2 m, lagoon and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 36 and 45 mm). Seventeen per cent of our specimens came from reef-flats, the remainder from very shallow lagoonal habitats. Indo-Pacific.

Chrysiptera leucopoma (Lesson) Fig. 264
Glyphisodon leucopomus Lesson, 1830:189 (Caroline Islands)
 Glyphidodontops leucopomus—Allen and Steene, 1979:43 (Indo-west Pacific); Allen, 1975:155 (East Indies to Marquesas Islands)

MATERIAL
Eight lots, 81 specimens, 17–50 mm SL, 0–3 m, lagoon and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 44 mm). This species was almost equally divided between the lagoons (55% of specimens collected, 5/lot = 10.3 specimens) and the reef-flats (45% of specimens collected, 5/lot = 11 specimens). Indo-Pacific.

Chrysiptera xanthozona (Bleeker) Fig. 265
Glyphisodon xanthozonus Bleeker, 1853b:283 (Kauer, East Indies)
 Abudefuf xanthozonaut—Smith, 1960:337 (western Indian Ocean)

MATERIAL
Three lots, 111 specimens, 19–50 mm SL, 0–3 m, reef-top and reef-flat at Peros Banhos and Salomon (photo: 44 mm). This species was collected only on the ocean side of the island—on the reef-flat and in the spur-and-groove formation. Indo-west Pacific.

Chrysiptera sp. 1 Fig. 266
MATERIAL
Two lots, 5 specimens, 39–46 mm SL, 0–1 m, lagoon at Eagle Island. This species, which may be new, is a pale-coloured fish, having a white opercle with a black spot on it and having a black spot on the posteriormost dorsal-fin rays. Systematics insufficiently known to categorize distribution. Range unassigned.

Chrysiptera sp. 2 Fig. 267
MATERIAL
Three lots, 174 specimens, 13–48 mm SL, 0–0.5 m, lagoon at Diego Garcia, Eagle Island, and Peros Banhos. This species is characterized by a pale overall coloration, a V-shaped line on the snout extending onto the dorsum, a dark spot in the spinous dorsal fin, and a dark spot on the posteriormost dorsal-fin rays. Systematics insufficiently known to categorize distribution. Range unassigned.

Chrysiptera sp. 3 Fig. 268
MATERIAL
One lot, 1 specimen, 20 mm SL, 0–0.5 m, reef-flat at Peros Banhos. This small juvenile possesses tricuspid teeth and may represent one of the above species. Systematics insufficiently known to categorize distribution. Range unassigned.

Dascyllus aruanus (Linnaeus) Pl. VIF
Chaetodon aruanus Linnaeus, 1758:275 ("Indies")
Dascyllus aruanus—Regan, 1908:229 (Chagos Archipelago); Allen, 1975:103 (Indo-Pacific to Rapa and the Marquesas Islands)

MATERIAL
Twenty lots, 994 specimens, 7–54 mm SL, 0–22 m, lagoon, reef-top (1), and reef-flat (1) at Diego Garcia, Peros Banhos, Salomon, and Three Brothers. Ninety-four per cent of the specimens were taken in the lagoons, with 96% being from water less than 15 m deep. Indo-Pacific.

Dascyllus carneus Fischer Pl. VIG
Dascyllus carneus Fischer, 1885:71 (Mozambique); Randall and Allen, 1977:368 (Indian Ocean, including Chagos, to Jakarta and west Thailand)

MATERIAL
Ten lots, 95 specimens, 16–48 mm SL, 5–20 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomón (photos: 19 and 43 mm). Collections of this species from the lagoons had a mean of 15.3 specimens/lot, as opposed to 8.3 for the reef-top and 1.5 for the drop-off. Ninety-seven per cent of the specimens were taken in water less than 15 m deep.

The distribution of D. carneus as reported by Randall and Allen (1977) is unusual, although they record both this species and D. reticulatus (Richardson), a closely related (possibly geminate) species, from the Gulf of Thailand. Randall and Allen (1977) report several colour differences between the western Indian Ocean population and those
from the Maldives, Thailand, and Java. The Chagos specimens fit the description of the former population, and it is possible that the two populations merit taxonomic distinction. Indian Ocean and western extremity of west Pacific.

**Dascyllus trimaculatus (Rüppell)**  
Fig. 269
*Pomacentrus trimaculatus* Rüppell, 1829a:39 (Massawa, Red Sea)
*Dascyllus trimaculatus*—Randall and Allen, 1977:360 (Indo-Pacific to Pitcairn Island)

**Material**
Ten lots, 23 specimens, 11–82 mm SL, 5–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 80 and 82 mm). This species was mainly collected on the drop-offs (78% of specimens collected), but was nowhere particularly abundant. The largest lot contains six specimens. Indo-Pacific.

**Lepidozygus tapeinosoma (Bleeker)**  
Fig. 270
*Pomacentrus tapeinosoma* Bleeker, 1856a:376 (Ternate)
*Lepidozygus tapeinosoma*—Emery, 1983:1326 (Indo-Pacific to Marquesas Islands)

**Material**
Five lots, 27 specimens, 43–77 mm SL, 5–15 m, reef-top only at Peros Banhos and Salomon (photos: 60 and 61 mm). Indo-Pacific.

**Plectroglyphidodon dickii (Liénard)**  
Fig. 271
*Glyphisodon dickii* Liénard, 1839:35 (Mauritius)
*Plectroglyphidodon dickii*—Allen, 1975:195 (Indo-Pacific east to Tuamotu Islands)

**Material**
Fifteen lots, 62 specimens, 12–71 mm SL, 0–10 m, lagoon and reef-top at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 51 mm). Specimens of this species were more concentrated in the lagoons than on the reef-top (x/lot = 6.7 vs 1.8), and evenly distributed between 0–5 m and 6–15 m (x/lot = 4 specimens at both depth ranges). Indo-Pacific.

**Plectroglyphidodon imparipennis (Sauvage)**  
Fig. 272
*Glyphisodon imparipennis* Sauvage in Vaillant and Sauvage, 1875:279 (Hawaii)
*Plectroglyphidodon imparipennis*—Allen, 1975:195 (Indo-Pacific east to Pitcairn Island)

**Material**
Two lots, 26 specimens, 37–43 mm SL, 0–3 m, reef-flat and reef-top at Peros Banhos and Salomon (photo: 42 mm). The specimens from the reef-top are from the spur-and-groove formation. Indo-Pacific.

**Plectroglyphidodon johnstonianus Fowler and Bail**  
Fig. 273
*Plectroglyphidodon johnstonianus* Fowler and Bail, 1924:271 (Johnston Island); Allen, 1975:195 (Pacific east to Pitcairn Island)

**Material**
Nine lots, 11 specimens, 23–59 mm SL, 5–25 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photo: 50 mm). Allen (1975) suggests that *P. nitidus* Smith from the western Indian Ocean may be synonymous with *P. johnstonianus*, extending the range of the latter species into the western Indian Ocean. Indo-Pacific.

**Plectroglyphidodon lacrymatus (Quoy and Gaimard)**  
Fig. 274
*Glyphisodon lacrymatus* Quoy and Gaimard, 1824:388 (Guam)
*Plectroglyphidodon lacrymatus*—Allen, 1975:198 (Indo-Pacific to Society Islands)

**Material**
Twenty lots, 117 specimens, 15–79 mm SL, 0–25 m, lagoon, reef-top (1), and drop-off (1) at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 31, 50, and 67 mm). Ninety-seven per cent of our specimens are from the lagoons, with 43% of the total from 0–5 m and 52% from 6–15 m. Indo-Pacific.

**Plectroglyphidodon leucozonus (Bleeker)**  
Fig. 275
*Glyphisodon leucozona* Bleeker, 1859:339 (Java)
*Plectroglyphidodon leucozona*—Allen, 1975:198 (Indo-Pacific east to Pitcairn Island)

**Material**
Two lots, 32 specimens, 45–68 mm SL, 0–3 m, reef-top at Salomon. All but one specimen were taken in a single collection from the spur-and-groove formation on the south coast of Isle Boddam. Indo-Pacific.

**Plectroglyphidodon phoenixensis (Schultz)**  
Fig. 276
*Abudelfuf phoenixensis* Schultz: 1943:190 (Phoenix Islands)
*Plectroglyphidodon phoenixensis*—Winterbottom, 1978:46 (Transkei and Kwazulu, South Africa); Allen, 1975:198 (Pacific to Marquesas Islands, questionable from Mauritius)

**Material**
One lot, 19 specimens, 38–47 mm SL, reef-top at Salomon (photo: 47 mm). The single collection of this species from the spur-and-groove formation of the reef-top was the only collection made in this habitat. Indo-Pacific.
**Pomacentrus coelestis** Jordan and Starks  
Fig. 277

*Pomacentrus coelestis* Jordan and Starks, 1901:383 (Japan); Allen, 1975:211 (Pacific east to Tuamotu Islands)

*Pomacentrus pulchermissus* Smith, 1960:344 (Bazaruto north over east Africa to Seychelles)

**MATERIAL**

Twenty-three lots, 305 specimens, 13–56 mm SL, 0–25 m, lagoon, reef-top (2), and drop-off (1) at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 34 and ? mm). Lagoon collections of this species had a mean of 15 specimens/lot and represented 98% of specimens collected; 84% of the total number of specimens collected were in 0–15 m. Indo-Pacific.

**Pomacentrus sp. 1**  
Pls. VIH, VIIA,B

**MATERIAL**

Twenty-six lots, 356 specimens, 11–87 mm SL, 0–25 m, lagoon, intertidal (1), reef-top (2), and drop-off (3) at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers. This undescribed species, similar to *P. opisthostigma* Fowler, is being studied by Emery. Systematics insufficiently known to categorize distribution. Range unassigned.

**Pomacentrus sp. 2**  
Fig. 278

**MATERIAL**

Three lots, 4 specimens, 28–65 mm SL, 18–25 m, drop-off at Peros Banhos and Salomon. Systematics insufficiently known to categorize distribution. Range unassigned.

**Stegastes fasciolatus** (Ogilby)  
Fig. 279

*Pomacentrus fasciolatus* Ogilby, 1889:64 (Lord Howe Island)

*Eupomacentrus fasciolatus*—Allen, 1975:139 (Pacific east to Easter Island)

*Stegastes fasciolatus*—Allen and Steene, 1979:44 (“Indo-west Pacific”)

**MATERIAL**

One lot, 1 specimen, 73 mm SL, 0–3 m, reef-top at Salomon. Indo-Pacific.

**Stegastes nigricans** (Lacepède)  
Fig. 280

*Holocentrus nigricans* Lacepède, 1802b:332 (no locality)

*Eupomacentrus nigricans*—Allen, 1975:142 (Indo-Pacific east to Marquesas Islands)

**MATERIAL**

Twelve lots, 788 specimens, 17–89 mm SL, 0–7 m, lagoon only at Eagle Island, Peros Banhos, and Salomon (photos: 51, 56, and 83 mm).

This species is very similar to *S. albifasciatus* (Schlegel and Müller, 1839–44) from the western and central Pacific. The Chagos specimens agree with Allen’s (1975) distinction between *S. nigricans* and *S. albifasciatus* in the following ways: they have 16 (usually)–17 pectoral-fin rays (vs 15 [usually]–16 in *S. albifasciatus*); they seldom have a broad light bar over the body (vs such a bar being present); and the black spot on the soft dorsal fin lacks a light ocellus (vs at least half an ocellus being present). Indo-Pacific.

**Cirrhitidae**

**Amblycirrhitus bimaculatus** (Jenkins)  
Fig. 281

*Amblycirrhitus bimaculatus* Jenkins, 1904:489 (Hawaii)

**Amblycirrhitus bimaculatus**—Randall, 1963:427 (Indo-Pacific east to Tuamotu Islands)

*Cirrhitichthys oxyrhynchus*—Regan, 1908:224 (Salomon, Chagos Archipelago) (non Bleeker, 1858:205)

**MATERIAL**

Sixteen lots, 82 specimens, 23–64 mm SL, 0–25 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photo: 53 mm). The majority of the specimens were taken on the reef-tops (66%; \(x/\text{lot} = 5.4\)) and lagoons (28%; \(x/\text{lot} = 5.8\)), most commonly in 6–15 m (62%; \(x/\text{lot} = 4.6\)) and in 0–5 m (32%; \(x/\text{lot} = 8.7\)).

Regan’s (1908) report of *C. oxyrhynchus* appears to represent this species; specimens of *A. bimaculatus* collected from Salomon on the Gardner expedition are present in the British Museum. Indo-Pacific.

**Cirrhitichthys oxycephalus** (Bleeker)  
Fig. 282

*Cirrhitichthys oxycephalus* Bleeker, 1855b:408 (Ambon)

**Cirrhitichthys oxycephalus**—Randall, 1963:437 (Indo-Pacific to Panama)

**MATERIAL**

Thirteen lots, 24 specimens, 25–49 mm SL, 0–43 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 42 and 48 mm). This species was collected primarily by the drop-offs (71%) and in 16–25 m (67%). Indo-Pacific.

**Cirrhitus pinnulatus** (Schneider)  
Fig. 283

*Labrus pinnulatus* Schneider in Bloch and Schneider, 1801:264 (Tahiti)

**Cirrhitus pinnulatus**—Randall, 1984b:5 (Indo-Pacific, including Chagos)

**MATERIAL**

Two lots, 26 specimens, 56–126 mm SL, lagoon (1) and reef-top at Eagle Island and Peros Banhos (photo: 88 mm). This species appears to prefer areas of surge-and-wave
action, all but one of the specimens being taken in the single collection from the spur-and-groove formation on Isle Boddam. Indo-Pacific.

**Oxycirrhitus typus** Bleeker

Fig. 284

**Oxycirrhitus typus** Bleeker, 1857a:40 (Ambon); Randall, 1963:445 (Indo-Pacific to Baja California)

**MATERIAL**

Two lots, 2 specimens, 44–54 mm SL, 20–25 m, drop-off at Salomon (photo: 44 mm). Indo-Pacific.

**Paracirrhitus aractus** (Cuvier)  

Fig. 285

*Cirrhitus aractus* Cuvier in Cuvier and Valenciennes, 1829a:74 (Mauritius; Tahiti)

**Paracirrhitus aractus**—Randall, 1963:411 (lectotype designation, Mauritius)

**MATERIAL**

Twenty-one lots, 122 specimens, 27–84 mm SL, 4–26 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 59, 65, and 66 mm). The material includes specimens with and without the white lateral stripe. The species was most abundant on the reef-tops and drop-offs (92% of specimens collected). Indo-Pacific.

**Paracirrhitus forsteri** (Schneider)  

Fig. 286

*Grammistes forsteri* Schneider in Bloch and Schneider, 1801:191 (Marquesas Islands)

**Paracirrhitus forsteri**—Randall, 1984b:7 (Indo-Pacific, including Chagos)

**MATERIAL**

Thirty-two lots, 50 specimens, 14–123 mm SL, 0–43 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 29, 39, 67, 75, 83, 95, and 108 mm).

The species was fairly evenly distributed among the habitats listed above, but 82% of the specimens were taken in 6–25 m. Solitary individuals were frequently observed perched on the branches of *Acropora* corals. The specimens exhibit a tremendous variety of colour pattern, ranging from a red or brown dorsum with a light yellow belly and red spots on the head, to a red dorsum and white venter on a 39 mm SL specimen, and a red dorsum and black venter on a 29 mm SL specimen (neither of the latter specimens possessed any head spots). Indo-Pacific.

**Mugilidae**

Identifications of this family were checked by Dr. J. M. Thomson.

**Crenimugil crenilabis** (Forsskål)  

Fig. 287

*Mugil crenilabis* Forsskål, 1775:73 (Red Sea)

*Crenimugil crenilabis*—Thomson and Luther, 1984:13 (Indo-Pacific east to Hawaii)

**MATERIAL**

Five lots, 37 specimens, 36–342 mm SL, 0–2 m, lagoon at Eagle Island, Peros Banhos, and Salomon (photos: 54 and 309 mm). Indo-Pacific.

**Liza macrolepis** (Smith)*  

Fig. 288

*Mugil macrolepis* Smith, 1849: none (South Africa)

*Liza macrolepis*—Thomson and Luther, 1984:27 (Indo-Pacific to Tuamotu Islands)

**MATERIAL**

Three lots, 6 specimens, 20–138 mm SL, 0–1 m, lagoon at Diego Garcia and Eagle Island. The identity of a 27-mm SL specimen is somewhat doubtful owing to its small size and somewhat damaged condition. Indo-Pacific.

**Mugil cephalus** Linnaeus

*Mugil cephalus* Linnaeus, 1758:316 (“European Ocean”); Thomson and Luther, 1984:41 (cosmopolitan, including Chagos Archipelago)

No specimens seen or collected; occurrence is based on Thomson and Luther (1984). Cosmopolitan.

**?Myxus elongatus** Günther  

Fig. 289

*Myxus elongatus* Günther, 1861:466 (coasts of Australia)

**MATERIAL**

One lot, 1 specimen, 24 mm SL, 0–0.5 m, lagoon at Peros Banhos.

Dr Thomson commented on this specimen as follows: “The conformation of the teeth indicate *elongatus*, however, as the specimen lacks scales and again head parts are not in adult proportions, it is possible that it may be a local species of *Myxus*.” The only species of this genus recorded from the western Indian Ocean is *M. capensis* (Thomson and Luther, 1984). Range unassigned.

**?Valamugil seheli** (Forsskål)

*Mugil seheli* Forsskål, 1775:73 (Red Sea)

*Mugil caeruleomaculatus* Lacepède, 1803:385 (no locality); Regan, 1908:221 (Diego Garcia, Chagos Archipelago)

No specimens seen or collected; the record is tentatively included on the basis of Regan’s record of *M. caeruleomaculatus*, which Thomson and Luther (1984) regard as a junior synonym of *V. seheli*. There remains the possibility that Regan’s identification is in error, especially in this taxonomically difficult group. Range unassigned.
Sphyraenidae

Material of this family was identified by J.-M. Rose, who also provided the geographic ranges.

*Sphyraena barracuda* (Walbaum)  
*Fig. 290*

*Esox barracuda* Walbaum, 1792:94 (West Indies)
*Sphyraena barracuda*—Allen and Steene, 1979:46 (cosmopolitan)

**MATERIAL**

Two lots, 2 specimens, 583–616 mm SL, surface waters of lagoon at Peros Banhos (photo: 616 mm). Cosmopolitan.

*Sphyraena forsteri* Cuvier  
*Fig. 291*

*Sphyraena forsteri* Cuvier in Cuvier and Valenciennes, 1829a:353 (Tahiti); Kyushin et al., 1977:60 (Chagos Archipelago)

**MATERIAL**

One lot, 1 specimen, 433 mm SL, lagoon at Peros Banhos. Indo-Pacific (east to Hawaii).

*Sphyraena nigripinnis* Temminck and Schlegel  
Pl. VII C

*Sphyraena nigripinnis* Temminck and Schlegel, 1842:34 (Japan)
*Sphyraena jello* Kyushin et al., 1977:58 (Chagos Archipelago) (*non* Cuvier, 1829:349)

Rose stated (in litt.) that there is some uncertainty as to the distinction between this species and *S. putamia*e Jordan and Seale. We have underwater photographs off the northern tip of Salomon of a large school of barracudas which appears to be composed of individuals of *S. nigripinnis*. The photograph identified as *S. jello* in Kyushin et al. (1977) seems to be *S. putamia*e (Rose, pers. comm.), but since identification is not certain, we do not include that species as definitely present at Chagos. Indo-Pacific.

Polydactylus sexfilis (Valenciennes)  
*Fig. 292*

*Polydactylus sexfilis* Valenciennes in Cuvier and Valenciennes, 1831a:515 (Mauritius)

**MATERIAL**

Three lots, 6 specimens, 103–313 mm SL, 0.5–2.5 m, lagoons at Eagle Island and Peros Banhos (photo: 313 mm). The material was identified by R. M. Feltes, who also provided the distribution. Indo-Pacific (east to the Marquesas Islands)

Labridae

Anampses caeruleopunctatus Rüppell  
*Fig. 293*

Anampses caeruleopunctatus Rüppell, 1829a:42 (Tor, Red Sea); Randall, 1972a:160 (Indo-Pacific east to Easter Island)

**MATERIAL**

One lot, 1 specimen, 127 mm SL, 1–2 m, pass at Diego Garcia. The single specimen was collected by a gill net set in the pass by J. Ryther. Indo-Pacific.

Anampses meleagrides Valenciennes  
*Fig. 294*

Anampses meleagrides Valenciennes in Cuvier and Valenciennes, 1839a:12 (Mauritius); Randall, 1972a:166 (Indo-Pacific, sight record from Caroline Islands)

**MATERIAL**

One lot, 1 specimen, 56 mm SL, 4–7 m, lagoon at Peros Banhos (photo). Indo-west Pacific and marginally on the Pacific plate.

Anampses twistii Bleeker  
*Fig. 295*

Anampses twistii Bleeker, 1856d:56 (Ambon); Randall, 1972a:182 (Indo-Pacific east to Austral Islands)

**MATERIAL**

Six lots, 8 specimens, 32–109 mm SL, 3–25 m, lagoon (1) and drop-off at Peros Banhos and Salomon (photos: 59 and 89 mm). Indo-Pacific.

Bodianus anthioides (Bennett)  
*Fig. 296*

Crenilabrus anthioides Bennett, 1831:167 (Mauritius)

**MATERIAL**

Two lots, 3 specimens, 88–115 mm SL, 10–25 m, drop-off at Salomon (photo: 97 mm). Indo-Pacific (Gomon, pers. comm.).

Bodianus axillaris (Bennett)  
Figs. 297, 298

*Labrus axillaris* Bennett, 1831:166 (Mauritius)
*Bodianus axillaris*—Randall, 1973:196 (Tahiti)

**MATERIAL**

Ten lots, 12 specimens, 43–118 mm SL, 5–33 m. lagoon (1), reef-top, and drop-off at Peros Banhos and Salomon (photos: 44, 93, and 96 mm). Indo-Pacific.

Bodianus bilunulatus bilunulatus (Lacepède)  
*Fig. 299*

*Labrus bilunulatus* Lacepède, 1802a:454 (Pacific Ocean)
*Bodianus bilunulatus bilunulatus*—Gomon, 1984:15 (Indo-west Pacific, including Chagos)
*Bodianus hirsutus*—Kyushin et al., 1977:298 (Chagos Archipelago) (*non* Lacepède, 1802)
MATERIAL
Two lots, 4 specimens, 22–201 mm SL, 18–27 m, drop-off at Peros Banhos (photos: 22, 95, and 189 mm). Gomon (pers. comm.) divides this species into three subspecies, and the Chagos specimens represent B. bilunatus bilunatus. Indo–west Pacific.

Bodianus diana (Lacepède)  
Figs. 300, 301  
Labrus diana Lacepède, 1802a:450 (Pacific Ocean)  
Bodianus diana—Gomon, 1984:17 (Indo–west Pacific, including Chagos)

MATERIAL
Six lots, 7 specimens, 48–131 mm SL, 18–43 m, drop-off at Peros Banhos and Salomon (photos: 69, 78, 113, and 131 mm). Indo–west Pacific.

Cheilinus arenatus Valenciennes  
Fig. 302  
Cheilinus arenatus Valenciennes in Cuvier and Valenciennes, 1839b:101 (Réunion)

MATERIAL
Seven lots, 10 specimens, 39–80 mm SL, 18–43 m, drop-off at Peros Banhos and Salomon (photos: 54 and 56 mm). Indo–west Pacific (east to the Philippines).

Cheilinus chlorurus (Bloch)  
Sparus chlorurus Bloch, 1791:24 (Japan)  
Cheilinus chlorurus—Gomon, 1984:31 (Indo-Pacific, including Chagos)

No specimens seen or collected; occurrence is based on the distribution map given by Gomon (1984). Indo-Pacific.

Cheilinus digrammus (Lacepède)  
Figs. 303, 304  
Labrus digrammus Lacepède, 1802a:448 (Pacific Ocean)  
Cheilinus digrammus—Gomon, 1984:33 (Indo–west Pacific, including Chagos, east to Samoa)

MATERIAL
Twenty-two lots, 61 specimens, 17–163 mm SL, 0–40 m, lagoon, reef-top (1), and drop-off at Peros Banhos, Salomon, and Three Brothers (photos: 22, 30, 145, 155, and 157 mm). Eighty per cent of our specimens were collected in the lagoons, with 89% of the total being taken in 6–25 m. Indo–west Pacific.

Cheilinus fasciatus (Bloch)  
Fig. 305  
Sparus fasciatus Bloch, 1791:18 (Japan)  
Cheilinus fasciatus—Gomon, 1984:35 (Indo–west Pacific, east to Marshall Islands and Samoa)

MATERIAL
Eight lots, 19 specimens, 12–173 mm SL, 5–40 m, lagoon and reef-top (1) at Peros Banhos and Salomon (photos: 53 and 150 mm). This species was collected primarily in the lagoons (one specimen from the reef-top), with 68% of the specimens being taken in 6–15 m. Indo–west Pacific.

Cheilinus oxycephalus Bleeker  
Fig. 306  
Cheilinus oxycephalus Bleeker, 1853:349 (Ambon); Randall, 1973:196 (Tahiti)

MATERIAL
Eleven lots, 23 specimens, 27–80 mm SL, 0–25 m. lagoon only at Peros Banhos and Salomon (photos: 37, 56, 62, 64, and 80 mm). Sixty-one per cent of the specimens taken were collected in 6–15 m. Indo-Pacific.

Cheilinus trilobatus Lacepède  
Figs. 307, 308  
Labrus trilobatus Lacepède, 1802a:529 (Réunion; Mauritius; Madagascar); Gomon, 1984:39 (Indo-Pacific, including Chagos, east to Society Islands)

MATERIAL
Six lots, 33 specimens, 23–260 mm SL, 0–10 m, lagoon, intertidal, and reef-flat at Diego Garcia, Eagle Island, and Peros Banhos (photos: 50, 178, and 260 mm). Eighty-two per cent of the specimens were collected on the reef-flats, with 97% of the total being taken in less than 5 m. Indo-Pacific.

Cheilinus undulatus Rüppell  
Pl. VIID  
Cheilinus undulatus Rüppell, 1835:20 (Jiddah, Red Sea); Gomon, 1984:41 (Indo-Pacific, including Chagos, east to Tuamotu Islands)

No material collected; the record is based on Gomon (1984), as well as on underwater photographs and several sightings of adults in the lagoon, reef-top, and drop-off at Peros Banhos and Salomon. Indo-Pacific.

Cheilo inermis (Forsskål)  
Fig. 309  
Labrus inermis Forsskål, 1775:34 (Al Mukhā, Red Sea)  
Cheilo inermis—Gomon, 1984:43 (Indo-Pacific, including Chagos, east to Tahiti)

MATERIAL
One lot, 1 specimen, 43 mm SL, 0.5 m, lagoon at Peros Banhos (photo). Indo-Pacific.

Cirrhilabrus exquisitus Smith  
Fig. 310  
Labrus exquisitus Smith, 1957b:109 (Pinda; also Zanzibar and Madagascar); Randall and Shen, 1978:16 (Indo-Pacific east to Tuamotu Islands)

MATERIAL
Thirteen lots, 65 specimens, 12–56 mm SL, 4–43 m,
lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 46 and 56 mm). With a single exception, all specimens were collected in 6–25 m, with almost equal numbers being taken in the three habitats listed above. Indo-Pacific.

Cirrhilabrus rubrisquamis Randall and Emery

Pl. VIIIE
Cirrhilabrus rubrisquamis Randall and Emery, 1983:21
(Peros Banhos, Chagos Archipelago)

MATERIAL
One lot, 1 specimen (holotype), 41 mm SL, 41–48 m, drop-off at Peros Banhos (photo). Endemic.

Coris aygula Lacepède

Coris aygula Lacepède, 1802a:96 (no locality); Gomon, 1984:49 (Indo-Pacific, including Chagos, east to Society Islands)

No specimens seen or collected; occurrence is based on the range map given in Gomon (1984). Indo-Pacific.

Coris formosa (Bennett)*

Labrus formosa Bennett, 1830:16 (Sri Lanka)
Coris formosa—Gomon, 1984:51 (Indo-west Pacific, including Chagos, east to Malay Archipelago)

MATERIAL
One lot, 1 specimen, 206 mm SL, 0–1 m, pass at Peros Banhos (photo). Indo-west Pacific.

Coris gaimard africana Smith

Coris gaimard africana Smith, 1957d:119 (Seychelles); Gomon, 1984:53 (western Indian Ocean)

MATERIAL
One lot, 1 specimen, 190 mm SL, 18–25 m, drop-off at Salomon (photo). Gomon (1984) recognizes two subspecies, our material belonging to the western Indian Ocean form.

Coris variegata (Rüppell)

Halichères variegatus Rüppell, 1835:14 (Jiddah, Red Sea)
Coris variegata—Schultz, 1960a:183 (Marshall Islands)

MATERIAL
Five lots, 8 specimens, 31–94 mm SL, 7–30 m, lagoon only at Peros Banhos and Salomon (photos: 31, 38, 67, and 87 mm). Indo-west Pacific and marginally on the Pacific plate.

Cymolutes lecluse (Quoy and Gaimard)

Xyrichthys lecluse Quoy and Gaimard, 1824:284 (Hawaii)

MATERIAL
One lot, 1 specimen, 65 mm SL, 0–0.5 m, reef-flat at Peros Banhos (photo). Indo-Pacific.

Epibulus insidiator (Pallas)

Fig. 315
Sparus insidiator Pallas, 1770:41 (Java)
Epibulus insidiator—Gomon, 1984:55 (Indo-Pacific, including Chagos, east to Tuamotu Islands)

MATERIAL
Twelve lots, 33 specimens, 17–182 mm SL, 0–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 47, 86, 131, 146, and 156 mm). This species was most abundant in the lagoons, where 67% of the specimens obtained were collected, although 18 of these specimens were taken in a single collection made in 0–3 m on the sides and top of a bommie which had numerous caves. Indo-Pacific.

Gomphosus coeruleus Lacepède

Gomphosus coeruleus Lacepède, 1802a:100 (no locality); Gomon, 1984:57 (Indian Ocean, including Chagos)

MATERIAL
Thirty-one lots, 181 specimens, 14–113 mm SL, 0–20 m, lagoon, intertidal, reef-flat, and reef-top at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 67, 82, and 109 mm) This species was most common in the very shallow water of the intertidal and reef-flat habitats (x/lot = 26 and 11, respectively), and 77% were collected in 0–5 m. Indian Ocean.

Halichoeres cosmetus Randall and Smith

Fig. 316
Halichoeres cosmetus Randall and Smith, 1982:15 (Maldives, also western Indian Ocean, including Chagos)

MATERIAL
Six lots, 8 specimens (paratypes), 30–86 mm SL, 13–25 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 30, 36, 43, 62, and 86 mm). Only a single specimen was collected in the lagoons (13 m), the remainder coming from 16–25 m on the drop-offs. Western Indian Ocean.

Halichoeres hortulanus (Lacepède)

Figs. 317, 318
Labrus hortulanus Lacepède, 1802a:449 (Pacific Ocean)
Halichoeres hortulanus—Randall and Smith, 1982:4 (Indo-Pacific)
Halichoeres hortulanus centiquadrus—Gomon, 1984:59 (Indian Ocean, including Chagos)

MATERIAL
Eighteen lots, 35 specimens, 14–183 mm SL, lagoon, intertidal, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 28, 30, 40, 42, 51, 136, and
137 mm). This species was most abundant in the lagoon and intertidal habitats (80%) in 0–15 m (91%). We tentatively follow Randall and Smith (1982) in not recognizing a western Indian Ocean and a Pacific subspecies, as Gomon (1984) has done. Indo-Pacific.

**Halichoeres iridis** Randall and Smith  
Pl. VIIG  
*Halichoeres iridis* Randall and Smith, 1982:17 (Mauritius, also western Indian Ocean including Chagos)

**MATERIAL**  
Three lots, 4 specimens (paratypes), 40–79 mm SL, 13–43 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 45 and 79 mm). Three of the four specimens are paratypes, the lone exception being the specimen from the lagoon at Peros Banhos. Western Indian Ocean.

**Halichoeres marginatus** Rüppell  
Figs. 319, 320  
*Halichoeres marginatus* Rüppell, 1835:16 (Mohila and Massawa, Red Sea); Randall and Smith, 1982:5 (east Africa to French Polynesia)

**MATERIAL**  
Fourteen lots, 133 specimens, 13–95 mm SL, 0–26 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 19, 23, 33, 44, 60, 91, and 95 mm). Only two specimens (in two lots) were collected in water deeper than 5 m, and the majority of specimens came from intertidal (32%) and reef-flat (59%) habitats. Indo-Pacific.

**Halichoeres nebulosus** (Valenciennes)  
Fig. 321  
*Julis nebulosus* Valenciennes in Cuvier and Valenciennes, 1839a:461 (Bombay)  
*Halichoeres nebulosus*—Randall and Smith, 1982:10 (Indo–west Pacific east to Ryukyus)

**MATERIAL**  
Seven lots, 18 specimens, 20–64 mm SL, 0–3 m, lagoon, intertidal, and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Three Brothers. Indo–west Pacific.

**Halichoeres scapularis** (Bennett)  
Fig. 322  
*Julis scapularis* Bennett, 1831:167 (Mauritius)  
*Halichoeres scapularis*—Randall and Smith, 1982:5 (Indo–west Pacific east to Japan)

**MATERIAL**  
Seventeen lots, 818 specimens, 12–112 mm SL, 0–24 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 37, 50, 54, 84, and 110 mm). This species was extremely abundant in areas subjected to tidal variation, the intertidal and reef-flat habitats accounting for 93% of the specimens collected, with 99% taken in 0–5 m. Indo–west Pacific.

**Hemigymnus fasciatus** (Bloch)  
Fig. 323  
*Labrus fasciatus* Bloch, 1792:6 (Japan)  
*Hemigymnus fasciatus*—Gomon, 1984:61 (Indo-Pacific including Chagos, east to Tahiti)

**MATERIAL**  
Two lots, 2 specimens, 101–202 mm SL, 10–15 m, lagoon at Peros Banhos and Salomon (photos: both). Indo-Pacific.

**Hemigymnus melapterus** Bloch  
*Labrus melapterus* Bloch, 1791:137 (Japan)  
*Hemigymnus melapterus*—Gomon, 1984:63 (Indo-Pacific, including Chagos, east to Polynesia)

No specimens seen or collected; occurrence is based on the range map given by Gomon (1984). Indo-Pacific.

**Hologymnus annulatus** (Lacepède)  
Fig. 324  
*Labrus annulatus* Lacepède, 1802a:455 (Pacific Ocean)  
*Hologymnus annulatus*—Gomon, 1984:65 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**MATERIAL**  
One lot, 1 specimen, 73 mm SL, 13 m, lagoon at Peros Banhos (photo). Indo-Pacific.

**Labrichthys unilineatus** (Guichenot)  
Fig. 325  
*Cossyphus unilineatus* Guichenot, 1847:284 (Guam)  

**MATERIAL**  
Seventeen lots, 33 specimens, 15–118 mm SL, 0–25 m, lagoon and drop-off at Peros Banhos, Salomon, and Three Brothers (photos: 36, 64, and 118 mm). The majority of the specimens (85%) were taken in the lagoons, with 70% of the total collected in 6–15 m. Indo–west Pacific and marginally on the Pacific plate.

**Labroides bicolor** Fowler and Bean  
Fig. 326  
*Labroides bicolor* Fowler and Bean, 1928:224 (Philippines); Randall, 1958:334 (Indo-Pacific east to Marquesas Islands)

**MATERIAL**  
Four lots, 4 specimens, 25–42 mm SL, 0.5–25 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 25, 40, and 42 mm). Indo-Pacific.
Labroides dimidiatus (Valenciennes)  Fig. 327
_Cosssyphus dimidiatus_ Valenciennes in Cuvier and Valenciennes, 1839a:136 (Mauritius)
Labroides dimidiatus—Randall, 1958:329 (Indo-Pacific east to Tuamotu Islands)

**Material**
Twenty-four lots, 47 specimens, 12–55 mm SL, 0–43 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 37 (× 2), 54, and 55 mm). This species was fairly evenly distributed among the above listed habitats, although 98% of our specimens were taken in less than 26 m. Indo-Pacific.

Labropsis xanthonota Randall  Pl. VIIIA
Labropsis xanthonota Randall, 1981:138 (Samoa; also Indo-Pacific, including Chagos, east to the Marshall Islands)

**Material**
Two lots, 2 specimens (paratypes), 38–40 mm SL, 18–25 m, drop-off at Salomon (photo: 40 mm). Indo-west Pacific and marginally on the Pacific plate.

_Macropharyngodon bipartitus bipartitus_ Smith  
Figs. 328, 329
Macropharyngodon bipartitus Smith, 1957b:104 (Pinda, Mozambique)
Macropharyngodon bipartitus bipartitus—Randall, 1978:756 (western Indian Ocean)

**Material**
Four lots, 4 specimens, 39–75 mm SL, 7–33 m, lagoon, reef-top, and drop-off at Eagle Island and Peros Banhos (photos: 40, 58, and 75 mm). Randall (1978) includes _M. variatus_ Smith in the synonymy of this species (as the female form). Both colour forms were collected and photographed. Western Indian Ocean.

_Novaculaichthys taeniourus_ (Lacepède)  
Fig. 330
Labrus taeniourus Lacepède, 1802a:448 (Pacific Ocean)
Novaculaichthys taeniourus—Gomon, 1984:69 (Indo-Pacific, including Chagos, east to Society Islands)

**Material**
Two lots, 2 specimens, 40–177 mm SL, 0–0.5 m, reef-flat at Diego Garcia and Peros Banhos (photo: 177 mm). Indo-Pacific.

_Paracheilinus mccoskeri_ Randall and Harmelin-Vivien  
Pl. VIIIA
Paracheilinus mccoskeri Randall and Harmelin-Vivien, 1977:332 (Comoro Islands); Randall and Lubbock, 1981b:23 (eastern Andaman Sea)

**Material**
One lot, 9 specimens, 20–40 mm SL, 20 m, lagoon at Peros Banhos (photo: 40 mm). Indian Ocean.

_Pseudocheilinus evanidus_ Jordan and Evermann  
Fig. 331
_Pseudocheilinus evanidus_ Jordan and Evermann, 1903:192 (Hawaii); Randall, 1973:197 (Tahiti); Smith, 1957b:108 (western Indian Ocean)

**Material**
Eighteen lots, 46 specimens, 10–56 mm SL, 10–43 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 31 and 49 mm). Eighty-nine per cent of the specimens are from the drop-offs, with 83% collected in 16–25 m (only a single specimen from shallower water). Indo-Pacific.

_Pseudocheilinus hexataenia_ (Bleeker)  
Fig. 332
Cheilinus hexataenia Bleeker, 1857a:84 (Ambon)
Pseudocheilinus hexataenia—Randall, 1973:197 (Tahiti)

**Material**
Fifty lots, 418 specimens, 8–54 mm SL, 0–36 m, lagoon, reef-top, and drop-off at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 33, 39, and 47 mm).

This species was ubiquitous in the above habitats, and was taken in small numbers in virtually all rotenone stations. The mean numbers of specimens/lot were 7.9, 9.8, and 7.9 for the lagoon, reef-top, and drop-off, respectively. It seems to prefer depths of 6–15 m (x/lot = 11.0) and 16–25 m (x/lot = 7.7); the two depth ranges combined contribute 94% of the total number of specimens collected. Indo-Pacific.

_Pseudocheilinus octotaenia_ Jenkins  
Fig. 333
_Pseudocheilinus octotaenia_ Jenkins, 1901:64 (Hawaii); Randall, 1973:197 (Tahiti)
Pseudocheilinus margaretae—Smith, 1957b:108 (Aldabra Islands)

**Material**
Six lots, 7 specimens, 44–82 mm SL, 15–26 m, drop-off at Peros Banhos and Salomon (photos: 44, 45, 62, and 82 mm). Indo-Pacific.

_Pseudocoris heteroptera_ (Bleeker)  
Pl. VIIIB
Julis heteropterus Bleeker, 1857a:78 (Ambon)
Pseudocoris heteroptera—Gomon, 1984:10 (western Indian Ocean)

**Material**
Two lots, 3 specimens, 33–39 mm SL, 15–24 m, drop-off at Peros Banhos and Salomon (photos: 33 and 39 mm). Indo-west Pacific.
**Pseudocoris yamashiroi** (Schmidt)  
*Julis yamashiroi* Schmidt, 1930:85 (Japan)  
*Pseudocoris yamashiroi*—Gomon, 1984:10 (western Indian Ocean)

**MATERIAL**

Two lots, 3 specimens, 57–61 mm SL, 18–25 m, drop-off at Salomon (photos: 57 and 61 mm). Indo-west Pacific.

**Pseudodax moluccanus** (Valenciennes)  
Fig. 334  
*Odax moluccanus* Valenciennes in Cuvier and Valenciennes, 1839b:305 (Moluccas)  
*Pseudodax moluccanus*—Gomon, 1984:71 (Indo-Pacific, including Chagos, east to Tahiti)

**MATERIAL**

One lot, 1 specimen, 127 mm SL, 18–25 m, drop-off at Salomon (photo). Indo-Pacific.

**Stethojulis albovittata** (Bonnaterre)  
Fig. 335  
*Labrus albovittatus* Bonnaterre, 1788:108 (no locality)  
*Stethojulis albovittata*—Randall and Kay, 1974:103 (Indian Ocean)

**MATERIAL**

Fifteen lots, 562 specimens, 16–93 mm SL, 0–10 m, lagoon, intertidal, and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 59 and 75 mm). This species was extremely abundant in the intertidal region ($\bar{x}$/lot = 83.3), and somewhat less so on the reef-flats ($\bar{x}$/lot = 21.0). All but two of the specimens were collected in less than 5 m of water. Indian Ocean.

**Stethojulis strigiventer** (Bennett)  
Fig. 336  
*Julis strigiventer* Bennett, 1832b:184 (Mauritius)  
*Stethojulis strigiventer*—Schultz, 1960a:210 (Guam and Marshall Islands)

**MATERIAL**

Two lots, 2 specimens, 45–49 mm SL, 0–3 m, lagoon at Diego Garcia and Salomon (photo: 45 mm). Indo-West Pacific and marginally on the Pacific plate.

**Thalassoma amblycephalum** (Bleeker)  
Fig. 337  
*Julis amblycephalum* Bleeker, 1856b:83 (Malang, southeast Java)

**MATERIAL**

Five lots, 17 specimens, 20–60 mm SL, 0–24 m, reef-top and drop-off at Eagle Island, Peros Banhos, and Salomon (photo: 60 mm). Indo-Pacific (east to Hawaii—Heiser, pers. comm.).

**Thalassoma hardwickii** (Bennett)  
Fig. 338  
*Sparus hardwickii* Bennett, 1830:12 (Sri Lanka)

**MATERIAL**

Seven lots, 33 specimens, 27–113 mm SL, 0–10 m, lagoon and intertidal at Diego Garcia, Eagle Island, and Peros Banhos (photos: 47, 103, and 104 mm). Only three specimens (two lots) are from the lagoon, the rest being from the intertidal region in 0–1 m. Indo-Pacific (east to the Tuamotu Islands—Heiser, pers. comm.).

**Thalassoma hebraicum** (Lacepède)  
Fig. 339  
*Labrus hebraicum* Lacepède, 1802a:454 (Pacific Ocean)

**MATERIAL**

Ten lots, 80 specimens, 33–127 mm SL, 0–15 m, lagoon, intertidal, reef-flat, and reef-top at Eagle Island, Peros Banhos, and Salomon (photos: 48, 96, and 127 mm). Most specimens (79%) are from the intertidal region, and 98% of the total are from less than 5 m. Western Indian Ocean (Heiser, pers. comm.).

**Thalassoma lunare** (Linnaeus)  
Fig. 340  
*Labrus lunaris* Linnaeus, 1758:283 (“Indies”)  
*Thalassoma lunare*—Gomon, 1984:75 (Indo-Pacific, including Chagos, east to Tuamotu Islands)

**MATERIAL**

Two lots, 2 specimens, 92–93 mm SL, 10–20 m, lagoon at Peros Banhos and Salomon (photos: both). Indo-Pacific.

**Thalassoma purpureum** (Forsskål)  
Fig. 341  
*Scarus purpureus* Forsskål, 1775:27 (Jiddah, Red Sea)  
*Thalassoma purpureum*—Gomon, 1984:77 (Indo-Pacific, including Chagos, east to Easter Island)

**MATERIAL**

Four lots, 10 specimens, 76–218 mm SL, 0–3 m, intertidal, reef-flat, and reef-top at Peros Banhos and Salomon (photos: 149 and 174 mm). Indo-Pacific.

**Thalassoma quinquevittatum** (Lay and Bennett)  
Figs. 342, 343  
*Scarus quinquevittatus* Lay and Bennett, 1839:66 (Loo-Choo)

**MATERIAL**

Seven lots, 33 specimens, 19–100 mm SL, 0–3 m, lagoon, reef-flat, and reef-top at Eagle Island, Peros Banhos, and Salomon (photos: 42, 70, and 100 mm). Most specimens were collected on the reef-flats and reef-top (a single collection of 13 specimens from the spur-and-groove formation at Salomon). Indo-Pacific (east to Easter Island—Heiser, pers. comm.).

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**Thalassoma trilobatum** (Lacepède)  
Fig. 344

*Labris trilobatus* Lacepède, 1802a:454 (Pacific Ocean)

*Thalassoma fuscum*—Gomon, 1984:73 (Indo-Pacific, including Chagos, east to French Polynesia)

**Material**

Two lots, 3 specimens, 24–33 mm SL, 0–1 m, reef-flat at Peros Banhos and Salomon (photo: 31 mm). Identifications confirmed by Dr J. E. Randall. Indo-Pacific.

*Wetmorella nigropinnata* (Seale)  
Fig. 345

*Cheilinus nigropinnatus* Seale, 1901:86 (Guam)

*Wetmorella nigropinnata*—Randall, 1983a:879 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**Material**

Fifteen lots, 38 specimens, 10–52 mm SL, 0–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 36 and 39 mm). This species was most abundant in the lagoons (82% of specimens, x/lot = 3.4), and preferred depths of 6–15 m (71% of specimens, x/lot = 5.4). Indo-Pacific.

*Xyrichthys pavo* Valenciennes  
Figs. 346, 347

*Xyrichthys pavo* Valenciennes in Cuvier and Valenciennes, 1839b:61 (Mauritius); Gomon, 1984:81 (Indo-Pacific, including Chagos, to eastern Pacific)

**Material**

Three lots, 3 specimens, 16–139 mm SL, 7–25 m, lagoon and drop-off at Peros Banhos and Salomon (photos: 16 and 102 mm). Indo-Pacific.

*Xyrichthys pentadactylus* (Linnaeus)

*Coryphaena pentadactylus* Linnaeus, 1758:261 (India)

*Xyrichthys pentadactylus*—Gomon, 1984:83 (Indo-west Pacific, including Chagos, east to Taiwan)

No specimens seen or collected; occurrence is based on the range map give by Gomon (1984). Indo-west Pacific.

*Xyrichthys sp.*  
Fig. 348

**Material**

One lot, 1 specimen, 38 mm SL, 7 m, lagoon at Peros Banhos. Gomon (1984) records the presence of seven species of this genus in the western Indian Ocean. We were unable to identify this small specimen to species. Range unassigned.

**Scaridae**

Identification of scarids was provided or confirmed by Dr J. E. Randall. In addition to the species listed below, there are 5 lots, 12 specimens of juvenile *Scarus* (11–35 mm SL) that we were unable to assign to species.

*Calotomus carolinus* (Valenciennes)  
Fig. 349

*Callyodon carolinus* Valenciennes in Cuvier and Valenciennes, 1839b:291 (Caroline Islands)

*Calotomus carolinus*—Bruce and Randall, 1984:7 (Indo-Pacific, including Chagos, to eastern Pacific)

**Material**

One lot, 1 specimen, 190 mm SL, 0–5 m, lagoon at Eagle Island. Indo-Pacific.

*Calotomus spinidens* (Quoy and Gaimard)

*Scarus spinidens* Quoy and Gaimard, 1824:289 (Waigeo)

*Calotomus spinidens*—Schultz, 1969:38 (Indo-Pacific, including Chagos, to eastern Revilla Gigedo Islands)

*Calotomus japonicus*—Schultz, 1969:38 (Chagos Archipelago, partim)

No specimens seen or collected, but 12 specimens in 3 lots from Diego Garcia are housed in the National Museum of Natural History, Washington. Indo-Pacific.

*Cetoscarus bicolor* (Rüppell)  
Fig. 350

*Scarus bicolor* Rüppell, 1829b:82 (Jiddah, Red Sea)

*Cetoscarus bicolor*—Randall and Bruce, 1983:6 (Indo-Pacific to French Polynesia); Bruce and Randall, 1984:13 (Indo-Pacific, including Chagos)

**Material**

One lot, 1 specimen, 420 mm SL, 7–10 m, reef-top at Salomon (photo). Indo-Pacific.

*Hipposcarus harid* (Forsskål)  
Fig. 351

*Scarus harid* Forsskål, 1775:30 (Red Sea)

*Hipposcarus harid*—Bruce and Randall, 1984:15 (Indian Ocean, including Chagos, east to Sri Lanka)

**Material**

Two lots, 2 specimens, 224–370 mm SL, 0.5–7 m, lagoon at Peros Banhos and Salomon (photos: both). Western Indian Ocean.

*Leptoscarus vaigiensis* (Quoy and Gaimard)

*Scarus vaigiensis* Quoy and Gaimard, 1824:288 (Waigeo)

*Leptoscarus vaigiensis*—Bruce and Randall, 1984:17 (Indo-Pacific, including Chagos, east to Easter Island)

No specimens seen or collected; the record is based on the reports of Schultz (1969) and Bruce and Randall (1984). Indo-Pacific.
**Scarus atrilunula** Randall and Bruce
*Scarus atrilunula* Randall and Bruce, 1983:9 (Kenya)
*?Scarus rhoduropterus*—Schultz, 1969:18 (Chagos Archipelago) *(non* Bleeker, 1861, partim)

No specimens seen or collected; the record is tentatively based on Schultz’s (1969) report of two specimens of *S. rhoduropterus* from Diego Garcia. The latter species does not occur in the Indian Ocean, and specimens from east Africa identified as *S. rhoduropterus* form the bulk of the type material of *S. atrilunula*. Western Indian Ocean.

**Scarus enneacanthus** Lacepède

*Scarus enneacanthus* Lacepède, 1802b:2 (Mauritius); Bruce and Randall, 1984:29 (western Indian Ocean, including Chagos)

**MATERIAL**
Six lots, 14 specimens, 161–255 mm SL, 0–5 m, lagoon, intertidal, reef-flat, and reef-top at Eagle Island, Peros Banhos, and Salomon (photos: 190, 221, 250, and 255 mm). Western Indian Ocean.

**Scarus falcipinnis** (Playfair)

*Pseudoscarus falcipinnis* Playfair, 1867:865 (Seychelles)

*Scarus falcipinnis*—Bruce and Randall, 1984:31 (western Indian Ocean)

**MATERIAL**
One lot, 1 specimen, 48 mm SL, 15–20 m, drop-off at Salomon (photo). Western Indian Ocean.

**Scarus frenatus** Lacepède

*Scarus frenatus* Lacepède, 1802b:3 (Mauritius); Bruce and Randall, 1984:37 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**MATERIAL**
One lot, 1 specimen, 270 mm SL, 0.5–4 m, lagoon near pass at Peros Banhos (photo). Indo-Pacific.

**Scarus ghobban** Forsskål

*Scarus ghobban* Forsskål, 1775:28 (Jiddah, Red Sea); Bruce and Randall, 1984:43 (Indo-Pacific, including Chagos, to eastern Pacific)

**MATERIAL**
One lot, 1 specimen, 190 mm SL, 0.5–2 m, lagoon at Peros Banhos (photo). Indo-Pacific.

**Scarus gibbus** Rüppell

*Scarus gibbus* Rüppell, 1829b:81 (Mahila, Red Sea); Bruce and Randall, 1984:45 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**MATERIAL**
Eight lots, 10 specimens, 32–350 mm SL, 0.5–20 m, lagoon and reef-top at Peros Banhos and Salomon (photos: 32, 47, 175, 270, 275, 280, and 350 mm). Indo-Pacific.

**Scarus niger** Forsskål

*Scarus niger* Forsskål, 1775:28 (Red Sea); Bruce and Randall, 1984:51 (Indo-Pacific, including Chagos, east to Polynesia)

**MATERIAL**
Eight lots, 10 specimens, 21–240 mm SL, 0.5–20 m, lagoon at Peros Banhos and Salomon (photos: 45, 108, 185, and 240 mm). Indo-Pacific.

**Scarus psittacus** Forsskål

*Scarus psittacus* Forsskål, 1775:29 (Jiddah, Red Sea); Bruce and Randall, 1984:57 (Indo-Pacific, including Chagos, east to Society Islands)

**MATERIAL**
Two lots, 3 specimens, 39–125 mm SL, 2–25 m, lagoon at Peros Banhos and Salomon (photos: 39 and 125 mm). Indo-Pacific.

**Scarus rubroviolaceus** Bleeker

*Scarus rubroviolaceus* Bleeker, 1847:162 (Jakarta, Java); Bruce and Randall, 1984:59 (Indo-Pacific, including Chagos, to eastern Pacific)

**MATERIAL**
Four lots, 4 specimens, 270–370 mm SL, 0–25 m, lagoon and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 340, 350, and 370 mm). Indo-Pacific.

**Scarus scaber** Valenciennes

*Scarus scaber* Valenciennes *in* Cuvier and Valenciennes, 1839b:239 (Mauritius); Bruce and Randall, 1984:63 (western Indian Ocean, including Chagos)

**MATERIAL**
One lot, 1 specimen, 117 mm SL, 2–7 m, lagoon at Salomon (photo). Western Indian Ocean.

**Scarus sordidus** Forsskål

*Scarus sordidus* Forsskål, 1775:30 (Red Sea); Bruce and Randall, 1984:65 (Indo-Pacific, including Chagos, east to Hawaii)

**MATERIAL**
Twenty-three lots, 120 specimens, 16–247 mm SL, 0–22 m, lagoon, intertidal, reef-top (1), and drop-off (1) at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 30, 35, 111, 149, 155 [× 2], and 247 mm).
This species was virtually confined to the lagoon and intertidal habitats (only two specimens from elsewhere), with 78% of the specimens collected in depths of 0–5 m. It should be noted, however, that the majority of the specimens are juveniles of less than 60 mm SL. Indo-Pacific.

**Scarus tricolor** Bleeker

*Fig. 367*

*Scarus tricolor* Bleeker, 1847:164 (Jakarta, Java); Bruce and Randall, 1984:67 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**MATERIAL**

One lot, 1 specimen, 206 mm SL, 9–13 m, lagoon at Salomon (photo). Indo-Pacific.

*Scarus sp.*

*Fig. 368*

**MATERIAL**

One lot, 1 specimen, 205 mm SL, 10–20 m, lagoon at Peros Banhos.

This specimen was sent to Dr Randall for identification, but he was unable to do so and commented (in litt.): “It has 6 median predorsal scales, 16 pectoral rays, but only two rows of scales on the cheek. If you look at the tables of counts in Schultz and in Randall and Bruce, you will find all with 6 predorsal scales and 16 pectoral rays must have 3 rows of scales on the cheek. I don’t recognize the fish from color either though the line on the chin is naggingly familiar.” Range unassigned.

**Mugiloididae**

*Parapercis cephalopunctata* (Seale)

*Fig. 369*

*Percis cephalopunctata* Seale, 1901:24 (Marianas)

*Parapercis cephalopunctata*—Randall, 1973:199 (Tahiti)

**MATERIAL**

Eighteen lots, 49 specimens, 33–126 mm SL, 0–24 m, lagoon, reef-flat, reef-top, and drop-off (1) at Eagle Island, Peros Banhos, and Salomon (photos: 63 and 100 mm). This species was most abundant in lagoons and on the reef-flats (71% of specimens), and was virtually always (92% of specimens) taken in water less than 15 m deep. Indo-Pacific.

*Parapercis hexophthalma* (Ehrenberg)

*Fig. 370*

*Percis hexophthalma* (sic) Ehrenberg in Cuvier and Valenciennes, 1829a:271 (Massawa, Red Sea)

*Parapercis hexophthalma*—Randall, 1973:199 (Tahiti)

**MATERIAL**

Four lots, 4 specimens, 48–168 mm SL, 1–20 m, lagoon at Peros Banhos and Salomon (photos: 63 and 168 mm). Indo-Pacific.

*Parapercis sp.*

*Parapercis sp.*—Kyushin et al., 1977:294 (Chagos Archipelago)

No specimens seen or collected; the record is based on the colour photograph of *Parapercis sp.* given by Kyushin et al. (1977). There is some doubt as to the provenance of their specimen, for under “fishing data” they record “Chagos, 80–160 m, vertical long line”, but state “Sri Lanka” under “Distribution”. Range unassigned.

**Creediidae**

Identification of the material was undertaken by Dr. J. S. Nelson.

*Chalixodytes chameleontoculis* Smith

*Fig. 371*

*Chalixodytes chameleontoculis* Smith, 1956:890 (Seychelles); Nelson, 1978:363 (Indian Ocean east to Cocos [Keeling] Island)

**MATERIAL**

Five lots, 9 specimens, 17–33 mm SL, 0–10 m, lagoon and intertidal at Eagle Island and Peros Banhos (photo: 31 mm). We tentatively retain this species as distinct from *C. tauensis* Schultz on the advice of Dr Nelson (in litt.). Indian Ocean.

*Limnichthys nitidus* Smith

*Fig. 372*

*Limnichthys nitidus* Smith, 1958a:247 (Pinda, Mozambique); Nelson, 1978:360 (western Indian Ocean, possibly extending to Cocos [Keeling] Island)

**MATERIAL**

One lot, 1 specimen, 17 mm SL, 7 m, lagoon at Peros Banhos (photo). Tentatively assigned to the Indian Ocean.

**Blenniidae**

In addition to those species listed below, there are two species of blenniids recorded by Regan (1908) from Chagos: *Salarias quadricornis* and *S. sumatranus* (= *Istiblennius periophthalmus*, q.v.). The former nominal species is currently assigned to the genus *Istiblennius* (Smith-Vaniz and Springer, 1971), but we have not been able to locate Regan’s specimen to establish whether it is conspecific with any of the species of *Istiblennius* recorded here.

*Aspidontus taeniatus tractus* Fowler

*Fig. 373*

*Aspidontus tractus* Fowler, 1903:170 (Zanzibar)

*Aspidontus taeniatus tractus*—Smith-Vaniz, 1976:62 (Indian Ocean, including Chagos, east to Thailand and Java)
Cirripectes castaneus (Valenciennes)  
Figs. 374, 375  
*Cirripectes castaneus* Valenciennes *in* Cuvier and Valenciennes, 1836:324 (Mauritius)  

**MATERIAL**  
Four lots, 4 specimens, 47–79 mm SL, 3–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo: 79 mm). Indian Ocean and western extremity of west Pacific.

*Cirripectes perustus* Smith  
Fig. 376  
*Cirripectes perustus* Smith, 1959b:238 (Malindi, Kenya)  

**MATERIAL**  
Ten lots, 42 specimens, 21–62 mm SL, 0–24 m, lagoon, intertidal, and drop-off at Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 36, 52, and 60 mm). Seventy-one per cent of the specimens collected were taken in two stations made in the intertidal region. Indo–west Pacific and marginally on the Pacific plate (east to the Gilbert Islands).

*Cirripectes polyzona* (Bleeker)  
Fig. 377  
*Salaris* (Cirripectes) *polyzona* Bleeker, 1868a:278 (Ambon)  

**MATERIAL**  
Three lots, 117 specimens, 18–58 mm SL, 0–20 m, lagoon, reef-flat, and reef-top at Eagle Island, Peros Banhos, and Salomon (photo: specimen not located). Most of the specimens (101) were taken in the single collection made in the spur-and-groove formation off Isle Boddam, Salomon. Indo-Pacific.

*Cirripectes quagga* (Fowler and Ball)  
Fig. 378  
*Rupiscartes quagga* Fowler and Ball, 1924:273 (Wake Island)  

**MATERIAL**  
One lot, 6 specimens, 41–55 mm SL, 0–3 m, reef-top at Salomon (photo: 48 mm). This species was collected only in the spur-and-groove formation at Salomon. Indo-Pacific (east to Pitcairn Island).

*Cirripectes sp.*  
Pl. VIIIID  
**MATERIAL**  
One lot, 6 specimens, 76–93 mm SL, 0–3 m, reef-top at Salomon (photo: 83 mm). The only collection came from the spur-and-groove formation off Isle Boddam, Salomon. The species will be described by J. T. Williams. Indian Ocean.

**Ecsenius midas** Starck  
Fig. 379  
*Ecsenius midas* Starck, 1969:1 (Amirante Islands); McKinney and Springer, 1976:10 (Indo–west Pacific east to Fiji)  

**MATERIAL**  
Five lots, 18 specimens, 37–58 mm SL, 10–26 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo: 52 mm). Indo–west Pacific.

**Ecsenius nalolo** Smith  
Fig. 380  
*Ecsenius nalolo* Smith, 1959b:245 (Pinda, Mozambique); McKinney and Springer, 1976:11 (Indian Ocean west of 75°E).  

**MATERIAL**  
Eighteen lots, 63 specimens, 15–47 mm SL, 0.5–25 m, lagoon, reef-top, and drop-off (2) at Eagle Island, Peros Banhos, Salomon, and Three Brothers (photos: 34 and 46 mm). Sixty-five per cent of the specimens collected were taken in the lagoons, with 68% of the total from 6–15 m water depth. Western Indian Ocean.

**Enchelyurus kraussi** (Klunzinger)  
Fig. 381  
*Petroscirtes kraussi* Klunzinger, 1871:497 (Koseir, Red Sea)  
*Enchelyurus kraussi*—Springer, 1972:6 (Indo-Pacific east to Marianas)

**MATERIAL**  
Two lots, 3 specimens, 18–27 mm SL, 0.5–1 m, lagoon at Eagle Island. Indo–west Pacific and marginally on the Pacific plate.

**Entomacrodus striatus** (Quoy and Gaimard)  
Fig. 382  
*Salaris striatus* Quoy and Gaimard *in* Cuvier and Valenciennes, 1836:309 (Mauritius)  
*Entomacrodus striatus*—Springer, 1967:73 (Indo-Pacific east to Tuamotu Islands)  

**MATERIAL**  
Three lots, 75 specimens, 20–53 mm SL, 0–3 m, reef-flat and reef-top at Peros Banhos and Salomon (photos: 30 and 57 mm). The single specimen from the reef-top was collected from the spur-and-groove formation. Indo-Pacific.

**Exallias brevis** (Kner)  
Fig. 383  
*Salaris brevis* Kner, 1868:334 (Samoa)
**Material**
Two lots, 7 specimens, 57–78 mm SL, 0–5 m, lagoon and reef-top at Peros Banhos (photos: 71, 73, and 78 mm). Indo-Pacific (east to Pitcairn Island).

*Glyptoparurus delicatulus* Smith
Fig. 384
*Glyptoparurus delicatulus* Smith, 1959b:249 (Malindi, Kenya); Smith-Vaniz and Springer, 1971:24 (Indo-Pacific)

**Material**
Four lots, 34 specimens, 15–25 mm SL, 0–1 m, lagoon at Eagle Island and Peros Banhos. Indo-Pacific.

*Istiblennius edentulus* (Schneider)  
Fig. 385
*Istiblennius edentulus* Schneider in Bloch and Schneider, 1801:172 (Society Islands)

**Material**
Four lots, 867 specimens, 18–107 mm SL, 0–1 m, reef-flat at Diego Garcia, Peros Banhos, and Salomon (photos: 58 and 65 mm). Indo-Pacific.

*Istiblennius gibbifrons* (Quoy and Gaimard)  
Fig. 386
*Salarias gibbifrons* Quoy and Gaimard, 1824:253 (Hawaii)  
*Istiblennius gibbifrons insolitus* Smith, 1959b:242 (Assumption)

**Material**
Two lots, 23 specimens, 45–97 mm SL, 0–3 m, reef-flat and reef-top at Salomon (photos: 75, 86, and 97 mm).

As with all members of this difficult genus, identification is tentative. Smith (1959b) felt that the subspecies he erected for the Indian Ocean form could merit full specific distinction, echoing Strasburg’s (1956) opinion that the Hawaiian form is endemic. Indo-Pacific.

*Istiblennius periophthalmus* (Valenciennes)  
Fig. 387
*Salarias periophthalmus* Valenciennes in Cuvier and Valenciennes, 1836:311 (Santa Cruz)  
*Salarias sumatr anus*—Regan, 1908:250 (Salomon, Chagos Archipelago)  
*Istiblennius periophthalmus*—Smith, 1959b:243 (western Indian Ocean)

**Material**
Eleven lots, 539 specimens, 19–97 mm SL, 0–3 m, lagoon and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 33, 52, 81, 88, and 91 mm).

Regan (1908) recorded a single blenniid specimen from Salomon. The only such specimen in the British Museum (Natural History) bears a bottle label identifying it as "*Salarias periophthalmus*". We assume this specimen formed the basis of Regan’s record of *S. sumatr anus*. Indo–west Pacific.

*Meiacanthus smithi* Klausewitz  
Fig. 388
*Meiacanthus smithi* Klausewitz, 1962:17 (Maldives); Smith-Vaniz, 1976:99 (Maldives east to western Borneo)

**Material**
Six lots, 7 specimens, 28–61 mm SL, 3–22 m, lagoon and reef-top at Peros Banhos and Salomon (photo: 56 mm). Indian Ocean and western extremity of west Pacific.

*Omobranchus elongatus* (Peters)  
Fig. 389
*Petrosirtites elongatus* Peters, 1855a:249 (Mozambique)  
*Omobranchus elongatus*—Springer and Gomon, 1975:28 (Indo–west Pacific, including Chagos, east to Philippines)

**Material**
One lot, 1 specimen, 23 mm SL, 0.5–1 m, reef-flat at Diego Garcia. Indo–west Pacific.

*Parenchelyurus hepburni* (Snyder)  
Fig. 390
*Enchelyurus hepburni* Snyder, 1908:110 (Japan)  
*Parenchelyurus hepburni*—Springer, 1972:12 (Thailand east to Marshall Islands and Samoa); Springer and Gomon, 1975:79 (Indo-Pacific east to Samoa)

**Material**
Two lots, 5 specimens, 21–26 mm SL, 0–1 m, reef-flat at Peros Banhos and Salomon. Indo–west Pacific and marginally on the Pacific plate.

*Petrosirtites mitratus* Rüppell  
*Petrosirtites mitratus* Rüppell, 1830a:111 (Red Sea); Smith-Vaniz, 1976:32 (Indo-Pacific, including Chagos, east to the Gilbert Islands and Samoa)

No specimens seen or collected; the record is based on Smith-Vaniz’s (1976) report of seven specimens from Diego Garcia. Indo–west Pacific and marginally on the Pacific plate.

*Petrosirtites xestus* Jordan and Seale  
Fig. 391
*Petrosirtites xestus* Jordan and Seale, 1906:433 (Samoa); Smith-Vaniz, 1976:36 (Indo-Pacific east to Society Islands)

**Material**
Two lots, 2 specimens, 34–47 mm SL, 2–17 m, lagoon at Peros Banhos and Salomon (photo: 47 mm). Indo-Pacific.

*Plagiotremus rhinorhynchos* (Bleeker)  
Fig. 392
*Petrosirtites rhinorhynchos* Bleeker, 1852a:273 (Wahai, Seram)  
*Plagiotremus rhinorhynchos*—Smith-Vaniz, 1976:133 (Indo-Pacific east to Marquesas Islands)
Plagiotrema tapeinosoma (Bleeker)  Fig. 393

Material
Five lots, 7 specimens, 39–63 mm SL, 7–43 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 39, 50, 54, and 63 mm). Indo-Pacific.

Plagiotrema tapeinosoma—Smith-Vaniz, 1976:138 (Indo-Pacific, including Chagos, east to Pitcairn Island)

Material
Eleven lots, 13 specimens, 36–73 mm SL, 3–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 39 and 46 mm). Indo-Pacific.

Enneapterygidae

Specimens of this family were identified by W. Holleman.

Enneapterygius abeli (Klauserwitz)  Fig. 394

Material
Five lots, 15 specimens, 14–19 mm SL, 0–7 m, lagoon, intertidal, and reef-top at Eagle Island, Peros Banhos, and Salomon (photo: 17 mm). Western Indian Ocean.

Enneapterygius sp.  Pl. VIII E

Material
Seven lots, 21 specimens, 17–26 mm SL, 3–18 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo). This species is apparently undescribed. Range unassigned.

Helicogonia fuscinina Holleman  Pl. VIII F

Helicogonia fuscinina Holleman, 1982:115 (Zululand, South Africa; also Indo–west Pacific including Chagos, east to Japan)

Material
Four lots, 8 specimens (paratypes), 22–33 mm SL, 0–7 m, lagoon and intertidal at Peros Banhos and Salomon (photos: 25, 28, 29, and 32 mm). Indo–west Pacific.

Ammodytidae

?Bleekeria renniei Smith  Fig. 395

Bleekeria renniei Smith, 1957c:219 (eastern South Africa)

Material
One lot, 1 specimen, 61 mm SL, 7 m, lagoon at Peros Banhos (photo).

The single specimen has the following characteristics: D 48, A 24, P 14, tubed lateral-line scales 103(L)–106(R), followed by 7(L)–10(R) untubed scales, dorsal transverse scales 2, gill rakers 4 + 22.

The dorsal and anal ray counts are consistent with B. gilli and B. vaga, but the former count is low for B. renniei (50–51). In B. vaga there are vertical tubules on the scales in the row above the posterior part of the lateral line; these tubules are absent on other species of the genus. Bleekeria gilli has 7 + 8 gill rakers, whereas B. renniei has 10 + 21–22. In spite of the differences, it seems possible that B. gilli (range: California to Hawaii) is conspecific with B. renniei. Both of these species, like the Chagos specimen, have numerous small black spots in the membranes of the dorsal and anal fins, and a curved vertical bar on the caudal fin. Range unassigned.

Callionymidae

Specimens of this family were identified by Dr R. Fricke.

Callionymus delicatus Smith  Fig. 396

Callionymus delicatus Smith, 1963:557; Fricke, 1983:335 (Indo-Pacific, including Chagos, east to Palau)

Material
Seven lots, 14 specimens, 12–29 mm SL, 0–10 m, lagoon at Peros Banhos, Salomon, and Three Brothers (photos: 16 and 29 mm). Indo–west Pacific and marginally on the Pacific plate.

Synchirops minutulus Fricke  Fig. 397

Synchirops minutulus Fricke, 1981:119 (Maldives; also Chagos Archipelago)

Material
One lot, 1 specimen (paratype), 13 mm SL, 5–7 m, reef-top at Salomon. Central Indian Ocean.

Gobioidi

The 100 species of gobioid fishes (families Gobiidae, Eleotrididae, Kraemerididae, and Microdesmidae) from the Chagos Archipelago have been treated in some detail earlier in this series (Winterbottom and Emery, 1986) and will not be considered further. The ranges of 43 of these species could be established with some degree of confidence and are included in the zoogeographic analysis here. The ranges and the number of species in each range area as follows: Indo-Pacific, 23; Indo-Pacific and marginally on the Pacific plate, 3; Indo–west Pacific, 13; western Indian Ocean, 2; and Indian Ocean, 2. In addition, the
microdesmid *Paragunnellichthys fehlmani* is known from a single collection from Diego García and is considered an endemic.

**Acanthuridae**

*Acanthurus bleekeri* Günter  Fig. 398
*Acanthurus bleekeri* Günter, 1861:335 (east Indian Archipelago); Randall, 1984a:5 (Indo-Pacific, including Chagos, east to French Polynesia)

**MATERIAL**
One lot, 1 specimen, 300 mm SL, 9–18 m, drop-off at Peros Banhos (photo). Indo-Pacific.

*Acanthurus guttatus* Schneider  Fig. 399
*Acanthurus guttatus* Schneider in Bloch and Schneider, 1801:215 (Tahiti); Randall, 1956:184 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
One lot, 8 specimens, 131–198 mm SL, 0–3 m, reef-top to Salomon (photo: 173 mm). The only collection of this species was made in the spur-and-groove formation. Indo-Pacific.

*Acanthurus leucosternon* Bennett  Fig. 400
*Acanthurus leucosternon* Bennett, 1832a:183 (Sri Lanka); Randall, 1984a:9 (Indian Ocean east to Sumatra)

**MATERIAL**
Nineteen lots, 67 specimens, 61–168 mm SL, 0.5–36 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photos: 132 and 160 mm). This species was most frequently collected in the lagoons (61%) and in a depth range of 6–15 m (66%). Indian Ocean and western extremity of west Pacific.

*Acanthurus lineatus* (Linnaeus)  Fig. 401
*Chaetodon lineatus* Linnaeus, 1758:274 (“Indies”)
*Acanthurus lineatus*—Randall, 1956:193 (Indo-Pacific east to Tuamotu Islands); Randall, 1984a:11 (Indo-Pacific, including Chagos)

**MATERIAL**
Eight lots, 56 specimens, 36–207 mm SL, 0–10 m, lagoon, reef-flat, and reef-top at Eagle Island, Peros Banhos, and Salomon (photo: 198 mm). The single reef-top collection containing this species was made in the spur-and-groove formation and contained 43 specimens. Indo-Pacific.

*Acanthurus mata* (Cuvier)*  Fig. 402
*Chaetodon mata* (sic) Cuvier, 1829:224 (no locality)
*Acanthurus mata*—Randall, 1956:218 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
Two lots, 4 specimens, 45–59 mm SL, 0–0.5 m, intertidal and reef-flat at Peros Banhos (photo: 30 mm). Indo-Pacific.

*Acanthurus nigricaudus* Duncker and Mohr  Fig. 403
*Acanthurus gahm nigricauda* Duncker and Mohr, 1931:75 (South Seas)
*Acanthurus nigricaudus*—Randall, 1956:207 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
One lot, 1 specimen, 122 mm SL, 0–0.5 m, intertidal at Peros Banhos (photo). Indo-Pacific.

*Acanthurus nigrofuscus* (Forsskål)  Fig. 404
*Chaetodon nigrofuscus* Forsskål, 1775:64 (Jiddah, Red Sea)
*Acanthurus nigrofuscus*—Randall, 1956:190 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
Fourteen lots, 58 specimens, 35–107 mm SL, 0–10 m, lagoon, intertidal, reef-flat, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photo: 63 mm). Indo-Pacific.

*Acanthurus pyroferus* Kittlitz  Fig. 405
*Acanthurus pyroferus* Kittlitz, 1834:191 (Caroline Islands); Randall, 1956:196 (Indo-Pacific east to Tahiti)

**MATERIAL**
Two lots, 2 specimens, 67–102 mm SL, 10–20 m, lagoon and reef-top at Eagle Island and Peros Banhos (photo: 67 mm). Indo-Pacific.

*Acanthurus tennenti* Günter  Fig. 406
*Acanthurus tennenti* Günter, 1861:337 (Sri Lanka); Randall, 1984a:13 (Indian Ocean, including Chagos, east to Sri Lanka)

**MATERIAL**
Three lots, 3 specimens, 28–148 mm SL, 0–10 m, lagoon and pass at Peros Banhos (photo: 148 mm). Western Indian Ocean.

*Acanthurus thompsoni* (Fowler)  Fig. 407
*Hepatus thompsoni* Fowler, 1923:386 (Hawaii)
*Acanthurus thompsoni*—Randall, 1973:205 (Tahiti); Allen and Steene, 1979:63 (Christmas Island)
**MATERIAL**

Six lots, 7 specimens, 82–118 mm SL, 5–25 m, reef-top and drop-off at Eagle Island and Salomon (photos: 115 and 117 mm). This species was frequently observed in large, loose aggregations above the lip of the drop-off, apparently foraging for plankton in the water column. Indo-Pacific.

*Acanthurus triostegus* (Linnaeus) Fig. 408  
*Ctenochaetus striatus* Linnaeus, 1758:274 (“Indies”)  
*Acanthus triostegus*—Randall, 1984a:15 (Indo-Pacific, including Chagos, east to Mexico)

**MATERIAL**

Fourteen lots, 606 specimens, 21–132 mm SL, 0–3 m, lagoon (1), intertidal, reef-flat, and reef-top (1) at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photo: 87 mm). Indo-Pacific.

*Acanthus xanthonopterus* Valenciennes Fig. 409  
*Acanthus xanthonopterus* Valenciennes in Cuvier and Valenciennes, 1835:215 (Seychelles); Randall, 1984a:17 (Indo-Pacific, including Chagos, east to Mexico)

**MATERIAL**

Two lots, 3 specimens, 154–421 mm SL, lagoon at Eagle Island and Peros Banhos (photo: 421 mm). Indo-Pacific.

*Ctenochaetus striatus* (Quoy and Gaimard) Fig. 410  
*Acanthus striatus* Quoy and Gaimard, 1824:373 (Guam)  
*Ctenochaetus striatus*—Randall, 1955a:155 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**

Twenty-two lots, 133 specimens, 27–169 mm SL, 0–25 m, lagoon, intertidal, reef-flat, reef-top, and drop-off (1) at Diego Garcia, Eagle Island, Peros Banhos, Salomon, and Three Brothers (photo: 30 mm). This species was most abundant in the lagoons, where 72% of our specimens were obtained. It was collected deeper than 15 m on only two occasions (n = 7). Indo-Pacific.

*Ctenochaetus strigosus* (Bennett) Fig. 411  
*Acanthus strigosus* Bennett, 1828:41 (Hawaii)  
*Ctenochaetus strigosus*—Randall, 1955a:159 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**

Twenty-four lots, 71 specimens, 25–141 mm SL, 3–32 m, lagoon, reef-top, and drop-off at Peros Banhos, Salomon, and Three Brothers (photos: 27, 35, and 101 mm). This species was fairly evenly distributed among the three habitats, although rather more abundant in the lagoons, with 61% (x/lot = 3.3) in lagoon, 15% (x/lot = 2.8) on reef-top, and 21% (x/lot = 2.5) on drop-off, and two specimens without data. Indo-Pacific.

*Naso brachycentron* (Valenciennes) Fig. 412  
*Naseus brachycentron* Valenciennes in Cuvier and Valenciennes, 1835:275 (Waigeo)  
*Naso brachycentron*—Randall, 1973:205 (Tahiti)

**MATERIAL**

One lot, 1 specimen, 464 mm SL, 5 m, lagoon at Eagle Island (photo). Indo-Pacific.

*Naso brevirostris* (Valenciennes) Fig. 413  
*Naseus brevirostris* Valenciennes in Cuvier and Valenciennes, 1835:277 (Mauritius; Moluccas; New Guinea)  
*Naso brevirostris*—Randall, 1973:206 (Tahiti)

**MATERIAL**

Five lots, 6 specimens, 230–277 mm SL, 7–25 m, lagoon, reef-top, and drop-off at Peros Banhos and Salomon (photo: 277 mm). Indo-Pacific.

*Naso hexacanthus* (Bleeker) Fig. 414  
*Priodon hexacanthus* Bleeker, 1855b:421 (Ambon)  
*Naso hexacanthus*—Randall, 1973:206 (Tahiti); Randall, 1984a:21 (Indo-Pacific, including Chagos)

**MATERIAL**

One lot, 2 specimens, 457–484 mm SL, 10–20 m, drop-off at Salomon (photo: 484 mm). Indo-Pacific.

*Naso lituratus* (Schneider) Fig. 415  
*Acanthus lituratus* Schneider in Bloch and Schneider, 1801:216 (no locality)  
*Naso lituratus*—Randall, 1973:206 (Tahiti); 1984a:23 (Indo-Pacific, including Chagos)

**MATERIAL**

Three lots, 5 specimens, 148–252 mm SL, 0–7 m, lagoon and reef-flat at Eagle Island, Peros Banhos, and Salomon (photos: 236 and 252 mm). Indo-Pacific.

*Naso unicornis* (Forsskål) Fig. 416  
*Chaetodon unicornis* Forsskål, 1775:63 (Jiddah, Red Sea)  
*Naso unicornis*—Randall, 1973:206 (Tahiti); 1984a:25 (Indo-Pacific, including Chagos)

**MATERIAL**

One lot, 1 specimen, 165 mm SL, 0–0.5 m, reef-flat at Peros Banhos (photo). Indo-Pacific.

*Naso vlamingi* (Valenciennes) Fig. 417  
*Naseus vlamingi* Valenciennes in Cuvier and Valenciennes, 1835:293 (Moluccas)  
*Naso vlamingi*—Randall, 1973:206 (Tahiti)
**MATERIAL**
Two lots, 2 specimens, 242–255 mm SL, 10–25 m, drop off at Salomon (photo: 255 mm). Indo-Pacific.

**Paracanthurus hepatus** (Linnaeus)
*Teuthis hepatus* Linnaeus, 1758:507 (“Indies”, partim)
*Paracanthurus hepatus*—Randall, 1955b:408 (Indo-Pacific east to Gilbert Islands)

No specimens collected; the record is based on the underwater sighting of a single individual in 7 m on the reef-top off Isle Anglaise, Salomon. Indo–west Pacific and marginally on the Pacific plate.

**Zanclus cornutus** (Linnaeus)
Fig. 418
*Clypeus cornutus* Linnaeus, 1758:273 (“Indies”)
*Zanclus cornutus*—Randall, 1973:204 (Tahiti)

**MATERIAL**
Three lots, 3 specimens, 114–150 mm SL, 3–15 m, lagoon and reef-top at Eagle Island and Peros Banhos (photo: 139 mm). Randall (1973) pointed out that although *Z. canescens* (Linnaeus) has page priority over *Z. cornutus*, the latter name was selected by Cuvier, the first reviser of the genus (in Cuvier and Valenciennes, 1831a). Indo-Pacific.

**Zebrasoma veliferum desjardini** (Bennett)
Fig. 419
*Acanthurus desjardini* Bennett, 1835:207 (Mauritius)
*Zebrasoma veliferum desjardini*—Randall, 1984a:27 (Indian Ocean, including Chagos, east to Maldives)

**MATERIAL**
Six lots, 10 specimens, 26–200 mm SL, 0–15 m, lagoon and reef-top (1) at Peros Banhos, Salomon, and Three Brothers (photos: 21, 29, and 200 mm). We follow Randall (1984a) in separating the Indian Ocean form from that in the Pacific. Western Indian Ocean.

**Zebrasoma scopas** (Valenciennes)
Fig. 420
*Acanthurus scopas* Valenciennes in Cuvier and Valenciennes, 1835:245 (Banda, Mozambique)
*Zebrasoma scopas*—Randall, 1955b:405 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
Eight lots, 12 specimens, 83–130 mm SL, 0.5–22 m, lagoon at Peros Banhos and Salomon (photos: 111 and 114 mm). Indo-Pacific.

**Siganidae**

No specimens of this family were collected, but two individuals were seen on one occasion in the lagoon at Salomon. Positive identification to species was not achieved. They were dusky in colour, with a white spot just beneath the end of the dorsal fin, and other light spots on the belly. They became an overall silvery colour over sand. They may have been *Siganus sutor* (Valenciennes in Cuvier and Valenciennes, 1835). Range unassigned.

**Scombridae**

**Euthynnus affinis** (Cantor)
Fig. 421
*Thynnus affinis* Cantor, 1849:1088 (“Sea of Penang”)
*Euthynnus affinis*—Collette and Nauen, 1983:33 (Indo-Pacific east to Marquesas Islands)

**MATERIAL**
Two lots, 4 specimens, 465–565 mm SL, 12–17 m, lagoon at Peros Banhos (photo: 575 mm). Indo-Pacific.

**Gymnosarda unicolor** (Rüppell)
*Thynnus unicolor* Rüppell, 1836:40 (Red Sea)
*Gymnosarda unicolor*—Collette and Nauen, 1983:40 (Indo-Pacific east to Pitcairn Island)

No specimens collected, but this species was occasionally seen cruising the edge of the drop-off, at 20–30 m, off Peros Banhos and Salomon. Indo-Pacific.

**Katsuwonus pelamis** (Linnaeus)
*Scromber pelamis* Linnaeus, 1758:297 (“in Pelago intertropicas”)
*Katsuwonus pelamis*—Collette and Nauen, 1983:42 (cosmopolitan)

No specimens seen or collected; occurrence is based on the range maps in Collette and Nauen (1983) and Collette (1984d). Cosmopolitan.

**Scromberomorus commerson** (Lacepède)
*Scromberoides commersonianus* Lacepède, 1802a:50 (Madagascar)
*Scromberomorus commerson*—Collette, 1984d:29 (Indo–west Pacific, including Chagos, east to New Caledonia)

No specimens seen or collected; occurrence is based on the range map in Collette (1984d). Indo–west Pacific.

**Thunnus alalunga** (Bonnerterre)
*Scromber alalunga* Bonnerterre, 1788:139 (Mediterranean)
*Thunnus alalunga*—Collette and Nauen, 1983:40 (cosmopolitan, including Chagos)

No specimens seen or collected; occurrence is based on the range maps in Collette and Nauen (1983) and Collette (1984d). Cosmopolitan.
Fig. 10

Thunnus albacares (Bonnaterre)
Scomber albacares Bonnaterre, 1788:140 (Jamaica)
Thunnus albacares—Collette and Nauen, 1983:83 (worldwide, including Chagos)

A single specimen, approximately 1 m in length, was hooked in the pass between Petite Sœur and Isle Poule, Peros Banhos. It was brought alongside the inflatable boat before breaking loose, and this afforded a good lateral view. Identification was based on the bright yellow, elongate, soft dorsal and anal fins. Cosmopolitan.

Thunnus obesus (Lowe)
Thynnus obesus Lowe, 1839:78 (Madeira Islands)
Thunnus obesus—Collette and Nauen, 1983:88 (worldwide, including Chagos)

No specimens seen or collected; occurrence is based on the range maps of Collette and Nauen (1983) and Collette (1984d). Cosmopolitan.

Xiphiidae

Xipias gladius Linnaeus
Xipias gladius Linnaeus, 1758:248 (“in Oceano Europae”); Nakamura, 1984b:3 (cosmopolitan, including Chagos)

No specimen seen or collected; occurrence is based on the range map given by Nakamura (1984b). Cosmopolitan.

Istiophoridae

No istiophorids were seen or collected during the expedition; their inclusion here is based on the range maps given by Nakamura (1984a). Ranges as given in the citations below are included in the zoogeographic analysis.

Istiophorus platypterus (Shaw and Nodder)
Xipias platypterus Shaw and Nodder, 1791: none (Indian and Pacific oceans)
Istiophorus platypterus—Nakamura, 1984a:5 (Indo-Pacific, including Chagos)

Makaira indica (Cuvier)
Tetraprurus indicus Cuvier in Cuvier and Valenciennes, 1831b:286 (Sumatra)
Makaira indica—Nakamura, 1984a:7 (Indo-Pacific, including Chagos)

Tetraprurus angustirostris Tanaka
Tetraprurus angustirostris Tanaka, 1914:324 (Japan); Nakamura, 1984a:11 (Indo-Pacific, including Chagos)

Tetraprurus audax (Philippi)
Histiothorax audax Philippi, 1887:568 (Chile)
Tetraprurus audax—Nakamura, 1984a:13 (Indo-Pacific, including Chagos)

Nomeidae

Psenes squamiceps (Lloyd)
Mulichthys squamiceps Lloyd, 1909:158 (Arabian Sea)
Psenes squamiceps—Haedrich and Nzioka, 1984b:5 (Indo-west Pacific, including Chagos, east to Japan)

No specimens seen or collected; occurrence is based on the range map given by Haedrich and Nzioka (1984b). Indo-west Pacific.

Bothidae

Arnoglossus intermedius (Bleeker)
Platophrys intermedius Bleeker, 1866:47 (Sulawesi)
Engyprosopon intermedius—Regan, 1908:235 (Diego Garcia, Chagos Archipelago)
Arnoglossus intermedius—Norman, 1934:197 (Indo-west Pacific east to Solomon Islands)

No specimens seen or collected; occurrence is based on Regan’s (1908) report of a specimen taken in 10 fathoms (18.3 m) at Diego Garcia. Indo-west Pacific.

Bothus mancus (Broussonet)
Fig. 422
Pleuronectes mancus Broussonet, 1782: none (Pacific Ocean)
Platophrys pavo—Regan, 1908:232 (Peros Banhos, Chagos Archipelago)
Bothus mancus—Norman, 1934:230 (Indo-Pacific east to Mexico)

MATERIAL
Three lots, 9 specimens, 117–189 mm SL, 0–3 m, reef-flat at Peros Banhos and Salomon (photo: 117 mm). Indo-Pacific.

Bothus pantherinus (Rüppell)
Fig. 423
Rhombus pantherinus Rüppell, 1830b:121 (Mahila, Red Sea)
Bothus pantherinus—Nielsen, 1984:5 (Indo-Pacific east to Hawaii)

MATERIAL
One lot, 4 specimens, 32–37 mm SL, 0–0.5 m, lagoon at Peros Banhos (photo: 35 mm). Indo-Pacific.
Soleidae

Aseraggodes cyaneus (Alcock)*

*Solea cyaneus* Alcock, 1890:439 (Bay of Bengal)

**MATERIAL**

Two lots, 4 specimens, 12–38 mm SL, 7–25 m, lagoon and drop-off at Peros Banhos and Salomon (photo: 34 mm). Indian Ocean.

Monochirus sp.

**Pl. VIIIIG**

**MATERIAL**

One lot, 1 specimen, 19 mm SL, 18–25 m, drop-off at Salomon (photo).

This small specimen appears to belong in *Monochirus*, since the dorsal and anal fins are separate from the caudal fin, the right pectoral is well developed, and the left pectoral fin is absent. It does not seem to be conspecific with the only other Indian Ocean member of the genus, *M. quadriocellata* Boné. A description of the specimen follows: D 68, originating at the level of the pupil of the left eye; A 55; pelvics subequal with five fin-rays; three dark-rimmed ocelli just ventral to the midlateral septum, the first in line with the tip of the pectoral fin, the third on the caudal peduncle, and the second midway between these two; scattered spots and blotches of dark pigment over the rest of the ocular side of the body. Range unassigned.

Balistidae

*Abalistes stellaris* (Schneider)

*Balistes stellaris* Schneider in Bloch and Schneider, 1801:476 (Indian Ocean)

*Abalistes stellaris*—Kyushin et al., 1977:344 (Chagos Archipelago)

No specimens seen or collected; the record is based on the report of Kyushin et al. (1977) of a single specimen taken with a vertical longline in 28–100 m at Chagos. Indo-Pacific.

*Aluterus scriptus* (Osbeck)*

*Balistes scriptus* Osbeck, 1765:145 (China Sea)

*Aluera scripta*—Allen and Steene, 1979:66 (circum-tropical)

The record is based on the sighting of a single specimen on the reef-top at Isle Boddam, Salomon, in 7 m. The specimen was a light tan ground colour with numerous light blue spots and was approximately 30 cm SL. Circumtropical.

*Balistapus undulatus* (Park)*

*Balistes undulatus* Park, 1797:37 (Sumatra)

*Balistapus undulatus*—Randall, 1973:206 (Tahiti); Kyushin et al., 1977:350 (Chagos Archipelago)

**MATERIAL**

Fourteen lots, 16 specimens, 30–223 mm SL, 0–43 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 30 and 146 mm). Indo-Pacific.

*Balistoides conspicillum* Schneider

*Balistes conspicillum* Schneider in Bloch and Schneider, 1801:474 (Indian Ocean)

*Balistoides conspicillum*—Kami, Ikehara, and DeLeon, 1968:127 (Guam)

**MATERIAL**

One lot, 1 specimen, 183 mm SL, 18–25 m, drop-off at Salomon (photo). Indo-west Pacific and marginally on the Pacific plate.

*Balistoides viridescens* (Schneider)

*Balistes viridescens* Schneider in Bloch and Schneider, 1801:477 (no locality)

*Balistoides viridescens*—Randall, 1973:206 (Tahiti)

No specimens collected; the record is based on several sightings of the species on the reef-tops at Peros Banhos and Salomon. We found it impossible to approach these fish (estimated to be 300–400 mm SL) closer than about 10 m before they took flight. Indo-Pacific.

*Cantherhines dumerili* (Hollard)

*Monacanthus dumerili* Hollard, 1854:361 (Mauritius)

*Cantherhines dumerili*—Randall and Sinoto, 1978:304 (Rapa); Hutchins, 1984:9 (Indo-Pacific, including Chagos)

**MATERIAL**

One lot, 1 specimen, 219 mm SL, 20–25 m, drop-off at Peros Banhos (photo). Indo-Pacific.

*Cantherhines fronticinctus* (Günther)

*Monacanthus fronticinctus* Günther, 1866a:136 (Zanzibar)

*Cantherhines fronticinctus*—Hutchins, 1984:11 (Indo-Pacific, including Chagos)

**MATERIAL**

One lot, 1 specimen, 98 mm SL, 18–25 m, drop-off at Salomon (photo). Indo-west Pacific.

*Cantherhines pardalis* (Rüppell)

*Monacanthus pardalis* Rüppell, 1938:57 (Red Sea)

*Cantherhines pardalis*—Randall and Sinoto, 1978:304 (Rapa); Hutchins, 1984:13 (Indo-Pacific, including Chagos)

**MATERIAL**

Three lots, 4 specimens, 57–133 mm SL, 5–24 m, lagoon
and drop-off at Peros Banhos (photos: 57 and 133 mm). Indo-Pacific.

*Melichthys indicus* Randall and Klausewitz

Figs. 430, 431

*Melichthys indicus* Randall and Klausewitz, 1973:64 (Thailand; also west to Seychelles)

**MATERIAL**

Three lots, 5 specimens, 145–190 mm SL, 5–25 m, reef-top and drop-off at Eagle Island and Salomon (photos: 166, 170, and 190 mm). The 170-mm SL specimen differs from the others in that the second dorsal fin is pure white with an eye-diameter-wide edging of black. This morph was seen on a number of occasions. Indo–west Pacific.

*Melichthys niger* (Bloch)  

Fig. 432

Balistes niger Bloch, 1786:27 (China Sea)

*Melichthys niger*—Randall and Klausewitz, 1973:60 (circumtropical, including Chagos)

**MATERIAL**

Two lots, 2 specimens, 199–217 mm SL, 7–10 m, reef-top at Peros Banhos and Salomon (photos: both). Circumtropical.

*Odonus niger* (Rüppell)  

Fig. 433

Xenodus niger Rüppell, 1837:53 (Red Sea)

Odonus niger—Kyushin et al., 1977:348 (Chagos Archipelago); Randall, 1973:207 (Tahiti)

**MATERIAL**

Two lots, 3 specimens, 71–173 mm SL, 9–25 m, drop-off at Peros Banhos (photo: 71 mm). Small schools of this species were observed apparently feeding in the water column on the sandy slope of the drop-off on the eastern side of Isle Fouquet. Indo-Pacific.

*Oxymonacanthus longirostris* (Bloch and Schneider)  

Fig. 434

Balistes hispidus var. longirostris Bloch and Schneider, 1801:464 (no locality)

Oxymonacanthus longirostris—Kami, Ikehara, and De Leon, 1968:126 (Guam)

**MATERIAL**

Five lots, 5 specimens, 38–72 mm SL, 3–17 m, lagoon and reef-top at Eagle Island, Peros Banhos, and Salomon (photos: 57 and 60 mm). Indo–west Pacific and marginally on the Pacific plate.

*Paraluteres prionurus* (Bleeker)  

Fig. 435

Alutarius prionurus Bleeker, 1851b:260 (Banda, Moluccas; Neira)


**MATERIAL**

Two lots, 2 specimens, 16–63 mm SL, 5–15 m, lagoon at Peros Banhos and Salomon (photos: both). Indo–west Pacific and marginally on the Pacific plate.

*?Pervagor janthoniosa* (Bleeker)  

Pl. VIIIH

Monacanthus janthoniosa Bleeker, 1854a:504 (Ambon)

**MATERIAL**

One lot, 1 specimen, 38 mm SL, 18–24 m, drop-off at Peros Banhos (photo). The single small specimen was tentatively identified as this species by J. B. Hutchins. Indo–west Pacific.

*Pervagor melanocephalus* (Bleeker)  

Fig. 436

Monacanthus melanocephalus Bleeker, 1853d:95 (Solar, Lawajong)

Pervagor melanocephalus—Gosline and Brock, 1965:296 (Hawaii)

**MATERIAL**

Six lots, 6 specimens, 61–77 mm SL, 1–43 m, lagoon and drop-off at Diego Garcia, Peros Banhos, and Salomon (photo: 77 mm). Gosline and Brock (1965) record a single specimen from Hawaii. Woods (1966:83) divided this species into three subspecies: one found in Indo–west Pacific, one from the Marshall Islands, and the third from Johnston Island. It appears that further work is necessary to clarify the nature of the variation in the Pacific plate populations. Tentatively assigned to the Indo-Pacific.

**Note:** After this manuscript was typeset, a paper by J. B. Hutchins (1986, Review of the monacanthid fish genus *Pervagor*, with descriptions of two new species. Indo-Pacific Fishes 12:1–35) indicated that all our specimens of *Pervagor* were assignable to *P. janthoniosa*. Range: Indo–west Pacific and marginally on the Pacific plate. This new information is not incorporated into the main body of the text.

*Rhinecanthus auleatus* (Linnaeus)  

Fig. 437

Balistes auleatus Linnaeus, 1758:328 (India); Regan, 1908:251 (Chagos Archipelago)

Rhinecanthus auleatus—Randall and Steene, 1983:45 (Indo-Pacific east to Pitcairn Island)

**MATERIAL**

Five lots, 37 specimens, 37–176 mm SL, 0–7 m, lagoon and reef-flat at Diego Garcia, Eagle Island, Peros Banhos, and Salomon (photos: 133 and 151 mm). Indo-Pacific.

*Rhinecanthus rectangulus* (Bloch and Schneider)  

Fig. 438

Balistes rectangulus Bloch and Schneider, 1801:465
(Indian Ocean)
*Rhinecanthus rectangulus*—Randall and Steene, 1983:45
(Indo-Pacific east to Pitcairn Island)

**MATERIAL**
Two lots, 2 specimens, 101–104 mm SL, 0–1 m, reef-flat at Peros Banhos and Salomon (photo: 104 mm). Indo-Pacific.

*Safflanem bursa* (Schneider)  
*Fig. 439*
Balistes bursa Schneider in Bloch and Schneider, 1801:476
(Indian Ocean)
*Safflanem bursa*—Randall, 1973:207 (Tahiti)

**MATERIAL**
Three lots, 3 specimens, 129–151 mm SL, 7–25 m, reef-top and drop-off at Peros Banhos and Salomon (photo: 129 mm). Indo-Pacific.

*Safflanem chrysopterum* (Bloch and Schneider)  
*Fig. 440*
Balistes chrysopterus Bloch and Schneider, 1801:466
(India)
*Safflannem chrysopterus*—Randall, 1973:207 (Tahiti)

**MATERIAL**
Four lots, 4 specimens, 31–154 mm SL, 3–24 m, lagoon and drop-off at Peros Banhos (photos: 31 and 134 mm). Indo-Pacific.

*Safflannem fraenatum* (Latreille)*  
*Fig. 441*
Balistes fraenatus Latreille, 1804:74 (Madagascar; Polynesia)

**MATERIAL**
One lot, 1 specimen, 274 mm SL, 20 m, drop-off at Peros Banhos (photo). Indo-Pacific.

*Thamnaconus modestoides* (Barnard)
*Cantherines (sic) modestoides* Barnard, 1927:958 (Algoa Bay, South Africa)
*Navodon* sp.—Kyushin et al., 1977:354 (Chagos Archipelago)
*Thamnaconus modestoides*—Hutchins, 1984:19 (Indo-west Pacific east to Japan)

No specimens seen or collected, and the record is based on the photograph and report of Kyushin et al. (1977) of *Navodon* sp. taken with vertical longline in 72–160 m (305 mm BL). Indo-west Pacific.

*Xanthichthys auromarginatus* (Bennett)  
*Fig. 442*
Balistes auromarginatus Bennett, 1831:168 (Mauritius)
*Xanthichthys auromarginatus*—Randall, Matsuura, and Zama, 1978:696 (Indo-Pacific east to Hawaii)

**MATERIAL**
One lot, 1 specimen, 102 mm SL, 41–48 m, drop-off at Peros Banhos (photo). Indo-Pacific.

**Ostraciidae**

*Ostracion cubicus* Linnaeus  
*Fig. 443*
*Ostracion cubicus* Linnaeus, 1758:332 (India); Randall, 1972b:761 (Indo-Pacific east to Polynesia)

**MATERIAL**
Four lots, 11 specimens, 11–295 mm SL, 0–10 m, lagoon at Eagle Island, Peros Banhos, and Salomon (photo: 295 mm). Indo-Pacific.

*Ostracion meleagris* Shaw and Nodder  
*Fig. 444*
*Ostracion meleagris* Shaw and Nodder, 1796:none (“southern ocean”); Randall, 1972b:765 (Indo-Pacific to eastern tropical Pacific)

**MATERIAL**
Three lots, 5 specimens, 93–148 mm SL, 0–30 m, lagoon, reef-top, and drop-off at Eagle Island and Salomon (photo: 132 mm). Indo-Pacific.

**Triodontidae**

*Triodon macropterus* Lesson  
*Triodon macropterus* Lesson, 1829:none (Mauritius); Kyushin et al., 1977:364 (Chagos Archipelago); Tyler, 1967:89 (Indo-west Pacific east to Japan)

No specimens seen or collected; the record is based on the report of 4 specimens taken by vertical longline in 50–160 m (347–395 mm BL) by Kyushin et al. (1977).

Tyler (1967) reported variation in the presence or absence of the dorsal spines: specimens from the Indian Ocean and a specimen from Ambon lack the spines, while specimens from other areas in the Moluccas as well as those from Japan possess them. Kyushin et al. (1977) do not explicitly state whether the Chagos specimens have or lack dorsal spines. Indo-west Pacific.

**Tetraodontidae**

*Arothron aerostaticus* (Jenyns)  
*Fig. 445*
*Tetrodon aerostaticus* Jenyns, 1842:152 (unknown)

**MATERIAL**
One lot, 1 specimen, 46 mm SL. 0.2 m, lagoon at Salomon (photo). This species is very similar to *A. stellatus* (Bloch

69
and Schneider). Possibly only one species is involved, but we tentatively retain A. aerostaticus as distinct, based on dark spots on the caudal fin, as suggested by Smith (1958b). Range unassigned.

**Arothron meleagris (Lacepède)** Figs. 446, 447
_Tetrodon meleagris_ Lacepède, 1798:476 ("seas of Asia"); Regan, 1908:253 (Chagos Archipelago)
_Arothron meleagris_—Randall, 1973:207 (Tahiti)

**MATERIAL**
Six lots, 12 specimens, 181–252 mm SL, 0–3 m, lagoon and reef-flat at Peros Banhos and Salomon (photos: 209 and 243 mm). The specimens of this and the following species were identified by Drs J. Su and J. C. Tyler. One photographed specimen represents the yellow colour phase of this species. Indo-Pacific.

**Arothron nigropunctatus (Schneider)** Fig. 448
_Tetrodon nigropunctatus_ Schneider in Bloch and Schneider, 1801:507 (Tranquebar, India)
_Arothron nigropunctatus_—Kami, Ikehara, and DeLeon, 1968:128 (Guam)

**MATERIAL**
Two lots, 2 specimens, 164–200 mm SL, 0–4 m, lagoon and reef-flat at Salomon (photo: 200 mm). Indo-west Pacific and marginally on the Pacific plate.

**Canthigaster bennetti (Bleeker)** Fig. 449
_Tropidichthys bennetti_ Bleeker, 1854c:504 (Ambon)
_Canthigaster bennetti_—Allen and Randall, 1977:488 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
One lot, 1 specimen, 63 mm SL, 0–0.5 m, lagoon at Peros Banhos (photo). Indo-Pacific.

**Canthigaster janthinoptera (Bleeker)** Fig. 450
_Tropidichthys janthinoptera_ Bleeker, 1855b:429 (Ambon)
_Canthigaster janthinoptera_—Allen and Randall, 1977:495 (Indo-Pacific, including Chagos, east to Pitcairn Island)

**MATERIAL**
Ten lots, 15 specimens, 14–50 mm SL, 0.5–25 m, lagoon, reef-top, and drop-off at Eagle Island, Peros Banhos, and Salomon (photos: 15, 25, and 46 mm). Indo-Pacific.

**Canthigaster natalensis (Günther)** Fig. 451
_Tetrodon amboinensis_ var. _natalensis_ Günther, 1870:303 (Durban, South Africa)
_Canthigaster natalensis_—Allen and Randall, 1977:500 (western Indian Ocean)

**MATERIAL**
One lot, 1 specimen, 67 mm SL, 0–3 m, reef-top at Salomon (photo). Western Indian Ocean.

**Canthigaster tyleri Allen and Randall** Fig. 452
_Canthigaster tyleri_ Allen and Randall, 1977:497 (Mauritius; also Indo-west Pacific east to the Moluccas)

**MATERIAL**
Three lots, 3 specimens, 37–39 mm SL, 23–43 m, drop-off at Peros Banhos and Salomon (photos: 37 and 38 mm). Indo-Pacific.

**Canthigaster valentini (Bleeker)** Fig. 453
_Tetrodon valentini_ Bleeker, 1853a:130 (Ambon)
_Canthigaster valentini_—Allen and Randall, 1977:484 (Indo-Pacific east to Tuamotu Islands)

**MATERIAL**
Twelve lots, 26 specimens, 12–49 mm SL, 0–30 m, lagoon at Diego Garcia, Peros Banhos, Salomon, and Three Brothers (photo: 30 mm). Indo-Pacific.

**Diodontidae**

**Diodon hystrix Linnaeus** Fig. 454
_Diodon hystrix_ Linnaeus, 1758:335 (India); Leis, 1978:545 (cosmopolitan)

**MATERIAL**
Two lots, 2 specimens, 245–365 mm SL, 0.5–2 m, lagoon at Diego Garcia and Eagle Island (photo: 365 mm). Cosmopolitan.
Collections of Chagos fishes at the ROM contain representatives of 585 species (98 of which are goboids). A further 12 species were identified in the field but not collected, and another 4 field identifications were at the familial or generic level. Two species (Paragobion echniophalus and Foa sp.) not collected by us are represented in the collections of the British Museum (Natural History). One hundred species not encountered by us are included here based on published records, for a total known fish fauna of 703 species belonging to 94 families and 314 genera. The Chagos fish collection at ROM contains a total of 3798 lots consisting of 31408 specimens. In addition, there are 25 lots with 75 specimens of juvenile muraenids, scorpaenids, and scardids that we were unable to identify to species. In a zoogeographic analysis, 50.4% of the fishes have an Indo-Pacific distribution, 12.1% are found in the Indo-west Pacific, 8.4% in the Indo-west Pacific and marginally on the Pacific plate, and 6.0% are restricted to the western Indian Ocean. Other categories are as follows: cosmopolitan, 2.6%; circumtropical, 2.3%; Indian Ocean, 2.3%; Indian Ocean and western extremity of the western Pacific, 0.8%; endemic to Chagos, 0.4%; central Indian Ocean, 0.3%; and “Indo-west Pacific”, 0.3%. Taxa not assigned a range constituted 13.9% of the total fauna and fell into the following categories: taxa not assigned to species; those in which systematic or literature problems precluded range assessments; and those for which systematic revisions have just begun or are pending, and distributions have yet to be worked out. Fifty-seven of these unassigned species (7.5% total fauna) belong to the Gobiidae. The above figures are not readily comparable to other faunal lists because of the different Pacific subdivisions used here, as discussed in Materials and Methods (pp. 2–3).

The Chagos fauna, as is usual in coral-reef environments, is dominated by goboids, labrids, pomacentrids, serranids, and muraenids, which together account for

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38.4% of the total fish fauna by species (Table 2). The most speciose 11 families (each contributing more than 3% of the total fauna) comprise 60% of the total fauna known from Chagos, and the top 19 families make up 76% of that fauna. The blenniids at Chagos were in a tie with two other families for the ninth-most speciose family, whereas they were eighth at Christmas Island, fourth at the Capricorn-Bunker group, seventh at Lizard Island, and tied for fourth at the Seychelles (Table 2). The low percentage of gobiids at Christmas Island and at the Seychelles undoubtedly reflects collecting efforts and techniques, for most species are small and cryptic. The relatively high percentage of the total Chagos fauna made up of lutjanids, lethrinids, and exocoetids is not reflected in the percentage of the fauna seen or collected and is largely the result of fishery surveys using techniques not commonly employed by coral-reef ichthyologists (e.g., vertical longlines); the collected/seen percentage for each of these three groups is, however, comparable to the percentages from the other localities listed in Table 2, where collecting techniques and emphases more nearly parallel those that we employed.

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Fig. 1. Map of the Chagos Archipelago. Land black, reef margins with dotted outlines, areas below 500 m stippled.
Fig. 3. *Nebrius ferrugineus*, 1100 mm TL, Peros Banhos.

Fig. 4. *Carcharhinus melanopterus*, 1100 TL, Peros Banhos.

Fig. 5. *Dasyatis purpureus*, 565 mm DW, Peros Banhos.
Fig. 6. *Urogymnus asperrimus*, 540 mm DW, Eagle Island.

Fig. 7. *Moringua ferruginea*, 126 mm SL, Peros Banhos.

Fig. 8. *Moringua javanica*, 675 mm SL, Peros Banhos.

Fig. 9. *Moringua microchir*, 257 mm SL, Eagle Island.
Fig. 10. *Kaupichthys atronatus*, (preserved) 54 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 11. *Kaupichthys hyoprroides*, 159 mm SL, Salomon.

Fig. 12. *Kkupichthys nuchalis*, 58 mm SL, Peros Banhos.

Fig. 13. *Kcaupichthys sp.*, (preserved) 107 mm SL, Salomon. Photo by A. Strange.
Fig. 14. *Powellichthys* sp., (preserved) 155 mm SL, Salomon. Photo by A. Strange.

Fig. 15. *Anarchias allardicei*, (preserved) 97 mm SL, Eagle Island. Photo by M. Burridge-Smith.

Fig. 16. *Anarchias seychellensis*, 130 mm SL, Peros Banhos.

Fig. 17. *Echidna leucotaenia*, (preserved) 164 mm SL, Salomon. Photo by A. Strange.
Fig. 18. *Echidna nebulosa*, 123 mm SL, Peros Banhos.

Fig. 19. *Echidna polyzona*, (preserved) 338 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 20. *Echidna unicolor*, (preserved) 95 mm SL, Salomon. Photo by A. Strange.

Fig. 21. *Enchelycore bayeri*, 645 mm SL, Salomon.
Fig. 22. *Enchelycore schismatorhynchus*, 238 mm SL, Peros Banhos.

Fig. 23. *Enchelynassa canina*, (preserved) 630 mm SL, Salomon. Photo by M. Burridge-Smith.

Fig. 24. *Gymnomuraena zebra*, 600 mm SL, Eagle Island.

Fig. 25. *Gymnothorax beroensis*, 112 mm SL, Peros Banhos.
Fig. 26. Gymnothorax chilospilus, (preserved) 186 mm SL, Diego Garcia. Photo by A. Strange.

Fig. 27. Gymnothorax enigmaticus, 298 mm SL, Peros Banhos.

Fig. 28. Gymnothorax fimbriatus, 314 mm SL, Peros Banhos.

Fig. 29. Gymnothorax flavimarginatus, 172 mm SL, Peros Banhos.
Fig. 30. *Gymnothorax fuscomaculatus*, 157 mm SL, Peros Banhos.

Fig. 31. *Gymnothorax griseus*, 365 mm SL, Peros Banhos.

Fig. 32. *Gymnothorax javanicus*, 274 mm SL, Salomon.

Fig. 33. *Gymnothorax margaritophorus*, 292 mm SL, Salomon.
Fig. 34. *Gymnothorax pictus*, 181 mm SL, Peros Banhos.

Fig. 35. *Gymnothorax pindae*, 189 mm SL, Peros Banhos.

Fig. 36. *Gymnothorax rueppelliae*, 69 mm SL, Eagle Island.

Fig. 37. *Gymnothorax undulatus*, 255 mm SL, Peros Banhos.
Fig. 38. *Gymnothorax zonipectis*, 195 mm SL, Peros Banhos.

Fig. 39. *Gymnothorax* sp. 4, (preserved) 47 mm SL, Eagle Island. Photo by A. Strange.

Fig. 40. *Uropterygius concolor*, (preserved) 136 mm SL, Salomón. Photo by A. Strange.

Fig. 41. *Uropterygius fuscoguttatus*, 161 mm SL, Salomon.
Fig. 42. Uropterygius inornatus, (preserved) 105 mm SL, Salomon. Photo by A. Strange.

Fig. 43. Uropterygius kamar, (preserved) 168 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 44. Uropterygius polyspilus, 211 mm SL, Eagle Island.

Fig. 45. Uropterygius supraforatus, (preserved) 269 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 46. *Uropterygius xanthopterus*, 343 mm SL, Salomon.

Fig. 47. *Conger cinereus*, 157 mm SL, Peros Banhos.

Fig. 48. *Gorgasia maculata*, 283 mm SL, Peros Banhos.

Fig. 49. *Heteroconger hassi*, 139 mm SL, Peros Banhos.
Fig. 50. *Brachysomophis crocodilinus*, 230 mm SL, Eagle Island.

Fig. 51. *Callechelys marmoratus*, 767 mm SL, Peros Banhos.

Fig. 52. *Leiuranus semicinctus*, 194 mm SL, Salomon.

Fig. 53. *Muraenichthys laticaudata*, 180 mm SL, Peros Banhos.
Fig. 54. *Muraenichthys schultzei*, (preserved) 82 mm SL, Salomon. Photo by A. Strange.

Fig. 55. *Myrichthys colubrinus*, 565 mm SL, Peros Banhos.

Fig. 56. *Myrichthys maculosus*, 276 mm SL, Peros Banhos.

Fig. 57. *Ophisurus serpens*, 233 mm SL, Peros Banhos.
Fig. 58. Schismorhynchus labialis, 65 mm SL, Eagle Island.

Fig. 59. Schultzidia johnstonensis, (preserved) 73 mm SL, Three Brothers. Photo by M. Burridge-Smith.

Fig. 60. Spratelloides delicatulus, 39 mm SL, Peros Banhos.

Fig. 61. Saurida gracilis, 115 mm SL, Peros Banhos.

Fig. 62. Synodus variegatus, 96 mm SL, Eagle Island.
Fig. 63. *Lepadichthys bolini*, 15 mm SL, Peros Banhos.

Fig. 64. *Antennarius coccineus*, 65 mm SL, Peros Banhos.

Fig. 65. *Brotila multibarba*, 105 mm SL, Salomon.

Fig. 66. *Brosmophyciops pautzkei*, 53 mm SL, Salomon.
Fig. 67. *Dinematicthys iluocoeteoides*, 91 mm SL, Peros Banhos.

Fig. 68. *Carapus homei*, 125 mm SL, Peros Banhos.

Fig. 69. *Encheliophis gracilis*, 73 mm SL, Eagle Island.

Fig. 70. *Hyporhamphus affinis*, 77 mm SL, Peros Banhos.

Fig. 71. *Tylosurus crocodilus crocodilus*, 404 mm SL, Eagle Island.
Fig. 72. *Atherinomorus lacunosus*, 85 mm SL, Peros Banhos.

Fig. 73. *Hypoatherina barnesi*, (preserved) 40 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 74. *Myripristis adustus*, 171 mm SL, Salomon.
Fig. 75. *Myripristis berndti*, 146 mm SL, Peros Banhos.

Fig. 76. *Myripristis kuntee*, (preserved) 127 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 77. *Myripristis murdjan*, 98 mm SL, Peros Banhos.
Fig. 78. *Myripristis pralinius*, 51 mm SL, Peros Banhos.

Fig. 79. *Myripristis violaceus*, 98 mm SL, Salomon.

Fig. 80. *Neomiphon argenteus*, (preserved) 93 mm SL, Diego Garcia. Photo by M. Burridge-Smith.
Fig. 81. *Neoniphon opercularis*, 212 mm SL, Salomon.

Fig. 82. *Neoniphon sammara*, 144 mm SL, Peros Banhos.

Fig. 83. *Plectrypops lima*, 113 mm SL, Peros Banhos.
Fig. 84. *Sargocentron caudimaculatum*, 130 mm SL, Peros Banhos.

Fig. 85. *Sargocentron diadema*, 54 mm SL, Peros Banhos.
Fig. 86. *Sargocentron macrosquamis*, (preserved) 65 mm SL, Salomon. Photo by A. Strange.

Fig. 87. *Sargocentron microstoma*, 109 mm SL, Eagle Island.

Fig. 88. *Sargocentron punctatissimum*, 93 mm SL, Peros Banhos.
Fig. 89. *Sargocentron seychellense*, (preserved) 166 mm SL, Diego Garcia. Photo by A. Strange.

Fig. 90. *Sargocentron spiniferum*, 135 mm SL, Eagle Island.

Fig. 91. *Sargocentron tiere*, 222 mm SL, Peros Banhos.
Fig. 92. *Sargocentron violaceum*, 132 mm SL, Salomon.

Fig. 93. *Aulostomus chinensis*, 158 mm SL, Salomon.

Fig. 94. *Fistularia commersonii*, 137 mm SL, Peros Banhos.

Fig. 95. *Choeroichthys brachysoma*, 37 mm SL, Peros Banhos.

Fig. 96. *Choeroichthys sculptus*, (preserved) 56 mm SL, Diego Garcia. Photo by A. Strange.
Fig. 97. Corythoichthys flavofasciatus, 115 mm SL, Peros Banhos.

Fig. 98. Corythoichthys schultzi, 128 mm SL, Peros Banhos.

Fig. 99. Cosmocampus banneri, (preserved) 37 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 100. Doryrhamphus excisus excisus, (preserved) 44 mm SL, Diego Garcia. Photo by A. Strange.

Fig. 101. Halicampus mataafae, (preserved) 47 mm SL, Salomon. Photo by A. Strange.

Fig. 102. Parascorpaena aurita, (preserved) 80 mm SL, Peros Banhos. Photo by M. Burridge-Smith.
Fig. 103. *Pterois antennata*, 66 mm SL, Salomon.

Fig. 104. *Pterois miles*, 147 mm SL, Salomon.
Fig. 105. *Scorpaenodes albaensis*, 73 mm SL, Salomon.

Fig. 106. *Scorpaenodes guamensis*, 26 mm SL, Salomon.

Fig. 107. *Scorpaenodes hirsutus*, (preserved) 25 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 108. *Scorpaenodes kelloggi*, (preserved) 22 mm SL, Eagle Island. Photo by A. Strange.

Fig. 109. *Scorpaenodes parvipinnis*, 78 mm SL, Peros Banhos.

Fig. 110. *Scorpaenodes scaber*, 25 mm SL, Eagle Island.
Fig. 111. *Scorpaenopsis diabolus*, 150 mm SL, Peros Banhos.

Fig. 112. *Scorpaenopsis gibbosa*, (preserved) 67 mm SL, Diego Garcia. Photo by M. Burridge-Smith.

Fig. 113. *Scorpaenopsis oxycephala*, 38 mm SL, Salomon.
Fig. 114. Sebastapistes cyanostigma, 50 mm SL, Peros Banhos.

Fig. 115. Sebastapistes strongia, (preserved) 28 mm SL, Diego Garcia. Photo by M. Burridge-Smith.

Fig. 116. Synanceia verrucosa, 132 mm SL, Salomon.
Fig. 117. *Taenianotus triacanthus*, 62 mm SL, Peros Banhos.

Fig. 118. *Caracanthus madagascariensis*, 27 mm SL, Peros Banhos.

Fig. 119. *Caracanthus unipinna*, 28 mm SL, Peros Banhos.
Fig. 120. *Rogadius serratus*, 76 mm SL, Peros Banhos.

Fig. 121. *Thysanophrys arenicola*, (preserved) 53 mm SL, Salomon. Photo by A. Strange.

Fig. 122. *Thysanophrys otaitensis*, 122 mm SL, Peros Banhos.
Fig. 123. *Aethaloperca rogaa*, 291 mm SL, Peros Banhos.

Fig. 124. *Anyperodon leucogrammicus*, 205 mm SL, Peros Banhos.

Fig. 125. *Belonoperca chabanaudi*, 67 mm SL, Salomon.
Fig. 126. *Cephalopholis analis*, 128 mm SL, Peros Banhos.

Fig. 127. *Cephalopholis argus*, 239 mm SL, Peros Banhos.

Fig. 128. *Cephalopholis leopardus*, 61 mm SL, Salomon.
Fig. 129. *Cephalopholis miniata*, 245 mm SL, Peros Banhos.

Fig. 130. *Cephalopholis nigripinnis*, 146 mm SL, Peros Banhos.

Fig. 131. *Cephalopholis sexmaculata*, 283 mm SL, Peros Banhos.
Fig. 132. *Epinephelus caeruleopunctatus*, 184 mm SL, Peros Banhos.

Fig. 133. *Epinephelus fasciatus*, 98 mm SL, Peros Banhos.

Fig. 134. *Epinephelus faveatus*, 73 mm SL, Peros Banhos.
Fig. 135. *Epinephelus hexagonatus*, 112 mm SL, Peros Banhos.

Fig. 136. *Epinephelus merra*, 63 mm SL, Peros Banhos.

Fig. 137. *Epinephelus microdon*, 201 mm SL, Peros Banhos.
Fig. 138. *Epinephelus tauvina*, 114 mm SL, Salomon.

Fig. 139. *Gracila albomarginata*, 287 mm SL, Salomon.

Fig. 140. *Gracila polleni*, 168 mm SL, Peros Banhos.
Fig. 141. *Grammistes sexlineatus*, 77 mm SL, Peros Banhos.

Fig. 142. *Liopropoma africana*, 56 mm SL, Salomon.

Fig. 143. *Liopropoma susumi*, 44 mm SL, Salomon.
Fig. 144. *Plectropomus laevis*, 304 mm SL, Peros Banhos.

Fig. 145. *Plectropomus laevis*, 567 mm SL, Peros Banhos.

Fig. 146. *Promicrops lanceolatus*, ca 900 mm SL, Salomon.
Fig. 147. *Pseudogramma polycantha*, 37 mm SL, Peros Banhos.

Fig. 148. *Variola albimarginata*, 210 mm SL, Peros Banhos.

Fig. 149. *Variola louti*, 370 mm SL, Peros Banhos.
Fig. 150. *Anthias squamipinnis*, 65 mm SL, Salomon.

Fig. 151. *Plectranthias longimanus*, (preserved) 12 mm SL, Salomon. Photo by A. Strange.

Fig. 152. *Chlidichthys inornatus*, 23 mm SL, Peros Banhos.
Fig. 153. *Calloplesiops altivelis*, 62 mm SL, Peros Banhos.

Fig. 154. *Kuhlia mugil*, 87 mm SL, Peros Banhos.

Fig. 155. *Priacanthus cruentatus*, 172 mm SL, Peros Banhos.
Fig. 156. *Apogon angustatus*, 58 mm SL, Salomon.

Fig. 157. *Apogon apogonides*, 54 mm SL, Peros Banhos.

Fig. 158. *Apogon coccineus*, 32 mm SL, Peros Banhos.
Fig. 159. *Apogon crassiceps*, 45 mm SL, Three Brothers.

Fig. 160. *Apogon erythrinus*, (preserved) 27 mm SL, Salomon. Photo by A. Strange.

Fig. 161. *Apogon frenatus*, (preserved) 51 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 162. *Apogon kallopterus*, 84 mm SL, Three Brothers.
Fig. 163. *Apogon leptacanthus*, (preserved) 35 mm SL, Diego Garcia. Photo by A. Strange.

Fig. 164. *Apogon savayensis*, 63 mm SL, Peros Banhos.

Fig. 165. *Apogon semiornatus*, 23 mm SL, Salomon.
Fig. 166. *Apogon taeniophorus*, 67 mm SL, Salomon.

Fig. 167. *Apogon talboti*, (preserved) 45 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 168. *Apogon* sp. 1, (preserved) 48 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 169. *Apogonichthys perdix*, (preserved) 20 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 170. *Archamia fucata*, 50 mm SL, Peros Banhos.

Fig. 171. *Cheilodipterus lachneri*, 68 mm SL, Peros Banhos.
Fig. 172. *Cheilodipterus macrodon*, 47 mm SL, Peros Banhos.

Fig. 173. *Cheilodipterus quinquelineatus*, specimen not located, Peros Banhos.

Fig. 174. *Fowleria abocellata*, 26 mm SL, Eagle Island.
Fig. 175. *Fowleria aurita*, 24 mm SL, Peros Banhos.

Fig. 176. *Fowleria variegata*, 75 mm SL, Salomon.

Fig. 177. *Gymnapogon* sp., (preserved) 33 mm SL, Diego Garcia. Photo by A. Strange.
Fig. 178. *Neamia octospina*, (preserved) 31 mm SL, Three Brothers. Photo by A. Strange.

Fig. 179. *Pseudamia gelatinosa*, 57 mm SL, Peros Banhos.

Fig. 180. *Pseudamiops gracilicauda*, 23 mm SL, Peros Banhos.

Fig. 181. *Pseudamiops* sp.; (preserved) 21 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 182. *Rhabdania cypselurus*, 38 mm SL, Peros Banhos.

Fig. 183. *Malacanthus brevirostris*, 168 mm SL, Peros Banhos.

Fig. 184. *Echeneis naucrates*, 248 mm SL, Peros Banhos.

Fig. 185. *Carangoides orthogrammus*, 533 mm SL, Salomon.
Fig. 186. *Caranx dignobilis*, (preserved) 56 mm SL, Diego Garcia. Photo by M. Burridge-Smith.

Fig. 187. *Caranx melampygus*, 519 mm SL, Peros Banhos.

Fig. 188. *Caranx sexfasciatus*, 119 mm SL, Peros Banhos.
Fig. 189. *Elagatis bipinnulata*, 510 mm SL, Peros Banhos.

Fig. 190. *Gnathanodon speciosus*, 173 mm SL, Peros Banhos.

Fig. 191. *Scomberoides lysan*, 83 mm SL, Peros Banhos.
Fig. 192. *Selar crumenophthalmus*, (preserved) 123 mm SL, Salomon. Photo by A. Strange.

Fig. 193. *Trachinotus baillonii*, 224 mm SL, Peros Banhos.

Fig. 194. *Aphareus furcatus*, 261 mm SL, Peros Banhos.
Fig. 195. *Aprion virescens*, 445 mm SL, Peros Banhos.

Fig. 196. *Caesio caerulaureus*, 101 mm SL, Peros Banhos.

Fig. 197. *Caesio lunaris*, 166 mm SL, Peros Banhos.
Fig. 198. *Lutjanus bohar*, 144 mm SL, Peros Banhos.

Fig. 199. *Lutjanus fulvus*, (preserved) 141 mm SL, Diego Garcia. Photo by A. Strange.

Fig. 200. *Lutjanus gibbus*, 260 mm SL, Peros Banhos.
Fig. 201. *Lutjanus kasmira*, 151 mm SL, Peros Banhos.

Fig. 202. *Lutjanus monostigma*, 202 mm SL, Eagle Island.
Fig. 203. *Macolor niger*, 180 mm SL, Peros Banhos.

Fig. 204. *Pterocaesio chrysozonus*, (preserved) 63 mm SL, Peros Banhos. Photo by B. Boyle.

Fig. 205. *Pterocaesio marri*, 74 mm SL, Peros Banhos.
Fig. 206. *Pterocaesio tile*, 108 mm SL, Salomon.

Fig. 207. *Gerres acinaces*, 245 mm SL, Peres Banhos.

Fig. 208. *Gerres oblongus*, 50 mm SL, Peres Banhos.
Fig. 209. *Gerres oyena*, 46 mm SL, Peros Banhos.

Fig. 210. *Plectorhinchus orientalis*, 158 mm SL, Peros Banhos.

Fig. 211. *Plectorhinchus orientalis*, 315 mm SL, Peros Banhos.
Fig. 212. *Gnathodentex aureolineatus*, 187 mm SL, Peros Banhos.

Fig. 213. *Lethrinus hypselopterus*, 256 mm SL, Peros Banhos.

Fig. 214. *Lethrinus mahsena*, 264 mm SL, Peros Banhos.
Fig. 215. *Monotaxis grandoculis*, 166 mm SL, Peros Banhos.

Fig. 216. *Mulloidies flavolineatus*, 151 mm SL, Peros Banhos.

Fig. 217. *Parupeneus barberinus*, (preserved) 155 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 218. *Parupeneus bifasciatus*, 130 mm SL, Salomon.

Fig. 219. *Parupeneus cyclostomus*, 79 mm SL, Eagle Island.
Fig. 220. *Parupeneus macronemus*, 49 mm SL, Peros Banhos.

Fig. 221. *Parupeneus pleurostigma*, 61 mm SL, Peros Banhos.

Fig. 222. *Upeneus taeniopterus*, (preserved) 196 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 223. *Pempheris schwenkii*, specimen not located, Salomon.

Fig. 224. *Pempheris vanicolensis*, specimen not located, Peros Banhos.

Fig. 225. *Kyphosus cinerascens*, 148 mm SL, Peros Banhos.
Fig. 226. *Platax orbicularis*, 138 mm SL, Peros Banhos.

Fig. 227. *Chaetodon auriga*, 130 mm SL, Peros Banhos.

Fig. 228. *Chaetodon falcata*, 159 mm SL, Peros Banhos.

Fig. 229. *Chaetodon guttaiissimus*, 69 mm SL, Peros Banhos.
Fig. 230. Chaetodon kleinii, 77 mm SL, Peros Banhos.

Fig. 231. Chaetodon lunula, 165 mm SL, Salomon.

Fig. 232. Chaetodon madagascariensis, 51 mm SL, Eagle Island.

Fig. 233. Chaetodon meyeri, 133 mm SL, Peros Banhos.

Fig. 234. Chaetodon mitratus, 87 mm SL, Peros Banhos.
Fig. 235. *Chaetodon trifascialis*, 66 mm SL, Peros Banhos.

Fig. 236. *Chaetodon trifasciatus trifasciatus*, 94 mm SL, Peros Banhos.

Fig. 237. *Chaetodon unimaculatus interruptus*, 111 mm SL, Eagle Island.

Fig. 238. *Chaetodon vagabundus*, 48 mm SL, Salomon.
Fig. 239. *Chaetodon xanthocephalus*, 181 mm SL, Three Brothers.

Fig. 240. *Chaetodon zanzibaricus*, 112 mm SL, Peros Banhos.

Fig. 241. *Forcipiger flavissimus*, 90 mm SL, Peros Banhos.

Fig. 242. *Hemitarichthys zoster*, 129 mm SL, Eagle Island.
Fig. 243. *Heniochus monoceros*, 95 mm SL, Salomon.

Fig. 244. *Apolemichthys trimaculatus*, 150 mm SL, Peros Banhos.

Fig. 245. *Centropyge bispinosus*, 56 mm SL, Salomon.

Fig. 246. *Centropyge multispinis*, 69 mm SL, Salomon.

Fig. 247. *Pomacanthus imperator*, 240 mm SL, Peros Banhos.

Fig. 248. *Pygoplites diacanthus*, 142 mm SL, Salomon.
Fig. 249. *Abudefduf coelestinus*, 32 mm SL, Peros Banhos.

Fig. 250. *Abudefduf septemfasciatus*, (preserved) 138 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 251. *Abudefduf sordidus*, 31 mm SL, Salomon.
Fig. 252. *Abudefduf vaigiensis*, (preserved) 32 mm SL, Eagle Island. Photo by A. Strange.

Fig. 253. *Chromis atrpectoralis*, 64 mm SL, Salomon.

Fig. 254. *Chromis atripes*, 43 mm SL, Peros Banhos.
Fig. 255. *Chromis dimidiata*, 34 mm SL, Peros Banhos.

Fig. 256. *Chromis lepidolepis*, 48 mm SL, Salomon.

Fig. 257. *Chromis nigra*, 37 mm SL, Peros Banhos.
Fig. 258. *Chromis simulans*, (preserved) 72 mm SL, Salomon. Photo by A. Strange.

Fig. 259. *Chromis ternatensis*, 58 mm SL, Peros Banhos.

Fig. 260. *Chromis viridis*, 40 mm SL, Peros Banhos.
Fig. 261. *Chromis weberi*, 65 mm SL, Peros Banhos.

Fig. 262. *Chrysiptera biocellata*, 45 mm SL, Eagle Island.
Fig. 263. *Chrysiptera glauca*, 45 mm SL, Peros Banhos.

Fig. 264. *Chrysiptera leucopoma*, 44 mm SL, Eagle Island.
Fig. 265. *Chrysiptera xanthozona*, 44 mm SL, Salomon.

Fig. 266. *Chrysiptera* sp. 1, (preserved) 46 mm SL, Eagle Island. Photo by A. Strange.

Fig. 267. *Chrysiptera* sp. 2, (preserved) 48 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 268. *Chrysiptera* sp. 3, (preserved) 20 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 269. *Dascyllus trimaculatus*, 82 mm SL, Salomon.

Fig. 270. *Lepidozygus tapeinosoma*, 61 mm SL, Salomon.
Fig. 271. *Plectroglyphidodon dickii*, 51 mm SL, Peros Banhos.

Fig. 272. *Plectroglyphidodon imparipennis*, 42 mm SL, Salomon.
Fig. 273. *Plectroglyphidodon johnstonianus*, 50 mm SL, Peros Banhos.

Fig. 274. *Plectroglyphidodon lacrymatus*, 50 mm SL, Peros Banhos.
Fig. 275. *Plectroglyphidodon leucozonus*, (preserved) 59 mm SL, Salomon. Photo by M. Burridge-Smith.

Fig. 276. *Plectroglyphidodon phoenixensis*, 47 mm SL, Peros Banhos.

Fig. 277. *Pomacentrus coelestis*, 34 mm SL, Peros Banhos.
Fig. 278. *Pomacentrus* sp. 2, (preserved) 65 mm SL, Salomon. Photo by A. Strange.

Fig. 279. *Stegastes fasciolatus*, (preserved) 73 mm SL, Salomon. Photo by A. Strange.

Fig. 280. *Stegastes nigricans*, 83 mm SL, Peros Banhos.
Fig. 281. *Amblycirrhitus bimaculus*, 53 mm SL, Peros Banhos.

Fig. 282. *Cirrhichthys oxycephalus*, 48 mm SL, Peros Banhos.

Fig. 283. *Cirrhus pinulatus*, 88 mm SL, Salomon.
Fig. 284. *Oxycirrhites typus*, 44 mm SL, Salomon.

Fig. 285. *Paracirrhites arcatus*, 65 mm SL, Salomon.

Fig. 286. *Paracirrhites forsteri*, 83 mm SL, Peros Banhos.
Fig. 287. *Crenimugil crenilabis*, 309 mm SL, Peros Banhos.

Fig. 288. *Liza macrolepis*, (preserved) 138 mm SL, Diego Garcia. Photo by A. Strange.

Fig. 289. *IMyxus elongatus*, (preserved) 24 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 290. *Sphyraena barracuda*, 616 mm SL, Peros Banhos.
Fig. 291. *Sphyraena forsteri*, 433 mm SL, Peros Banhos.

Fig. 292. *Polydactylus sexfilis*, 313 mm SL, Peros Banhos.

Fig. 293. *Anampses caeruleopunctatus*, (preserved) 127 mm SL, Diego Garcia. Photo by A. Strange.
Fig. 294. *Anampses meleagrides*, 56 mm SL, Peros Banhos.

Fig. 295. *Anampses twistii*, 89 mm SL, Salomon.

Fig. 296. *Bodianus anthioides*, 97 mm SL, Salomon.
Fig. 297. *Bodianus axillaris*, 44 mm SL, Peros Banhos.

Fig. 298. *Bodianus axillaris*, 96 mm SL, Peros Banhos.

Fig. 299. *Bodianus bilunulatus bilunulatus*, 95 mm SL, Peros Banhos.
Fig. 300. *Bodianus diana*, 69 mm SL, Salomon.

Fig. 301. *Bodianus diana*, 131 mm SL, Peros Banhos.

Fig. 302. *Cheilinus arenatus*, 56 mm SL, Salomon.
Fig. 303. *Cheilinus digrammus*, 22 mm SL, Peros Banhos.

Fig. 304. *Cheilinus digrammus*, 157 mm SL, Peros Banhos.

Fig. 305. *Cheilinus fasciatus*, 53 mm SL, Peros Banhos.
Fig. 306. *Cheilinus oxycephalus*, 62 mm SL, Peros Banhos.

Fig. 307. *Cheilinus trilobatus*, 50 mm SL, Peros Banhos.

Fig. 308. *Cheilinus trilobatus*, 260 mm SL, Peros Banhos.
Fig. 309. *Cheilo inermis*, 43 mm SL, Peros Banhos.

Fig. 310. *Cirrhilabrus exquisitus*, 46 mm SL, Peros Banhos.

Fig. 311. *Coris formosa*, 206 mm SL, Peros Banhos.
Fig. 312. *Coris gaimard africana*, 190 mm SL, Salomon.

Fig. 313. *Coris variegata*, 67 mm SL, Peros Banhos.

Fig. 314. *Cymolutes lecluse*, 65 mm SL, Peros Banhos.
Fig. 315. *Epibulus insidiator*, 131 mm SL, Salomon.

Fig. 316. *Gomphosus coeruleus*, 109 mm SL, Peros Banhos.

Fig. 317. *Halichoeres hortulanus*, 30 mm SL, Salomon.
Fig. 318. *Halichoeres hortulanus*, 136 mm SL, Salomon.

Fig. 319. *Halichoeres marginatus*, 19 mm SL, Peros Banhos.

Fig. 320. *Halichoeres marginatus*, 91 mm SL, Salomon.
Fig. 321. *Halichoeres nebulosus*, (preserved) 49 mm SL, Eagle Island. Photo by A. Strange.

Fig. 322. *Halichoeres scapularis*, 110 mm SL, Peros Banhos.

Fig. 323. *Hemigymnus fasciatus*, 202 mm SL, Peros Banhos.
Fig. 324. *Hologymnosus annulatus*, 73 mm SL, Peros Banhos.

Fig. 325. *Labrichthys unilineatus*, 64 mm SL, Peros Banhos.

Fig. 326. *Labroides bicolor*, 25 mm SL, Salomon.

Fig. 327. *Labroides dimidiatus*, 55 mm SL, Peros Banhos.
Fig. 328. *Macropharyngodon bipartitus bipartitus*, 58 mm SL female, Peros Banhos.

Fig. 329. *Macropharyngodon bipartitus bipartitus*, 75 mm SL male, Peros Banhos.

Fig. 330. *Novaculichthys taeniourus*, 177 mm SL, Peros Banhos.
Fig. 331. *Pseudocheilinus evanidus*, 49 mm SL, Salomon.

Fig. 332. *Pseudocheilinus hexataenia*, 39 mm SL, Peros Banhos.

Fig. 333. *Pseudocheilinus octotaenia*, 44 mm SL, Salomon.
Fig. 334. *Pseudodax moluccanus*, 127 mm SL, Salomon.

Fig. 335. *Stethojulis albovittata*, 59 mm SL, Peros Banhos.

Fig. 336. *Stethojulis strigiventer*, 45 mm SL, Salomon.
Fig. 337. *Thalassoma amblycephalum*, 60 mm SL, Salomon.

Fig. 338. *Thalassoma hardwicki*, 103 mm SL, Eagle Island.

Fig. 339. *Thalassoma hebraicum*, 127 mm SL, Peros Banhos.
Fig. 340. *Thalassoma lunare*, 92 mm SL, Peros Banhos.

Fig. 341. *Thalassoma purpureum*, 174 mm SL, Peros Banhos.

Fig. 342. *Thalassoma quinquevittatum*, 42 mm SL, Peros Banhos.
Fig. 343. *Thalassoma quinquevittatum*. 100 mm SL, Salomon.

Fig. 344. *Thalassoma trilobatum*. 31 mm SL, Salomon.

Fig. 345. *Weitmorella nigropinnata*. 39 mm SL, Peros Banhos.
Fig. 346. *Xyrichthys pavo*, 16 mm SL, Peros Banhos.

Fig. 347. *Xyrichthys pavo*, 102 mm SL, Peros Banhos.

Fig. 348. *Xyrichthys* sp., (preserved) 38 mm SL, Peros Banhos. Photo by A. Strange.
Fig. 349. *Calotomus carolinus*, (preserved) 190 mm SL, Eagle Island. Photo by A. Strange.

Fig. 350. *Cetoscarus bicolor*, 420 mm SL, Salomon.

Fig. 351. *Hipposcarus harid*, 224 mm SL, Salomon.
Fig. 352. *Scarus enneacanthus*, 255 mm SL, Salomon.

Fig. 353. *Scarus falcipinnis*, 48 mm SL, Salomon.

Fig. 354. *Scarus frenatus*, 270 mm SL, Peros Banhos.
Fig. 355. *Scarus ghobban*, 190 mm SL, Peros Banhos.

Fig. 356. *Scarus gibbus*, 47 mm SL, Salomon.

Fig. 357. *Scarus gibbus*, 270 mm SL, Peros Banhos.
Fig. 358. *Scarus niger*, 108 mm SL, Peros Banhos.

Fig. 359. *Scarus psittacus*, 39 mm SL, Peros Banhos.

Fig. 360. *Scarus psittacus*, 125 mm SL, Salomon.
Fig. 361. *Scarus rubroviolaceus*, 340 mm SL, Eagle Island.

Fig. 362. *Scarus rubroviolaceus*, 350 mm SL, Peros Banhos.

Fig. 363. *Scarus scaber*, 117 mm SL, Salomon.
Fig. 364. *Scarus sordidus*, 35 mm SL, Salomon.

Fig. 365. *Scarus sordidus*, 111 mm SL, Salomon.

Fig. 366. *Scarus sordidus*, 155 mm SL, Salomon.
Fig. 367. *Scarus tricolor*, 206 mm SL, Salomon.

Fig. 368. *Scarus* sp., (preserved) 205 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 369. *Parapercis cephalopunctata*, 100 mm SL, Peros Banhos.
Fig. 370. *Parapercis hexophthalma*, 63 mm SL, Peros Banhos.

Fig. 371. *Chalixodytes chameleontoculis*, 31 mm SL, Peros Banhos.

Fig. 372. *Limnichthys nitidus*, 17 mm SL, Peros Banhos.

Fig. 373. *Aspidontus taeniatustractus*, 79 mm SL, Peros Banhos.
Fig. 374. *Cirripectes castaneus*, 61 mm SL, Salomon.

Fig. 375. *Cirripectes castaneus*, 48 mm SL, Peros Banhos.

Fig. 376. *Cirripectes perustus*, 60 mm SL, Salomon.
Fig. 377. *Cirripectes polyzona*, specimen missing, Salomon.

Fig. 378. *Cirripectes quagga*, 48 mm SL, Salomon.

Fig. 379. *Ecsenius midas*, 52 mm SL, Peros Banhos.
Fig. 380. *Ecsenius nalolo*, 34 mm SL, Peros Banhos.

Fig. 381. *Enchelyurus kraussi*, (preserved) 26 mm SL, Eagle Island. Photo by A. Strange.

Fig. 382. *Entomacrodus striatus*, 30 mm SL, Peros Banhos.

Fig. 383. *Exallias brevis*, 71 mm SL, Peros Banhos.
Fig. 384. *Glyptoparus delicatus*, (preserved) 20 mm SL, Eagle Island. Photo by A. Strange.

Fig. 385. *Istiblennius edentulus*, 65 mm SL, Peros Banhos.

Fig. 386. *Istiblennius gibbifrons*, 75 mm SL, Salomon.

Fig. 387. *Istiblennius periophthalmus*, 91 mm SL, Salomon.
Fig. 388. *Meiacanthus smithi*, 56 mm SL, Peros Banhos.

Fig. 389. *Omobranchus elongatus*, (preserved) 23 mm SL, Diego Garcia. Photo by M. Burridge-Smith.

Fig. 390. *Parenchelyurus hepburni*, (preserved) 25 mm SL, Peros Banhos. Photo by A. Strange.

Fig. 391. *Petroscirtes xestus*, 47 mm SL, Peros Banhos.

Fig. 392. *Plagiotremus rhinorhynchos*, 50 mm SL, Salomon.
Fig. 393. *Plagiotremus tapeinosoma*, 39 mm SL, Peros Banhos.

Fig. 394. *Enneapterygius abeli*, 17 mm SL, Peros Banhos.

Fig. 395. *Bleekeria renniei*, 61 mm SL, Peros Banhos.

Fig. 396. *Callionymus delicatulus*, 29 mm SL, Peros Banhos.

Fig. 397. *Synchiropus minutulus*, (preserved) 13 mm SL, Salomon. Photo by A. Strange.
Fig. 398. *Acanthurus bleekeri*, 300 mm SL, Peros Banhos.

Fig. 399. *Acanthurus guttatus*, 173 mm SL, Salomon.

Fig. 400. *Acanthurus leucosternon*, 160 mm SL, Peros Banhos.

Fig. 401. *Acanthurus lineatus*, 198 mm SL, Peros Banhos.

Fig. 402. *Acanthurus mata*, 30 mm SL, Peros Banhos.

Fig. 403. *Acanthurus nigricaudus*, 122 mm SL, Peros Banhos.
Fig. 404. *Acanthurus nigrofuscus*, 63 mm SL, Peros Banhos.

Fig. 405. *Acanthurus pyroferus*, 67 mm SL, Peros Banhos.

Fig. 406. *Acanthurus tennenti*, 148 mm SL, Peros Banhos.

Fig. 407. *Acanthurus thompsoni*, 117 mm SL, Salomon.

Fig. 408. *Acanthurus triostegus*, 87 mm SL, Peros Banhos.

Fig. 409. *Acanthurus xanthopterus*, 421 mm SL, Eagle Island.
Fig. 410. Ctenochaetus striatus, 30 mm SL, Peros Banhos.

Fig. 411. Ctenochaetus strigosus, 101 mm SL, Peros Banhos.

Fig. 412. Naso brachycentron, 464 mm SL, Eagle Island.

Fig. 413. Naso brevirostris, 277 mm SL, Peros Banhos.
Fig. 414. *Naso hexacanthus*, 484 mm SL, Salomon.

Fig. 415. *Naso lituratus*, 236 mm SL, Salomon.

Fig. 416. *Naso unicornis*, 165 mm SL, Peros Banhos.
Fig. 417. *Naso vlamingi*, 255 mm SL, Salomon.

Fig. 418. *Zanclus cornutus*, 139 mm SL, Peros Banhos.
Fig. 419. Zebrasoma veliferum desjardini, 200 mm SL, Peros Banhos.

Fig. 420. Zebrasoma scopas, 114 mm SL, Peros Banhos.
Fig. 421. *Euthynus affinis*, 575 mm SL, Peros Banhos.

Fig. 422. *Bothus mancus*, 117 mm SL, Salomon.

Fig. 423. *Bothus pantherinus*, 35 mm SL, Peros Banhos.

Fig. 424. *Aseraggodes cyaneus*, 34 mm SL, Peros Banhos.
Fig. 425. *Balistapus undulatus*, 146 mm SL, Peros Banhos.

Fig. 426. *Balistoides conspicillum*, 183 mm SL, Salomon.

Fig. 427. *Cantherhines dumerili*, 219 mm SL, Peros Banhos.

Fig. 428. *Cantherhines fronticinctus*, 98 mm SL, Peros Banhos.

Fig. 429. *Cantherhines pardalis*, 133 mm SL, Peros Banhos.

Fig. 430. *Melichthys indicus*, 190 mm SL, Salomon.
Fig. 431. *Melichthys indicus*. 170 mm SL, Salomon.

Fig. 432. *Melichthys niger*. 217 mm SL, Salomon.

Fig. 433. *Odonus niger*. 71 mm SL, Peros Banhos.
Fig. 434. *Oxymonacanthus longirostris*, 57 mm SL, Eagle Island.

Fig. 435. *Paraluteres prionurus*, 16 mm SL, Peros Banhos.

Fig. 436. *Pervagor melanocephalus*, 77 mm SL, Peros Banhos.
Fig. 437. *Rhinocanthus aculeatus*, 151 mm SL, Eagle Island.

Fig. 438. *Rhinocanthus rectangulus*, 104 mm SL, Salomon.

Fig. 439. *Sufflamen bursa*, 129 mm SL, Peros Banhos.
Fig. 440. *Sufflamen chrysopterum*, 134 mm SL, Peros Banhos.

Fig. 441. *Sufflamen fraenatum*, 274 mm SL, Peros Banhos.

Fig. 442. *Xanthichthys auromarginatus*, 102 mm SL, Peros Banhos.
Fig. 443. *Ostracion cubicus*, 295 mm SL, Eagle Island.

Fig. 444. *Ostracion meleagris*, 132 mm SL, Eagle Island.

Fig. 445. *Arothron aerostaticus*, 46 mm SL, Salomon.
Fig. 446. *Arothron meleagris*, 209 mm SL, Peros Banhos.

Fig. 447. *Arothron meleagris*, 243 mm SL, Peros Banhos.

Fig. 448. *Arothron nigropunctatus*, 200 mm SL, Salomon.
Fig. 449. *Canthigaster bennetti*, 63 mm SL, Peros Banhos.

Fig. 450. *Canthigaster janthinoptera*, 25 mm SL, Peros Banhos.

Fig. 451. *Canthigaster natalensis*, 67 mm SL, Salomon.
Fig. 452. *Canthigaster tyleri*, 37 mm SL, Peros Banhos.

Fig. 453. *Canthigaster valentini*, 30 mm SL, Peros Banhos.

Fig. 454. *Diodon hystrix*, 365 mm SL, Eagle Island.