Checklist of the shorefishes of Wallis Islands (Wallis and Futuna French Territories, South-Central Pacific)

by

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ABSTRACT. - The Wallis Islands, part of Wallis and Futuna French Territories, are located in the central South Pacific Ocean. They are positioned at the boundary of two biogeographic provinces, the Pacific Plate and the Indian-Australian Plate. Our survey is the first comprehensive survey of the shorefishes of the Wallis Islands. The shorefishes were surveyed using a combination of visual censuses and specimens collecting using rotenone and spear fishing. We recorded or collected 639 species of shorefishes from the 1999-2000 surveys, 7 additional species were added based on crest net collections taken in 2002-2003 and 2 additional species based on specimens previously cataloged in museum collections, resulting in a total of 648 species of shorefishes in 79 families known from Wallis Islands. Combining rotenone collecting with visual censuses was critical to determining the shorefish biodiversity of Wallis Islands. Of the 648 species now known from Wallis Islands, 42.9% of the species were taken only by rotenone sampling and 29.5% were recorded only by visual censuses. Neither method alone provides a comprehensive survey of shorefish biodiversity. Biogeographically, the species composition of shorefishes at Wallis Islands is a mixture of faunal elements from the Pacific Plate and Indian-Australian Plate biogeographic regions. The overlapping biogeographic faunas are reflective of the geographic position of Wallis Islands on the boundary between these two lithospheric plates.

RÉSUMÉ. - Inventaire des espèces de poissons récifo-lagonaires des îles Wallis (Wallis et Futuna, sud Pacifique central).

Les îles Wallis font partie du Territoire de Wallis et Futuna. Elles sont localisées dans le sud du Pacifique central et se situent à la frontière de deux provinces biogéographiques, la plaque Pacifique et la plaque Indo-Australienne. Ce travail constitue le premier inventaire exhaustif des poissons récifo-lagonaires de cet archipel. Plusieurs méthodes d'échantillonnage complémentaires ont été utilisées en 1999 et 2000 ; des comptages visuels et des prélèvements d'individus à l'aide de roténone ou de fusils sous-marins. Ces techniques ont permis d'inventorier 639 espèces. Sept espèces supplémentaires ont été échantillonnées au stade post-larve à l'aide de filets de crête en 2002-2003 et deux autres avaient été répertoriées dans des collections de muséums. Au total, 648 espèces appartenant à 79 familles ont été recensées à Wallis. L'utilisation de méthodes complémentaires a été justifiée pour déterminer la diversité des poissons récifo-lagonaires. Sur les 648 espèces inventoriées, 42,9% l'ont été uniquement à l'aide de roténone et 29,5% uniquement par relevé visuel. Aucune méthode utilisée seule ne donne des estimations fiables de la diversité des poissons récifo-lagonaires. D'un point de vue biogéographique, la composition spécifique de Wallis est un mélange de faunes des provinces biogéographiques de la plaque Pacifique et de la plaque Indo-Australienne. Elle reflète la position géographique de cet archipel, à la frontière de ces deux plaques lithosphériques.

Key words. - Shorefish biodiversity - ISE - Wallis and Futuna - Checklist - Visual census - Rotenone.

The Wallis Islands are part of Wallis and Futuna French Territories. They are located in the central South Pacific Ocean between latitudes 13°10' and 13°25'S and longitudes 176°16' and 176°17'W (Fig. 1). The Wallis Islands are situated on the margin of the Pacific lithospheric plate (Springer, 1982) near the northeastern tip of the Indian-Australian lithospheric plate. Wallis is geographically isolated, positioned between Fiji (Vanua Levu is 600 km to the southwest), Samoa (Savai'i is 400 km to the east) and Tonga (Niuatoputapu is 400 km to the southeast). The closest islands, Futuna (83 km^2) and Alofi (35 km^2), are located 242 km to the southwest. Futuna and Alofi, both lacking lagoons, are part of the Wallis and Futuna French Territory. The main island (Uvea; 75.4 km^2) is a relatively flat volcanic island (highest point 151 m) surrounded by a 200 km^2 lagoon and nineteen volcanic or coralline islets (Fig. 1). The lagoon has

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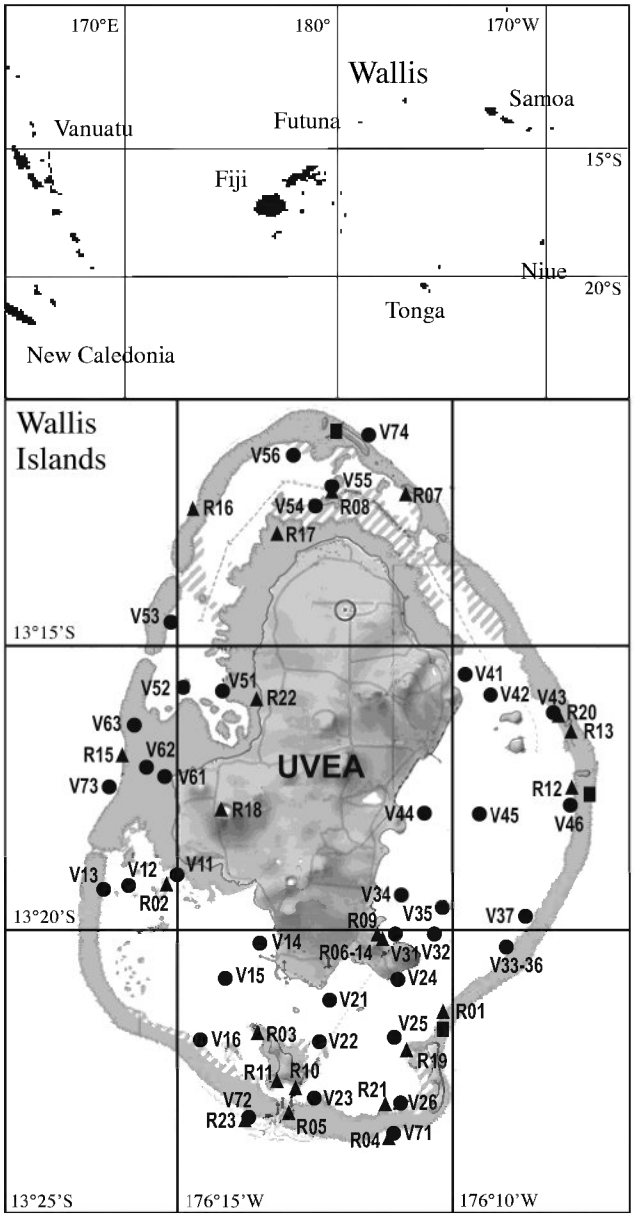

Figure 1. - Study area and stations sampled in Wallis. V: visual census; R: rotenone. Hatched zones correspond to shallow areas (depth < 1 m). *[Zone d'étude et stations échantillonnées à Wallis. V : comptage en plongée ; R : roténone. Les hachures correspondent à des zones peu profondes (profondeur < 1 m)]*

a complex geomorphology with basaltic ridges separating shallow areas (< 10 m) from deep hollows where depths can exceed 50 m. The lagoon is bordered by a barrier reef that is interrupted by three small passes on the western border and one larger pass in the South (Fig. 1). A large tidal range of 2 m is characteristic of the lagoon and about one third of the water in the lagoon is exchanged during each tide. A variety of habitats are present around the island complex, including expansive mud flats, sandy beaches and slopes, mangroves, sea grass beds, rocky and coralline fringing, patch and barrier reefs.

Very few studies have been conducted on the fish communities of the Wallis Islands. The first significant contribution to our knowledge of the Wallis Islands fish fauna was a limited edition report by Richard *et al.* (1982). The report provided a preliminary combined list of 330 species of fishes from Wallis, Alofi and Futuna, but did not provide information as to which species were recorded from each island. The first quantitative study was conducted in 1999 using underwater visual censuses. The 1999 study provided preliminary data on species richness, density, biomass, community and trophic structure of the coral reef fish communities and associations of fishes with substrate characteristics (Wantiez and Chauvet, 2003). The results of the 1999 study were used to plan a more comprehensive shorefish survey in 2000. One of the authors (M. Juncker) used crest nets from June 2002 to June 2003 to capture post-larval fishes at Wallis. This article presents a checklist of the known Wallis shorefish species, that can be used as a baseline for information for local authorities, and for biogeographic studies in the Pacific.

MATERIAL AND METHODS

Several complementary methods were used to determine species composition of shorefishes living on the coral reefs and in the lagoon of Wallis Islands (hereafter abbreviated Wallis Is.) from 1-22 November 2000. Each survey method targets certain components of the ichthyofauna. By employing these methods concurrently, we were able to obtain a reasonably comprehensive inventory of the shorefish species living in Uvea lagoon and on its barrier reefs. When mentioned, the lengths are standard length (SL).

Nineteen rotenone (powdered root of the Derris plant) stations were occupied (Fig. 1) and supplemented with specimens collected using small hand nets and by spear fishing at four additional stations. An attempt was made to sample as many different habitats as possible (Tab. I). Rotenone is an excellent sampling method for the cryptic and small species. These fishes are targeted by the use of powdered rotenone which has little or no impact on corals or other marine invertebrates. Rotenone's inhibition of oxygen uptake across the fishes' gills is the feature that makes it effective in forcing the small and hidden fishes to leave their crevices and burrows to seek oxygenated water in the open water, where they can then be seen and captured. The small cryptic species usually occur in large numbers and comprise a major component of the fish biomass of coastal habitats. However, rotenone is ineffective for sampling larger-sized species, which are able to swim away from the sampling area. Rotenone is active for only a short period of time after its release and only while it is highly concentrated in a sampling area.

Table I. - Wallis shorefish fauna sampling sites (November 2000). Location is given in WGS84 projection. OS: outer slope; BR: inner barrier reef; IR: intermediate reef; FR: fringing reef; PR: patch reef. *[Sites d'échantillonnage des poissons récifo-lagonaires de Wallis. Les positions sont données en projection WGS84. OS : pente externe ; BR : récif barrière interne ; IR : récif intermédiaire ; FR : récif frangeant ; PR : récif réticulé.]*

Station	Location	Method	Habitat	Depth (m)
R01	13°21.59 S-176°10.01 W	Rotenone	BR: Coral-White sand	1-13
V41	13°15.62 S-176°09.69 W	Visual	FR: Coral-Soft coral-Sand	1-7
V42	13°16.05 S-176°09.19 W	Visual	PR: Coral-Sand-Rock	4-6
V43	13°16.23 S-176°08.10 W	Visual	BR: Coral-Rock-rubble	2-17
R02	13°19.37 S-176°15.09 W	Rotenone	FR: Coral-Rubble-Sand	2-6
R03	13°21.92 S-176°13.42 W	Rotenone	Rocky shore	1-13
V51	13°15.88 S-176°14.07 W	Visual	FR: Rubble-Coral-Rock	1-14
V52	13°15.83 S-176°14.77 W	Visual	IR: Rock-Rubble-Coral	1-14
V53	13°14.66 S-176°15.14 W	Visual	PR: Rubble-Rock-Sand	1-2
R04	13°23.76 S-176°11.00 W	Rotenone	OS: Surge channels	14-20
R05	13°23.39 S-176°12.92 W	Rotenone	Rocky tide pools	0-1
V71	13°23.66 S-176°10.96 W	Visual	OS: Algae-Coral	3-17
V72	13°23.39 S-176°13.65 W	Visual	OS: Algae-Coral	3-15
R06	13°20.34 S-176°11.17 W	Spear	Mud - Sand	0-0.3
R07	13°12.42 S-176°10.75 W	Rotenone	BR: tide pool	0-0.5
R08	13°12.42 S-176°12.09 W	Rotenone	PR: Coral-White sand	19
V11	13°19.10 S-176°14.84 W	Visual	FR: Coral-Rubble-Sand	1.5-8
V12	13°19.36 S-176°15.78W	Visual	IR: Coral-Rock	1-16
V13	13°19.43 S-176°16.29 W	Visual	PR: Sand-Algae-Rock	1-9
R09	13°20.26 S-176°11.25 W	Net-Spear	Mud flat-Pool	0-0.3
R10	13°22.92 S-176°12.75 W	Rotenone	Steep vertical wall	25-32
R11	13°22.76 S-176°13.09 W	Rotenone	Reef flat	0-1
V21	13°21.38 S-176°12.11 W	Visual	PR: Sand-Rock-Soft coral	1-2.5
V22	13°22.16 S-176°12.29 W	Visual	IR: Coral-Rock-Soft coral	1-11
V23	13°23.10 S-176°12.49 W	Visual	BR: Algae-Coral	2-13
R12	13°13.42 S-176°07.67 W	Rotenone	PR: Coral-Sand	18-21
R13	13°16.59 S-176°07.98 W	Rotenone	Sandy beach	0-1
V31	13°20.20 S-176°10.76 W	Visual	FR: Rock-Soft coral-Algae	1-9
V32	13°20.07 S-176°10.29 W	Visual	IR: Coral-Soft coral-Rock	1-10
V33	13°20.44 S-176°08.92 W	Visual	BR: Sand-Rock-Rubble	2-16
R14	13°20.34 S-176°11.17 W	Spear	Mud flat	0-0.2
R15	13°16.92 S-176°15.84 W	Rotenone-Spear	OS: Spur & groove-Coral	2-20
V54	13°12.58 S-176°12.33 W	Visual	PR: Rock-Sand-Rubble	1-2
V55	13°12.25 S-176°12.09 W	Visual	IR: Rock-Rubble-Coral	1-7
V56	13°11.65 S-176°12.72 W	Visual	BR: Rock-Algae-Coral	1-16
R16	13°12.67 S-176°14.67 W	Rotenone	OS: Coral dropoff-Rubble	22-24
R17	13°13.17 S-176°13.09 W	Rotenone	FR: Seagrass-Sand-Coral	1-1.5
V73	13°17.61 S-176°16.13 W	Visual	OS: Algae-Coral-Rock	4-18
V74	13°11.31 S-176°11.39 W	Visual	OS: Algae-Coral	5-18
R18	13°18.01 S-176 14.09 W	Spear	Lalolalo Lake	5-10
R19	13°22.17 S-176°10.67 W	Rotenone	PR: Coral-Rock-Sand	7-11
V14	13°20.29 S-176°13.41 W	Visual	FR: Rock-Sand-Algae	1-10
V15	13°20.98 S-176°14.01 W	Visual	IR: Coral-Rock	1-11
V16	13°21.99 S-176°14.55 W	Visual	BR: Coral-Sand-Rock	2-16
R20	13°16.26 S-176°08.14 W	Rotenone	BR: Coral-Rock wall-sand	13-22
V24	13°21.00 S-176°10.94 W	Visual	FR: Rock-Coral-Sand	1-10
V25	13°21.96 S-176°11.06 W	Visual	IR: Sand-Rock-Coral	3-7
V26	13°23.28 S-176°10.81 W	Visual	BR: Coral-Sand-Algae	1-13
R21	13°23.17 S-176°11.17 W	Rotenone	OS: Surge channels	8-12
V44	13°18.03 S-176°10.40 W	Visual	FR: Algae-Rubble	1-8
V45	13°18.09 S-176°09.64 W	Visual	IR: Soft coral-Rock-Algae	2-15
V46	13°17.83 S-176°07.77W	Visual	BR: Sand-Rubble	1-13
R22	13°16.01°S-176°13.34 W	Rotenone	Mangrove	0-0.1

Visual surveys provide excellent assessments of the larger sized species, but detect very few of the small cryptic species. Visual censuses were conducted on fringing, intermediate and inner barrier reefs, and the outer slope. Thirty-seven stations were sampled (Fig. 1). Each station was studied by 6 point-counts, 2 on the reef flat, 2 on the reef crest and 2 on the reef slope by two teams of two divers.

All fish were identified using identification keys and taxonomic references. Representative specimens of as many species as possible were photographed after capture by J.T. Williams to record fresh colour. Specimens collected at rotenone stations were preserved in 10% formalin and later transferred into 75% ethanol. Preserved specimens have been cataloged into the fish collection at the National Museum of Natural History, Smithsonian Institution, Washington, DC. Certain groups of fishes, such as *Eviota* (Gobiidae), are in need of major taxonomic revision and contain representative specimens of numerous undescribed species. Many of these presumed new species are listed only as sp, sp1, etc. Some of the species observed during visual censuses could not be identified beyond family or genus level.

Crest net collections were taken at Wallis Is. by M. Juncker, June 2002 to June 2003, to capture post-larval stages of fishes on the barrier reef. These samples included specimens representing 87 shorefish species, including seven species not recorded by other sampling methods.

Two species are included based on specimen records in museum fish collections. The specimens in these collections were either purchased or collected using trawl nets.

Nomenclature generally follows the web-based taxonomic information of ITIS, the Integrated Taxonomic Information System (http://www.itis.usda.gov/). Some recently published taxonomic changes have been included based on Randall (2005), particularly within the family Apogonidae, and other primary taxonomic literature.

Table I. - Continued. *[Suite.]*

Station	Location	Method	Habitat	Depth (m)
V34	13°19.51 S-176°10.95 W	Visual	FR: Algae-Sand	1-5
V35	13°19.78 S-176°10.00 W	Visual	IR: Rock-Sand-Rubble	2-14
V36	13°20.44 S-176°08.92 W	Visual	BR: Sand-Coral-Rock	1-15
R23	13°23.34 S-176°12.50 W	Rotenone	Sand slope	20-30
V61	13°17.45 S-176°15.11 W	Visual	PR: Sand-Algae-Coral	2
V62	13°17.27 S-176°15.50 W	Visual	PR: Sand-Rock-Rubble	6
V63	13°16.45 S-176°15.76 W	Visual	PR: Rock-Rubble-Sand	5
V37	13°19.98 S-176°08.60 W	Visual	BR: Rock-Sand-Coral	1-17

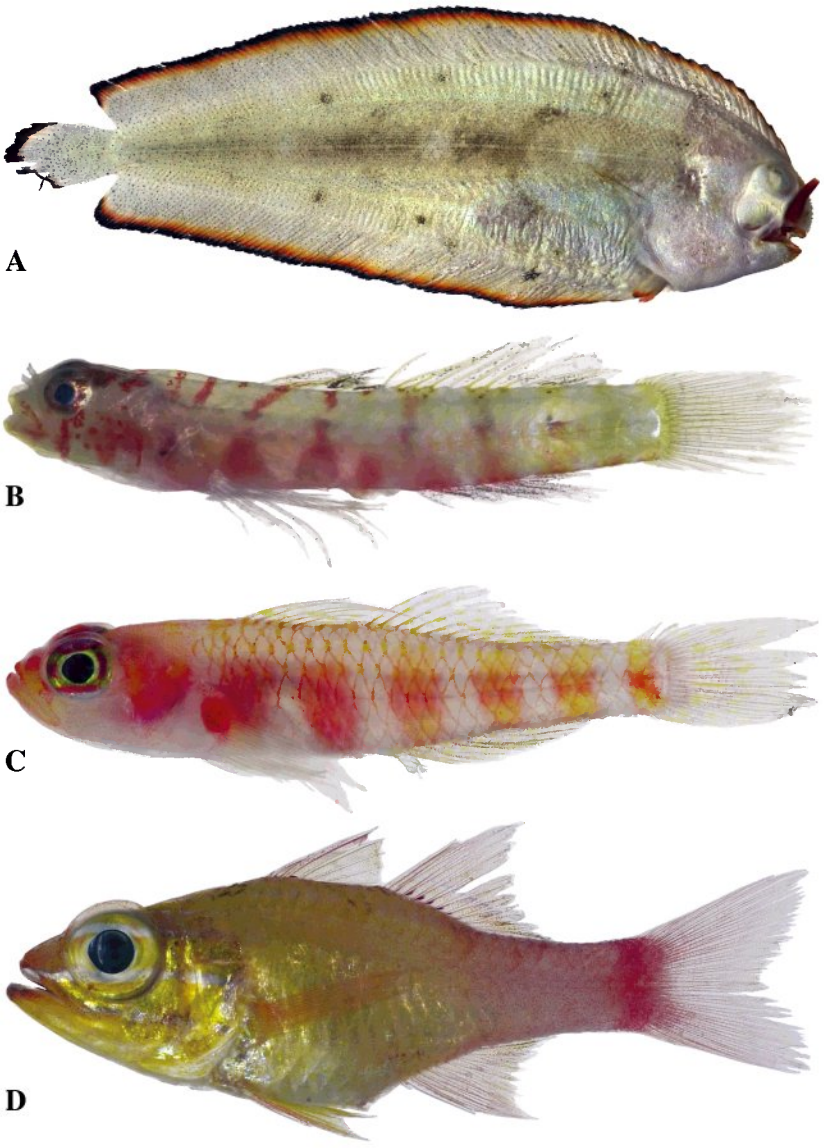

Figure 2. - Unidentified specimens that probably represent new species. **A**: *Soleichthys* sp. (24.6 mm SL); **B**: *Eviota* sp. (10.3 mm SL); **C**: *Trimma* sp. (19.5 mm SL); **D**: *Ostorhynchus* sp. (45.2 mm SL). *[Spécimens non identifiés représentant de probables nouvelles espèces.]*

RESULTS

A checklist of the Wallis Is. shorefish species is given in Appendix 1. A total of 648 species of shorefishes representing 79 families is recorded from the waters around Wallis. Gobiidae (74 species), Labridae (61), Pomacentridae (57) and Apogonidae (49) were the most speciose families. Specimens of as many as 15 or more new species of fishes (Fig. 2) were captured at Wallis. Seven species were only captured as post-larvae by crest nets (Appendix 1). The adults of these species were not observed during the visual census and rotenone surveys.

Rotenone and spear collecting efforts resulted in the collection of specimens representing 428 (66.0%) of the known fish species of the Wallis Is. Of these 428 species, 278 (42.9% of the total 648 known) were taken only by rotenone sampling. These 278 species include most of the cryptic fishes, such as the species of the families Muraenidae, Scorpaenidae, Ophichthidae, Bythitidae, Antennariidae, Creediidae, Blenniidae, Gobiidae, Gobiesocidae, Apogonidae, and Holocentridae. Visual censuses recorded 346 (53.4%) of the known species. Of these 346 species, 191 (29.5% of the 648 total known) were recorded only by visual censuses. Most of the large-size species and those typically found swimming above the substrate were recorded only by visual census, such as most species of the families Carangidae, Caesionidae, Lethrinidae, Chaetodontidae, Scaridae, Scombridae, and Tetraodontidae.

DISCUSSION

Collette *et al.* (2003) discuss the importance of combining rotenone, visual censuses and other sampling methods to conducting a comprehensive biodiversity survey of marine shorefishes. The results of our survey support the Collette *et al.* conclusions as to the value of rotenone sampling to shorefish biodiversity surveys in that 42.9% of the shore-

fish species of Wallis were documented only by the use of rotenone collecting.

The 648 species of fishes reported from the Wallis Is. can be compared with published checklists for other islands in the western Central Pacific. Randall *et al.* (2003) reported 1162 species of shorefishes and epipelagic fishes from Tonga (170 islands) based on extensive sampling of Tongan fishes, with the first collections being taken in the early 1800's. Wass (1984) reported 991 species of fishes from Samoa (10 islands) based on collections of fishes taken at Samoa from 1840 to 1979. Despite our relatively small sampling area restricted to the coastal waters of Uvea Island and its associated islets and based on only two relatively brief sampling periods, one in each of the years 1999 and 2000, the count of 648 species seems to be reasonably comprehensive. We did not include the deep-water species collected by the Campaign Musorstom 7, which sampled the deep-water fishes of Wallis and Futuna in 1992, with the exception of the *Tri - odon* sp. that was collected in the Uvea lagoon (specimens from that expedition are cataloged in the fish collection at the Muséum National d'Histoire Naturelle).

Although specimens of as many as 15 or more new species of fishes (Fig. 2) were captured at Wallis, there is little or no endemism known for the Wallis Is. shorefishes. Possible exceptions may be some of the undescribed species of *Evio - ta* that probably will be found to occur at Samoa or elsewhere, but have yet to be collected at other locations due in large part to their tiny size (maximum length of adults often less than 20 mm). All of the named species and most or all of the undescribed species are known to occur at other Pacific Plate islands or at Tonga and /or Fiji, such as *Ecsenius portenoyi*. The location of the Wallis Is. at the boundary between two biogeographic regions, the Indian-Australian Plate and Pacific Plate (Springer, 1982), may explain the sympatric occurrence of Pacific Plate endemic species with species typically restricted to islands on the Indian-Australian Plate. Among the Pacific Plate endemics (Fig. 3) are *Schismorhynchus labialis, Pseudanthias pas - calus, Cirripectes variolosus, Centropyge loriculus, C. nigriocella, Ecsenius opsifrontalis*, and *Eviota disrupta*. Some of the noteworthy records from the Indian-Australian Plate fauna (Fig. 4) that are not typically found at Pacific Plate islands are *Amphiprion sandaracinos* (first record east of the Solomon Islands), *Helcogramma* new species, *Scomberomorus commerson, Terapon jarbua* (also occurs on the Pacific Plate at Samoa), *Nannosalarias nativitatis* and *Amsichthys knighti*.

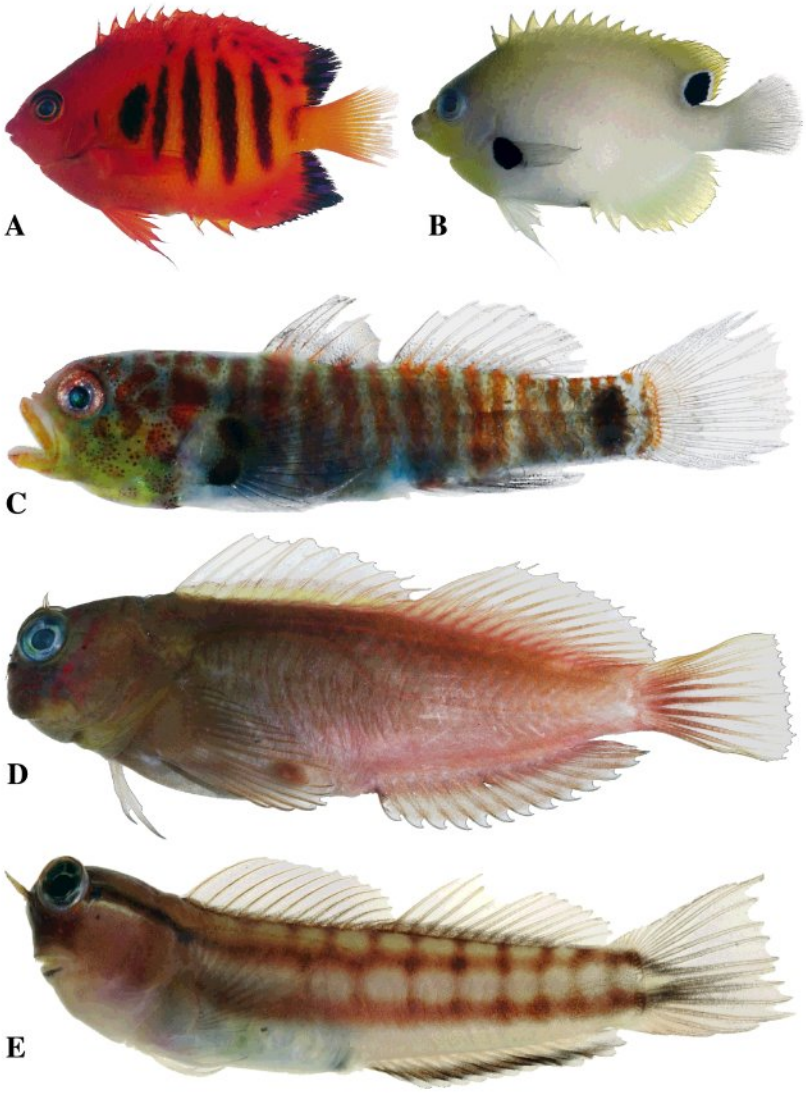

Figure 3. - Species characteristic of the Pacific Plate biogeographic region. **A**: *Centropy - ge loriculus* (48.5 mm SL); **B**: *Centropyge nigriocella* (45.5 mm SL); **C**: *Eviota disrupta* (11.7 mm SL); **D**: *Cirripectes variolosus* (47.6 mm SL); **E**: *Ecsenius opsifrontalis* (31.4 mm SL). *[Espèces caractéristiques de la région biogéographique de la plaque Paci - fique.]*

Despite our efforts to sample as many habitats as possible, additional sampling will undoubtedly add species to the list. During the period we were sampling at Wallis Is., large swells continually broke on the windward side of the barrier reef, preventing us from sampling the outer reef slopes around almost three fourths of the barrier reef. There were also numerous areas in the lagoon where the currents were

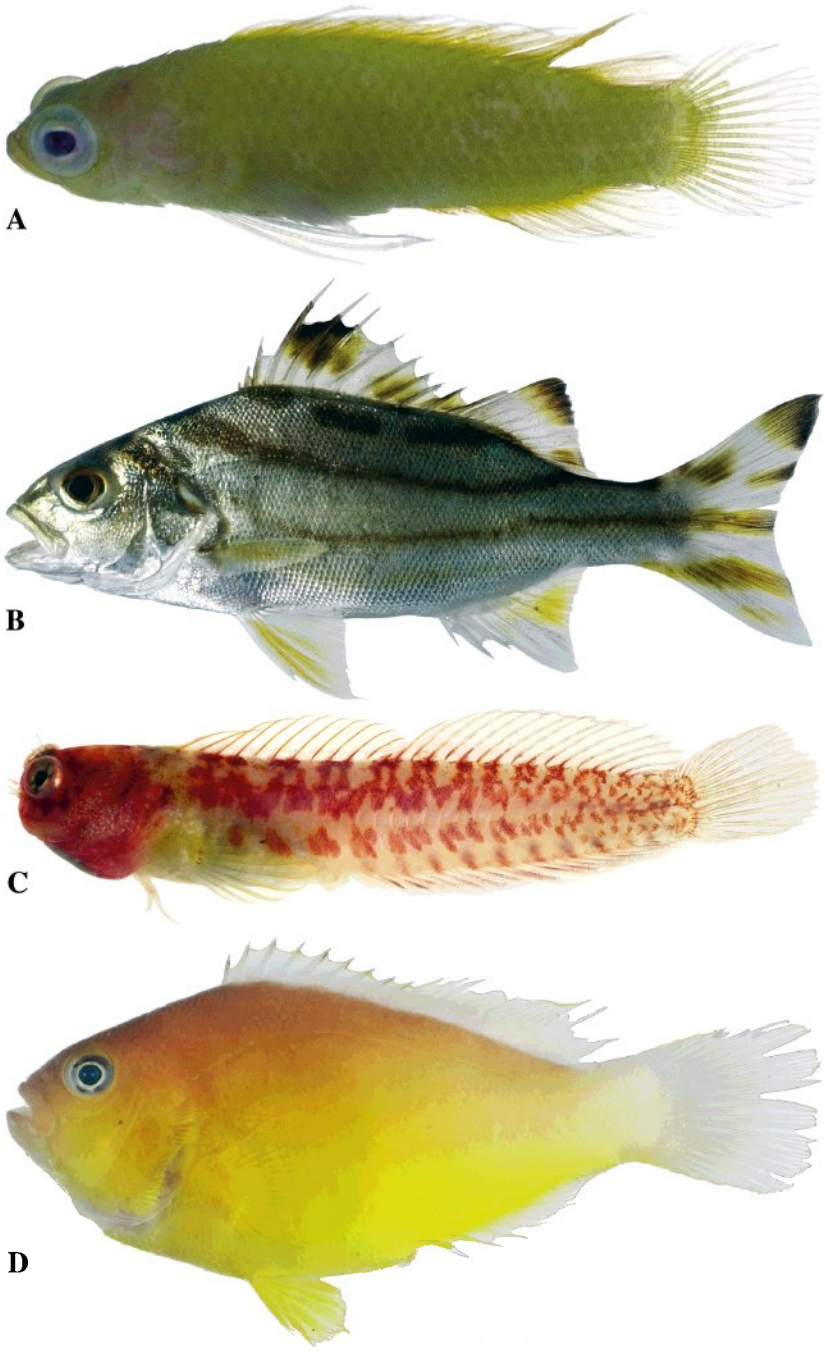

Figure 4. - Species characteristic of the Indian-Australian Plate biogeographic region or widespread Indo-Western Pacific species not found on the Pacific Plate beyond its margins. **A**: *Amsichthys knighti* (18.9 mm SL); **B**: *Terapon jarbua* (132.2 mm SL); **C**: *Nan - nosalarias nativitatis* (32.0 mm SL); **D**: *Amphiprion sandaracinos* (49.4 mm SL). *[Espèces caractéristiques de la région biogéographique de la plaque continentale aus - tralienne ou à large distribution Indo-ouest Paficique mais absentes au-delà des limites de la plaque Pacifique.]*

too strong to make effective rotenone stations, or which were inaccessible to us when we were collecting in a particular part of the lagoon during our limited stay on Uvea. Despite these limitations, our visual censuses, spear fishing and rotenone sampling provide a reasonably comprehensive listing of the shorefishes of the Wallis Is.

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APPENDIX 1
CHECKLIST OF THE WALLIS IS. SHOREFISH FAUNA

The families are ordered phylogenetically following Eschmeyer (2000). The taxa are ordered alphabetically within each family. [1]: species recorded by visual census; [2]: species collected by rotenone, spear or hand net and housed in the National Museum of Natural History, Washington, DC; [3]: specimens in the Natural History Museum, London; [4]: specimens in the Muséum national d'Histoire naturelle, Paris; [5]: crest net capture of post larvae on the barrier reef from 2002-2003; *: species recorded during the 1999 campaign. *[Les familles sont listées dans l'ordre phylogénique d'Eschmeyer (2000). Les taxons sont listés alphabétiquement dans chaque famille. [1] : espèce recensée par comptage en plongée ; [2] : espèce collectée à l'aide de roténone, d'un fusil sous-marin ou d'une épuisette et conservée au National Museum of Natural History, Washington DC ; [3] : spécimen du Natural History Museum, Londres ; [4] : spécimen du Muséum national d'Histoire naturelle, Paris ; [5] : postlarves capturées à l'aide de filets de crête de 2002-2003 ; * : espèce recensée lors de la campagne de 1999.]*

Class Elasmobranchii
Order Carchariniformes
Family Carcharhinidae
Triaenodon obesus[1] (Rüppell, 1837)
Order Myliobatiformes
Family Dasyatidae*
Dasyatis kuhlii[1, 2]* (Müller & Henle, 1841)
Taeniura lymma[1] (Forsskål, 1775)
Taeniura meyeni[1]* Müller & Henle, 1841 (reported as *T. melanospilus*)
Family Myliobatidae
Aetobatus narinari[1] (Euphrasen, 1790)

Class Actinopterygii
Order Albuliformes
Family Albulidae
Albula glossodonta[5] (Forsskål, 1775)
Order Anguilliformes
Family Moringuidae
Moringua ferruginea[2] Bliss, 1883
Family Chlopsidae
Kaupichthys brachychirus[2] Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953
Kaupichthys diodontus[2] Schultz, 1943
Kaupichthys hyoprorоides[2] (Strömman, 1896)
Family Muraenidae*
Anarchias allardicei[2] Jordan & Starks *in* Jordan and Seale, 1906
Anarchias seychellensis[2] Smith, 1962
Echidna nebulosa[2] (Ahl, 1789)
Enchelycore bayeri[2] (Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953)
Enchelycore schismatorhynchus[2] (Bleeker, 1853)
Enchelynassa canina[2] (Quoy & Gaimard, 1824)
Gymnomuraena zebra[2] (Shaw *in* Shaw and Nodder, 1797)
Gymnothorax buroensis[2] (Bleeker, 1857)
Gymnothorax chilospilus[2] Bleeker, 1865
Gymnothorax enigmaticus[2] McCosker & Randall, 1982
Gymnothorax fimbriatus[2] (Bennett, 1832)
Gymnothorax flavimarginatus[2] (Rüppell, 1830)
Gymnothorax fuscomaculatus[2] (Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953)
Gymnothorax javanicus[1] (Bleeker, 1859)
Gymnothorax margaritophorus[2] Bleeker, 1865
Gymnothorax melatremus[2] Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953
Gymnothorax meleagris[1]* (Shaw *in* Shaw and Nodder, 1795)
Gymnothorax pictus[1, 2] (Ahl, 1789)
Gymnothorax pindae[2] Smith, 1962
Gymnothorax richardsoni[2] (Bleeker, 1852)
Gymnothorax rueppellii[2] (McClelland, 1844)
Gymnothorax undulatus[2] (Lacepède, 1803)
Gymnothorax zonipectis[2] Seale, 1906
Scuticaria tigrina[2] (Lesson, 1828)
Uropterygius alboguttatus[2] Smith, 1962
Uropterygius concolor[2] Rüppell, 1838
Uropterygius fuscoguttatus[2] Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953
Uropterygius marmoratus[2] (Lacepède, 1803)
Uropterygius micropterus[2] (Bleeker, 1852)
Uropterygius supraforatus[2] (Regan, 1909)
Family Ophichthidae
Apterichtus klazingai[2] (Weber, 1913)
Callechelys catostoma[2] (Schneider & Forster *in* Bloch and Schneider, 1801)
Callechelys marmorata[2] (Bleeker, 1853)
Leiuranus semicinctus[2] (Lay & Bennett, 1839)
Muraenichthys gymnopterus[2] (Bleeker, 1853)
Muraenichthys macropterus[2] Bleeker, 1857
Muraenichthys schultzei[2] Bleeker, 1857
Myrichthys colubrinus[2] (Boddaert, 1781)

Myrophis microchir[2] (Bleeker, 1865)
Phyllophichthus xenodontus[2] Gosline, 1951
Schismorhynchus labialis[2] (Seale, 1917)
Schultzidia retropinnis[2] (Fowler, 1934)
Family Congridae
Ariosoma cf *scheelei*[2] (Strömann, 1896)
Gorgasia galzini[2] Castle & Randall, 1999
Heteroconger hassi[1] (Klausewitz & Eibl-Eibesfeldt, 1959)
Conger cinereus[2] Rüppell, 1830
Order Clupeiformes
Family Clupeidae
Clupeidae cf *Herklotsichthys**
Spratelloides delicatulus[2] (Bennett, 1832)
Spratelloides sp.[1]*
Order Gonorynchiformes
Family Chanidae
Chanos chanos[2] (Forsskål, 1775)
Order Aulopiformes
Family Synodontidae
Saurida gracilis[1,2] (Quoy & Gaimard, 1824)
Synodus dermatogenys[2,5] Fowler, 1912
Synodus sp.[1]
Synodus variegatus[1,2] (Lacepède, 1803)
Order Ophidiiformes
Family Carapidae
Encheliophis gracilis[3] (Bleeker, 1856)
Family Ophidiidae
Brotula multibarbata[2] Temminck & Schlegel, 1846
Family Bythiidae
Dinematichthys new species[1,2]
Dinematichthys randalli[2] Machida, 1994
New genus 1 new species1 [2]
New genus 2 new species2 [2]
Order Lophiformes
Family Antennariidae
Antennarius coccineus[2] (Lesson, 1831)
Antennarius commersoni[2,5] (Latreille, 1804)
Antennarius nummifer[2] (Cuvier, 1817)
Order Atheriniformes
Family Atherinidae
Atherinella sp.[1,2]
Order Beloniformes
Family Belonidae
Tylosurus crocodilus[1] (Péron & Lesueur *in* Lesueur, 1821)
Family Hemiramphidae
Hyporhamphus dussumieri[1,5] (Valenciennes *in* Cuvier and Valenciennes, 1847)
Order Beryciformes
Family Holocentridae
Myripristis adusta[1,2] Bleeker, 1853
Myripristis berndti[2] Jordan & Evermann, 1903
Myripristis kuntee[1,2] Valenciennes *in* Cuvier and Valenciennes, 1831
Myripristis murdjan[2] (Forsskål, 1775)
Myripristis pralinia[2] Cuvier *in* Cuvier and Valenciennes, 1829
Myripristis sp.[1]*
Myripristis violacea[1,2] Bleeker, 1851
Neoniphon argenteus[1,2] (Valenciennes *in* Cuvier and Valenciennes, 1831)
Neoniphon opercularis[5] (Valenciennes *in* Cuvier and Valenciennes, 1831)
Neoniphon sammara[1,2] (Forsskål, 1775)
Plectrypops lima[2] (Valenciennes *in* Cuvier and Valenciennes, 1831)
Sargocentron caudimaculatum[1,2] (Rüppell, 1838)
Sargocentron diadema[1,2] (Lacepède, 1802)
Sargocentron iota[2] Randall, 1998
Sargocentron ittodai[2] (Jordan & Fowler, 1902)
Sargocentron microstoma[2] (Günther, 1859)
Sargocentron punctatissimum[1] (Cuvier *in* Cuvier and Valenciennes, 1829)
Sargocentron spiniferum[1,2] (Forsskål, 1775)
Sargocentron tiere[2] (Cuvier *in* Cuvier and Valenciennes, 1829)
Sargocentron tiereoides[2] (Bleeker, 1853)
Sargocentron violaceum[2] (Bleeker, 1853)
Order Syngnathiformes
Family Aulostomidae
Aulostomus chinensis[2] (Linnaeus, 1766)
Family Fistulariidae
Fistularia commersonii[2] Rüppell, 1838
Family Syngnathidae
Syngnathidae unindentified[1]
Choeroichthys sculptus[2] (Günther, 1870)
Corythoichthys amplexus[2] Dawson & Randall 1975
Corythoichthys flavofasciatus[2] (Rüppell, 1838)
Corythoichthys intestinalis[1,2] (Ramsay, 1881)
Corythoichthys schultzi[2] Herald *in* Schultz *et al.*, 1953
Doryrhamphus dactyliophorus[2] (Bleeker, 1853)
Doryrhamphus excisus[2] Kaup, 1856
Micrognathus andersonii[2] (Bleeker, 1858)
Order Scorpaeniformes
Family Dactylopteridae
Dactyloptena orientalis[5] (Cuvier, 1829)
Family Scorpaenidae
Dendrochirus biocellatus[2] (Fowler, 1938)
Pterois antennata[2] (Bloch, 1787)
Pterois radiata[5] Cuvier *in* Cuvier and Valenciennes, 1829
Scorpaenodes hirsutus[2] (Smith, 1957)
Scorpaenodes minor[2] (Smith, 1958)
Scorpaenodes scaber[2] (Ramsay & Ogilby, 1886)
Scorpaenopsis diabolus[2] (Cuvier, 1829)
Scorpaenopsis macrochir[2] Ogilby, 1910
Scorpaenopsis possi[2] Randall & Eschmeyer, 2002
Sebastapistes mauritiana[2] (Cuvier, 1829)
Sebastapistes strongia[2] (Cuvier *in* Cuvier and Valenciennes, 1829)
Synanceia verrucosa[1] Bloch & Schneider, 1801
Taenianotus triacanthus[2] Lacepède, 1802
Family Caracanthidae
Caracanthus unipinna[2] (Gray, 1831)
Family Platycephalidae
Eurycephalus otaitensis[2] (Cuvier *in* Cuvier and Valenciennes, 1829)
Onigocia pedimacula[2] (Regan, 1908)
Order Perciformes
Family Serranidae*
Aporops bilinearis[2] Schultz, 1943
Belonoperca chabanaudi[2] Fowler & Bean, 1930
Cephalopholis argus[1,2]* Bloch & Schneider, 1801

Cephalopholis leopardus[2] (Lacepède, 1801)
Cephalopholis sonnerati[1] (Valenciennes *in* Cuvier and Valenciennes, 1828)
Cephalopholis urodeta[1, 2*] (Forster *in* Bloch and Schneider, 1801)
Epinephelus fuscoguttatus[1] (Forsskål, 1775)
Epinephelus maculatus[1] (Bloch, 1790)
Epinephelus melanostigma[2] Schultz *in* Schultz *et al.*, 1953
Epinephelus merra[1*] Bloch, 1793
Epinephelus polyphekadion[1, 2] (Bleeker, 1849)
Gracila albomarginata[1] (Fowler & Bean, 1930)
Grammistes sexlineatus[2] (Thunberg, 1792)
Grammistops ocellatus[2] Schultz *in* Schultz *et al.*, 1953
Liopropoma susumi[2] (Jordan & Seale, 1906)
Plectranthias fourmanoiri[2] Randall, 1980
Plectranthias nanus[2] Randall, 1980
Plectropomus laevis[1*] (Lacepède, 1801)
Pseudanthias cooperi[*] (Regan, 1902)
Pseudanthias hypselosoma[1] Bleeker, 1878
Pseudanthias pascalus[1, 2] (Jordan & Tanaka, 1927)
Pseudanthias squamipinnis[1] (Peters, 1855)
Pseudogramma astigma[2] Randall & Baldwin, 1997
Pseudogramma polyacantha[2] (Bleeker, 1856)
Suttonia lineata[2] Gosline, 1960
Variola louti[1, 2*] (Forsskål, 1775)

Family Terapontidae
Terapon jarbua[2] (Forsskål, 1775)

Family Kuhliidae
Kuhlia mugil[2] (Forster *in* Bloch and Schneider, 1801)

Family Pseudochromidae*
Amsichthys knighti[2] (Allen, 1987)
Pictichromis paccagnellae[*] (Axelrod, 1973), could also be *P. coralensis* Gill, 2004, but neither species has been reported east of Vanuatu
Pseudochromis jamesi[2] Schultz, 1943
Pseudochromis sp.[1]
Pseudochromis tapeinosoma[1] Bleeker, 1853 (possibly a misidentified female *P. jamesi*)
Pseudoplesiops rosae[2] Schultz, 1943
Pseudoplesiops wassi[2] Gill & Edwards, 2003

Family Plesiopidae
Plesiops coeruleolineatus[2] Rüppell, 1835
Steeneichthys plesiopsus[2] Allen & Randall, 1985

Family Priacanthidae
Heteropriacanthus cruentatus[2] (Lacepède, 1801)
Priacanthus hamrur[1, 2] (Forsskål, 1775)

Family Apogonidae*
Apogon caudicinctus[2] Randall & Smith, 1988
Apogon coccineus[2] Rüppell, 1838
Apogon crassiceps[2] Garman, 1903
Apogon doryssa[2] (Jordan & Seale, 1906)
Apogon sp.[1*]
Apogon sp.1[2]
Apogon sp.2[2]
Apogon sp.3[2]
Apogon sp.4[2]
Apogon sp.5[2]
Apogon susanae[2] Greenfield, 2001
Archamia fucata[1, 2] (Cantor, 1849)
Archamia sp.[1]
Cercamia cladara[2] Randall & Smith, 1988
Cercamia eremia[2] (Allen, 1987)
Cheilodipterus artus[2] Smith, 1961
Cheilodipterus isostigmus[2] (Schultz, 1940)
Cheilodipterus quinquelineatus[1, 2*] Cuvier *in* Cuvier and Valenciennes, 1828
Foa brachygramma[2] (Jenkins, 1903)
Fowleria abocellata[2] Goren & Karplus, 1980
Fowleria marmorata[2] (Alleyne & Macleay, 1877)
Fowleria punctulata[2] (Rüppell, 1838)
Fowleria vaiulae[2] (Jordan & Seale, 1906)
Fowleria variegata[2] (Valenciennes, 1832)
Gymnapogon urospilotus[2] Lachner, 1953
Ostorhinchus angustatus[1, 2] (Smith & Radcliffe *in* Radcliffe, 1911)
Ostorhinchus bandanensis[2] (Bleeker, 1854)
Ostorhinchus compressus[1] (Smith & Radcliffe *in* Radcliffe, 1911)
Ostorhinchus cookii[1] (Macleay, 1881)
Ostorhinchus cyanosoma[1] (Bleeker, 1853)
Ostorhinchus doederleini[1] (Jordan & Snyder, 1901)
Ostorhinchus fuscus[2] (Quoy & Gaimard, 1825)
Ostorhinchus guamensis[2] (Valenciennes, 1832)
Ostorhinchus nigrofasciatus[2] (Lachner, 1953)
Ostorhinchus novemfasciatus[2] (Cuvier *in* Cuvier and Valenciennes, 1828)
Ostorhinchus rubrimacula[2] (Randall & Kulbicki, 1998)
Ostorhinchus savayensis[2] (Günther, 1872)
Pristiapogon exostigma[2] (Jordan & Starks *in* Jordan and Seale, 1906)
Pristiapogon fraenatus[1, 2] (Valenciennes, 1832)
Pristiapogon kallopterus[1, 2] (Bleeker, 1856)
Pristiapogon taeniopterus[2] (Bennett, 1836)
Pristicon trimaculatus[2] (Cuvier *in* Cuvier and Valenciennes, 1828)
Pseudamia gelatinosa[2] Smith, 1955
Pseudamiops gracilicauda[2] (Lachner, 1953)
Rhabdamia cypselura[2] Weber, 1909
Rhabdamia sp.1[2]
Siphamia jebbi[2] Allen, 1993
Zoramia fragilis[2] (Smith, 1961)
Zoramia leptacantha[1] (Bleeker, 1856-57)

Family Malacanthidae
Malacanthus brevirostris[1] Guichenot, 1848
Malacanthus latovittatus[1] (Lacepède, 1801)

Family Echeneidae*
Echeneis naucrates[1*] Linnaeus, 1758

Family Carangidae*
Carangidae unindentified[1]
Carangoides ferdau[1] (Forsskål, 1775)
Caranx ignobilis[1*] (Forsskål, 1775)
Caranx melampygus[1*] Cuvier, 1833
Elagatis bipinnulata[*] (Quoy & Gaimard, 1825)
Naucrates ductor[2] (Linnaeus, 1758)
Scomberoides lysan[1] (Forsskål, 1775)
Trachinotus baillonii[*] (Lacepède, 1801)

Family Lutjanidae*
Aphareus furca[1*] (Lacepède, 1801)
Aprion virescens[1*] Valenciennes *in* Cuvier and Valenciennes, 1830
Lutjanus argentimaculatus[1] (Forsskål, 1775)
Lutjanus biguttatus[1, 2*] (Valenciennes *in* Cuvier and Valenciennes, 1830)
Lutjanus bohar[1*] (Forsskål, 1775)

Lutjanus fulviflamma[1]* (Forsskål, 1775)
Lutjanus fulvus[1, 2] * (Forster *in* Bloch and Schneider, 1801)
Lutjanus gibbus[1, 2] (Forsskål, 1775)
Lutjanus kasmira[1, 2]* (Forsskål, 1775)
Lutjanus lutjanus[1] Bloch, 1790
Lutjanus monostigma[1, 2] (Cuvier *in* Cuvier and Valenciennes, 1828)
Macolor niger[1] (Forsskål, 1775)
Paracaesio xanthura[1] (Bleeker, 1869)

Family Gerreidae
Gerres oyena[2] (Forsskål, 1775)

Family Caesionidae*
Caesio caerulaurea[1]* Lacepède, 1801
Caesio teres[2] Seale, 1906
Pterocaesio pisang[1] (Bleeker , 1853)
Pterocaesio tessellata[1] Carpenter, 1987
Pterocaesio tile[1] (Cuvier *in* Cuvier and Valenciennes, 1830)
Pterocaesio trilineata[1]* Carpenter, 1987

Family Haemulidae*
Plectorhinchus sp.*

Family Lethrinidae*
Gnathodentex aurolineatus[1, 2]* (Lacepède, 1802)
Gymnocranius sp.[1]
*Lethrinus atkinsoni** Seale, 1910
Lethrinus harak[1, 2]* (Forsskål, 1775)
Lethrinus olivaceus[1] Valenciennes *in* Cuvier and Valenciennes, 1830
Lethrinus xanthochilus[1]* Klunzinger, 1870
Monotaxis grandoculis[1, 2]* (Forsskål, 1775)

Family Nemipteridae*
Scolopsis ciliata[2] (Lacepède, 1802)
Scolopsis trilineata[1]* Kner, 1868

Family Mullidae*
Mulloidichthys flavolineatus[1, 2]* (Lacepède, 1801)
Mulloidichthys vanicolensis[1, 2]* (Valenciennes *in* Cuvier and Valenciennes, 1831)
Parupeneus barberinus[1, 2]* (Lacepède, 1801)
Parupeneus crassilabris[1]* (Valenciennes *in* Cuvier and Valenciennes, 1831), originally reported as *P. bifasciatus*
Parupeneus cyclostomus[1, 2]* (Lacepède, 1801)
Parupeneus multifasciatus[1, 2]* (Quoy & Gaimard, 1825)
Parupeneus pleurostigma[1] (Bennett, 1831)

Family Pempheridae
Parapriacanthus ransonneti[2] Steindachner, 1870
Pempheris otaitensis[2] Cuvier *in* Cuvier and Valenciennes, 1831
Pempheris oualensis[1, 2] Cuvier *in* Cuvier and Valenciennes, 1831

Family Kyphosidae*
Kyphosus vaigiensis[1]* (Quoy & Gaimard, 1825)

Family Chaetodontidae*
Chaetodon auriga[1]* Forsskål, 1775
Chaetodon baronessa[1] Cuvier, 1829
Chaetodon bennetti[1]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon citrinellus[1]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon ephippium[1, 2]* Cuvier *in* Cuvier and Valenciennes, 1831
*Chaetodon flavirostris** Günther, 1874
Chaetodon kleini[1] Bloch, 1790
Chaetodon lineolatus[1]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon lunula[1, 2]* (Lacepède, 1802)
Chaetodon lunulatus[1, 2] Quoy & Gaimard, 1825 (previously reported as *C. trifasciatus*)
Chaetodon melannotus[1]* Bloch & Schneider, 1801
Chaetodon mertensii[1, 2]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon ornatissimus[1]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon pelewensis[1, 2]* Kner, 1868
Chaetodon plebeius[2] Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon rafflesi[1]* Anonymous [Bennett], 1830
Chaetodon reticulatus[1, 2]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon semeion[1, 2]* Bleeker, 1855
Chaetodon trifascialis[1]* Quoy & Gaimard, 1825
Chaetodon ulietensis[1]* Cuvier *in* Cuvier and Valenciennes, 1831
Chaetodon unimaculatus[1]* Bloch, 1787
Chaetodon vagabundus[1, 2]* Linnaeus, 1758
Forcipiger flavissimus[2] Jordan & McGregor *in* Jordan and Evermann, 1898
Forcipiger longirostris[1]* (Broussonet, 1782)
Hemitaurichthys polylepis[1] (Bleeker, 1857)
Heniochus acuminatus[1] (Linnaeus, 1758)
Heniochus chrysostomus[1, 2] Cuvier *in* Cuvier and Valenciennes, 1831
Heniochus monoceros[1] Cuvier *in* Cuvier and Valenciennes, 1831
Heniochus singularius[1]* Smith & Radcliffe, 1911
Heniochus varius[1]* (Cuvier, 1829)

Family Pomacanthidae*
Centropyge bicolor[1, 2]* (Bloch, 1787)
Centropyge bispinosa[1, 2]* (Günther, 1860)
Centropyge flavissima[1, 2]* (Cuvier *in* Cuvier and Valenciennes, 1831)
Centropyge heraldi[2] Woods & Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953
Centropyge loricula[2] (Günther, 1874)
Centropyge nigriocella[2] Woods & Schultz *in* Schultz, Herald, Lachner, Welander and Woods, 1953
Pomacanthus imperator[1]* (Bloch, 1787)
Pygoplites diacanthus[1, 2]* (Boddaert, 1772)

Family Pomacentridae*
Abudefduf septemfasciatus[1] (Cuvier *in* Cuvier and Valenciennes, 1830)
Abudefduf sexfasciatus[1, 2]* (Lacepède, 1801)
Abudefduf sordidus[2] (Forsskål, 1775)
Abudefduf vaigiensis[1] (Quoy & Gaimard, 1825)
Amblyglyphidodon aureus[2] (Cuvier *in* Cuvier and Valenciennes, 1830)
*Amblyglyphidodon curacao** (Bloch, 1787)
Amblyglyphidodon leucogaster[1]* (Bleeker, 1847) more likely *A. orbicularis* (Hombron & Jacquinot, 1853) according to Randall 2005
Amblyglyphidodon ternatensis[2] (Bleeker, 1853)
Amphiprion akindynos[1]* Allen, 1972
Amphiprion clarkii[1]* (Bennett, 1830)
Amphiprion perideraion[1] Bleeker, 1855

Amphiprion sandaracinos[2] Allen, 1972
Chromis acares[2] Randall & Swerdloff, 1973
Chromis amboinensis[1, 2] (Bleeker, 1873)
*Chromis atripectoralis** Welander & Schultz, 1951
Chromis atripes[1] Fowler & Bean, 1928
Chromis chrysura[1] (Bliss, 1883)
Chromis iomelas[1, 2*] Jordan & Seale, 1906
Chromis lepidolepis[1] Bleeker, 1877
Chromis margaritifer[1, 2] Fowler, 1946
Chromis sp.[1]
Chromis vanderbilti[1, 2*] (Fowler, 1941)
Chromis viridis[1, 2*] (Cuvier *in* Cuvier and Valenciennes, 1830)
Chromis weberi[2] Fowler & Bean, 1928
Chromis xanthura[1, 2*] (Bleeker, 1854)
Chrysiptera biocellata[1, 2*] (Quoy & Gaimard, 1825)
Chrysiptera brownriggii[1, 2*] (Bennett, 1828) (previously called *C. leucopoma*)
Chrysiptera glauca[2] (Cuvier *in* Cuvier and Valenciennes, 1830)
*Chrysiptera rollandi** (Whitley, 1961)
Chrysiptera taupou[1, 2*] (Jordan & Seale, 1906)
Chrysiptera traceyi[2] (Woods & Schultz *in* Schultz, Chapman, Lachner and Wood, 1960)
Chrysiptera unimaculata[1, 2] (Cuvier *in* Cuvier and Valenciennes, 1830)
Dascyllus aruanus[1, 2*] (Linnaeus, 1758)
Dascyllus reticulatus[1, 2*] (Richardson, 1846)
Dascyllus trimaculatus[1, 2*] (Rüppell, 1829)
*Neoglyphidodon melas** (Cuvier *in* Cuvier and Valenciennes, 1830)
*Neoglyphidodon nigroris** (Cuvier *in* Cuvier and Valenciennes, 1830)
*Neoglyphidodon polyacanthus** (Ogilby, 1889)
Neopomacentrus metallicus[2] (Jordan & Seale, 1906)
Plectroglyphidodon dickii[1, 2*] (Liénard, 1839)
Plectroglyphidodon johnstonianus[1, 2] Fowler & Ball, 1924
Plectroglyphidodon lacrymatus[1, 2*] (Quoy & Gaimard, 1825)
Plectroglyphidodon leucozonus[1] (Bleeker, 1859)
*Pomacentrus amboinensis** Bleeker, 1868
Pomacentrus bankanensis[1*] Bleeker, 1853
Pomacentrus coelestis[1, 2*] Jordan & Starks, 1901
Pomacentrus imitator[2] (Whitley, 1964)
Pomacentrus lepidogenys[1*] Fowler & Ball, 1928
*Pomacentrus nigromanus** Weber, 1913
Pomacentrus pavo[1, 2*] (Bloch, 1787)
Pomacentrus philippinus[1, 2*] Evermann & Seale, 1907
Pomacentrus sp.[1*]
Pomacentrus vaiuli[1, 2*] Jordan & Seale, 1906
Stegastes albifasciatus[1, 2] (Schlegel & Müller, 1839)
Stegastes fasciolatus[2] (Ogilby, 1889)
Stegastes punctatus[1, 2*] (Quoy & Gaimard, 1825)
Stegastes nigricans[1, 2*] (Lacepède, 1802)

Family Cirrhitidae*
Amblycirrhitus bimacula[2] (Jenkins, 1903)
Neocirrhites armatus[2] Castelnau, 1873
Paracirrhites arcatus[1, 2*] (Cuvier *in* Cuvier and Valenciennes, 1829)
Paracirrhites forsteri[1, 2*] (Schneider *in* Bloch and Schneider, 1801)

Family Mugilidae
Chelon macrolepis[2] (Smith, 1846)
Ellochelon vaigiensis[2] (Quoy and Gaimard, 1825)

Family Labridae*
Labridae unidentified[1*]
Anampses caeruleopunctatus[1*] Rüppell, 1829
Anampses geographicus[1] Valenciennes *in* Cuvier and Valenciennes, 1840
Anampses meleagrides[1] Valenciennes *in* Cuvier and Valenciennes, 1840
Anampses neoguinaicus[1*] Bleeker, 1878
Anampses sp.[1*]
Anampses twistii[1, 2] Bleeker, 1856
Bodianus anthioides[1] (Bennett, 1832)
Bodianus axillaris[1] (Bennett, 1832)
*Bodianus mesothorax** (Bloch & Schneider, 1801)
Cheilinus chlorourus[1, 2] (Bloch, 1791)
Cheilinus fasciatus[1*] (Bloch, 1791)
Cheilinus oxycephalus[2] Bleeker, 1853
Cheilinus sp.[1]
Cheilinus trilobatus[1*] Lacepède, 1801
Cheilinus undulatus[1] Rüppell, 1835
Cheilio inermis[1, 2] (Forsskål, 1775)
Cirrhilabrus punctatus[1, 2] Randall & Kuiter, 1989
Cirrhilabrus scottorum[2] Randall & Pyle, 1989
Coris aygula[1*] Lacepède, 1801
Coris gaimard[1, 2*] (Quoy & Gaimard, 1824)
Epibulus insidiator[1, 2*] (Pallas, 1770)
Gomphosus varius[1, 2*] Lacepède, 1801
Halichoeres hortulanus[1, 2*] (Lacepède, 1801)
Halichoeres margaritaceus[1, 2*] (Valenciennes *in* Cuvier and Valenciennes, 1839)
Halichoeres marginatus[1, 2*] Rüppell, 1835
Halichoeres melanurus[1] (Bleeker, 1851)
Halichoeres prosopeion[1] (Bleeker, 1853)
Halichoeres sp.[1*]
Halichoeres trimaculatus[1, 2*] (Quoy & Gaimard, 1834)
Hemigymnus fasciatus[1] (Bloch, 1792)
Hemigymnus melapterus[1*] (Bloch, 1791)
Hologymnosus doliatus[1] (Lacepède, 1801)
Iniistius aneitensis[2] (Günther, 1862)
Labrichthys unilineatus[1] (Guichenot, 1847)
Labroides bicolor[1, 2] Fowler & Bean, 1928
Labroides dimidiatus[1, 2*] (Valenciennes *in* Cuvier and Valenciennes, 1839)
Labropsis australis[1] Randall, 1981
Labropsis xanthanota[2] Randall, 1981
Macropharyngodon meleagris[1, 2] (Valenciennes *in* Cuvier and Valenciennes, 1839)
Novaculichthys taeniourus[1, 2*] (Lacepède, 1801)
Oxycheilinus digramma[1, 2] (Lacepède, 1801)
Oxycheilinus orientalis[1] (Günther, 1862)
Oxycheilinus unifasciatus[1*] (Streets, 1877)
Pseudocheilinus evanidus[1, 2] Jordan & Evermann, 1903
Pseudocheilinus hexataenia[1, 2] (Bleeker, 1857)
Pseudocheilinus ocellatus[2] Randall, 1999
Pseudodax moluccanus[1] (Valenciennes *in* Cuvier and Valenciennes, 1840)
Stethojulis bandanensis[1, 2*] (Bleeker, 1851)
Stethojulis interrupta[1] (Bleeker, 1851) probably *S. notialis* (Randall, 2000) according to Randall 2005
Stethojulis strigiventer[1, 2*] (Bennett, 1833)

Thalassoma amblycephalum[1]* (Bleeker, 1856)
Thalassoma hardwicke[1, 2]* (Bennett, 1830)
Thalassoma lunare[1]* (Linnaeus, 1758)
Thalassoma lutescens[1]* (Lay & Bennett, 1839)
Thalassoma purpureum[1, 2]* (Forsskål, 1775)
Thalassoma quinquevittatum[1, 2]* (Lay & Bennett, 1839)
Thalassoma sp.[1]
*Thalassoma trilobatum** (Lacepède, 1801)
Wetmorella albofasciata[2] Schultz & Marshall, 1954
Wetmorella nigropinnata[2] (Seale, 1901)

Family Scaridae*
Bolbometopon muricatum[1] (Valenciennes *in* Cuvier and Valenciennes, 1840)
Calotomus carolinus[1, 2] (Valenciennes *in* Cuvier and Valenciennes, 1840)
Cetoscarus ocellatus[1] (Valenciennes *in* Cuvier and Valenciennes, 1840)
Chlorurus bleekeri[1] (de Beaufort *in* Weber and de Beaufort, 1940)
Chlorurus microrhinos[1] (Bleeker, 1854)
Chlorurus sordidus[1, 2]* (Forsskål, 1775)
Hipposcarus longiceps[1]* (Valenciennes *in* Cuvier and Valenciennes, 1840)
Scarus altipinnis[1] (Steindachner, 1879)
Scarus chameleon[1] Choat & Randall, 1986
Scarus dimidiatus[1]* Bleeker, 1859
Scarus forsteri[1] (Bleeker, 1861)
Scarus frenatus[1]* Lacepède, 1802
Scarus ghobban[1]* Forsskål, 1775
Scarus globiceps[1, 2]* Valenciennes *in* Cuvier and Valenciennes, 1840
Scarus longipinnis[1] Randall & Choat, 1980
Scarus niger[1]* Forsskål, 1775
Scarus oviceps[1, 2]* Valenciennes *in* Cuvier and Valenciennes, 1840
Scarus psittacus[1] Forsskål, 1775
*Scarus rivulatus** Valenciennes *in* Cuvier and Valenciennes, 1840
Scarus rubroviolaceus[1]* Bleeker, 1847
Scarus schlegeli[1]* (Bleeker, 1861)
Scarus sp.[1]*
Scarus spinus[1] (Kner, 1868)

Family Uranoscopidae
Uranoscopus sulphureus[5] Valenciennes *in* Cuvier and Valenciennes, 1832

Family Creediidae
Chalixodytes chameleontoculis[2] Smith, 1957
Limnichthys fasciatus[2] Waite, 1904
Limnichthys nitidus[2] Smith, 1958

Family Pinguipedidae*
Parapercis clathrata[2] Ogilby, 1910
Parapercis hexophtalma[1]* (Cuvier *in* Cuvier and Valenciennes, 1829)
Parapercis millepunctata[2] (Günther, 1860)
Parapercis sp.[1, 2]
Parapercis xanthozona[1]* (Bleeker, 1849)

Family Tripterygiidae
Enneapterygius sp.[1, 2]
Enneapterygius philippinus[2] (Peters, 1868)
Enneapterygius pyramis[2] Fricke, 1994
Enneapterygius tutuilae[2] Jordan & Seale, 1906
Helcogramma chica[2] Rosenblatt *in* Schultz *et al.*, 1960
Helcogramma obtusirostre[2] (Klunzinger, 1871)
Helcogramma sp.[2]

Family Blennidae*
Blennidae unidentified[1]*
Aspidontus dussumieri[2] (Valenciennes *in* Cuvier and Valenciennes, 1836)
Aspidontus taeniatus[2] Quoy & Gaimard, 1834
Atrosalarias fuscus[1] (Rüppell, 1838)
Blenniella caudolineata[2] (Günther, 1877)
Blenniella paula[2] (Bryan and Herre, 1903)
Cirripectes polyzona[2] (Bleeker, 1868)
Cirripectes sp.[1]
Cirripectes stigmaticus[1, 2] Strasburg & Schultz, 1953
Cirripectes variolosus[2] (Valenciennes *in* Cuvier and Valenciennes, 1836)
Ecsenius bicolor[1, 2] (Day, 1888)
Ecsenius opsifrontalis[2] Chapman & Schultz, 1952
Ecsenius portenoyi[2] Springer, 1988
Ecsenius sp.[1]
Glyptoparus delicatulus[2] Smith, 1959
Istiblennius edentulus[2] (Bloch & Schneider, 1801)
Meiacanthus atrodorsalis[1, 2]* (Günther, 1877)
Meiacanthus sp.[1]
Nannosalarias nativitatis[2] (Regan, 1909)
Parenchelyurus hepburni[2] (Snyder, 1908)
Petroscirtes xestus[2] Jordan & Seale, 1906
Plagiotremus laudandus[1, 2] (Whitley, 1961)
Plagiotremus tapeinosoma[1, 2] (Bleeker, 1857)
Praealticus caesius[2] (Seale, 1906)
Salarias alboguttatus[2] Kner, 1867

Family Gobiesocidae
Lepadichthys minor[2] Briggs, 1955

Family Callionymidae
Callionymus simplicicornis[2] Valenciennes *in* Cuvier and Valenciennes, 1837
Diplogrammus goramensis[2] (Bleeker, 1858)

Family Eleotridae
Calumia godeffroyi[2] (Günther, 1877)
Eleotris fusca[2] (Forster *in* Bloch and Schneider, 1801)

Family Gobiidae*
Gobiidae unidentified[1]*
Amblyeleotris guttata[2] (Fowler, 1938)
Amblygobius decussatus[2] (Bleeker, 1855)
Amblygobius phalaena[1, 2] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Amblygobius sphynx[2] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Asterropteryx bipunctata[2] Allen & Munday, 1995
Asterropteryx ensifera[2] (Bleeker, 1874)
Asterropteryx semipunctata[1, 2] Rüppell, 1830
Asterropteryx spinosa[2] (Goren, 1981)
Bathygobius cocosensis[2] (Bleeker, 1854)
Bathygobius cyclopterus[2] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Cabillus tongarevae[2] (Fowler, 1927)
Callogobius maculipinnis[2] (Fowler, 1918)
Callogobius sclateri[2] (Steindachner, 1879)
Cryptocentrus sp.[1]
Cryptocentrus strigilliceps[1] (Jordan & Seale, 1906)
Ctenogobiops aurocingulus[2] (Herre, 1935)
Discordipinna griessingeri[2] Hoese & Fourmanoir, 1978
Eviota afelei[2] Jordan and Seale, 1906

Eviota albolineata[2] Jewett & Lachner, 1983
Eviota disrupta[2] Karnella and Lachner, 1981
Eviota melasma[2] Lachner and Karnella, 1980
Eviota nigriventris[2] Giltay, 1933
Eviota pellucida[2] Larson, 1976
Eviota prasina[2] (Klunzinger, 1871)
Eviota prasites[2] Jordan & Seale, 1906
Eviota sigillata[2] Jewett & Lachner, 1983
Eviota smaragdus[2] Jordan & Seale, 1906
Eviota sp.1 [2]
Eviota sp.2 [2]
Eviota sp.3 [2]
Eviota sp.4 [2]
Eviota sp.5 [2]
Eviota sp.6 [2]
Eviota spilota[2] Lachner & Karnella, 1980
Eviota storthynx[2] (Rofen, 1959)
Eviota zebrina[2] Lachner & Karnella, 1978
Feia nympha[2] Smith, 1959
Fusigobius humeralis[2] (Randall, 2001)
Fusigobius inframaculatus[2] (Randall, 1994)
Fusigobius neophytus[2](Günther, 1877)
Gnatholepis anjerensis[2] (Bleeker, 1851)
Gnatholepis cauerensis[2] (Bleeker, 1853)
Gobiodon rivulatus[2] (Rüppell, 1830)
Hetereleotris sp. [2]
Istigobius decoratus[1, 2] (Herre, 1927)
Istigobius rigilius[1, 2] (Herre, 1953)
Macrodontogobius wilburi[2] Herre, 1936
Oplopomops diacanthus[2] (Schultz, 1943)
Oplopomus oplopomus[1] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Palutrus pruinosa[2] (Jordan & Seale, 1906)
Paragobiodon echinocephalus[2] (Rüppell, 1830)
Periophthalmus argentilineatus[2] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Pleurosicya fringilla[2] Larson, 1990
Priolepis ailina[2] Winterbottom & Burridge, 1993
Priolepis kappa[2] Winterbottom & Burridge, 1993
Priolepis pallidicincta[2] Winterbottom & Burridge, 1993
Priolepis semidoliata[2] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Priolepis sp.[1, 2]
Trimma benjamini[2] Winterbottom, 1996
Trimma caesiura[2] Jordan & Seale, 1906
Trimma okinawae[2] (Aoyagi, 1949)
Trimma sp.1 [2]
Trimma sp.2 [2]
Trimma taylori[2] Lobel, 1979
Trimmatom eviotops[2] (Schultz, 1943)
Trimmatom nanus[2] Winterbottom & Emery, 1981
Valenciennea sp.[1]*
Valenciennea longipinnis[1] (Lay & Bennett, 1839)
Valenciennea puellaris[2] (Tomiyama *in* Tomiyama and Abe, 1956)
Valenciennea sexguttata[1, 2] (Valenciennes *in* Cuvier and Valenciennes, 1837)
Valenciennea strigata[1]* (Broussonet, 1782)
Vanderhorstia ornatissima[2] Smith, 1959

Family Microdesmidae*
Gunnellichthys monostigma[2] Smith, 1958
Gunnellichthys pleurotaenia[2] Bleeker, 1858
Gunnellichthys viridescens[2] Dawson, 1968
Paragunnellichthys seychellensis[2] Dawson, 1968

Family Pteleotridae
Nemateleotris magnifica[1, 2]* Fowler, 1938
Ptereleotris evides[1]* (Jordan & Hubbs, 1925)
Ptereleotris heteroptera[1]* (Bleeker, 1855)
Ptereleotris microlepis[1, 2]* (Bleeker, 1856)

Family Xenisthmidae
Xenisthmus polyzonatus[2] (Klunzinger, 1871)
Xenisthmus sp.1 [2]
Xenisthmus sp.2 [2]

Family Siganidae*
Siganus argenteus[1, 2] (Quoy & Gaimard, 1825)
Siganus punctatus[1] (Schneider & Forster *in* Bloch and Schneider, 1801)
Siganus spinus[1]* (Linnaeus, 1758)
Siganus vermiculatus[1] (Valenciennes *in* Cuvier and Valenciennes, 1835)

Family Zanclidae*
Zanclus cornutus[1]* (Linnaeus, 1758)

Family Acanthuridae*
Acanthurus achilles[1] Shaw, 1803
Acanthurus albipectoralis[1] Allen & Ayling, 1987
Acanthurus blochii[1]* Valenciennes *in* Cuvier and Valenciennes, 1835
Acanthurus guttatus[1] Forster *in* Bloch and Schneider, 1801
Acanthurus lineatus[1, 2]* (Linnaeus, 1758)
Acanthurus nigricans[1, 2]* (Linnaeus, 1758)
Acanthurus nigricauda[1] Duncker & Mohr, 1929
Acanthurus nigrofuscus[1, 2]* (Forsskål, 1775)
Acanthurus olivaceus[1, 2]* Bloch & Schneider, 1801
Acanthurus pyroferus[1, 2]* Kittlitz, 1834
Acanthurus thompsoni[1] (Fowler, 1923)
Acanthurus triostegus[1, 2]* (Linnaeus, 1758)
Acanthurus xanthopterus[1, 2] Valenciennes *in* Cuvier and Valenciennes, 1835
Ctenochaetus binotatus[1, 2] Randall, 1955
Ctenochaetus striatus[1, 2]* (Quoy & Gaimard, 1825)
Naso annulatus[1]* (Quoy & Gaimard, 1825)
Naso brevirostris[1] (Cuvier, 1829)
Naso lituratus[1]* (Forster *in* Bloch & Schneider, 1801)
Naso sp.[1]
Naso unicornis[1] (Forsskål, 1775)
Naso vlamingii[1] (Valenciennes *in* Cuvier and Valenciennes, 1835)
Prionurus maculatus[1] Ogilby, 1887
Zebrasoma rostratum[1] (Günther, 1875)
Zebrasoma scopas[1, 2]* (Cuvier, 1829)
Zebrasoma veliferum[1, 2] (Bloch, 1795)

Family Sphyraenidae
Sphyraena barracuda[1] (Walbaum, 1792)
Sphyraena sp.[1, 2]

Family Scombridae
Euthynnus affinis[1] (Cantor, 1849)
Grammatorcynus bilineatus[1] (Rüppell, 1836)
Scomberomorus commerson[1] (Lacepède, 1800)

Family Bothidae
Asterorhombus sp.[1, 2]
Bothus pantherinus[2] (Rüppell, 1830)

Family Pleuronectidae
Samariscus triocellatus[2] Woods, 1966

Family Soleidae
Aseraggodes sp.[1, 2]

Soleichthys sp.[1, 2] possibly an undescribed species in the *S. heterorhinos* species complex

Family Balistidae*

Balistapus undulatus[1, 2]* (Park, 1797)
Balistoides viridescens[1]* (Bloch & Schneider, 1801)
Melichthys vidua[1]* (Richardson, 1845)
Odonus niger[1] (Rüppell, 1836)
Pseudobalistes flavimarginatus[1] (Rüppell, 1829)
Pseudobalistes fuscus[5] (Bloch & Schneider, 1801)
Rhinecanthus aculeatus[1, 2]* (Linnaeus, 1758)
Rhinecanthus rectangulus[2] (Bloch & Schneider, 1801)
Sufflamen bursa[1]* (Bloch & Schneider, 1801)
Sufflamen chrysopterum[1, 2]* (Bloch & Schneider, 1801)
*Sufflamen fraenatum** (Latreille, 1804)

Family Monacanthidae*

Amanses scopas[1, 2] (Cuvier, 1829)
Cantherhines dumerilii[2] (Hollard, 1854)
Pervagor aspricaudus[2] (Hollard, 1854)
Pervagor janthinosoma[2] (Bleeker, 1854)
Oxymonacanthus longirostris[1, 2]* (Bloch & Schneider, 1801)

Family Ostraciidae*

Ostracion cubicus[1]* Linnaeus, 1758
Ostracion meleagris[1, 2] Shaw, 1796

Family Triodontidae

Triodon sp.[4]

Family Tetraodontidae*

Arothron hispidus[1] (Linnaeus, 1758)
Arothron meleagris[1] (Lacepède, 1798)
Arothron nigropunctatus[1] (Bloch & Schneider, 1801)
Arothron stellatus[1] (Bloch & Schneider, 1801)
Canthigaster amboinensis[1] (Bleeker, 1865)
Canthigaster bennetti[1]* (Bleeker, 1854)
Canthigaster solandri[1, 2](Richardson, 1845)
Canthigaster valentini[5] (Bleeker, 1853)

Family Diodontidae

Diodon hystrix[1] Linnaeus, 1758