

on Selected Biota

FOCUS

CHECKLIST OF THE FISHES

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This checklist includes the fish species recorded from the Espiritu Santo Group, Vanuatu. A detailed, annotated checklist of all Vanuatu fish species including distribution data, literature references and material lists is in preparation by R. Fricke. The checklist comprises all records that could be verified either by museum specimens (including deep water materials of the MUSORSTOM 8 cruise), by confirmation by revising authors, or by the identification of photographs and video sequences taken by Adrian Gittenberger (National Museum of Natural History Naturalis, Leiden), Tan-Heok Hui (University of Singapore), Damien Hinsinger (MNHN), Peter Ng (Raffles Museum Singapore), Richard Pyle and John Earle (BPBM) and Sarah Samadi (IRD, Paris) during the Santo 2006 expedition, are included.

Families are arranged systematically according to the fourth edition of *The fishes of the world* by Nelson (2006), and genera and species alphabetically under the family names. The genus and species classification is mainly based on the Online version of the *Catalog of fishes* by Eschmeyer. In the checklist, reference is given to materials in the collections of the Australian Museum Sydney (AMS), the Academy of Natural Sciences of Philadelphia (ANSP), the Natural History Museum London (BMNH), the Bernice P. Bishop Museum Honolulu (BPBM), the California Academy of Sciences (CAS), the Field Museum of Natural History Chicago (FMNH), the Muséum National d'Histoire Naturelle Paris (MNHN), the Stanford University Collection (SU, now deposited at CAS), the Staatliches Museum für Naturkunde Stuttgart (SMNS), and the National Museum of

Natural History Washington D.C. (USNM) in order to document records. Video clips serving as species records are kept at BPBM, along with location data, habitat, depth and abundance for those species recorded by video.

The present checklist of the fishes of the Espiritu Santo Group includes a total of 917 species. Among these, 809 species are recorded from Espiritu Santo for the first time; 514 species are first records for Vanuatu. As the fish fauna of Espiritu Santo is still poorly known, additional species are expected to be added to the list in the future. An ichthyological expedition using rotenone and other collecting techniques and searching in a wider variety of habitats might double the number of species known from the island group.

The 10 largest shore fish families are the Labridae (81 species, 8.8% of the total species) and Pomacentridae (81 species, 8.8%), Gobiidae (72 species, 7.8%), Serranidae (49 species, 5.3%), Apogonidae (37 species, 4.0%), Chaetodontidae (31 species, 3.4%), Acanthuridae (28 species, 3.1%), Blenniidae (25 species, 2.7%), Scaridae and Holocentridae (21 species each, 2.3% each). Small and cryptic species, however, are probably under-represented in these statistics. In 2006, in a checklist of the marine shore fishes of the neighbouring New Caledonia, Fricke & Kulbicki found the Gobiidae to be the most common shore fish family with 169 species (9.4% of the total species), followed by the Labridae (118 species, 6.7%), Pomacentridae (109 species, 6.2%), Serranidae (86 species, 4.9%), and Apogonidae (78 species, 4.4%). Similar percentages, though slightly fewer species, are expected for the Espiritu Santo Group.

••• Fishes recorded from Espiritu Santo group, Vanuatu

Species indicated with an asterisk (*) are new records for the Espiritu Santo Group and for Vanuatu; those marked with a cross (†) are new records for the Espiritu Santo Group, but have been recorded previously from other areas in Vanuatu.

••• Scyliorhinidae

**Galeus priapus* Séret & Last, 2008 – MNHN material (Recently described by Séret & Last, 2008)

**Parmaturus albipenis* Séret & Last, 2007 – MNHN material

••• Triakidae

†*Iago garricki* Fourmanoir & Rivaton, 1979 – MNHN material

••• Carcharhinidae

- **Carcharhinus albimarginatus* (Rüppell, 1837) – Video sequence 2006 Vanuatu
 **Carcharhinus amblyrhynchos* (Bleeker, 1856) – Video sequence 2006 Vanuatu
 **Carcharhinus melanopterus* (Quoy & Gaimard, 1824) – Video sequence 2006
 †*Galeocerdo cuvier* (Péron & Lesueur in Lesueur, 1822) – Underwater photograph 2006
 †*Triaenodon obesus* (Rüppell, 1837) – Video sequence 2006

••• Squalidae

Squalus rancureli Fourmanoir & Rivaton, 1979 – First record by Fourmanoir & Rivaton (1979: 437-438, figs 25-26)

••• Arhynchobatidae

- **Notoraja* sp. 1 (to be described by Séret & Last) – MNHN material
 **Notoraja* sp. 2 (to be described by Séret & Last) – MNHN material

••• Dasyatidae

- †*Aetobatus narinari* (Euphrasen, 1790) – Video sequence 2006
 †*Neotrygon kuhlii* (Müller & Henle, 1841) – MNHN material; photograph 2006
 †*Taeniura lymma* (Forsskål in Niebuhr, 1775) – Video sequence 2006

••• Halosauridae

- **Aldrovandia affinis* (Günther, 1877) – MNHN material; photograph 2006
 **Aldrovandia phalacra* (Vaillant, 1888) – MNHN material; photographs 2006
 **Halosaurus ovenii* Johnson, 1864 – MNHN material

••• Anguillidae

- Anguilla marmorata* Quoy & Gaimard, 1824 – Keith *et al.*, this volume
Anguilla megastoma Kaup, 1856 – Keith *et al.*, this volume
Anguilla obscura Günther, 1872 – Keith *et al.*, this volume

••• Muraenidae

- **Anarchias allardicei* Jordan & Starks in Jordan & Seale, 1906 – USNM material
 †*Echidna nebulosa* (Ahl, 1789) – USNM material
 †*Echidna polyzona* (Richardson, 1845) – USNM material
 †*Gymnothorax buroensis* (Bleeker, 1857) – USNM material
 †*Gymnothorax chilospilus* Bleeker, 1865 – USNM material
 †*Gymnothorax enigmaticus* McCosker & Randall, 1982 – USNM material
 **Gymnothorax eurostus* (Abbott, 1860) – Photograph 2006
 †*Gymnothorax fimbriatus* (Bennett, 1832) – USNM material
 **Gymnothorax javanicus* (Bleeker, 1859) – Video sequence 2006
 †*Gymnothorax margaritophorus* (Bleeker, 1865) – USNM material
 †*Gymnothorax melatremus* Schultz in Schultz, Herald, Lachner, Welander & Woods, 1953 – USNM material
 **Gymnothorax meleagris* (Shaw in Shaw & Nodder, 1795) – USNM material
 †*Gymnothorax pictus* (Ahl, 1789) – ANSP, FMNH, SU and USNM material
 †*Gymnothorax rueppelliae* (McClelland, 1845) – ANSP material
 †*Gymnothorax thyrsoideus* (Richardson, 1845) – Video sequence 2006
 †*Gymnothorax undulatus* (Lacepède [ex Commerson], 1803) – FMNH and SU material
 †*Gymnothorax zonipectis* Seale, 1906 – CAS, MNHN and USNM material; photograph 2006
 †*Uropterygius concolor* Rüppell, 1838 – FMNH material
 **Uropterygius fuscoguttatus* Schultz in Schultz, Herald, Lachner, Welander & Woods, 1953 – USNM material
 †*Uropterygius marmoratus* (Lacepède, 1803) – SU material

••• Muraenesocidae

- **Muraenesox cinereus* (Forsskål in Niebuhr, 1775) – MNHN material; photograph 2006

••• Synphobranchidae

- **Atractodenchelys robinsonum* Karmovskaya, 2003 – MNHN material
 **Histiobranchus* sp. – MNHN material
 **Synphobranchus affinis* Günther, 1877 – MNHN material

••• Ophichthidae

Lamnostoma kampeni Weber & Beaufort, 1916 – Keith *et al.*, this volume

**Lamnostoma orientalis* (McClelland, 1844) – MNHN material; photograph 2006; Keith *et al.*, this volume

**Lamnostoma polyophthalmum* (Bleeker, 1853) – BMNH material

†*Myrichthys maculosus* (Cuvier, 1816) – MNHN material

••• Nemichthyidae

**Nemichthys* sp. – MNHN material

••• Congridae

Ariosoma anago (Temminck & Schlegel, 1846) – First record by Castle (1964: 13-14, fig. 2)

Ariosoma scheelei (Strömman, 1896) – First record by Castle (1964: 3-13, fig. 1 A-I, 2)

**Bathycongrus aequoreus* (Günther, 1887) – MNHN material

**Bathycongrus guttulatus* (Günther, 1887) – MNHN material

**Bathycongrus wallacei* (Castle, 1968) – MNHN material

**Bathyroconger* sp. – MNHN material

†*Conger cinereus* (Klunzinger [ex Rüppell], 1871); authorship according to Fricke (2008: 15) – USNM material

Conger verreauxi Kaup, 1856 – First record by Castle (1964: 24-28, fig. 8 G-H)

Conger wilsoni (Bloch & Schneider [ex Banning], 1801) – First record by Castle (1964: 19-24, fig. 6 A-H, 9 A-C)

**Parabathymyrus* sp. – MNHN material

**Rhechias* sp. – MNHN material

••• Clupeidae

**Anodontostoma selangkat* (Bleeker, 1852) – USNM material

†*Herklotsichthys quadrimaculatus* (Rüppell, 1837) – Video sequence 2006; photograph 2006

†*Spratelloides delicatulus* (Bennett, 1832) – FMNH and SU material

••• Chanidae

†*Chanos chanos* (Forsskål in Niebuhr, 1775) – Video sequence 2006

••• Alepocephalidae

**Conocara microlepis* (Lloyd, 1909) – MNHN material

••• Synodontidae

**Saurida gracilis* (Quoy & Gaimard, 1824) – USNM material and video sequence 2006

**Saurida nebulosa* Valenciennes in Cuvier & Valenciennes, 1850 – MNHN material; video sequence 2006; photograph 2006

**Synodus jaculum* Russell & Cressey, 1979 – Video sequence 2006

**Synodus similis* McCulloch, 1921 – MNHN material; photograph 2006

†*Synodus variegatus* (Lacepède [ex Commerson], 1803) – Video sequence 2006

••• Chlorophthalmidae

**Chlorophthalmus* sp. – MNHN material

••• Ipnopidae

**Ipnops agassizi* Garman, 1899 – MNHN material

••• Neoscopelidae

**Neoscopelus microchir* Matsubara, 1943 – MNHN material

••• Sternoptychidae

**Argyropelecus lychnus* Garman, 1899 – MNHN material; photograph 2006

**Polyipnus indicus* Schultz, 1961 – MNHN material

**Polyipnus omphus* Baird, 1971 – MNHN material

••• Phosichthyidae

**Polymetme* sp. – MNHN material

••• Myctophidae

†*Symbolophorus evermanni* (Gilbert, 1905) – MNHN material

••• Polymixiidae

**Polymixia japonica* Günther, 1877

••• Bregmacerotidae

**Bregmaceros* sp. – MNHN material

••• Macrouridae

- **Caelorinchus acutirostris* Smith & Radcliffe, 1912 – MNHN material
- **Caelorinchus anatirostris* Jordan & Gilbert, 1904 – MNHN material
- **Caelorinchus argentatus* Smith & Radcliffe, 1912 – MNHN material
- **Caelorinchus sereti* Iwamoto & Merrett, 1997 – MNHN material
- **Cetonurichthys subinflatus* Sazonov & Shcherbachev, 1982 – MNHN material
- **Cetonurus crassiceps* (Günther, 1878) – MNHN material
- **Hymenocephalus longibarbis* (Günther, 1887) – MNHN material
- **Hymenocephalus megalops* Iwamoto & Merrett, 1997 – MNHN material
- **Hymenocephalus nascens* Gilbert & Hubbs, 1920 – MNHN material
- **Kuronezumia bubonis* Iwamoto, 1974 – MNHN material
- **Lucigadus acrolophus* Iwamoto & Merrett, 1997 – MNHN material
- **Mataeocephalus cristatus* Sazonov, Shcherbachev & Iwamoto, 2003 – MNHN material
- **Nezumia aspidentata* Iwamoto & Merrett, 1997 – MNHN material
- **Nezumia propinqua* (Gilbert & Cramer, 1897) – MNHN material
- **Ventrifossa nigrodorsalis* Gilbert & Hubbs, 1920 – MNHN material

••• Moridae

- **Physiculus longifilis* Weber, 1913 – MNHN material
- **Physiculus roseus* Alcock, 1891 – MNHN material
- **Physiculus therosideros* Paulin, 1987 – MNHN material

••• Bythitidae

Alionematichthys riukiensis (Aoyagi, 1954) – USNM material (recorded by Møller & Schwarzahns, 2008: 113)

••• Aphyonidae

Barathronus sp. – MNHN material

••• Ophidiidae

- †*Brotula multibarbata* Temminck & Schlegel, 1846 – USNM material
- **Dicrolene longimana* Smith & Radcliffe in Radcliffe, 1913 – MNHN material
- **Monomitopus garmani* (Smith & Radcliffe in Radcliffe, 1913) – MNHN material
- †*Neobythites malayanus* Weber, 1913 – MNHN material; photograph 2006
- **Neobythites pallidus* Nielsen, 1997 – MNHN material
- **Neobythites* sp. – MNHN material; photograph 2007
- **Neobythites unimaculatus* Smith & Radcliffe in Radcliffe, 1913 – MNHN material; photograph 2006
- **Porogadus miles* Goode & Bean, 1885 – MNHN material
- **Sirembo jerdoni* (Day, 1888) – MNHN material; photograph 2006
- **Tauredophidium hextii* Alcock, 1890 – MNHN material

••• Carapidae

- **Carapus mourlani* (Petit, 1934) – MNHN material; photograph 2006
- **Pyramodon ventralis* Smith & Radcliffe in Radcliffe, 1913 – MNHN material; photograph 2006

••• Antennariidae

- Antennarius coccineus* (Cuvier in Lesson, 1831) – First record by Pietsch & Grobecker (1987: 144-153); USNM material
- **Antennarius commerson* Lacepède [ex Commerson] in Anonymus, 1798 – MNHN material; photograph 2006
- Antenarius dnorehensis* Bleeker, 1859 – First record by Pietsch & Grobecker (1987: 166-170), and AMS material
- †*Antennarius nummifer* Cuvier, 1816 – BPBM and MNHN material; video sequence 2006
- **Antennarius rosaceus* Smith & Radcliffe in Radcliffe, 1912 – MNHN material; photograph 2006

••• Lophiidae

- **Lophiodes naresi* (Günther, 1880) – MNHN material; photograph 2006
- **Lophiomus setigerus* (Vahl, 1797) – MNHN material; photograph 2006

••• Chaunacidae

**Chaunax* sp. – MNHN material

••• **Ogcocephalidae**

- **Halieutaea nigra* Alcock, 1891 – MNHN material
- **Halieutaea stellata* (Vahl, 1797) – MNHN material; photograph 2006
- **Halieutopsis nudiventer* Lloyd, 1909 – MNHN material; photographs 2006
- **Malthopsis annulifera* Tanaka, 1908 – MNHN material
- **Malthopsis lutea* Alcock, 1891 – MNHN material; photograph 2006

••• **Mugilidae**

- †*Cestraeus plicatilis* Valenciennes in Cuvier & Valenciennes, 1836 – BMNH material
- †*Chelon macrolepis* (Smith, 1846) – BMNH material
- Crenimugil crenilabis* (Forsskål in Niebuhr, 1775) – First record by Thomson (1954: 117-118, fig. 13); AMS and BMNH material
- Liza subviridis* (Valenciennes in Cuvier & Valenciennes, 1836) – Keith *et al.*, this volume
- **Moolgarda seheli* (Forsskål in Niebuhr, 1775) – USNM material

••• **Exocoetidae**

- **Parexocoetus brachypterus* (Günther, 1866) – USNM material
- **Parexocoetus mento* (Valenciennes in Cuvier & Valenciennes, 1847) – MNHN material

••• **Hemiramphidae**

- †*Zenarchopterus dispar* (Valenciennes in Cuvier & Valenciennes, 1847) – USNM material

••• **Belonidae**

- **Strongylura urvillii* (Valenciennes in Cuvier & Valenciennes, 1847) – USNM material
- †*Tylosurus crocodilus* (Peron & LeSueur in LeSueur, 1821) – USNM material

••• **Atherinidae**

- †*Atherinomorus duodecimalis* (Valenciennes in Cuvier & Valenciennes, 1835) – SU material
- †*Atherinomorus lacunosus* (Bloch & Schneider [ex Forster], 1801) – FMNH and USNM material

••• **Monocentridae**

- **Monocentris japonica* (Houttuyn, 1782) – MNHN material; photograph 2006

••• **Berycidae**

- **Centroberyx* sp. – MNHN material

••• **Holocentridae**

- †*Myripristis adusta* Bleeker, 1853 – USNM material; video sequence 2006
- †*Myripristis berndti* Jordan & Evermann, 1903 – USNM material; video sequence 2006
- **Myripristis chryseres* Jordan & Evermann, 1903 – Video sequence 2006
- †*Myripristis hexagona* (Lacepède, 1802) – Video sequence 2006
- †*Myripristis kuntee* Valenciennes in Cuvier & Valenciennes, 1831 – Video sequence 2006
- †*Myripristis murdjan* (Forsskål in Niebuhr, 1775) – FMNH and USNM material; video sequence 2006
- †*Myripristis violacea* Bleeker, 1851 – SU material; video sequence 2006; underwater photograph 2006
- **Myripristis vittata* Valenciennes in Cuvier & Valenciennes, 1831 – MNHN material; photograph 2006; video sequence 2006
- **Neoniphon argenteus* (Valenciennes in Cuvier & Valenciennes, 1831) – USNM material; video sequence 2006; underwater photograph 2006
- †*Neoniphon opercularis* (Valenciennes in Cuvier & Valenciennes, 1831) – Video sequence 2006
- †*Neoniphon sammara* (Forsskål in Niebuhr, 1775) – USNM material; video sequence 2006; underwater photograph 2006
- †*Plectrypops lima* (Valenciennes in Cuvier & Valenciennes, 1831) – USNM material
- **Sargocentron caudimaculatum* (Rüppell, 1838) – Video sequence 2006
- †*Sargocentron diadema* (Lacepède [ex Commerson], 1802) – Video sequence 2006
- **Sargocentron ittodai* (Jordan & Fowler, 1902) – USNM material
- †*Sargocentron microstoma* (Günther, 1859) – FMNH and SU material
- **Sargocentron punctatissimum* (Cuvier in Cuvier & Valenciennes, 1829) – USNM material
- †*Sargocentron spiniferum* (Forsskål in Niebuhr, 1775) – USNM material; video sequence 2006
- **Sargocentron tiere* (Cuvier in Cuvier & Valenciennes, 1829) – Video sequence 2006
- †*Sargocentron tiereoides* (Bleeker, 1853) – SU material; video sequence 2006
- **Sargocentron violaceum* (Bleeker, 1853) – Video sequence 2006

••• Zenionidae

**Zenion japonicum* Kamohara, 1934 – MNHN material; photograph 2006

••• Poeciliidae

Gambusia affinis (Baird & Girard, 1853) – Introduced; Keith *et al.*, this volume

Pocilia reticulata Peters, 1859 – Introduced; Keith *et al.*, this volume

••• Rondeletiidae

**Rondeletia loricata* Abe & Hotta, 1963 – MNHN material

••• Aulostomidae

†*Aulostomus chinensis* (Linné, 1766) – Video sequence 2006

••• Fistulariidae

†*Fistularia commersonii* Rüppell, 1838 – USNM material; video sequence 2006

••• Centriscidae

†*Aeoliscus strigatus* (Günther, 1860) – USNM material

••• Solenostomidae

**Solenostomus paradoxus* (Pallas, 1770) – Photographs 2006

••• Syngnathidae

†*Choeroichthys sculptus* (Günther, 1870) – CAS material

**Corythoichthys amplexus* Dawson & Randall, 1975 – USNM material

†*Corythoichthys haematopterus* (Bleeker, 1851) – CAS, MNHN and SU material; photograph 2006

†*Corythoichthys intestinalis* (Ramsay, 1881) – USNM material; underwater photograph 2006

**Corythoichthys* sp. (undescribed, Fricke, MS) – MNHN material; photograph 2006

†*Doryrhamphus melanopleura* Bleeker, 1858 – USNM material

Hippocampus denise Lourie & Randall, 2003 – First record by Lourie & Randall (2003: 286); USNM material

†*Hippocampus novaehedborum* Fowler, 1944 – USNM material; photograph 2006

†*Micrognathus pygmaeus* Fritzsche, 1981 – CAS material

†*Microphis brachyurus* (Bleeker, 1853) – USNM material; Keith *et al.*, this volume

Microphis leiaspis (Bleeker, 1853) – Keith *et al.*, this volume

Microphis manadensis (Bleeker, 1856) – Keith *et al.*, this volume

Microphis retzii (Bleeker, 1856) – Keith *et al.*, this volume

Microphis sp. (cf. *spinachoides*) – Keith *et al.*, this volume

**Syngnathoides biaculeatus* (Bloch, 1785) – USNM material

**Trachyrhamphus bicoarctatus* (Bleeker, 1857) – BPBM material

••• Scorpaenidae

Subfamily Pteroinae

**Dendrochirus zebra* (Cuvier in Cuvier & Valenciennes, 1829) – CAS material

**Ebosia bleekeri* (Döderlein in Steindachner & Döderlein, 1884) – MNHN material; photograph 2006

†*Pterois antennata* (Bloch, 1787) – CAS material; video sequence 2006; underwater photograph 2006

†*Pterois volitans* (Linnaeus, 1758) – CAS, MNHN and USNM material; video sequence 2006; underwater photograph 2006

Subfamily Scorpaeninae

**Neomerinthe procurva* (Chen, 1981) – MNHN material; photograph 2006

**Parascorpaena mcadamsi* (Fowler, 1938) – MNHN material; photograph 2006

**Phenacoscorpius* sp. – MNHN material

**Pontinus* sp. – MNHN material

†*Scorpaenodes guamensis* (Quoy & Gaimard, 1824) – FMNH and SU material

**Scorpaenopsis oxycephala* (Bleeker, 1849) – Visual census, R. Pyle 2006

Scorpaenopsis papuensis (Cuvier in Cuvier & Valenciennes, 1829) – First record by Randall & Eschmeyer (2001: 48-49); CAS and MNHN material; photographs 2006

**Scorpaenopsis possi* Randall & Eschmeyer, 2001 – Underwater photograph 2006

**Sebastapistes cyanostigma* (Bleeker, 1856) – USNM material

Sebastapistes fowleri (Pietschmann, 1934) – First record by Randall & Poss (2002: 58-63); USNM material

**Taenionotus triacanthus* Lacepède, 1802 – Video sequence 2006

••• Tetrarogidae

Tetraroge niger (Cuvier in Cuvier & Valenciennes, 1829) – Keith *et al.*, this volume

••• Synanceiidae

**Erosa erosa* (Cuvier [ex Langsdorf] in Cuvier & Valenciennes, 1829) – MNHN material; photograph 2006
Inimicus didactylus (Pallas, 1769) – CAS and MNHN material; photograph, 2006; visual census, R. Pyle, 2006

••• Plectrogeniidae

**Plectrogenium nanum* Gilbert, 1905 – MNHN material

••• Setarchidae

†*Setarches guentheri* Johnson, 1862 – Photograph 2006
 **Setarches longimanus* Alcock, 1894 – MNHN material; photograph 2006

••• Caracanthidae

**Caracanthus maculatus* (Gray, 1831) – USNM material

••• Peristediidae

Peristedion pothumaluvae Deraniyagala, 1936 – First record by Rivaton & Bourret (1999: 312)
 †*Satyrichthys quadratorostratus* (Fourmanoir & Rivaton, 1979) – Photograph 2006
 **Satyrichthys rugosum* Fowler, 1943 – MNHN material

••• Triglididae

**Lepidotrigla* sp. – MNHN material
 **Pterygotrigla ryukyuensis* Matsubara & Hiyama, 1932 – MNHN material

••• Hoplichthyidae

**Hoplichthys gilberti* Jordan & Richardson, 1908 – MNHN material; photograph 2006

••• Bembridae

**Bembradium roseum* Gilbert, 1905 – MNHN material; photograph 2006
 **Bembras* sp. – MNHN material; photographs 2006

••• Platycephalidae

**Onigocia pedimacula* (Regan, 1908) – MNHN material; photograph 2006
 **Rogadius pristiger* (Cuvier in Cuvier & Valenciennes, 1829) – MNHN material; photographs 2006

••• Psychrolutidae

**Psychrolutes* sp. (Fricke, MS) – MNHN material; photograph 2006

••• Ambassidae

Ambassis interruptus Bleeker, 1852 – First record by Allen & Burgess (1990: 165-167); USNM material
Ambassis miops Günther, 1872 – Keith *et al.*, this volume
 †*Ambassis urotaenia* Bleeker, 1852 – BMNH and USNM material

••• Serranidae

Subfamily Anthiinae

- **Plectranthias* sp. 1 – Video sequence 2006; photograph 2006
- **Plectranthias* sp. 2 – MNHN material; photograph 2006
- **Plectranthias nanus* Randall, 1980 – MNHN material; photograph 2006
- **Pseudanthias bicolor* (Randall, 1979) – MNHN material; photograph 2006
- **Pseudanthias carlsoni* Randall & Pyle, 2001 – Video sequence 2006 – (Fig. 441)
- †*Pseudanthias dispar* (Herre, 1955) – Video sequence 2006
- **Pseudanthias fasciatus* (Kamohara, 1954) – Video sequence 2006
- **Pseudanthias flavicauda* Randall & Pyle, 2001 – MNHN material; photograph 2006; video sequence 2006 – (Fig. 442)
- **Pseudanthias hutomoi* Allen & Burhanuddin, 1976 – Video sequence 2006
- **Pseudanthias hypselosoma* Bleeker, 1878 – Video sequence 2006
- **Pseudanthias lori* Lubbock & Randall in Fourmanoir & Laboute, 1976 – Video sequence 2006
- **Pseudanthias pascalus* (Jordan & Tanaka, 1927) – MNHN material; photograph 2006
- **Pseudanthias pleurotaenia* (Bleeker, 1857) – MNHN material; photograph 2006; video sequence 2006; underwater photograph 2006



Figure 441: *Pseudanthias carlsoni*. Carlson's Anthias is a new record for Vanuatu, previously known from PNG, Fiji, and the Loyalty Islands. We found small groups of this species in 30-40 m, usually one male, as seen in this image, with several females nearby.



Figure 442: *Pseudanthias flavicauda*. The Yellowtail Anthias is a deep water species named by Randall and Pyle in 2001 from Fiji, and observed by us in 100 m..



Figure 443: *Cephalopholis boenak*. The small grouper pictured here appears to be one of this widely distributed Western Pacific species (though a new record for Vanuatu). It is usually found in shallow silty habitats. However, the only specimens we saw in Vanuatu were in rocky habitat at 100 m or deeper. This is a mystery, and one wishes specimens were collected for close examination!



Figure 444: *Hoplolatilus starcki* is one of three species of this genus observed in Vanuatu. All are new records for Vanuatu and one appears to be not yet scientifically described. This species was usually seen in pairs at around 40 m, and would dive into a hole at the approach of a diver.

- * *Pseudanthias squamipinnis* (Peters, 1855) – Video sequence 2006
- † *Pseudanthias tuka* Herre & Montalban in Herre, 1927 – Video sequence 2006
- * *Selenanthias* sp. – MNHN material; photograph 2006
- * *Serranocirrhites latus* Watanabe, 1949 – Video sequence 2006

Subfamily Serraninae

- * *Aethaloperca rogae* (Forsskål in Niebuhr, 1775) – Video sequence 2006
- † *Belonoperca chabanaudi* Fowler & Bean, 1930 – Video sequence 2006
- † *Cephalopholis argus* Bloch & Schneider, 1801 – FMNH and USNM material; video sequence 2006
- * *Cephalopholis boenak* (Bloch, 1790) – Video sequence 2006 – (Fig. 443)
- * *Cephalopholis leopardus* (Lacepède, 1801) – Video sequence 2006
- † *Cephalopholis microprius* (Bleeker, 1852) – USNM material; video sequence 2006
- † *Cephalopholis miniata* (Forsskål in Niebuhr, 1775) – Video sequence 2006
- * *Cephalopholis sexmaculata* (Rüppell, 1830) – Video sequence 2006
- * *Cephalopholis spiloparaea* (Valenciennes in Cuvier & Valenciennes, 1828) – Video sequence 2006
- † *Cephalopholis urodeta* (Bloch & Schneider [ex Forster], 1801) – CAS, FMNH, MNHN, SU and USNM material; photograph 2006; video sequence 2006
- * *Chelidoperca lecromi* Fourmanoir, 1982 – MNHN material; photograph 2006
- * *Chelidoperca pleurospilus* (Günther, 1877) – MNHN material
- † *Diplonotus bifasciatus* Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1828 – Video sequence 2006

- **Epinephelus bleekeri* (Vaillant, 1878) – MNHN material; photograph 2006
- †*Epinephelus coeruleopunctatus* (Bloch, 1790) – Video sequence 2006
- **Epinephelus coioides* (Hamilton, 1822) – Underwater photograph 2006
- †*Epinephelus corallicola* (Valenciennes [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1828) – Video sequence 2006
- †*Epinephelus fuscoguttatus* (Forsskål in Niebuhr, 1775) – Video sequence 2006
- **Epinephelus macrospilos* (Bleeker, 1855) – Video sequence 2006
- †*Epinephelus merra* Bloch, 1793 – SU material; video sequence 2006
- †*Epinephelus ongus* (Bloch, 1790) – MNHN and USNM material; video sequence 2006
- **Epinephelus polyphkadion* (Bleeker, 1849) – Video sequence 2006
- **Gracila albomarginata* (Fowler & Bean, 1930) – Video sequence 2006
- Grammistes sexlineatus* (Thunberg, 1792) – First record by Fowler (1934: 411); ANSP, CAS and USNM material; underwater photograph 2006
- **Plectropomus areolatus* Rüppell, 1830 – Video sequence 2006
- †*Plectropomus laevis* (Lacepède [ex Commerson], 1801) – Video sequence 2006
- †*Plectropomus leopardus* (Lacepède, 1802) – Video sequence 2006
- **Pogonoperca punctata* (Valenciennes in Cuvier & Valenciennes, 1830) – Video sequence 2006
- Pseudogramma polyacantha* (Bleeker, 1856) – First record by Randall & Baldwin (1997: 39-45); USNM material
- †*Suttonia lineata* Gosline, 1960 – Video sequence 2006
- **Variola albimarginata* Baissac, 1953 – Video sequence 2006
- †*Variola louti* (Forsskål in Niebuhr, 1775) – USNM material; video sequence 2006

*** Pseudochromidae

- †*Cypho purpurascens* (DeVis, 1884) – Video sequence 2006
- Pictichromis porphyrea* (Lubbock & Goldman, 1974) – First record by Lubbock & Goldman (1974: 107-110); video sequence 2006
- †*Pseudochromis fuscus* Müller & Troschel, 1849 – CAS and USNM material; video sequence 2006
- **Pseudochromis marshallensis* Schultz in Schultz, Herald, Lachner, Welander & Woods, 1953 – USNM material

*** Plesiopidae

- †*Plesiops coeruleolineatus* Rüppell, 1835 – FMNH, SU and USNM material
- †*Plesiops corallicola* Bleeker, 1853 – SU material
- Plesiops verecundus* Mooi, 1995 – First record by Mooi (1995: 57-60); FMNH and USNM material

*** Opistognathidae

- **Opistognathus* n. sp. 1 – MNHN material; photograph 2006; video sequence 2006
- **Opistognathus* sp. 2 – MNHN material; photograph 2006



Figure 445: *Cookeolus japonicus*. The Bullseye is a spectacular deep water species, circumtropical in distribution. This specimen seen at 100 m is the first record from Vanuatu

••• Priacanthidae

- **Cookeolus japonicus* (Cuvier in Cuvier & Valenciennes, 1829) – Video sequence 2006 – (Fig. 445)
- **Heteropriacanthus cruentatus* (Lacepède, 1801) – MNHN material; photograph 2006
- †*Priacanthus hamrur* (Forsskål in Niebuhr, 1775) – MNHN material; photograph 2006; video sequence 2006
- **Pristigenys nipponia* (Cuvier in Cuvier & Valenciennes, 1829) – MNHN material; photographs 2006

••• Teraponidae

- †*Mesopristes argenteus* (Cuvier in Cuvier & Valenciennes, 1829) – BMNH material
- Terapon jarbua* (Forsskål in Niebuhr, 1775) – First record by Fowler (1934: 416); USNM material; video sequence 2006

••• Kuhliidae

- †*Kuhlia marginata* (Cuvier in Cuvier & Valenciennes, 1829) – BMNH and USNM material
- †*Kuhlia mugil* (Forster in Bloch & Schneider, 1801) – ANSP material
- †*Kuhlia munda* (DeVis, 1885) – BMNH material
- †*Kuhlia rupestris* Lacepède, 1802 – BMNH material

••• Acropomatidae

- †*Acropoma japonicum* Günther, 1859 – MNHN material
- **Synagrops analis* (Katayama, 1957) – MNHN material

••• Dactylopteridae

- **Dactyloptena papilio* Ogilby, 1910 – MNHN material; photograph 2006
- **Dactyloptena peterseni* (Nyström, 1887) – MNHN material; photographs 2006

••• Apogonidae

- †*Apogon amboinensis* Bleeker, 1853 – USNM material
- **Apogon crassiceps* Garman, 1903 – USNM material
- **Apogon posterofasciatus* Allen & Randall, 2002 – Video sequence 2006
- **Apogon rhodopterus* Bleeker, 1852 – USNM material
- Apogonichthys ocellatus* (Weber, 1913) – First record by Whitley (1959: 314, as *Apogonichthys ahimsa santoensis*); USNM material
- Archamia fucata* (Cantor, 1850) – First record by Gon & Randall (2003: 28-29); USNM material; video sequence 2006
- **Archamia leai* Waite, 1916 – Underwater photograph 2006
- Archamia macroptera* (Cuvier in Cuvier & Valenciennes, 1828) – First record by Gon & Randall (2003: 36-39); USNM material; video sequence 2006
- Archamia zosterophora* (Bleeker, 1856) – First record by Gon & Randall (2003: 43-45); CAS material; video sequence 2006
- **Cheilodipterus alleni* Gon, 1993 – Video sequence 2006
- **Cheilodipterus artus* Smith, 1961 – Video sequence 2006; CAS material
- **Cheilodipterus isostigmus* (Schultz, 1940) – CAS material
- †*Cheilodipterus macrodon* (Lacepède, 1802) – Video sequence 2006
- †*Cheilodipterus quinquelineatus* Cuvier in Cuvier & Valenciennes, 1828 – CAS and USNM material; video sequence 2006; underwater photograph 2006
- **Fowleria isostigma* (Jordan & Seale, 1906) – USNM material
- **Fowleria punctulata* (Rüppell, 1838) – USNM material
- **Fowleria vaiulae* (Jordan & Seale, 1906) – MNHN material; photograph 2006
- †*Fowleria variegata* (Valenciennes, 1832) – USNM material
- †*Nectamia fusca* (Quoy & Gaimard, 1825) – FMNH and SU material
- Nectamia viria* Fraser, 2008 – First record by Fraser (2008: 41-44, figs 3B, 6C, 7, 16, 18, tabs 2-3, 10); USNM material
- †*Ostorhinchus angustatus* (Smith & Radcliffe in Radcliffe, 1911) – Video sequence 2006
- **Ostorhinchus compressus* (Smith & Radcliffe in Radcliffe, 1911) – Video sequence 2006; underwater photograph 2006
- **Ostorhinchus cyanosoma* (Bleeker, 1853) – CAS and USNM material; video sequence 2006
- †*Ostorhinchus lateralis* (Valenciennes, 1832) – USNM material
- †*Ostorhinchus nigrofasciatus* (Lachner in Schultz, Herald, Lachner, Welander & Woods, 1953) – FMNH and USNM material; video sequence 2006
- **Ostorhinchus poecilopterus* (Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1828) – MNHN material; photograph 2006
- **Ostorhinchus septemstriatus* (Günther, 1880) – MNHN material; photograph 2006



Figure 446: *Caranx papuensis*. The Brassy Trevally is another new record for Vanuatu, which was surprising to us. Not only is this fish one that would be expected to turn up in local fishermen's catches, this species also would approach a diver so closely that one might consider collecting a specimen with a dinner fork. Perhaps this fish, distinct in small details like the black and white spot at the upper gill opening and the white border of the lower tail, has been confused with similar-looking and equally delicious species.

**Ostorhinchus* sp. (Fricke, MS) – MNHN material; photograph 2006

†*Ostorhinchus taeniophorus* (Regan, 1905) – SU material

**Pristiapogon exostigma* (Jordan & Starks, 1906) – USNM material; video sequence 2006

†*Pristiapogon fraenatus* (Valenciennes, 1832) – Video sequence 2006

**Pristiapogon kallopterus* (Bleeker, 1856) – CAS, SU and USNM material; video sequence 2006

Pristicon trimaculatus (Cuvier in Cuvier & Valenciennes, 1828) – First record by Randall & Fraser (1999: 619-624); FMNH and USNM material; video sequence 2006; underwater photograph 2006

**Rhabdamia cypselura* Weber, 1909 – CAS material; video sequence 2006; photograph 2006

**Siphamia versicolor* (Smith & Radcliffe, 1911) – MNHN material; photograph 2006

**Zoramia fragilis* (Smith, 1961) – Video sequence 2006

†*Zoramia leptacantha* (Bleeker, 1856) – CAS material

◦◦◦ Epigonidae

Sphyrænops bairdianus Poey, 1861 – First record by Fourmanoir (1970: 27-28) and Bauchot & Desoutter (1989: 26) as *Scombrophyraena oceanica*

◦◦◦ Malacanthidae

**Hoplolatilus* sp. Pyle, MS – Video sequence 2006

**Hoplolatilus cuniculus* Randall & Dooley, 1974 – Video sequence 2006

**Hoplolatilus starcki* Randall & Dooley, 1974 – Video sequence 2006 – (Fig. 444)

**Malacanthus brevirostris* Guichenot, 1848 – Video sequence 2006

†*Malacanthus latovittatus* (Lacepède [ex Commerson], 1801) – Video sequence 2006

◦◦◦ Sillaginidae

**Sillago macrolepis* Bleeker, 1858 – USNM material

◦◦◦ Echineidae

†*Echeneis naucrates* Linnaeus, 1758 – BMNH material; video sequence 2006

◦◦◦ Carangidae

**Carangoides ferdau* (Forsskål in Niebuhr, 1775) – Video sequence 2006; underwater photograph 2006

**Carangoides oblongus* (Cuvier in Cuvier & Valenciennes, 1833) – Video sequence 2006

†*Carangoides orthogrammus* Jordan & Gilbert, 1881 – USNM material; video sequence 2006

**Carangoides plagiotaenia* Bleeker, 1857 – Video sequence 2006

†*Caranx ignobilis* (Forsskål in Niebuhr, 1775) – Video sequence 2006

†*Caranx melampygus* Cuvier in Cuvier & Valenciennes, 1833 – CAS material; video sequence 2006

**Caranx papuensis* (Alleyne & Macleay, 1877) – Video sequence 2006 – (Fig. 446)

†*Caranx sexfasciatus* (Quoy & Gaimard, 1825) – USNM material

†*Elagatis bipinnulata* (Quoy & Gaimard, 1825) – USNM material; video sequence 2006

†*Gnathanodon speciosus* (Forsskål in Niebuhr, 1775) – Video sequence 2006

**Selar crumenophthalmus* (Bloch, 1793) – MNHN material; photograph 2006

**Seriola rivoliana* Valenciennes in Cuvier & Valenciennes, 1833 – Video sequence 2006

†*Trachinotus blochii* (Lacepède, 1801) – USNM material; video sequence 2006



Figure 447: *Paracaesio sordida*. The Smallscale Snapper is a new record for Vanuatu, observed in small schools or as individuals along steep slopes in 70-100 m. *P. xanthura* was observed in the same deep habitat.

*** Leiognathidae

Gazza rhombea Kimura, Yamashita & Iwatsuki, 2000 – First record by Kimura *et al.* (2000: 2-7); USNM material

*** Lutjanidae

† *Aphareus furca* (Lacepède [ex Commerson], 1801) – Video sequence 2006

† *Aprion virescens* Valenciennes in Cuvier & Valenciennes, 1830 – Video sequence 2006

* *Lutjanus adetii* (Castelnau, 1873) – USNM material

† *Lutjanus argentimaculatus* (Forsskål in Niebuhr, 1775) – BMNH and USNM material

* *Lutjanus bohar* (Forsskål in Niebuhr, 1775) – Video sequence 2006

* *Lutjanus fulvus* (Bloch & Schneider, 1801) – SU and USNM material; video sequence 2006

* *Lutjanus fuscescens* (Valenciennes in Cuvier & Valenciennes, 1830) – USNM material

† *Lutjanus gibbus* (Forsskål in Niebuhr, 1775) – USNM material; video sequence 2006

† *Lutjanus kasmira* (Forsskål in Niebuhr, 1775) – USNM material; video sequence 2006; underwater photographs 2006

* *Lutjanus lemniscatus* (Valenciennes in Cuvier & Valenciennes, 1828) – USNM material

† *Lutjanus monostigma* (Cuvier in Cuvier & Valenciennes, 1828) – Video sequence 2006

† *Lutjanus quinquelineatus* Bloch, 1790 – USNM material

* *Lutjanus rivulatus* (Cuvier in Cuvier & Valenciennes, 1828) – Video sequence 2006

† *Lutjanus rufolineatus* (Cuvier in Cuvier & Valenciennes, 1830) – Video sequence 2006

† *Lutjanus semicinctus* Quoy & Gaimard, 1824 – FMNH material; video sequence 2006

* *Macolor macularis* Fowler, 1931 – Video sequence 2006

† *Macolor niger* (Forsskål in Niebuhr, 1775) – Video sequence 2006; underwater photographs 2006

* *Paracaesio sordida* Abe & Shinohara, 1962 – Video sequence 2006 – (Fig. 447)

* *Paracaesio xanthura* (Bleeker, 1869) – Video sequence 2006

*** Symphysanodontidae

* *Symphysanodon* sp. – Video sequence 2006

*** Caesionidae

† *Caesio caeruleaurea* (Lacepède [ex Commerson], 1801) – Video sequence 2006

† *Caesio cuning* (Bloch, 1791) – Video sequence 2006

* *Caesio lunaris* Cuvier [ex Ehrenberg] in Cuvier & Valenciennes, 1830 – Video sequence 2006

† *Caesio teres* Seale, 1906 – Video sequence 2006

† *Pterocaesio digramma* (Bleeker, 1864) – Video sequence 2006

* *Pterocaesio marri* (Schultz in Schultz, Herald, Lachner, Welander & Woods, 1953) – Video sequence 2006

† *Pterocaesio pisang* (Bleeker, 1853) – Video sequence 2006

† *Pterocaesio tessellata* Carpenter, 1987 – Video sequence 2006

* *Pterocaesio trilineata* Carpenter, 1987 – Video sequence 2006

*** Gerreidae

† *Gerres filamentosus* Cuvier, 1829 – BMNH material

† *Gerres oyena* (Forsskål in Niebuhr, 1775) – USNM material

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••• Haemulidae

- Diagramma pictum* (Thunberg, 1792) – First record by Johnson *et al.* (2001: 663-664); video sequence 2006
 †*Plectorhinchus albobittatus* (Rüppell, 1838) – Video sequence 2006
 **Plectorhinchus chaetodonoides* Lacepède, 1801 – Video sequence 2006
Plectorhinchus lessonii (Cuvier in Cuvier & Valenciennes, 1830) – First record by Randall & Johnson (2000: 479-480); AMS material; video sequence 2006
 **Plectorhinchus lineatus* (Linnaeus, 1758) – Video sequence 2006
 **Plectorhinchus picus* (Cuvier in Cuvier & Valenciennes, 1830) – Video sequence 2006
 †*Plectorhinchus vittatus* (Linnaeus, 1758) – Video sequence 2006; underwater photograph 2006

••• Lethrinidae

- †*Gnathodentex aureolineatus* (Lacepède [ex Commerson], 1802) – Video sequence 2006
 **Gymnocranius audleyi* Ogilby, 1916– MNHN material; photograph 2006
 **Gymnocranius grandoculis* (Valenciennes in Cuvier & Valenciennes, 1830) – Underwater photograph 2006
 **Lethrinus erythracanthus* Valenciennes in Cuvier & Valenciennes, 1830 – Video sequence 2006
 **Lethrinus erythropterus* Valenciennes in Cuvier & Valenciennes, 1830 – Video sequence 2006
 †*Lethrinus harak* (Forsskål in Niebuhr, 1775) – FMNH and SU material; video sequence 2006; underwater photograph 2006
 †*Lethrinus obsoletus* (Forsskål in Niebuhr, 1775) – Video sequence 2006
 **Lethrinus olivaceus* Valenciennes in Cuvier & Valenciennes, 1830 – MNHN material
 †*Lethrinus xanthochilus* Klunzinger, 1870 – USNM material; video sequence 2006
 †*Monotaxis grandoculis* (Forsskål in Niebuhr, 1775) – Video sequence 2006

••• Nemipteridae

- **Nemipterus* sp. – MNHN material
 †*Pentapodus caninus* (Cuvier in Cuvier & Valenciennes, 1830) – Video sequence 2006
 †*Scolopsis bilineata* (Bloch, 1793) – CAS, FMNH and USNM material; video sequence 2006
 †*Scolopsis lineata* Quoy & Gaimard, 1824 – Video sequence 2006
 †*Scolopsis margaritifera* (Cuvier in Cuvier & Valenciennes, 1830) – Video sequence 2006

••• Polynemidae

- Polydactylus longipes* Motomura, Okamoto & Iwatsuki, 2001 – Record by H. Motomura (personal communication, Sep. 2010); MNHN material
Polydactylus plebeius (Broussonet, 1782) – Record by Motomura, Iwatsuki & Kimura (2001: 87-88) and Motomura, Iwatsuki & Yoshino (2001: 118-122); USNM material

••• Mullidae

- †*Mulloidichthys flavolineatus* (Lacepède, 1801) – BMNH and FMNH material; video sequence 2006
 **Mulloidichthys vanicolensis* (Valenciennes in Cuvier & Valenciennes, 1831) – Video sequence 2006
 **Parupeneus barberinoides* (Bleeker, 1852) – Video sequence 2006
Parupeneus barberinus (Lacepède, 1801) – First record by Randall (2004: 12-14); USNM material; video sequence 2006
 †*Parupeneus crassilabris* (Valenciennes in Cuvier & Valenciennes, 1831) – Video sequence 2006
 †*Parupeneus cyclostomus* (Lacepède [ex Commerson], 1801) – MNHN material; photograph 2006, video sequence 2006
 †*Parupeneus indicus* (Shaw, 1803) – USNM material
 †*Parupeneus multifasciatus* (Quoy & Gaimard, 1825) – FMNH, SU and USNM material; video sequence 2006
 †*Parupeneus pleurostigma* (Bennett, 1831) – Video sequence 2006
 **Upeneus tragula* Richardson, 1846 – Video sequence 2006
 **Upeneus* sp. (undescribed, Fricke, MS) – MNHN material; photographs 2006

••• Pempheridae

- **Parapriacanthus ransonneti* Steindachner, 1870 – Video sequence 2006
 **Pempheris molucca* Cuvier, 1829 – MNHN material; photograph 2006
 **Pempheris oualensis* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006

••• Kyphosidae

- †*Kyphosus cinerascens* (Forsskål in Niebuhr, 1775) – USNM material; video sequence 2006

••• Scatophagidae

- †*Scatophagus argus* (Linné, 1766) – BMNH and USNM material



Figure 448: *Forcipiger longirostris* and *F. flavissimus* are here reported as new records for Vanuatu. The pair on the right are *F. longirostris*, with a single *F. flavissimus* to the left. Both species were frequently seen on shallow coral reefs from 5-20 m.



Figure 449: *Centropyge colini* is a small angelfish found throughout the Western Pacific in deep water. Though this is a new record for Vanuatu, we were not surprised to find this species around caves and ledges in 100 m. Perhaps of greater interest is the grouper below the blue and yellow angelfish. It is likely the deep water species *Cephalopholis aurantia*, which is not on the Vanuatu fish list, but, alas, this image is not of sufficient quality to identify this species with full confidence. The diver is embarrassed to admit that he was so intent on photographing the angelfish he did not even notice the much more interesting grouper.



Figure 450: *Amblyglyphidodon orbicularis*. The orbicular Damselfish is a new record for Vanuatu, previously known from Samoa, Fiji and New Caledonia. We found this species common among staghorn coral in 15-30 m.

*** Ehippidae

**Platax orbicularis* (Forsskål in Niebuhr, 1775) – Video sequence 2006

†*Platax pinnatus* (Linnaeus, 1758) – Video sequence 2006

*** Chaetodontidae

†*Chaetodon auriga* Forsskål in Niebuhr, 1775 – Video sequence 2006

Chaetodon baronessa Cuvier, 1829 – First record by Fowler (1944: 254, as *Gonochaetodon baronessa*); FMNH and MNHN material; photograph 2006; video sequence 2006

**Chaetodon bennetti* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006

**Chaetodon burgessi* Allen & Starck, 1973 – Video sequence 2006

Chaetodon citrinellus Cuvier in Cuvier & Valenciennes, 1831 – First record by Fowler (1934: 424); CAS material; video sequence 2006

†*Chaetodon ephippium* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006

**Chaetodon kleinii* Bloch, 1790 – MNHN material; video sequence 2006; photograph 2006; underwater photograph 2006

†*Chaetodon lineolatus* Cuvier [ex Quoy & Gaimard] in Cuvier & Valenciennes, 1831 – Video sequence 2006

†*Chaetodon lunula* (Lacepède [ex Commerson], 1802) – Video sequence 2006

†*Chaetodon lunulatus* Quoy & Gaimard, 1825 – CAS, FMNH, MNHN and SU material; video sequence 2006; photographs 2006; underwater photograph 2006

- **Chaetodon melannotus* Bloch & Schneider, 1801 – Video sequence 2006
- †*Chaetodon mertensii* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006
- **Chaetodon meyeri* Bloch & Schneider, 1801 – MNHN material; photograph 2006
- **Chaetodon ornatissimus* Cuvier [ex Solander] in Cuvier & Valenciennes, 1831 – Video sequence 2006
- **Chaetodon oxycephalus* Bleeker, 1853 – Video sequence 2006
- †*Chaetodon pelewensis* Kner, 1868 – MNHN material; photograph 2006; video sequence 2006
- †*Chaetodon rafflesii* Anonymus [Bennett], 1830 – Video sequence 2006
- **Chaetodon reticulatus* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006
- †*Chaetodon semeion* Bleeker, 1855 – Video sequence 2006
- **Chaetodon speculum* Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1831 – Video sequence 2006
- †*Chaetodon trifascialis* Quoy & Gaimard, 1825 – Video sequence 2006
- **Chaetodon ulietensis* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006
- †*Chaetodon unimaculatus* Bloch, 1787 – FMNH material; video sequence 2006
- Chaetodon vagabundus* Linnaeus, 1758 – First record by Fowler (1934: 424); MNHN and USNM material; photograph 2006; video sequence 2006
- **Forcipiger flavissimus* Jordan & McGregor in Jordan & Evermann, 1898 – MNHN material; photograph 2006; video sequence 2006 – (Fig. 448)
- **Forcipiger longirostris* (Broussonet, 1782) – MNHN material; photograph 2006; video sequence 2006 – (Fig. 448)
- Heniochus acuminatus* (Linnaeus, 1758) – First record by Plessis & Fourmanoir (1966: 131); MNHN material; video sequence 2006; underwater photograph 2006
- **Heniochus chrysostomus* Cuvier in Cuvier & Valenciennes, 1831 – SU material; video sequence 2006
- **Heniochus monoceros* Cuvier in Cuvier & Valenciennes, 1831 – Video sequence 2006
- †*Heniochus singularius* Smith & Radcliffe, 1911 – USNM material; video sequence 2006
- †*Heniochus varius* (Cuvier, 1829) – Video sequence 2006

••• Pomacanthidae

- **Apolemichthys trimaculatus* (Cuvier [ex Lacepède] in Cuvier & Valenciennes, 1831) – Video sequence 2006
- **Centropyge aurantia* Randall & Wass, 1974 – Video sequence 2006
- †*Centropyge bicolor* (Bloch, 1787) – MNHN and USNM material; photograph 2006; video sequence 2006; underwater photograph 2006
- †*Centropyge bispinosa* (Günther, 1860) – MNHN material; photograph 2006; video sequence 2006
- **Centropyge colini* Smith-Vaniz & Randall, 1974 – Video sequence 2006 – (Fig. 449)
- **Centropyge fisheri* (Snyder, 1904) – Video sequence 2006
- †*Centropyge flavissima* (Cuvier in Cuvier & Valenciennes, 1831) – CAS, MNHN and USNM material; photograph 2006; video sequence 2006; underwater photograph 2006
- **Centropyge multifasciata* (Smith & Radcliffe, 1911) – Video sequence 2006
- **Centropyge nox* (Bleeker, 1853) – MNHN material; photograph 2006; video sequence 2006
- †*Centropyge vrolikii* (Bleeker, 1853) – USNM material; video sequence 2006
- **Genicanthus bellus* Randall, 1975 – Video sequence 2006
- **Genicanthus melanospilos* (Bleeker, 1857) – MNHN material; photograph 2006; video sequence 2006
- **Genicanthus watanabei* (Yasuda & Tominaga, 1970) – Video sequence 2006
- Pomacanthus imperator* (Bloch, 1787) – First record by Fowler (1934: 425); video sequence 2006
- †*Pomacanthus semicirculatus* (Cuvier in Cuvier & Valenciennes, 1831) – USNM material; video sequence 2006; underwater photograph 2006
- **Pomacanthus sexstriatus* (Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1831) – Video sequence 2006
- **Pomacanthus xanthometopon* (Bleeker, 1853) – Video sequence 2006
- **Pygoplites diacanthus* (Boddaert, 1772) – MNHN and USNM material; photograph 2006; video sequence 2006

••• Cirrhitidae

- **Cirrhitichthys falco* Randall, 1963 – Video sequence 2006
- **Cyprinocirrhites polyactis* (Bleeker, 1874) – Video sequence 2006
- **Oxycirrhites typus* Bleeker, 1857 – Video sequence 2006; underwater photograph 2006
- **Paracirrhites arcatus* (Cuvier in Cuvier & Valenciennes, 1829) – Video sequence 2006
- **Paracirrhites forsteri* (Schneider in Bloch & Schneider, 1801) – Video sequence 2006; underwater photograph 2006

••• Cepolidae

- **Acanthocephala* sp. – MNHN material; photographs 2006

••• Cichlidae

- Sarotherodon occidentalis* (Daget, 1962) – Introduced; Keith *et al.*, this volume



Figure 451: *Chromis brevirostris*. The shortsnout chromis was common in 60 m depth in Vanuatu. It was scientifically described in 2008 by Pyle, Earle and Green, and a specimen collected in Vanuatu during the Santo expedition is now one of the paratypes at the MNHN in Paris.



Figure 452: *Chromis earina*. The holotype of the Spring Chromis, now in the *Museum National d'Histoire Naturelle*, Paris, was collected in Vanuatu during the Santo Expedition in 63 m on the dive when this image was taken (In fact this may be a picture of the holotype before collection). This species was named by Pyle, Earle and Greene in 2008 along with four other deep water *Chromis* damselfish, including *C. brevirostris*, also collected in Vanuatu.

*** Pomacentridae

- †*Abudefduf sordidus* (Forsskål in Niebuhr, 1775) – ANSP and CAS material
- †*Abudefduf vaigiensis* (Quoy & Gaimard, 1825) – USNM material; video sequence 2006; underwater photograph 2006
- †*Acanthochromis polyacanthus* (Bleeker, 1855) – CAS and USNM material; video sequence 2006
- **Amblyglyphidodon aureus* (Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1830) – Video sequence 2006
- †*Amblyglyphidodon curacao* (Bloch, 1787) – Video sequence 2006
- **Amblyglyphidodon leucogaster* (Bleeker, 1847) – Video sequence 2006
- **Amblyglyphidodon orbicularis* Hombron & Jacquinot in Jacquinot & Guichenot, 1853 – Video sequence 2006; underwater photograph 2006 – (Fig. 450)
- †*Amphiprion chrysopterus* Cuvier in Cuvier & Valenciennes, 1830 – MNHN and USNM material; photograph 2006; video sequence 2006
- **Amphiprion clarkii* (Bennett, 1830) – First record by Plessis & Fourmanoir [1966: 133, as *Amphiprion sebae* (non Bleeker, 1853)]; USNM material; video sequence 2006
- **Amphiprion melanopus* Bleeker, 1852 – CAS and USNM material; video sequence 2006; underwater photograph 2006
- **Amphiprion perideraion* Bleeker, 1855 – USNM material; video sequence 2006; underwater photograph 2006
- Cheiloprion labiatus* (Day, 1877) – First record by Herre (1936: 273); FMNH and SU material 2006
- Chromis alpha* Randall, 1988 – First record by Randall (1988: 74-76); video sequence 2006
- **Chromis amboinensis* (Bleeker, 1871) – MNHN material; video sequence 2006; photograph 2006; underwater photograph 2006
- **Chromis atripectoralis* Welanders & Schultz, 1951 – Video sequence 2006
- **Chromis atripes* Fowler & Bean, 1928 – MNHN material; photograph 2006; video sequence 2006; underwater photograph 2006
- Chromis brevirostris* Pyle, Earle & Greene, 2008 – (Fig. 451)
- **Chromis chrysurus* (Bliss, 1883) – Video sequence 2006
- **Chromis delta* Randall, 1988 – Video sequence 2006
- Chromis earina* Pyle, Earle & Greene, 2008 – Described from Espiritu Santo Group by Pyle, Earle & Greene (2008: 21-25); BPBM material; video sequence 2006 – (Fig. 452)
- **Chromis elerae* Fowler & Bean, 1928 – Video sequence 2006
- **Chromis iomelas* Jordan & Seale, 1906 – FMNH and SU material; video sequence 2006
- **Chromis lepidolepis* Bleeker, 1877 – Video sequence 2006
- **Chromis lineata* Fowler & Bean, 1928 – Video sequence 2006
- **Chromis margaritifer* Fowler, 1946 – CAS and USNM material; video sequence 2006; underwater photograph 2006
- **Chromis retrofasciata* Weber, 1913 – Video sequence 2006
- Chromis ternatensis* (Bleeker, 1856) – First record by Herre (1936: 272); CAS, FMNH, SU and USNM material; video sequence 2006; underwater photograph 2006
- †*Chromis viridis* (Cuvier [ex Ehrenberg] in Cuvier & Valenciennes, 1830) – USNM material; video sequence 2006; underwater photograph 2006
- **Chromis weberi* Fowler & Bean, 1928 – Video sequence 2006
- **Chromis xanthochira* (Bleeker, 1851) – USNM material
- **Chromis xanthura* (Bleeker, 1854) – Video sequence 2006
- †*Chrysiptera biocellata* (Quoy & Gaimard, 1825) – ANSP and SU material



Figure 453: *Neoglyphidodon carlsoni*. Carlson's damselfish, previously known only from the type locality of Fiji and Tonga, is a new record for Vanuatu. This is a large juvenile found in a small colony of this species around caves in 7 m.

- Chrysiptera brownriggii* (Bennett, 1828) – First record by Fowler (1934: 436, as *Abudefduf xanthozona*); ANSP and FMNH material; video sequence 2006
- * *Chrysiptera caeruleolineata* (Allen, 1973) – Video sequence 2006
- † *Chrysiptera cyanea* (Quoy & Gaimard, 1825) – ANSP material
- Chrysiptera glauca* (Cuvier in Cuvier & Valenciennes, 1830) – First record by Fowler (1934: 435, *Abudefduf glaucus*); ANSP material
- * *Chrysiptera rex* (Snyder, 1909) – USNM material; video sequence 2006
- * *Chrysiptera rollandi* (Whitley, 1961) – Video sequence 2006; underwater photograph 2006
- * *Chrysiptera talboti* (Allen, 1975) – Video sequence 2006
- † *Chrysiptera taupou* (Jordan & Seale, 1906) – Video sequence 2006
- * *Chrysiptera tricincta* (Allen & Randall, 1974) – Video sequence 2006
- † *Dascyllus aruanus* (Linnaeus, 1758) – CAS and USNM material; video sequence 2006
- † *Dascyllus reticulatus* (Richardson, 1846) – Video sequence 2006
- Dascyllus trimaculatus* (Rüppell, 1828) – First record by Plessis & Fourmanoir (1966: 135); USNM material; video sequence 2006; underwater photograph 2006
- * *Dischistodus melanotus* (Bleeker, 1858) – SU and USNM material; video sequence 2006
- * *Dischistodus perspicillatus* (Cuvier in Cuvier & Valenciennes, 1830) – Video sequence 2006
- * *Dischistodus prosopotaenia* (Bleeker, 1852) – Video sequence 2006
- * *Neoglyphidodon carlsoni* (Allen, 1975) – Video sequence 2006 – (Fig. 453)
- † *Neoglyphidodon melas* (Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1830) – Video sequence 2006
- * *Neoglyphidodon nigroris* (Cuvier in Cuvier & Valenciennes, 1830) – USNM; material; video sequence 2006
- * *Neopomacentrus azyron* (Bleeker, 1877) – USNM material
- † *Neopomacentrus nemurus* (Bleeker, 1857) – CAS and USNM material
- Neopomacentrus violascens* (Bleeker, 1848) – First record by Herre (1936: 281); FMNH, MNHN and SU material; photograph 2006
- * *Plectroglyphidodon dickii* (Liénard, 1839) – Video sequence 2006
- * *Plectroglyphidodon johnstonianus* Fowler & Ball, 1924 – Video sequence 2006
- † *Plectroglyphidodon lacrymatus* (Quoy & Gaimard, 1825) – Video sequence 2006
- * *Pomacentrus adelus* Allen, 1991 – USNM material
- † *Pomacentrus amboinensis* Bleeker, 1868 – CAS and USNM material; video sequence 2006; underwater photograph 2006
- Pomacentrus arenarius* Allen, 1987 – First record by Allen (1987: 9-11)
- * *Pomacentrus bankanensis* Bleeker, 1853 – ANSP material; video sequence 2006
- * *Pomacentrus brachialis* Cuvier in Cuvier & Valenciennes, 1830 – USNM material; video sequence 2006
- * *Pomacentrus burroughi* Fowler, 1918 – Video sequence 2006
- Pomacentrus chrysurus* (Cuvier [ex Broussonet] in Cuvier & Valenciennes, 1830) – First record by Fowler (1934: 434, *Pomacentrus rhodonotus*); video sequence 2006
- * *Pomacentrus coelestis* Jordan & Starks, 1901 – CAS material; video sequence 2006
- * *Pomacentrus imitator* (Whitley, 1964) – CAS material; video sequence 2006
- * *Pomacentrus lepidogenys* Fowler & Bean, 1928 – Video sequence 2006
- † *Pomacentrus littoralis* Cuvier in Cuvier & Valenciennes, 1830 – SU material
- * *Pomacentrus moluccensis* Bleeker, 1853 – CAS, SU and USNM material; video sequence 2006
- * *Pomacentrus nagasakiensis* Tanaka, 1917 – MNHN material; video sequence 2006; photograph 2006
- * *Pomacentrus nigromanus* Weber, 1913 – CAS material; video sequence 2006



Figure 454: *Bodianus bimaculatus*. The Twinspot Hogfish, has been reported from deep water from Madagascar to New Caledonia, and now is reported as a new record for Vanuatu. We found this small colorful wrasse to be common at 85-110 m depth.



Figure 455: *Bodianus paraleucosticticus*. This new record from Vanuatu is also known from New Caledonia in the South Pacific. An inquisitive species, the Fivestripe Hogfish, was occasionally observed, usually observing the diver, at around 100 m.

**Pomacentrus nigromarginatus* Allen, 1973 – MNHN material; photograph 2006; video sequence 2006

**Pomacentrus philippinus* Evermann & Seale, 1907 – Video sequence 2006

**Pomacentrus reidi* Fowler & Bean, 1928 – Video sequence 2006

**Pomacentrus spilotoceps* Randall, 2002 – Video sequence 2006

**Pomacentrus vaiuli* Jordan & Seale, 1906 – Video sequence 2006

**Pomachromis richardsoni* (Snyder, 1909) – Video sequence 2006

Stegastes albifasciatus (Schlegel & Müller, 1839) – First record by Fowler (1934: 434, *Pomacentrus albifasciatus*); video sequence 2006

**Stegastes aureus* (Fowler, 1927) – Underwater photograph 2006

**Stegastes fasciolatus* (Ogilby, 1889) – Video sequence 2006

†*Stegastes nigricans* (Lacepède, 1803) – FMNH, SU and USNM material; video sequence 2006

†*Stegastes punctatus* (Quoy & Gaimard, 1825) – FMNH and SU material; video sequence 2006

*** Labridae

**Anampses melanurus* (Quoy & Gaimard, 1825) – Video sequence 2006

**Anampses meleagrides* (Quoy & Gaimard, 1825) – Video sequence 2006

**Anampses neoguinaicus* Bleeker, 1878 – Video sequence 2006

**Anampses twistii* Bleeker, 1856 – Video sequence 2006

†*Bodianus anthioides* (Bennett, 1832) – Video sequence 2006

†*Bodianus axillaris* (Bennett, 1832) – Video sequence 2006

**Bodianus bimaculatus* Allen, 1973 – Video sequence 2006 – (Fig. 454)

**Bodianus dictynna* Gomon, 2006 – Video sequence 2006

**Bodianus loxozonus* (Snyder, 1908) – Video sequence 2006

**Bodianus mesothorax* (Bloch & Schneider, 2001) – Video sequence 2006

**Bodianus paraleucosticticus* Gomon, 2006 – Video sequence 2006 – (Fig. 455)

†*Cheilinus chlorourus* (Bloch, 1791) – FMNH and USNM material

†*Cheilinus fasciatus* (Bloch, 1791) – Video sequence 2006

**Cheilinus oxycephalus* Bleeker, 1853 – USNM material; video sequence 2006

†*Cheilinus trilobatus* (Lacepède [ex Commerson], 1801) – Video sequence 2006

†*Cheilinus undulatus* Rüppell, 1835 – Video sequence 2006

**Choerodon jordani* (Snyder, 1908) – Video sequence 2006

**Cirrhilabrus bathyphilus* Randall & Nagareda, 2002 – Video sequence 2006

**Cirrhilabrus condei* Allen & Randall, 1996 – Video sequence 2006

**Cirrhilabrus exquisitus* Smith, 1957 – Video sequence 2006

**Cirrhilabrus punctatus* Randall & Kuitert, 1989 – Video sequence 2006 – (Fig. 456)

**Cirrhilabrus pylei* Allen & Randall, 1996 – Video sequence 2006 – (Fig. 457)

**Cirrhilabrus roseafascia* Randall & Lubbock, 1982 – Video sequence 2006 – (Fig. 458)

Cirrhilabrus rubrimarginatus Randall, 1992 – First record by Randall (1992: 114-118); video sequence 2006

†*Cirrhilabrus* n. sp. – MNHN material; photograph 2006

**Coris batuensis* (Bleeker, 1856-1857) – Video sequence 2006

†*Coris gaimard* (Quoy & Gaimard, 1824) – Video sequence 2006



Figure 456: *Cirrhilabrus punctatus*. The Dotted Wrasse is a highly variable species throughout its range. Males we observed in Vanuatu have a yellow streak on the upper body, and differ in other ways from this species in Fiji and the Great Barrier Reef. We are provisionally calling this species *C. punctatus*, but specimens should be collected for study.



Figure 457: *Cirrhilabrus pylei*. Pyle's Fairy Wrasse is a new record from Vanuatu. This image is of a male from 40 m depth, where we occasionally saw small groups of this species, named after Santo Expedition rebreather diver Richard Pyle.



Figure 458: *Cirrhilabrus roseafascia*. This wrasse is a new record for Vanuatu, known from the South Pacific in Samoa, Fiji and New Caledonia. Small groups of this species, usually a male and his harem, were observed at 90-100 m in rubble areas.

- * *Diproctacanthus xanthurus* (Bleeker, 1856) – Video sequence 2006
- † *Epibulus insidiator* (Pallas, 1770) – USNM material; video sequence 2006
- † *Gomphosus varius* Lacepède, 1801 – USNM material; video sequence 2006
- † *Halichoeres argus* (Bloch & Schneider, 1801) – Video sequence 2006
- * *Halichoeres biocellatus* Schultz in Schultz, Chapman, Lachner & Woods, 1960 – Video sequence 2006
- * *Halichoeres chrysus* Randall, 1981 – Video sequence 2006
- † *Halichoeres hortulanus* (Lacepède, 1801) – USNM material; video sequence 2006
- † *Halichoeres margaritaceus* (Valenciennes in Cuvier & Valenciennes, 1839) – Video sequence 2006
- † *Halichoeres marginatus* (Rüppell, 1835) – Video sequence 2006
- † *Halichoeres melanurus* (Bleeker, 1851) – ANSP and USNM material; video sequence 2006; underwater photograph 2006
- † *Halichoeres miniatus* (Valenciennes [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1839) – USNM material
- * *Halichoeres ornatissimus* (Garrett, 1863) – Video sequence 2006
- * *Halichoeres prosopeion* (Bleeker, 1853) – Video sequence 2006
- * *Halichoeres richmondi* (Fowler & Bean, 1928) – Video sequence 2006
- † *Halichoeres trimaculatus* (Quoy & Gaimard, 1834) – USNM material; video sequence 2006
- * *Halichoeres zeylonicus* (Bennett, 1833) – Video sequence 2006
- † *Hemigymnus fasciatus* (Bloch, 1792) – Video sequence 2006
- † *Hemigymnus melapterus* (Bloch, 1791) – Video sequence 2006
- † *Hologymnosus annulatus* (Lacepède, 1801) – Video sequence 2006
- * *Hologymnosus doliatus* (Lacepède [ex Commerson], 1801) – Video sequence 2006
- * *Labrichthys unilineatus* (Guichenot, 1847) – Video sequence 2006
- * *Labroides bicolor* Fowler & Bean, 1928 – Video sequence 2006
- † *Labroides dimidiatus* (Valenciennes in Cuvier & Valenciennes, 1839) – CAS and USNM material; video sequence 2006
- * *Labroides pectoralis* Randall & Springer, 1975 – Video sequence 2006; underwater photograph 2006
- * *Labropsis alleni* Randall, 1981 – Video sequence 2006
- † *Labropsis australis* Randall, 1981 – Video sequence 2006
- * *Labropsis xanthonota* Randall, 1981 – Video sequence 2006
- * *Macropharyngodon meleagris* (Valenciennes in Cuvier & Valenciennes, 1839) – Video sequence 2006
- * *Macropharyngodon negrosensis* Herre, 1932 – Video sequence 2006
- † *Novaculichthys taeniourus* (Lacepède, 1802) – USNM material; video sequence 2006



Figure 459: *Oxycheilinus nigromarginatus*. The Blackmargin Wrasse is a new record from Vanuatu. This species, scientifically described in 2003, is known from the Coral Sea, New Caledonia and Tonga, so its presence in Vanuatu was not unexpected. We observed occasional individuals in around 35 m.

- * *Oxycheilinus arenatus* (Valenciennes in Cuvier & Valenciennes, 1840) – Video sequence 2006
- * *Oxycheilinus bimaculatus* (Valenciennes in Cuvier & Valenciennes, 1840) – Video sequence 2006
- * *Oxycheilinus celebicus* (Bleeker, 1853) – Video sequence 2006
- Oxycheilinus digramma* (Lacepède, 1801) – First record by Herre (1936: 327, *Cheilinus diagrammus*); SU material; video sequence 2006
- * *Oxycheilinus nigromarginatus* Randall, Westneat & Gomon, 2003 – MNHN material; photograph 2006; video sequence 2006 – (Fig. 459)
- * *Paracheilinus rubricaudalis* Randall & Allen, 2003 – Video sequence 2006
- † *Pseudocheilinus evanidus* Jordan & Evermann, 1903 – Video sequence 2006
- † *Pseudocheilinus hexataenia* (Bleeker, 1857) – USNM material; video sequence 2006
- † *Pseudocheilinus octotaenia* Jenkins, 1901 – Video sequence 2006
- * *Pseudocoris yamashiroi* (Schmidt, 1931) – Video sequence 2006
- * *Pseudodax moluccanus* (Valenciennes in Cuvier & Valenciennes, 1840) – Video sequence 2006
- * *Pseudojuloides cerasinus* (Snyder, 1904) – Video sequence 2006
- * *Pseudojuloides severnsi* Bellwood & Randall, 2000 – Video sequence 2006
- * *Pteragogus cryptus* Randall, 1981 – Video sequence 2006
- † *Stethojulis bandanensis* (Bleeker, 1851) – CAS and USNM material; video sequence 2006
- Stethojulis trilineata* (Bloch & Schneider, 1801) – First record by Randall (2000: 36-38); USNM material; video sequence 2006
- * *Thalassoma amblycephalum* (Bleeker, 1856) – USNM material; video sequence 2006
- † *Thalassoma hardwicke* (Bennett, 1830) – BMNH and SU material; video sequence 2006; underwater photograph 2006
- † *Thalassoma lunare* (Linnaeus, 1758) – Video sequence 2006
- † *Thalassoma lutescens* (Lay & Bennett [ex Solander], 1839) – Video sequence 2006
- * *Thalassoma nigrofasciatum* Randall, 2003 – Video sequence 2006
- * *Thalassoma quinquevittatum* (Lay & Bennett, 1839) – MNHN material; photograph 2006; video sequence 2006
- † *Thalassoma trilobatum* (Lacepède [ex Commerson], 1801) – Video sequence 2006
- † *Wetmorella nigropinnata* (Seale, 1901) – Video sequence 2006

*** Scaridae

- † *Bolbometopon muricatum* (Valenciennes in Cuvier & Valenciennes, 1840) – Video sequence 2006
- * *Calotomus carolinus* (Valenciennes in Cuvier & Valenciennes, 1840) – Video sequence 2006
- * *Cetoscarus ocellatus* (Valenciennes in Cuvier & Valenciennes, 1840) – Video sequence 2006
- † *Chlorurus bleekeri* (Beaufort in Weber & Beaufort, 1940) – Video sequence 2006
- † *Chlorurus japonensis* (Bloch, 1789) – Video sequence 2006
- * *Chlorurus microrhinos* (Bleeker, 1854) – Video sequence 2006
- † *Chlorurus sordidus* (Forsskål in Niebuhr, 1775) – SU material; video sequence 2006
- † *Scarus altipinnis* (Steindachner, 1879) – Video sequence 2006
- * *Scarus chameleon* Choat & Randall, 1986 – Video sequence 2006
- * *Scarus dimidiatus* Bleeker, 1859 – Video sequence 2006
- * *Scarus flavipectoralis* Schultz, 1958 – Video sequence 2006

- * *Scarus forsteni* (Bleeker, 1861) – Video sequence 2006
- * *Scarus frenatus* Lacepède, 1802 – Video sequence 2006
- * *Scarus fuscocaudalis* Randall & Myers, 2000 – Video sequence 2006
- * *Scarus globiceps* Valenciennes in Cuvier & Valenciennes, 1840 – Video sequence 2006
- † *Scarus niger* Forsskål in Niebuhr, 1775 – Video sequence 2006
- † *Scarus oviceps* Valenciennes in Cuvier & Valenciennes, 1840 – Video sequence 2006; underwater photograph 2006
- * *Scarus quoyi* Valenciennes in Cuvier & Valenciennes, 1840 – Video sequence 2006
- * *Scarus rubroviolaceus* Bleeker, 1847 – Video sequence 2006
- † *Scarus schlegeli* (Bleeker, 1861) – Video sequence 2006
- * *Scarus spinus* (Kner, 1868) – Video sequence 2006

••• Chiasmodontidae

Dysalotus alcocki Gilchrist, 1905 – First record by Fourmanoir (1970: 26, fig. 4); photograph 2006

••• Champsodontidae

* *Champsodon snyderi* Franz, 1910 – MNHN material

••• Percophidae

- * *Bembrops caudimacula* Steindachner, 1876 – MNHN material; photograph 2006
- * *Bembrops filifera* Gilbert, 1905 – MNHN material
- * *Bembrops philippinus* Fowler, 1939 – MNHN material; photographs 2006
- * *Bembrops platyrhynchus* (Alcock, 1894) – MNHN material
- * *Pteropsaron* sp. (undescribed, Fricke, MS – MNHN material; photographs 2006

••• Pinguipedidae

- * *Parapercis clathrata* Ogilby, 1910 – CAS and USNM material; video sequence 2006
- † *Parapercis hexophtalma* (Cuvier [ex Ehrenberg] in Cuvier & Valenciennes, 1829) – Video sequence 2006
- * *Parapercis multiplicata* Randall, 1984 – MNHN material; photograph 2006
- * *Parapercis schauinslandi* (Steindachner, 1900) – MNHN material; photograph 2006
- * *Parapercis snyderi* Jordan & Starks, 1905 – MNHN material; photograph 2006
- * *Parapercis* sp. (undescribed, Fricke, MS) – MNHN material; photograph 2006

••• Trichonotidae

* *Trichonotus setiger* Bloch & Schneider, 1801 – MNHN material; photograph 2006

••• Uranoscopidae

- * *Uranoscopus fuscomaculatus* Kner, 1868 – MNHN material; photograph 2006
- * *Uranoscopus* sp. – MNHN material; photograph 2006

••• Tripterygiidae

- Enneapterygius niger* Fricke, 1994 – First record by Fricke (1997: 248-254); USNM material
- Enneapterygius philippinus* (Peters, 1869) – First record by Herre (1935: 432-433, as *Enneapterygius punctulatus*); SU material
- Helcogramma* sp. Williams, MS – First record by Fricke (1997: 408, *Helcogramma* sp. 7); USNM material
- Helcogramma hudsoni* (Jordan & Seale, 1906) – First record by Fricke (1997: 445).
- Helcogramma springeri* Hansen, 1986 – First record by Hansen (1986: 345); USNM material
- * *Helcogramma striata* Hansen, 1986 – Underwater photograph 2006

••• Blenniidae

- Blenniella caudolineata* (Günther, 1877) – First record by Fowler (1934: 446, *Salaris caudolineatus*); BMNH, FMNH and SU material
- Blenniella cyanostigma* (Bleeker, 1849) – First record by Rofen (1958: 196-197)
- * *Cirripectes stigmaticus* Strasburg & Schultz, 1953 – CAS and USNM material; video sequence 2006
- * *Crossosalarias macrospilus* Smith-Vaniz & Springer, 1971 – USNM material
- † *Ecsenius bicolor* (Day, 1888) – CAS and USNM material; video sequence 2006
- Ecsenius isos* McKinney & Springer, 1976 – First record by McKinney & Springer (1976: 5); USNM material
- † *Ecsenius yaeyamaensis* (Aoyagi, 1954) – Video sequence 2006
- † *Entomacrodus decussatus* (Bleeker, 1858) – ANSP material
- † *Entomacrodus striatus* (Quoy & Gaimard, 1836) – BMNH material
- * *Glyptoparus delicatulus* Smith, 1959 – USNM material



Figure 460: *Amblyeleotris fontanesii*. The Giant Shrimpgoby, a new record from Vanuatu, is the largest of the shrimp gobies, and lives in association with *Alpheus fenneri*, the largest of the symbiotic snapping shrimp, which maintains their mutual burrow. Note that the myopic shrimp is keeping one of its antennae in contact with the shrimp goby. The keen-eyed goby acts as a sentinel and signals the shrimp to return to the burrow at the approach of a predator by flicking its fins. Encountered near the wreck of the Calvin Coolidge in a typical soft bottom habitat.



Figure 461: *Amblyeleotris guttata*. The yellowspotted shrimp goby, which lives in symbiotic association with an alpheid snapping shrimp (likely *Alpheus ochrostriatus*), is a new record for Vanuatu. We found it not uncommon in mixed sand and coral rubble habitat.

**Istiblennius bellus* (Günther, 1861) – ANSP material

Istiblennius edentulus (Forster in Bloch & Schneider, 1801) – First record by Fowler (1934: 446); BMNH, CAS, FMNH, SU and USNM material

†*Istiblennius lineatus* (Valenciennes in Cuvier & Valenciennes, 1836) – ANSP, CAS and SU material

Istiblennius meleagris (Valenciennes in Cuvier & Valenciennes, 1836) – First record by Fowler (1934: 446, *Salarias meleagris*); BMNH material

**Meiacanthus anema* (Bleeker, 1852) – USNM material

†*Meiacanthus atrodorsalis* (Günther, 1877) – USNM material

**Petroscirtes mitratus* Rüppell, 1830 – SU material

**Petroscirtes xestus* Jordan & Seale, 1906 – CAS and USNM material

†*Plagiotremus rhinorhynchus* (Bleeker, 1852) – USNM material; video sequence 2006; underwater photograph 2006

†*Plagiotremus tapeinosoma* (Bleeker, 1857) – Video sequence 2006

**Praealticus bilineatus* (Peters, 1868) – CAS and SU material

**Praealticus striolatus* Bath, 1992 – ANSP material

Salarias fasciatus (Bloch, 1786) – First record by Fowler (1934: 445, as *Salarias nitidus*)

†*Salarias guttatus* Valenciennes in Cuvier & Valenciennes, 1836 – USNM material

**Salarias segmentatus* Bath & Randall, 1981 – USNM material

*** Gobiesocidae

Lepadichthys bolini Briggs, 1962 – First record by Briggs (1962: 424); SU material

*** Callionymidae

**Callionymus kanakorum* Fricke, 2006 – MNHN material; photograph 2006

**Callionymus keeleyi* Fowler, 1941 – MNHN material; photograph 2006

**Callionymus rivatoni* Fricke, 1993 – MNHN material; photographs 2006

**Callionymus* sp. (undescribed, aff. *spiniceps*; Fricke, MS) – MNHN material; photograph 2006

**Callionymus tethys* Fricke, 1993 – MNHN material; photograph 2006

**Eleutherochir opercularis* (Valenciennes in Cuvier & Valenciennes, 1837) – USNM material

**Synchiropus* sp. 1 Fricke, MS – MNHN material; photograph 2006

**Synchiropus* sp. 2 Fricke, MS – MNHN material; photograph 2006

**Synchiropus* sp. 3 Fricke, MS – MNHN material; photograph 2006

*** Rhyacichthyidae

Rhyacichthys sp. – Keith *et al.*, this volume

*** Eleotridae

**Belobranchus belobranchus* (Valenciennes in Cuvier & Valenciennes, 1837) – BMNH material

Bunaka gyrimoides (Bleeker, 1853) – Keith *et al.*, this volume



Figure 462: *Signigobius biocellatus*. The Twinspot Goby, was occasionally seen in 20 m, and is also listed as a new record for Vanuatu. The two dorsal fin spots resemble eyes, and this species moves in a back and forth crab-like scuttle motion. While it has been suggested by some that it is thus a crab mimic, one might also note that crabs are sought by many predators so mimicry here may be self-defeating.



Figure 463: *Nemateleotris decora*. The Elegant Firefish is a new record for Vanuatu, occasionally observed in 40 m or deeper. A *Tryssogobius colini* is seen below and to the left of the firefish. This is another new record for Vanuatu.

- Butis amboinensis* (Bleeker, 1853) – Keith *et al.*, this volume
Eleotris acanthopoma Bleeker, 1853 – Keith *et al.*, this volume
Eleotris fusca (Bloch & Schneider, 1801) – First record by Fowler (1934: 441)
Hypseleotris guentheri (Bleeker, 1875) – Keith *et al.*, this volume
†*Ophieleotris aporos* (Bleeker, 1854) – BMNH material
Ophieleotris sp. – Keith *et al.*, this volume
**Ophiocara porocephala* (Valenciennes in Cuvier & Valenciennes, 1837) – BMNH material

*** Kraemeriidae

- **Gobitrichinotus radiocularis* Fowler, 1943 – Keith *et al.*, this volume

*** Gobiidae

- **Amblyeleotris fasciata* (Herre, 1953) – Video sequence 2006
**Amblyeleotris fontanesii* (Bleeker, 1852) – Video sequence 2006; underwater photographs 2006 – (Fig. 460)
**Amblyeleotris guttata* (Fowler, 1938) – Video sequence 2006; underwater photographs 2006 – (Fig. 461)
**Amblyeleotris novaecaledoniae* Goren, 1981 – Photograph 2006
**Amblyeleotris ogasawarensis* Yanagisawa, 1978 – Photograph 2006
**Amblyeleotris randalli* Hoese & Steene, 1978 – Video sequence 2006
**Amblyeleotris steinitzi* (Klausewitz, 1974) – CAS material; photograph 2006
†*Amblygobius decussatus* (Bleeker, 1855) – USNM material; video sequence 2006; underwater photograph 2006
**Amblygobius hectori* (Smith, 1956) – USNM material
†*Amblygobius nocturnus* (Herre, 1945) – Photograph 2006
†*Amblygobius phalaena* (Valenciennes in Cuvier & Valenciennes, 1837) – CAS and USNM material
†*Asterropterix semipunctata* Rüppell, 1830 – CAS, FMNH, SU and USNM material
**Asterropterix striata* Allen & Munday, 1995 – Video sequence 2006
†*Awaous ocellaris* (Broussonet, 1782) – BMNH material
**Bathygobius albopunctatus* (Valenciennes in Cuvier & Valenciennes, 1837) – BMNH material
Bathygobius fuscus (Rüppell, 1830) – First record by Fowler (1934: 442); ANSP material
†*Bryaninops yongei* (Davis & Cohen, 1969) – Underwater photograph 2006
Callogobius okinawae (Snyder, 1908) – First record by Herre (1935: 416, as *Macgregorella santa*); FMNH and SU material
†*Callogobius sclateri* (Steindachner, 1880) – CAS and SU material
**Cryptocentrus leptcephalus* Bleeker, 1876 – Underwater photograph 2006
**Ctenogobiops pomastictus* Lubbock & Polunin, 1977 – Underwater photograph 2006
**Ctenotrypauchen microcephalus* (Bleeker, 1860) – Photographs 2006
**Eviota albolineata* Jewett & Lachner, 1983 – CAS material
**Eviota queenslandica* Whitley, 1932 – CAS material
**Eviota sebreei* Jordan & Seale, 1906 – Video sequence 2006
**Eviota smaragdus* Jordan & Seale, 1906 – ANSP material
†*Exyrias puntang* (Bleeker, 1851) – MNHN and USNM material; photograph 2006

- **Fusigobius signipinnis* Hoese & Obika, 1988 – Video sequence 2006
- †*Gnatholepis anjerensis* (Bleeker, 1851) – Video sequence 2006
- †*Gnatholepis cauerensis* (Bleeker, 1853) – CAS material; video sequence 2006
- **Gobiodon quinquestrigatus* (Valenciennes in Cuvier & Valenciennes, 1837) – SU material
- **Istigobius decoratus* (Herre, 1927) – USNM material; video sequence 2006
- †*Istigobius ornatus* (Rüppell, 1830) – FMNH and SU material
- †*Kelloggella cardinalis* Jordan & Seale, 1906 – ANSP material; photograph 2006
- **Koumansetta rainfordi* (Whitley, 1940) – USNM material; video sequence 2006; photograph 2006
- Lentipes kaaea* Watson, Keith & Marquet, 2002 – Keith *et al.*, this volume
- **Lotilia graciliosa* Klausewitz, 1960 – Video sequence 2006
- **Mahidolia mystacina* (Valenciennes in Cuvier & Valenciennes, 1837) – Photographs 2006
- **Oplopomops diacanthus* (Schultz, 1943) – USNM material
- **Oplopomops oplopomops* (Valenciennes in Cuvier & Valenciennes, 1837) – Photograph 2006
- Paragobiodon echinocephalus* (Rüppell, 1828) – First record by Herre (1936: 363); CAS and FMNH material
- †*Periophthalmus argentilineatus* Valenciennes in Cuvier & Valenciennes, 1837 – USNM material; photograph 2006
- **Priolepis cincta* (Regan, 1908) – USNM material
- **Priolepis inhaca* (Smith, 1949) – USNM material
- †*Priolepis semidoliatus* (Valenciennes in Cuvier & Valenciennes, 1837) – ANSP, FMNH and SU material
- **Priolepis* sp. – MNHN material; photographs 2006
- **Psammogobius biocellatus* (Valenciennes in Cuvier & Valenciennes, 1837) – USNM material
- Redigobius bikolanus* (Herre, 1927) – Keith *et al.*, this volume
- Schismatogobius vanuatuensis* Keith, Marquet & Watson, 2004 – First record by Keith, Marquet & Watson (2004: 238); MNHN material
- Sicyopterus aiensis* Keith, Watson & Marquet, 2004 – Keith *et al.*, this volume
- Sicyopterus lagocephalus* (Pallas, 1770) – BMNH material; Keith *et al.*, this volume
- Sicyopus chloe* Watson, Keith & Marquet, 2001 – Keith *et al.*, this volume
- Sicyopus zosterophorus* (Bleeker, 1857) – Keith *et al.*, this volume
- †*Signigobius biocellatus* Hoese & Allen, 1977 – Video sequence 2006 – (Fig. 462)
- Stenogobius yateiensis* Keith, Watson & Marquet, 2002 – Keith *et al.*, this volume
- Stiphodon astilbos* Ryan, 1986 – First record by Ryan (1986: 656-660); AMS material
- Stiphodon atratus* Watson, 1996 – Keith *et al.*, this volume
- Stiphodon kalfatak* Keith, Marquet & Watson, 2007 – First record by Keith, Marquet & Watson (2007: 34-37); MNHN material
- Stiphodon mele* Keith, Marquet & Pouilly 2009 – First record by Keith, Marquet & Pouilly (2009: 473); MNHN paratypes.
- Stiphodon rutilaureus* Watson, 1996 – Keith *et al.*, this volume
- Stiphodon sapphirinus* Watson, Keith & Marquet, 2005 – Keith *et al.*, this volume
- **Trimma caesiura* Jordan & Seale, 1906 – USNM material
- **Trimma okinawae* (Aoyagi, 1949) – USNM material
- **Trimma striata* (Herre, 1945) – USNM material
- **Trimma tevegae* Cohen & Davis, 1969 – Video sequence 2006
- **Tryssogobius colini* Larson & Hoese, 2001 – Photograph 2006; video sequence 2006
- †*Valenciennea puellaris* (Tomiya, 1955) – USNM material; video sequence 2006
- **Valenciennea randalli* Hoese & Larson, 1994 – Photographs 2006
- **Valenciennea sexguttata* (Valenciennes in Cuvier & Valenciennes, 1837) – USNM material; video sequence 2006
- †*Valenciennea strigata* (Broussonet, 1782) – Video sequence 2006
- **Yongeichthys criniger* (Valenciennes in Cuvier & Valenciennes, 1837) – MNHN material; photograph 2006

••• Microdesmidae

- **Gunnellichthys curiosus* Dawson, 1968 – MNHN material; photograph 2006; video sequence 2006
- **Nemateleotris decora* Randall & Allen, 1973 – Video sequence 2006 – (Fig. 463)
- **Nemateleotris helfrichi* Randall & Allen, 1973 – Video sequence 2006
- †*Nemateleotris magnifica* Fowler, 1938 – Video sequence 2006
- †*Ptereleotris evides* (Jordan & Hubbs, 1925) – CAS, FMNH, SU and USNM material; video sequence 2006
- **Ptereleotris heteroptera* (Bleeker, 1855) – MNHN material; photograph 2006
- **Ptereleotris microlepis* (Bleeker, 1856) – USNM material
- **Ptereleotris monoptera* Randall & Hoese, 1985 – First record by Randall & Hoese (1985: 24); USNM material

••• Xenisthmidae

- Xenisthmus chapmani* (Schultz in Schultz, Woods & Lachner, 1966) – First record by Schultz, Woods & Lachner (1966: 8-9); USNM material

◦◦◦ Zanclidae

†*Zanclus cornutus* (Linnaeus, 1758) – Video sequence 2006

◦◦◦ Acanthuridae

- **Acanthurus blochii* Valenciennes in Cuvier & Valenciennes, 1835 – Video sequence 2006
- **Acanthurus dussumieri* Valenciennes in Cuvier & Valenciennes, 1835 – Video sequence 2006
- †*Acanthurus lineatus* (Linnaeus, 1758) – FMNH, SU and USNM material; video sequence 2006
- †*Acanthurus mata* (Cuvier, 1829) – Video sequence 2006
- †*Acanthurus nigricans* (Linnaeus, 1758) – Video sequence 2006
- **Acanthurus nigricauda* Duncker & Mohr, 1929 – SU material
- **Acanthurus nigrofuscus* Forsskål in Niebuhr, 1775 – USNM material; video sequence 2006
- †*Acanthurus olivaceus* Forster in Bloch & Schneider, 1801 – Video sequence 2006
- †*Acanthurus pyroferus* Kittlitz, 1834 – MNHN material; photograph 2006; video sequence 2006
- **Acanthurus thompsoni* (Fowler, 1923) – Video sequence 2006
- †*Acanthurus triostegus* (Linnaeus, 1758) – ANSP, BMNH, FMNH and USNM material
- †*Ctenochaetus binotatus* Randall, 1955 – USNM material; video sequence 2006
- †*Ctenochaetus cyanocheilus* Randall & Clements, 2001 – FMNH material
- †*Ctenochaetus striatus* (Quoy & Gaimard, 1825) – SU material; video sequence 2006
- †*Ctenochaetus tominiensis* Randall, 1955 – Video sequence 2006
- †*Naso annulatus* (Quoy & Gaimard, 1825) – Video sequence 2006
- †*Naso brachycentron* (Valenciennes in Cuvier & Valenciennes, 1835) – Video sequence 2006
- †*Naso brevirostris* (Cuvier, 1829) – Video sequence 2006
- †*Naso hexacanthus* (Bleeker, 1855) – Video sequence 2006
- †*Naso lituratus* (Bloch & Schneider [ex Forster], 1801) – Video sequence 2006
- **Naso lopezi* Herre, 1927 – Video sequence 2006
- **Naso macdadei* Johnson, 2002 – Video sequence 2006
- **Naso minor* (Smith, 1966) – Video sequence 2006
- **Naso thynnoides* (Cuvier, 1829) – Video sequence 2006 – (Fig. 464)
- †*Naso unicornis* (Forsskål in Niebuhr, 1775) – Video sequence 2006
- †*Naso vlamingii* (Valenciennes in Cuvier & Valenciennes, 1835) – Video sequence 2006
- †*Zebrasoma scopas* (Cuvier, 1829) – FMNH, MNHN and USNM material; photograph 2006; video sequence 2006
- †*Zebrasoma veliferum* (Bloch, 1797) – SMNS and USNM material; video sequence 2006



Figure 464: In the foreground of this image from 10 m one may see schooling *Naso thynnoides*, or Singlespine Unicornfish, whose common name may be a misnomer because this species is without a horn. This is a new record for Vanuatu, as is the *Variola albimarginata*, or Lyretail Grouper, seen below the *Naso* school. In the right background one may also note the clownfish *Amphiprion clarkii*, yet another Vanuatu record, while in the left background the dark surgeonfish *Acanthurus pyroferus* is "merely" a new Espiritu Santo record.

••• Siganidae

- †*Siganus argenteus* (Quoy & Gaimard, 1825) – Video sequence 2006; underwater photograph 2006
- †*Siganus corallinus* (Valenciennes in Cuvier & Valenciennes, 1835) – Video sequence 2006
- †*Siganus puellus* (Schlegel, 1852) – Video sequence 2006
- **Siganus punctatissimus* Fowler & Bean, 1929 – Video sequence 2006
- Siganus spinus* (Linnaeus, 1758) – First record by Fowler (1934: 429)
- †*Siganus vulpinus* (Schlegel & Müller, 1845) – Video sequence 2006

•• Nomeidae

- †*Cubiceps* sp. – MNHN material; photograph 2006

••• Scombridae

- **Gymnosarda unicolor* (Rüppell, 1836) – Video sequence 2006
- †*Rastrelliger kanagurta* (Cuvier, 1816) – Video sequence 2006

••• Sphyraenidae

- †*Sphyraena forsteri* Cuvier in Cuvier & Valenciennes, 1829 – Video sequence 2006
- †*Sphyraena qenie* Klunzinger, 1870 – Video sequence 2006

••• Gempylidae

- **Rexea* sp. – MNHN material

••• Caproidae

- **Antigonia malayana* Weber, 1913 – MNHN material; photographs 2006
- **Antigonia rubescens* (Günther, 1860) – MNHN material

••• Paralichthyidae

- **Psammodytes ocellatus* Günther, 1882 – MNHN material; photograph 2006
- **Pseudorhombus duplici-cellatus* Regan, 1905 – MNHN material
- **Pseudorhombus elevatus* Ogilby, 1912 – MNHN material; photograph 2006
- **Pseudorhombus spinosus* McCulloch, 1914 – MNHN material; photograph 2006

••• Bothidae

- **Arnoglossus japonicus* Hubbs, 1915 – MNHN material
- **Arnoglossus macrolophus* Alcock, 1889 – MNHN material
- †*Bothus mancus* (Broussonet, 1782) – MNHN material; photograph 2006
- †*Bothus pantherinus* (Rüppell, 1830) – Photograph 2006
- **Engyprosopon bellonaensis* Amaoka, Mihara & Rivaton, 1993 – MNHN material
- **Engyprosopon longipterum* Amaoka, Mihara & Rivaton, 1993 – MNHN material
- Engyprosopon vanuatuensis* Amaoka & Séret, 2005 – First record by Amaoka & Séret (2005: 15); MNHN material
- **Kamoharaia megastoma* (Kamohara, 1936) – MNHN material
- **Neolaeops microphthalmus* (Bonde, 1922) – MNHN material; photograph 2006
- **Parabothus filipes* Amaoka, Mihara & Rivaton, 1997 – MNHN material
- **Parabothus kiensis* (Tanaka, 1918) – MNHN material
- **Psettina variegata* (Fowler, 1934) – MNHN material

••• Pleuronectidae

- **Nematops grandisquamus* Weber & Baufort, 1929 – MNHN material
- **Nematops macrochirus* Norman, 1931 – MNHN material
- **Poecilopsetta plinthus* (Jordan & Starks, 1904) – MNHN material

••• Citharidae

- **Brachypleura novaezeelandiae* Günther, 1862 – MNHN material

••• Soleidae

- †*Pardachirus pavoninus* (Lacepède, 1802) – BMNH material

••• Cynoglossidae

- **Cynoglossus* sp. (Fricke MS) – MNHN material; photograph 2006
- **Symphurus* sp. – MNHN material

••• Samaridae

**Samariscus longimanus* Norman, 1927 – Photograph 2006

••• Triacanthodidae

**Atrophacanthus japonicus* (Kamohara, 1941) – MNHN material; photograph 2006

**Halimochirurgus* sp. – MNHN material

**Macrorhamphosodes uradoi* (Kamohara, 1933) – MNHN material; photograph 2006

**Triacanthodes ethiops* Alcock, 1894 – MNHN material; photograph 2006

**Tydemanina navigatoris* Weber, 1913 – MNHN material

••• Balistidae

†*Balistapus undulatus* (Park, 1797) – CAS, FMNH and SU material; video sequence 2006

†*Balistoides conspicillum* (Bloch & Schneider, 1801) – Video sequence 2006; underwater photograph 2006

†*Balistoides viridescens* (Bloch & Schneider, 1801) – Video sequence 2006; underwater photograph 2006

†*Melichthys vidua* (Richardson [ex Solander], 1845) – Video sequence 2006

†*Odonus niger* (Rüppell, 1836) – Video sequence 2006

†*Pseudobalistes fuscus* (Bloch & Schneider, 1801) – USNM material

†*Rhinecanthus aculeatus* (Linnaeus, 1758) – Underwater photograph 2006

†*Sufflamen bursa* (Bloch & Schneider, 1801) – MNHN material; photograph 2006, video sequence 2006

†*Sufflamen chrysopterum* (Bloch & Schneider, 1801) – Video sequence 2006

†*Sufflamen fraenatum* (Latreille, 1804) – Video sequence 2006

••• Monacanthidae

†*Amanes scopas* (Cuvier, 1829) – Video sequence 2006

†*Cantherhines pardalis* (Rüppell, 1837) – Video sequence 2006

†*Oxymonacanthus longirostris* (Bloch & Schneider, 1801) – Video sequence 2006

†*Paraluteres prionurus* (Bleeker, 1851) – Video sequence 2006

**Paramonacanthus curtiorhynchus* (Bleeker, 1855) – MNHN material; photograph 2006

†*Pervagor melanocephalus* (Bleeker, 1853) – Video sequence 2006

••• Ostraciidae

†*Lactoria cornuta* (Linnaeus, 1758) – MNHN material; photograph 2006

†*Ostracion cubicus* Linnaeus, 1758 – Video sequence 2006

**Ostracion meleagris* Shaw in Shaw & Nodder, 1796 – Video sequence 2006

**Ostracion solorensis* Bleeker, 1853 – Video sequence 2006

••• Triodontidae

**Triodon macropterus* Lesson, 1831 – MNHN material

••• Tetraodontidae

†*Arothron hispidus* (Linnaeus, 1758) – MNHN material; photographs 2006

**Arothron manilensis* (Marion de Procé, 1822) – MNHN material; photograph 2006

†*Arothron nigropunctatus* (Bloch & Schneider, 1801) – CAS and USNM material; video sequence 2006

**Canthigaster axiologus* Whitley, 1931 – Video sequence 2006; taxonomic decision of Randall, Williams & Rocha (2008: 6-7, as *C. axiologa*)

Canthigaster bennetti (Bleeker, 1854) – First record by Fowler (1934: 449); USNM material

†*Canthigaster compressa* (Marion de Procé, 1822) – MNHN and USNM material; photograph 2006

**Canthigaster epilampra* (Jenkins, 1903) – MNHN material; video sequence 2006; photographs 2006

Canthigaster janthinoptera (Bleeker, 1855) – First record by Fowler (1934: 449); USNM material

**Canthigaster papua* (Bleeker, 1848) – Video sequence 2006

**Canthigaster rivulata* (Temminck & Schlegel, 1850) – MNHN material; photograph 2006

**Canthigaster solandri* (Richardson [ex Solander], 1845) – Video sequence 2006

†*Canthigaster valentini* (Bleeker, 1853) – CAS, MNHN and USNM material; video sequence 2006; photographs 2006; underwater photograph 2006

**Tylerius spinosissimus* (Regan, 1908) – MNHN material

••• Diodontidae

**Diodon holocanthus* Linnaeus, 1758 – MNHN material; photograph 2006

†*Diodon hystrix* Linnaeus, 1758 – Video sequence 2006

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