

# Twenty-one new records of fish species (Teleostei) from the New Caledonian EEZ (south-western Pacific Ocean)

RONALD FRICKE<sup>1,2</sup>, ANTOINE TEITELBAUM<sup>3</sup> AND LAURENT WANTIEZ<sup>4</sup>

<sup>1</sup>Im Ramstal 76, 97922 Lauda-Königshofen, Germany, <sup>2</sup>Staatliches Museum für Naturkunde Stuttgart, Rosenstein 1, 70191 Stuttgart, Germany, <sup>3</sup>Aquarium Fish Nouvelle-Calédonie, 98809 Mont-Dore, New Caledonia, <sup>4</sup>UE4243, Université de la Nouvelle-Calédonie, BP R4, 98851 Nouméa Cedex, New Caledonia

*New records of fish species are reported from New Caledonia, including Polyipnus aquavitus Baird, 1971 (Sternoptychidae), Porogadus melampeplus (Alcock, 1896) (Ophidiidae), Hoplichthys citrinus Gilbert 1905 (Hoplichthyidae), Plectrogenium nanum Gilbert 1905 (Plectrogeniidae), Lioscorpius trifasciatus Last, Yearsley & Motomura 2005 (Setarchidae), Neomerinthe megalepis Fowler 1938 and Phenacoscorpius megalops Fowler 1938 (Scorpaenidae), Ocosia apia Poss & Eschmeyer, 1975 (Tetrarogidae), Hoplostethus atlanticus Collett 1889 (Trachichthyidae), Zenion longipinnis Kotthaus, 1970 (Zeniontidae), Plectranthias foresti Fourmanoir 1977, Plectranthias pelicieri Randall & Shimizu, 1994, Plectranthias rubrifasciatus Fourmanoir & Randall, 1979 and Rabaulichthys squirei Randall & Walsh, 2010 (Serranidae), Synagrops philippinensis (Günther 1880) (Acropomatidae), Stegastes insularis Allen & Emery 1995 (Pomacentridae), Cirrhitilabus rubrimarginatus Randall 1992 (Labridae), Pteropsaron neocaledonicus Fourmanoir & Rivaton, 1979 (Percophidae), Centrodraco ornatus (Fourmanoir & Rivaton, 1979) and Draconetta xenica Jordan & Fowler 1903 (Draconettidae), and Acanthurus maculiceps (Ahl 1923) (Acanthuridae). A record of Plectropomus maculatus (Bloch 1790) (Serranidae) from Grande Terre, New Caledonia is confirmed. This paper also includes new depth records of Zenion longipinnis, Plectranthias rubrifasciatus, Synagrops philippinensis, Centrodraco ornatus and Draconetta xenica.*

**Keywords:** fishes, new record, distribution, zoogeography, depth, New Caledonia

Submitted 16 May 2015; accepted 12 July 2015

## INTRODUCTION

New Caledonia is a French overseas ‘sui generis collectivity’ (COM, Communauté d’Outre Mer), situated in the south-western Pacific Ocean, approximately 950–2450 km east of the Mackay/Gladstone regions, Central Queensland, Australia. It comprises the main island, Grande Terre, with the Îles Bélep in the north and the Île des Pins in the south of the Grande Terre group, the Loyalty Islands, the islands of Walpole (southern Loyalty Ridge), Matthew and Hunter (Vanuatu–Fiji Ridge), and the Chesterfield Islands and Bellona Reefs (Lord Howe Rise). The exclusive economic zone (EEZ) of New Caledonia also includes part of the northern Norfolk Ridge. The major submarine ridges in New Caledonia are isolated from each other, and zoogeographically distinct. The fish fauna of New Caledonia has been studied since the late 18th Century. In a recent checklist of the fishes of New Caledonia, a total of 2328 species in 246 families was recorded from the region (Fricke *et al.*, 2011). Among the New Caledonian marine species, 905 were recorded from the East Coral Sea, including the Chesterfield Islands, 193 from the New Caledonian Basin, 1860 from the Grande Terre group, 85 from the Norfolk Ridge and 1029 from the

Loyalty Ridge including the Loyalty Islands; the ichthyofauna of the Matthew–Hunter Ridge was mostly unknown, with just 28 species reported from the region. Subsequently, the following species have been described: *Microbrotula hamata* (Bythitidae) from Grande Terre, described by Schwarzhan & Nielsen (2011); *Samariscus neocaledonia* (Samaridae) from the northern Norfolk Ridge, described by Kawai *et al.* (2011); *Bathyraja leucomelanos* (Arhynchobatidae) from the Coriolis Bank in the eastern Coral Sea, by Iglésias & Lévy-Hartmann (2012); *Eviota atriventris* (Gobiidae) from Grande Terre, by Greenfield & Suzuki (2012); *Glossogobius illimis* (Gobiidae) from Grande Terre, by Hoese & Allen (2012); *Hoplostethus grandperrini* (Trachichthyidae) from the Norfolk Ridge, by Roberts & Gomon (2012); *Phenacoscorpius longilineatus* (Scorpaenidae) from the Norfolk Ridge, by Motomura *et al.* (2012); *Siphamia fraseri* and *Siphamia spinicola* (Apogonidae) from Grande Terre, by Gon & Allen (2012); *Apristurus nakayai* (Pentanchidae) from the eastern Coral Sea, by Iglésias (2013); *Chaunax reticulatus* (Chaunacidae) from the Norfolk Ridge, by Ho *et al.* (2013b); *Epigonus lifouensis* (Epigonidae) from the Loyalty Islands, by Okamoto & Motomura (2013); *Gymnocranius satoi* and *Gymnocranius superciliosus* (Lethrinidae) from Grande Terre and the Chesterfield Islands, by Borsa *et al.* (2013); *Malthopsis asperata* and *Malthopsis parva* (Ogcocephalidae) from the northern Norfolk Ridge, by Ho *et al.* (2013a); *Lophiodes iwamotoi* (Lophiidae) was recorded

**Corresponding author:**  
R. Fricke  
Email: ronfricke@web.de

from the southern Loyalty Ridge, New Caledonia by Ho & Chen (2013); and *Chaunacops spinosus* (Chaunacidae) was described from the eastern Coral Sea by Ho & McGrouther (2015). The description of a new species of *Centrodraco* Regan 1913 (Draconettidae) from the southern Loyalty Ridge (Fricke, in press) and a new record of *Parapercis fuscolineata* Fourmanoir 1985 (Pinguipedidae) from the New Caledonian EEZ (Ho et al., in press) will be published soon.

Benthic fish specimens were collected in south-eastern Grande Terre, on the northern and southern Loyalty Ridge, and on the Matthew-Hunter Ridge. The present paper reports several new records of fish species from these ridges, and a few new records from New Caledonia.

## MATERIALS AND METHODS

During the EXBODI Cruise in 2011, benthic fish specimens were collected using dredges and trawls in south-eastern Grande Terre, on the northern and southern Loyalty Ridge, and on the Matthew-Hunter Ridge. The EXBODI Cruise was performed from 28 August to 29 September 2011 by the R/V Alis, principal investigator Sarah Samadi, deployed by the French Oceanographic Fleet on seamounts off New Caledonia; dredges and trawls were used at a total of 162 stations off south-eastern Grande Terre, the northern and southern Loyalty Ridge, and the Matthew-Hunter Ridge (Gourtay-Le Hingrat, 2012; Ho & Chen, 2013; Richer de Forges et al., 2014). Additional new records were provided by aquarium fish collections of Antoine Teitelbaum in southern Grande Terre and by Laurent Wantiez based on underwater photographs. The material described in the present paper is deposited in the National Taiwan University Museum, Taipei, Taiwan (NTUM) and the Forschungsinstitut Senckenberg, Frankfurt am Main, Germany (SMF).

The family classification and arrangement follows Nelson (2006), updated according to Eschmeyer (2015). The genus

and species classification also follows Eschmeyer (2015), unless otherwise noted. In addition to the scientific name of a species, English vernacular names are provided. For the new records, information on the source is provided, as well as short diagnostic descriptions and, if available, illustrations. The fin-ray counts follow the method of Fricke (1983). References follow Fricke (2015). The descriptions also include detailed information on the general distribution of the species, especially the distribution in the Pacific. A map of the marine area of the New Caledonian EEZ with its major geographical features is provided in Figure 1. Information on the depth range of the species is provided as well; in some cases, new minimum or maximum depth records are provided.

## RESULTS

### SYSTEMATICS

#### Family STERNOPTYCHIDAE

*Polyipnus aquavitus* Baird, 1971 – Aquavit hatchetfish  
(Figure 2)

### MATERIAL

NTUM 10666, one specimen, 25.5 mm standard length (SL), New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°21'S 171°39'E, 433–516 m depth, Station CP 3883, Wei-Jen Chen, R/V Alis, 18 September 2011.

### DIAGNOSIS

Posttemporal spine single, long; supra-anal photophores not markedly raised above anal group; posterior lateral margin of preopercle smooth; ventral keel scales smooth; dorsal spine short. Body sides silver, back black.

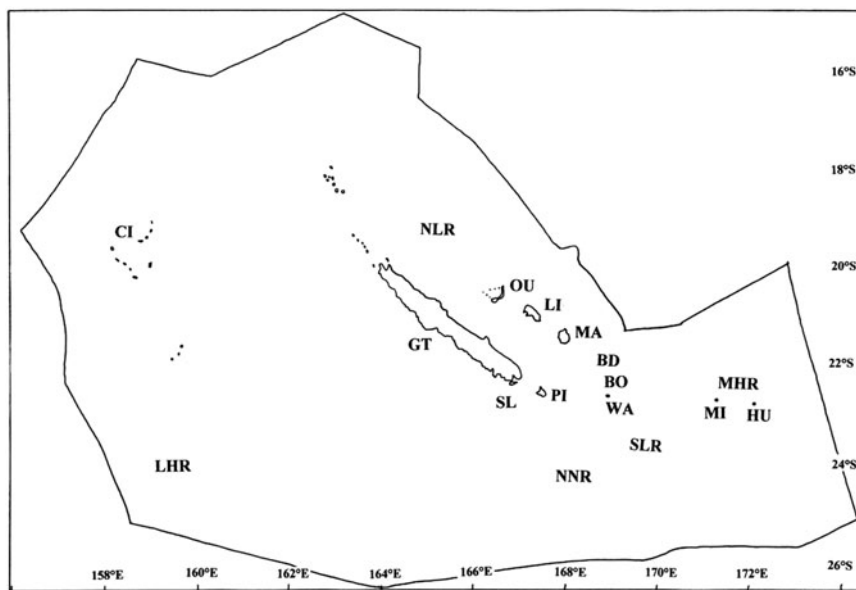


Fig. 1. Map of the EEZ of New Caledonia, south-western Pacific Ocean. BD, Banc Durand; BO, Banc de l'Orne; CI, Chesterfield Islands; GT, Grande Terre; HU, Hunter Island; LHR, Lord Howe Ridge; LI, Lifou (Loyalty Islands); MA, Maré Island (Loyalty Islands); MHR, Matthew-Hunter Ridge; MI, Matthew Island; NLR, Northern Loyalty Ridge; NNR, Northern Norfolk Ridge; OU, Ouvéa (Loyalty Islands); PI, Ile des Pins; SL, Southern lagoon; SLR, Southern Loyalty Ridge; WA, Walpole Island.



Fig. 2. *Polyipnus aquavitus* Baird, 1971, NTUM 10666, one specimen, 25.5 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge (preserved specimen; photograph: Wei-Jen Chen).

#### DISTRIBUTION

New record from Matthew-Hunter Ridge. Outside the area, South China Sea and Indonesia south to eastern Australia and northern New Zealand, east to New Caledonia. Known from depths of 0–1000 m.

#### REMARKS

This species was described in detail by Baird (1971).

#### Family OPHIDIIDAE

*Porogadus melampeplus* (Alcock, 1896) –  
Largeeye snake cuskeel  
(Figure 3)

#### MATERIAL

NTUM 10684, one specimen, 60.9 mm SL, New Caledonian EEZ, northern Loyalty Ridge, Récif Petrié, 18°36'S 164°24'E, 380–430 m depth, Station DW 3940, Wei-Jen Chen, R/V Alis, 27 September 2011; NTUM 10685, one specimen, 62.5 mm SL, New Caledonian EEZ, southern Loyalty Ridge, Southern Durand Seamount, 93 km south-east of Maré Island, 22°19'S 168°41'E, 338 m depth, Station DW3856, Wei-Jen Chen, R/V Alis, 14 September 2011.

#### DIAGNOSIS

Spines on head moderately long, dorsal-fin rays 162, anal-fin rays 141, caudal rays 5, pectoral rays 16, pelvic rays 2. Head and body yellowish, densely scattered with melanophores; peritoneum black.

#### DISTRIBUTION

New record from northern and southern Loyalty Ridge. Outside the area, Madagascar and Mascarene Plateau east to New Caledonia. Known from depths of 150–2400 m.



Fig. 3. *Porogadus melampeplus* (Alcock, 1896), NTUM 10684, one specimen, 60.9 mm SL, New Caledonian EEZ, northern Loyalty Ridge, Récif Petrié (fresh specimen; photograph: Wei-Jen Chen).

#### REMARKS

This species was originally described from the Arabian Sea by Alcock (1896); it was reported from Madagascar, the Mascarene Plateau and the north-eastern Indian Ocean by Shcherbachev (1980), and from the New Caledonian Basin south-west of Grande Terre (New Caledonia) by Nielsen (1997).

#### Family SETARCHIDAE

*Lioscorpius trifasciatus* Last, Yearsley & Motomura, 2005 –  
Threeband scorpionfish  
(Figure 4)

#### MATERIAL

NTUM 10663, one specimen, 61.0 mm SL, New Caledonia, Grande Terre, south-east of Yaté, 22°13'S 167°07'E, 264–273 m depth, Station CP 3788, Wei-Jen Chen, R/V Alis, 3 September 2011; NTUM 10650, three specimens, 61.0–147.7 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°23'S 171°39'E, 558–584 m depth, Station CP 3885, Wei-Jen Chen, R/V Alis, 18 September 2011; NTUM 10660, one specimen, 31.9 mm SL, New Caledonian EEZ, southern Loyalty Ridge, Durand Seamount, 71 km south-east of Maré Island, 22°04'S 168°38'E, 396 m depth, Station DW3846, Wei-Jen Chen, R/V Alis, 13 September 2011.

#### DIAGNOSIS

Anal spines III, anal rays 5; body slender; two dorsal spines before last spine very small. Body pale yellowish, with irregular grey spots, peritoneum dark; pectoral fin with three red stripes.

#### DISTRIBUTION

New record from the Loyalty and Matthew-Hunter ridges, and from New Caledonia. Outside the area, Eastern Australia. Known from depths of 250–400 m.

#### REMARKS

This species was described in detail by Last *et al.* (2005), with a distribution range from off eastern Australia and western Coral Sea and northern Tasman Sea.

#### Family SCORPAENIDAE

*Neomerinthe megalepis* Fowler 1938 –  
Yellow deepwater scorpionfish  
(Figures 5 & 6)



Fig. 4. *Lioscorpius trifasciatus* Last, Yearsley & Motomura, 2005, NTUM 10663, one specimen, 61.0 mm SL, New Caledonia, Grande Terre, south-east of Yaté (fresh specimen; photograph: Wei-Jen Chen).





**Fig. 5.** *Neomerinthe megalepis* Fowler 1938, NTUM 10648, specimen 1, 52.3 mm SL, New Caledonia, Grande Terre, south-east of Yaté (preserved specimen; photograph: Wei-Jen Chen).

#### MATERIAL

NTUM 10648, two specimens, 30.9–51.3 mm SL, New Caledonia, Grande Terre, south-east of Yaté, 22°13'S 167°07'E, 264–273 m depth, Station CP 3788, Wei-Jen Chen, R/V Alis, 3 September 2011.

#### DIAGNOSIS

Dorsal fin rays XII, 9, anal fin rays III, 4, pectoral fin rays 18; 4 spines in suborbital row. Body pale yellowish, with scattered brown spots along the back.

#### DISTRIBUTION

New record from Grande Terre, New Caledonia. Outside the area, eastern South China Sea east to Wallis and Futuna. Known from depths of 200–505 m.

#### REMARKS

This species was previously recorded by Fricke *et al.* (2011) from the Chesterfield Islands.

*Phenacoscorpius megalops* Fowler 1938 – Noline scorpionfish (Figure 7).

#### MATERIAL

NTUM 10647, two specimens, 26.8–73.1 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 34 km east-southeast of Matthew Island, 22°25'S 171°40'E, 380 m depth, Station DW 3895, Wei-Jen Chen, R/V Alis, 19 September 2011; NTUM 10658, two specimens, 32.8–41.8 mm SL, New Caledonian EEZ, southern Loyalty Ridge, Banc Durand, 43 km north-west of Walpole Island, 22°18'S 168°42'E, 342 m depth, Station DW 3857, Wei-Jen Chen, R/V Alis, 14 September 2011.



**Fig. 6.** *Neomerinthe megalepis* Fowler 1938, NTUM 10648, specimen 2, 30.9 mm SL, New Caledonia, Grande Terre, south-east of Yaté (preserved specimen; photograph: Wei-Jen Chen).



**Fig. 7.** *Phenacoscorpius megalops* Fowler 1938, NTUM 10647, one specimen, 73.1 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 34 km east-southeast of Matthew Island (fresh specimen; photograph: Wei-Jen Chen).

#### DIAGNOSIS

Dorsal fin with XI spines and 9 rays; anal fin with III spines and 5 rays; pectoral-fin rays 17; lachrymal bone with 2 spines over maxillary; lateral line only consisting of four tubed scales. Body pale yellowish, back with brown blotches, caudal peduncle with enlarged black melanophores.

#### DISTRIBUTION

New record from the southern Loyalty and Matthew-Hunter ridges, and from the New Caledonian EEZ. Outside the area, Vietnam east to Hawaiian islands, north to Taiwan and Emperor Seamounts, south to New Caledonia. Known from depths of 68–622 m.

#### REMARKS

This species was previously reported from Grande Terre (New Caledonia) by Fricke *et al.* (2011).

#### Family PLECTROGENIIDAE

*Plectrogenium nanum* Gilbert 1905 – Pygmy stinger flathead (Figure 8)

#### MATERIAL

NTUM 10651, one specimen, 61.0 mm SL, New Caledonia, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°22'S 171°38'E, 521–567 m depth, Station CP 3884, Wei-Jen Chen, R/V Alis, 18 September 2011.

#### DIAGNOSIS

Anal spines II; body slender; two dorsal spines before last spine very small. Body pale yellowish, with irregular grey spots, peritoneum dark.

#### DISTRIBUTION

New record from the Matthew-Hunter Ridge. Outside the area, Philippines north to southern Japan, south to northern



**Fig. 8.** *Plectrogenium nanum* Gilbert 1905, NTUM 10651, one specimen, 61.0 mm SL, New Caledonia, Matthew-Hunter Ridge, 31 km east of Matthew Island (fresh specimen; photograph: Wei-Jen Chen).

Western Australia and Matthew-Hunter Ridge. Known from depths of 250–650 m.

#### REMARKS

This species was previously reported by Fricke *et al.* (2011) from southern Grande Terre. It was described in detail by Eschmeyer & Randall (1975).

#### Family TETRAROGIDAE

*Ocosia apia* Poss & Eschmeyer, 1975 – Stoutspine waspfish (Figure 9)

#### MATERIAL

NTUM 10664, two specimens, 31.9–48.6 mm SL, New Caledonia, south-east of Yaté, 22°13'S 167°07'E, 264–273 m depth, Station CP 3788, Wei-Jen Chen, R/V Alis, 3 September 2011.

#### DIAGNOSIS

Dorsal rays XVI, 8, anal rays III, 5, pectoral 12; a small spine on lower margin of second infraorbital bone. Body pale yellowish, with grey spots and blotches.

#### DISTRIBUTION

New record from Grande Terre, New Caledonia. Outside the area, Chesterfield and Kermadec Islands. Known from depths of 29–350 m.

#### REMARKS

This species was previously reported from the Chesterfield Islands by Rivaton (1989); it was described in detail by Poss & Eschmeyer (1975).

#### Family HOPLICHTHYIDAE

*Hoplichthys citrinus* Gilbert 1905 – Lemon ghost flathead (Figure 10)

#### MATERIAL

NTUM 10656, two specimens, 137.7 mm SL, New Caledonia, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°21'S 171°40'E, 288–361 m depth, Station CP 3882, Wei-Jen Chen, R/V Alis, 18 September 2011.

#### DIAGNOSIS

Total anal fin elements 17; lateral margin of head strongly spinose, with a distinct gap between the spine rows below



Fig. 9. *Ocosia apia* Poss & Eschmeyer, 1975, NTUM 10664, one specimen, 48.6 mm SL, New Caledonia, Grande Terre, south-east of Yaté (preserved specimen; photograph: Wei-Jen Chen).



Fig. 10. *Hoplichthys citrinus* Gilbert 1905, NTUM 10656, two specimens, 137.7 mm SL, New Caledonia, Matthew-Hunter Ridge, 31 km east of Matthew Island (fresh specimens; photograph: Wei-Jen Chen).

eye; interorbital much less than one-third of eye diameter; free rays of pectoral fins shorter than longest joined rays. Body bright lemon yellow, eyes dark grey.

#### DISTRIBUTION

New record from the Matthew-Hunter Ridge. Outside the area, eastern Australia to Grande Terre (New Caledonia); Hawaiian Islands; Nazca and Sala-y-Gomez Ridges. Known from depths of 183–490 m.

#### REMARKS

This species was recorded previously from the Grande Terre Group of New Caledonia by Fourmanoir & Rivaton (1979) and Fricke *et al.* (2011).

#### Family TRACHICHTHYIDAE

*Hoplostethus atlanticus* Collett 1889 – Orange roughy (Figure 11)

#### MATERIAL

NTUM 10688, one specimen, 60.9 mm SL, New Caledonia, Grande Terre, south-east coast, 26 km east to Port-Bouquet, 21°43'S 166°39'E, 598–645 m depth, Station CP 3808, Wei-Jen Chen, R/V Alis, 5 September 2011.

#### DIAGNOSIS

Spines on head moderately long, dorsal-fin rays 162, anal-fin rays 141, caudal rays 5, pectoral rays 16, pelvic rays 2. Head and body yellowish, densely scattered with melanophores; peritoneum black.

#### DISTRIBUTION

New record from Grande Terre (New Caledonia). Outside the area, Atlantic and southern temperate sites in Indo-Pacific. Known from depths of 180–1809 m.



Fig. 11. *Hoplostethus atlanticus* Collett 1889, NTUM 10688, one specimen, 60.9 mm SL, New Caledonia, Grande Terre, south-east coast, 26 km east to Port-Bouquet (preserved specimen; photograph: Wei-Jen Chen).

## REMARKS

This species was previously reported from the Loyalty Ridge (New Caledonia) by Fricke *et al.* (2011).

## Family ZENIONTIDAE

*Zenion longipinnis* Kotthaus, 1970 – Longfin zenion  
(Figure 12)

## MATERIAL

NTUM 10686, one specimen, 137.7 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, Vauban Seamount, 31 km east of Matthew Island, 22°22'S 171°38'E, 521–567 m depth, Station CP 3884, Wei-Jen Chen, R/V Alis, 18 September 2011.

## DIAGNOSIS

Dorsal rays VI, 29; anal rays I, 26; pectoral rays 16; head large, head length 2.7 in SL; eye large, eye diameter 1.9 in SL; pelvic fin long, pelvic fin length 2.6 in head length. Body bright lemon yellow, eyes dark grey.

## DISTRIBUTION

New record from the Matthew-Hunter Ridge. Outside the area, probably worldwide in warm oceanic waters of the southern hemisphere. Known from depths of 200–521 m.

## REMARKS

This species was originally described from near Ascension Island (south Atlantic) by Kotthaus (1970); it was recorded from the western Indian Ocean by Karrer (1990).

The present specimen extends the lower depth record for the species to at least 521 m (previously 450 m). This species was recorded previously from the Grande Terre Group of New Caledonia by Fourmanoir (1971) and Fricke *et al.* (2011).

## Family SERRANIDAE

*Plectranthias foresti* Fourmanoir 1977 – Forest's perchlet  
(Figure 13)

## MATERIAL

NTUM 10668, one specimen, 29.9 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°22'S 171°42'E, 249–269 m depth, Station CP 3886, Wei-Jen Chen, R/V Alis, 18 September 2011.



Fig. 12. *Zenion longipinnis* Kotthaus, 1970, NTUM 10686, one specimen, 137.7 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, Vauban Seamount, 31 km east of Matthew Island (fresh specimen; photograph: Wei-Jen Chen).



Fig. 13. *Plectranthias foresti* Fourmanoir 1977, NTUM 10668, one specimen, 29.9 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island (preserved specimen; photograph: Wei-Jen Chen).

## DIAGNOSIS

Dorsal rays X, 15; anal rays III, 7; pectoral rays 13; lateral line scales 29. Body pale yellowish, sides with large grey blotches in characteristic arrangement, the largest below the lateral line on level with the anterior portion of the anal fin.

## DISTRIBUTION

New record from the Matthew-Hunter Ridge. Outside the area, Philippines; Loyalty Ridge (New Caledonia). Known from depths of 183–260 m.

## REMARKS

This species was recorded from the Loyalty Ridge by Fricke *et al.* (2011). The holotype from the Philippines was described in detail by Randall (1980).

*Plectranthias pelicieri* Randall & Shimizu, 1994 – Pelecier's perchlet (Figures 14 & 15).

## MATERIAL

SMF 35746, one specimen, 54.4 mm SL, New Caledonia, Grande Terre, Province Sud, Mato Pass, 22°41'02''S 166°40'43''E, 50 m depth, Antoine Teitelbaum, 28 February 2013.

## DIAGNOSIS

Dorsal rays X, 16; anal rays III, 7; pectoral rays 13; lateral line scales 29. Body red, head with orange and blue spots, opercle with a red ocellus surrounded by yellow, sides with vertical blue streaks, dorsal and anal fins spotted with orange.



Fig. 14. *Plectranthias pelicieri* Randall & Shimizu, 1994, SMF 35746, one specimen, 54.4 mm SL, New Caledonia, Grande Terre, Lagon Sud (preserved specimen).



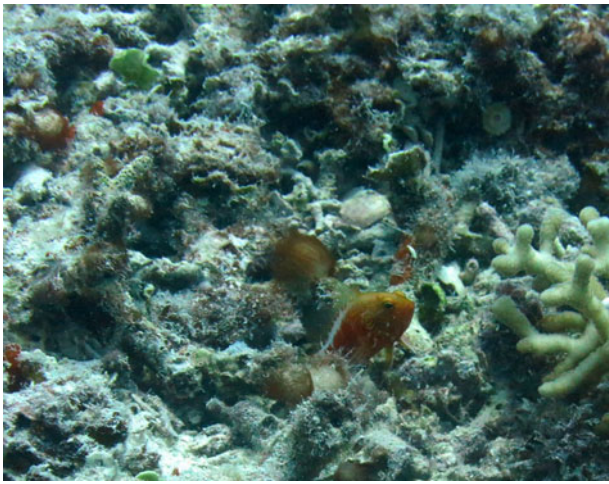


Fig. 15. *Plectranthias pelicieri* Randall & Shimizu, 1994 in its habitat, New Caledonia, Grande Terre, Lagon Sud, Mato Pass (photograph: Colette Wabnitz).

#### DISTRIBUTION

New record from the Grande Terre and New Caledonia. Outside the area, South Africa and Mauritius; Ryukyu Islands; Tonga (record based on a specimen shown in video, 2008, [https://www.youtube.com/watch?v=FaLkUJo86\\_A](https://www.youtube.com/watch?v=FaLkUJo86_A)). Known from depths of 35–95 m. The species is hiding in coral gravel; the habitat with mixed corals and rocks covered with algae is documented in Figure 14.

#### REMARKS

This species was originally described from Mauritius by Randall & Shimizu (1994: 109). Senou & Yunokawa (1995) extended the distribution range to the Ryukyu Islands. Heemstra & Randall (2009) recorded the species from KwaZulu-Natal, South Africa. The present record from New Caledonia suggests that a much wider distribution of this species can be expected.

*Plectranthias rubrifasciatus* Fourmanoir & Randall, 1979 – Red-banded perchlet (Figure 16).

#### MATERIAL

NTUM 10669, one specimen, 31.3 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°22'S 171°42'E, 249–269 m depth, Station CP 3886, Wei-Jen Chen, R/V Alis, 18 September 2011; NTUM 10665, one specimen, 31.8 mm SL, New Caledonian EEZ, southern

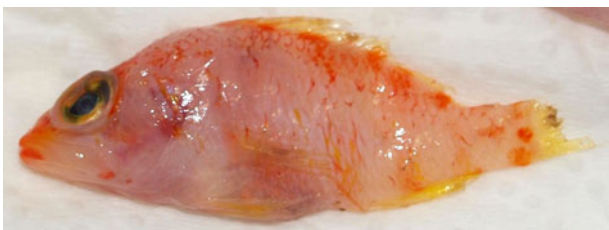


Fig. 16. *Plectranthias rubrifasciatus* Fourmanoir & Randall, 1979, NTUM 10669, one specimen, 31.3 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island (fresh specimen; photograph: Wei-Jen Chen).

Loyalty Ridge, Southern Durand Seamount, 93 km south-east of Maré Island, 22°19'S 168°41'E, 338 m depth, Station CP3856, Wei-Jen Chen, R/V Alis, 14 September 2011.

#### DIAGNOSIS

Dorsal rays X, 15; anal rays III, 7; pectoral rays 14; lateral line scales 29. Body pale yellowish, sides with traces of vertical bars.

#### DISTRIBUTION

New record from the Loyalty and Matthew-Hunter ridges. Outside the area, Grande Terre (New Caledonia). Known from depths of 200–338 m.

#### REMARKS

The lower depth range of this species is expanded to 338 m (formerly 200 m). This species was originally described from Grande Terre (New Caledonia) by Fourmanoir & Randall (1979). The holotype was described in detail by Randall (1980). The species was later reported from the Tuamotu Archipelago by Randall (1996), and from the Mariana Islands by Myers & Donaldson (2003).

*Plectropomus maculatus* (Bloch 1790) – Spotted coral grouper (Figure 17).

#### DIAGNOSIS

Dorsal spines VIII, dorsal rays 12; anal spines III, anal rays 8; pectoral rays 16. Head and body brown, with numerous blue spots on head, body and fins. Pectoral fin blackish, with yellow margin; distal margin of caudal fin white.

#### DISTRIBUTION

Record from New Caledonia (southern Grande Terre) confirmed. Outside the area, Indonesia east to Solomon Islands, south to northern Australia. Found in silty coral reefs, at depths of 5–50 m.

#### REMARK

A specimen of this species was collected and photographed by Philippe Frolla near the southern entrance of the Baie de Prony, Province Sud, Grande Terre, New Caledonia (22°23'51.3"S 166°53'10.4"E), below 5 m depth, on 23



Fig. 17. *Plectropomus maculatus* (Bloch 1790), New Caledonia, Grande Terre, Province Sud, near southern entrance of Baie de Prony (fresh specimen; photograph: Philippe Frolla).



Fig. 18. *Rabaulichthys squirei* Randall & Walsh, 2010, male, New Caledonia, Grande Terre, Lagon Sud (live specimen; photograph: Antoine Teitelbaum).

January 2012. A previous record of *Plectropomus maculatus* in a checklist by Whitley (1961), without any further information, was considered to be a misidentification of *Plectropomus laevis* (Lacepède [ex Commerson], 1801 by Fricke *et al.* (2011). The present record demonstrates that the species actually occurs off southern Grande Terre, New Caledonia; therefore, Whitley's (1961) record is confirmed.

*Rabaulichthys squirei* Randall & Walsh, 2010 – Southern sailfin anthias (Figure 18).

#### DIAGNOSIS

Dorsal fin very high, dorsal rays X, 16, the first 3–6 rays unbranched; anal rays III, 7, all soft rays branched; pectoral rays 19–21; lateral line scales 51–59. Body and vertical fins of male red, with an orange bar across eye and cheeks. Female red, with greyish white marblings.

#### DISTRIBUTION

New record from Grande Terre and New Caledonia. Outside the area, western Coral Sea off Queensland, Australia. Known from depths of 6–54 m.

#### REMARKS

This species was originally described from reefs in the western Coral Sea, Queensland, Australia (Randall & Walsh, 2010). The present specimens, which were collected in the southern lagoon of Grande Terre (coll. by Antoine Teitelbaum, 25 July 2013), which agree well in colouration with the type series, represent the first record of the species outside Australia. In New Caledonia, the species was collected together with *Cirrhilabrus bathyphilus* Randall & Nagareda 2002. The second author found two males in the Mato Pass area, inside the lagoon, and he has seen but not collected a school of more than 50 specimens of small females and juveniles at a depth of 55 m on the outer barrier reef, Récif Mbere.

Family ACROPOMATIDAE  
*Synagrops philippinensis* (Günther 1880) –  
Sharptooth seabass  
(Figure 19)

#### MATERIAL

NTUM 10682, two specimens, 34.7–35.6 mm SL, New Caledonian EEZ, southern Loyalty Ridge, South Durand Seamount, 22°18'S 168°42'E, 340–346 m depth, Station CP 3898, Wei-Jen Chen, R/V Alis, 20 September 2011; NTUM 10683, one specimen, 31.7 mm SL, northern Loyalty Ridge,



Fig. 19. *Synagrops philippinensis* (Günther 1880), NTUM 10683, one specimen, 31.7 mm SL, New Caledonian EEZ, northern Loyalty Ridge, Récif Petrié (fresh specimen; photograph: Wei-Jen Chen).

Récif Petrié, 18°36'S 164°20'E, 381 m depth, Station CP 3927, Wei-Jen Chen, R/V Alis, 26 September 2011.

#### DIAGNOSIS

First dorsal fin with IX spines, second dorsal fin with I spine and 9 rays, anal fin with II spines and 7 rays; 24 lateral-line scales; pelvic-fin spine serrated. Head and body yellowish, scattered with melanophores; inside of mouth and gill cavities pale.

#### DISTRIBUTION

New record from northern and southern Loyalty Ridge. Outside the area, South China Sea and Indonesia, south to eastern Australia and northern New Zealand, east to New Caledonia. Known from depths of 186–381 m.

#### REMARKS

The lower depth range of this species is expanded to 381 m (previously 370 m). The species was previously reported from Grande Terre (New Caledonia) by Fourmanoir & Rivaton (1979), and from the Chesterfield Bank by Fricke *et al.* (2011).

#### Family POMACENTRIDAE

*Stegastes insularis* Allen & Emery, 1985 – Island gregory  
(Figure 20)

#### DIAGNOSIS

First dorsal fin with XII spines, second dorsal fin with 15–17 rays, anal fin with II spines and 11–13 rays; 28 lateral-line scales. Head and body dark grey, posterior part of body and caudal fin with yellowish shine, anal fin with a broad blackish margin.

#### DISTRIBUTION

New record from Grande Terre and New Caledonia. Outside the area, Christmas Island (eastern Indian Ocean); Minami Tori Shima (western Pacific Ocean). Known from depths of 1–6 m.

#### REMARKS

This species was originally described by Allen & Emery (1985) from Christmas Island (eastern Indian Ocean) and Minami Tori Shima (western Pacific). Shao *et al.* (1986) recorded it from Orchid Island south-east of Taiwan. The new record from New Caledonia is based on specimens photographed by Antoine Teitelbaum from the southern lagoon of Grande Terre, New Caledonia, and by Philippe Frolla, also from the southern lagoon of Grande Terre (22°50'36.6''S 166°47'33.9''E), at a depth of 3 m, on 27 August 2013





Fig. 20. *Stegastes insularis* Allen & Emery 1995, New Caledonia, Grande Terre, southern lagoon (live specimen; photograph: Philippe Frolla).

(Figure 20); it adds another wide distribution extension. As noticed by Allen & Emery (1985), this species has a relict distribution around isolated, offshore islands.

Family LABRIDAE

*Cirrhilabrus rubrimarginatus* Randall 1992 –  
Red-margin fairy-wrasse  
(Figure 21)

MATERIAL

SMF 35747, one specimen, 91.1 mm SL, New Caledonia, Grande Terre, Province Sud, inside Mato Pass, 22°41'02"S 166°40'43"E, 25 m depth, Antoine Teitelbaum, 11 October 2013.

DIAGNOSIS

Dorsal rays XI, 9; anal rays III, 9; pectoral rays 14–16; lateral line scales 15–18 + 5–8. Body in male lavender pink, with fine yellow lines on head and back, yellow patch on top of snout, reddish spots on side, and distal parts of dorsal fin as well as caudal fin bright red, bordered with light blue.

DISTRIBUTION

New record from the Grande Terre and New Caledonia. Outside the area, Indonesia, Philippines and Papua New Guinea east to Fiji and Tonga. Known from depths of 25–52 m.

REMARKS

In New Caledonia, this species was observed together with *Cirrhilabrus lineatus* Randall & Lubbock 1982. While

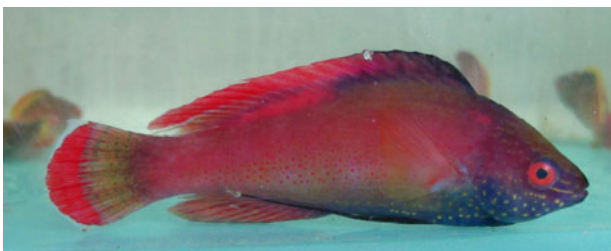


Fig. 21. *Cirrhilabrus rubrimarginatus* Randall 1992, New Caledonia, Grande Terre, Province Sud, Mato Pass (live specimen; photograph: Antoine Teitelbaum).



Fig. 22. *Pteropsaron neocaledonicus* Fourmanoir & Rivaton, 1979, NTUM 10667, one specimen, 30.5 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island (fresh specimen; photograph: Wei-Jen Chen).

*Cirrhilabrus lineatus* was always abundant, *Cirrhilabrus rubrimarginatus* is very rare in this habitat.

Family PERCOPHIDAE

*Pteropsaron neocaledonicus* Fourmanoir & Rivaton, 1979 –  
New Caledonian duckbill  
(Figure 22)

MATERIAL

NTUM 10662, one specimen, 54.0 mm SL, New Caledonian EEZ, southern Loyalty Ridge, Durand Seamount, 71 km south-east of Maré Island, 22°03'S 168°41'E, 360–560 m depth, Station DW3849, Wei-Jen Chen, R/V Alis, 13 September 2011; NTUM 10667, one specimen, 30.5 mm SL, New Caledonian EEZ, Matthew-Hunter Ridge, 31 km east of Matthew Island, 22°22'S 171°42'E, 249–269 m depth, Station CP 3886, Wei-Jen Chen, R/V Alis, 18 September 2011.

DIAGNOSIS

Dorsal fin rays IV, 15, anal fin rays 24, pectoral fin rays 22; barbel absent at tip of snout; anteriorly directed maxillary spine externally apparent; lower jaw not projecting above upper jaw. Body pale yellowish, with a longitudinal series of ocelli; first dorsal black.

DISTRIBUTION

New record from Loyalty and Matthew-Hunter Ridges. Outside the area, Ile des Pins (Grande Terre Group), New Caledonia. Known from depths of 269–360 m.

REMARKS

This species was originally described from south of the Ile des Pins by Fourmanoir & Rivaton (1979).

Family DRACONETTIDAE

*Centrodraco ornatus* (Fourmanoir & Rivaton, 1979) –  
Ornate slope dragonet  
(Figure 23)

MATERIAL

NTUM 10659, one female, 40.9 mm SL, New Caledonian EEZ, southern Loyalty Ridge, Durand Seamount, 71 km south-east of Maré Island, 22°04'S 168°38'E, 396 m depth, Station DW3846, Wei-Jen Chen, R/V Alis, 13 September 2011.

DIAGNOSIS

Dorsal spines III, dorsal rays 14 (unbranched, last divided at base); anal rays 13 (branched, last divided at base), pectoral rays 22–24; dorsal-fin spines stout. Eye large. Head and body dorsally with short ocellate lines.



**Fig. 23.** *Centrodramus ornatus* (Fourmanoir & Rivaton, 1979), NTUM 10659, one specimen, 40.9 mm SL, New Caledonian EEZ, southern Loyalty Ridge, Durand Seamount, 71 km south-east of Maré Island (fresh specimen; photograph: Wei-Jen Chen).

#### DISTRIBUTION

New record from the Loyalty Ridge. Outside the area, Kyushu-Palau Ridge; New Caledonia (Isle des Pins; Jumeau Seamount on Norfolk Ridge). Known from depths of 300–530 m.

#### REMARK

This species was originally described by Fourmanoir & Rivaton (1979) from south of the Ile des Pins, New Caledonia, and was subsequently reported from Jumeau Seamount, Norfolk Ridge by Fricke (2002); this is the first record from the Loyalty Ridge. This species was described in detail by Fricke (1992).

*Draconetta xenica* Jordan & Fowler 1903 – Highfin slope dragonet (Figure 24).

#### MATERIAL

NTUM 10649, 47.5 mm SL, New Caledonia, Grande Terre, south-east of Yaté, 22°13'S 167°07'E, 264–273 m depth, Station CP3788, Wei-Jen Chen, R/V Alis, 3 September 2011; NTUM 10652, one specimen, 39.6 mm SL, New Caledonian EEZ, submarine volcano 35 km east of Matthew Island, 22°22'S 171°42'E, 249–269 m depth, Station DW3886, Wei-Jen Chen, R/V Alis, 18 September 2011.

#### DIAGNOSIS

Dorsal spines III, dorsal rays 12 (unbranched, last divided at base); anal rays 12 (branched, last divided at base), pectoral rays 21–25; dorsal-fin spines flexible. Eye large. Head and body yellowish, side with dark brown spots and bars, first dorsal fin dark grey.

#### DISTRIBUTION

New record from Grande Terre and Matthew Island, New Caledonia. Outside the area, East Africa east to Hawaiian Islands, north to southern Japan, south to Norfolk Rise (New Caledonian EEZ). Known from depths of 128–264 m.

#### REMARK

This species was recorded from the Norfolk Ridge, New Caledonia, by Fricke (2002); this is the first record from the main island of Grande Terre, and from the Matthew-Hunter



**Fig. 24.** *Draconetta xenica* Jordan & Fowler 1903, NTUM 10652, one specimen, 39.6 mm SL, New Caledonian EEZ, submarine volcano 35 km east of Matthew Island (fresh specimen; photograph: Wei-Jen Chen).

Ridge. The lower depth range is also expanded to at least 264 m (previously 241 m). This species was described in detail by Fricke (1992).

#### Family ACANTHURIDAE *Acanthurus maculiceps* (Ahl 1923) – White-freckled surgeonfish (Figure 25)

#### DIAGNOSIS

Dorsal spines IX, dorsal rays 24–25; anal spines III, anal rays 23–24; pectoral rays 16. Head and body dark, head with numerous yellowish white blotches, horizontally dark streak surrounded by yellowish white behind upper edge of gill cover, caudal spine pale with black margin, white bar at base of caudal fin.

#### DISTRIBUTION

New record from New Caledonia. Outside the area, Maldives east to Marshall Islands and Line Islands, south to Queensland (Australia), Solomon Islands and Samoa, north to Ryukyu Islands, south to northern Australia; waifs reaching Hawaiian Islands. Known from seaward coral reefs, at depths of 1–30 m.

#### REMARK

Specimens of this species were photographed by Philippe Frolla in the north-eastern lagoon of Grande Terre, New Caledonia (20°25'32.7"S 164°41'25.7"E), at a depth of 5 m, on 13 October 2013 (see Figure 25).

#### DISCUSSION

The present paper adds 10 fish species to the known fish fauna of the New Caledonian EEZ. Fricke *et al.* (2011) recorded 2320 native species. Subsequently, a total of 18 species were added to the New Caledonian ichthyofauna (see Introduction). Together with the new records, a total of 2348 species is now known from New Caledonian waters. The description of additional (previously undescribed) species is in preparation.

As discussed by Fricke *et al.* (2011), the major ridges within the New Caledonian EEZ are zoogeographically isolated and harbour partly separate fish faunas and local endemic



**Fig. 25.** *Acanthurus maculiceps* (Ahl 1923), New Caledonia, Grande Terre, Province Nord, north-eastern lagoon (live specimen; photograph: Philippe Frolla).

species; therefore, new records from ridges within New Caledonian waters are also reported herein. Within the New Caledonian EEZ, ten species are recorded for the first time from Grande Terre, seven species from the Loyalty Ridge, and ten species from the Matthew-Hunter Ridge. This adds to a total number (Fricke *et al.*, 2011, plus subsequently recorded species and new records of the present paper) of 1877 species in Grande Terre, 1038 species on the Loyalty Ridge including Loyalty Islands, but only 38 species on the Matthew-Hunter Ridge.

Three of the new records are highly unusual. *Lioscorpius trifasciatus* was previously thought to be restricted to off eastern Australia. The species has now been found on the Matthew-Hunter Ridge of the New Caledonian EEZ. The record of *Plectranthias pelicierei* from Grande Terre (New Caledonia) is likewise unexpected, as the species was previously only known from the south-western Indian Ocean and the Ryukyu Islands in the north-western Pacific. These findings, however, may be due to poor knowledge of the deepwater fish fauna of the tropical Western Pacific. *Stegastes insularis*, now known from Grande Terre (New Caledonia), was previously known only from Christmas Island (eastern Indian Ocean) and Minami Tori Shima (western Pacific). This species, however, is restricted to scattered oceanic islands.

## ACKNOWLEDGEMENTS

The EXBODI Cruise was performed by the Institute de Recherche pour le Développement (IRD), Centre de Nouméa, in September 2011. We appreciate the efforts of the crews of the R/V Alis and participants of the oceanographic cruise (campaign: EXBODI; PIs, Sarah Samadi and Laure Corbari) who were involved in organizing the survey and collecting the samples (Ho & Chen, 2013). EXBODI was supported by UMS Flotte Océanographique Française. We would like to thank Wei-Jen Chen (NTUM) for his hospitality during a visit in Taiwan, and for providing access to the material, catalogue numbers, photographs and information. Tilman Alpermann (SMF) provided catalogue numbers for fish specimens deposited in his collection. The following aquarium fish collectors were involved in sighting and collecting some of the newly recorded fish species together with the second author, so we would like to thank Hernan Rikkers, Albert Joseph and Julio Metmetsan, as well as Colette Wabnitz who contributed an underwater photograph of *Plectranthias pelicierei*. We are grateful to Philippe Frolla, the member of the scientific diving team of the third author who is in charge of underwater photographs. We also want to thank Maël Imirizaldu (Conservation International) who first spotted *Acanthurus maculatus* and informed Laurent Wantiez of its probable presence on the East lagoon of New Caledonia.

## REFERENCES

**Alcock A.W.** (1896) Natural history notes from H.M. Indian marine survey steamer 'Investigator,' Commander C.F. Oldham, R.N., commanding. Series II. No. 23. A supplementary list of the marine fishes of India, with descriptions of two new genera and eight new species. *Journal of the Asiatic Society of Bengal* 65(part 2, no. 3), 301–338.

- Allen G.R. and Emery A.R.** (1985) A review of the pomacentrid fishes of the genus *Stegastes* from the Indo-Pacific, with descriptions of two new species. *Indo-Pacific Fishes* 3, 1–31, 3 pls.
- Baird R.C.** (1971) The systematics, distribution, and zoogeography of the marine hatchetfishes (family Sternoptychidae). *Bulletin of the Museum of Comparative Zoology* 142, 1–128.
- Borsa P., Béarez P., Paijo S. and Chen W.-J.** (2013) *Gymnocranius superciliosus* and *Gymnocranius satoi*, two new large-eye breams (Sparoidea: Lethrinidae) from the Coral Sea and adjacent regions. *Comptes Rendus Biologies* 336, 233–240.
- Eschmeyer W.N.** (ed.) (2015) *Catalog of fishes*. Electronic version (6 April 2015). San Francisco: Internet Publication (California Academy of Sciences). Available at: <http://research.calacademy.org/research/Ichthyology/Catalog/fishcatmain.asp> (accessed 3 May 2015).
- Eschmeyer W.N. and Randall J.E.** (1975) The scorpaenid fishes of the Hawaiian Islands, including new species and new records (Pisces: Scorpaenidae). *Proceedings of the California Academy of Sciences* 40, 265–333.
- Fourmanoir P.** (1971) Listes des espèces de poissons contenus dans les estomacs de thons jaunes, *Thunnus albacares* (Bonnatere) 1788 et de thons blancs, *Thunnus alalunga* (Bonnatere) 1788. *Cahiers de l'ORSTOM, Série Océanographie* 9, 109–118.
- Fourmanoir P. and Randall J.E.** (1979) Three new species of serranid fishes of the genus *Plectranthias* from New Caledonia. *Micronesica* 15, 315–324.
- Fourmanoir P. and Rivaton J.** (1979) Poissons de la pente récifale externe de Nouvelle-Calédonie et des Nouvelles-Hébrides. *Cahiers de l'Indo-Pacifique* 1, 405–443.
- Fricke R.** (1983) A method of counting caudal fin rays of actinopterygian fishes. *Braunschweiger Naturkundliche Schriften* 1, 729–733.
- Fricke R.** (1992) Revision of the family Draconettidae (Teleostei) with descriptions of two new species and a new subspecies. *Journal of Natural History* 26, 165–195.
- Fricke R.** (2002) Annotated checklist of the dragonet families Callionymidae and Draconettidae (Teleostei: Callionymoidei), with comments on callionymid fish classification. *Stuttgarter Beiträge zur Naturkunde, A (Biologie)* 645, 1–103.
- Fricke R.** (ed.) (2015) *Literature in the catalog of fishes*. Electronic version (6 April 2015). San Francisco: California Academy of Sciences. Available at: <http://research.calacademy.org/research/Ichthyology/Catalog/fishcatmain.asp> (accessed 3 May 2015).
- Fricke R.** (in press) *Centrodraco* \_\_\_\_\_ (Teleostei: Draconettidae), a new deepwater dragonet species from the Southern Loyalty Ridge, Southwestern Pacific Ocean. *Cybium*.
- Fricke R., Kulbicki M. and Wantiez L.** (2011) Checklist of the fishes of New Caledonia, and their distribution in the Southwest Pacific Ocean (Pisces). *Stuttgarter Beiträge zur Naturkunde A, Neue Serie* 4, 341–463.
- Gon O. and Allen G.R.** (2012) Revision of the Indo-Pacific cardinalfish genus *Siphamia* (Perciformes: Apogonidae). *Zootaxa* 3294, 1–84.
- Gourtay-Le Hingrat F.** (2012) 2011 French oceanographic cruises report. Plouzané: IFREMER, pp. 1–54.
- Greenfield D.W. and Suzuki T.** (2012) *Eviota atriventris*, a new goby previously misidentified as *Eviota pellucida* Larson (Teleostei: Gobiidae). *Zootaxa* 3197, 55–62.
- Heemstra P.C. and Randall J.E.** (2009) A review of the anthiine fish genus *Plectranthias* (Perciformes: Serranidae) of the western Indian Ocean, with description of a new species, and a key to the species. *Smithiana, Publications in Aquatic Biodiversity, Bulletin* 10, 3–17, pl. 1.



- Ho H.-C. and Chen W.-J.** (2013) DNA sequences and morphological variation in *Lophiodes iwamotoi* Ho, Séret & Shao, 2011, based on new material from New Caledonia. *Zootaxa* 3682, 594–598.
- Ho H.-C. and McGrouther M.** (2015) A new anglerfish from eastern Australia and New Caledonia (Lophiiformes: Chaunacidae: *Chaunacops*), with new data and submersible observation of *Chaunacops melanostomus*. *Journal of Fish Biology* 86, 940–951.
- Ho H.-C., Roberts C.D. and Shao K.-T.** (2013a) Revision of batfishes (Lophiiformes: Ogocephalidae) of New Zealand and adjacent waters, with description of two new species of the genus *Malthopsis*. *Zootaxa* 3626, 188–200.
- Ho H.-C., Roberts C. and Stewart A.L.** (2013b) A review of the anglerfish genus *Chaunax* (Lophiiformes: Chaunacidae) from New Zealand and adjacent waters, with descriptions of four new species. *Zootaxa* 3620, 89–111.
- Hoesel D.F. and Allen G.R.** (2012) A review of the amphidromous species of the *Glossogobius celebius* complex, with description of three new species. *Cybium* 35 (for 2011), 169–284.
- Iglésias S.P.** (2013) *Apristurus nakayai* sp. nov., a new species of deep-water catshark (Chondrichthyes: Pentanchidae) from New Caledonia. *Cybium* 36 (for 2012), 511–519.
- Iglésias S.P. and Lévy-Hartmann L.** (2012) *Bathyraja leucomelanos*, a new species of softnose skate (Chondrichthyes: Arhynchobatidae) from New Caledonia. *Ichthyological Research* 59, 38–48.
- Karrer C.** (1990) Zeniidae, pp. 629–630. In Quéro J.-C., Hureau J.-C., Karrer C., Post A. and Saldanha L. (eds) *Check-list of the fishes of the eastern tropical Atlantic*. CLOFETA, Vol. 2. Paris: UNESCO, pp. 520–1080.
- Kawai T., Amaoka K. and Séret B.** (2011) *Samariscus neocaledonia*, a new righteye flounder (Teleostei: Pleuronectiformes: Samaridae) from New Caledonia. *Zootaxa* 3135, 63–68.
- Kotthaus A.** (1970) Fische des Indischen Ozeans. Ergebnisse der ichthyologischen Untersuchungen während der Expedition des Forschungsschiffes 'Meteor' in den Indischen Ozean, Oktober 1964 bis Mai 1965. A. Systematischer Teil, VI Anacanthini (2), Berycomorphi, Zeomorphi. *Meteor Forschungsergebnisse D, Biologie* 5, 53–70.
- Last P.R., Yearsley G.K. and Motomura H.** (2005) *Lioscorpiscus trifasciatus*, a new scorpionfish (Scorpaeniformes: Setarchidae) from the south-west Pacific Ocean. *Zootaxa* 1038, 11–22.
- Motomura H., Causse R. and Struthers C.D.** (2012) *Phenacoscorpiscus longilineatus*, a new species of deepwater scorpionfish from the south-western Pacific Ocean and the first records of *Phenacoscorpiscus adenensis* from the Pacific Ocean (Teleostei: Scorpaenidae). *Species Diversity* 17, 151–160.
- Myers R.F. and Donaldson T.J.** (2003) The fishes of the Mariana Islands. *Micronesica* 35–36, 598–652.
- Nelson J.S.** (2006) *Fishes of the world*, 4th edn. Hoboken, NJ: John Wiley & Sons, pp. i–xix + 1–601.
- Nielsen J.G.** (1997) Deepwater ophidiiform fishes from off New Caledonia with six new species. In Séret B. (ed.) *Résultats des campagnes MUSORSTOM*, 17. Paris (NS): Mémoires du Muséum National d'Histoire Naturelle, (A) Zoologie Vol. 174, pp. 51–82.
- Okamoto M. and Motomura H.** (2013) Two new species of deepwater cardinalfish from the Indo-Pacific, with a definition of the *Epigonus pandionis* group (Perciformes: Epigonidae). *Ichthyological Research* 60, 301–311 [First published online, pp. 1–11].
- Poss S.G. and Eschmeyer W.N.** (1975) The Indo-West Pacific scorpionfish genus *Ocosia* Jordan and Starks (Scorpaenidae, Tetraroginae), with description of three new species. *Matsya* 1, 1–18.
- Randall J.E.** (1980) Revision of the fish genus *Plectranthias* (Serranidae: Anthiinae) with descriptions of 13 new species. *Micronesica* 16, 101–187.
- Randall J.E.** (1996) Two new anthiine fishes of the genus *Plectranthias* (Perciformes: Serranidae), with a key to the species. *Micronesica* 29, 113–131.
- Randall J.E. and Shimizu T.** (1994) *Plectranthias pelicieri*, a new anthiine fish (Perciformes: Serranidae) from Mauritius, with notes on *P. gardineri*. *Japanese Journal of Ichthyology* 41, 109–115.
- Randall J.E. and Walsh F.** (2010) *Rabaulichthys squirei*, a new species of sailfin anthias (Serranidae: Anthiinae) from the Coral Sea. *Memoirs of the Queensland Museum Nature* 55, 205–211.
- Richer de Forges B., Chan T.-Y., Corbari L., LeMaitre R., Macpherson E., Ah Yong S.T. and Ng P.K.L.** (2014) The Musorstom-TDSB deep-sea benthos exploration program (1976–2012): an overview of crustacean discoveries and new perspectives on deep-sea zoology and biogeography. In Ah Yong S.T., Chan T.-Y., Corbari L. and Ng P.K.L. (eds) (RL) *Tropical Deep-Sea Benthos* 27. *Mémoires du Muséum National d'Histoire Naturelle*, 204, 13–66.
- Rivaton J.** (1989) Premières observations sur la faune ichthyologique des îles Chesterfield (Mer du Corail). *Cybium* 13, 139–164.
- Roberts C.D. and Gomon M.F.** (2012) A review of giant roughies of the genus *Hoplostethus* (Beryciformes, Trachichthyidae), with descriptions of two new Australasian species. *Memoirs of the Museum of Victoria* 69, 341–354.
- Schwarzhan W. and Nielsen J.G.** (2011) Revision of the genus *Microbrotula* (Teleostei: Bythitidae), with description of two new species and a related new genus. *The Beagle, Records of the Museums and Art Galleries of the Northern Territory* 27, 147–160.
- Senou H. and Yunokawa K.** (1995) New record of an anthiine fish, *Plectranthias pelicieri* (Perciformes: Serranidae). *I.O.P. Diving News* 6, 4–6.
- Shao K.-T., Kuo S.-R. and Lee C.-C.** (1986) Additional seven new records of damselfishes (Pisces: Pomacentridae) from Taiwan, with description on the two anomalies of damselfish specimens. *Bulletin of the Institute of Zoology, Academia Sinica* 25, 151–160.
- Shcherbachev Y.N.** (1980) Preliminary review of deep-sea ophidiids (Ophidiidae, Ophidiiformes) of the Indian Ocean [In Russian, English summary]. *Deep sea fishes of the Indian Ocean. Trudy Instituta Oceanologii Imeni P.P. Shirshova* 110, 105–176.
- and
- Whitley G.P.** (1961) Fishes from New Caledonia. *Proceedings of the Royal Zoological Society of New South Wales* 1958–1959, 60–65.

#### Correspondence should be addressed to:

R. Fricke  
Im Ramstal 76, 97922 Lauda-Königshofen, Germany  
email: [ronfricke@web.de](mailto:ronfricke@web.de)