

# Checklist of the shore fishes of Europa Island, Mozambique Channel, southwestern Indian Ocean, including 302 new records

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## Abstract

An annotated checklist of the fish species of Europa Island (Mozambique Channel, southwestern Indian Ocean) comprises a total of 389 species in 62 families. 302 species are recorded from Europa Island for the first time. All species are autochthonous; no introduced species have been found. The fish fauna is exclusively marine, with the Labridae, Pomacentridae, Serranidae, Gobiidae and Acanthuridae being the families with most representatives.

The fish fauna at Europa Island is typical for offshore, low islands in the southwestern Indian Ocean. Zoogeographically, the main element of the fish fauna of Europa Island consists of widespread tropical Indo-Pacific species (292 species, 75.1 % of the total occurring species). A total of 13 species (3.3 %) are found worldwide, either circumtropical or circumtropical including warm temperate zones. An additional 76 species (19.5 %) are Indian Ocean endemics, including 36 western Indian Ocean endemics (9.2 %), and 10 southwestern Indian Ocean endemics (2.6 %). No endemic fish species are reported for Europa Island.

**Key words:** Checklist, Pisces, southwestern Indian Ocean, Europa Island, new records, zoogeography.

## Zusammenfassung

Die Checkliste der Fische der Insel Europa (Kanal von Mosambik, südwestlicher Indischer Ozean) enthält 389 Arten in 62 Familien. 302 Arten werden zum ersten Mal von der Insel Europa beobachtet. Alle Fischarten sind autochthon; es wurden keine durch den Menschen eingeführten oder eingeschleppten Arten gefunden. Alle Fischarten sind marin; die artenreichsten Fischfamilien sind die Labridae, Pomacentridae, Serranidae, Gobiidae und Acanthuridae.

Die Fischfauna der Insel Europa ist typisch für küstenferne, niedrige Inseln im südwestlichen Indischen Ozean. Zoogeographisch haben 75,1 % der nachgewiesenen Fischarten eine großräumige indo-pazifische Verbreitung, 3,3 % der Arten werden in allen tropischen Meeren gefunden, und 19,5 % der Arten sind im Indischen Ozean endemisch, davon 9,2 % nur im westlichen Indischen Ozean und 2,6 % im südwestlichen Indischen Ozean. Es wurden keine endemischen Fischarten bei der Insel Europa gefunden.

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## 1 Introduction

Europa Island is situated in the southern part of the Mozambique Channel, southwestern Indian Ocean at 22°22'S 40°22'E, approximately 355 km westnorthwest of Toliara (Madagascar), and 529 km eastnortheast of Inhambane (Mozambique). The island was named after the British ship 'Europa' which visited in 1774. As one of the Îles Éparses, it has been administered by France since 1897, and is part of the Terres australes et antarctiques françaises (TAAF) since 2005. A small settlement existed since ca. 1860 but was abandoned in the 1920s. Today the island is uninhabited except for a small garrison hosting a detachment of the French army, and a French gendarme. There is no harbour

available, only a boat mooring off the northwestern fringing reef.

The island measures 7 by 6 km (28 km<sup>2</sup>). It is a former atoll which was uplifted to a maximum altitude of 7 m, leaving the fossil coral reefs dry. Nowadays it is surrounded by a fringing reef with a narrow and shallow lagoon, which only widens towards the north of the island, where there is also the entrance of an extensive inland lagoon system which is surrounded by mangroves on its inner side. Several typical coastal marine habitats are shown in Figs. 2–5.

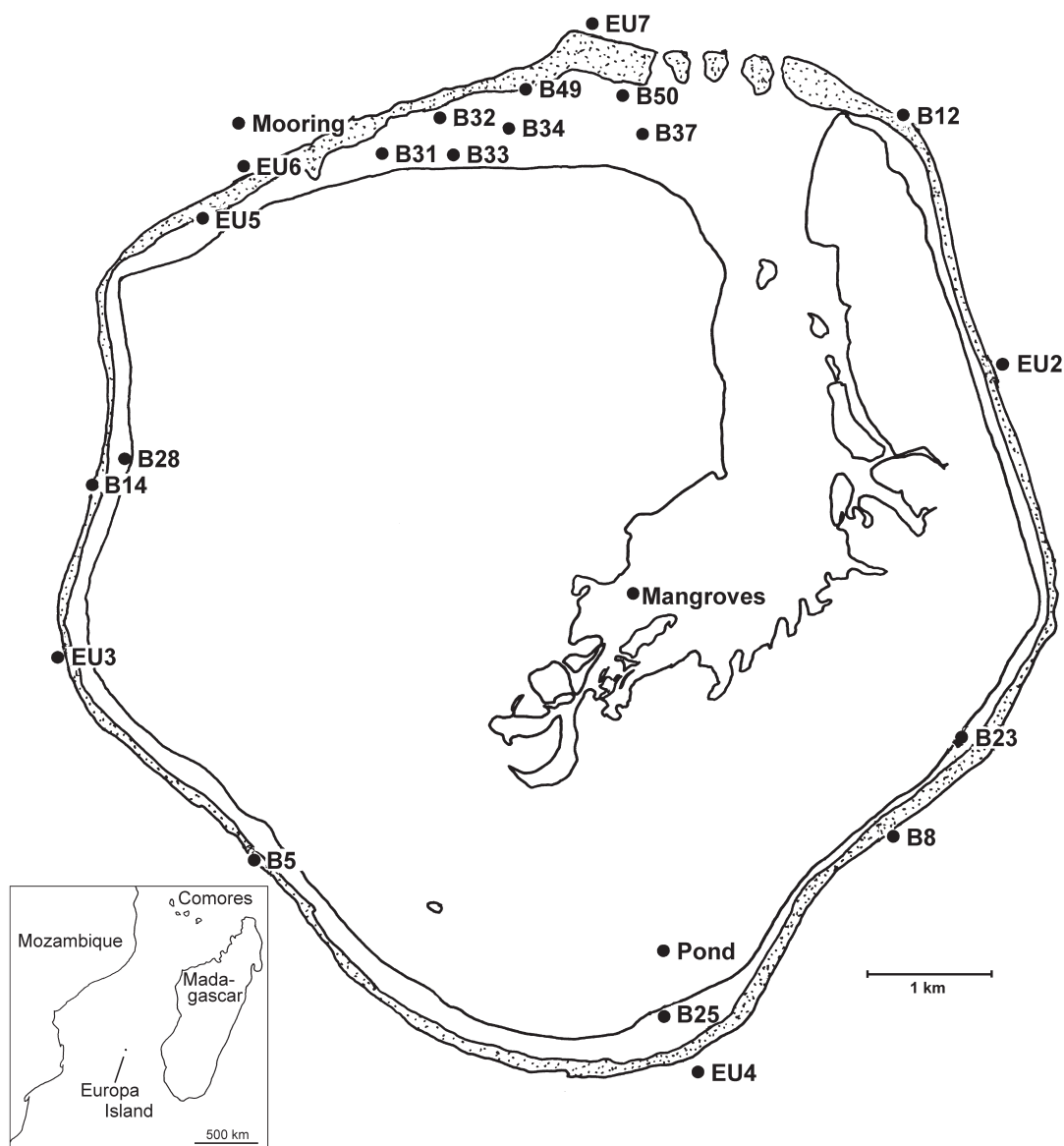
The knowledge of the fish fauna of Europa Island was hitherto limited to a publication by FOURMANOIR (1952), who recorded 99 fish species from the island.

The present paper provides an updated checklist of the shore fishes of the island, based on 1) visual censuses during a visit of the R/V 'Marion Dufresne 2' (April 2011), where 243 fish species were observed (P. DURVILLE, P. CHABANET, G. BERNARDI, P. BORSA & G. MOU-THAM), and 2) the mission BioReCIE 2011 (Biodiversity, Resources and Conservation of coral reefs at Îles Éparses; 7–13 Nov. 2011), where numerous fish species were observed and collected (P. CHABANET, P. DURVILLE, R. FRICKE).

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**Fig. 1.** Europa Island with stations of mission BioReCIE 2011, Nov. 2011. – Solid line represents the coast at high tide, the dotted areas show the fringing reef.

**Tab. 1.** Station data of the mission BioReCIE 2011 to Europa Island, Nov. 2011.

Station	Area	Geographic Coordinates	Date, Time	Habitat	Depth	Observers
EU2	East	22°21'10.476"S 40°23'48.228"E	10 Nov. 2011 12:30–13:30 h	Coral reef slope	13 m	PASCALE CHABANET, PATRICK DURVILLE
EU3	West	22°22'22.8"S 40°19'29.388"E	9 Nov. 2011 09:40–10:40 h	Coral reef slope (Fig. 4)	11–13 m	PASCALE CHABANET, PATRICK DURVILLE
EU4	South	22°24'14.436"S 40°22'12.936"E	9 Nov. 2011 13:40–14:40 h	Coral reef slope	12 m	PASCALE CHABANET, PATRICK DURVILLE
EU5	North	22°20'28.356"S 40°20'15.468"E	11 Nov. 2011 08:00–09:00 h; 13 Nov. 2011 08:00–09:00	Reef flat (Fig. 2)	0–2 m	PASCALE CHABANET, PATRICK DURVILLE, RONALD FRICKE
EU6	North	22°20'26.268"S 40°20'13.776"E	8 Nov. 2011 10:10–11:10 h	Coral reef slope	8–10 m	PASCALE CHABANET, PATRICK DURVILLE
EU7	North	22°19'45.948"S 40°21'54.288"E	7 Nov. 2011 09:00–10:00 h	Coral reef slope	9–12 m	PASCALE CHABANET, PATRICK DURVILLE
B5	Southwest	22°23'02.436"S 40°20'15"E	11 Nov. 2011 14:15–15:15 h	Coral reef slope	10 m	PASCALE CHABANET, PATRICK DURVILLE
B8	Southeast	22°23'07.008"S 40°23'18.816"E	10 Nov. 2011 09:18–10:18 h	Coral reef slope	11 m	PASCALE CHABANET, PATRICK DURVILLE
B12	Northeast	22°20'07.116"S 40°23'19.968"E	12 Nov. 2011 09:00–10:00 h	Coral reef slope	10 m	PASCALE CHABANET, PATRICK DURVILLE
B14	West	22°21'32.436"S 40°19'46.776"E	11 Nov. 2011 09:15–10:15 h	Coral reef slope	12 m	PASCALE CHABANET, PATRICK DURVILLE
B23	Southeast	22°22'50.87"S 40°23'29.64"E	12 Nov. 2011	Reef flat	0–1 m	PATRICK DURVILLE
B25	South	22°23'51.29"S 40°22'15.30"E	12 Nov. 2011	Reef flat	0–1 m	PATRICK DURVILLE
B28	West	22°21'34.524"S 40°19'52.32"E	9 Nov. 2011 08:10–09:20 h; 11 Nov. 2011 10:15–11:45 h; 12 Nov. 2011 10:30–12:20 h	Reef flat with tidal pools (Fig. 3)	0–1 m	RONALD FRICKE
B31	North	22°20'25.81"S 40°20'42.75"E	7 Nov. 2011 09:30–10:30 h	Reef flat	0–1 m	RONALD FRICKE
B32	North	22°20'21.04"S 40°20'42.35"E	7 Nov. 2011 10:30–11:30 h	Reef flat	0–1 m	RONALD FRICKE
B33	North	22°20'24.58"S 40°20'51.88"E	7 Nov. 2011 08:30–09:30 h	Reef flat	0–1 m	RONALD FRICKE
B34	North	22°20'16.52"S 40°20'54.51"E	8 Nov. 2011 09:30–11:30 h	Lagoon	0–1 m	RONALD FRICKE
B37	North	22°20'07.00"S 40°21'57.50"E	10 Nov. 2011 08:50–09:50 h	Lagoon	0–1 m	RONALD FRICKE
B49	Centre	22°20'09.19"S 40°21'13.55"E	8 Nov. 2011 11:30–12:30 h	Reef flat	0–1 m	RONALD FRICKE
B50	Centre	22°19'59.54"S 40°21'53.67"E	10 Nov. 2011 09:50–10:50 h	Reef flat	0–1 m	RONALD FRICKE
Mangroves	Centre	22°22'19.29"S 40°22'22.73"E	11 Nov. 2011	Mangroves, sand bottom (Fig. 5)	0–2 m	PASCALE CHABANET, PATRICK DURVILLE
Mooring	North	22°20'24.15"S 40°20'11.64"E	11 Nov. 2011	Sand and patch reef	18 m	PATRICK DURVILLE
Pond	South	22°23'21.79"S 40°22'37.59"E	12 Nov. 2011	Sand, fossil coral	0–1 m	PATRICK DURVILLE

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## 2 Methods and Materials

The present paper provides a list of all shore fishes recorded from Europa Island. For each species, the first record from Europa Island is given. During the BioReCIE 2011 project, attempts were made to confirm previous records of fishes from the island. If a species is recorded from Europa Island for the first time, information on the source of the new record is presented. In addition, synonyms and misidentifications used in the literature on Europa Island are provided, as well as English and French vernacular names. The genus and species classification follows ESCHMEYER & FRICKE (2011). The species accounts include data on the stations where the species were observed or collected. The expedition with R/V Marion Dufresne in April 2011 is abbreviated as MD-11. Details of the station data of Europa Island (mission BioReCIE 2011) are given in Tab. 1; the positions of the stations (abbreviated "St." in the text) are shown in Fig. 1.

While some new records are based on specimens collected, a considerable percentage of the new records is based on observations and/or photographs, as collecting was difficult due to strong currents. New records are only included when the identification was unambiguous. For materials in collections, a catalogue number is provided, followed by the number of specimens, in parentheses.

For the distribution analysis, the following works were consulted to assess the fish fauna of islands and island groups in the Western Indian Ocean: **Seychelles**, SMITH & SMITH (1963) and RANDALL & EGMONT (1994), updated using various papers including ALLEN (1972), DAWSON (1967, 1968, 1977), FRASER & LACHNER (1985), GOLANI (1984), HOESE & READER (1985), HOLLEMAN (2005, 2007), KEITH et al. (2004), KIM & AMAOKA (2001), LACHNER & KARNELLA (1978, 1980), POLUNIN & LUBBOCK (1977), RANDALL (1999, 2001), RANDALL & CLEMENTS (2009), RANDALL & HEEMSTRA (1985, 2009), RANDALL & LOURIE (2009), RANDALL et al. (2008), SCHWARZHANS & MÖLLER (2007), SPRINGER & WILLIAMS (1994), STARCK (1969), TYLER (1966), UIBLEIN (2011); **Maldives**, RANDALL & ANDERSON (1993) and ANDERSON et al. (1998), updated using various papers including ALLEN & ERDMANN (2006), ALLEN & RANDALL (2002), GON & RANDALL (2003), KUITER & DEBELIUS (1999), RANDALL (2001, 2011), SMITH-VANIZ (2010); **Chagos Archipelago**, WINTERBOTTOM & ANDERSON (1997), updated using various papers including BÖHLKE (2000), CRAIG (2008), GILL & EDWARDS (2004), HOLLEMAN (2005), RANDALL & EARLE (2008), SCHWARZHANS et al. (2005); **Réunion**, FRICKE et al. (2009); **Mauritius**, FRICKE (1999), updated using various papers including FRASER & ALLEN (2001), FRICKE (2009), GILL & FRICKE (2001), HOLLEMAN (2007), RANDALL (2004, 2007, 2011), RANDALL & GON (2006), RANDALL & SCHULTZ (2008), RANDALL & SMITH (2001), SCHWARZHANS & MÖLLER (2007), SPRINGER & FRICKE (2000); **Rodrigues**, HEEMSTRA et al. (2004), updated using papers including GILL & EDWARDS (2004) and HOLLEMAN (2005). The general distribution of fish species occurring at Europa Island was

accessed using ESCHMEYER & FRICKE (2011), FRICKE et al. (2009) and FROESE & PAULY (2011).

## Abbreviation of museum collection

SMF      Forschungsinstitut Senckenberg, Frankfurt/Main, Germany

## 3 Checklist

### Carcharhinidae

*Carcharhinus albimarginatus* (Rüppell, 1837) – Silvertip shark; requin pointe blanche. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. EU3, B8.

*Carcharhinus amblyrhynchos* (Bleeker, 1856) – Grey reef shark; Requin dagsit. – **Distribution**: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. EU4, B8.

*Carcharhinus melanopterus* (Quoy & Gaimard, 1824) – Blacktip reef shark; Requin à pointes noires. – **Distribution**: First record from Europa Island by FOURMANOIR (1952: 172, pl. 10B); record confirmed by P. DURVILLE et al. during the expedition MD-11, an observation by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE on 10 Nov. 2011, St. B37; also observed by P. DURVILLE & P. CHABANET, 12 Nov. 2011, St. B12, B25.

*Carcharhinus obscurus* (LeSueur, 1818) – Dusky shark; Requin sombre. – **Distribution**: First record from Europa Island by FOURMANOIR (1952: 179).

*Galeocerdo cuvier* (Péron & LeSueur in LeSueur, 1822) – Tiger shark; Requin tigre. – **Distribution**: First record from Europa Island by FOURMANOIR (1952: 179, pl. 10A) as *Galeocerdo Cuvieri*.

*Triaenodon obesus* (Rüppell, 1837) – Whitetip reef shark, blunt-head shark; Requin corail. – **Distribution**: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

### Sphyrnidae

*Sphyrna lewini* (Griffith & Smith, 1834) – Scalloped hammerhead; Requin-marteau halicorne. – **Distribution**: **New record** from Europa Island, based on a photograph by E. BRETAGNE, taken in November 2011; the species was also observed by P. DURVILLE et al. (as *Sphyrna* sp.) during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. EU3, B8.

*Sphyrna mokarran* (Rüppell, 1837) – Great hammerhead shark; Grand requin-marteau. – **Distribution**: **New record** from Europa Island, based on photograph by E. BRETAGNE, taken in November 2011.

### Dasyatidae

*Neotrygon kuhlii* (Müller & Henle, 1841) – Blue-spotted stingray; Raie à points bleus. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Taeniura* sp. – Distribution: Recorded from Europa Island by P. DURVILLE & P. CHABANET, 12 Nov. 2011, St. B25.

#### Albulidae

*Albula glossodonta* (Forsskål in Niebuhr, 1775) – Indo-Pacific bonefish; Banane (Réunion). – Distribution: Reported from Europa Island as *Albula vulpes* by FOURMANOIR (1952: 174, pl. 11A).

#### Moringuidae

*Moringua javanica* (Kaup, 1856) – Java spaghetti eel. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34766 (4), SMF 34807 (5).

#### Muraenidae

*Echidna nebulosa* (Ahl, 1789) – Snowflake moray, floral moray; Murène étoilée. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34767 (3), SMF 34808 (5).

*Gymnothorax breedeni* McCosker & Randall, 1977 – Blackcheek moray; Murène masquée. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Gymnothorax buroensis* (Bleeker, 1857) – Vagrant moray; Murène errante. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 12 Nov. 2011, St. B28. – Material: SMF 34809 (6).

*Gymnothorax flavimarginatus* (Rüppell, 1830) – Yellow-edged moray, yellow-margined moray; Congre queue verte, murène à queue verte (Réunion), murène à bord jaune (France). – Distribution: First record from Europa Island as *Lycodontis Lemayi* by FOURMANOIR (1952: 188).

*Gymnothorax griseus* (Lacepède [ex Commerson], 1803) – Geometric moray; Murène tatouée. – Distribution: **New record** from Europa Island, based on observations by R. FRICKE on 7–9 Nov. 2011, St. B28, B32.

*Gymnothorax javanicus* (Bleeker, 1859) – Giant moray; Murène javanaise. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE & P. CHABANET during the expedition MD-11.

*Gymnothorax meleagris* (Shaw in Shaw & Nodder, 1795) – Whitemouth moray, Turkey moray; Congre pintade (Réunion), murène voie lactée (France). – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. EU2, EU3.

*Gymnothorax pictus* (Ahl, 1789) – Peppered moray, paintspotted moray; Congre (Réunion), murène sidérale (France) (Fig. 6). – Distribution: First record from Europa Island as *Sidereia picta* by FOURMANOIR (1952: 170); record confirmed by P. DURVILLE et al. during the expedition MD-11, a photograph taken by P. BORSA in the mangrove area on 7 April 2011, and specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28; also observed by P. DURVILLE & P. CHABANET, 12 Nov. 2011, St. B25. – Material: SMF 34768 (1), SMF 34810 (2).

*Gymnothorax rueppellii* (McClelland, 1844) – Banded moray, yellow-headed moray. – Distribution: **New record** from

Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34769 (2), SMF 34811 (1).

#### Ophichthidae

*Myrichthys colubrinus* (Boddaert, 1781) – Ringed snake eel, banded snake eel, harlequin snake eel. – Distribution: First record from Europa Island by FOURMANOIR 1952: 188.

*Myrichthys maculosus* (Cuvier, 1816) – Ocellated snake eel, spotted snake eel, tiger snake eel; Anguille-serpent maculée. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34770 (1), SMF 34812 (2).

#### Congridae

*Conger cinereus* Klunzinger [ex Rüppell], 1830 – Longfin African conger; Congre à moustache. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34752 (1), SMF 34795 (11).

#### Chanidae

*Chanos chanos* (Forsskål in Niebuhr, 1775) – Milkfish; Chano. – Distribution: **New record** from Europa Island, based on visual record by NICOLE GRAVIER-BONNET on 3 June 2006 in a little pond on southeastern part of Europa Island; record confirmed based on photograph by E. BRETAGNE, taken off the reef on the north shore of Europa Island in November 2011, and on an observation by R. Fricke on 11 Nov. 2011, St. EU5.

#### Clupeidae

*Herklotsichthys quadrimaculatus* (Rüppell, 1837) – Bluestripe herring, blueline herring; Sardine (Réunion). – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.

*Spratelloides gracilis* (Temminck & Schlegel, 1846) – Silver-stripe round herring. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.

#### Synodontidae

*Synodus binotatus* Schultz in Schultz, Herald, Lachner, Welander & Woods, 1953 – Twospot lizardfish; Anoli à deux taches. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 7–10 Nov. 2011, St. B33, B34, B37, B50.

*Synodus dermatogenys* Fowler, 1912 – Sand lizardfish; Anoli bigarré. – Distribution: **New record** from Europa Island, based on a specimen collected by R. FRICKE on 12 Nov. 2011, St. B28. – Material: SMF 34823 (1).

#### Carapidae

*Encheliophis homei* (Richardson, 1846) – Silver pearlfish. – Distribution: **New record** from Europa Island, based on a specimen collected and photographed by P. CHABANET on 11 Nov. 2011, among the mangroves in the inner lagoon. The fish was associated with *Bohadschia atra* Massin, Raso-



lofonirina, Conand & Samyn, 1999 (C. CONAND, pers. comm., 31 Mar. 2012). – Material: SMF 34784 (1).

#### Antennariidae

*Antennarius commerson* (Lacepède [ex Commerson] in Anonymus, 1798) – Big angler, giant frogfish, Commerson's frogfish; Grenouille de Commerson. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

#### Atherinidae

*Atherinomorus lacunosus* (Bloch & Schneider [ex Forster], 1801) – Hardyhead silverside; Athérine têteue. – Distribution: Reported from Europa Island as *Atherina* sp. by FOURMANOIR (1952: 187).

#### Mugilidae

*Chelon macrolepis* (Smith, 1846) – Largescale mullet; Mulet à grandes écailles. – Distribution: First record from Europa Island as *Liza macrolepis* by FOURMANOIR (1952: 175); record confirmed by P. DURVILLE et al. based on a observation at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, by a photograph taken in the mangrove area by P. BORSA on 7 April 2011, and by R. FRICKE on 9 Nov. 2011, St. B28.

*Valamugil* sp. – Distribution: Observed at Europa Island by P. DURVILLE et al. during the expedition MD-11.

#### Hemiramphidae

*Hemiramphus far* (Forsskål in Niebuhr, 1775) – Black-barred halfbeak; Demi-bec bagnard. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Hyporhamphus dussumieri* (Valenciennes in Cuvier & Valenciennes, 1847) – Dussumier's halfbeak; Demi-bec de Dussumier. – Distribution: First record from Europa Island by FOURMANOIR (1952: 185).

#### Belonidae

*Strongylura leiura* (Bleeker, 1850) – Yellowfin needlefish; Orphie littorale (Fig. 7). – Distribution: **New record** from Europa Island, based on an observation and photograph by P. DURVILLE et al. during the expedition MD-11, and an observation by P. BORSA in the mangrove area on 7 April 2011.

*Tylosurus crocodilus* (Péron & LeSueur in LeSueur, 1821) – Hound needlefish, crocodile needlefish; Aiguille (Réunion), orphie crocodile (France). – Distribution: Reported from Europa Island as *Belone choram* (non Rüppell, 1837) by FOURMANOIR (1952: 170), and as *Tylosurus choram* (non Rüppell, 1837) by FOURMANOIR (1952: 185); record of *Tylosurus crocodilus* confirmed by P. DURVILLE et al. during the expedition MD-11.

#### Holocentridae

*Myripristis adusta* Bleeker, 1853 – Shadowfin soldier; Marignan ombré. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Myripristis berndti* Jordan & Evermann, 1903 – Blotcheye soldierfish, bigscale soldierfish; Cardinal (Réunion), marignan à oeilères (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU7; and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Myripristis kuntzei* Valenciennes in Cuvier & Valenciennes, 1831 – Shoulderbar soldierfish, epaulette soldierfish, pearly soldierfish; Marignan ardoisé. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Myripristis murdjan* (Forsskål in Niebuhr, 1775) – Pinecone soldierfish, blotcheye soldier, red soldierfish; Cardinal gros écailles (Réunion), marignan pomme de pin (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 184); record confirmed by R. FRICKE based on an observation on 10 Nov. 2011, St. B37.

*Myripristis vittata* Valenciennes in Cuvier & Valenciennes, 1831 – Immaculate soldier, white-tipped soldierfish; Cardinal petit écailles (Réunion). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Neoniphon sammara* (Forsskål in Niebuhr, 1775) – Bloodspot squirrelfish; Marignan tacheté. – Distribution: First record from Europa Island as *Holocentrus sammara* by FOURMANOIR (1952: 185); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Sargocentron caudimaculatum* (Rüppell, 1838) – Silverspot squirrelfish, tailspot squirrelfish; Marignan rouge et argent. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, B14, EU2, EU7; record confirmed by R. FRICKE based on an observation on 9–11 Nov. 2011, St. EU5.

*Sargocentron diadema* (Lacepède [ex Commerson], 1802) – Crown squirrelfish; Soldat couronné. – Distribution: First record from Europa Island as *Holocentrus diadema* by FOURMANOIR (1952: 174).

*Sargocentron spiniferum* (Forsskål in Niebuhr, 1775) – Sabre squirrelfish, long-jawed squirrelfish; Cardinal lancette (Réunion), marignan sabre (France). – Distribution: First record from Europa Island as *Holocentrus spiniferus* by FOURMANOIR (1952: 183); record confirmed by P. DURVILLE et al. based on a observation at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B8, B12, EU7.

#### Syngnathidae

*Choeroichthys smithi* Dawson, 1976 – Smith's short-bodied pipefish. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11 Nov. 2011, St. B28. – Material: SMF 34781 (5).

#### Scorpaenidae

*Caracanthus madagascariensis* (Guichenot, 1869) – Spotted croucher. – Distribution: First record from Europa Is-



**Figs. 2–7.** Europa Island (2–6) and shore fishes from this island (7, 8). – 2. North coast with Gendarmerie building; photograph by P. BORSA, April 2011. 3. West coast; aerial photograph by P. BORSA, April 2011. 4. West coast; photograph by R. FRICKE, 9 Nov. 2011. 5. Inner lagoon; aerial photograph by P. BORSA, April 2011. 6. *Gymnothorax pictus*; photograph by P. BORSA, 7 April 2011. 7. *Strongylura leiura*; photograph by P. BORSA, 7 April 2011.

land as *Caracanthus zeylonicus* by FOURMANOIR (1952: 187); record confirmed by P. DURVILLE et al. during the expedition MD-11.

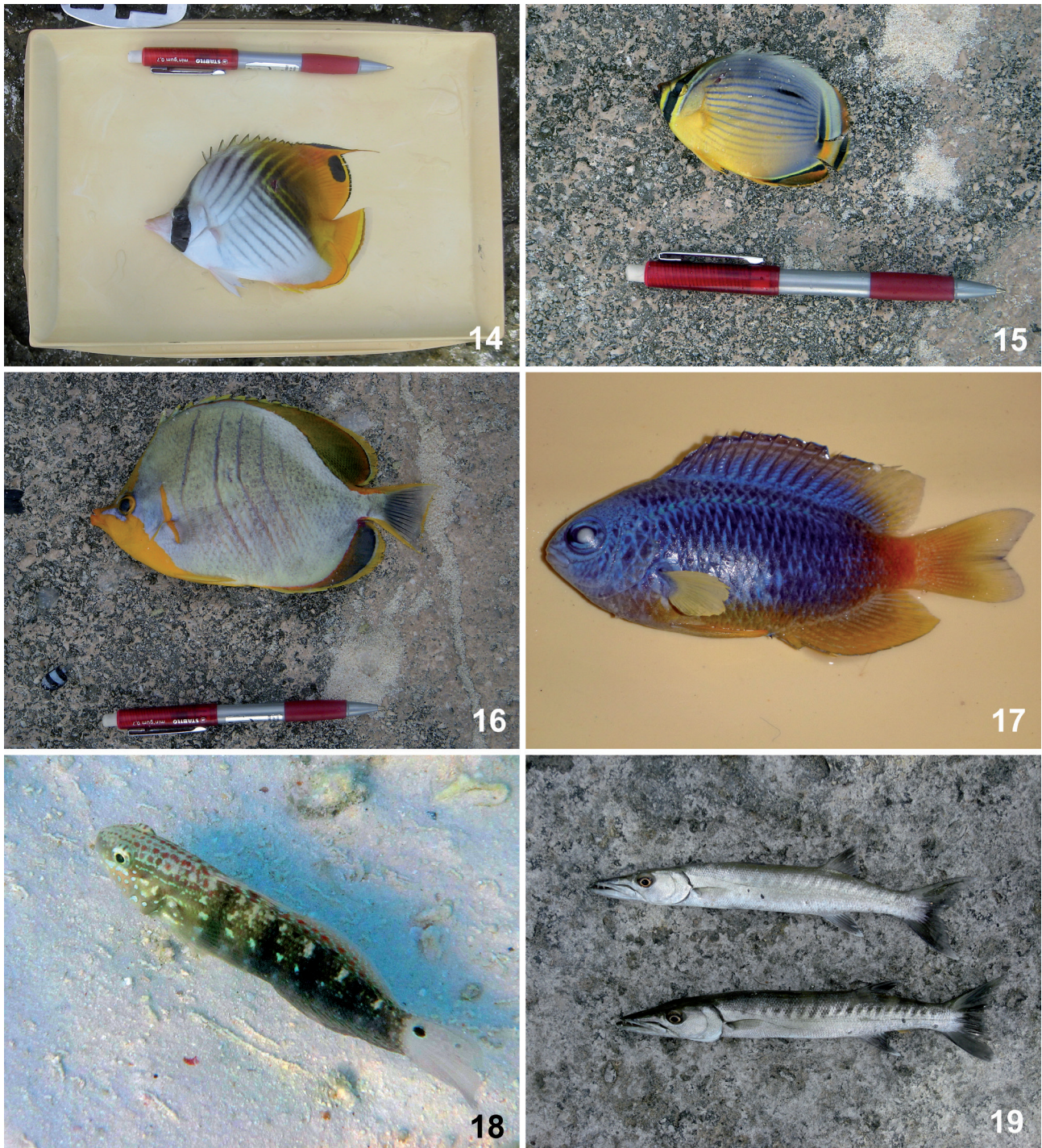
*Pterois miles* (Bennett, 1828) – Devil firefish; Poisson armée. – Distribution: Reported from Europa Island as *Pterois volitans* (non Linnaeus, 1758) by FOURMANOIR (1952: 175);





**Figs. 8–13.** Shore fishes of Europa Island. – 8. *Epinephelus tukula*; photograph by P. DURVILLE, April 2011. 9. *Priacanthus hamrur*; photograph by P. DURVILLE, April 2011. 10. *Caranx melampygus*; photograph by E. BRETAGNE, Oct. 2011. 11. *Gerres longirostris*; photograph by P. BORSA, 7 April 2011. 12. *Monotaxis grandoculis*; photograph by P. BORSA, 5 April 2011. 13. *Mulloidichthys vanicolensis* (foreground) and *Gnathodentex aureolineatus* (background); also includes *Labroides dimidiatus* and *Gomphosus caeruleus* (below), and *Naso elegans* (background right); photograph by P. DURVILLE, April 2011.





**Figs. 14–19.** Shore fishes of Europa Island. – **14.** *Chaetodon auriga*; photograph by P. BORSA, 6 April 2011. **15.** *Chaetodon trifasciatus*; photograph by P. BORSA, 6 April 2011. **16.** *Chaetodon xanthocephalus*; photograph by P. BORSA, 6 April 2011. **17.** *Pomacentrus caeruleus*; photograph by R. FRICKE, 8 Nov. 2011. **18.** *Amblygobius semicinctus*; photograph by P. DURVILLE, 11 Nov. 2011. **19.** *Sphyraena barracuda*; photograph by P. BORSA, 7 April 2011.



record confirmed by R. FRICKE based on an observation at Europa on 7 Nov. 2011, St. B33.

*Scorpaenodes guamensis* (Quoy & Gaimard, 1824) – Guam scorpionfish. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 12 Nov. 2011, St. B28. – Material: SMF 34817 (2).

*Scorpaenodes parvipinnis* (Garrett, 1864) – Coral scorpionfish. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 9–12 Nov. 2011, St. B28. – Material: SMF 34735 (1), SMF 34777 (4), SMF 34818 (7).

*Sebastapistes strongia* (Cuvier in Cuvier & Valenciennes, 1829) – Barchin scorpionfish. – Distribution: First record from Europa Island as *Scorpaena kowiensis* and *Cantapus oglinus* by FOURMANOIR (1952: 187).

### Serranidae

Remarks: A record of *Epinephelus guaza* (non Linnaeus, 1758) by FOURMANOIR (1952: 184) could not be identified to the species level.

*Aethaloperca rogaa* (Forsskål in Niebuhr, 1775) – Redmouth grouper; Vieille roga. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. EU3, EU7, B12, B14.

*Cephalopholis argus* Bloch & Schneider, 1801 – Peacock grouper, peacock rockcod; La prude (Réunion), mérou céleste (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 183); record confirmed by P. DURVILLE et al. based on an observation at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU5, EU7, and by R. FRICKE based on an observation and specimens collected on 11–12 Nov. 2011, St. B28, EU5. – Material: SMF 34778 (2), SMF 34819 (2).

*Cephalopholis miniata* (Forsskål in Niebuhr, 1775) – Coral hind, coral rockcod; Ananas batard (Réunion), vieille étoilée (France). – Distribution: First record from Europa Island as *Cephalopholis miniatus* by FOURMANOIR (1952: 183); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B14, EU3.

*Cephalopholis nigripinnis* (Valenciennes in Cuvier & Valenciennes, 1828) – Darkfin hind; Vieille aile noire. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B12, B14, EU2, EU7. – Remarks: Closely related to *Cephalopholis urodeta* (Forster in Bloch & Schneider, 1801) which is restricted to the western Pacific.

*Cephalopholis polleni* (Bleeker, 1868) – Harlequin hind, harlequin rockcod; Cabot guignan (Réunion), vieille arlequin (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Cephalopholis sexmaculata* (Rüppell, 1830) – Sixspot hind, sixblotch rockcod; Rouge l'allié (Réunion), vieille six taches

(France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B14, EU3, EU7.

*Cephalopholis sonnerati* (Valenciennes in Cuvier & Valenciennes, 1828) – Tomato hind, tomato rockcod; Rouge ananas, la prude rouge (Réunion), vieille ananas (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 183).

*Epinephelus areolatus* (Forsskål in Niebuhr, 1775) – Areolate grouper. – Distribution: First record from Europa Island by FOURMANOIR (1952: 182).

*Epinephelus coeruleopunctatus* (Bloch, 1790) – White-spotted grouper; Loche à taches blanches. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.

*Epinephelus coioides* (Hamilton, 1822) – Orange-spotted grouper; Mérou à taches oranges. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE, 11 Nov. 2011, St. B14.

*Epinephelus flavocaeruleus* (Lacepède [ex Commerson], 1802) – Blue-and-yellow grouper; Le plat, platte ailes jaunes (Réunion), mérou faraud (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 183); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B5, EU4.

*Epinephelus fuscoguttatus* (Forsskål in Niebuhr, 1775) – Brown-marbled grouper, blotchy rockcod; Mérou marbré. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Epinephelus hexagonatus* (Bloch & Schneider [ex Forster], 1801) – Star-spotted grouper; Maccabit, maccabit gris, risadel (Réunion), mérou mélifère (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also by R. FRICKE based on an observation and a specimen collected on 11 Nov. 2011, St. B28, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34779 (1).

*Epinephelus maculatus* (Bloch, 1790) – Highfin grouper; Loche de sable. – Distribution: First record from Europa Island by FOURMANOIR (1952: 172).

*Epinephelus merra* Bloch, 1793 – Honeycomb grouper, dwarf spotted grouper; Maccabit, maccabit blanc (Réunion), griffin (Réunion, young specimens), plat gris (Réunion, adult specimens), mérou gateau de cire (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 172); record confirmed by P. DURVILLE et al. based on observations at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011, and by R. FRICKE on 8–12 Nov. 2011, St. B28, B34; also observed by P. DURVILLE, 12 Nov. 2011, St. B12. – Material: SMF 34820 (1).

*Epinephelus oceanicus* (Lacepède, 1802) – Indian Ocean blacktip grouper; Rougette (Réunion), mérou oriflamme (France). – Distribution: Reported from Europa Island as *Epinephelus fasciatus* (non Forsskål 1775) by FOURMANOIR (1952: 184).



- Epinephelus ongus* (Bloch, 1790) – Specklefin grouper; Loche à taches claires. – Distribution: **New record** from Europa Island, based on a photograph taken by P. CHABANET on 12 Nov. 2011, St. B12.
- Epinephelus polyphekadion* (Bleeker, 1849) – Camouflage grouper; Loche crasseuse. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.
- Epinephelus spilotoceps* Schultz in Schultz, Herald, Lachner, Welander & Woods, 1953 – Foursaddle grouper, foursaddle rockcod; Mérou à quatre selles. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, EU2, EU5, EU7, and by R. FRICKE on 11–12 Nov. 2011, St. EU5. – Material: SMF 34821 (1).
- Epinephelus tauvina* (Forsskål in Niebuhr, 1775) – Greasy grouper, greasy rockcod; Vieille lutre, vieille nègre (Réunion), mérou loutre (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11 Nov. 2011, St. B5.
- Epinephelus tukula* Morgans, 1959 – Potato grouper, potato bass; Mérou patate (Fig. 8). – Distribution: **New record** from Europa Island, based on observations by P. DURVILLE et al. at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B14, EU2, EU3, EU5, EU7; record confirmed based on photograph by E. BRETAGNE, taken in November 2011.
- Gracila albomarginata* (Fowler & Bean, 1930) – Slenderspine grouper; Vieille (Réunion), mérou bord rouge (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11–12 Nov. 2011, St. B12, B14.
- Grammistes sexlineatus* (Thunberg, 1792) – Sixstripe soapfish, skunkfish; Savonette (Réunion), savon rayes d'or (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 172); record confirmed based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34780 (1), SMF 34822 (2).
- Nemanthias carberryi* Smith, 1954 – Threadfin anthias. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. EU3, B5, B8, B12, B14.
- Plectropomus laevis* (Lacepède [ex Commerson], 1801) – Black-saddle coral grouper; Mérou selle. – Distribution: **New record** from Europa Island; previously reported as *Plectropomus maculatus* (non Bloch, 1790) by FOURMANOIR (1952: 183).
- Plectropomus pessuliferus* (Fowler, 1904) – Roving coral grouper; Mérou loche vagabonde. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.
- Plectropomus punctatus* (Quoy & Gaimard, 1824) – Marbled coral grouper. – Distribution: **New record** from Europa Island, based on an observation and a photograph by P. DURVILLE, 11–12 Nov. 2011, St. B12, and among the mangroves in the inner lagoon.
- Pseudanthias evansi* (Smith, 1954) – Yellowback anthias, yellowtail goldie. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B14, EU7.
- Pseudanthias squamipinnis* (Peters, 1855) – Sea goldie. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU7.
- Variola louti* (Forsskål in Niebuhr, 1775) – Coronation grouper; Druide, rouge grand queue (Réunion), croissant queue jaune (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: pl. 11B); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU7.

#### Pseudochromidae

- Chlidichthys johnvoelckeri* Smith, 1953 – Cerise dottyback. – Distribution: **New record** from Europa Island, based on an observation as *Pseudochromis fridmani* (non Klausewitz, 1968) by P. DURVILLE et al. during the expedition MD-11, a specimen collected by P. DURVILLE & P. CHABANET on 10 Nov. 2011, St. B23, and a photograph taken by P. DURVILLE on 7 Nov. 2011, St. EU7; also observed by P. DURVILLE & P. CHABANET on 11 Nov. 2011, St. B14. – Material: SMF 34741 (1).

#### Teraponidae

- Terapon jarbua* (Forsskål in Niebuhr, 1775) – Jarbua, crescent-banded grunter, thornfish; Violon jarbua. – Distribution: **New record** from Europa Island; previously reported as *Therapon* sp. by FOURMANOIR (1952: 170); record confirmed by P. DURVILLE et al. during the expedition MD-11, a photograph taken by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE based on an observation at Europa on 7 Nov. 2011, St. B31.

#### Kuhliidae

- Kuhlia mugil* (Bloch & Schneider [ex Forster], 1801) – Barred flagtail; Hareng (Réunion), croco drapeau (France). – Distribution: Reported from Europa Island as *Dules taeniurus* by FOURMANOIR (1952: 170); record confirmed based on a specimen collected by R. FRICKE on 11 Nov. 2011, St. B28; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34758 (1).

#### Priacanthidae

- Heteropriacanthus cruentatus* (Lacepède, 1801) – Glasseye; Beau clair du large (Réunion), beau clair de roche (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Priacanthus hamrur* (Forsskål in Niebuhr, 1775) – Moontail bullseye; Cardinal, beau clair (Réunion), beau clair miroir (France) (Fig. 9). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–11 Nov. 2011, St. B8, B14.

#### Apogonidae

Remarks: A record of *Apogon novemfasciatus* by FOURMANOIR (1952: 172) could not be identified to the species level.

*Apogon semiornatus* Peters, 1877 – Oblique-banded cardinalfish. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 12 Nov. 2011, St. B28. – Material: SMF 34786 (4).

*Cheilodipterus artus* Smith, 1961 – Wolf cardinalfish; Apogon strié. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Ostorhinchus apogonoides* (Bleeker, 1856) – Shirt-tooth cardinalfish. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Ostorhinchus holotaenia* (Regan, 1905) – Copperstriped cardinalfish. – Distribution: **New record** from Europa Island, based on a specimen collected by R. FRICKE on 11 Nov. 2011, St. B28. – Material: SMF 34743 (1).

*Ostorhinchus taeniophorus* (Regan, 1908) – Reef-flat cardinalfish, ninestripe cardinal. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 9–12 Nov. 2011, St. B28; also observed and collected by P. DURVILLE, 10–12 Nov. 2011, St. EU2, B25. – Material: SMF 34727 (2), SMF 34744 (2), SMF 34787 (8), SMF 34827 (2).

*Pristiapogon kallopterus* (Bleeker, 1856) – Iridescent cardinalfish, spinyhead cardinal. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE on 7 Nov. 2011, St. EU7.

*Rhabdamia gracilis* (Bleeker, 1856) – Luminous cardinalfish. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34745 (5), SMF 34788 (2).

#### Malacanthidae

*Malacanthus latovittatus* (Lacepède [ex Commerson], 1801) – Blue tilefish, blue blanquillo, striped blanquillo; Matajuel bleu. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

#### Echeneidae

*Echeneis naucrates* Linnaeus, 1758 – Live sharksucker, shark remora; Pilote (Réunion). – Distribution: First record from Europa Island by FOURMANOIR (1952: 187); record confirmed by P. DURVILLE et al. during the expedition MD-11.

*Remora remora* (Linnaeus, 1758) – Common remora; Pilote (Réunion), rémora (France). – Distribution: First record

from Europa Island by FOURMANOIR (1952: 187); record confirmed based on photograph by E. BRETAGNE, taken in November 2011.

#### Carangidae

Remarks: A record of *Chorinemus* sp. by FOURMANOIR (1952: 186) could not be identified to the species level.

*Atule mate* (Cuvier in Cuvier & Valenciennes, 1833) – Yellowtail scad; Carangue maté. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.

*Carangoides fulvoguttatus* (Forsskål in Niebuhr, 1775) – Yellow-spotted trevally, yellow-dotted trevally; Carangue pailletée. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Carangoides orthogrammus* (Jordan & Gilbert, 1882) – Island trevally; Carangue des Îles. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11 Nov. 2011, St. B14.

*Caranx ignobilis* (Forsskål in Niebuhr, 1775) – Giant trevally; Carangue grosse tête (Réunion), carangue têteue (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 183); record confirmed by P. DURVILLE et al. during the expedition MD-11, and based on photograph by E. BRETAGNE, taken in November 2011; also observed by P. DURVILLE, 10–11 Nov. 2011, St. B5, B8, B14, EU2.

*Caranx lugubris* Poey, 1860 – Black kingfish, black jack; Carangue noire (France). – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Caranx melampygus* Cuvier in Cuvier & Valenciennes, 1833 – Bluefin trevally, bluefin kingfish; Carangue bleu (Réunion), carangue aile bleue (France) (Fig. 10). – Distribution: First record from Europa Island as *Caranx stellatus* by FOURMANOIR (1952: 174); record confirmed by P. DURVILLE et al. based on observations at St. 1 and St. 2 (equals St. EU5 and St. B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, B14, B25, EU3, EU4, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Caranx sexfasciatus* Quoy & Gaimard, 1825 – Bigeye trevally, bigeye kingfish; Carangue (Réunion), carangue vorace (France). – Distribution: **New record** from Europa Island; previously reported as *Caranx hippos* (non Linné, 1766) by FOURMANOIR (1952: 186); record of *Caranx sexfasciatus* confirmed by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE, 12 Nov. 2011, St. B12, and among the mangroves in the inner lagoon.

*Caranx tille* Cuvier in Cuvier & Valenciennes 1833 – Tille trevally; Carangue tille. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. EU7, and by R. FRICKE on 8 Nov. 2011, St. B34.

*Elagatis bipinnulata* (Quoy & Gaimard, 1825) – Rainbow runner; Comète saumon. – Distribution: First record from Eu-



ropa Island as *Elagastis bipinnulatus* by FOURMANOIR (1952: 186); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. B8.

*Scomberoides lysan* (Forsskål in Niebuhr, 1775) – Double-spotted queenfish, leatherback; Pompre, sauteur sabre. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 12 Nov. 2011, St. B25.

*Trachinotus blochii* (Lacepède [ex Commerson], 1801) – Snub-nose pompano; Pompaneau lune. – Distribution: First record from Europa Island as *Trachinotus Blochii* by FOURMANOIR (1952: 186); record confirmed by P. DURVILLE et al. based on a observation at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and by R. FRICKE based on an observation on 11 Nov. 2011, St. EU5; also observed by P. DURVILLE, 10–12 Nov. 2011, St. B8, B14, B25.

#### Lutjanidae

*Aphareus furca* (Lacepède [ex Commerson], 1801) – Blue small-tooth jobfish; Lantanier noir (Réunion), vivaneau tidents (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU7.

*Aprion virescens* Valenciennes in Cuvier & Valenciennes, 1830 – Green jobfish; Thazard blanc (Réunion), vivaneau job (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B5, B8, B14, EU3.

*Lutjanus argentimaculatus* (Forsskål in Niebuhr, 1775) – River snapper, mangrove red snapper; Vivaneau des mangroves (France). – Distribution: First record from Europa Island as *Lutianus argentimaculatus* by FOURMANOIR (1952: 178); record confirmed by P. DURVILLE et al. based on a observation at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011, and by R. FRICKE on 8 Nov. 2011, St. B49; also observed by P. DURVILLE, 12 Nov. 2011, in a pond on the south side of the island.

*Lutjanus bohar* (Forsskål in Niebuhr, 1775) – Twin-spot snapper; Vara-vara (Réunion), vivaneau chien rouge (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU5, EU7.

*Lutjanus fulviflamma* (Forsskål in Niebuhr, 1775) – Dory snapper, blackspot snapper; Vivaneau gibelot (France). – Distribution: First record from Europa Island as *Lutianus fulviflamma* by FOURMANOIR (1952: 170); record confirmed by P. DURVILLE et al. during the expedition MD-11, and a photograph taken by P. BORSA in the mangrove area on 7 April 2011.

*Lutjanus fulvus* (Schneider [ex Forster] in Bloch & Schneider, 1801) – Yellow striped snapper, flametail snapper; Dorée (Réunion), vivaneau queue noire (France). – Distribution: First record from Europa Island as *Lutianus vaigiensis*

by FOURMANOIR (1952: 174); record confirmed by P. DURVILLE et al. based on a observation at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011, an observation by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE based on observations at Europa on 7–8 Nov. 2011, St. B31, B33, B34.

*Lutjanus gibbus* (Forsskål in Niebuhr, 1775) – Humpback snapper; Marie-Thérèse (Réunion), vivaneau pagaie (France). – Distribution: First record from Europa Island as *Lutjanus gibbus* by FOURMANOIR (1952: 182); record confirmed by P. DURVILLE et al. based on a observation at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011, an observation by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE based on an observation on 8–10 Nov. 2011, St. B34, B50; also observed by P. DURVILLE & P. CHABANET on 7–10 Nov. 2011, St. B8, EU7.

*Lutjanus johnii* (Bloch, 1792) – John's snapper. – Distribution: First record from Europa Island as *Lutianus Johni* by FOURMANOIR (1952: 170); record confirmed by R. FRICKE based on observations at Europa on 7–10 Nov. 2011, St. B31, B33, B34, B49, B50.

*Lutjanus kasmira* (Forsskål in Niebuhr, 1775) – Blue-banded snapper, blue-lined snapper; Le petite jaune (Réunion), vivaneau à raies bleues (France). – Distribution: First record from Europa Island as *Lutianus kasmira* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. based on observations at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011, and by R. FRICKE on 8 Nov. 2011, St. B49.

*Lutjanus lutjanus* Bloch, 1790 – Bigeye snapper; Vivaneau gros yeux. – Distribution: First record from Europa Island as *Lutianus lineolatus* by FOURMANOIR (1952: 186).

*Lutjanus monostigma* (Cuvier in Cuvier & Valenciennes, 1828) – Onespotsnapper; Vivaneau églefin. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B8, B14, EU5, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Lutjanus rivulatus* (Cuvier in Cuvier & Valenciennes, 1828) – Scribbled snapper, speckled snapper; Lèvre de boeuf, bonhomme tombé (Réunion), vivaneau maori (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. B8.

*Lutjanus sebae* (Cuvier, 1816) – Emperor snapper; Vivaneau bourgeois. – Distribution: First record from Europa Island as *Lutianus sebae* by FOURMANOIR (1952: 184).

*Macolor niger* (Forsskål in Niebuhr, 1775) – Black snapper, black-and-white snapper; Vivaneau plate. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE on 7–11 Nov. 2011, St. EU7, and among the mangroves in the inner lagoon.

*Pristipomoides filamentosus* (Valenciennes in Cuvier & Valenciennes, 1830) – Rosy jobfish, blue-spotted jobfish, crimson jobfish; Vivaneau commun, vivaneau blanc (Réunion), colas fil (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 184).

## Caesionidae

*Caesio caerulea* Lacepède [ex Commerson], 1801 – Scissor-tailed fusilier; Maquereau (Réunion), caesio azuror (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Caesio lunaris* Cuvier [ex Ehrenberg] in Cuvier & Valenciennes, 1830 – Blue fusilier; Caesio à croissant. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–12 Nov. 2011, St. B5, B12, B14, EU2.

*Caesio teres* Seale, 1906 – Beautiful fusilier, yellowtail fusilier; Caesio à dos jaune et bleu. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, EU2, EU7.

*Caesio xanthonota* Bleeker, 1853 – Yellowback fusilier; Caesio à dos jaune. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B14, EU7; record confirmed based on photograph by E. BRETAGNE, taken in November 2011.

*Pterocaesio chrysozona* (Cuvier [ex Kuhl & Hasselt] in Cuvier & Valenciennes, 1830) – Goldband fusilier; Caesio ceinture d'or. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Pterocaesio pisang* (Bleeker, 1853) – Banana fusilier; Caesio rose. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Pterocaesio tile* (Cuvier in Cuvier & Valenciennes, 1830) – Blues-treak fusilier, dark-banded fusilier; Fusilier à ligne olive. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

## Gerreidae

*Gerres longirostris* (Lacepède, 1801) – Longtail silver-biddy; Blanche gouvernail (Fig. 11). – Distribution: **New record** from Europa Island, based on a photograph taken by P. BORSA during an expedition with R/V Marion Dufresne on 7 April 2011.

*Gerres oyena* (Forsskål in Niebuhr, 1775) – Common silverbiddy, common mojarra; Blanche commune. – Distribution: First record from Europa Island by FOURMANOIR (1952: 170, pl. 12A); record confirmed by P. DURVILLE et al. during the expedition MD-11, an observation by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE based on observations at Europa on 7–10 Nov. 2011, St. B28, B31, B33, B34, B37, B50.

## Haemulidae

*Diagramma picta* (Thunberg, 1792) – Sailfin rubberlip; diagramme voilier. – Distribution: **New record** from Europa Island, based on photograph by E. BRETAGNE, taken in November 2011.

*Plectorhinchus gaterinus* (Forsskål in Niebuhr, 1775) – Black-spotted sweetlips; Gueule pavée (Réunion), diagramme moucheté (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Plectorhinchus obscurus* (Günther, 1872) – Giant sweetlips; Loche casteix, lèvres en caoutchouc. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B8, B12, B14, B25, EU5, EU7, and in a pond on the south side of the island; and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Plectorhinchus vittatus* (Linnaeus, 1758) – Indian Ocean oriental sweetlips; Diagramme à bandes horizontales. – Distribution: **New record** from Europa Island, based on an observation as *Plectorhinchus orientalis* by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 11 Nov. 2011, St. EU5.

## Sparidae

*Acanthopagrus bifasciatus* (Forsskål in Niebuhr, 1775) – Twobar seabream; Pagre double bande. – Distribution: First record from Europa Island by FOURMANOIR (1952: 186).

*Rhabdosargus sarba* (Forsskål in Niebuhr, 1775) – Natal stumpnose, gold-lined seabream; Gueule pavée (Réunion), sargue doré (France). – Distribution: Recorded from Europa Island as *Acanthopagrus sarba* by FOURMANOIR (1952: 174), and as *Rhabdosargus sarba* by FOURMANOIR (1952: pl. 12B).

## Lethrinidae

*Gnathodentex aureolineatus* (Lacepède [ex Commerson], 1802) – Yellowspot emperor, glowfish; Petit clair (Réunion), empereur strié (France) (Fig. 13). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Lethrinus nebulosus* (Forsskål in Niebuhr, 1775) – Spangled emperor; Capitaine blanc (Réunion), empereur moris (France). – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE on 11 Nov. 2011 near the mangroves in the inner lagoon of Europa Island.

*Lethrinus obsoletus* (Forsskål in Niebuhr, 1775) – Orange-striped emperor; Bossu d'herbe. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and a photograph taken by P. DURVILLE on 12 Nov. 2011, St. EU5.

*Lethrinus olivaceus* Valenciennes in Cuvier & Valenciennes, 1830 – Longface emperor; Bec de cane allongé, bec de cane malabar, lethrinus à museau long. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Lethrinus xanthochilus* Klunzinger, 1870 – Yellowlip emperor; Empereur bec de cane. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. B8, EU2.

*Monotaxis grandoculis* (Forsskål in Niebuhr, 1775) – Bigeye emperor, bigeye barenose; Gueule pavée (Réunion), empereur



bossu (France) (Fig. 12). – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. and photograph by P. BORSA at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B8, B14, EU2, EU7.

#### Mullidae

*Mulloidichthys ayliffe* (Uiblein, 2011) – Western Indian Ocean yellowfin goatfish, Western Indian Ocean flame goatfish; Capucin queue jaune. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11. – **Remarks:** This is taxonomically the same species that was recorded from Réunion by FRICKE et al. (2009: 68) as *Mulloidichthys auriflamma* (non Forsskål in Niebuhr, 1775).

*Mulloidichthys flavolineatus* (Lacepède [ex Commerson], 1801) – Yellowstripe goatfish; Capucin (Réunion), capucina à bande jaune (France). – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also photographed by P. DURVILLE on 11 Nov. 2011 at Europa Island.

*Mulloidichthys vanicolensis* (Valenciennes in Cuvier & Valenciennes, 1831) – Yellowfin goatfish; Surmullet de Vanicolo (France) (Fig. 13). – **Distribution:** **New record** from Europa Island, based on a photograph by P. DURVILLE on 11 Nov. 2011 near the mangroves of Europa Island.

*Parupeneus barberinus* (Lacepède [ex Commerson], 1801) – Dash-and-dot goatfish; Capucin sergent (Réunion), rouget-barbet barberin (France). – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and on observations by R. FRICKE on 7–11 Nov. 2011, St. B31, B37, B50, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. EU5.

*Parupeneus cyclostomus* (Lacepède [ex Commerson], 1801) – Yellowsaddle goatfish; Capucin malbar (Réunion), rouget-barbet doré (France). – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, EU3, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Parupeneus macronemus* (Lacepède [ex Commerson], 1801) – Longbarbel goatfish, band-dot goatfish; Rouget-barbet bandeau. – **Distribution:** First record from Europa Island as *Pseudopeneus macronema* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. EU3, B5, B14, EU2.

*Parupeneus pleurostigma* (Bennett, 1831) – Blackspot goatfish, sidespot goatfish; Rouget-barbet pastille. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Parupeneus trifasciatus* (Lacepède [ex Commerson], 1801) – Two-barred goatfish; Capucin (Réunion), rouget-barbet double-tache (France). – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12,

B14, EU2, EU3, EU5, EU7, and by R. FRICKE on 10–11 Nov. 2011, St. B50, EU5.

#### Pempheridae

*Parapriacanthus ransonneti* Steindachner, 1870 – Slender sweeper, pygmy sweeper. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Pempheris* sp. (aff. *Pempheris nesogallica* Cuvier in Cuvier & Valenciennes, 1831). – **Distribution:** Observed at Europa Island by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Pempheris schwenkii* Bleeker, 1855 – Blackstripe sweeper. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

#### Kyphosidae

*Kyphosus bigibbus* Lacepède [ex Commerson], 1801 – Grey chub, brown chub. – **Distribution:** **New record** from Europa Island, based on a photograph taken by E. BRETAGNE in Oct. 2011, a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon, and on observations by R. FRICKE on 10–11 Nov. 2011, St. B50, EU5.

*Kyphosus cinerascens* (Forsskål in Niebuhr, 1775) – Blue sea-chub, lowfin rudderfish. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; previously listed as *Kyphosus* sp. by FOURMANOIR (1952: 170); also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. EU7, B25.

#### Monodactylidae

*Monodactylus argenteus* (Linnaeus, 1758) – Silver moony, mono, Natal moony; Poisson lune argenté. – **Distribution:** First record from Europa Island by FOURMANOIR (1952: 174); record confirmed by P. DURVILLE et al. during the expedition MD-11, and a photograph taken by P. BORSA in the mangrove area on 7 April 2011; also observed by P. DURVILLE, 12 Nov. 2011, in a pond on the south side of the island.

#### Chaetodontidae

*Chaetodon auriga* Forsskål in Niebuhr, 1775 – Threadfin butterflyfish (Fig. 14). – **Distribution:** First record from Europa Island by FOURMANOIR (1952: 172); record confirmed by P. DURVILLE et al. based on an observation at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and an observation by P. BORSA in the mangrove area on 7 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU5, EU7, and by R. FRICKE on 8–10 Nov. 2011, St. B34, B37, B49, B50.

*Chaetodon bennetti* Cuvier in Cuvier & Valenciennes, 1831 – Bluelashed butterflyfish; Papillon de Bennett. – **Distribution:** **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7–9 Nov. 2011, St. EU3, EU7.

*Chaetodon falcula* Bloch, 1795 – Blackwedged butterflyfish; Papillon indien à deux selles. – **Distribution:** **New re-**

**cord** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 11 Nov. 2011, St. EU5; also observed by P. DURVILLE, 10 Nov. 2011, St. EU2.

*Chaetodon guttatissimus* Bennett, 1833 – Peppered butterflyfish, spotted butterflyfish, gorgeous gussy; Chétodon moucheté. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B8, B12, B14, EU2, EU3, EU7.

*Chaetodon interruptus* Ahl, 1923 – Teardrop butterflyfish, lime-spot butterflyfish; Chétodon à tache de citron. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, EU2, EU3, EU5.

*Chaetodon kleinii* Bloch, 1790 – Klein's butterflyfish, whitespotted butterflyfish; Papillon (Réunion). – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 10 Nov. 2011, St. B37.

*Chaetodon lineolatus* Cuvier [ex Quoy & Gaimard] in Cuvier & Valenciennes, 1831 – Lined butterflyfish; Chétodon linéolé. – **Distribution**: **New record** from Europa Island, based on an observation by R. FRICKE on 7–10 Nov. 2011, St. B31, B50; also observed by P. DURVILLE, 10 Nov. 2011, St. B8.

*Chaetodon lunula* (Lacepède [ex Commerson], 1802) – Raccoon butterflyfish, halfmoon butterflyfish; Chétodon à croissant. – **Distribution**: First record from Europa Island by FOURMANOIR (1952: 172); record confirmed by P. DURVILLE et al. during the expedition MD-11; and by R. FRICKE based on observations and specimens collected at Europa on 7–12 Nov. 2011, St. B28, B31, B33, B34, B37, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, B25, EU2, EU3, EU5, EU7. – **Material**: SMF 34751 (1), SMF 34794 (2).

*Chaetodon madagaskariensis* Ahl, 1923 – Pearly butterflyfish; Chétodon de Madagascar. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Chaetodon melannotus* Bloch & Schneider, 1801 – Black-backed butterflyfish; Chétodon à dos noir. – **Distribution**: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Chaetodon meyeri* Schneider [ex Renard] in Bloch & Schneider, 1801 – Meyer's butterflyfish, scrawled butterflyfish. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. EU3, EU4, EU7, B5, B8, B12, B14, EU2, EU5.

*Chaetodon trifascialis* Quoy & Gaimard, 1825 – Chevroned butterflyfish, rightangle butterflyfish. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, EU2, EU3, EU7.

*Chaetodon trifasciatus* Park, 1797 – Redfin butterflyfish, purple butterflyfish, melon butterflyfish (Fig. 15). – **Distribu-**

**tion**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and on an observation by R. FRICKE on 7–11 Nov. 2011, St. B31, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B12, B14, EU5, EU7.

*Chaetodon vagabundus* Linnaeus, 1758 – Vagabond butterflyfish; Chétodon à vagabond. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 11 Nov. 2011, St. EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B12, EU5.

*Chaetodon xanthocephalus* Bennett, 1833 – Yellowhead butterflyfish; Chétodon à tête jaune (Fig. 16). – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and by R. FRICKE based on an observation at Europa on 7–11 Nov. 2011, St. B33, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, EU2, EU3, EU7.

*Chaetodon zanzibarensis* Playfair in Playfair & Günther, 1867 – Zanzibar butterflyfish; Chétodon de Zanzibar. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Forcipiger flavissimus* Jordan & McGregor in Jordan & Evermann, 1898 – Long-nosed butterflyfish; Papillon longnez. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. B8, EU3.

*Hemitaenichthys zoster* (Bennett, 1831) – Black pyramid butterflyfish, brushtooth butterflyfish. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Heniochus acuminatus* (Linnaeus, 1758) – Coachman, longfin bannerfish; Pavillon (Réunion). – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11–12 Nov. 2011, St. B5, B12, B14.

*Heniochus monoceros* Cuvier in Cuvier & Valenciennes, 1831 – Masked bannerfish, masked coachman; Pavillon (Réunion), hénioche cornu (France). – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–11 Nov. 2011, St. B5, EU2.

#### Pomacanthidae

*Apolemichthys trimaculatus* (Cuvier [ex Lacepède] in Cuvier & Valenciennes, 1831) – Threespot angelfish, flagfin angelfish; Poisson-ange à trois taches. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B8, EU3, EU4, EU7.

*Centropyge acanthops* (Norman, 1922) – African pygmy angel-fish, jumping bean, orangeback angelfish. – **Distribution**: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Centropyge bispinosa* (Günther, 1860) – Coral beauty; Poisson-ange à deux épines. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–11 Nov. 2011, St. B8, B14, EU2.

*Centropyge multispinis* (Playfair in Playfair & Günther, 1867) – Dusky angelfish, dusky cherub. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU7, and by R. FRICKE on 10–11 Nov. 2011, St. B50, EU5.

*Pomacanthus chrysurus* (Cuvier in Cuvier & Valenciennes, 1831) – Goldtail angelfish; Poisson-ange à oreille tachée. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Pomacanthus imperator* (Bloch, 1787) – Emperor angelfish; Poisson-ange impérial; Poisson-ange imérial. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B14, EU3, EU5, EU7.

*Pomacanthus semicirculatus* (Cuvier in Cuvier & Valenciennes, 1831) – Semicircle angelfish; Poisson-ange bleu. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE, 10–11 Nov. 2011, St. B5, B8.

*Pygoplites diacanthus* (Boddaert, 1772) – Regal angelfish; Poisson-ange à bandes bleues, poisson duc. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B12, B14, EU2, EU7.

#### Cirrhitidae

Remarks: A record of *Paracirrhites* sp. by FOURMANOIR (1952: 183) could not be identified to the species level.

*Amblycirrhitus bimacula* (Jenkins, 1903) – Twospot hawkfish. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B5, EU4.

*Cirrhitichthys oxycephalus* (Bleeker, 1855) – Coral hawkfish; Épervier lutin. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE on 7–12 Nov. 2011, St. EU3, B12, B14, EU4, EU5, EU7, and by R. FRICKE on 9 Nov. 2011, St. B28.

*Cirrhitus pinnulatus* (Bloch & Schneider [ex Forster], 1801) – Stocky hawkfish; Domingue (Réunion). – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 9 Nov. 2011, St. B28, and by a photograph by P. CHABANET on the NE side of the island.

*Paracirrhites arcatus* (Cuvier [ex Parkinson] in Cuvier & Valenciennes, 1829) – Arc-eye hawkfish, horseshoe hawkfish. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on

7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU5, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Paracirrhites forsteri* (Schneider in Bloch & Schneider, 1801) – Freckled hawkfish, blackside hawkfish. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU5, EU7.

#### Pomacentridae

*Abudefduf notatus* (Day, 1870) – Yellowtail sergeant. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed and collected by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B25, EU7, and in a pond on the south side of the island; and by R. FRICKE based on an observation and specimens collected on 9–11 Nov. 2011, St. B28. – Material: SMF 34732 (1), SMF 34771 (1), SMF 34835 (1).

*Abudefduf septemfasciatus* (Cuvier in Cuvier & Valenciennes, 1830) – Banded sergeant, sevenbar damsel; Sergeant-major. – Distribution: **New record** from Europa Island, based on an observation and a photograph by P. DURVILLE, 12 Nov. 2011, St. B25.

*Abudefduf sexfasciatus* (Lacepède [ex Commerson], 1801) – Scissortail sergeant, striptail damsel. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Abudefduf sordidus* (Forsskal in Niebuhr, 1775) – Blackspot sergeant, spot damsel; Sergeant à tache noire. – Distribution: First record from Europa Island by FOURMANOIR (1952: 170); record confirmed by P. DURVILLE et al. based on a observation at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, an observation by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE on 9 Nov. 2011, St. B28; also observed by P. DURVILLE, 12 Nov. 2011, St. B25.

*Abudefduf sparoides* (Quoy & Gaimard, 1825) – False-eye sergeant, false-eye damsel. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011; record confirmed by R. FRICKE based on observations on 7–10 Nov. 2011, St. B28, B32, B33, B34, B37, B49.

*Abudefduf vaigiensis* (Quoy & Gaimard, 1825) – Indo-Pacific sergeant. – Distribution: **New record** from Europa Island, previously reported as *A. saxatilis* (non Linnaeus, 1758) by FOURMANOIR (1952: 170); record confirmed by P. DURVILLE et al. based on a observation at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and by R. FRICKE based on observations and specimens collected at Europa on 7–12 Nov. 2011, St. B28, B31, B32; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34733 (2), SMF 34772 (1), SMF 34813 (1).

*Amphiprion akallopisos* Bleeker, 1853 – Skunk clownfish; Poisson-clown mouflette. – Distribution: **New record** from Europa Island, based on the observation of a single specimen by P. DURVILLE et al. during the expedition MD-11. – Remarks: This is the most common species of anemonefish at Europa Island.



- Amphiprion allardi* Klausewitz, 1970 – Twobar anemonefish, Allard's anemonefish; Poisson-clown d'Allard. – Distribution: **New record** from Europa Island; previously listed as *A. polymnus* (non Linnaeus, 1758) by FOURMANOIR (1952: 186); observed at Europa Island by P. DURVILLE et al. during the expedition MD-11.
- Amphiprion latifasciatus* Allen, 1972 – Madagascar anemonefish; Poisson-clown de Madagascar. – Distribution: **New record** from Europa Island, based on a single specimen by P. DURVILLE et al. during the expedition MD-11.
- Chromis agilis* Smith, 1960 – Reef chromis, agile chromis. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.
- Chromis dimidiata* (Klunzinger, 1871) – Chocolate dip; Demoiselle bicolore. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU5, EU7, and by R. FRICKE on 8–11 Nov. 2011, St. B49, B50, EU5.
- Chromis nigrura* Smith, 1960 – Blacktail chromis. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU5, EU7.
- Chromis opercularis* (Günther in Playfair & Günther, 1867) – Doublebar chromis. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU7.
- Chromis ternatensis* (Bleeker, 1856) – Golden chromis, blue-green chromis. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE on 7–12 Nov. 2011, St. B12, B14, EU7.
- Chromis viridis* Cuvier [ex Ehrenberg] in Cuvier & Valenciennes, 1830 – Green chromis, blue-green chromis; Petit cafre (Réunion), demoiselle bleue (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, on photographs by P. DURVILLE and P. CHABANET taken in Nov. 2011, and on an observation by R. FRICKE on 7–8 Nov. 2011, St. B31, B34, B49.
- Chromis weberi* Fowler & Bean, 1928 – Weber's chromis. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE on 7 Nov. 2011, St. EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.
- Chrysiptera brownriggii* (Bennett, 1828) – Surge demoiselle, blueribbon demoiselle. – Distribution: **New record** from Europa Island, based on observations by P. DURVILLE et al. at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011, and by R. FRICKE on 7–11 Nov. 2011, St. B28, B31, B32, B33, B34, B37, B49, B50, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25, EU5; previously listed as *Abudefduf biocellatus* (non Quoy & Gaimard, 1825) by FOURMANOIR (1952: 172).
- Chrysiptera glauca* (Cuvier in Cuvier & Valenciennes, 1830) – Grey demoiselle, blue damsel. – Distribution: **New record** from Europa Island, based on observations by P. DURVILLE et al. at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011, and on observations and specimens collected by R. FRICKE on 7–12 Nov. 2011, St. B28, B31, B34, B37, B50, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34734 (1), SMF 34773 (1), SMF 34814 (6).
- Chrysiptera unimaculata* (Cuvier in Cuvier & Valenciennes, 1830) – Onespots demoiselle; Demoiselle à une tache. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and on observations and specimens collected by R. FRICKE on 7–12 Nov. 2011, St. B28, B31, B32, B33, B34, B37, B49, B50, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25, EU5. – Material: SMF 34774 (1), SMF 34815 (10).
- Dascyllus aruanus* (Linnaeus, 1758) – Humbug dascyllus, zebra humbug, whitetail dascyllus; Demoiselle à queue blanche. – Distribution: First record from Europa Island as *Dascyllus aruanus* by FOURMANOIR (1952: 174), and as *Dascyllus amanius* by FOURMANOIR (1952: 186); record confirmed by P. DURVILLE et al. based on an observation at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and by R. FRICKE based on observations at Europa on 7–10 Nov. 2011, St. B31, B32, B33, B34, B37, B49, B50.
- Dascyllus carneus* Fischer, 1885 – Twobar humbug, cloudy dascyllus. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011, on the north side of the island below the boat mooring, at 18 m depth.
- Dascyllus trimaculatus* (Rüppell, 1829) – Domino, threespot dascyllus; Demoiselle à trois taches. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 2 (equals St. B34 of this paper) during an expedition with R/V Marion Dufresne on 6 April 2011, and by R. FRICKE on 8–10 Nov. 2011, St. B34, B37, B50; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, EU7.
- Lepidozygus tapeinosoma* (Bleeker, 1856) – Fusilier damselfish; Poisson demoiselle bleu à dos jaune. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B8, B12, B14, EU2, EU3, EU4.
- Neopomacentrus fuliginosus* (Smith, 1960) – African demoiselle. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.
- Plectroglyphidodon dickii* (Liénaard, 1839) – Narrowbar damsel, Dick's damsel, blackbar devil; Demoiselle de Dick. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov.

2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU5, EU7, and by R. FRICKE on 8–11 Nov. 2011, St. B49, EU5.

*Plectroglyphidodon imparipennis* (Sauvage in Vaillant & Sauvage, 1875) – Brighteye damsel, stop-start damsel. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and on observations and specimens collected by R. FRICKE on 7–12 Nov. 2011, St. B28, B32, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25, EU5. – Material: SMF 34775 (2), SMF 34816 (1).

*Plectroglyphidodon johnstonianus* Fowler & Ball, 1924 – Johnston damsel, widebar damsel. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B12, B14, EU2, EU3, EU4, EU7, and by R. FRICKE on 8–11 Nov. 2011, St. B49, B50, EU5.

*Plectroglyphidodon lacrymatus* (Quoy & Gaimard, 1825) – White-spotted devil; Bouteur perlée. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 12 Nov. 2011, St. EU5.

*Plectroglyphidodon phoenixensis* (Schultz, 1943) – Phoenix devil. – Distribution: **New record** from Europa Island, based on a photograph by P. CHABANET taken on 10 Nov. 2011, St. B23, and an observation and a specimen collected by R. FRICKE on 11 Nov. 2011, St. B28, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34776 (1).

*Pomacentrus agassizii* Bliss, 1883 – Creole damsel. – Distribution: **New record** from Europa Island; previously listed as *Pomacentrus tripunctatus* (non Cuvier in Cuvier & Valenciennes, 1830) by FOURMANOIR (1952: 172).

*Pomacentrus caeruleus* Quoy & Gaimard, 1825 – Caerulean damsel; Bouteur bleu et jaune (Fig. 17). – Distribution: **New record** from Europa Island, based on an observation and specimens collected by R. FRICKE on 8–10 Nov. 2011, St. B34, B37, B50; also a photograph by P. DURVILLE, taken on 12 Nov. 2011, St. EU5.

*Pomacentrus pavo* (Bloch, 1787) – Sapphire damsel; Bouteur paon. – Distribution: **New record** from Europa Island, based on an observation and a photograph by P. CHABANET on 12 Nov. 2011, in the mangrove area in the inner lagoon of Europa Island.

*Stegastes luteobrunneus* (Smith, 1960) – Indian Ocean dark damsel. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and on observations by R. FRICKE on 7–11 Nov. 2011, St. B31, B32, B34, B49, EU5.

*Stegastes nigricans* (Lacepède [ex Commerson], 1802) – Dusky gregory; Négrillon. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Stegastes peliciieri* Allen & Emery, 1985 – Mauritian gregory. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU5, EU7, and by R. FRICKE on 8–11 Nov. 2011, St. B37, B49, B50, EU5.

## Labridae

*Anampses caeruleopunctatus* Rüppell, 1829 – Blue-spotted wrasse, blue-spotted tamarin; Labre constellé (female), labre bleu (male). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–12 Nov. 2011, St. B5, B8, B12, B14, EU2.

*Anampses meleagrides* Valenciennes in Cuvier & Valenciennes, 1840 – Yellowtail tamarin; Labre à queue jaune. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–12 Nov. 2011, St. B8, B12, B14.

*Bodianus anthioides* (Bennett, 1832) – Lyretail hogfish; Labre lyre. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Bodianus axillaris* (Bennett, 1832) – Axilspot hogfish, turncoat hogfish; Labre à tache pectorale. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B8, B14, EU2, EU7.

*Bodianus bilunulatus* (Lacepède [ex Commerson], 1801) – Saddleback hogfish; Vieille à selle noire. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and on an observation by R. FRICKE on 7 Nov. 2011, St. B32; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B12, EU3.

*Bodianus diana* (Lacepède [ex Commerson], 1801) – Diana's hogfish; Labre diane. – Distribution: First record from Europa Island as *Lepidaplois diana* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed and photographed by P. DURVILLE on 7–12 Nov. 2011, St. B12, B14, EU2, EU5, EU7.

*Cheilinus chlorourus* (Bloch, 1791) – Floral wrasse; Vieille tachetée. – Distribution: **New record** from Europa Island, based on juvenile specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34759 (1), SMF 34801 (1).

*Cheilinus fasciatus* (Bloch, 1791) – Red-breasted wrasse; Vieille rayée. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 12 Nov. 2011, St. EU5.

*Cheilinus oxycephalus* Bleeker, 1853 – Snooty wrasse; Vieille à bec pointu. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. EU2.

*Cheilinus trilobatus* Lacepède [ex Commerson], 1801 – Tripletail wrasse; Lachaux (Réunion), vieille triple queue, vieille trilobé (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 10–11 Nov. 2011, St. B50, EU5; also observed by P. DURVILLE, 11 Nov. 2011, St. B5.

- Cheilinus undulatus* Rüppell, 1835 – Humphead wrasse; Napoléon. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; record confirmed based on photograph by E. BRETAGNE, taken in November 2011; also observed by P. DURVILLE, 12 Nov. 2011, St. B12.
- Cirrhilabrus exquisitus* Smith, 1957 – Exquisite wrasse; Labre exquis. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B12, B14, EU2, EU3.
- Coris aygula* Lacepède [ex Commerson], 1801 – Clown coris; Loupe côte (Réunion), clarisse clown (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. EU2.
- Coris caudimacula* (Quoy & Gaimard, 1834) – Spottail coris; Girelle à tache caudale. – Distribution: **New record** from Europa Island, based on a photograph taken by P. DURVILLE on 12 Nov. 2011, St. EU5.
- Coris cuvieri* (Bennett, 1831) – African coris; Clarisse africaine. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, by R. FRICKE on 11 Nov. 2011, St. EU5, and on a photograph of a juvenile taken by P. DURVILLE, St. EU6; also observed by P. DURVILLE, 10 Nov. 2011, St. B8.
- Cymolutes praetextatus* (Quoy & Gaimard, 1834) – Knife wrasse, knife razorfish. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.
- Epibulus insidiator* (Pallas, 1770) – Slingjaw wrasse; Epibule gourami. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11 Nov. 2011, St. B14.
- Gomphosus caeruleus* Lacepède [ex Commerson], 1801 – Indian Ocean bird wrasse, birdfish; Poisson oiseau (Fig. 13). – Distribution: First record from Europa Island as *Gomphosus coerulens*, *Gomphosus varius* and *Gomphosus* sp. by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. based on an observation at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011, and by R. FRICKE based on observations at Europa on 7–11 Nov. 2011, St. B28, B31, B32, B33, B34, B37, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU5.
- Halichoeres cosmetus* Randall & Smith, 1982 – Adorned wrasse; Girelle à raies d'or. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B12, EU2, EU3.
- Halichoeres hortulanus* (Lacepède [ex Commerson], 1801) – Checkerboard wrasse; Bonpartère (Réunion), lalo damier (France). – Distribution: First record from Europa Island as *Halichoeres centriquadrus* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE based on an observation at Europa on 7–11 Nov. 2011, St. B28, B31, B32, B34, B37, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU5, EU7.
- Halichoeres lapillus* Smith, 1947 – Jewelled wrasse; Girelle à petits cailloux. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 8 Nov. 2011, St. B34.
- Halichoeres nebulosus* (Valenciennes in Cuvier & Valenciennes, 1839) – Nebulous wrasse; Girelle nébuleuse. – Distribution: **New record** from Europa Island, based on observations and specimens collected by R. FRICKE on 8–11 Nov. 2011, St. B28, B34, B37, B50, EU5, and a specimen collected by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – Material: SMF 34730 (1), SMF 34760 (2), SMF 34834 (1).
- Halichoeres nigrescens* (Bloch & Schneider, 1801) – Bubblefin wrasse. – Distribution: **New record** from Europa Island, based on an observation and specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28, EU5. – Material: SMF 34761 (3), SMF 34802 (1).
- Halichoeres scapularis* (Bennett, 1832) – Zigzag wrasse; Girelle en arc-en-ciel. – Distribution: **New record** from Europa Island, based on an observation and a specimen collected by R. FRICKE at Europa on 7–12 Nov. 2011, St. B28, B33. – Material: SMF 34762 (1), SMF 34803 (1).
- Halichoeres trispilus* Randall & Smith, 1982 – Threespot wrasse; Girelle trois points. – Distribution: **New record** from Europa Island, based on observations by R. FRICKE at Europa on 7–11 Nov. 2011, St. B31, B33, B34, B37, B49, B50, EU5.
- Hemigymnus fasciatus* (Bloch, 1792) – Barred thicklip wrasse; Chien noir (Réunion), tamarin à bandes noires (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU7.
- Hologymnosus annulatus* (Lacepède [ex Commerson], 1801) – Ring wrasse; Labre annelé. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE at Europa on 10 Nov. 2011, St. B50; also observed by P. DURVILLE, 11 Nov. 2011, St. B14.
- Labrichthys unilineatus* (Guichenot, 1847) – Tubelip wrasse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE, 11 Nov. 2011, St. B14.
- Labroides bicolor* Fowler & Bean, 1928 – Bicoloured cleaner wrasse; Poisson nettoyeur bicolore. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B12, B14, EU2, EU3, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.
- Labroides dimidiatus* (Valenciennes in Cuvier & Valenciennes, 1839) – Bluestreak cleaner wrasse; Poisson nettoyeur commun (Fig. 13). – Distribution: First record from Europa Island as *Fissilabrus dimidiatus* by FOURMANOIR (1952: 172); record confirmed by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE based on observations at Europa on 7–10 Nov. 2011, St. B31, B32, B33, B34, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, EU2, EU3, EU5, EU7.



- Labropsis xanthonota* Randall, 1981 – Wedge-tailed wrasse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11 Nov. 2011, St. B14.
- Macropharyngodon bipartitus* Smith, 1957 – Vermiculate wrasse, divided wrasse; Girelle diamant. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 12 Nov. 2011, St. B12.
- Oxycheilinus digrammus* (Lacepède [ex Commerson], 1801) – Cheek-lined wrasse, bandcheek wrasse; Vieille barbe noire. – Distribution: First record from Europa Island as *Cheilinus digrammus* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE, based on an observation on 7–10 Nov. 2011, St. B8, EU7.
- Pseudocheilinus dispilus* Randall, 1999 – Mascarene sixstripe wrasse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; collected by P. DURVILLE & P. CHABANET on 8–9 Nov. 2011, St. EU3, EU4, 6; also observed by P. DURVILLE & P. CHABANET on 10–12 Nov. 2011, St. B5, B8, B12, EU2.
- Pseudocheilinus octotaenia* Jenkins, 1901 – Eight-lined wrasse. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.
- Pseudodax moluccanus* (Valenciennes in Cuvier & Valenciennes, 1840) – Chiseltooth wrasse; Vieille ciseau. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–11 Nov. 2011, St. B8, B14, EU2.
- Pteragogus flagellifer* (Valenciennes in Cuvier & Valenciennes, 1839) – Cocktail wrasse. – Distribution: First record from Europa Island as *Duymaeria flagellifera* by FOURMANOIR (1952: 184), and as *Callyodon flagellifera* by FOURMANOIR (1952: 187); record confirmed by R. FRICKE based on observations at Europa on 7–10 Nov. 2011, St. B31, B50; also observed by P. DURVILLE, 11 Nov. 2011, St. B14. – Material: SMF 34740 (1).
- Stethojulis albobittata* (Bonnaterre [ex Koelreuther], 1788) – Blue-lined wrasse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and on observations and specimens collected by R. FRICKE on 7–12 Nov. 2011, St. B28, B32, B37, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B25, EU3, EU4, EU5; previously listed as *Stethojulis* sp. by FOURMANOIR (1952: 172). – Material: SMF 34763 (4), SMF 34804 (7).
- Thalassoma amblycephalum* (Bleeker, 1856) – Twotone wrasse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 8–12 Nov. 2011, St. B28, B37, B49, B50, EU5. – Material: SMF 34805 (2).
- Thalassoma genivittatum* (Valenciennes in Cuvier & Valenciennes, 1839) – Redcheek wrasse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B12, B14, B25, EU2, EU3, EU4, EU5, EU7.
- Thalassoma hardwicke* (Bennett, 1830) – Sixbar wrasse; Girelle à six bandes. – Distribution: First record from Europa Island as *Thalassoma hardwicki* by FOURMANOIR (1952: 170), and as *Thalassoma hardwickei* by FOURMANOIR (1952: 187); record confirmed by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE based on observations at Europa on 7–11 Nov. 2011, St. B28, B31, B32, B33, B34, B49, B50, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. EU5.
- Thalassoma hebraicum* (Lacepède [ex Commerson], 1801) – Goldbar wrasse. – Distribution: First record from Europa Island as *Thalassoma hebraicum* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed and a specimen collected by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B25, EU2, EU3, EU4, EU5, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.
- Thalassoma lunare* (Linnaeus, 1758) – Moon wrasse; Girelle verte. – Distribution: First record from Europa Island by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE based on observations at Europa on 7–11 Nov. 2011, St. B31, B33, B34, B37, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B14, EU7.
- Thalassoma purpureum* (Forsskal in Niebuhr, 1775) – Surge wrasse; Girelle hublot. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.
- Thalassoma quinquevittatum* (Lay & Bennett, 1839) – Fivestripe wrasse. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE based on observations on 7–11 Nov. 2011, St. B28, B32, EU5.
- Thalassoma trilobatum* (Lacepède [ex Commerson], 1801) – Ladder wrasse, Christmas wrasse; Calonnier côte (Réunion), girelle de Noël (France). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34764 (2), SMF 34806 (1).
- Wetmorella nigropinnata* (Seale, 1901) – Sharpnose wrasse. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

#### Scaridae

- Calotomus carolinus* (Valenciennes in Cuvier & Valenciennes, 1840) – Stareye parrotfish, Christmas parrotfish, bucktooth parrotfish; Perroquet des Carolines. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.
- Chlorurus sordidus* (Forsskal in Niebuhr, 1775) – Bullethead parrotfish, daisy parrotfish; Perroquet marguerite. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU7, and by R. FRICKE on 8–10 Nov. 2011, St. B34, B37, B50.
- Chlorurus strongylocephalus* (Bleeker, 1854) – Steephead parrotfish; Perroquet vert (Réunion). – Distribution: **New**

**record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011, and on observations by R. FRICKE on 7–10 Nov. 2011, St. B31, B32, B33, B49, B50; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7, B14. – **Remarks:** This species is similar to *Chlorurus microrhinos* (Bleeker, 1854) of the western Pacific Ocean.

*Scarus forsteni* (Bleeker, 1861) – Forsten's parrotfish; Perroquet mauve. – **Distribution:** **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Scarus frenatus* Lacepède [ex Commerson], 1802 – Bridled parrotfish, vermiculate parrotfish. – **Distribution:** **New record** from Europa Island, based on an observation by R. FRICKE on 7–11 Nov. 2011, St. B31, B34, B37, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B8, B12, EU7.

*Scarus ghobban* Forsskål in Niebuhr, 1775 – Blue-barred parrotfish; Perroquet bleu (Réunion), perroquet à écailles jaunes (France). – **Distribution:** First record from Europa Island as *Callyodon guttatus* by FOURMANOIR (1952: 172); record confirmed by R. FRICKE on an observation on 8–11 Nov. 2011, St. B49, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. EU5.

*Scarus niger* Forsskål in Niebuhr, 1775 – Perroquet dorade. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Scarus rubroviolaceus* Bleeker, 1847 – Ember parrotfish; Perroquet braisé. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU3, EU4, EU5, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Scarus scaber* Valenciennes in Cuvier & Valenciennes, 1840 – Dusky-capped parrotfish; Perroquet marron (Réunion), perroquet à cinq celles (France). – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B12, B14, EU3.

*Scarus tricolor* Bleeker, 1847 – Tricolour parrotfish; Perroquet tricolore. – **Distribution:** **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, EU2, EU3, EU7.

#### Pinguipedidae

*Parapercis hexoptalma* (Cuvier [ex Ehrenberg] in Cuvier & Valenciennes, 1829) – Speckled sandperch, spotted sandmelt; Pinge pintade. – **Distribution:** **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 10–11 Nov. 2011, St. B14, EU2.

*Parapercis punctulata* (Cuvier in Cuvier & Valenciennes, 1829) – Spotted sandperch, spotted sandmelt. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

#### Tripterygiidae

*Enneapterygius abeli* (Klausewitz, 1960) – Yellow triplefin. – **Distribution:** **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – **Material:** SMF 34782 (3), SMF 34824 (1).

*Enneapterygius philippinus* (Peters, 1868) – Minute triplefin. – **Distribution:** **New record** from Europa Island, based on specimens collected by R. FRICKE, 11–12 Nov. 2011, St. B28, and by P. DURVILLE, 12 Nov. 2011, St. B25; previously reported as *Enneapterygius* sp. by FOURMANOIR (1952: 188). – **Material:** SMF 34825 (25), SMF 34836 (8).

*Enneapterygius ventermaculus* Holleman, 1982 – Blotched triplefin. – **Distribution:** **New record** from Europa Island, based on specimens collected by R. FRICKE on 9–12 Nov. 2011, St. B28; also observed by P. DURVILLE, 11 Nov. 2011, St. B5. – **Material:** SMF 34736 (1), SMF 34783 (4), SMF 34826 (4).

#### Blenniidae

*Antennablennius australis* Fraser-Brunner, 1951 – Moustached rockskipper. – **Distribution:** **New record** from Europa Island, based on specimens collected by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – **Material:** SMF 34828 (2).

*Antennablennius bifilum* (Günther, 1861) – Horned rockskipper. – **Distribution:** **New record** from Europa Island, based on specimens collected by R. FRICKE on 11 Nov. 2011, St. B28. – **Material:** SMF 34746 (2).

*Aspidontus tractus* Fowler, 1903 – Mimic blenny. – **Distribution:** **New record** from Europa Island, based on an observation by R. FRICKE on 11 Nov. 2011, St. EU5.

*Blenniella chrysospilos* (Bleeker, 1857) – Red-spotted blenny; Blennie à taches rouges. – **Distribution:** **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28, and by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – **Material:** SMF 34747 (2), SMF 34789 (16), SMF 34829 (2).

*Blenniella gibbifrons* (Quoy & Gaimard, 1824) – Hump-headed blenny. – **Distribution:** **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28, and by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – **Material:** SMF 34748 (3), SMF 34790 (1), SMF 34830 (2).

*Blenniella periophthalmus* (Valenciennes in Cuvier & Valenciennes, 1836) – Blue-dashed rockskipper, bullethead rockskipper. – **Distribution:** First record from Europa Island as *Alticops periophthalmus* by FOURMANOIR (1952: 169); record confirmed by R. FRICKE based on a specimen collected on 9–12 Nov. 2011, St. B28, EU5. – **Material:** SMF 34728 (1), SMF 34749 (4), SMF 34791 (4).

*Cirripectes auritus* Carlson, 1981 – Blackflap blenny. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Cirripectes castaneus* (Valenciennes in Cuvier & Valenciennes, 1836) – Muzzled rockskipper, chestnut blenny. – **Distribution:** **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.



*Cirripectes filamentosus* (Alleyne & Macleay, 1877) – Filamentous blenny. – Distribution: **New record** from Europa Island, based on an observation and a specimen collected by R. FRICKE on 8–9 Nov. 2011, St. B28, B34; also on a specimen collected by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Ecsenius lineatus* Klausewitz, 1962 – Linear blenny; Blennie bigula. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 8 Nov. 2011, St. B49; also observed at Europa Island by P. DURVILLE et al. as *Ecsenius* sp. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, EU2, EU3, EU7, photographed at St. EU6, and collected on 11 Nov. 2011, on the north side of the island, 18 m depth.

*Ecsenius* sp. (black, head light). – Distribution: Recorded from Europa Island, based on an observation by P. DURVILLE, 10–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU5.

*Exallias brevis* (Kner, 1868) – Shortbodied blenny, leopard blenny, leopard rockskipper. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU4.

*Istiblennius edentulus* (Schneider [ex Forster] in Bloch & Schneider, 1801) – Rippled rockskipper. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 7–12 Nov. 2011, St. B28, B31, B34, B37, EU5, and by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – Material: SMF 34792 (1), SMF 34831 (1).

*Istiblennius steindachneri* (Pfeffer, 1893) – Steindachner's rockskipper. – Distribution: **New record** from Europa Island; previously listed as *Alticops oryx* (non Rüppell, 1830) by FOURMANOIR (1952: 169).

*Plagiotremus rhinorhynchus* (Bleeker, 1852) – Twostripe blenny. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 8 Nov. 2011, St. B34, B49; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B12, B14, EU3, EU4.

*Plagiotremus tapeinosoma* (Bleeker, 1857) – Piano blenny. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B8, B12, B14, EU3, EU7.

*Salarias fasciatus* (Bloch, 1786) – Jewelled blenny. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 11 Nov. 2011, St. EU5.

#### Callionymidae

*Diplogrammus infulatus* Smith, 1963 – Sawspine dragonet. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34750 (2), SMF 34793 (1).

#### Eleotridae

*Ophiocara porocephala* (Valenciennes in Cuvier & Valenciennes, 1837) – Flathead sleeper; Cabot marare (Réunion), éléotris à tête poreuse (France). – Distribution: **New record** from Europa Island; previously listed as *Ophiocara* sp. by FOURMANOIR (1952: 187).

#### Gobiidae

*Amblygobius semicinctus* (Bennett, 1833) – Half-barred goby; Gobie galonne (Fig. 18). – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 10 Nov. 2011, St. B37, and on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.

*Amblygobius sphynx* (Valenciennes in Cuvier & Valenciennes, 1837) – Sphinx goby. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 7 Nov. 2011, St. B32.

*Bathygobius cotticeps* (Steindachner, 1880) – Cheekscaled frillgoby. – Distribution: **New record** from Europa Island, based on a specimen collected by R. FRICKE on 10–12 Nov. 2011, St. B28, B50. – Material: SMF 34737 (1), SMF 34753 (3), SMF 34796 (2).

*Bathygobius fuscus* (Rüppell, 1830) – Dusky frillgoby. – Distribution: First record from Europa Island by FOURMANOIR (1952: 169); record confirmed by R. FRICKE based on specimens collected and observed at Europa on 7–12 Nov. 2011, St. B28, B31, B34, B37, EU5, and collected by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – Material: SMF 34797 (12), SMF 34832 (5).

*Cryptocentrus cryptocentrus* (Valenciennes in Cuvier & Valenciennes, 1837) – Ninebar prawn goby. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011 among the mangroves in the inner lagoon of Europa Island.

*Ctenogobius maculosus* (Fourmanoir, 1955) – Seychelles shrimpgoby. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 8 Nov. 2011, St. B34.

*Eviota indica* Lachner & Karnella, 1980 – Indian Ocean coral goby. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 11 Nov. 2011, on the north side of the island, 18 m depth.

*Eviota prasina* (Klunzinger, 1871) – Green bubble goby. – Distribution: **New record** from Europa Island, based on specimens collected and observed by R. FRICKE on 8–12 Nov. 2011, St. B28, B34, B50, EU5, and collected by P. DURVILLE & P. CHABANET on 12 Nov. 2011, St. B25. – Material: SMF 34729 (2), SMF 34738 (3), SMF 34755 (9), SMF 34798 (21), SMF 34833 (1).

*Eviota* sp. 1. – Distribution: Observed at Europa Island, based on specimens collected by P. DURVILLE & P. CHABANET on 8–11 Nov. 2011, St. EU6, and on the north side of the island, 18 m depth, and a specimen collected by R. FRICKE on 11 Nov. 2011, St. B28. – Material: SMF 34754 (1).

*Eviota* sp. 2. – Distribution: Observed at Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 11 Nov. 2011, on the north side of the island, 18 m depth.

*Fusigobius inframaculatus* (Randall, 1994) – Flag fusegoby. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7, observed by P. DURVILLE & P. CHABANET on 10 Nov. 2011, St. EU2, and a photograph taken by P. DURVILLE at St. EU6.

*Gnatholepis anjerensis* (Bleeker, 1851) – Eye-bar goby. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 11 Nov. 2011, on the north side of the island, 18 m depth, and on a photograph taken by P. DURVILLE at St. EU6.

*Gnatholepis cauerensis* (Bleeker, 1853) – Dark eye-bar goby. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE et al. during the expedition MD-11, and on specimens collected by R. FRICKE at Europa on 7–11 Nov. 2011, St. B31, B33, B34, B37, B49, B50, EU5, and by P. DURVILLE & P. CHABANET on 7–10 Nov. 2011, St. EU2, EU7. – Material: SMF 34739 (1).

*Gobiodon citrinus* (Rüppell, 1838) – Lemon coral goby. – Distribution: First record from Europa Island by FOURMANOIR (1952: 187).

*Koumansetta hectori* (Smith, 1957) – Hector's goby. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Lotilia graciliosa* Klausewitz, 1960 – Whitecap goby. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Pleurosicya micheli* Fourmanoir, 1971 – Michel's ghost goby. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Prionolepis cincta* (Regan, 1908) – Girdled goby. – Distribution: **New record** from Europa Island, based on specimens collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34756 (4), SMF 34799 (6).

*Prionolepis inhaca* (Smith, 1949) – Brick goby. – Distribution: **New record** from Europa Island, based on a specimen collected by R. FRICKE on 11–12 Nov. 2011, St. B28. – Material: SMF 34757 (1), SMF 34800 (1).

*Silhouettea insinuans* Smith, 1959 – Phantom goby. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Trimma anaima* Winterbottom, 2000 – Comores goby. – Distribution: **New record** from Europa Island, based on specimens collected by P. DURVILLE & P. CHABANET on 7–8 Nov. 2011, St. EU6, EU7.

*Trimma* sp. [aff. *Trimma okinawae* (Aoyagi, 1949)]. – Distribution: Observed at Europa Island, based on a photograph taken by P. DURVILLE on 12 Nov. 2011, St. EU5.

*Valenciennesa strigata* (Broussonet [ex Forster], 1782) – Blue-band goby. – Distribution: **New record** from Europa Island, based on observations by R. FRICKE on 8–11 Nov. 2011, St. B34, B37, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. EU5.

*Vanderhorstia ambanoro* (Fourmanoir, 1957) – Ambanoro prawn goby. – Distribution: **New record** from Europa Island, based on observations by R. FRICKE on 8–10 Nov. 2011, St. B34, B37.

#### Microdesmidae

*Nemateleotris magnifica* Fowler, 1938 – Fire goby, fire dartfish; Poisson de feu. – Distribution: **New record** from Eu-

ropa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also on observations by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B12, B14, EU2, EU3, EU7.

*Ptereleotris evides* (Jordan & Hubbs, 1925) – Blackfin dartfish, scissortail; Flèche noire. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. EU2, EU3.

*Ptereleotris microlepis* (Bleeker, 1856) – Blue gudgeon. – Distribution: **New record** from Europa Island, based on observations and specimens collected by R. FRICKE on 8–11 Nov. 2011, St. B28, B34. – Material: SMF 34731 (1), SMF 34765 (1).

*Ptereleotris zebra* (Fowler, 1938) – Zebra dartfish; Gobie zèbre. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU4.

#### Siganidae

*Siganus laqueus* Bonde, 1934 – Star-spotted rabbitfish, brown-spotted spinefoot; Sigan marguerite. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

#### Zanclidae

*Zanclus cornutus* (Linnaeus, 1758) – Moorish idol; Cocher blanc. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, EU2, EU3, EU7, and by R. FRICKE on 10–11 Nov. 2011, St. B50, EU5.

#### Acanthuridae

*Acanthurus bariene* Lesson, 1831 – Black-spot surgeonfish. – Distribution: First record from Europa Island as *Acanthurus basiene* by FOURMANOIR (1952: 184), and as *Acanthurus bariene* by FOURMANOIR (1952: 186); record confirmed by R. FRICKE based on an observation at Europa on 7 Nov. 2011, St. B31, 33.

*Acanthurus blochii* Valenciennes in Cuvier & Valenciennes, 1835 – Tailring surgeonfish; Chirurgien à queue rayée. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Acanthurus dussumieri* Valenciennes in Cuvier & Valenciennes, 1835 – Eyestripe surgeonfish; Chirurgien de Dussumier. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B8, EU7.

*Acanthurus leucosternon* Bennett, 1833 – Powder-blue surgeonfish; Chirurgien poudré. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B8, B12, EU3.



- Acanthurus lineatus* (Linnaeus, 1758) – Lined surgeonfish; Chirurgien à lignes bleues. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. at St. 1 (equals St. EU5 of this paper) during an expedition with R/V Marion Dufresne on 5 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, EU5, EU7, and by R. FRICKE on 9–11 Nov. 2011, St. B28, EU5.
- Acanthurus nigricauda* Duncker & Mohr, 1929 – Epaulette surgeonfish; Chirurgien à queue blanche. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B14, EU2, EU3, EU5.
- Acanthurus nigrofuscus* (Forsskål in Niebuhr, 1775) – Dusky surgeonfish; Chirurgien brun. – Distribution: First record from Europa Island as *Acanthurus lineolatus* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B8, B12, EU2, EU3, EU4.
- Acanthurus tennentii* Günther, 1861 – Lieutenant surgeonfish, doubleband surgeonfish; Chirurgien fer à cheval. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.
- Acanthurus thompsoni* (Fowler, 1923) – Thompson's surgeonfish; Chirurgien chocolat. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, EU7.
- Acanthurus triostegus* (Linnaeus, 1758) – Convict surgeonfish; Cordonnier (Réunion). – Distribution: First record from Europa Island by FOURMANOIR (1952: 172); record confirmed by P. DURVILLE et al. based on a observation at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011, an observation by P. BORSA in the mangrove area on 7 April 2011, and by R. FRICKE based on observations and specimens collected at Europa on 7–12 Nov. 2011, St. B28, B31, B32, B33, B34, B37, B49, B50, EU5; also observed by P. DURVILLE, 12 Nov. 2011, St. B25. – Material: SMF 34726 (2), SMF 34742 (1), SMF 34785 (1).
- Acanthurus xanthopterus* Valenciennes in Cuvier & Valenciennes, 1835 – Yellowfin surgeonfish; Chirurgien (Réunion), chirurgien aile jaune (France). – Distribution: First record from Europa Island as *Acanthurus fuliginosus* by FOURMANOIR (1952: 184); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B8, B12, EU3.
- Ctenochaetus striatus* (Quoy & Gaimard, 1825) – Striated surgeonfish; Chirurgien strié. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B12, EU3, EU5, and by R. FRICKE on 11 Nov. 2011, St. EU5.
- Ctenochaetus truncatus* Randall & Clements, 2001 – Goldring bridetooth. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE based on an observation at Europa on 7–11 Nov. 2011, St. B31, B34, B49, B50, EU5; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU7.
- Naso brachycentron* (Valenciennes in Cuvier & Valenciennes, 1835) – Humpback unicornfish; Nason bossu. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. B8.
- Naso brevirostris* (Cuvier, 1829) – Spotted unicornfish, palefin unicornfish; Nason à rostre court. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10–11 Nov. 2011, St. B5, B8, B14.
- Naso elegans* (Rüppell, 1829) – Indian Ocean orangespine unicornfish, elegant unicornfish; Nason bariolé (Fig. 13). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B8, B14, EU2, EU3, EU4, EU7, and by R. FRICKE on 10 Nov. 2011, St. B50.
- Naso hexacanthus* (Bleeker, 1855) – Sleek unicornfish; Nason lisse. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.
- Naso tuberosus* Lacepède [ex Commerson], 1801 – Humpnose unicornfish. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE, 10 Nov. 2011, St. B8.
- Naso unicornis* (Forsskål in Niebuhr, 1775) – Bluespine unicornfish; Licorne (Réunion), nason à épérons bleus (France). – Distribution: **New record** from Europa Island, based on observations by P. DURVILLE et al. at St. 1 and St. 2 (equals St. EU5 and B34 of this paper) during an expedition with R/V Marion Dufresne on 5–6 April 2011; also observed by P. DURVILLE & P. CHABANET on 7–11 Nov. 2011, St. B5, B8, B14, EU2, EU5, EU7, and by R. FRICKE on 10–11 Nov. 2011, St. B37, EU5; record also confirmed based on photograph by E. BRETAGNE, taken in November 2011.
- Naso vlamingi* (Valenciennes in Cuvier & Valenciennes, 1835) – Bignose unicornfish; Nason zébré. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 9 Nov. 2011, St. B28.
- Paracanthurus hepatus* (Linné, 1766) – Palette surgeonfish; Chirurgien bleu. – Distribution: **New record** from Europa Island, based on a photograph by P. DURVILLE taken on 11 Nov. 2011, on the north side of the island below the boat mooring, at 18 m depth.
- Zebrasoma gemmatum* (Valenciennes in Cuvier & Valenciennes, 1835) – Gem surgeonfish; Acanthure à pierreries. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.
- Zebrasoma scopas* (Cuvier, 1829) – Brushtail tang, twotone tang; Chirurgien à brosses. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU7.
- Zebrasoma velifer* (Bloch, 1795) – Desjardin's sailfin tang; Chirurgien à voile. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. dur-

ing the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B5, B8, B14, EU3.

### Sphyraenidae

*Sphyraena barracuda* (Catesby [ex Edwards], 1771) – Great barracuda; Barracuda (Réunion) (Fig. 19). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11, and an observation by P. BORSA in the mangrove area on 7 April 2011; previously listed as *Sphyraena* sp. by FOURMANOIR (1952: 170); also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, EU3, EU7; record confirmed based on photograph by E. BRETAGNE, taken in November 2011.

### Scombridae

*Euthynnus affinis* (Cantor, 1850) – Eastern little tuna; Bonite la côte (Réunion), thonine orientale (France). – Distribution: **New record** from Europa Island; previously listed as *Euthynnus alleteratus* (non Rafinesque-Schmaltz, 1810) by FOURMANOIR (1952: 179).

*Thunnus albacares* (Bonnaterre, 1788) – Yellowfin tuna; Thon jaune (Réunion). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

### Bothidae

*Bothus mancus* (Broussonet, 1782) – Peacock flounder; Sole (Réunion). – Distribution: First record from Europa Island by FOURMANOIR (1952: 184).

### Balistidae

*Balistapus undulatus* (Park, 1797) – Orange-striped triggerfish; Baliste ondulé. – Distribution: First record from Europa Island by FOURMANOIR (1952: 181); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3, EU4, EU7, and by R. FRICKE on 11 Nov. 2011, St. EU5.

*Balistoides conspicillum* (Bloch & Schneider, 1801) – Clown triggerfish; Bourse piastre, bourse pièce (Réunion), baliste léopard, baliste clown (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 188); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B12, B14, EU3.

*Balistoides viridescens* (Bloch & Schneider, 1801) – Titan triggerfish; Bourse jaune (Réunion), baliste verdâtre (France). – Distribution: First record from Europa Island by FOURMANOIR (1952: 188); record confirmed by P. DURVILLE et al. during the expedition MD-11, and by R. FRICKE on 9–10 Nov. 2011, St. B28, B37; also observed by P. DURVILLE & P. CHABANET on 9–12 Nov. 2011, St. B5, B8, B12, B14, EU2, EU3.

*Melichthys niger* (Bloch, 1786) – Black triggerfish; Baliste noir. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B5, B8, B14, EU2, EU3, EU4.

*Odonus niger* (Rüppell, 1836) – Redtooth triggerfish; Bourse noire (Réunion). – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

*Pseudobalistes flavimarginatus* (Rüppell, 1829) – Yellowface triggerfish; Baliste face jaune. – Distribution: First record from Europa Island as *Pseudobalistes flavimarginatus* by FOURMANOIR (1952: 188); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 10 Nov. 2011, St. EU2.

*Rhinecanthus aculeatus* (Linnaeus, 1758) – Picassofish; Bourse revolver (Réunion). – Distribution: First record from Europa Island by FOURMANOIR (1952: 172); record confirmed by R. FRICKE based on observations and specimens collected at Europa on 7–12 Nov. 2011, St. B28, B31, B32, B34, B37, B49, B50, EU5.

*Rhinecanthus rectangulus* (Lacepède [ex Commerson] in Bloch & Schneider, 1801) – Wedge picasso fish; Bourse (Réunion), picasso noir (France). – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 9–11 Nov. 2011, St. B28, EU5; also observed by P. DURVILLE, 10–12 Nov. 2011, St. B25, EU2.

*Sufflamen bursa* (Lacepède [ex Commerson] in Bloch & Schneider, 1801) – Boomerang triggerfish; Baliste boomerang. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7–12 Nov. 2011, St. B12, B14, EU2, EU7.

*Sufflamen chrysopteron* (Bloch & Schneider, 1801) – Halfmoon triggerfish; Baliste double-queue. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 9–10 Nov. 2011, St. B8, EU3, EU4.

### Monacanthidae

*Cantherhines dumerilii* (Hollard, 1854) – Barred filefish; Bourse à taches blanches. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 11 Nov. 2011, St. B5, B14.

*Cantherhines pardalis* (Rüppell, 1837) – Honeycomb filefish; Bourse rayon de miel. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9–11 Nov. 2011, St. B14, EU2, EU3.

*Pervagor janthinosoma* (Bleeker, 1854) – Blackbar filefish. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11.

### Ostraciidae

*Ostracion meleagris* Shaw in Shaw & Nodder, 1796 – Whitespotted boxfish; Coffre pintade. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7, and on 12 Nov. 2011 at St. EU5.



## Tetraodontidae

*Arothron meleagris* (Anonymus [ex Lacepède, ex Commerson], 1798) – Guineafowl puffer; Compère pintade. – Distribution: **New record** from Europa Island, based on observation by P. DURVILLE & P. CHABANET on 9 Nov. 2011, St. EU3.

*Arothron nigropunctatus* (Bloch & Schneider, 1801) – Black-spotted puffer; Compère à taches noires. – Distribution: First record from Europa Island by FOURMANOIR (1952: 172); record confirmed by P. DURVILLE et al. during the expedition MD-11.

*Arothron stellatus* (Anonymus [ex Lacepède, ex Commerson], 1798) – Star puffer; Compère étoilé. – Distribution: First record from Europa Island by FOURMANOIR (1952: 172, pl. 13A); record confirmed by P. DURVILLE et al. during the expedition MD-11.

*Canthigaster amboinensis* (Bleeker, 1865) – Spotted toby. – Distribution: First record from Europa Island as *Canthigaster margaritatus* (non Rüppell, 1829) by FOURMANOIR (1952: 188).

*Canthigaster bennetti* (Bleeker, 1854) – Exquisite toby; Canthigaster delicat. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 10 Nov. 2011, St. B50.

*Canthigaster janthinoptera* (Bleeker, 1855) – Honeycomb toby. – Distribution: **New record** from Europa Island, based on an observation by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE, 12 Nov. 2011, St. B12.

*Canthigaster natalensis* (Günther, 1870) – Natal toby. – Distribution: **New record** from Europa Island, based on an observation by R. FRICKE on 7–8 Nov. 2011, St. B32, B49.

*Canthigaster solandri* (Richardson [ex Solander], 1845) – Spotted sharpnose pufferfish; Canthigaster de Solander. – Distribution: **New record** from Europa Island, based on a specimen collected by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7.

*Canthigaster valentini* (Bleeker, 1853) – Black-saddled toby; Canthigaster à selle. – Distribution: First record from Europa Island as *Canthigaster Valentini* by FOURMANOIR (1952: 188); record confirmed by P. DURVILLE et al. during the expedition MD-11; also observed by P. DURVILLE & P. CHABANET on 7 Nov. 2011, St. EU7, and by R. FRICKE on 8 Nov. 2011, St. B49.

## 4 Fish fauna of Europa Island

The shore fish fauna of Europa Island comprises a total of 389 species in 62 families. 302 species are recorded from Europa Island for the first time. No introduced species have been found. The largest families are the Labridae (47 native species, 12.1 % of the native species), Pomacentridae (35 species, 9.0 %), Serranidae (30 species, 7.7 %), Gobiidae and Acanthuridae (24 species each, 6.2 %), Chaetodontidae (20 species, 5.1 %), Blenniidae (17 spe-

**Tab. 2.** Proportion (percent of total) and rank (in parentheses) of the most speciose families of shore fishes around islands in the southwestern Indian Ocean, based on the sources cited under Methods and Materials. Only “shore” fish species are included, i. e. marine species which live in less than 80 m depth and are not found as adults in the oceanic pelagic waters.

	Europa Island	Seychelles	Maldives	Chagos Archipelago	Réunion	Mauritius	Rodrigues
Labridae	12.1 (1)	7.8 (2)	7.2 (2)	8.1 (2)	7.7 (1)	9.8 (1)	7.9 (2)
Pomacentridae	9.0 (2)	4.8 (3)	4.9 (4)	4.9 (5)	5.5 (4)	4.3 (5)	6.7 (3)
Serranidae	7.8 (3)	4.4 (4)	6.4 (3)	6.4 (3)	6.2 (3)	6.7 (2)	5.5 (4)
Gobiidae	6.2 (4)	9.1 (1)	8.2 (1)	12.6 (1)	6.5 (2)	5.7 (3)	12.8 (1)
Acanthuridae	6.2 (4)	3.6 (6)	2.5 (11)	3.9 (7)	3.4 (8)	3.1 (8)	3.5 (8)
Chaetodontidae	5.1 (6)	2.2 (12)	3.2 (8)	3.2 (8)	2.8 (9)	2.9 (9)	3.7 (7)
Blenniidae	4.4 (7)	3.5 (7)	3.4 (7)	3.2 (8)	4.2 (5)	4.5 (4)	3.9 (6)
Lutjanidae	3.9 (8)	2.5 (10)	2.8 (10)	2.6 (11)	2.7 (10)	2.7 (10)	2.8 (9)
Carangidae	2.8 (9)	3.1 (8)	2.0 (14)	1.9 (14)	4.0 (6)	2.9 (9)	2.2 (11)
Balistidae	2.6 (10)	1.5 (15)	1.7 (15)	2.1 (13)	2.2 (12)	1.9 (14)	1.8 (13)
Scaridae	2.6 (10)	2.1 (13)	2.3 (12)	2.8 (10)	1.8 (15)	2.6 (11)	3.5 (8)
Holocentridae	2.3 (12)	2.4 (11)	2.2 (13)	2.8 (10)	2.8 (9)	2.1 (13)	2.0 (12)
Muraenidae	2.3 (12)	2.9 (9)	4.0 (5)	5.4 (4)	3.8 (7)	3.9 (6)	2.6 (10)
Pomacanthidae	2.1 (14)	1.1 (17)	1.3 (17)	0.8 (22)	1.2 (20)	1.2 (18)	0.6 (19)
Tetraodontidae	2.1 (14)	2.4 (11)	2.0 (14)	1.2 (17)	2.6 (11)	2.1 (13)	1.0 (17)
Apogonidae	1.8 (16)	4.1 (5)	3.8 (6)	4.2 (6)	2.2 (12)	2.7 (10)	4.1 (5)
Caesionidae	1.8 (16)	1.1 (17)	1.3 (17)	1.2 (17)	0.9 (25)	0.7 (23)	0.2 (21)
Mullidae	1.8 (16)	2.5 (10)	1.0 (19)	1.4 (16)	2.0 (13)	1.5 (16)	2.6 (10)
Total number of species	389	905	1013	780	818	940	493

cies, 4.4%), Lutjanidae (15 species, 3.9%), Carangidae (11 species, 2.8%), Balistidae and Scaridae (10 species each, 2.6%). It is surprising that relatively few Gobiidae have been found, and this is not just based on the focus on visual census, but supported by collecting efforts.

The fish fauna is exclusively marine; no freshwater fishes have been reported from the island, and there is no permanent fresh water habitat on the island. The general impression is that the fish fauna is impoverished, with relatively few species occurring, some of them having a very high biomass. Europa Island is an extremely poor-nutrient area, with relatively few plankton in the water. Even the mangrove area has a clean sand bottom, without any mud or silt. Though the distance to the African continental shelf is only 262 km towards the west, and 153 km to the Madagascar island shelf in the east, many species of the continental type which are adapted to nutrient-rich waters are not found in Europa Island.

It is difficult to compare the faunas of islands and island groups in the Western Indian Ocean as the sampling effort is highly variable from one island to the next. Restricting the comparison to the coastal species (marine species, found in less than 80 m, excluding oceanic pelagic species) there is a similarity in the ranking of the various families (Tab. 2). The families with the highest species richness usually include the Labridae, Pomacentridae, Seranidae and Gobiidae, with different ranks. While at Europa Island the Labridae was the most speciose family, in other islands the Gobiidae are the dominant group. The situation at Europa Island is apparently not affected by sampling effort, as even in shallow lagoon habitats a very poor diversity of gobies is observed relative to other regions. Several other fish families appear to be under-represented at Europa Island; the family Scorpaenidae, for instance, which is usually among the top 15 in other island groups, is not included in the top 18 list of Europa Island.

No endemism of fish species has been reported for Europa Island. This fact reflects the proximity of the island to Bassas da India Atoll, another of the Îles Éparses, to the continental shelf of Mozambique and the island shelf of Madagascar.

The fish fauna of Europa island is typical for offshore, low islands in the southwestern Indian Ocean. Zoogeographically, the main element of the fish fauna of Europa Island consists of widespread tropical Indo-Pacific species (292 species, 75.1 % of the total occurring species), of which 273 species (70.2 %) have a typical Indo-West Pacific distribution, and 19 species (4.9 %) an Indo-Pacific distribution including the East Pacific. A total of 13 species (3.3 %) are found worldwide, either circumtropical or circumtropical including warm temperate zones. An additional 76 species (19.5 %) are Indian Ocean endemics, including 36 western Indian Ocean endemics (9.2 %), and 10 southwestern Indian Ocean endemics (2.6 %). These

figures are similar to the zoogeographical relationships of the fish fauna of Réunion (see FRICKE et al. 2009).

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