The fishes of Ascension Island, central Atlantic Ocean – new records and an annotated checklist

PETER WIRTZ1, JANE BINGEMAN2, JOHN BINGEMAN2, RONALD FRICKE3,4, TIMOTHY J. HOOK5 AND JIMMY YOUNG6

1Centro de Ciências do Mar, Universidade do Algarve, P-8000-117 Faro, Portugal, 25 Rumbolds Close, Chichester, West Sussex PO19 7UI, UK, 3Im Ramstal 76, 97922 Lauda-Königshofen, Germany, 4Staatliches Museum für Naturkunde Stuttgart, Rosenstein 1, 70191 Stuttgart, Germany, 519 Irthing Park, Gilsland, Cumbria CA8 7DL, UK, 6c/o Conservation Department, Georgetown, Ascension Island, ASCN 1ZZ

A checklist of the fishes of Ascension Island is presented. The species Rhincodon typus, Alopias superciliosus, Isurus oxyrinchus, Carcharinhus obscurus, Galeocerdo cuvier, Sphyraena lewini, Hexanchus griseus, Manta birostri, Gymnotorhax vincinus, Hippocampus sp., Epinephelus itajara, Cookeolus japonicus, Apogon pseudomaculatus, Phaeopteryx pigmentaria, Remora albescens, Caranx barbodamae, Carangoides ruber, Decapterus tabl, Seriola dumerili, Thalassoma sanctaehelenae, Cryptotomus sp., Ruvettus pretiosus, Acantochycbium solandrii, Auxis rochei, Auxis thazard, Euthynnus alletteratus, Katsuwonus pelamis, Thunnus alalunga, Thunnus obesus, Xiphius gladius, Istiophorus platypurus, Kajikia albida, Makaira nigricans, Tetraprurus pliegeri, Hyperoglyphe pericormis, Schedophilus sp., Cantherhines macrocerus, Sphoeroids pachygaster and Diodon eydouxii are recorded for the first time from Ascension Island. We have recognized two previous records as identification errors and indicate 11 other records as doubtful. Including the 40 new records, we now list 173 fish species from Ascension Island, of which 133 might be considered ‘coastal fish species’. Eleven of these (8.3%) appear to be endemic to the island and a further 16 species (12%) appear to be shared endemics with St Helena Island.

Keywords: zoogeography, island biology, amphi-Atlantic

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INTRODUCTION

Ascension Island lies at 07°57’S, 14°22’W. St Helena Island is about 1200 km south of it. The distance to Brazil is about 2300 km and the distance to West Africa about 1500 km. The molluscs (Rosewater, 1975), as well as the echinoderms (Pawson, 1978), and the fishes (Lubbock, 1980) contain species otherwise only known from the western Atlantic as well as species otherwise only known from the eastern Atlantic. This implies that propagules have reached Ascension from the east and from the west. Surface currents in the area are predominantly from east to west; however, during northern winter and spring, eastwards flows also occur (Stramma, 1991, Stramma & Schott, 1999). Accordingly, juvenile Green turtles (Chelonia mydas) from Ascension nesting grounds mainly drift to South America (Suriname) feeding grounds but some of them end up at the Cape Verde Islands (Monzon-Arguello et al., 2010). Simulated trajectories of ‘virtual larvae’ released at Ascension Island pointed towards Fernando de Noronha Island and slightly north of it (Rudoff et al., 2009).

Cadenat & Marchal (1963) summarized the knowledge about the fishes of Ascension and St Helena Islands. Lubbock (1980) and Bingeman & Bingeman (2005) added a considerable number of records of shore fish species for Ascension Island. Bingeman & Bingeman (2005) also gave the local names of the species.

In an annotated checklist, we here note the presence of 40 additional fish species at Ascension Island and point out some doubtful records in the literature.

MATERIALS AND METHODS

Previous fish records for Ascension Island were extracted from the literature, in particular Cadenat & Marchal (1963), Lubbock (1980), Quéro et al. (1990), and Bingeman & Bingeman (2005). We have also included the records from Grattan seamount, 260 km south-east of Ascension Island, given by Trunov (2006).

Classification follows Eschmeyer (2013), but subspecies have been raised to species level; references follow Fricke (2013). Family arrangement follows Nelson (2006). Popular names are from Fishbase (www.fishbase.org). Recent photographic records were contributed by the members of the Shallow Marine Surveys Group expedition to Ascension Island (August–September 2012) and by Colin Chester. Specimens collected during the expedition and during a subsequent trip by the first author (February 2014) were...
deposited in the Zoologische Staatssammlung, Munich, Germany; their ZSM numbers are given in the species sections.

By far the largest number of the new records was accumulated by one of us (TH) while running a sport fishing boat out of Georgetown, Ascension Island, between 1995 and 2007; TH fished within 2 miles around the island.

We consider those species as 'coastal fish species' that can be encountered in the first 60 m depth starting from shore and those open sea species that come close enough to the shore to be (occasionally) seen by swimmers.

RESULTS

(1) Chondrichthyes
Rhincodontidae
Rhincodon typus Smith, 1828 Whale shark
References: New record; TH has photos of the species taken at Ascension Island (e.g. Figure 1).

Alopiidae
Alopias superciliosus (Lowe, 1940) Bigeye thresher
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

Lamnidae
Isurus oxyrinchus Rafinesque, 1810 Shortfin mako
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

Carcharhinidae
Prionace glauca (Linnaeus, 1758) Blue shark
Remarks: TH has fished this species at Ascension Island and has a photo of it taken there.

Carcharhinus galapagensis (Snodgrass & Heller, 1905) Galapagos shark
Remarks: TH has fished this species at Ascension Island and has photos of it taken there. Carcharhinus galapagensis Snodgrass & Heller, 1905 Galapagos shark
Remarks: TH has fished this species at Ascension Island and has photos of it taken there. Carcharhinus galapagensis Snodgrass & Heller, 1905 Galapagos shark
Remarks: TH has fished this species at Ascension Island and has photos of it taken there.

Carcharhinus obscurus (Lesueur, 1818) Dusky shark
References: New record; TH has fished a more than 300 kg specimen of this species at Ascension Island, which is far above the maximum recorded for the similar looking species Carcharhinus galapagensis.

Galeocerdo cuvier (Péron & LeSueur in LeSueur, 1822) Tiger shark
References: New record; TH has fished this species at Ascension Island. Pictures of large individuals (500 kg plus) captured in the past are on display in the Saints Bar Club in Georgetown.
Remarks: TH notes ‘All the Tigers that I have seen at Ascension are big ones (1000 lb plus); they are normally only around for 2 or 3 months (starting November/December). They arrive at the same time as the first Green turtles but only stay for about half the turtle season’. Seen cruising shallow beaches at night, presumably searching for Green turtles.

Sphyridae
Sphyra lewini (Griffith & Smith, 1834) Scalloped hammerhead
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.
Remarks: More common at deep drop-offs on the east side of the island.

Hexanchidae
Hexanchus griseus (Bonnaterre [ex Broussonet], 1788) Bluntnose sixgill shark
References: New record; TH has fished this species at Ascension Island and has photos of it taken there.
Remarks: Only caught at night, frequently near the pipeline deepwater mooring. With 588.76 kg, the current sport-fishing world record is from Ascension Island.

Squalidae
Euprotomicrus bispinatus (Quoy & Gaimard, 1824) Pygmy shark
References: Springer in Que´ro et al., 1990, p. 18.

Myliobatidae
Manta birostris (Walbaum, 1792) Giant manta
Remarks: John Bingeman has taken the photo in Figure 2 off Comfortless Cove, which clearly shows M. birostris and not M. alfredi (Krefft, 1868).

Mobula sp. Devil ray
Remarks: According to Notarbartolo-di-Sciara (1987), South Atlantic Mobula most probably either belong to Mobula rochebrunii (Vaillant, 1879) or to Mobula hypostoma (Bancroft, 1831). However, the first author has recently photographed Mobula tarapacana (Philippi, 1893) at St Helena Island.

(2) Osteichthyes
Muraenidae
Channomuraena vittata (Richardson, 1845) Broadbanded moray
Remarks: A very common species in shallow water.

![Fig. 1. Rhincodon typus and Remora albescens. Photo Tim Hook.](https://www.cambridge.org/core/core/fig.png)
Echidna catenata (Bloch, 1795) Chain moray
Enchelycore anatina (Lowe, 1838) Fangtooth moray
References: Smith & Böhlie in Quéro et al., 1990, p. 139; Bingenman & Bingenman, 2005, p. 25 used this name for the species Muraena pavonina.
Enchelycore carychroa Böhlie & Böhlie, 1976 Caribbean chestnut moray
References: Lubbock, 1980.
Remarks: A specimen from English Bay is deposited as ZSM 43054.
Enchelycore nigricans (Bonnaterre [ex Gronow], 1788) Mulatto conger
References: Lubbock, 1980.
Gymnothorax miliaris (Kaup, 1856) Goldentail moray
Remarks: All individuals seen by the first author were of the yellow 'banana' colour type.
Gymnothorax moringa (Cuvier, 1829) Spotted moray
Remarks: A very common species in shallow water.
Gymnothorax unicolor (Delaroche, 1809) Brown moray
Gymnothorax vicinus (Castelnau, 1855) Purplesmouth moray
Remarks: First record; observed by TH who notes ‘I was fishing with a St Helenian who had worked as fisherman in St Helena; when I brought the moray aboard he said straight away that it was a “Deepwater Conger”’; this pointed me in the direction of Gymnothorax vicinus. When I got back to my accommodation I used Alasdair Edwards’ book to ID the moray; it ticked all the boxes (I can remember being pleased to ID the white margins to fins & purplish mouth). The only thing that was different to those recorded in Alasdair’s book is that this one was taken from a water depth shallower, more in the region of 100 m.’
Monopenchelys acuta (Parr, 1930) Redface moray
References: Lubbock, 1980 as Rabula acuta.
Muraena pavonina Richardson, 1845 Whitespot moray
References: Lubbock, 1980; Bingenman & Bingenman (2005, p. 25) called this species Enchelycore anatina.
Remarks: A very common species in shallow water.
Uropterygius maculatus (Lesueur, 1825) Marbled moray
References: Böhlie et al., 1989.
Ophichthidae
Callicebelys bilinearis Kanazawa, 1952 Twostripe snake eel
Herpetocotlihis regius (Richardson, 1848) Ornate snake eel
References: Trunov (2006) records this species from Grattan seamount, 260 km southeast of Ascension Island as Ophichthus regius.
Remarks: This species has been considered endemic to the Ascension and St Helena area but J. McCosker (personal communication to PW) has examined two specimens from the St Paul’s Rocks.
Ichthyapus insularis McCosker, 2004 Ascension snake eel
Remarks: An endemic species.
Ichthyapus opioneus (Evermann & Marsh, 1900) Surf eel
References: Lubbock, 1980 as Sphasebranchus opioneus; Edwards & Glass, 1987a; Edwards, 1990, p. 70.
Phaenomona longissima (Cadenat & Marchal, 1963) Short-haired sand eel
Remarks: Previously considered endemic to Ascension and St Helena Islands but now also recorded from Ghana and in the western Atlantic from Brazil (J. McCosker, personal communication to PW) and Belize (B. Victor, personal communication to PW).
Quassiremus ascensionis (Studer, 1889) Blackspotted snake eel
References: Cadenat & Marchal, 1963 as Ophichthus ascensionis, Lubbock, 1980 as Ophichthus ophis. A photo of the species was taken during a night dive at English Bay (Figure 3).
Derichthyidae
Derichthys serpentinus Gill, 1884 Narrownecked ocean eel
Nemichthyidae
Nemichthys scolopaceus Richardson, 1848 Slender snipe eel
Congridae
Heteroconger camalopardalis (Lubbock, 1980) Brazilian garden eel
References: Lubbock, 1980.
Platyroctidae
Barbantus elongatus Krefft, 1970 Elongate searsid
References: Quéro et al. in Quéro et al., 1990, p. 265.

Stomiidae
Eustomias intermedius Clarke, 1998 Intermediate dragonfish

Synodontidae
Saurida brasiliensis Norman, 1935 Brazilian lizardfish
Synodus synodus (Linnaeus, 1758) Diamond lizardfish
Trachinocephalus myops (Forster in Bloch & Schneider, 1801)
Snakefish

Giganturidae
Gigantura chuni Brauer, 1901 Chun’s gigantura
Gigantura indica Brauer, 1901 Indian telescopfish

Lampridae
Lampris guttatus (Brünnich, 1788) Opah
References: Parin & Kukuev, 1983.

Antennariidae
Antennarius multiocellatus (Valenciennes in Cuvier & Valenciennes, 1837) Longlure frogfish

Carapidae
Carapus acus (Brünnich, 1768) Pearl fish
References: Markle & Olney, 1990, p. 375; ANSP specimen.
Remarks: A specimen at the British Museum of Natural History, deposited by Robert Irving and labelled BMNH 1987.3.24.2, has the original register – ‘Carapus ?bermu-

Mugilidae
Mugil curvidens Valenciennes in Cuvier & Valenciennes, 1836 Dwarf mullet

Exocoetidae
Cheilopogon exilis (Linnaeus, 1771) Bandwing flyingfish
References: Cadenat & Marchal, 1963 as Cypselurus exilis. Cheilopogon pinnatibarbus (Bennett, 1831) Bennett’s flyingfish
References: Cadenat & Marchal, 1963 as Cypselurus lineatus; Parin & Gibbs in Quéro et al., 1990, p. 586. Cypselurus cyanopterus (Valenciennes in Cuvier & Valenciennes, 1847) Margined flyingfish
References: Cadenat & Marchal, 1963. Exocoetus volitans Linnaeus, 1758 Tropical two-wing flyingfish
Hirundichthys rondeletii (Valenciennes, 1847) Blackwing flyingfish
References: Eschmeyer, 2013 (as Exocoetus lamellifer which is a junior synonym according to Parin & Belyanina, 2002, p. 40), based on original description from south-west of Ascension Island by Kner & Steindachner, 1867, p. 364, pl. 2, Fig. 11.

Belonidae
Platybelone trachura (Valenciennes in Cuvier & Valenciennes, 1846) Ascension keeled needlefish
Remarks: Endemic to Ascension and St Helena Islands. Tylosurus sp.
References: Cadenat & Marchal, 1963 as Belone imperialis.
Remarks: The species Tylosurus imperialis (Rafinesque, 1810) was split into several subspecies, subsequently raised to species level (see Eschmeyer, 2013). It is currently unknown if the western Atlantic T. acus (Lacepède, 1803) or the eastern Atlantic T. rafale Collette & Parin, 1970 is present at Ascension Island.

Scomberesocidae
Scomberecosus saurus (Walbaum, 1792) Atlantic saury
Remarks: This identification needs verification. Edwards & Glass, 1987b re-identified the record of Scomberesocidae saurus of Cadenat & Marchal, 1963 for St Helena Island as actually being Nanichthys simulans Hubbs & Wisner, 1980.

Diretmidae
Diretmoides pauciradiatus (Woods in Woods & Sonoda, 1973) Longwing spinyfish

Holocentridae
Holocentrus adsensionis (Osbeck, 1765) Squirrelfish
Remarks: A genetic study by Bowen et al. (2006) showed little genetic variation between western Atlantic, mid-Atlantic and eastern Atlantic populations, with mid-Atlantic animals (from Ascension and St Helena Islands) being slightly more similar to western Atlantic populations. Myripristis jacobus Cuvier in Cuvier & Valenciennes, 1829 Blackbar soldierfish
Remarks: A genetic study by Bowen et al. (2006) showed very little genetic variation between western Atlantic, mid-Atlantic and eastern Atlantic populations.

Zenionidae
Zenion longipinnis Kotthaus, 1970
References: Karrer in Quéro et al., 1990, p. 629.

References: Cadenat & Marchal, 1963 as Cypselurus rubescens. Reference: Eschmeyer, 2013 (as Exocoetus lamellifer which is a junior synonym according to Parin & Belyanina, 2002, p. 40), based on original description from south-west of Ascension Island by Kner & Steindachner, 1867, p. 364, pl. 2, Fig. 11.


Aulostomidae

*Aulostomus strigosus* Wheeler, 1955 Atlantic cornetfish


**Fistulariidae**

*Fistularia commersonii* Rüppell, 1838 Bluespotted cornetfish

References: Eschmeyer, 2013.

Remarks: Doubtful record, no source found.

*Fistularia petimba* Lacepède [ex Commerson], 1803 Red cornetfish

References: Trunov (2006) records this species from Grattan seamount, 260 km south-east of Ascension Island.

**Syngnathidae**

*Hippocampus sp.*

References: One of us (JY) saw a seahorse on a fishing line at about 60 m depth well over 20 years ago. This is most likely to be the species *Hippocampus erectus* Poey, 1816, which is recorded, also from more than 40 m depth, from St Helena Island (Edwards, 1990, p. 88).

**Dactylopteridae**

*Dactylopterus volitans* (Linnaeus, 1758) Flying gurnard


**Scorpaenidae**

*Pontinus nigropunctatus* (Günther, 1868) Saint Helena deep-water scorpionfish

References: Trunov (2006) records this species from Grattan seamount, 260 km south-east of Ascension Island; TH has fished it close to Ascension Island (Figure 4).

Remarks: Edwards (1993) predicted the discovery of this species at Ascension Island. Previously considered endemic for St Helena Island and the nearby Bonaparte seamount (Edwards, 1993), it has since also been discovered at St Peter and St Paul Archipelago (Vaske et al., 2008).

*Scorpaena ascensionis* Eschmeyer, 1971 Ascension scorpionfish

References: Lubbock, 1980.

Remarks: An endemic species.

*Scorpaena grandicornis* Cuvier in Cuvier & Valenciennes, 1829 Plumed scorpionfish

References: Eschmeyer (2013) with doubt.

*Scorpaena grattanica* Trunov, 2006 Grattan scorpionfish

References: Trunov (2006) records this species from Grattan seamount, 260 km south-east of Ascension Island.

Remarks: An endemic species to Grattan seamount, which is included with Ascension Island sensu lato here, as stated in the Materials and methods section.

*Scorpaena plumieri* Bloch, 1789 Spotted scorpionfish


*Scorpaenodes insularis* Eschmeyer, 1971 Ascension scorpaenodes


Remarks: Endemic species to Ascension and St Helena Islands and the St Paul’s Rocks.

**Serranidae**

*Epinephelus adscensionis* (Osbeck, 1765) Rock hind


*Epinephelus aeneus* (Geoffroy Saint-Hilaire, 1817) White grouper

References: Norman (1935); Cadenat & Marchal, 1963; Lubbock (1980).

Remarks: As noted by Lubbock (1980), this is a doubtful record, possibly due to the accidental inclusion of West African samples in a collection from Ascension Island.

*Epinephelus itajara* (Lichtenstein, 1822) Atlantic goliath grouper

References: New record.

Remarks: There is a black and white photo of *Epinephelus itajara* on page 69 of an unpublished report, edited by John Taylor and Robert Irving, on a joint services expedition entitled ‘Operation Origin – Ascension Island 1985’. On 31 October and 4 November they saw the Jewfish illustrated to the east of Power House cove. They found it in a cave open at both ends and estimated it as 1.3 m long. Additionally, RAF dive instructor Malcolm Moss wrote to TH: ‘The one & only time I ever saw a Jewfish on Asi was when I was diving on an RAF exped on 8 Sep 98 diving in Eddies Gully from 1327 hrs to 1406 hrs according to my logbook. It was an awesome sight to say the least. Neither I nor my buddy (Dave Ball – ex RAF) had a camera at the time. My logbook tells me the fish was about 7 ft long. It was laying on a rocky plateau under an arch hardly moving but its huge eyes followed our every move. We were with it for approx 10 mins at a depth of approx 10 mtrs. The log goes on …2 other pairs of divers then turned up – glad too as no one would have believed us otherwise. We only found out what the fish was after we discussed it with some of the Sainty fishermen later that day. They told us that it was a fairly rare occurrence to see one. I did a further 4 military expeds on Asi after that but never saw another Goliath Grouper. I did however see some Jewfish whilst diving West Palm Beach Florida with Mac McDowell (CSR Asi) on 15 July 2008. Got them on video too.’ Finally, one of us (JY) has seen Jewfish at the deep tanker wreck off the pier head and near Klinka Club.

*Holanthias caudalis* Trunov, 1976 Ascension swallowtail

References: Trunov, 1976.
Remarks: An endemic species. *Holanthias fronticinctus* (Günther, 1868) Saint Helena seaperch
References: David (2011) filmed this species at Grattan seamount, 260 km south-east of Ascension Island; also fished by TH close to Ascension Island (Figure 5).
Remarks: Previously considered endemic for St Helena Island and the nearby Bonaparte Seamount (Edwards, 1993).

*Paranthias furcifer* (Valenciennes in Cuvier & Valenciennes, 1828) Creole fish
Remarks: A molecular study by Craig & Hasting (2007) indicated that this species may belong to the genus *Cephalopholis*.

*Pseudogramma gregoryi* (Breder, 1927) Reef bass
References: Lubbock, 1980.
Remarks: *Pseudogramma gregoryi* is easily confused with *P. guineensis* (Norman, 1935); see Wirtz et al. (2007). The identity of the Ascension *Pseudogramma* needs checking.

*Rypticus saponaceus* (Bloch & Schneider, 1801) Greater soapfish
Remarks: Both juveniles and adults of the Ascension soapfish differ in colour from West-African individuals; adult animals also differ in body shape (PW, personal observations, cf. Figure 6). In a genetic study by Carlin et al. (2003), *Rypticus saponaceus* specimens from the eastern Atlantic differed greatly from mid-Atlantic and western Atlantic specimens and mid-Atlantic specimens also differed considerably from western Atlantic specimens. As the type locality of *Rypticus saponaceus* is from the western Atlantic, the eastern Atlantic (and possibly also the mid-Atlantic) populations will have to be described as separate species.

*Serranus sanctaehelenae* Boulenger, 1895 Saint Helena comber
Remarks: Endemic to Ascension and St Helena Islands.

**Priacanthidae**

*Cookeolus japonicus* (Cuvier [ex Langsdorff] in Cuvier & Valenciennes, 1829) Longfinned bullseye
References: New record, fished at Ascension Island by TH (Figure 7); also fished at Grattan Seamount, as documented in a photo by Ingrid Vincent-Andersen.

*Heteropriacanthus cruentatus* (Lacepède, 1801) Glasseye
References: Cadenat & Marchal, 1963 as *Priacanthus cruentatus*; Lubbock, 1980; Bingeman & Bingeman, 2005, p. 44.

**Apogonidae**

*Apogon axillaris* Valenciennes, 1832 Axillary-spot cardinalfish
Remarks: Endemic to Ascension and St Helena Islands.

*Apogon pseudomaculatus* Longley, 1932 Twospot cardinalfish
References: New record; a single individual was photographed (Figure 8) and captured during a night dive in English Bay in September 2012; the specimen is in the Zoologische Staatssammlung in Munich (ZSM 42234, one specimen). After its capture at São Tomé Island (Wirtz et al., 2007), this is the second record of the species outside the western Atlantic.

*Phaeoptyx pigmentaria* (Poey, 1860) Dusky cardinalfish
References: New record; two individuals were captured by spraying clove oil into a crack in the rock in English Bay in about 12 m depth in January 2014. The specimens are in the Zoologische Staatssammlung in Munich
This species has previously been recorded from Bermuda to Brazil in the Western Atlantic and from the Gulf of Guinea in the Eastern Atlantic (Baldwin et al., 2009).

**Malacanthidae**

*Malacanthus plumieri* (Bloch, 1786) Sand tilefish


**Coryphaenidae**

*Coryphaena equiselis* Linnaeus, 1758 Pompano dolphinfish

References: Cadenat & Marchal, 1963 as *Coryphaena equisetis*.

Remarks: This record needs confirmation.

*Coryphaena hippurus* Linnaeus, 1758 Common dolphinfish


Remarks: TH has fished this species at Ascension Island and has photos of it taken there. He notes that the species usually occurs in groups.

**Echeneidae**

*Echeneis naucrates* Linnaeus, 1758 Live sharksucker


*Remora albenscens* (Temminck & Schlegel, 1850) White suckerfish

References: New record; TH has photographed the species in association with a whale shark (Figure 1).

*Remora remora* (Linnaeus, 1758) Sharksucker


Remarks: Also documented in a photo by Colin Chester that shows a *Remora remora* attached to *Mobula* sp.

**Carangidae**

*Caranx bartholomaei* Cuvier, 1833 Yellow jack

References: New record; document a photo taken by Colin Chester near Boatswain Bird Island (Figure 9)

*Caranx cryos* (Mitchell, 1815) Blue runner


*Caranx fischeri* Smith-Vaniz & Carpenter, 2007 Longfin crevalle jack


*Caranx hippos* (Linnaeus [ex Garden], 1766) Crevalle jack

References: Cadenat & Marchal, 1963, Edwards & Glass, 1987b and Edwards, 1990, p. 97 list *Caranx hippus* for Ascension Island; however, at that time the closely related species *Caranx fischeri* Smith-Vaniz & Carpenter, 2007 had not yet been described. Edward’s record based on specimen ‘BMNH 1927.12.7.49 (358). J. Simpson’ later even became a paratype of *C. fischeri*. TH is fairly certain that he has fished *Caranx hippos* (but not *Caranx fischeri*) at Ascension Island but the record of *C. hippos* for Ascension Island needs verification.

*Caranx latus* Agassiz in Spix & Agassiz, 1831 Horse-eye jack

References: Bingeman & Bingeman, 2005, p. 31; Smith-Vaniz et al. in Quéro et al., 1990, p. 733.

*Caranx lugubris* Poey, 1860 Black jack

References: Cadenat & Marchal, 1963 as *Caranx lugubris* and as *Caranx ascensionis*; Edwards, 1990, p. 97; Bingeman & Bingeman, 2005, p. 31; Smith-Vaniz et al. in Quéro et al., 1990, p. 734; Trunov, 2006.

*Carangoides ruber* (Bloch, 1793) Bar jack

References: New record; TH has fished this species at Ascension Island; there is no photographic record but the species is unmistakable.

*Decapterus macarellus* (Cuvier in Cuvier & Valenciennes, 1833) Mackerel scad

References: Smith-Vaniz et al. in Quério et al., 1990, pp. 736–737; fished by TH, who has a photo of the species taken at Ascension Island.

*Decapterus punctatus* (Cuvier, 1829) Round scad


*Decapterus tabl* Berry, 1968 Roughear scad

References: New record; fished by TH, who has a photo of the species taken at Ascension Island (Figure 10).
Elagatis bipinnulata (Quoy & Gaimard, 1825) Rainbow runner

Pseudocaranx dentex (Bloch & Schneider, 1801) White trevally

Selar crumenophthalmus (Bloch, 1793) Bigeye scad
Remarks: A common species, also documented in photos taken by TH and by the Shallow Marine Surveys Group.

Seriola rivoliana (Valenciennes in Cuvier & Valenciennes, 1833) Longfin yellowtail
Remarks: Only the photo page 30 bottom right in Bingeman & Bingeman, 2005 shows this species but calls it *Seriola rivoliana*, the photo bottom left shows *Seriola dumerilii*.

Seriola dumerilii (Risso, 1810) Greater amberjack
References: New record; the photo page 30 bottom left in Bingeman & Bingeman, 2005 shows this species but calls it *Seriola rivoliana*; TH has fished this species at Ascension Island and has a photo of it taken there.

Trachinotus ovatus (Linnaeus, 1758) Pompano
References: Cadenat & Marchal, 1963 as *Trachinotus glaucus*; Bingeman & Bingeman, 2005, p. 36; Eschmeyer, 2013 (as *Scromber ascensionis, Scromber glaucus*).

Uraspis helvola (Forster in Bloch & Schneider, 1801) Whitetongue jack
References: Edwards & Glass, 1987b; Edwards, 1990, p. 105; TH has fished this species at Ascension Island and has a photo of it taken there.

Lutjanidae

Lutjanus jocu (Bloch & Schneider [ex Parra], 1801) Dog snapper
References: Lubbock, 1980; Bingeman & Bingeman, 2005, p. 44.

Sparidae

Diplodus ascensionis (Valenciennes in Cuvier & Valenciennes, 1830) Ascension seabream
Remarks: An endemic species.

Mullidae

Mulloloidichthys martincus (Cuvier in Cuvier & Valenciennes, 1829) Yellow goatfish

Kyphosidae

Kyphosus bigibbus Lacepède, 1801 Brown chub

Kyphosus sectatrix (Linnaeus, 1758) Bermuda sea chub

Kyphosus vaigenis (Quoy & Gaimard, 1825) Brassy chub

Chaetodontidae

Chaetodon sanctaehelellae Günther, 1868 Saint Helena butterflyfish
Remarks: Endemic to Ascension and St Helena Island but stray individuals, almost certainly transported by man, have been recorded at the Canary Islands (Brito et al., 2002).

Prognathodes dichrous (Günther, 1869) Bicolour butterflyfish
Remarks: Endemic to Ascension and St Helena Islands.

Pomacanthidae

Centropyge reoplendens Lubbock & Sankey, 1975 Resplendent angelfish
Remarks: An endemic species. The Brazilian *Centropyge aurantonotus* appears to be the most closely related species (Gaither et al., 2014).

Pomacanthus paru (Bloch, 1787) French angelfish

Cirrhitidae

Amblycirrhitus earnshawi Lubbock, 1978 Ascension hawkfish
Remarks: An endemic species. The colour pattern shows some similarity with the western Atlantic *A. pinos* (Mowbray, 1927), also present at St Helena Island, from which it is probably derived.

Pomacentridae

Abudefduf saxatilis (Linnaeus, 1758) Sergeant-major

Chromis multilineata (Guichenot, 1853)
Remarks: *Chromis multilineata* from Ascension differ from the population at St Helena Island in having a bright spot at the rear end of the base of the dorsal fin (Figure 11). Rocha et al. (2008) could not find genetic

Fig. 11. *Chromis multilineata*. Photo Sue Scott.
differences between the populations of Ascension and of St Helena Islands. The population genetically closest to these mid-Atlantic islands appears to be the one at Brazil (Rocha et al., 2008).

**Stegastes lubbocki** Allen & Smith, 1992 Lubbock’s gregory


Remarks: An endemic species. The first author has observed

**Thalassoma sanctaehelenae**

Remarks: Endemic to the islands of Ascension, St Helena and the St Paul’s Rocks.

**Bodianus insularis** Gomon & Lubbock, 1980 Island hogfish


Remarks: Endemic to the islands of Ascension, St Helena and St Helena Islands. The population genetically closest to these mid-Atlantic islands appears to be the one at Brazil (Rocha et al., 2008).

**Sparisoma strigatum** (Guénoth, 1862) Strigate parrotfish


Remarks: Endemic to Ascension and St Helena Islands. The species has also been recorded by TH at the east coast of the island; to have such a large area of distribution, it must have been in the area for some time already.

**Xyrichtys blanchardi** (Cadenat & Marchal, 1963) Marmalade razorfish


Remarks: Endemic to Ascension and St Helena Islands. The species has also been recorded by TH at the east coast of the island; to have such a large area of distribution, it must have been in the area for some time already.

**Scarus hoefleri** (Steindachner, 1881) Guinean parrotfish

References: Norman (1935) as Pseudocarpus guacamaia (Cuvier, 1829); Lubbock (1980).

Remarks: Lubbock (1980) notes that Norman’s (1935) record is doubtful, possibly due to the accidental inclusion of West African samples in a collection from Ascension Island.

**Sparisoma striatum** (Günther, 1862) Strigate parrotfish


Remarks: Endemic to Ascension and St Helena Islands. The sister species of Sparisoma striatum is the eastern Atlantic Sparisoma cretense (Robertson et al., 2006).

**Tripterygidae**

**Helcogramma ascensionis** Lubbock, 1980 Ascension triplefin


Remarks: Endemic to Ascension and St Helena Islands (Holleman, 2007).
**Blenniidae**

*Entomacrodus textilis* (Valenciennes [ex Quoy & Gaimard] in Cuvier & Valenciennes, 1836) Textile blenny


Remarks: Endemic to Ascension and St Helena Islands.

*Ophioblennius* sp.


Remarks: *Ophioblennius* observed by the first author at Ascension Island differ from eastern Atlantic and from the Caribbean and Brazilian populations seen by the first author in colour pattern: they occasionally display yellow-orange to light brown bands on the head and/or body (e.g. Figure 14). Muss et al. (2001) have shown that specimens from Ascension and St Helena Islands are genetically similar to each other and quite distinct from other populations. They are likely to belong to a separate species, endemic to Ascension and St Helena Islands. Their closest relatives appear to be eastern Atlantic populations (Muss et al., 2001).

*Scartella nuchifilis* (Valenciennes [ex Quoy & Gaimard] in Cuvier & Valenciennes, 1836) Filamentous rockskipper


Remarks: An endemic species. Note that *Scartella cristata* (Linnaeus, 1758) is supposed to have been originally described from Ascension Island (see Eschmeyer, 2013); this may need clarification.

**Callionymidae**

*Callionymus bairdi* (Jordan in Eigenmann & Eigenmann, 1888) Lancer dragonet

References: Fricke, 2002. Two specimens deposited as ZSM 42245 and 42246.

Remarks: Also recorded during the Shallow Water Survey Expedition at Porpoise Rock, on gravel in about 15 m depth.

**Gobiidae**

*Gnatholepis thompsoni* Jordan, 1904 Goldspot goby


*Gobius tropicus* Osbeck, 1765

References: According to Miller in Quéro et al., 1990, p. 951, ‘unlikely to be a gobiid, since original description refers to a single long dorsal fin, and serrated preopercle’; Eschmeyer (2013) writes ‘status uncertain’.

*Priolepis ascensionis* (Dawson & Edwards in Edwards & Glass, 1987a) Ascension goby


Remarks: Endemic to Ascension and St Helena Islands.

**Acanthuridae**

*Acanthurus bahianus* Castelnau, 1855 Barber surgeonfish


Remarks: We confirm that Ascension individuals show the yellow margin of the caudal fin typical for the south-western Atlantic species *A. bahianus* and not the blue margin of the caudal fin typical for its north-western sister species *Acanthurus tractus* (Poey, 1860) (Bernal & Rocha, 2011).

*Acanthurus chirurgus* (Bloch, 1787) Doctorfish

References: Rocha et al., 2002; Bingeman & Bingeman, 2005, p. 49.

*Acanthurus coeruleus* Bloch & Schneider, 1801 Blue tang


*Paracanthurus hepatus* (Linnaeus, 1766) Palette surgeonfish

References: Cadenat & Marchal, 1963 as *Acanthurus hepatus*.

Remarks: Mistaken record. *Paracanthurus hepatus* is an Indo-Pacific species. Possibly a confusion with *Acanthurus coeruleus*.

**Sphyraenidae**

*Sphyraena barracuda* (Edwards in Catesby, 1771) Great barracuda


**Gempylidae**

*Promethichthys prometheus* (Cuvier in Cuvier & Valenciennes, 1832) Roudi escolar


*Ruvettus pretiosus* Cocco, 1833 Oilfish

References: New record, fished by TH, who has a photo of the species taken at Ascension Island.

**Trichiuridae**

*Aphanopus intermedius* Parin, 1983 Intermediate scabbardfish


**Scombridae**

*Acanthocybium solandri* (Cuvier, 1832) Wahoo

References: New record; TH has fished this species at Ascension Island.

*Auxis rochei* (Risso, 1810) Bullet tuna

References: New record; TH has fished this species at Ascension Island.

Fig. 14. *Ophioblennius* sp. Photo Shallow Marine Surveys Group.
**Auxis thazard** (Lacepède [ex Commerson], 1800) Frigate tuna
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Euthynus alletteratus** (Rafinesque, 1810) Little tunny
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Katsuwonus pelamis** (Linnaeus, 1758) Skipjack tuna
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Thunnus alalunga** (Bonnaterre [ex Cetti], 1788) Albacore
References: Cadenat & Marchal, 1963

**Thunnus albacares** (Bonnaterre [ex Sloane], 1788) Yellowfin tuna
Remarks: TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Thunnus albacares** (Bonnaterre [ex Sloane], 1788) Atlantic bluefin tuna
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Thunnus obesus** (Lowe, 1839) Bigeye tuna
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Istiophoridae**

**Istiophorus platypterus** (Shaw in Shaw & Nodder, 1792) Indo-Pacific sailfish
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Kajikia albida** (Poeys, 1860) Atlantic white marlin
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Makaira nigricans** Lacepède, 1802 Blue marlin
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Xiphidae**

**Xiphias gladius** Linnaeus, 1758 Swordfish
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Xiphiidae**

**Xiphius gladius** Linnaeus, 1758 Swordfish
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**Xiphias gladius** Linnaeus, 1758 Swordfish
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Paralichthyidae**

**Syacium micrurum** Ranzani, 1842 Channel flounder
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Bothidae**

**Arnoglossus capensis** Boulenger, 1889 Cape scadfish
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Bothus lunatus** (Linnaeus, 1758) Platefish
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Bothus mellissi** Norman, 1931 Saint Helena flounder
References: New record; TH notes that they are only caught rarely in the southern hemisphere winter when the sea temperatures are down.

**Caproidae**

**Antigonia capros** Lowe, 1843 Deepbody boarfish

**Balistidae**

**Balistes pellucidus** Hermann, 1804
References: Eschmeyer, 2013, no status assigned.

**Caproidae**

**Antigonia capros** Lowe, 1843 Deepbody boarfish

**Caproidae**

**Antigonia capros** Lowe, 1843 Deepbody boarfish

**Caproidae**

**Antigonia capros** Lowe, 1843 Deepbody boarfish

**Caproidae**

**Antigonia capros** Lowe, 1843 Deepbody boarfish
**Canthidermis maculata** (Bloch, 1786) Ocean triggerfish
Remarks: Cadenat & Marchal, 1963 as *Canthidermis maculatus*.

**Canthidermis sufflamen** (Mitchill, 1815) Atlantic ocean triggerfish

**Melichthys niger** (Bloch, 1786) Black triggerfish
Remarks: The extraordinary population density of this species at Ascension Island has been remarked upon by many authors, e.g. Lubbock (1980) and Kavanagh & Olney (2006). Mass mortalities of this species have been recorded repeatedly (Pinheiro et al., 2010).

**Xanthichthys ringens** (Linnaeus, 1758) Sargassum triggerfish
References: New record; TH has fished this species at Ascension Island and has a photo of it taken there.

**Diodontidae**

**Chilomycterus reticulatus** (Linnaeus, 1758) Spotfin burrfish

**Diodon holacanthus** Linnaeus, 1758 Longspined porcupinefish

**Diodon hystrix** Linnaeus, 1758 Spot-fin porcupinefish

**DISCUSSION**

We have recognized two previous records as identification errors and indicate 11 other records as doubtful. Including the 40 new records, we now list 173 fish species from Ascension Island. The species *Ophioblennius* sp. of Ascension and St Helena Islands almost certainly is an undescribed species; the species *Rupicola (saponaceus)*? may also be undescribed (see the species sections above).

The total number of species is low when compared with other tropical islands in the Atlantic, e.g. 314 coastal fish species from the Cape Verde Islands or 330 coastal fish species from the Canary Islands (Brito et al., 2002; Wirtz et al., 2013). This is probably due to the very isolated position, very small size and comparatively young geological age of Ascension Island. Ascension Island is better compared with the St Paul’s Rocks, another isolated and even smaller mid-Atlantic island, where 117 fish species have been recorded up to now (Vaske et al., 2008). As already pointed out by Floeter et al. (2008, figure 2), the families Muraenidae and Carangidae are by far the most species-rich families at Ascension Island.

One hundred and thirty-three of the recorded species might be considered ‘coastal fish species’. Table 1 lists their known distribution. Eleven of them (8.3%) appear to be endemic to the island and a further 16 species (12%) appear to be shared endemics with St Helena Island. Note, however, that cryptic species, like snake eels for instance, could merely be unrecorded from but present at other places.

Four more species appear to be shared endemics of Ascension Island, St Helena Island and the St Paul’s Rocks (Table 1). The St Paul’s Rocks are about 1000 km to the northwest of Ascension Island. Lubbock (1980) and Edwards & Lubbock (1983) already noted that *Bodianus insularis* and *Scorpaenodes insularis* were endemic to Ascension and St...
endemic to Ascension and St Helena Islands (N = 3). Endemic to Ascension and St Helena Islands and St Paul’s Rocks (N = 4): Herpetoichthys regius, Pontinus nigropunctatus, Scopaeonodes insularis, Bodianus insularis.


7. Species of Indo-Pacific origin: Uraspis helvola, Helogramma ascensionis.


The level of endemism of 8.3% of the shore fishes is lower than the 15.7% indicated by Lubbock (1980) or the 11% indicated by Floeter et al. (2008). Note, however, that the percentage value of endemism depends on the somewhat arbitrary definition of ‘coastal species’, e.g. if one does or does not include those open water species that come close to the shore.

Endemic fish species of Ascension Island are derived from the eastern Atlantic as well as from the western Atlantic. This endemic Diplopterus sp. is the closest relative in the western Atlantic; the endemic Amblycirrhitus earashani is probably derived from the western Atlantic A. pinos; the closest relative to Stegastes lubbocki appears to be the western Atlantic S. pictus; the sister species of Thalassoma ascensionis and T. sanctaeclaeanae is the eastern Atlantic T. newtoni; Sporisoma strigatum is the sister species of the eastern Atlantic S. crenense; the Ophioblennius sp. of Ascension Island appears to be derived from the eastern Atlantic (see species sections for references).

A similar picture of western Atlantic and eastern Atlantic origin emerges when looking at the distribution pattern of all shore fish species (Table 1). The largest fraction is taken up by species that occur on both sides of the Atlantic. Obviously, species that are able to cross the entire Atlantic are particularly likely to settle at mid-Atlantic islands.

The fraction of species derived from the western Atlantic is more than twice the size of the fraction derived from the eastern Atlantic. In a recent ‘Global biogeography of reef fishes’ (Kulbicki et al., 2013), Ascension Island also clusters with the western Atlantic. As pointed out by Briggs & Bowen (2012), the western Atlantic affinity of the Ascension fish fauna is with the Brazilian coast rather than the Caribbean area. This is indicated by the presence of Acanthurus bahianus rather than A. tricus and various genetic studies, e.g. on Chromis multilineata (see species sections for references). The most likely reason for the preponderance of western Atlantic species is that the Brazilian coast is much more speciose than the African coast and therefore propagules from a larger number of species from the western Atlantic are likely to arrive at Ascension Island.

Finally and surprisingly, a small fraction of the Ascension (and St Helena) marine fauna is of Indian Ocean origin. In the Atlantic Ocean, the Indo-Pacific carangid Uraps helvola is only known from Ascension and St Helena Islands (Edwards, 1990) and the endemic Helogramma ascensionis is the only Atlantic member of this otherwise Indo-Pacific genus (Holleman, 2007). The link with the Indo-Pacific is confirmed by the presence on Ascension Island of the crab Pecenon abreviatus, not known from any other Atlantic locality (Manning & Chace, 1990).

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**Correspondence should be addressed to:**

P. Wirtz
Centro de Ciências do Mar, Universidade do Algarve, P-8000-117 Faro, Portugal
email: peterwirtz2004@yahoo.com