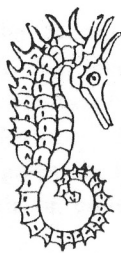


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# ARQUIVOS DO MUSEU BOCAGE

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## CHECKLIST OF THE FISHES COLLECTED ON THE «SANTA MARIA AND FORMIGAS 1990: SCIENTIFIC EXPEDITION»

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The Azores are a group of nine islands stretching eastwards from the Mid-Atlantic ridge, from 36° 55' N and 25° 01' W to 39° 43' N and 31° 07' W. Santa Maria (Sma) is the eastern most island of this archipelago and Formigas (For) is a low jumble of volcanic rock nearby. The ichthyological fauna of these islands is not well known. So, the main purpose of this note is to present a list of the fishes caught on this expedition organized by the Department of Biology of the University of the Azores.

Fishes were collected in tidepools mainly with rotenone and (using SCUBA) at depths of about 6, 10, 15 and 25 meters (m) and are deposited

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The taxonomy of the listed species is given according to Clofnam (HUREAU & MONOD, 1979) and the Clofnam-number is indicated. The records are given in a standard sequence: locality, day, month, depth of water and depth of collection (in meters).

### Chondrichthyes

#### *Hypotremata*

#### Myliobatoidei

#### Dasyatidae

*Dasyatis pastinaca* (L., 1758), Clofnam 22.1.1.

For, 4.6, 0-20, 0-20.

Recorded for Azores by HILGENDORF, 1888.

### Osteichthyes

#### *Scopeliformes*

#### Synodontidae

*Synodus saurus* (L., 1758), Clofnam 51.1.1.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia Formosa), 14.6, tidepools.

Recorded for Azores by COLLETT, 1896.

### Anguilliformes

#### Anguillidae

*Anguilla anguilla* (L., 1758), Clofnam 71.1.1.

Sma (Praia Formosa), 12.6, tidepools.

Recorded for Azores by COLLETT, 1896.

#### Muraenidae

*Muraena helena* L., 1758, Clofnam 73.1.1.

For. 4.6, 0-20, 0-20.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by NOBRE, 1924.

*Gymnothorax unicolor* (DELAROCHE, 1809), Clofnam 73.2.2.

For 4.6, 0-20, 0-20.

Sma (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by NOBRE, 1924.

#### Ophichthyidae

*Apterichthus caecus* (L., 1758), Clofnam 86.2.1.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6.

Recorded for Azores by PEREIRA & AGUIAR, 1979.

#### Syngnathiformes

##### Syngnathidae

*Hippocampus ramulosus* LEACH, 1814, Clofnam 97.4.2.

For, 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by NOBRE, 1924.

#### Gadiformes

##### Gadidae

*Gaidropsarus guttatus* (COLLETT, 1890), Clofnam 101.20.3.

For, 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by COLLETT, 1896.

*Phycis phycis* (L., 1766), Clofnam 101.15.1.

For, 5.6, tidepools.

Sma (Vila do Porto, harbour), 14.6, 0-6, 0-6.

Recorded for Azores by COLLETT, 1896.

#### Zeiformes

##### Caproidae

*Capros aper* (L., 1758), Clofnam 123.1.1.

For, 5.6, tidepools.

Recorded for Azores by COLLETT, 1896.

#### Perciformes

##### Serranidae

*Anthias anthias* (L., 1758), Clofnam 124.2.1.

For, 6.6, 14-16, 10-16.

Recorded for Azores by NOBRE, 1924.

*Epinephelus marginatus* LOWE, 1834.

For, 4.6, 0-20, 0-20 & 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools.

For the past 100 years, this species has been incorrectly identified as «*Epinephelus guaza* LINNAEUS, 1758». It was reported from the Azores under this name by TORTONESE, 1986 (see details in HEEMSTRA, 1991).

*Mycteroperca fusca* (LOWE, 1836).

For, 4.6, 0-20, 0-20.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia dos Anjos), 14.6, tidepools.

*M. fusca* also occurs at Madeira and the Cape Verde and Canary Islands. It has been confused with *M. rubra* of the Mediterranean and continental shores of the eastern Atlantic. *M. rubra* has more numerous gill-rakers (low-limb rakers 27-31, versus 21-24 for *M. fusca*), and it is not known from the Azores or any of the other Macaronesian islands. This species is known as *badejo* in the Azores and Madeira (see details in HEEMSTRA, 1991).

*Serranus atricauda* (L., 1758), Clofnam 124.1.2.

For, 4.6, 0-20, 0-20 & 5.6, tidepools.

Sma (Vila do Porto, just outside harbour), 11.6, 15-16, 10-16 & (Praia Formosa), 15.6, 8-10, 6-10.

Recorded for Azores by COLLETT, 1896.

#### Apogonidae

*Apogon (Apogon) imberbis* (L., 1758), Clofnam 127.1.1.

For, 7.6, 0-30, 20-30.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by GUIMARÃES, 1884.

#### Carangidae

*Pseudocaranx dentex* (BLOCH & SCHNEIDER, 1801), Clofnam 131.1.2.

For, 4.6, 0-20, 0-20.

Recorded for Azores by REGAN, 1903.

*Seriola dumerili* (Risso, 1810), Clofnam 131.9.1.

For, 4.6, 0-20, 0-20.

Sma (Vila do Porto, just outside harbour), 11.6, 15-16, 10-16

Recorded for Azores by FOWLER, 1936.

*Trachurus picturatus* (BOWDICH, 1825), Clofnam 131.10.4.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6.

Recorded for Azores by COLLETT, 1896.

*Trachinotus ovatus* (L., 1758), Clofnam 131.11.1.

For, 4.6, 0-20, 0-20 & 5.6, tidepools.

Recorded for Azores by COLLETT, 1896.

#### Sparidae

*Boops boops* (L., 1758), Clofnam 139.2.1.

Sma (Vila do Porto, just outside harbour), 11.6, 15-16, 10-16.

Recorded for Azores by COLLETT, 1896.

*Diplodus sargus* (L., 1758), Clofnam 139.4.3.

For, 4.6, 0-20, 0-20.

Sma (Vila do Porto, just outside harbour), 11.6, 15-16, 10-16.

Recorded for Azores by REGAN, 1903.

*Sarpa salpa* (L., 1758), Clofnam 139.9.1.

For, 4.6, 0-20, 0-20.

Sma (Vila do Porto, just outside harbour), 11.6, 15-16, 10-16.

Recorded for Azores by COLLETT, 1896.

#### Kyphosidae

*Kyphosus sectator* (L. 1766), Clofnam 142.1.1.

For 4.6, 0-20, 0-20.

Recorded for Azores by FOWLER, 1936.

#### Pomacentridae

*Chromis limbata* (VALENCIENNES, 1833), Clofnam 144.1.1.

For, 6.6, 14-16, 10-16.

Sma (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by WOOD & WILLIAMS, 1973.

«*Abudefduf*» *luridus* (CUVIER, 1830), Clofnam 144.2.1.

For, 6.6, 0-16, 14-16.

Sma (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by FOWLER, 1936.

Labridae

*Centrolabrus trutta* (LOWE, 1833), Clofnam 145.3.2.

For, 6.6, 0-16; 14-16.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by REGAN, 1903.

*Coris julis* (L., 1758), Clofnam 145.4.1.

For, 6.6, 14-16, 10-16.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by Günther, 1862.

*Labrus bergylta* ASCANIUS, 1767, Clofnam 145.1.2.

For, 4.6, 0-20, 0-20.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by FOWLER, 1936.

*Bodianus scrofa* (VALENCIENNES, 1839), Clofnam 145.8.1.

For, 4.6, 0-20, 0-20 & 5.6, tidepools.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by HILGENDORF, 1888.

*Symphodus (Crenilabrus) mediterraneus* (L., 1758), Clofnam 145.9.6.

For, 7.6, 20-30, 0-30.

Recorded for Azores by FOWLER, 1936.

*Thalassoma pavo* (L., 1758), Clofnam 145.10.1.

For, 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools & (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by REGAN, 1903.

Scaridae

*Sparisoma (Euscarus) cretense* (L., 1758), Clofnam 146.1.1.

For, 4.6, 0-20, 0-20 & 6.6, 14-16, 10-16.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6.

Recorded for Azores by REGAN, 1903.

Gobiidae

*Gobius paganellus* L., 1758, Clofnam 162.1.9.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by REGAN, 1903.

*Pomatoschistus pictus* (MALM, 1865), Clofnam 162.21.7.

Sma (Vila do Porto, harbour), 11.6, 0-6, 0-6 & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by PATZNER *et al.*, 1990.

Blenniidae

*Coryphoblennius galerita* (L., 1758), Clofnam 164.2.1.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by COLLETT, 1896.

*Lipophrys pholis* (L., 1758) Clofnam, 164.1.13.

Sma (Praia Formosa), 12.6, tidepools.

Recorded for Azores by ARRUDA, 1979.

*Lipophrys trigloides* (VALENCIENNES, 1836), Clofnam 164.1.19.

Sma (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by ARRUDA, 1979.

*Ophioblennius atlanticus atlanticus* (VALENCIENNES, 1836).

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by WOOD & WILLIAMS, 1973.

*Parablennius incognitus* (BATH, 1968), Clofnam 164.1.9.

Sma (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by ALMEIDA & HARMELIN-VIVIEN, 1983.

*Parablennius ruber* (VALENCIENNES, 1836), Clofnam 164.6.1.

For, 5.6, tidepools.

Sma (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by ALMEIDA, 1982.

*Parablennius sanguinolentus* (PALLAS, 1811), Clofnam 164.1.15. [= *P. parvi cornis* (Valenciennes, 1836), Clofnam 164.1.11].

For, 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by COLLETT, 1896.

#### Tripterygiidae

*Tripterygion delaisi* CADENAT & BLACHE, 1971, Clofnam 166.1.3.

For, 5.6, tidepools.

Sma (Vila do Porto, harbour) 11.6, 0-6, 0-6 & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by PATZNER *et al.*, 1990.

#### Sphyraenidae

*Sphyraena sphyraena* (L., 1758), Clofnam 180.1.1.

For, 4.6, 0-20, 0-20.

Recorded for Azores by COLLETT, 1896.

#### Mugilidae

*Chelon labrosus* (RISSO, 1826), Clofnam 181.2.1.

Sma (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by NOBRE, 1924.

### Scorpaeniformes

#### Scorpaenidae

*Scorpaena maderensis* VALENCIENNES, 1833, Clofnam 184.1.6.

For, 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools & (Praia Formosa) 15.6, 8-10, 6-10.

Recorded for Azores by FOWLER, 1936.

*Scorpaena notata* RAFINESQUE, 1810, Clofnam 184.1.7.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by COLLETT, 1896.

### Pleuronectiformes

#### Bothidae

*Bothus podas maderensis* (LOWE, 1834), Clofnam 196.1.1.2.

Sma (Praia Formosa), 12.6, tidepools & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by COLLETT, 1896.

**Tetraodontiformes****Balistidae**

*Balistes carolinensis* GMELIN, 1789, Clofnam 201.1.2.

For, 4.6, 0-20, 0-20.

Recorded for Azores by FOWLER, 1936.

**Tetraodontidae**

*Sphoeroides spengleri* (BLOCH, 1792), Clofnam 204.3.1.

For, 6.6, 14-16, 10-16.

Sma (Vila do Porto, just outside harbour), 11.6, 15-16, 10-16 & (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by REGAN, 1903.

**Gobiesociformes****Gobiesocidae**

*Diplecogaster bimaculata pectoralis* (BRIGGS, 1955), Clofnam 208.2.1.2.

For, 5.6, tidepools.

Sma (Praia dos Anjos), 14.6, tidepools.

Recorded for Azores by BRIGGS, 1955.

In all, 50 species were collected (35 in Formigas and 41 in Santa Maria) but, only 26 of them were collected in both localities. According to the authors quoted above, the majority of these species have already been recorded for the Azorean islands. *Mycteroperca fusca* was previously misidentified as *Epinephelus alexandrinus* (VALENCIENNES, 1828) at the Azores, but the fish identified as *E. alexandrinus* in the Mediterranean Sea is a different species (HEEMSTRA, 1991). *E. marginatus* was formerly and incorrectly identified as *Epinephelus guaza* (L., 1758) (HEEMSTRA, 1991). The specimens are identical with those collected in South African waters, in the Mediterranean, along the west coast of Africa, and along the south coast of Brazil.

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## SUMMARY

This note is a list of the species collected in Azores on the «Santa Maria and Formigas 1990: scientific expedition». In all, 50 species were collected (35 in Formigas and 41 in Santa Maria) but only 26 of them were collected in both localities. The majority of these species has already been recorded for the Azorean islands. A new taxonomy of the groupers (Pisces: Serranidae) is used.

## SUMÁRIO

Esta nota é uma lista das espécies colhidas, nos Açores, durante a «Santa Maria e Formigas 1990: expedição científica». Foram colhidas 50 espécies (35 nas Formigas e 41 em Santa Maria) mas, apenas 26 foram colhidas em ambas as localidades. A maioria das espécies colhidas já tinha sido registada para as ilhas dos Açores. É usada uma nova taxonomia para as garoupas (Pisces: Serranidae).

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