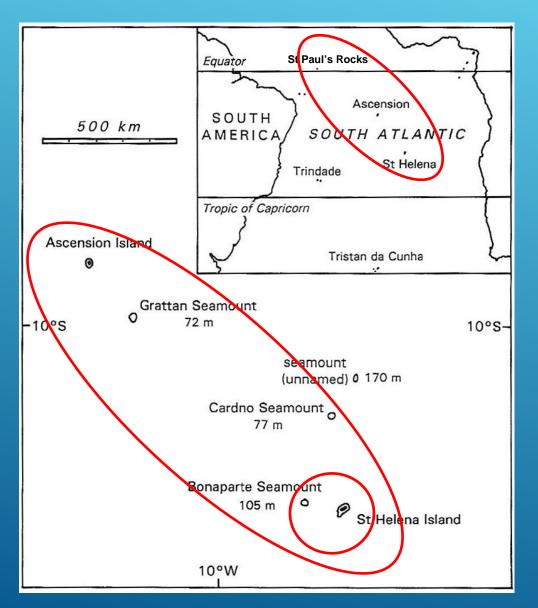
## SAINT HELENA'S UNIQUE FISH FAUNA

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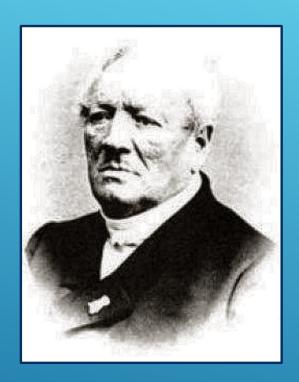
#### Endemism



- 1. Saint Helena endemics
- 2. St Helena and Ascension Island endemics.
- 3. Tropical central Atlantic island endemics.

# Great French naturalist voyages of the early 19<sup>th</sup> Century





La Coquille in 1825 (RPP Lesson and P Garnot). L'Astrolabe in 1829 (JRC Quoy and JP Gaimard).

Fishes described by Achille Valenciennes of the Muséum National d'Histoire Naturelle in Paris

#### Red Mullett, Axillary Cardinalfish

### Apogon axillaris Valenciennes, 1832



First found at Ascension. Known only from St Helena and Ascension.

#### Textile Blenny

### Entomacrodus textilis (Valenciennes, 1836)





First found at Ascension. Known only from St Helena and Ascension.

#### Greenfish, St Helena Wrasse

Ascension.

#### Thalassoma sanctaehelenae (Valenciennes, 1839)

Primary phase



### John Charles Melliss, Government Secretary 1865-1872

In 1867-1869 sent 137 fish specimens belonging to 65 species (20 new to science) to Albert Günther (below right) at the British Museum.

Günther described 9 of the new species including several endemics. His work formed the basis for the excellent fish section in Melliss's book published in 1875.

#### ST. HELENA:

PHYSICAL, HISTORICAL, AND TOPOGRAPHICAL DESCRIPTION OF THE ISLAND.

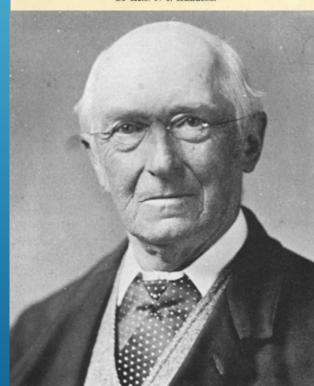
INCLUDING ITS

Geology, Fauna, Flora, and Meteorology.

BY

JOHN CHARLES MELLISS, A.I.C.E., F.G.S., F.L.S.

THE BOTANICAL PLATES FROM ORIGINAL DRAWINGS By MRS. J. C. MELLISS.



# Rockfish, Strigate Parrotfish Sparisoma strigatum (Günther, 1862)



Primary phase ♀ (left) and secondary ♂ "Blue Dad" phase (right). Known only from St Helena and Ascension Islands.

### Deepwater Jack, St Helena Deepwater Scorpionfish Pontinus nigropunctatus (Günther, 1868)



Known only from St Helena in 1987. Now also recorded from Ascension Island, St Paul's Rocks, Bonaparte Seamount and the Grattan Bank.

# Deepwater Greenfish, St Helena Seaperch Holanthias fronticinctus (Günther, 1868)

"Cock" ♂



Known only from St Helena in 1987. Now also recorded from Ascension Island, Bonaparte Seamount and the Grattan Bank.

#### Cunningfish, St Helena Butterflyfish

#### Chaetodon sanctaehelenae Günther, 1868





Known only from St Helena and Ascension Islands. Strays recently found in Canaries and Liberia.

## Sand Greenfish, Yellow Razorfish Xyrichtys sanctaehelenae (Günther, 1868)

Primary phase



Known only from St Helena and Ascension Islands. One record from Rolas Island off São Tomé Island in 2006.

# Deepwater Gurnard, Melliss's Scorpionfish Scorpaena mellissii Günther, 1868



Known only from St Helena Island.

# Bastard Cunningfish, Bicolor Butterflyfish *Prognathodes dichrous* (Günther, 1869)



Known only from St Helena and Ascension Islands.



## Bastard Hogfish, St Helena Sharpnose Pufferfish Canthigaster sanctaehelenae (Günther, 1870)



Known only from St Helena and Ascension Islands.

Silver Eel, Melliss's Conger

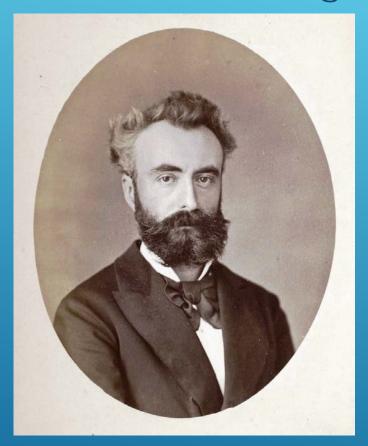
Ariosoma mellissii (Günther, 1870)



Known only from St Helena Island.



### Henri-Émile Sauvage



Curator at the Muséum d'Histoire Naturelle in Boulogne-sur-Mer. Described two endemics collected by Cahagne at St Helena.

# Bastard Cavalley Pilot, St Helena Gregory Stegastes sanctaehelenae (Sauvage, 1879)





Known only from St Helena Island.



# Old Wife, St Helena White Seabream Diplodus helenae (Sauvage, 1879)



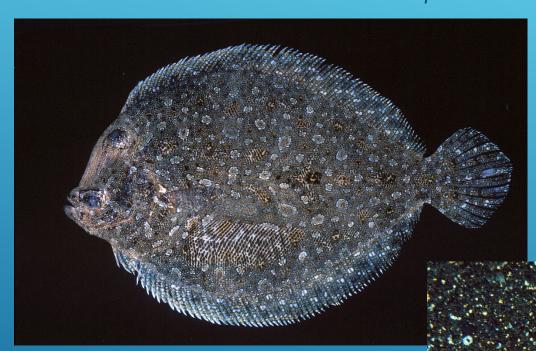
Known only from St Helena Island.

### Deepwater Brown Mullet, St Helena Comber Serranus sanctaehelenae Boulenger, 1895



Originally collected by John Melliss in 1867. Known only from St Helena and Ascension Islands. (*Centropristis brasiliensis* of Günther and Melliss)

### Solefish or Flounder, St Helena Flounder Bothus mellissi Norman, 1931



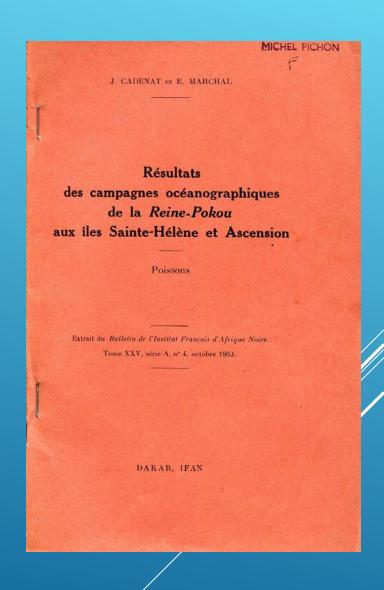
The *Rhomboidichthys* sp.n.? of Günther and Melliss

Known only from St Helena and Ascension Islands.

#### French research vessel Reine-Pokou visited both Ascension and St Helena in 1962

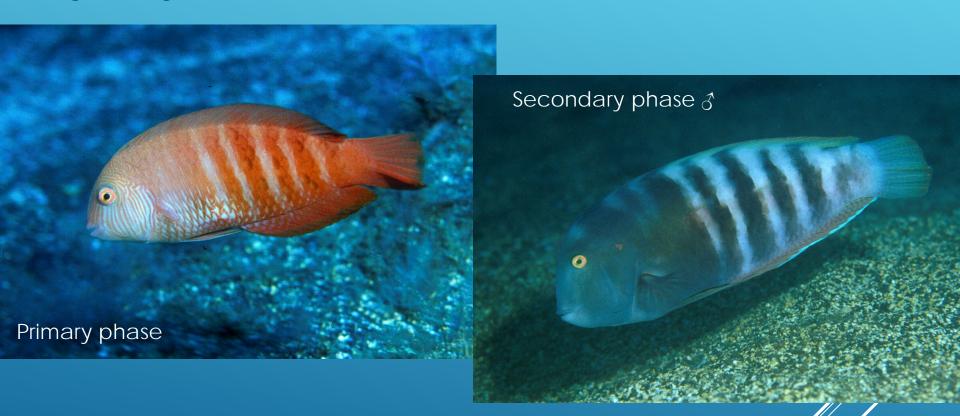
Jean Cadenat and E Marchal collected 54 fish specimens from 23 species from St Helena and described one new species from Ascension (endemic to the two islands) and one from St Helena (since found to be widespread).

Summarised all fish literature from the two islands and made first serious attempt to look at the zoogeographic relationships of the islands.



#### Marmalade Razorfish

### Xyrichtys blanchardi (Cadenat & Marchal, 1963)

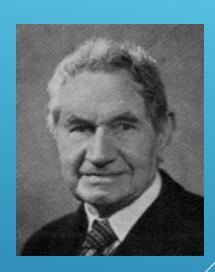


First described from Ascension. Known only from St Helena and Ascension Islands.

### Springer's Blenny

### Scartella springeri (Bauchot, 1967)





Theodor Mortenser

Known only from St Helena Island. Collected by the Danish naturalist Theodor Mortensen in 1930. During two months he collected 217 fish specimens from 36 species, 6 species new to science.

#### Professor Arthur Loveridge, retired herpetologist and Mr Alwyne Wheeler, Fish Section, Natural History Museum, London







Loveridge (Museum of Comparative Zoology, Harvard) refired to St Helena in 1957. From 1959-1971, with help of Superintendent Frank Martin of the St Helena police he collected 317 fish specimens from 65 species of which 12 were new records for the island. All deposited in the BMNH.

#### Red Scorpionfish

### Scorpaenodes insularis Eschmeyer, 1971



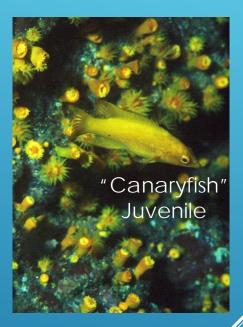


Holotype collected by Arthur Loveridge. Known only from St Helena (where first found), Ascension Island and St Paul's Rocks.

#### Parrotfish, Island Hogfish

#### Bodianus insularis Gomon & Lubbock, 1980





Known only from St Helena and Ascension Islands and St Paul's Rocks. Paratypes collected by John Melliss and Arthur Loveridge among others.

#### Hotlips Triplefin

#### Helcogramma ascensionis Lubbock, 1980





Roger Lubbock

First found in tidal pool at Ascension in 1977. Known only from St Helena and Ascension Islands. This paratype presumed to be a breeding male due to colouration.

### **Ascension Goby**

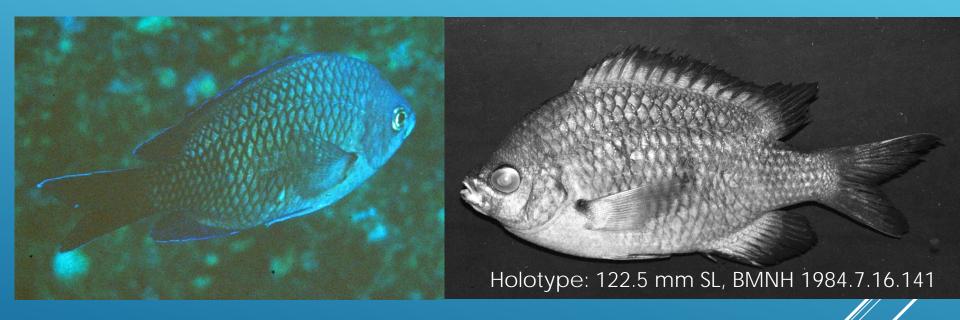
### Priolepis ascensionis (Dawson & Edwards, 1987)





First collected by Roger Lubbock at Ascension in 1977 (listed as *Quisquilius* sp.). Known only from St Helena and Ascension Islands.

## Bastard Five Finger, St Helena Damselfish Chromis sanctaehelenae Edwards, 1987



Known only from St Helena Island. Some Paratypes collected by John Melliss and Arthur Loveridge (some killed by explosion on the wreck of the *Papanui* in 1968).

#### Skulpin, St Helena Mora

#### Physiculus helenaensis Paulin, 1989

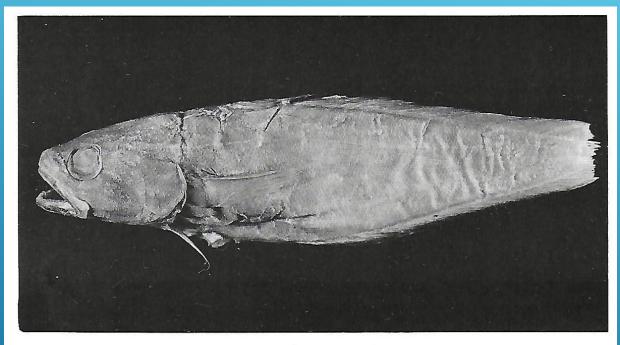


Fig. 9 Physiculus helenaensis (BMNH 1867.12.26.15), 230.0 mm TL, holotype.

Known only from St Helena Island. Holotype collected by John Melliss but Albert Günther in 1868 mistakenly thought it was *P. dalwigkii* Kaup, 1858 from the eastern Atlantic. Only known from 2 damaged specimens.

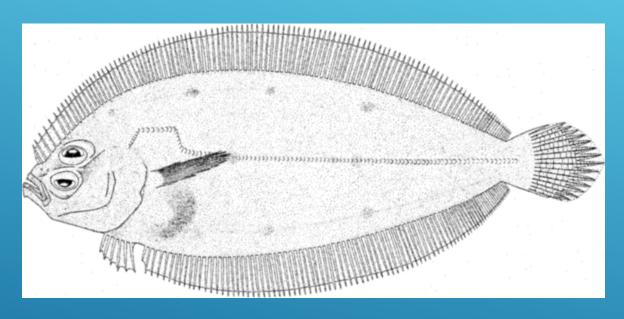
# Reticulated Tonguefish Symphurus reticulatus Munroe, 1990



Known only from St Helena Island. Holotype collected from 7 m depth in James Bay. Paratypes were collected by Theodor Mortensen in 1930.

#### St Helena Moonflounder

#### Monolene helenensis Amaoka & Imamura, 2000



Holotype: 207.6 mm SL, HUMZ 9995

Known only from deepwater north of St Helena Island. Occurs from 163-460 m depth near St Helena.

## Devilfish, Redlip Blenny Ophioblennius sp.



Recent molecular genetic studies indicate that St Helena and Ascension populations of *Ophioblennius atlanticus* (Valenciennes, 1836) appear to be distinct from those in Brazil and in the eastern Atlantic and thus may be an undescribed endemic species.

# Dog Eel, St Helena Conger Conger sp.



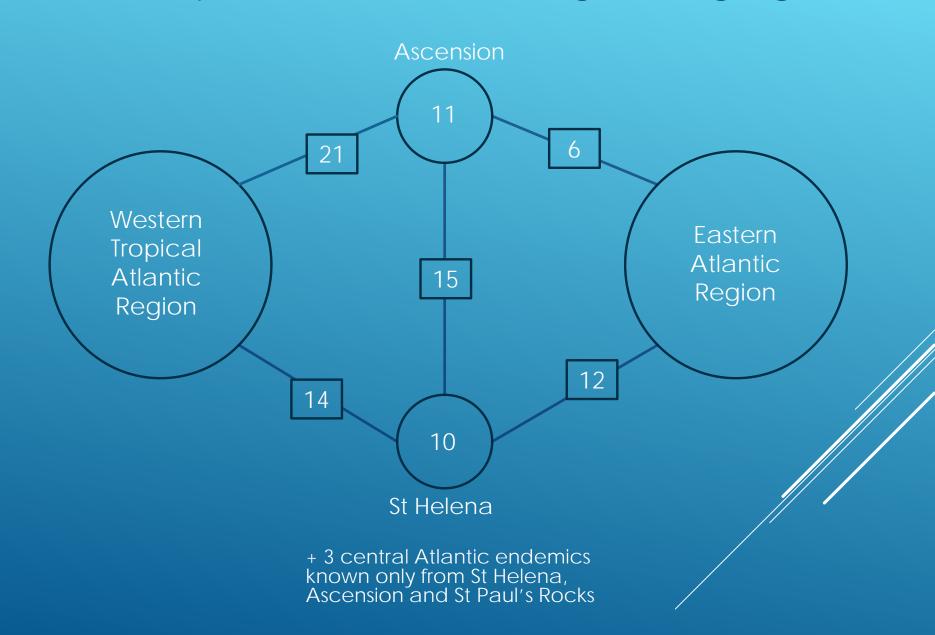
Two specimens only are known to science, one collected by John Melliss in 1869 and one by the Fisheries Corporation in 1983.

These have characters which match the American Conger, Conger oceanicus (Mitchill, 1818) but the nearest place this is found is Florida!

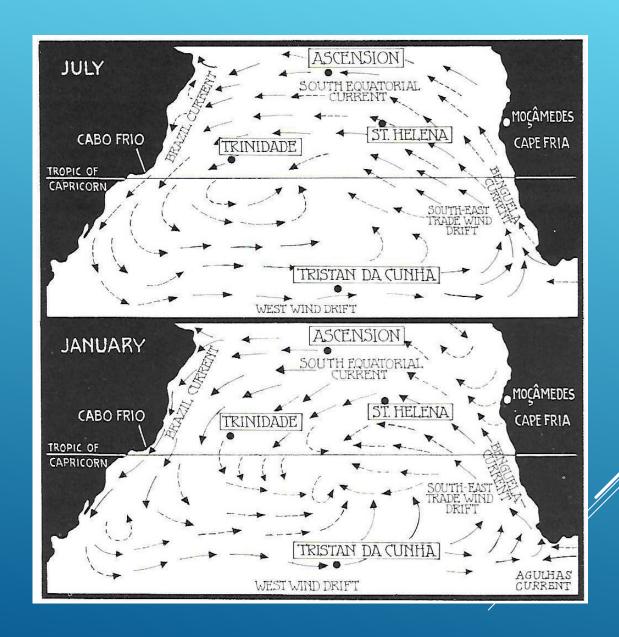
David Smith, the world expert on congers thinks it is likely a new species, so far only known from St Helena, that just happens to be similar to *C. oceanicus*.



#### Relationship of fishes to those in neighbouring regions



#### Surface currents



#### Conservation status

About 10 endemic fishes and another 15 species shared only with Ascension.

No obvious threats so generally considered to be of "Least Concern".

Several listed as "Data Deficient" as no data on population size.

Maybe we should be more concerned (or at least better informed)?

- 1. The Red Eel (*Myroconger compressus*) which Melliss described as "very commonly taken in about 8-9 fathoms and used for food" is now unknown at the island.
- 2. Large fish kills in 2006 where 10,000s of fish found floating dead on the sea surface. Emma Bennett estimated 17,000 Chaetodon sanctaehelenae killed.
- 3. Climate change.



