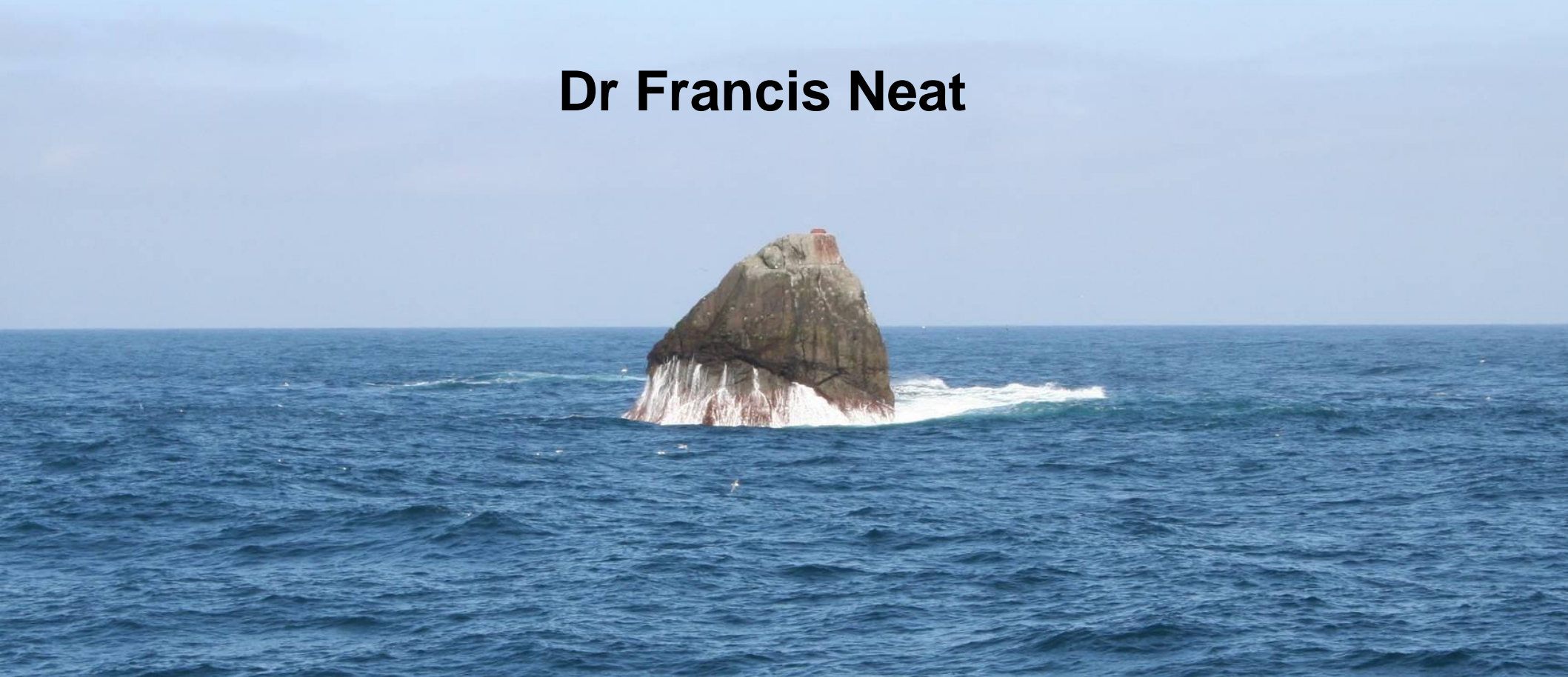
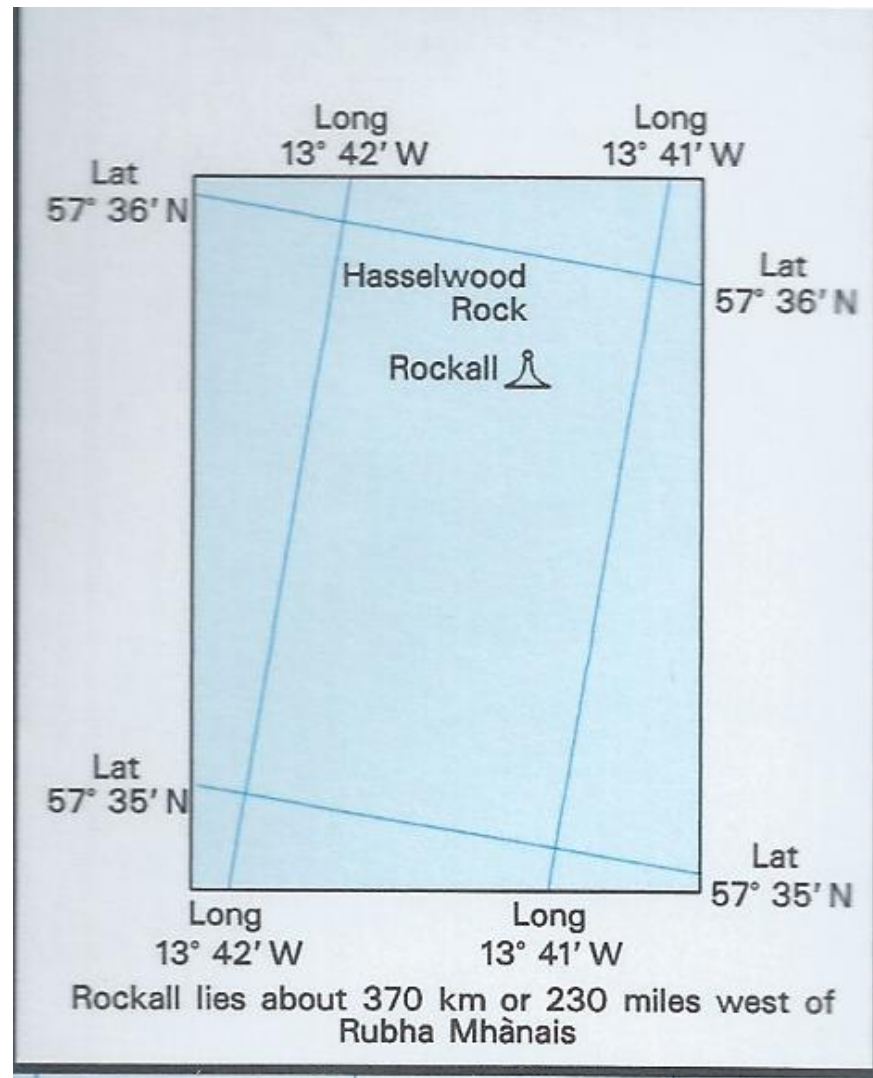


Data and marine spatial planning in the offshore deepwater area of Rockall

Dr Francis Neat



Rockall: Not much to go on.....

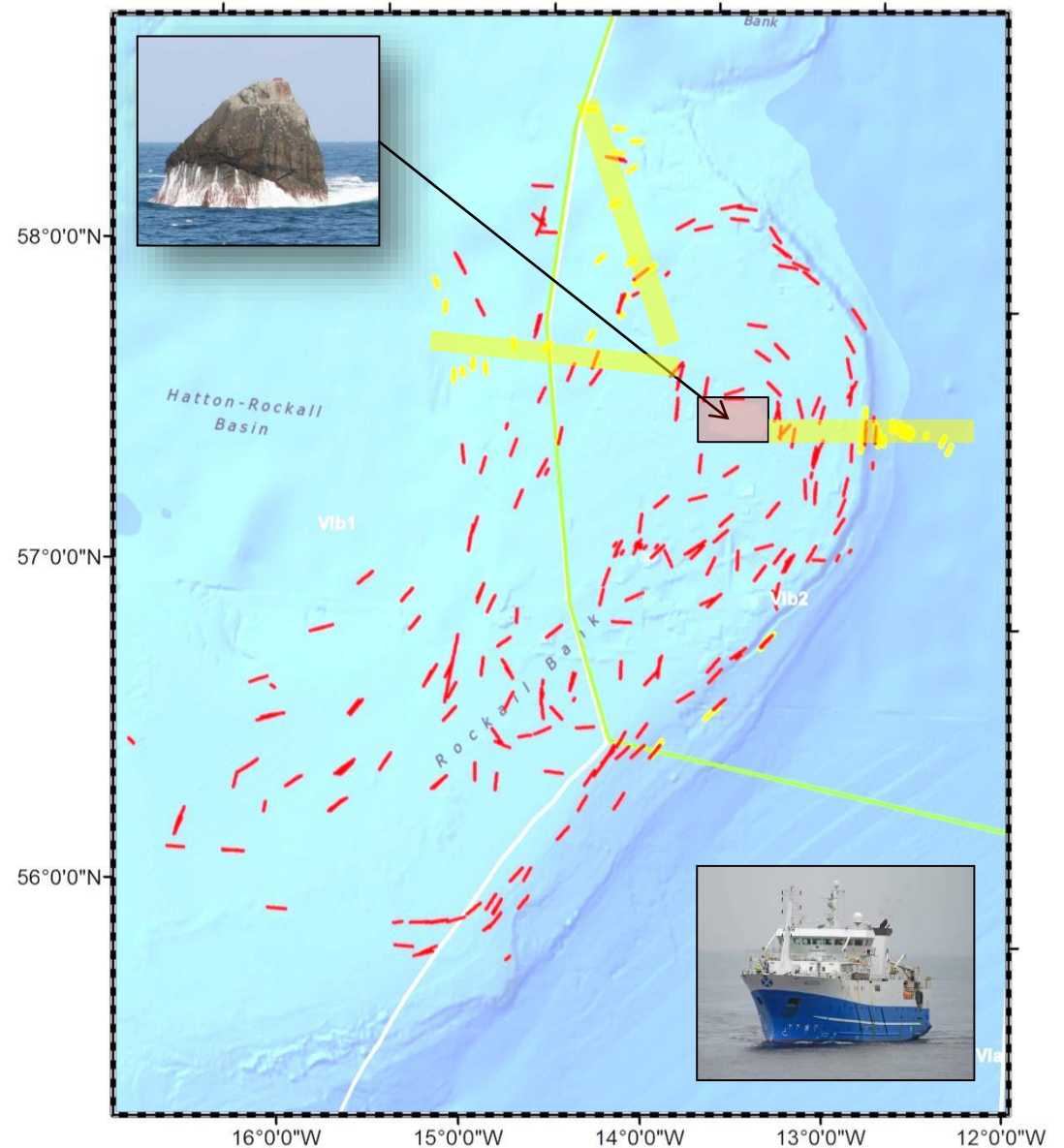


Where exactly is Rockall?



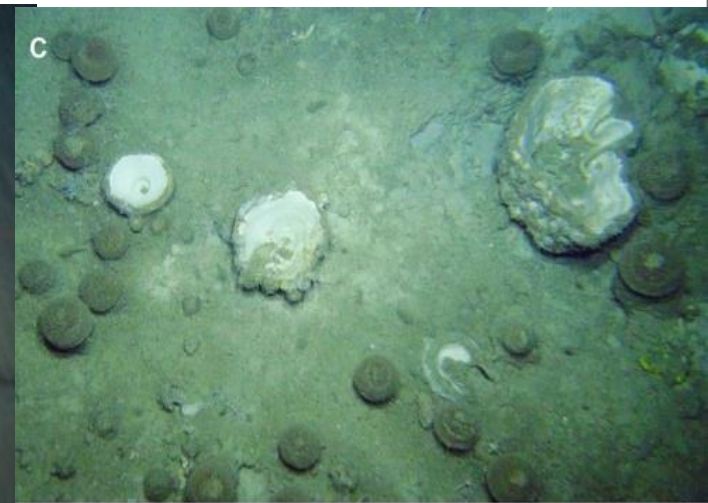
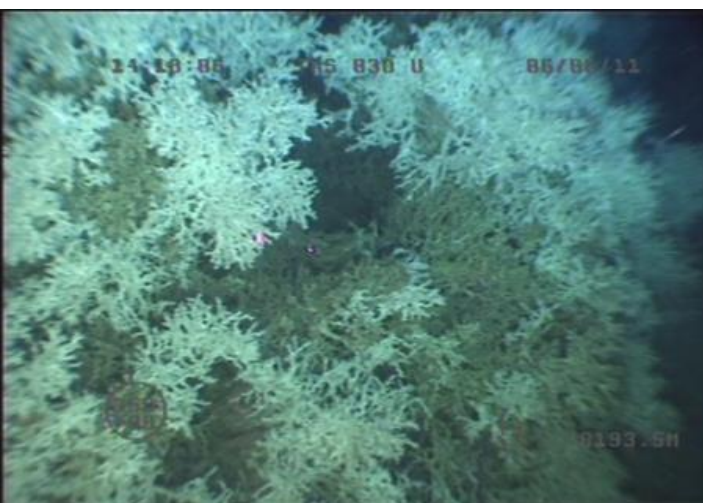
Marine Lab data and explorations at Rockall

- Long history of trawl (fish stock assessment) surveys
- Scotia surveys in 2011, 2012, 2015
 - Map the area around Rockall (multibeam)
 - Document the fish and benthic communities
 - Trawl survey with integrated benthic sampling nets
 - TV camera surveys



Identify main ecosystem components

- Coral reefs
- Cold seeps
- Sponge grounds



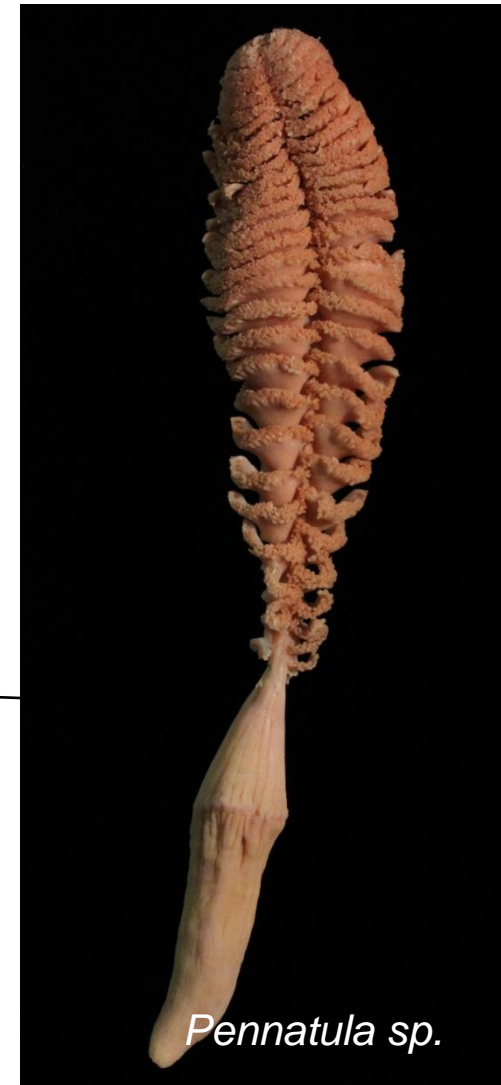
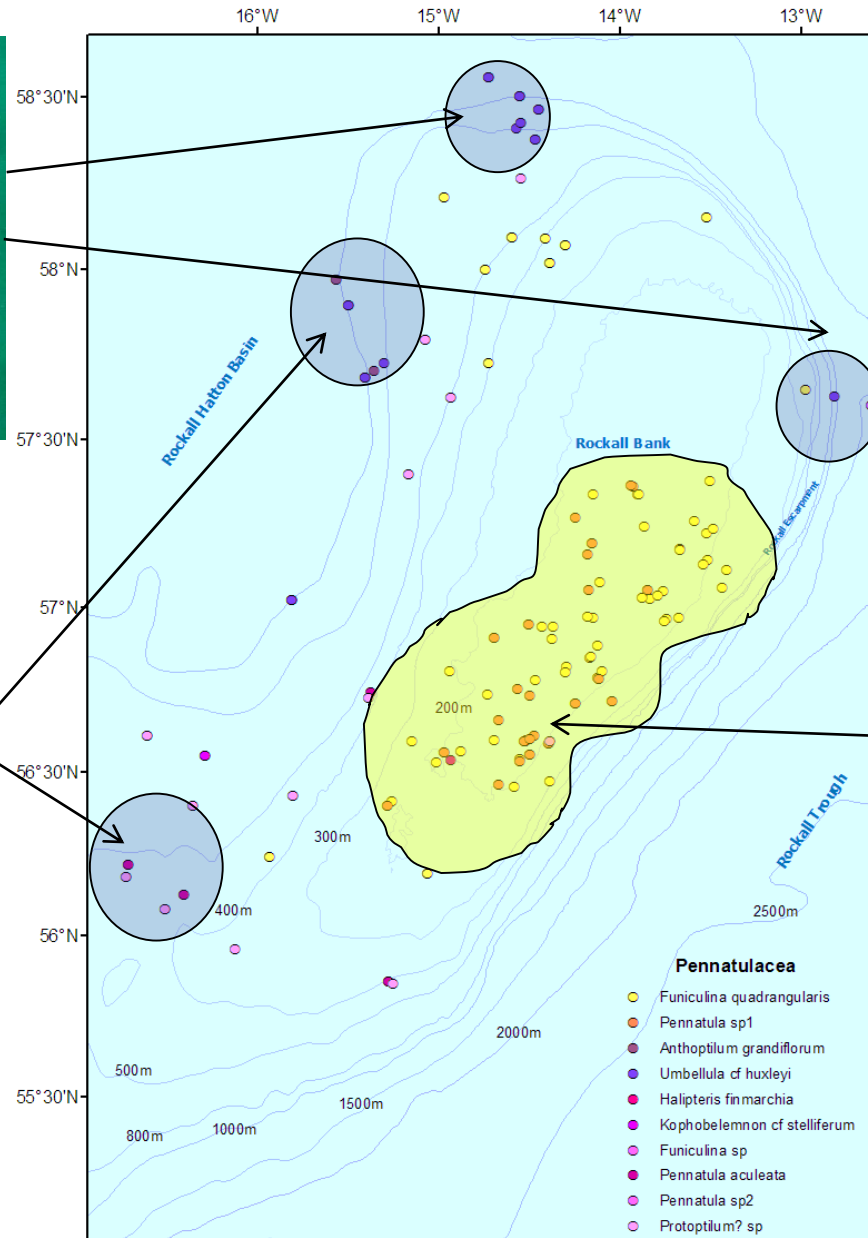
Mapping seabed habitats reefs using towed video

marinescotland
science



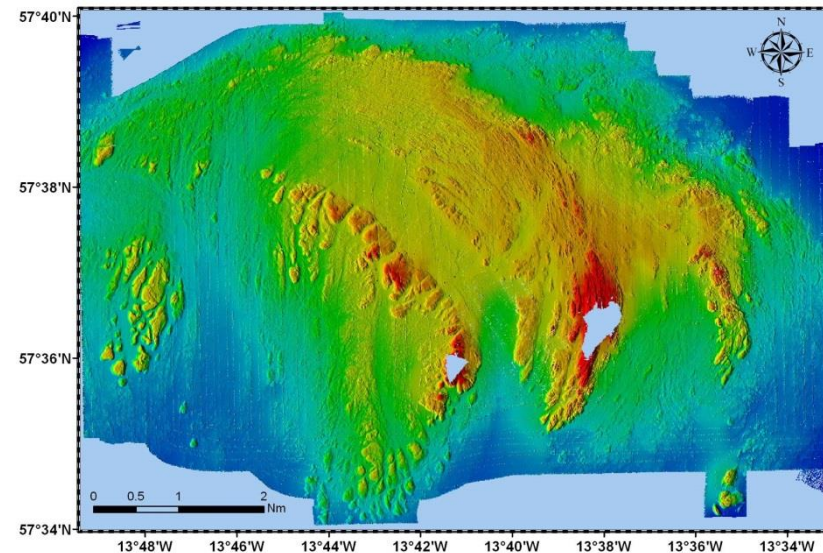
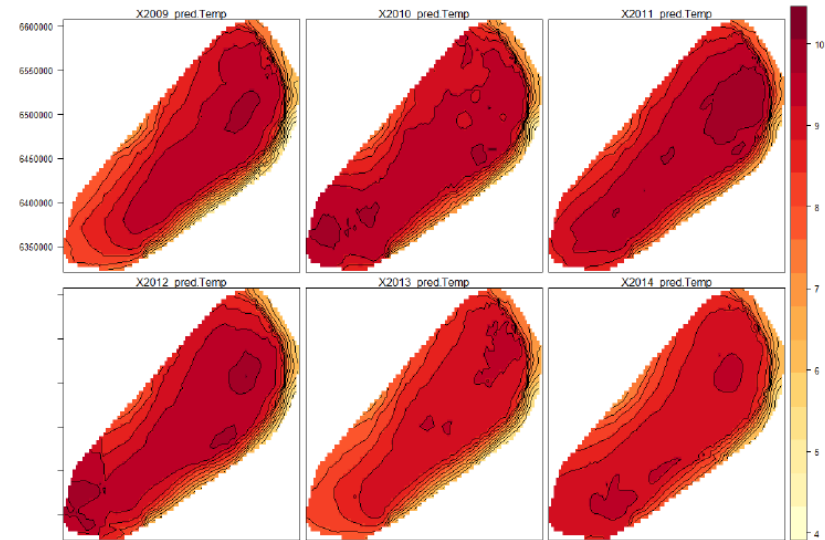
**Over 600 km of transects
from 150 m to 1000 m**

Mapping seapens (Pennatulacea) using trawl by-catch data



Compilation of Physical data

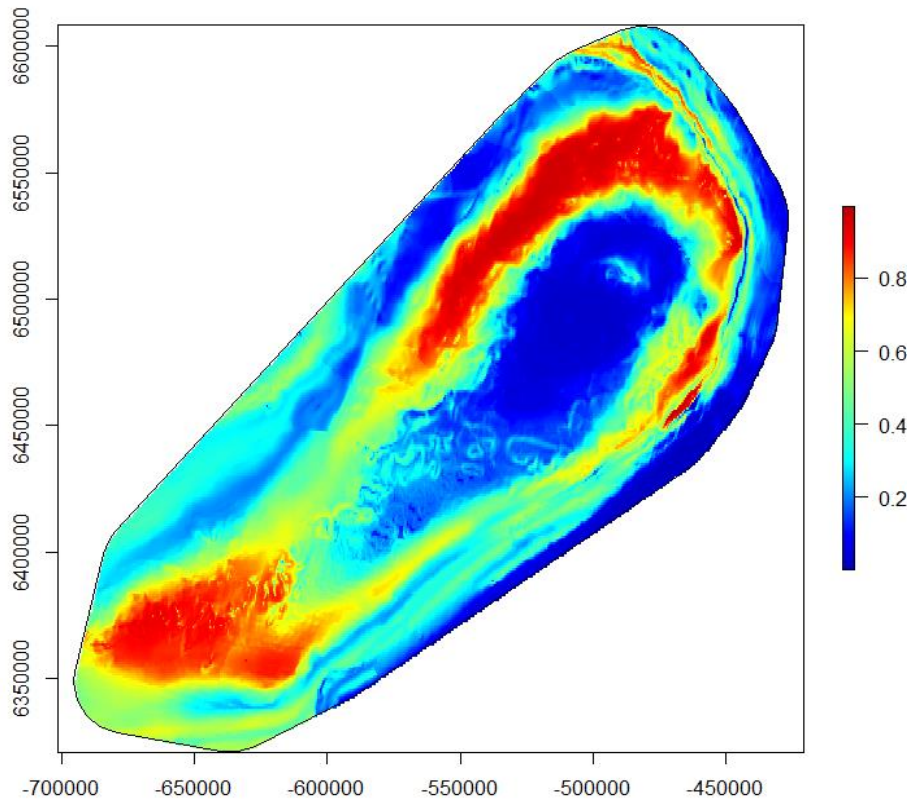
- Temperature
- Salinity
- Currents
- Bathymetry
- Slope
- Rugosity
- Remote sensing
- Productivity
- Sediments
- Geology



Species Distribution models

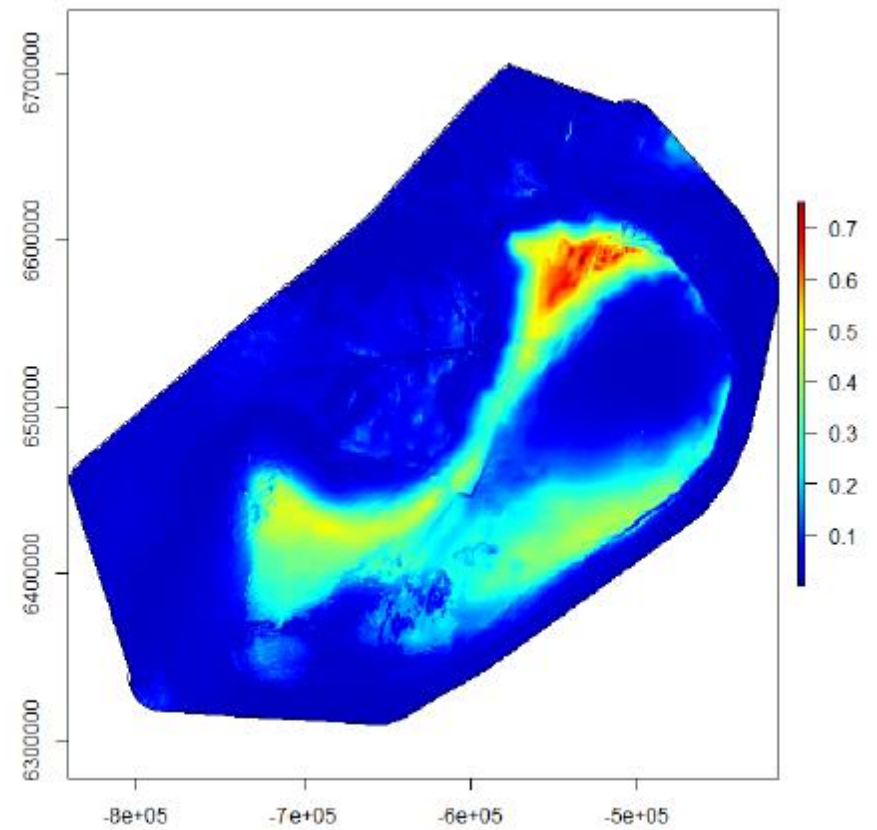
Coral

Lophelia Pertusa - GP prediction



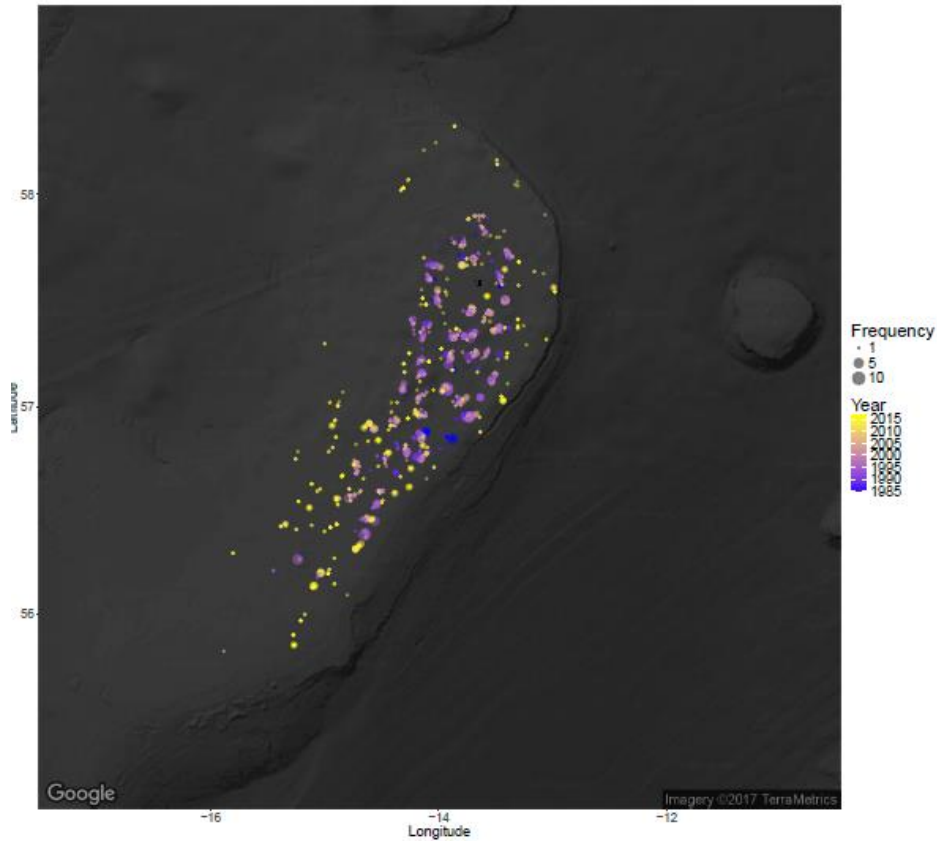
Seapens

Funiculina quadrangularis - GP prediction



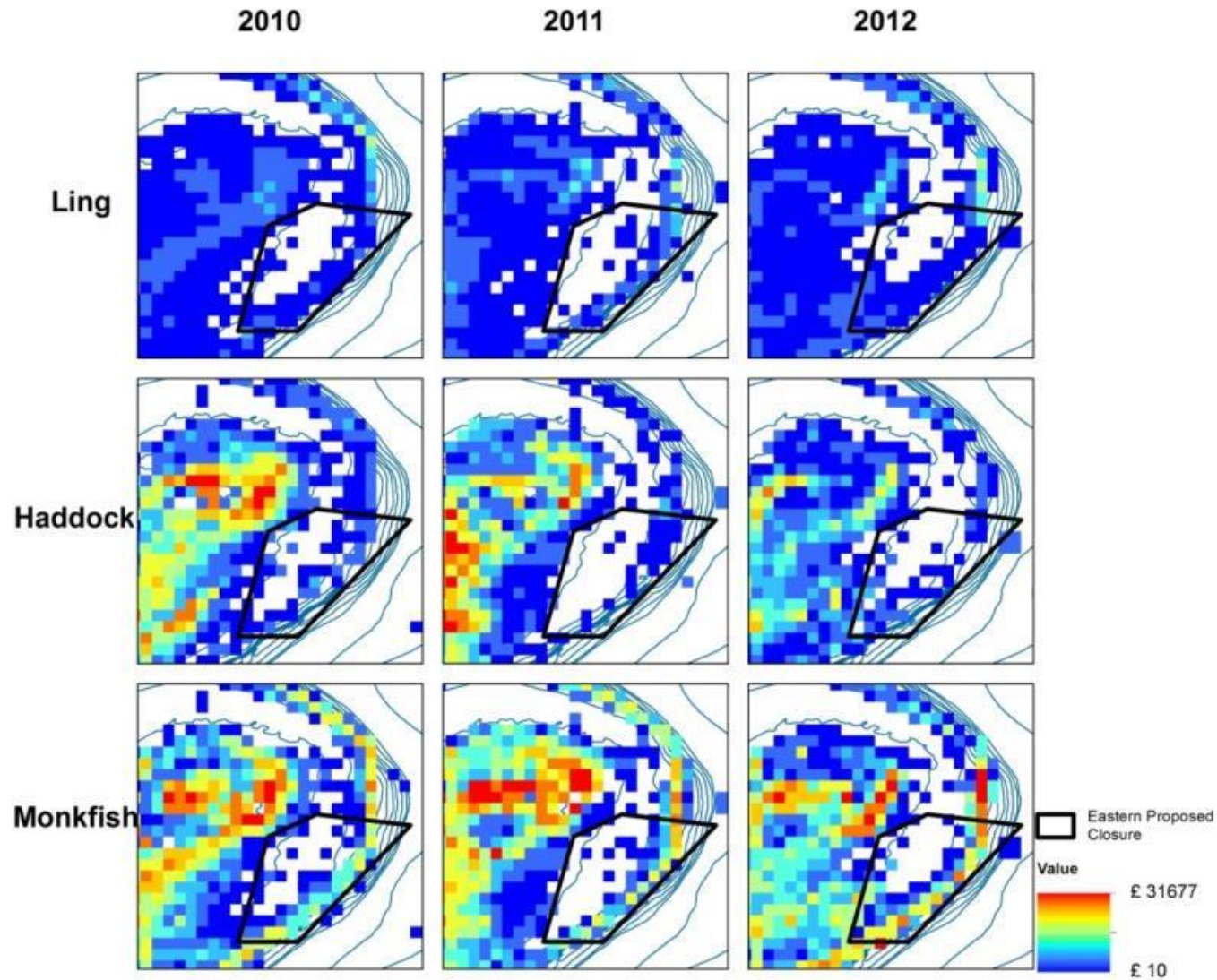
Fish distribution and fisheries

Species = Angler (Monk fish)



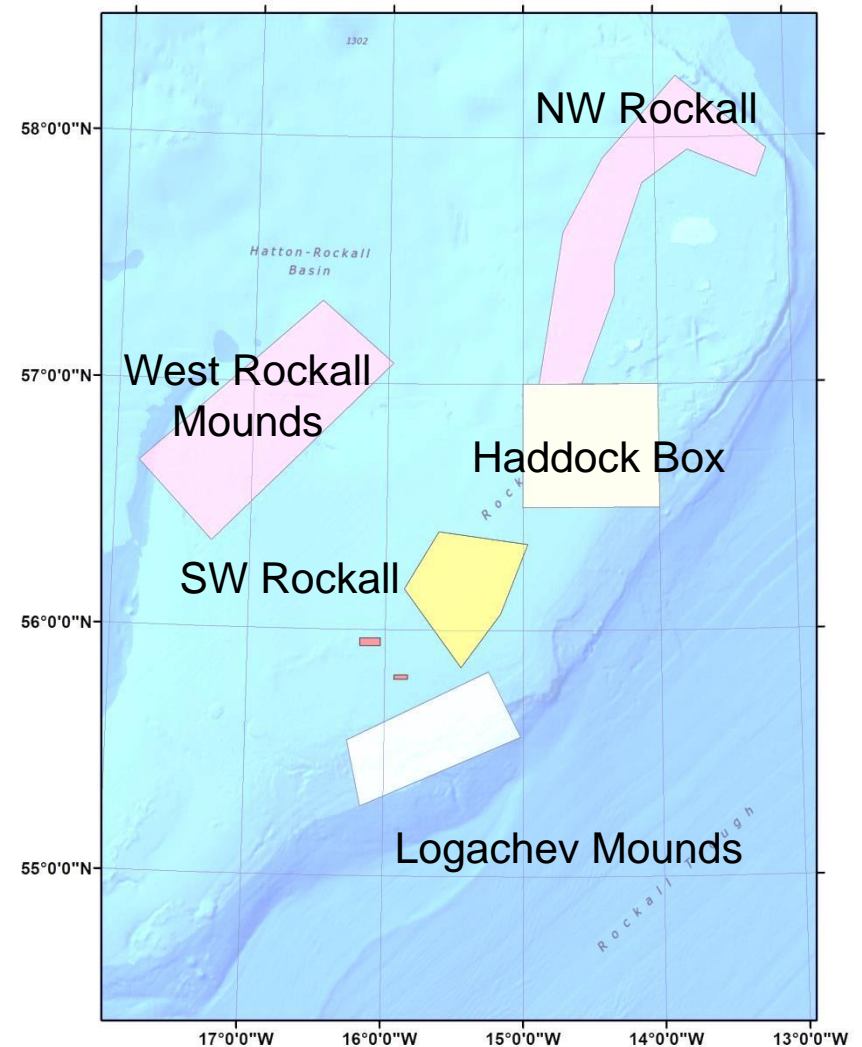
30 Million Euro per year

Fishing effort and value at Rockall



Marine Spatial Planning at Rockall

- **Spatial data on:**
- **Habitats**
- **Fishing activity – plotter data, VMS data**
- **Find the mutually exclusive areas – i.e. where there is little or no fishing activity and where there is good evidence of corals**
- **Multiple data types**
- **Multiple spatial resolutions**
- **Integration**
- **Beyond ARC GIS**
- **Spatial database**



Thanks for listening....

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science

