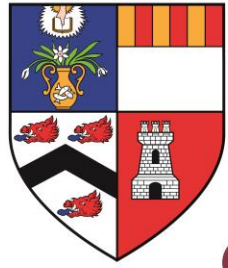


MareFrame



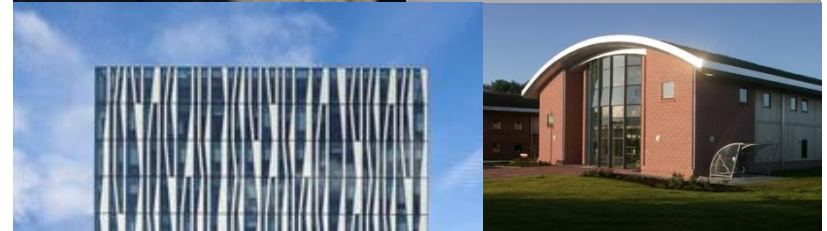


UNIVERSITY OF ABERDEEN

MareFrame

- **Founded in 1495**
- **5th oldest in UK**
- **5 Nobel laureates**
- **15,000 students**

- **School of Biological Sciences**
 - **300 researchers**
 - **Ecology & Evolution**
 - **Env. Physiology**
 - **Bio-interactions soil**
 - **2 marine labs**



Relevant expertise of staff

Paul Fernandes
BSc Marine Biology
PhD Marine Ecology
Fisheries scientist
17 y Marine Lab Aberdeen
Fish survey technology
Stock assessment
Fisheries management
University Reader since 2011
Fisheries ecosystems and
advanced survey
technologies [FEAST]

Alan Baudron
BSc Marine Biology
PhD Marine Ecology
Fisheries scientist
University Postdoc since
2012
Ecosystem modeller



Is global warming causing fish to SHRINK?
Temperature change has caused haddock and herring to reduce in size by a third, claim scientists

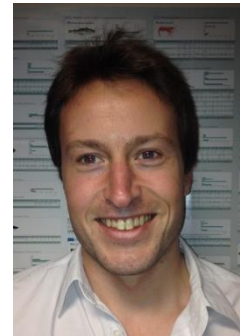
- Fish, such as whiting and plaice, have shrunk by up to 29% over 38 years
- This coincides with increase in water temperatures of between 1°C and 2°C

Fish supper, please .. easy on the guilt

Contribution to MareFrame

Paul Fernandes
Member PMG

FISHSUMS
ecosystem model



**Lead WP 4 Ecosystem
modelling and assessment**

**Case study lead:
West of Scotland**

