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SUR LA BIODIVERSITÉ



In the middle of nowhere

Delivering a science programme in a remote part of the Indian Ocean

Rachel Jones
Zoological Society of London

Membres
Fondateurs
de la FRB:





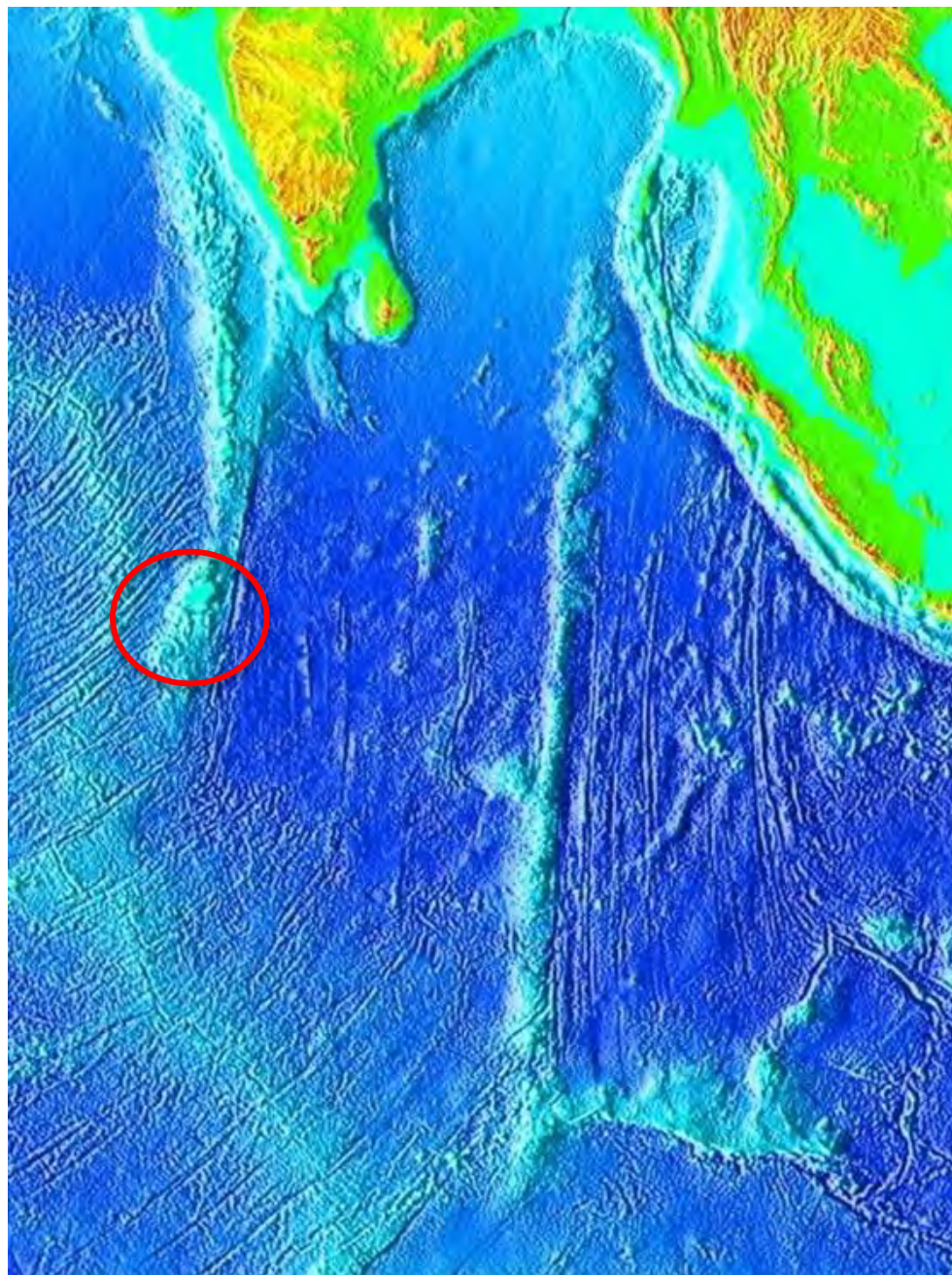
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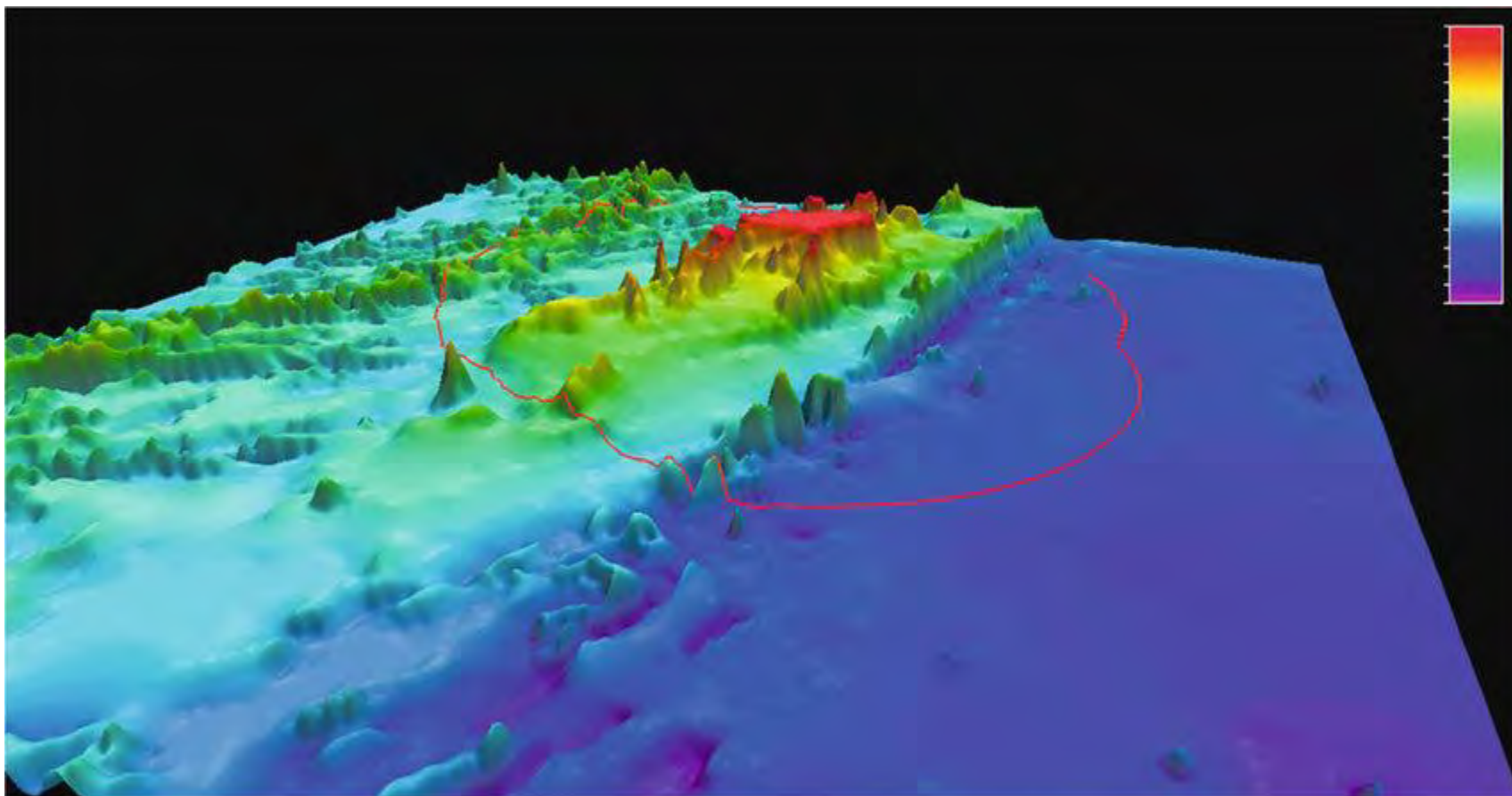
Bertarelli Programme in Marine Science

fb fondation
bertarelli



The Chagos archipelago





- Great Chagos Bank – worlds largest living coral atoll

History





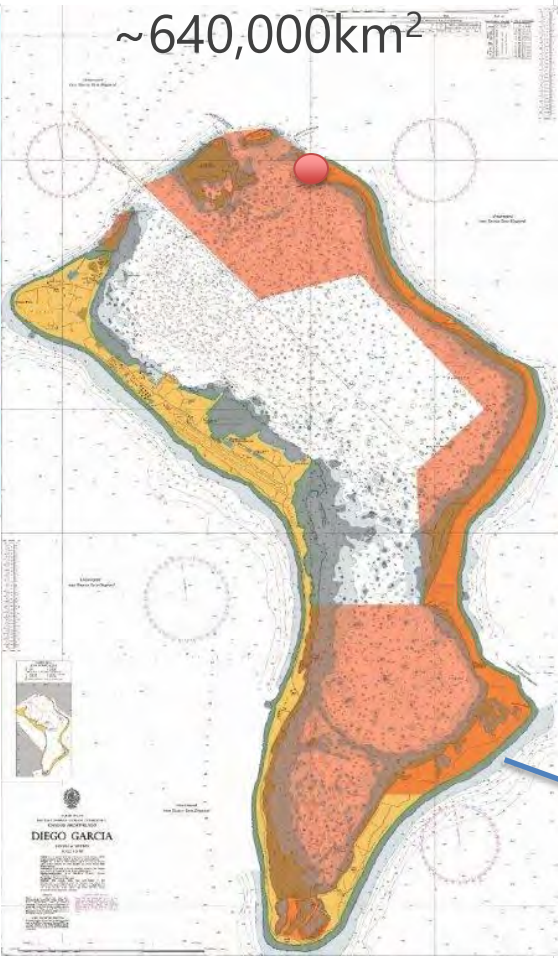
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Strict no take MPA

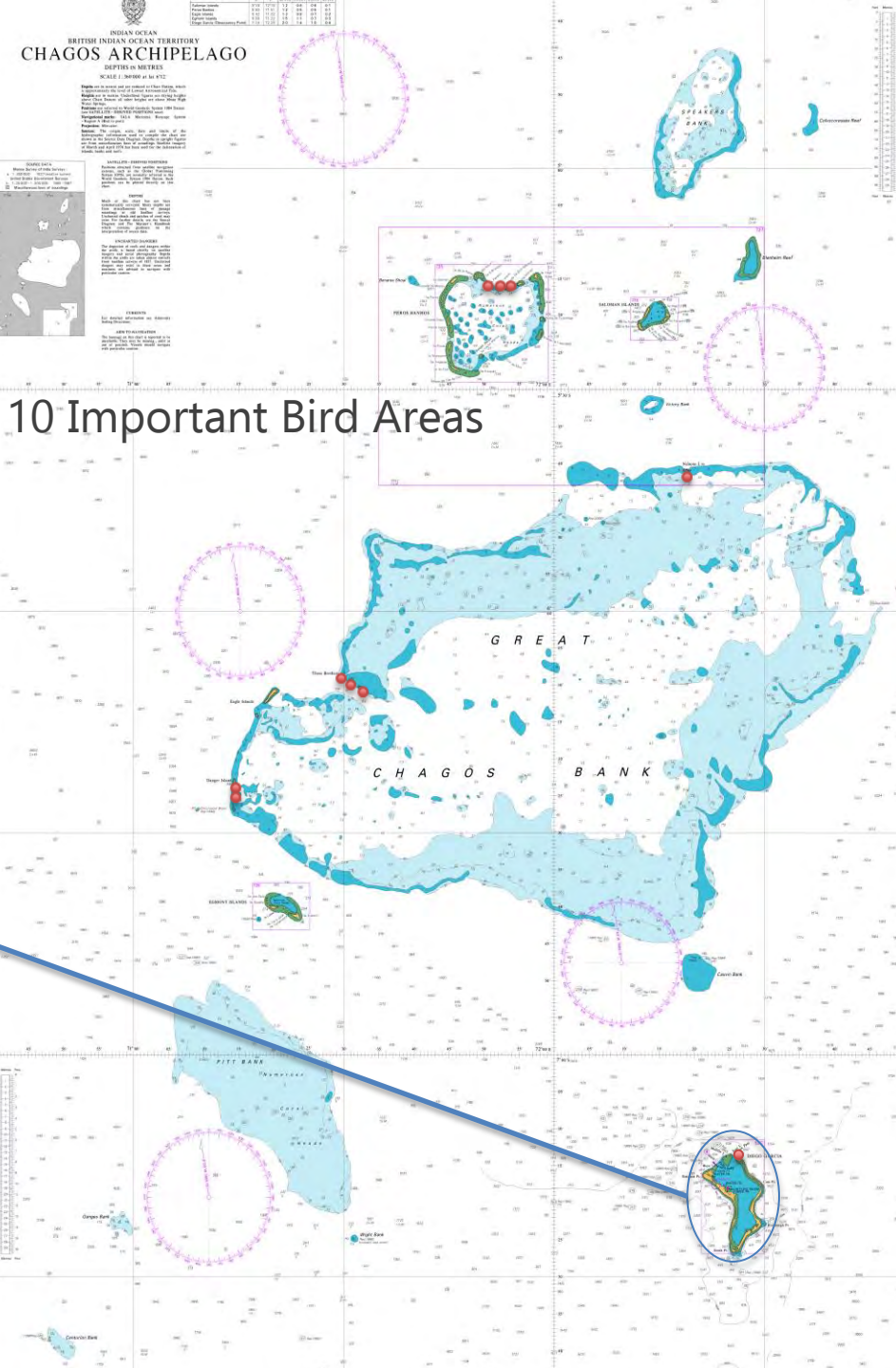
~640,000km²

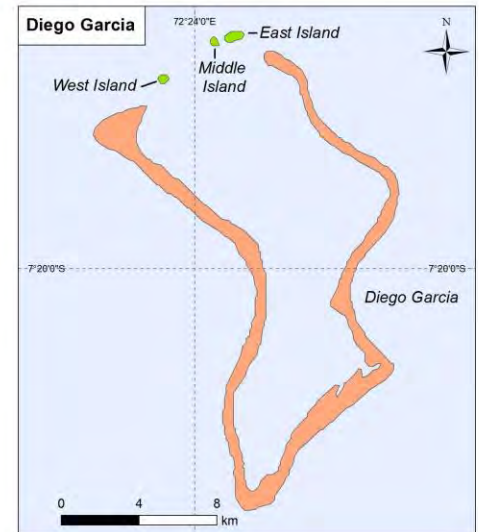
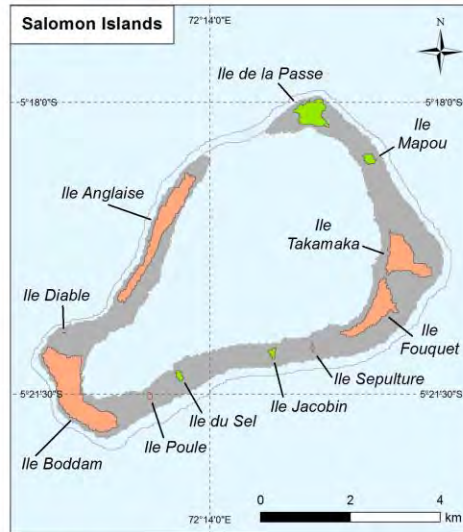
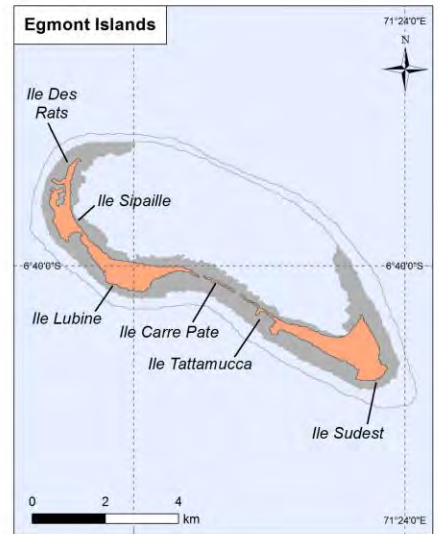
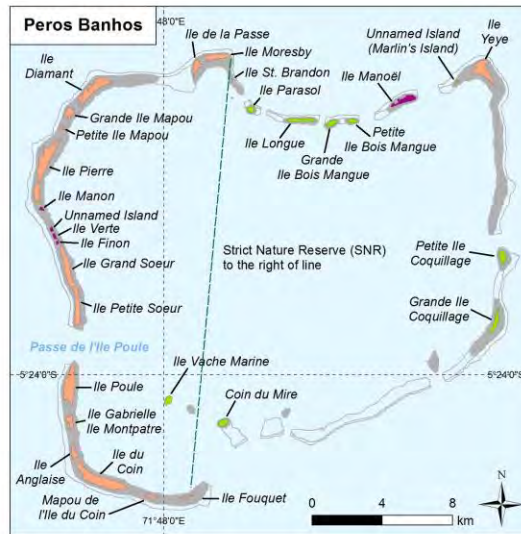
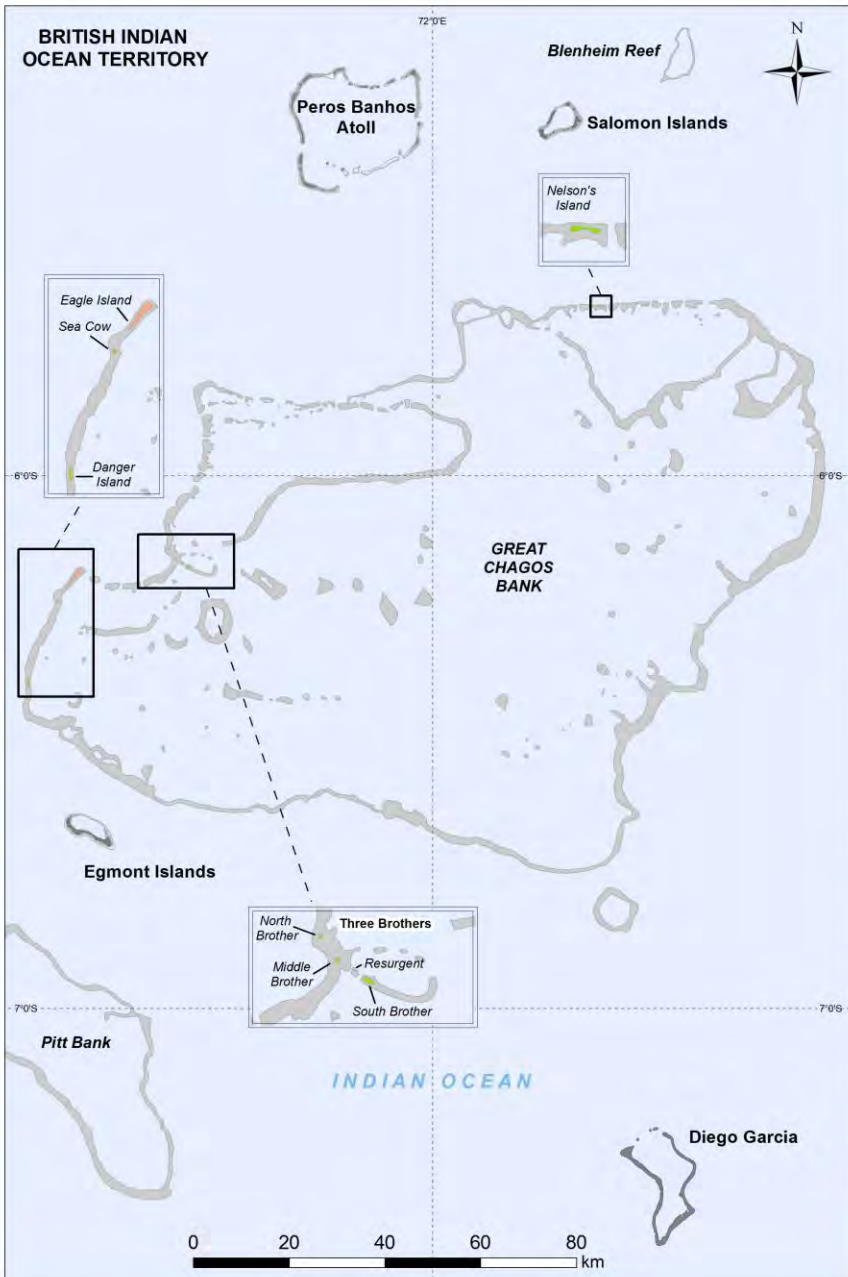


RAMSAR site
2001



Restricted areas





Status

- Rats present
- Rats absent
- Status uncertain

Data source: UNEP-WCMC, WorldFish Centre, WRI, TNC (2010). Global distribution of coral reefs, compiled from multiple sources including the Millennium Coral Reef Mapping Project. Version 1.3. Includes contributions from IMaRS-USF and IRD (2005), IMaRSUSF (2005) and Spalding et al. (2001). Cambridge (UK): UNEP World Conservation Monitoring Centre. URL: <http://data.unep-wcmc.org/datasets/1>





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Bertarelli Programme in Marine Science

66 scientists plus 14 PhD students across 24 institutions in 6 countries





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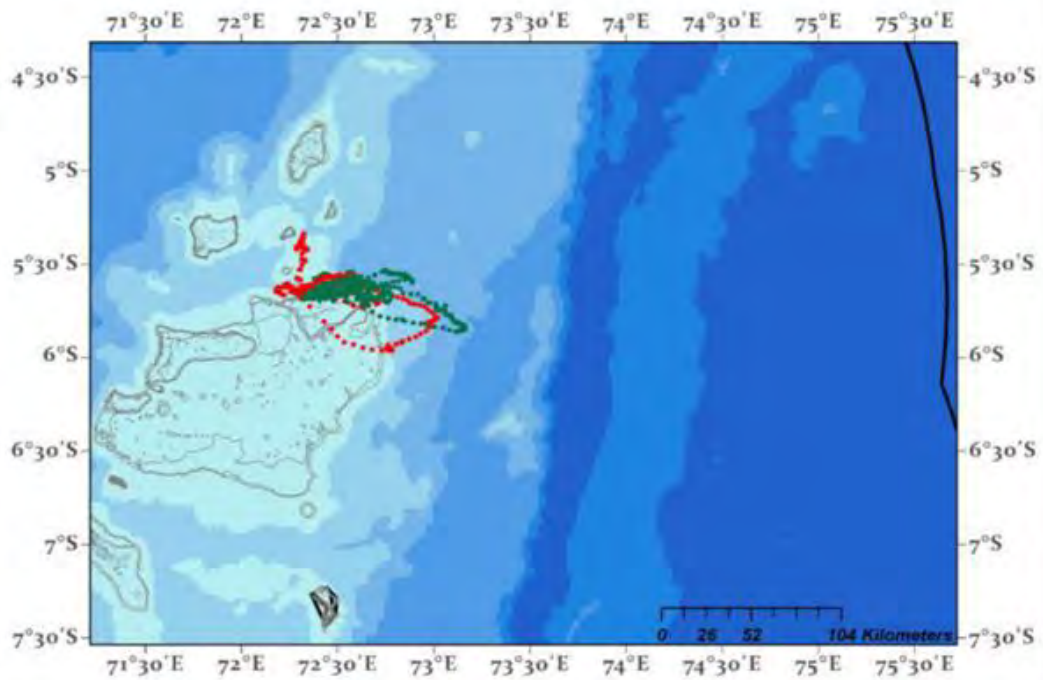
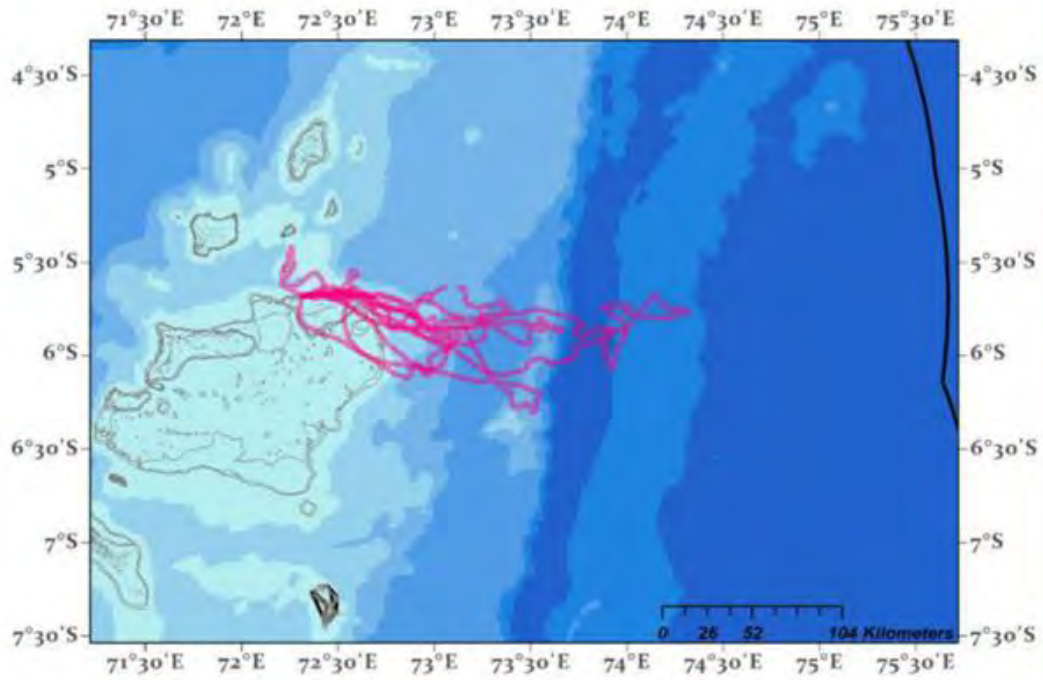
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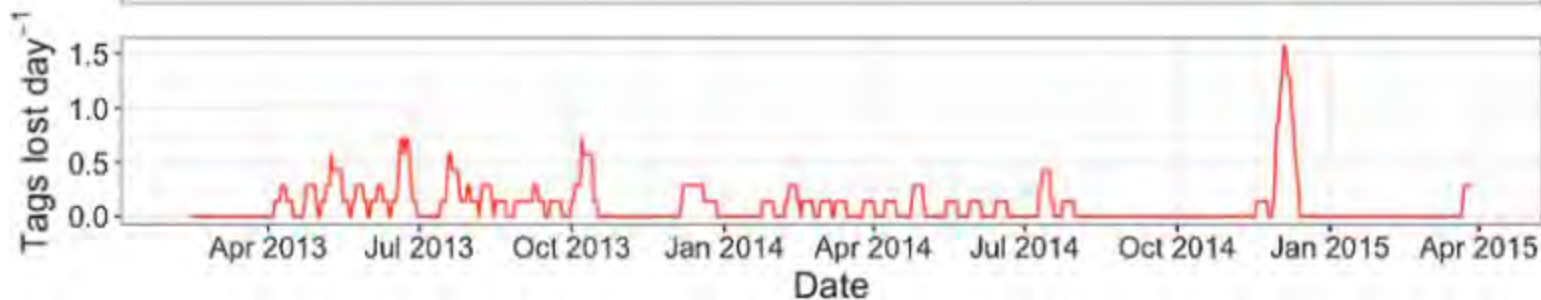
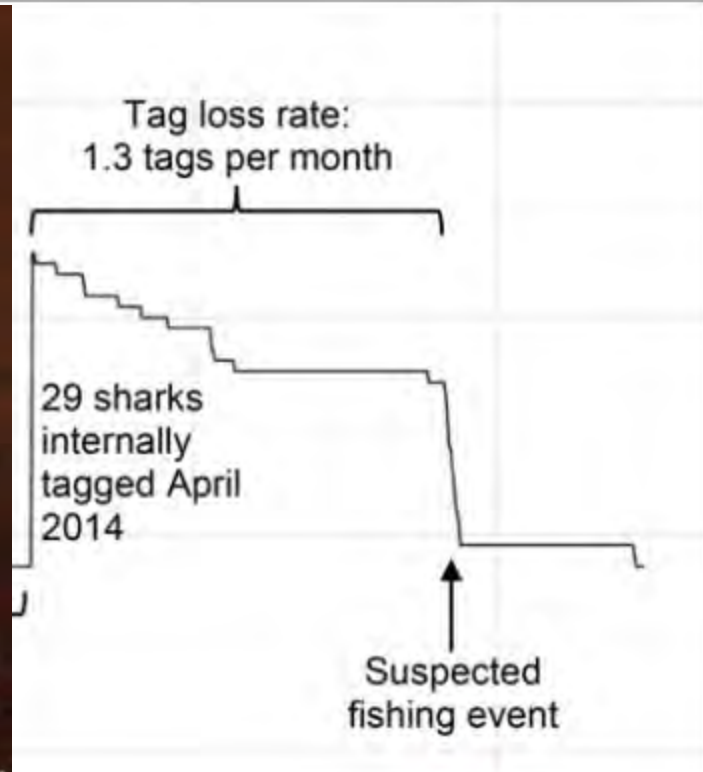
Funders



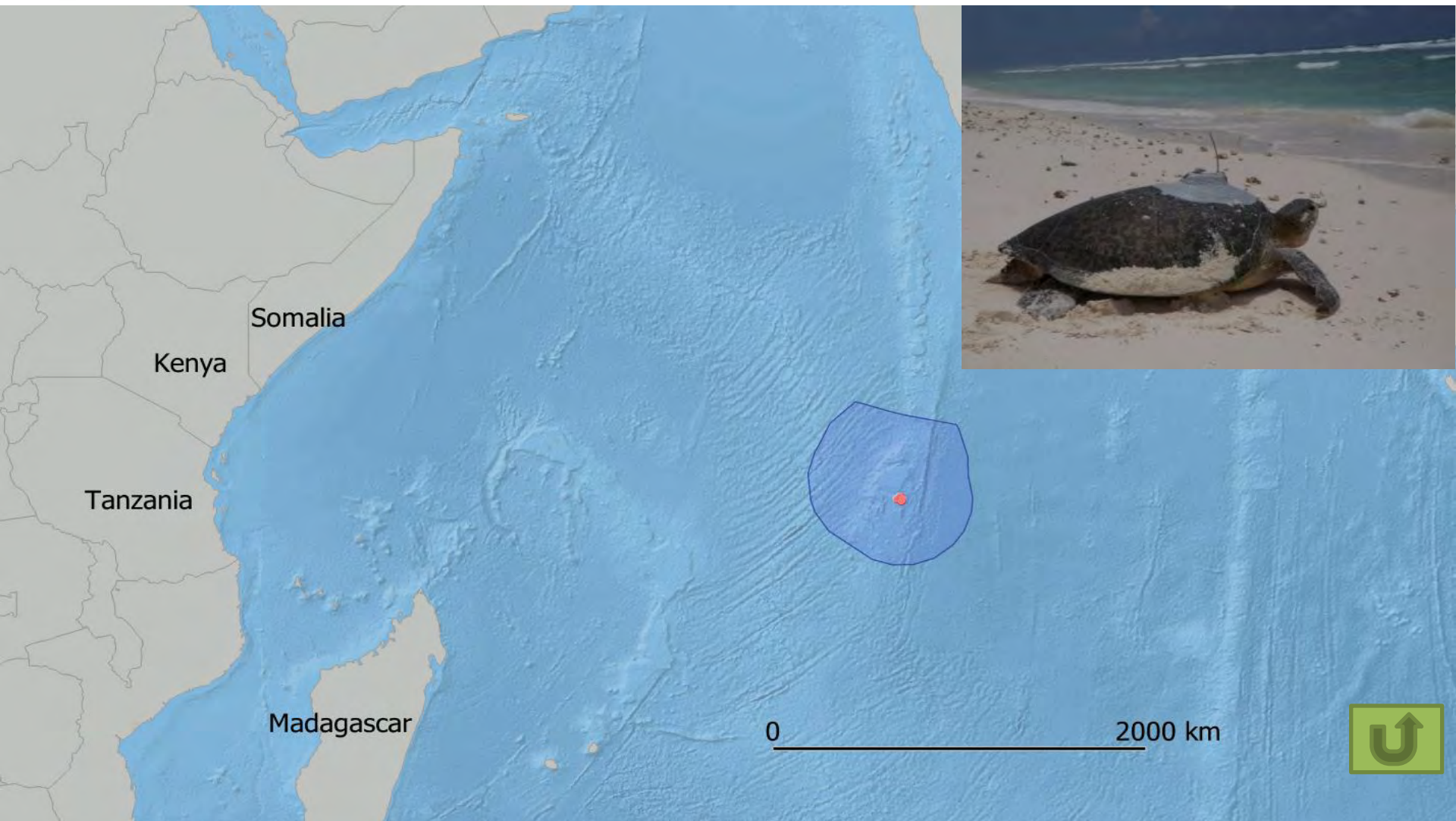
Scientific partners



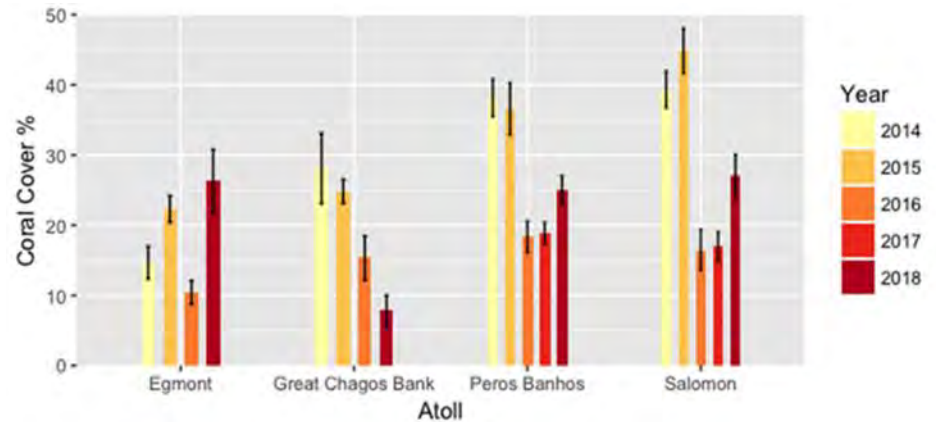
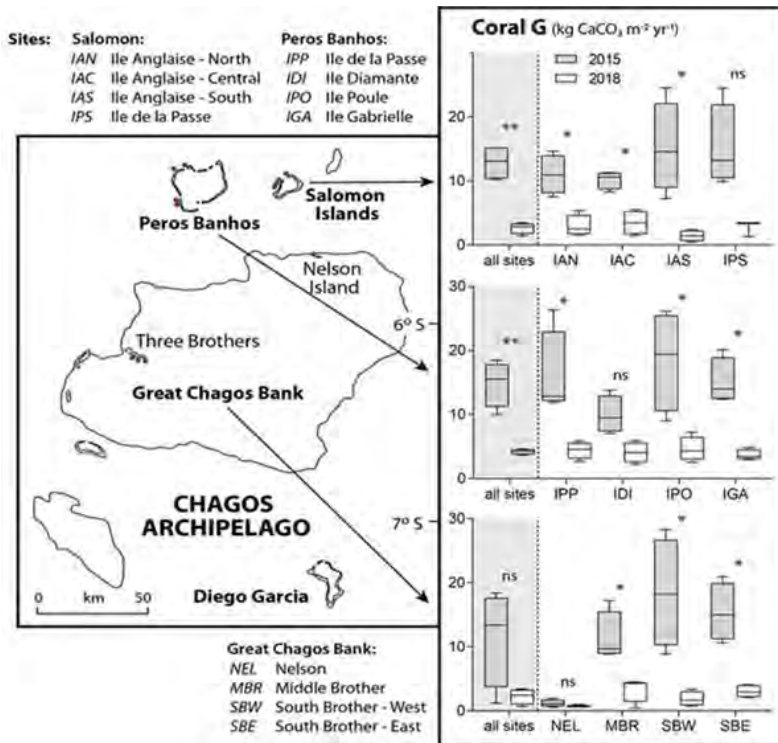
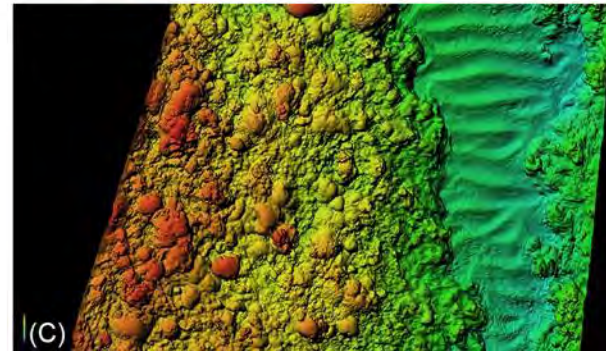
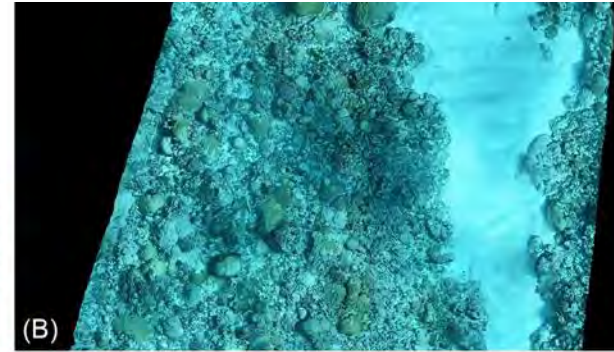
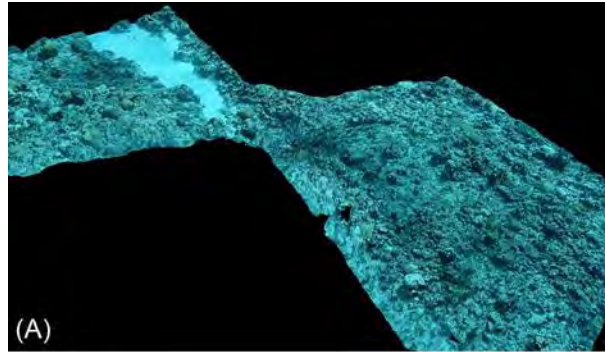




Tickler et al (2019), "Potential detection of illegal fishing by passive acoustic telemetry" in *Animal Biotelemetry*, CC 4.0



Coral Reefs



nature

THE INTERNATIONAL WEEKLY JOURNAL OF SCIENCE

Booby trap

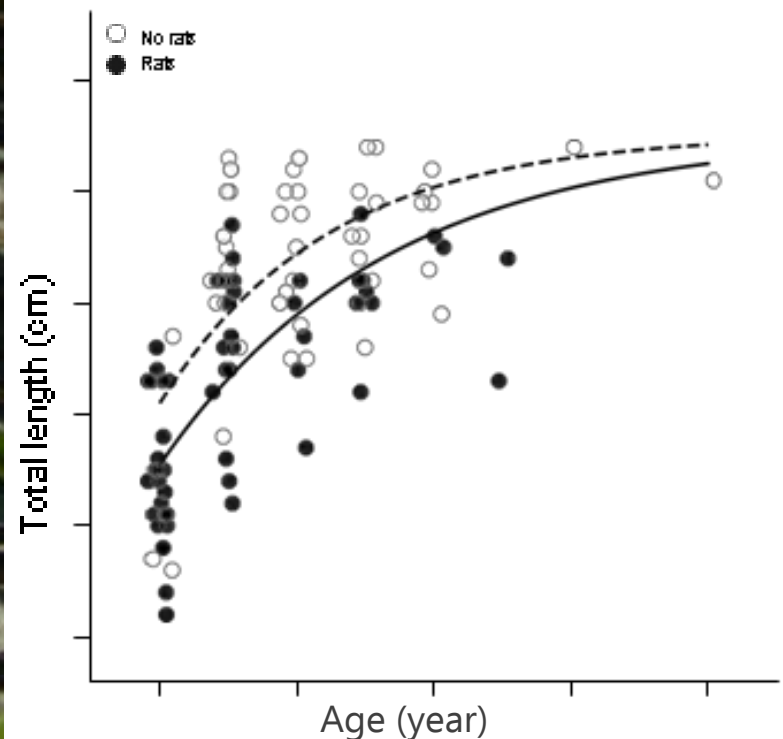
Fall in seabird numbers driven by rat infestation harms tropical reef ecosystem PAGES 190 & 250



NATURE.COM/NATURE
12 July 2018 £10
Vol. 559, No. 7713

Seabirds enhance coral reef productivity and functioning in the absence of invasive rats

Nicholas A. J. Graham, Shaun K. Wilson, Peter Carr, Andrew S. Hoey, Simon Jennings & M. Aaron MacNeil

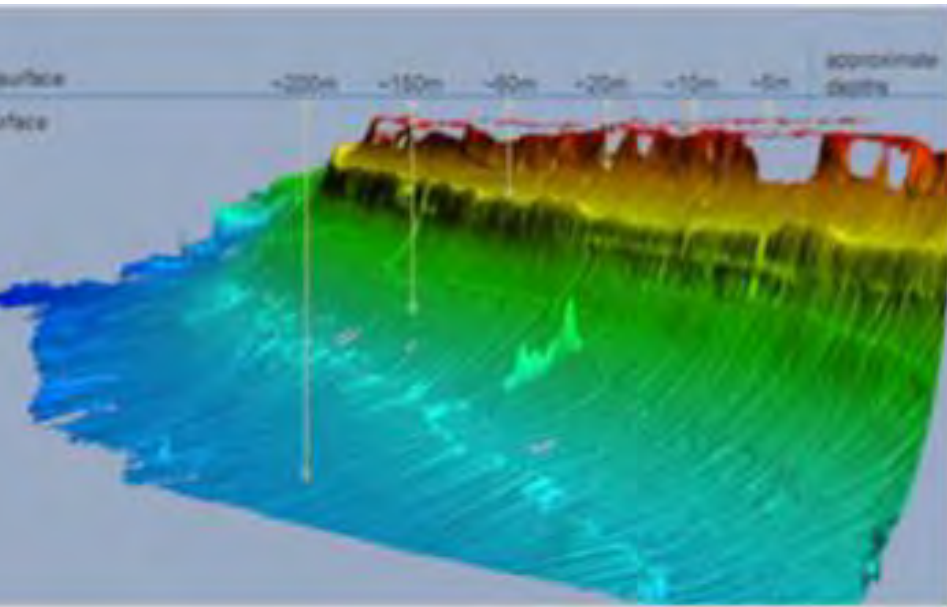
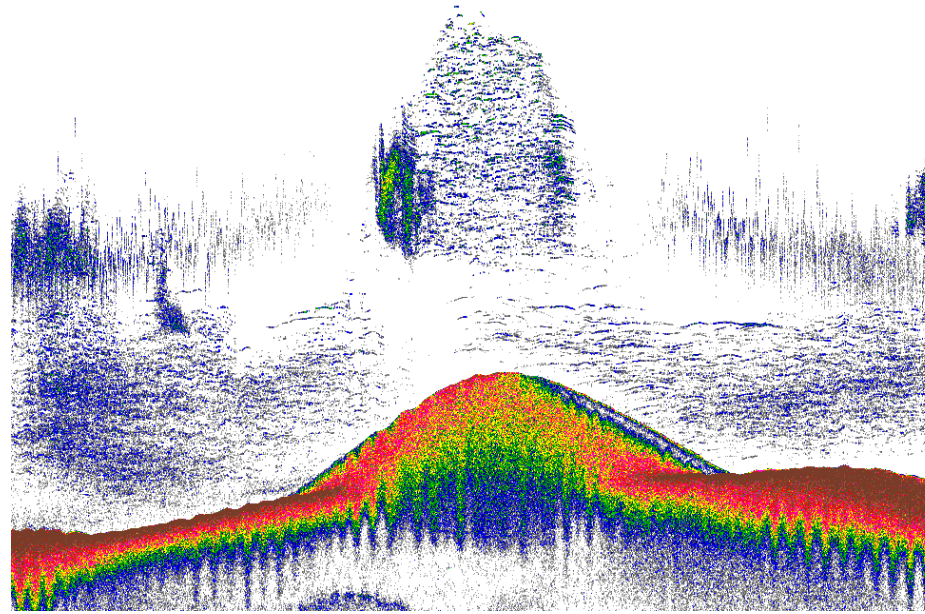


Growth of herbivorous damselfish on coral reefs adjacent to islands with and without rats

Science to management



Deeper waters



Programme structure

Coral reefs

- Lancaster University
- Australian Institute of Marine Science
- Bangor University
- Lancaster University
- Stanford University
- Oxford University
- ZSL
- Exeter University

Seabirds

- ZSL
- Exeter University
- Reunion

Sea turtles

- Swansea University
- Deakin University
- Seychelles turtle

Programme coordination
Zoological Society of
London

Plastics

- ZSL
- Swansea University
- BIOTA

Marine predators

- Stanford University
- ZSL
- Virginia Tech
- Oregon State University

IUU fishing, enforcement and compliance

- Exeter University
- ZSL
- Montpellier University

Seamounts and deep reefs

- Plymouth University
- Manta Trust



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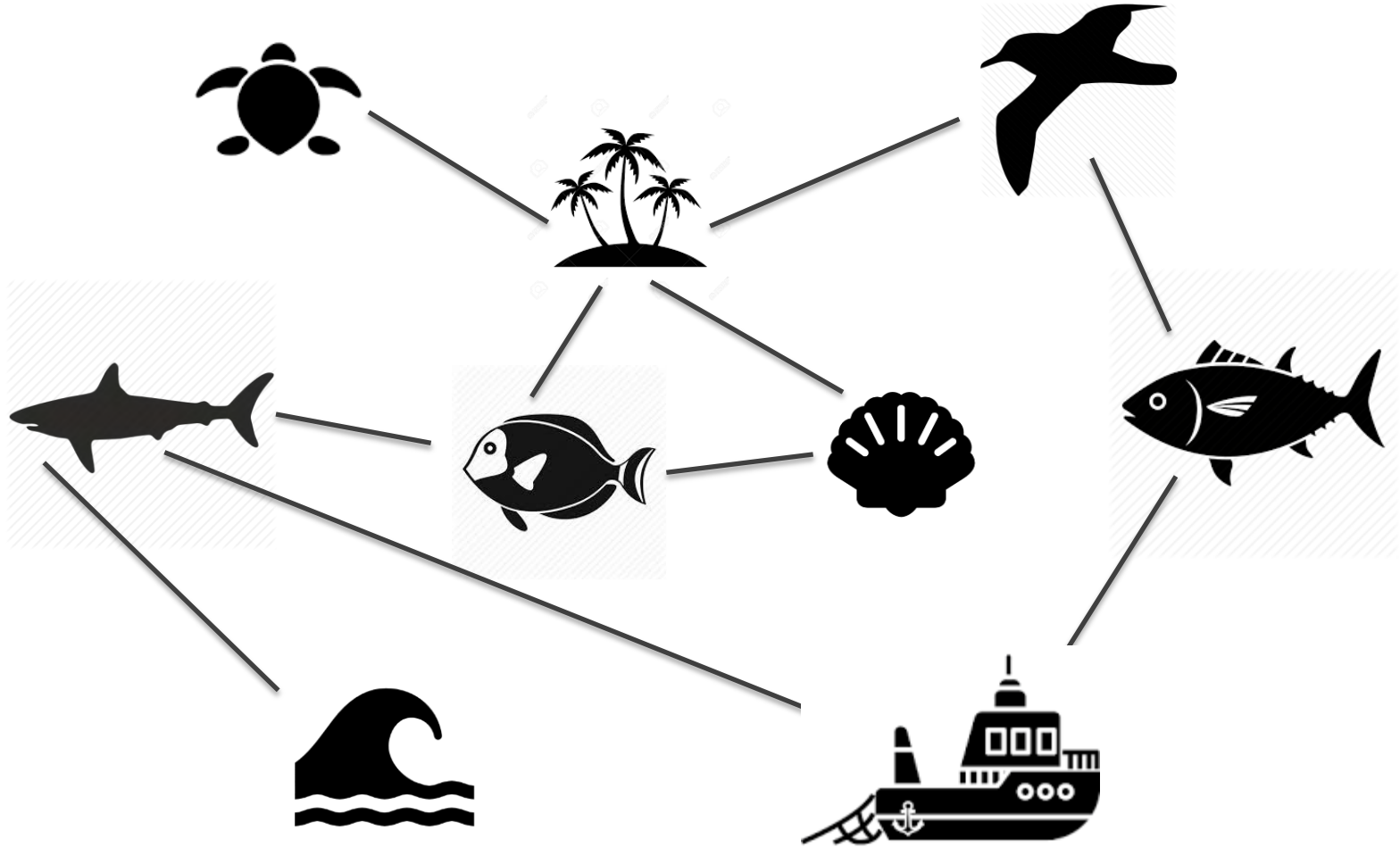
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Logistics



Vessels



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 marine.
science



#WCSJ2019





Science for conservation in the real world



Phase II



