



CESAB
CENTRE DE SYNTHÈSE ET D'ANALYSE
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:



LVMH



Bertarelli Programme in Marine Science

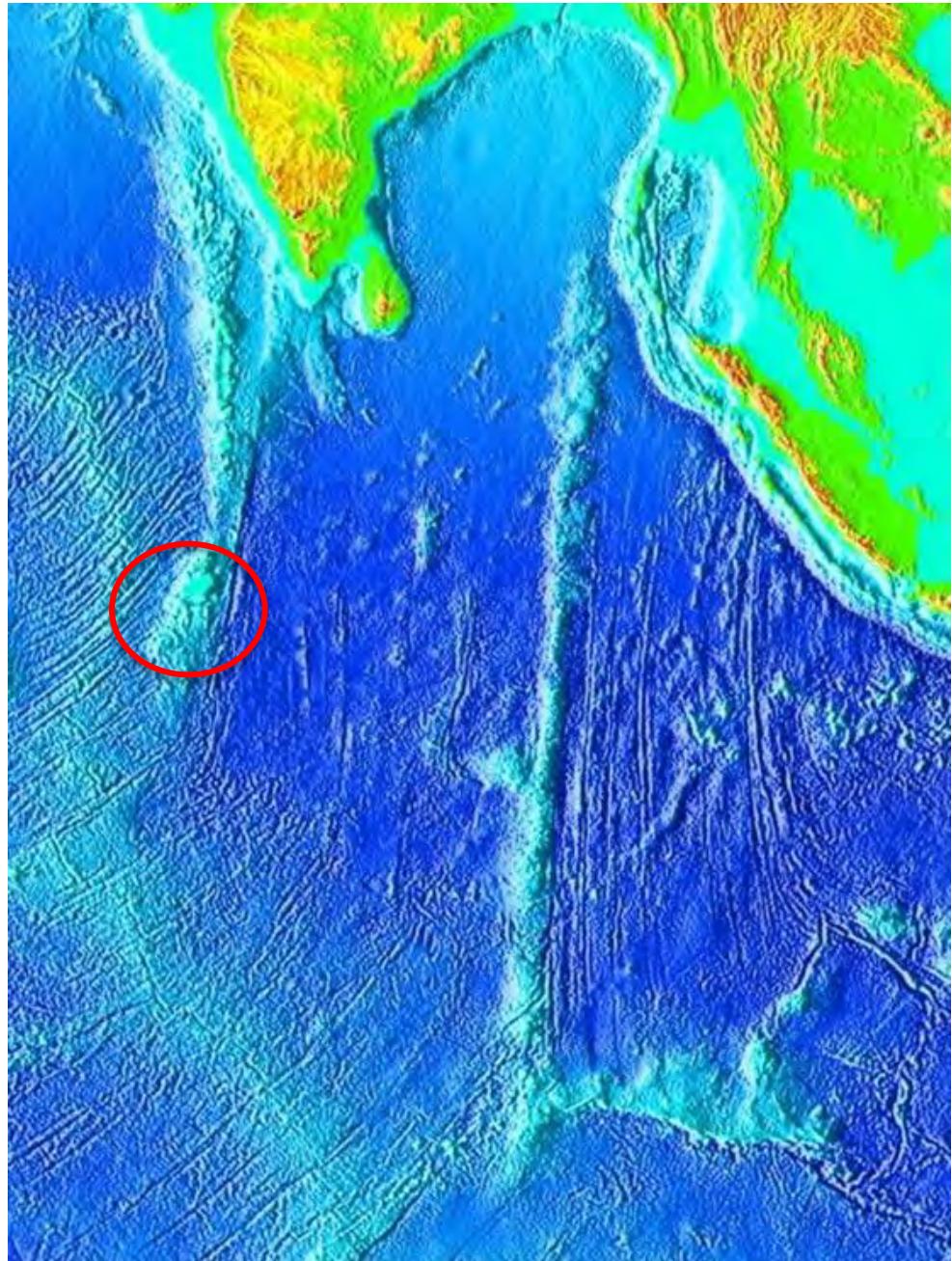


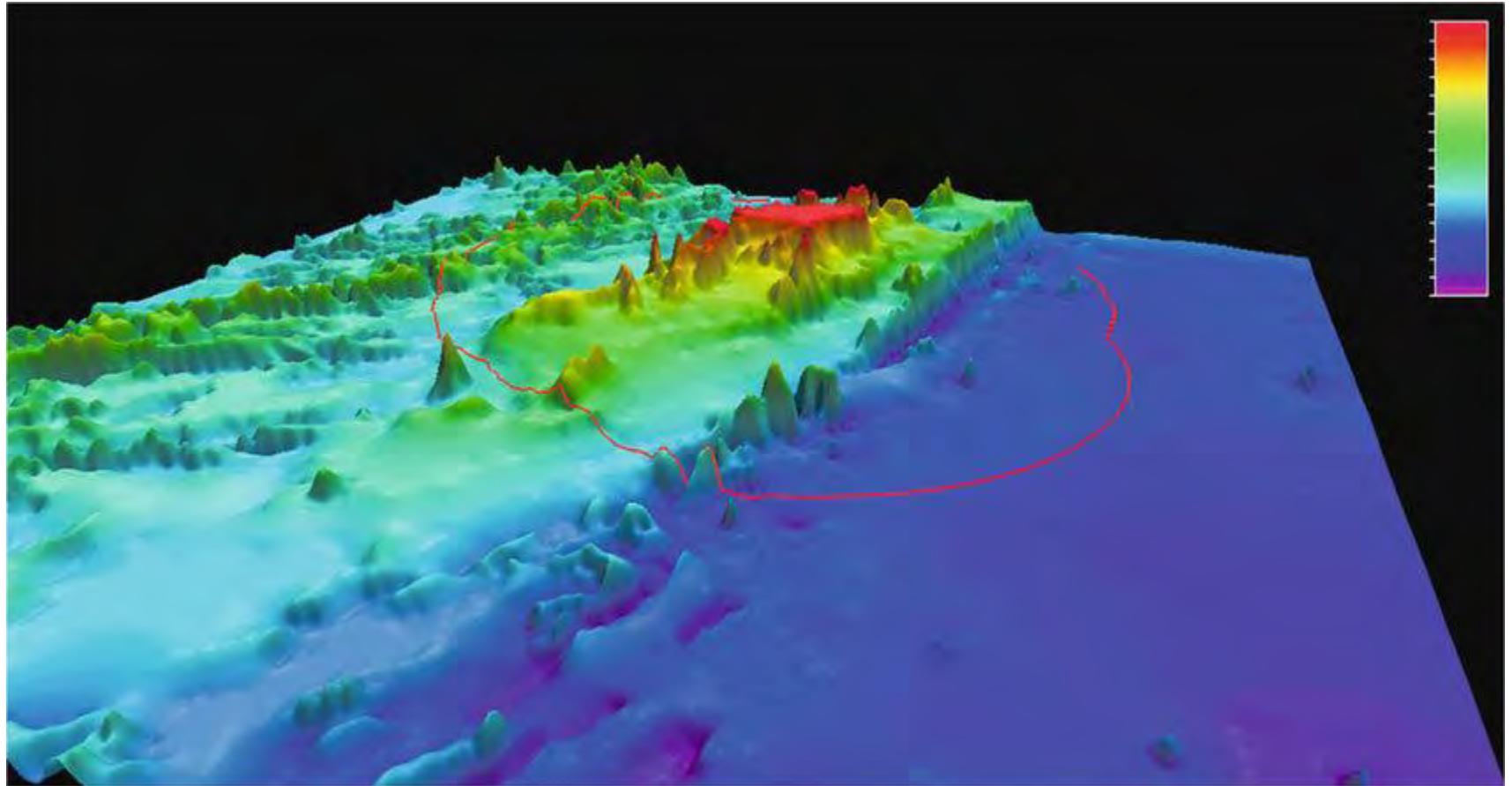


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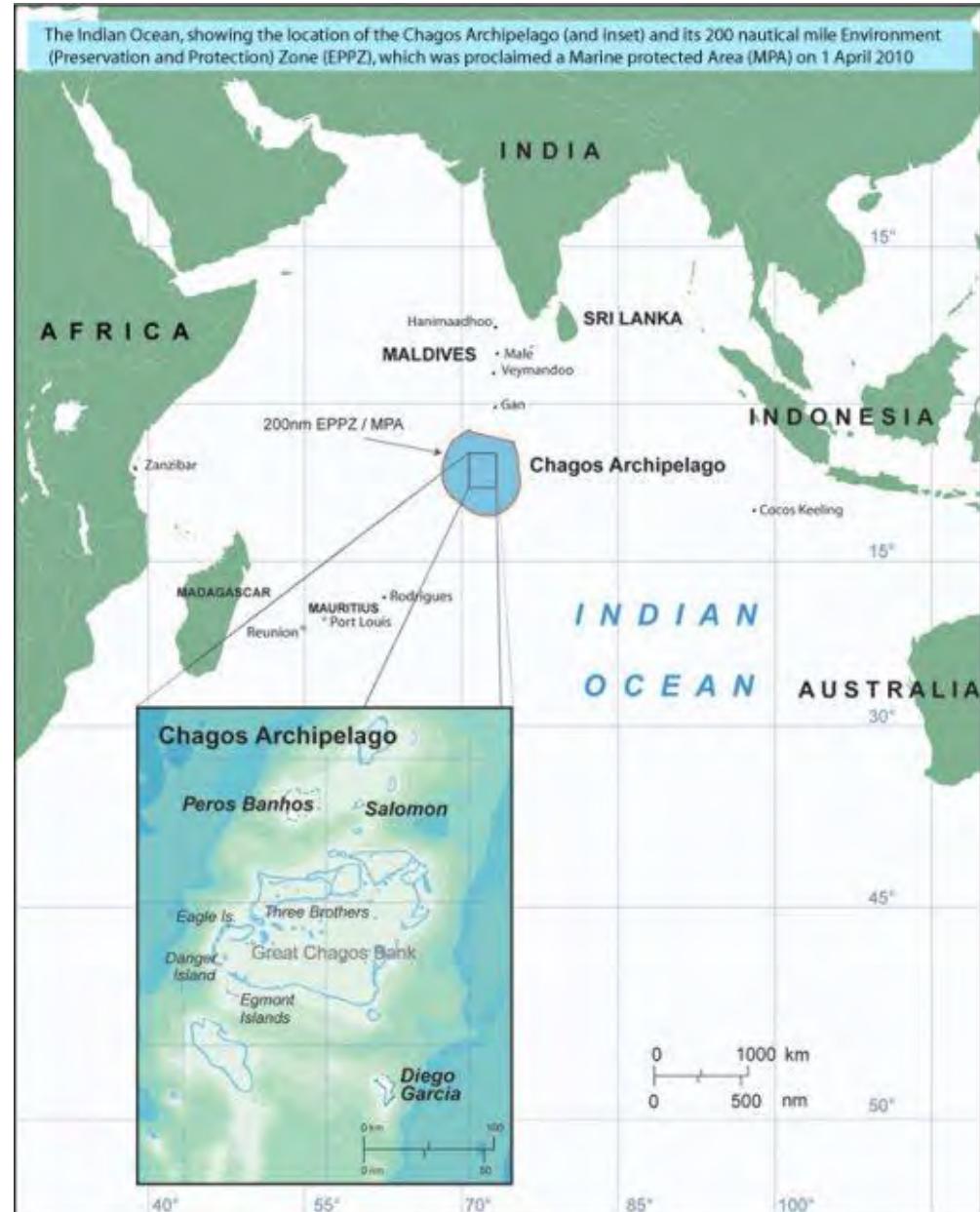
The Chagos archipelago





- Great Chagos Bank – worlds largest living coral atoll

History



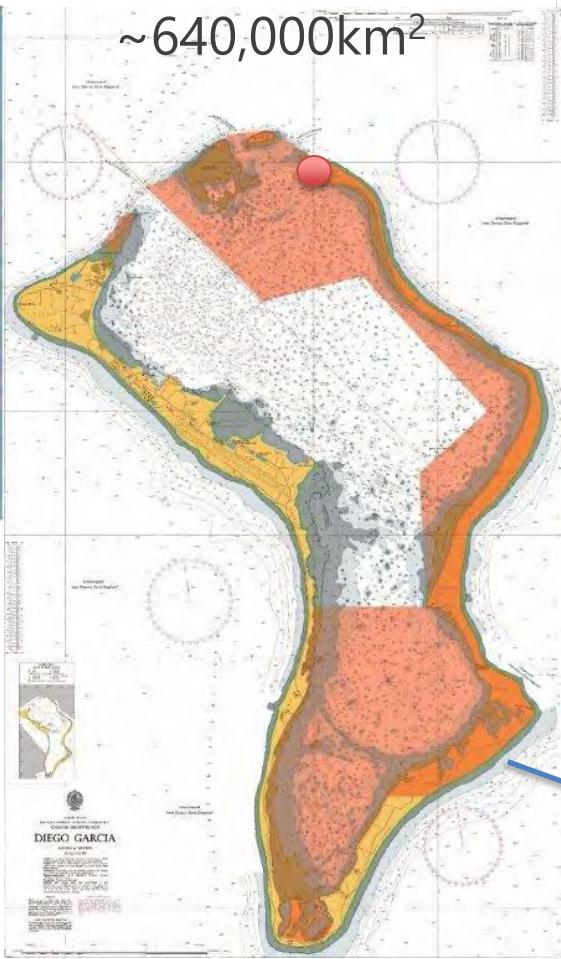


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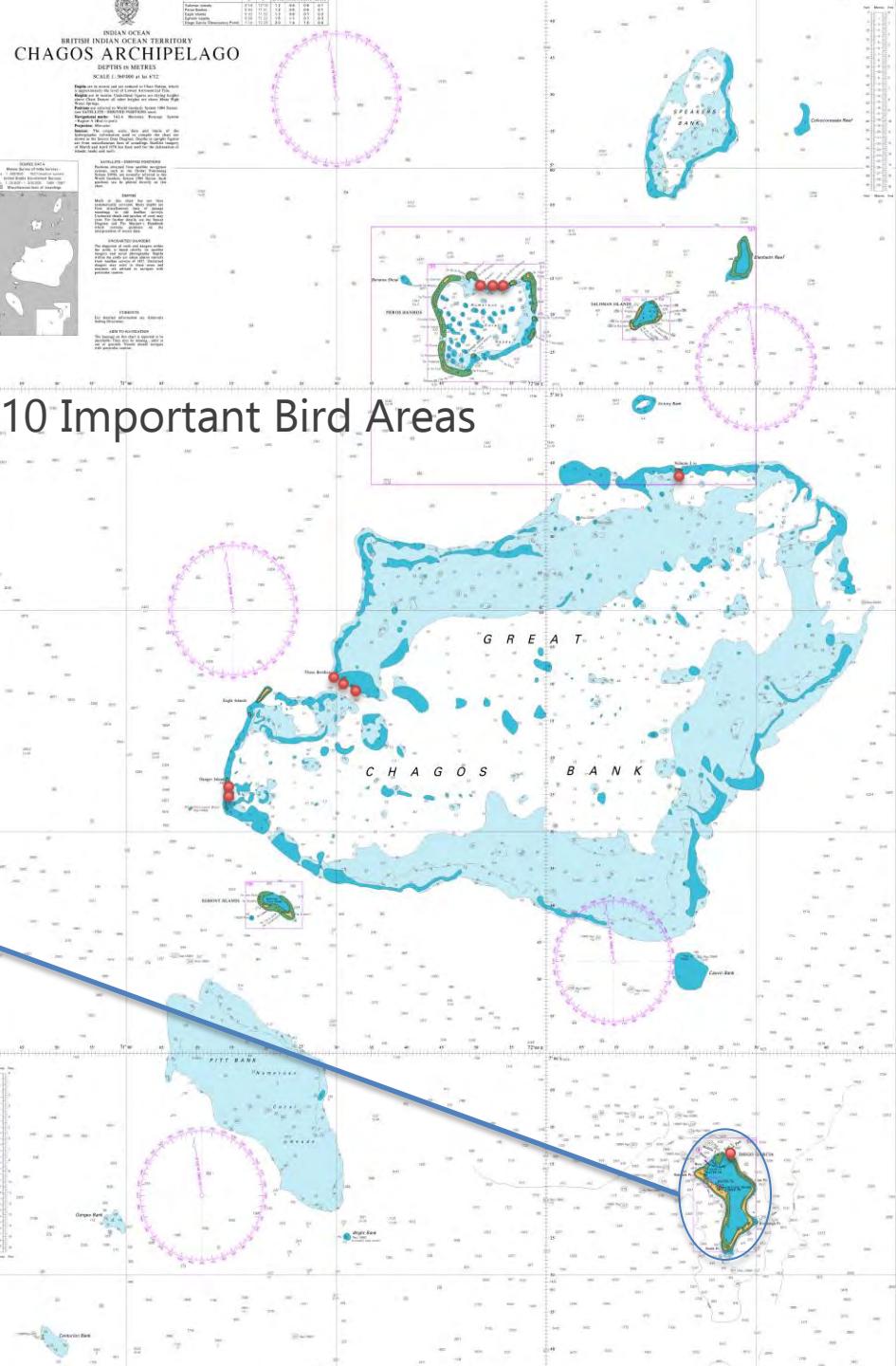
Strict no take MPA

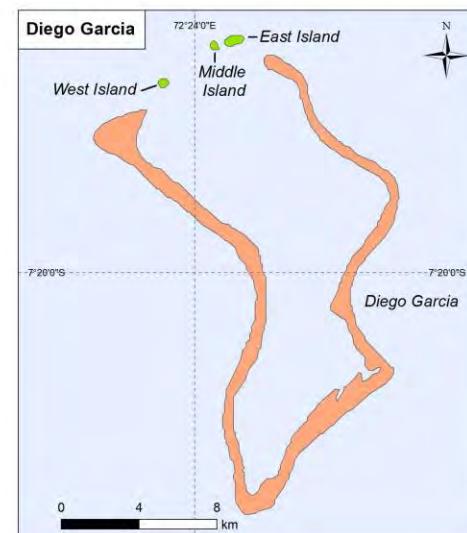
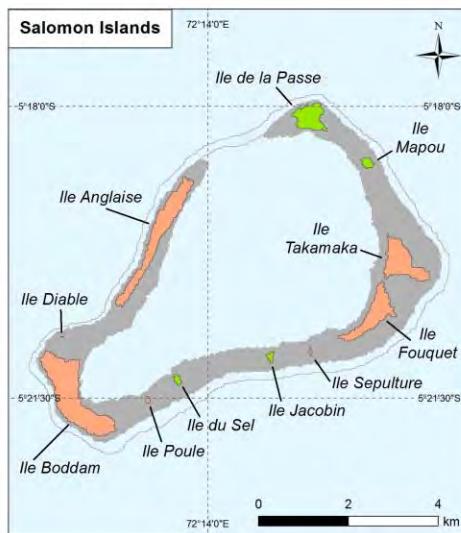
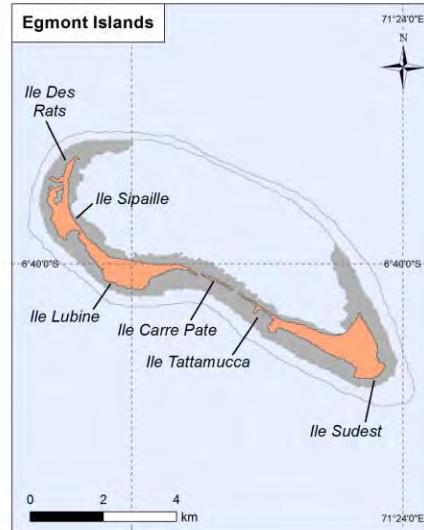
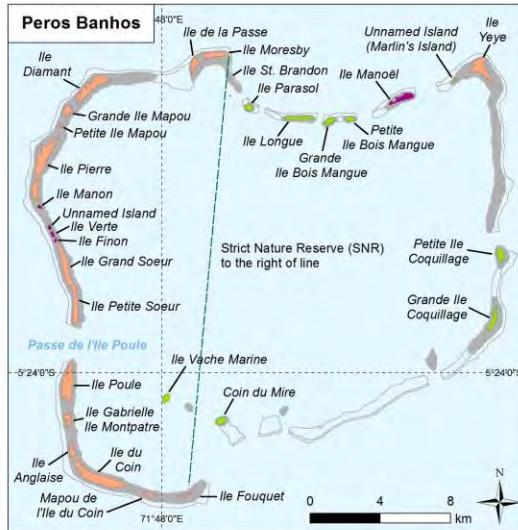
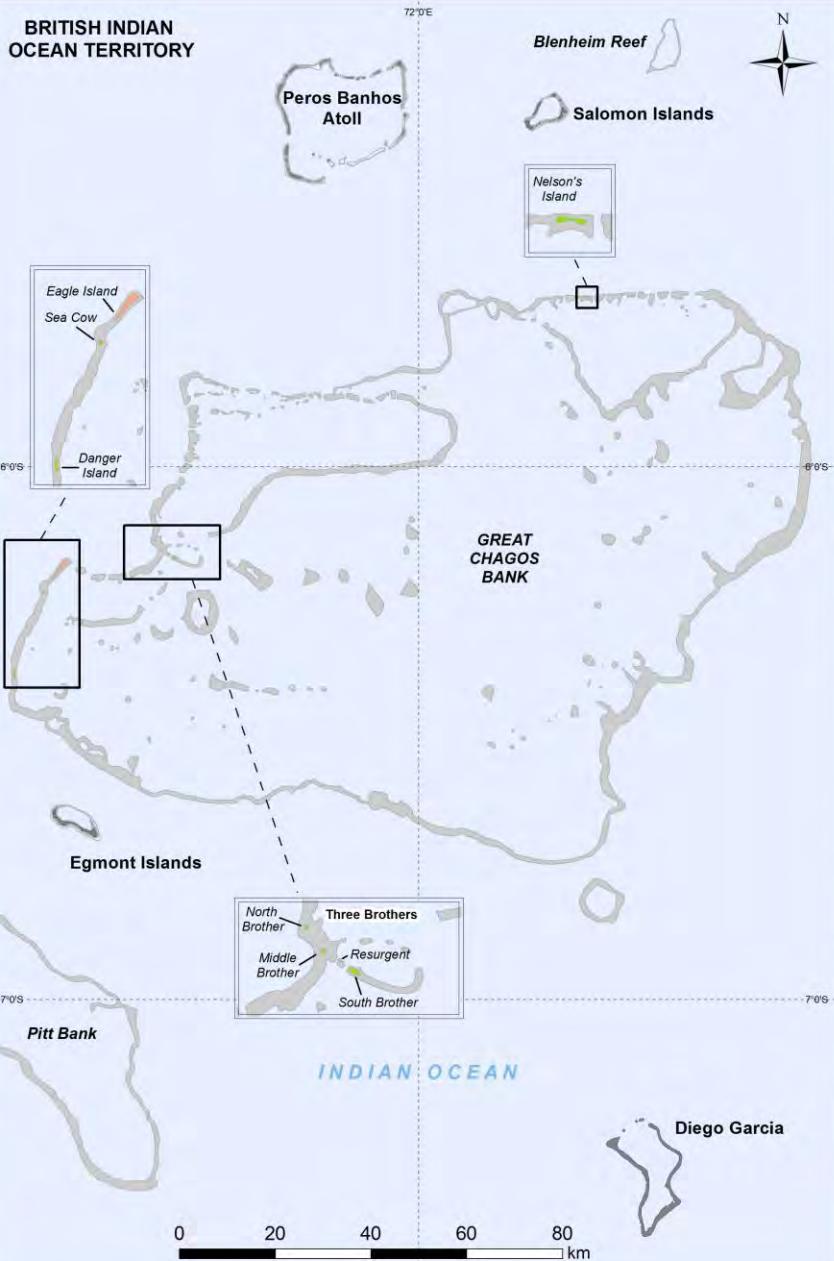


RAMSAR site
2001



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>



Bertarelli Programme in Marine Science

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





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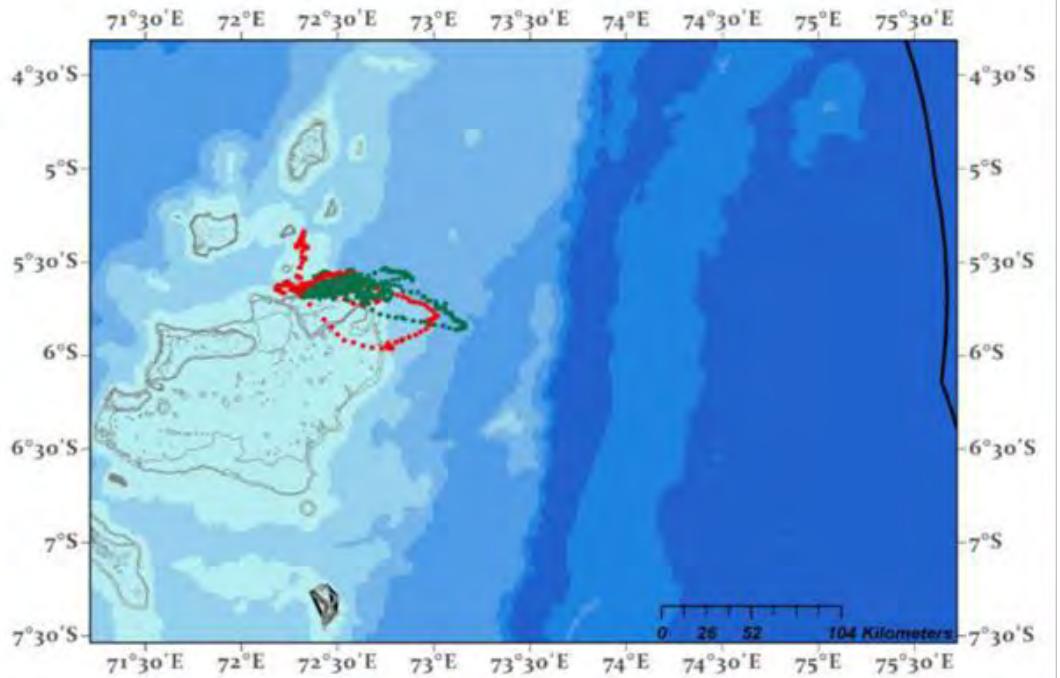
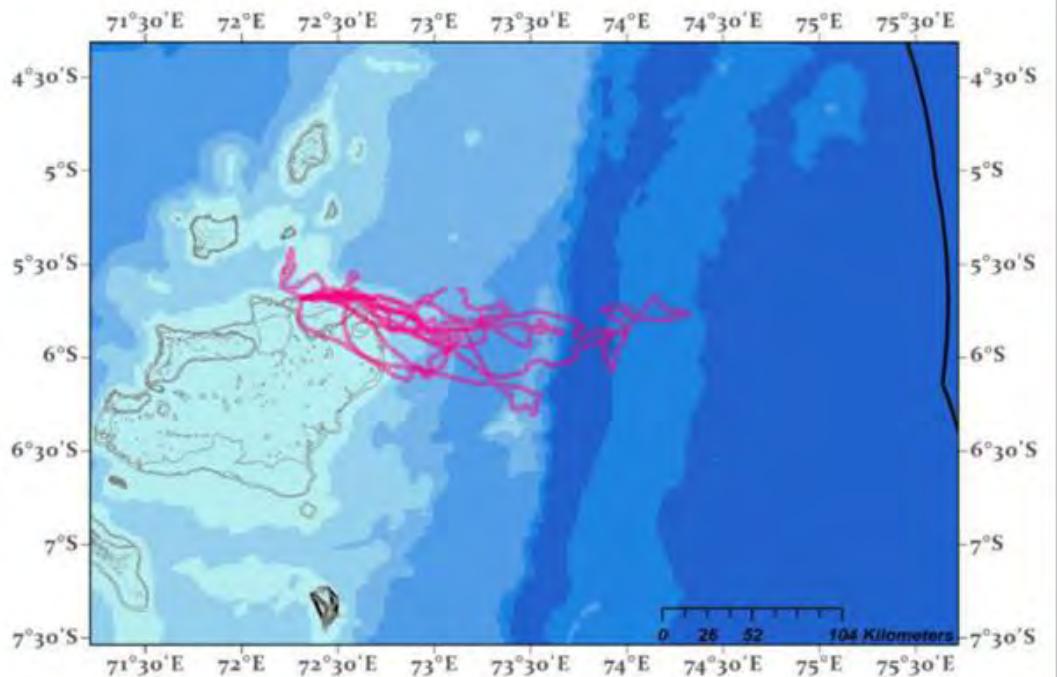
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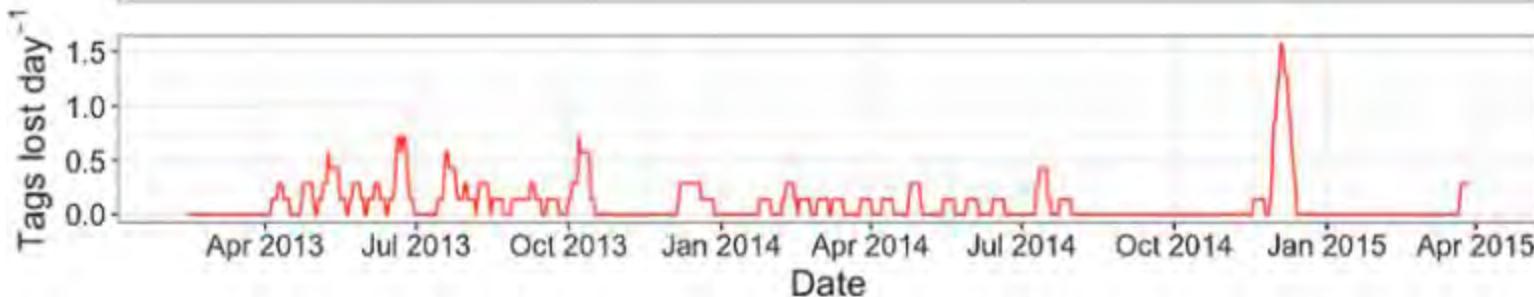
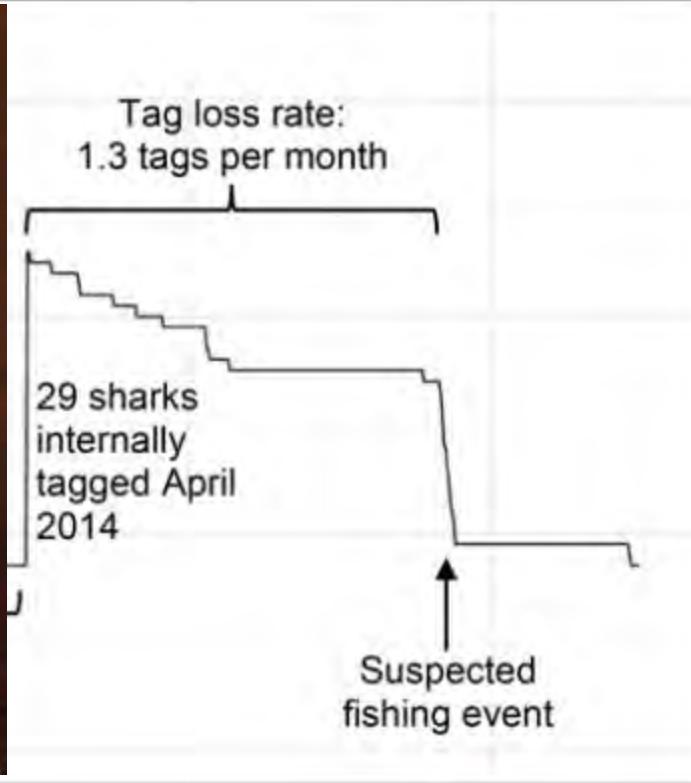
Funders



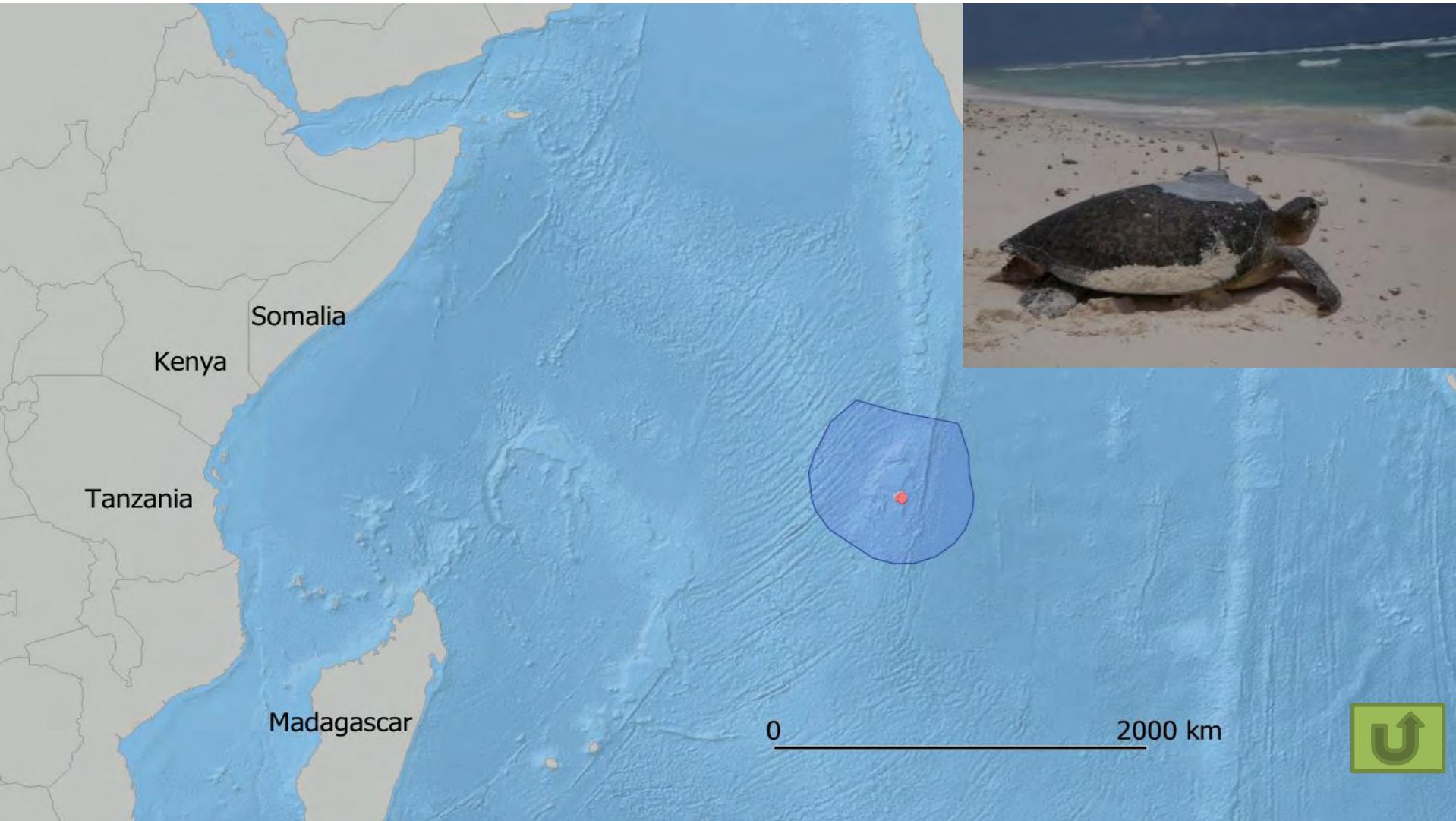
Scientific partners



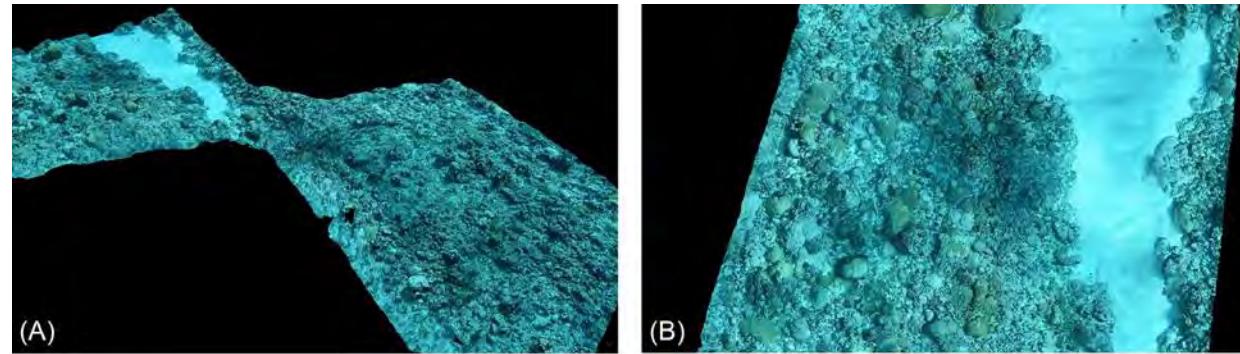




Tickler et al (2019), "Potential detection of illegal fishing by passive acoustic telemetry" in Animal Biotelemetry, CC 4.0

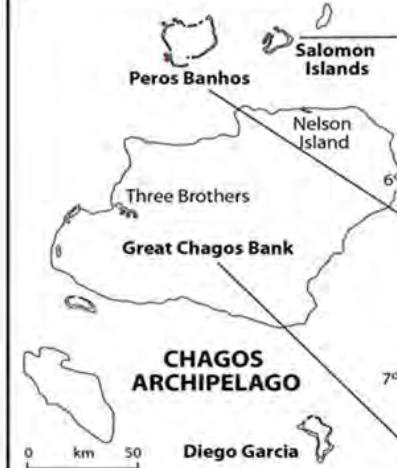


Coral Reefs

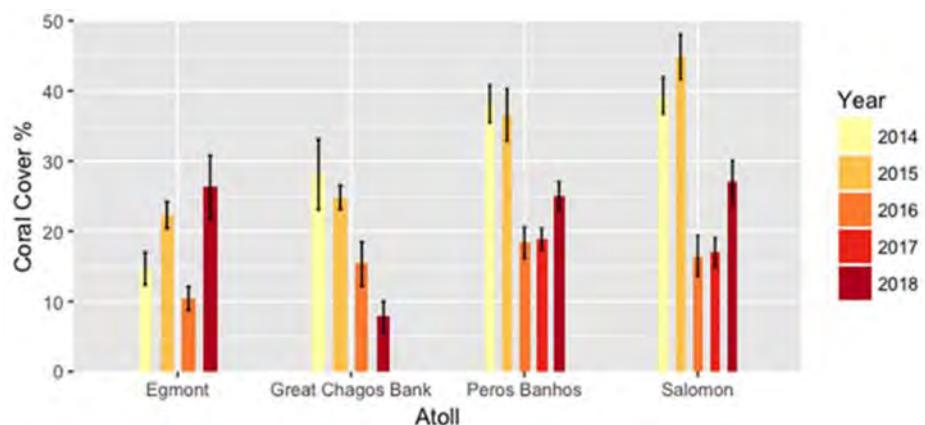
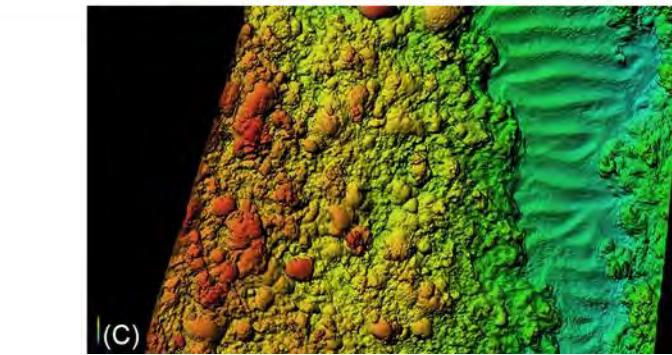
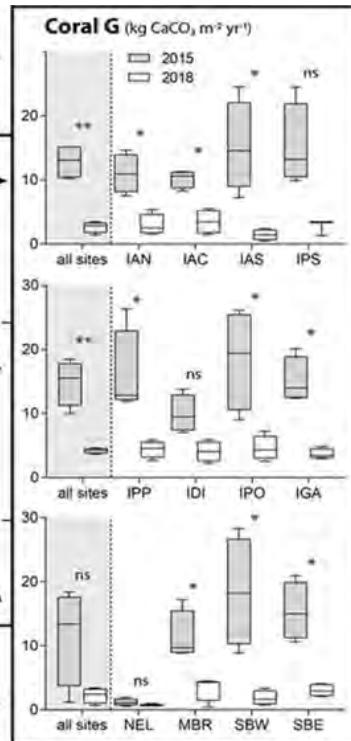


Sites: Salomon:
 IAN Ile Anglaise - North
 IAC Ile Anglaise - Central
 IAS Ile Anglaise - South
 IPS Ile de la Passe

Peros Banhos:
 IPP Ile de la Passe
 IDI Ile Diamante
 IPO Ile Poule
 IGA Ile Gabrielle



Great Chagos Bank:
 NEL Nelson
 MBR Middle Brother
 SBW South Brother - West
 SBE South Brother - East



nature

THE INTERNATIONAL WEEKLY JOURNAL OF SCIENCE

Booby trap

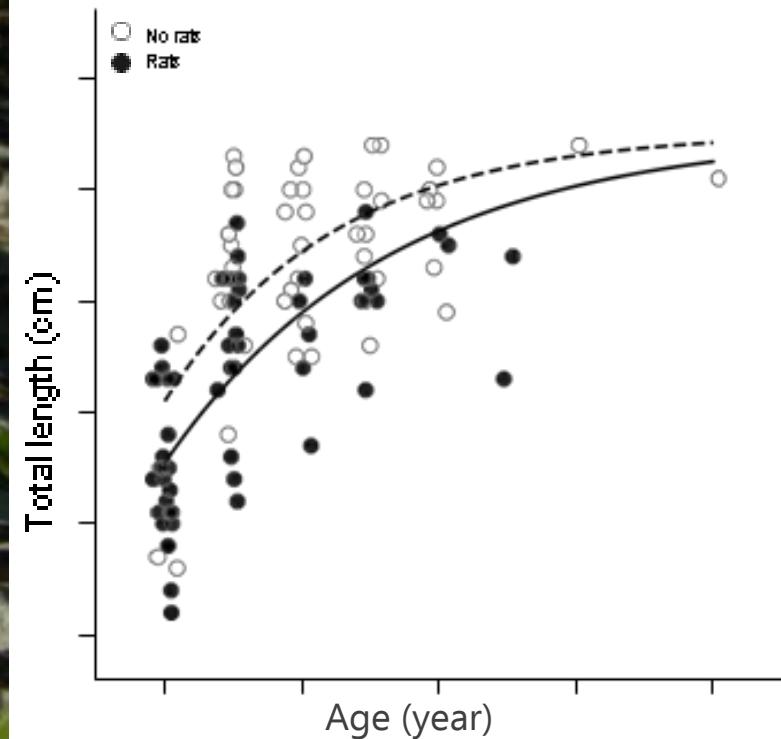
Fall in seabird numbers
driven by rat infestation
harms tropical reef
ecosystem PAGES 190 & 250



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

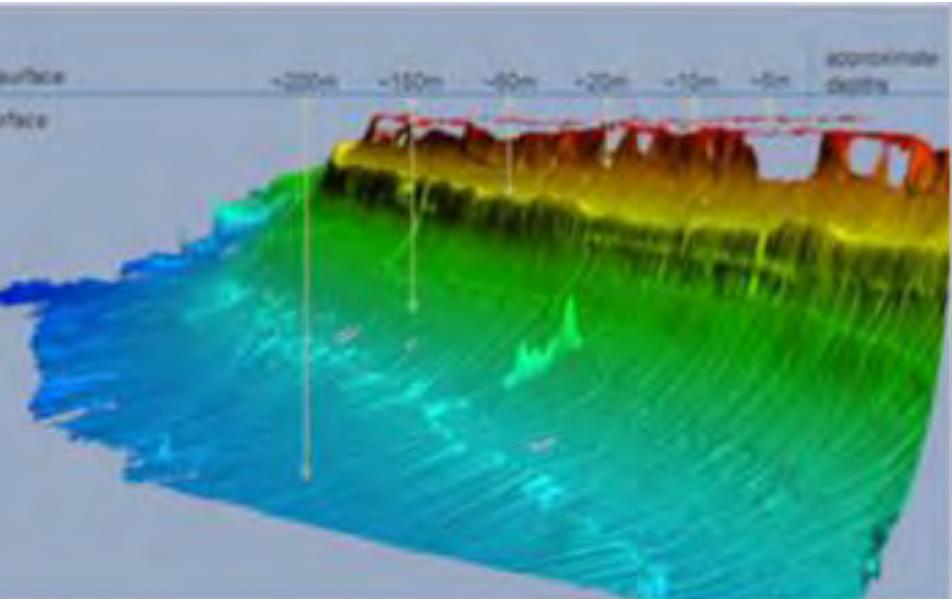
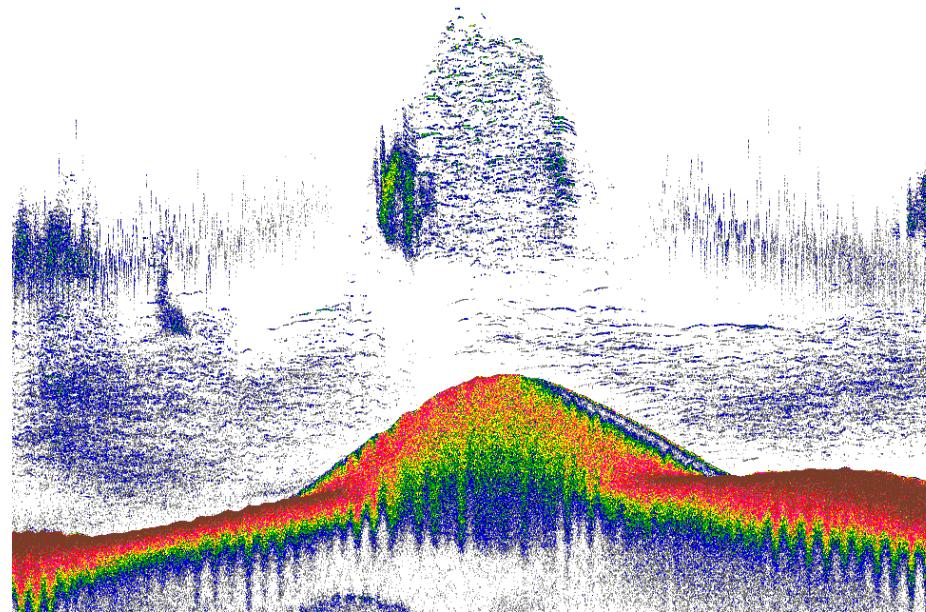


Growth of herbivorous damselfish on coral reefs adjacent to islands with and without rats

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

Marine predators

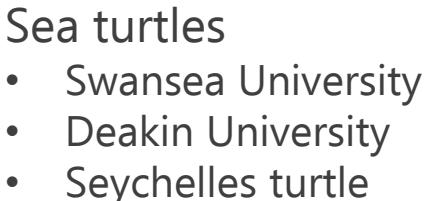
- Stanford University
- ZSL
- Virginia Tech
- Oregon State University

IUU fishing, enforcement and compliance

- Exeter University
- ZSL
- Montpellier University

Seamounts and deep reefs

- Plymouth University
- Manta Trust



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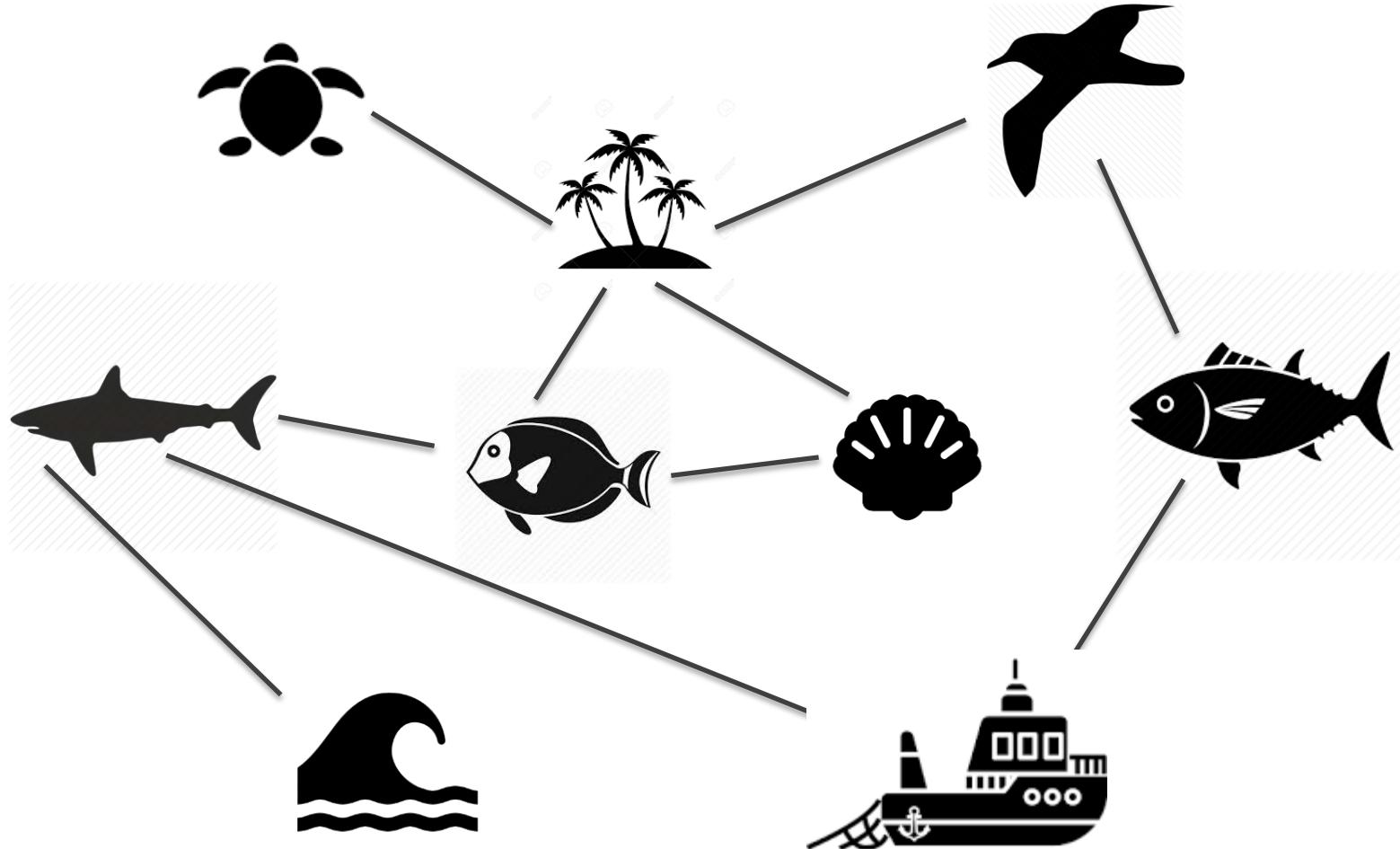
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Logistics



Vessels



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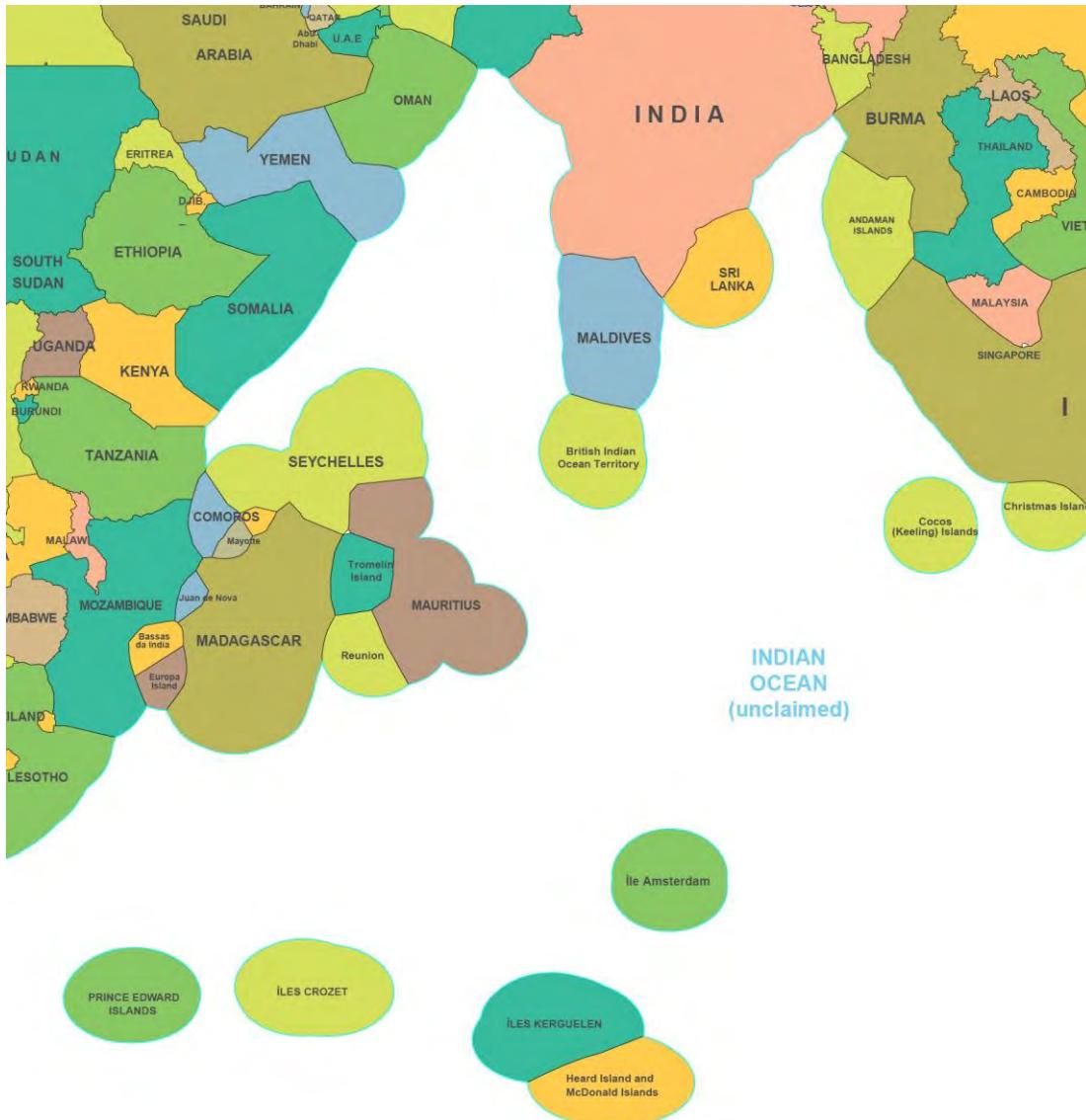


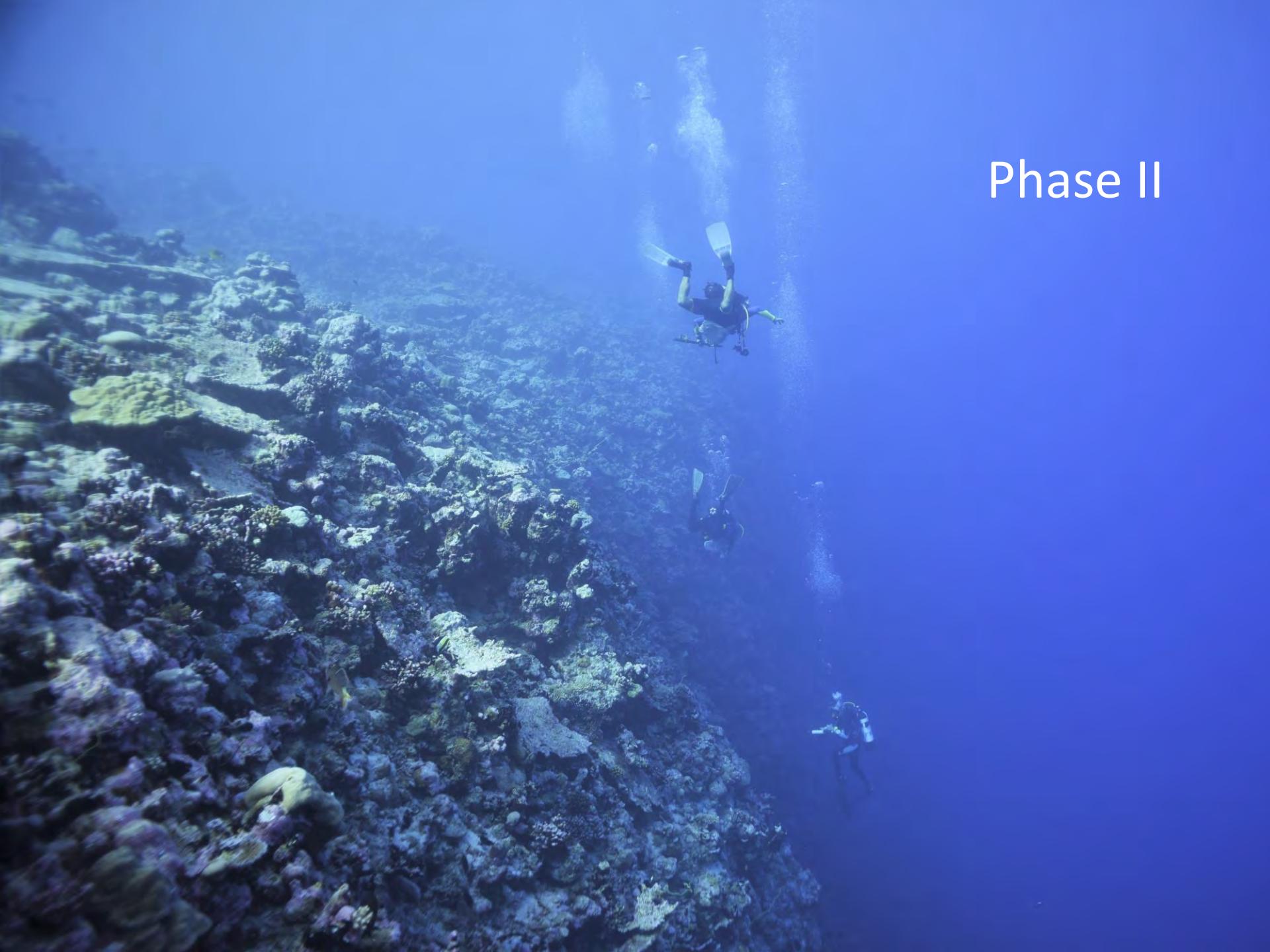
marine.
science

#WCSJ2019



Science for conservation in the real world



A wide-angle underwater photograph showing a large, dense coral reef in the foreground and middle ground. The water is a deep blue. In the upper right, a scuba diver in a black wetsuit and yellow fins swims away from the camera. In the lower right, another diver is partially visible, also swimming away. Sunlight filters down from the surface in bright rays, creating a strong vertical beam that illuminates the water column above the reef.

Phase II

