

Marine Megafauna & Ocean Fronts
Invitation to a working group inception July 25th – July 27th, 2023

CMR Boardroom (2nd Floor)
Ocean Sciences Campus, Nelson Mandela University
Gqeberha (Port Elizabeth) South Africa
(Online participation possible)

Purpose of the workshop:

- To explore ocean fronts in the Western Indian Ocean as drivers of species distribution patterns that may affect feeding and migratory behaviors of megafauna (seabirds, whales, whale sharks and sea turtles).
- Create a network of collaborators from a range of disciplines, including oceanographers, ecologists, and geneticists, working in the region.

During the workshop we will:

- Introduce the work of the scientists in the region;
- Be introduced to the FSLE ocean front index from satellite data from the last 20 years for the Mozambique Channel, and explore how individual data sets can be matched to data for any taxa from that period.
- Explore different approaches to modeling 'frontiness' (probability of fronts over time) with GAM and other spp distribution models. If anyone has data on fishing, we can match that up to fronts too.
- Consider whether eDNA/DNA can be matched to fronts. (This has the potential for rapid data collection in areas with no history of physical tagging.)

Proposed Program

July 25th

Presentations by ecologists/biologists/geneticists
Followed by discussion on “burning” questions

July 26th

Presentations by oceanographers and data modellers
Discussion on potential solutions to burning questions

July 27th

Working session

Review of discussions and progress
From climate data to spatial format
Basic data manipulation of spatial objects (R)
Q&A and “One on One” (with students)

RSVP to Ronel Nel (Ronel.Nel@Mandela.ac.za) or Isaac Brito (ibrito@conservation.org) or Olivier Bousquet (olivier.bousquet@meteo.fr) by **20 July 2023**.

Please indicate:

- If you will participate **in person** or **online**.
- If you are willing to do a short (10 min max) presentation to introduce your research.