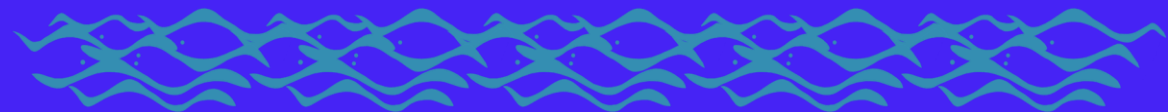


WIO-BENTH

A project to map benthic habitats and communities in the WIO

Sean Fennessy and Bernadine Everett
Oceanographic Research Institute (ORI)
Durban, South Africa

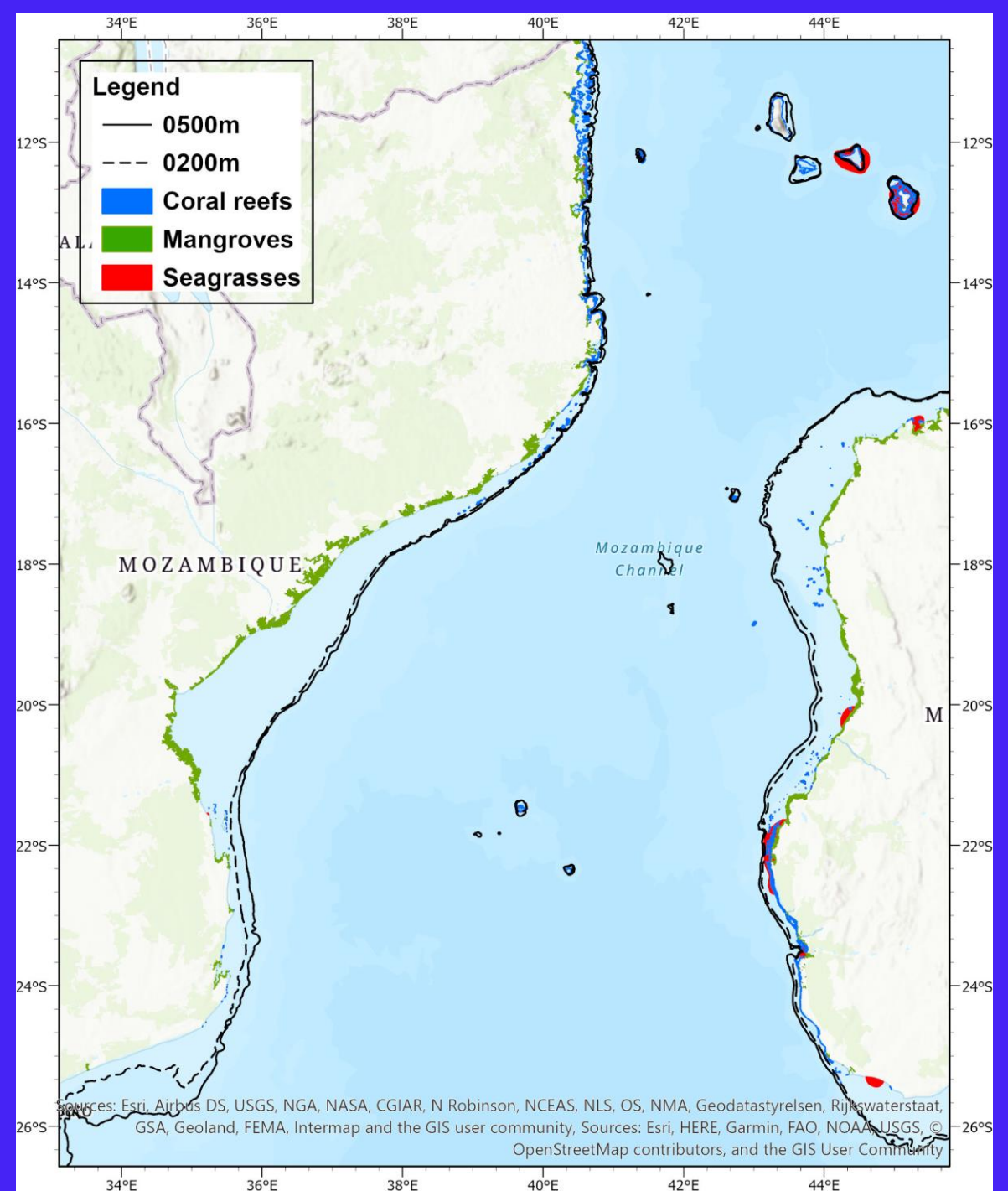


Background

Marine habitat mapping - maps of important habitats + communities, + identifying critical areas for conservation

Most areas of WIO shelf/slope are unknown; mainly soft sediment

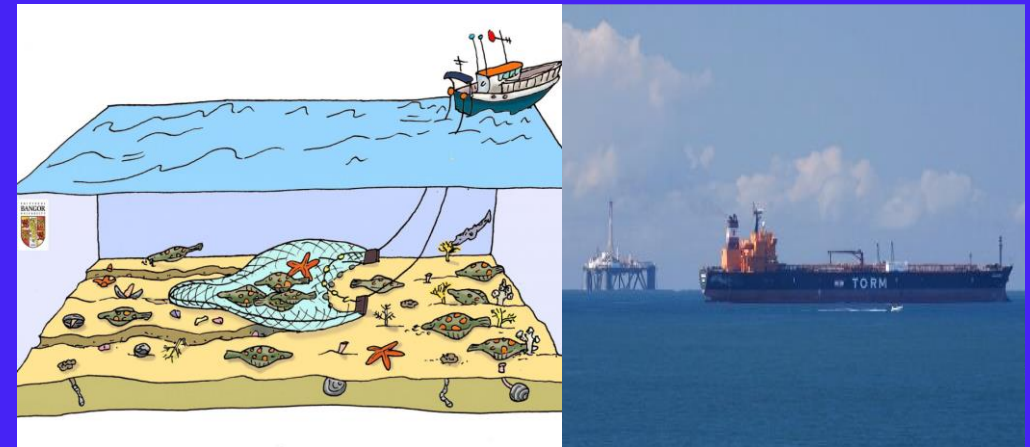
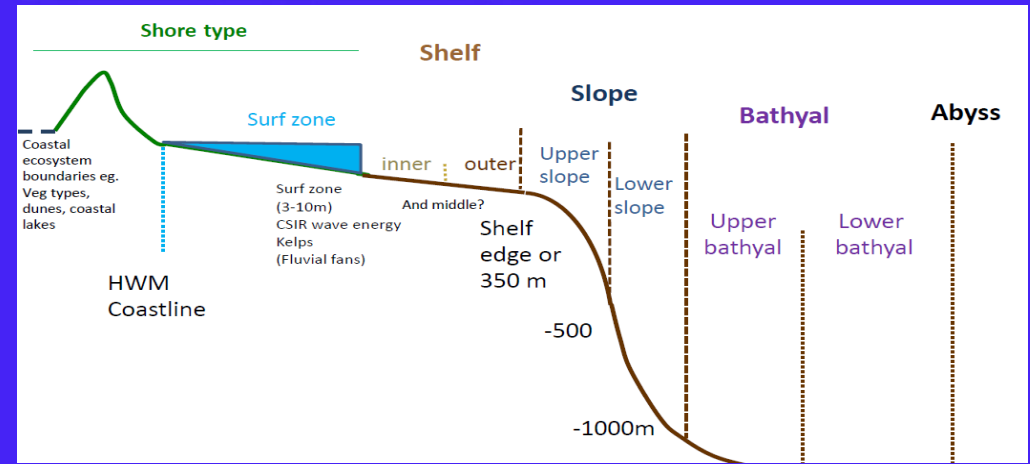
But, soft sediments vary considerably, and their benthic communities also vary



This lack of knowledge of vulnerable offshore habitats in the region is hampering MSP

Relative to their extent, offshore WIO habitats receive the least amount of protection

Decision-makers not equipped to assess trade-offs between utilisation of non/renewable resources, and biodiversity conservation



Research questions

- What seabed types comprise the shelf and upper slope of the WIO?
- What benthic communities are associated with these areas?
- What are the biotopes in these areas?
- Are there areas that are vulnerable to anthropogenic impacts?

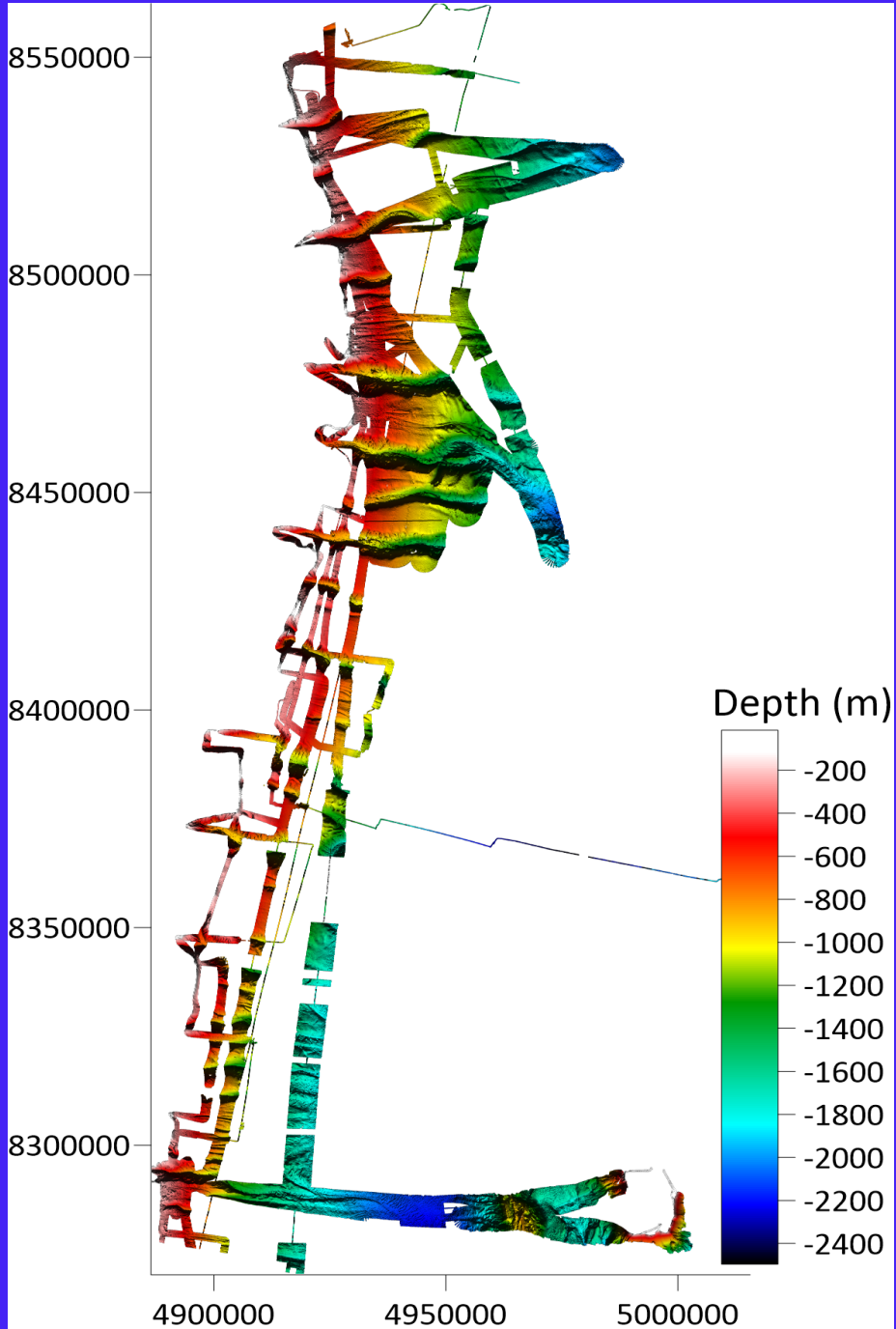


Methods etc

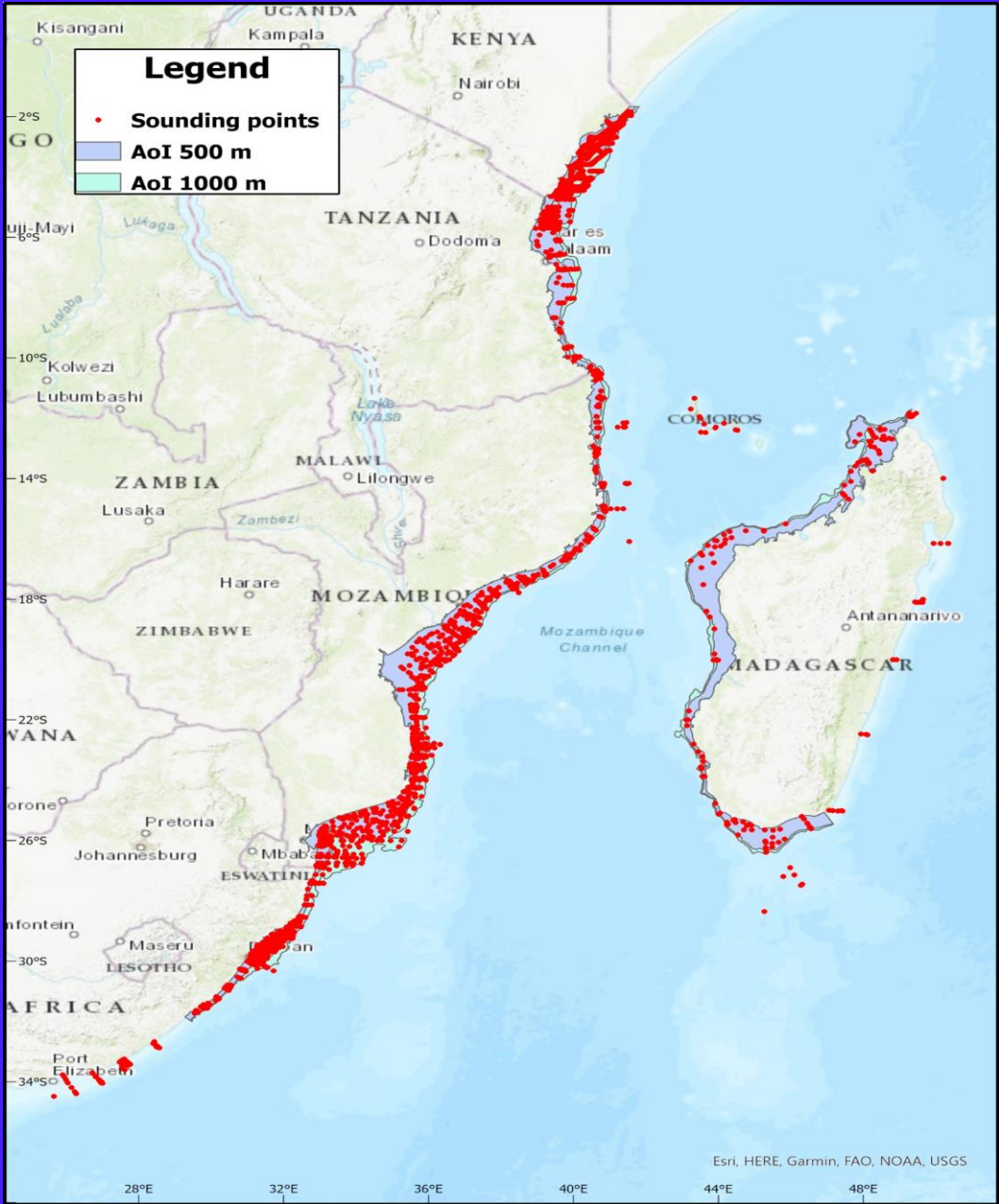
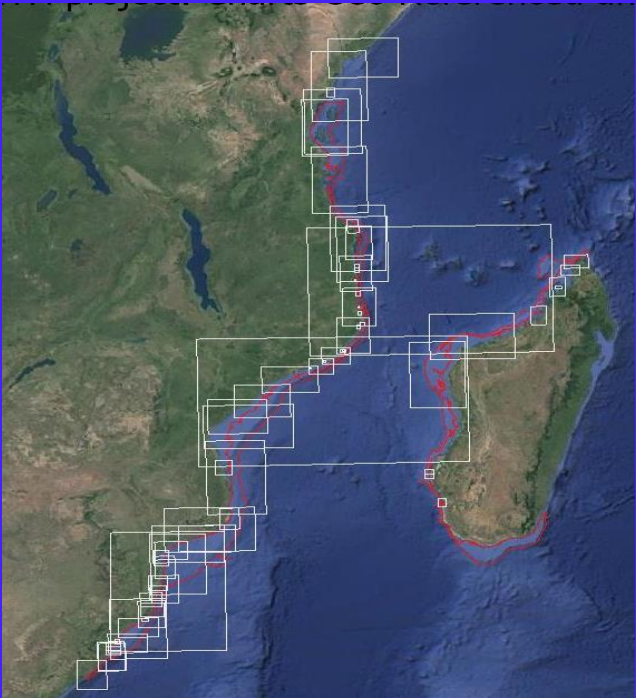
- **No sampling - analyses + interpretations of existing data**
- **Focus on shelf and upper slope areas**
 - **Limited surveys of deeper areas**
 - **Surveys with - acoustics**
 - **CTD**
 - **Trawls, grabs**



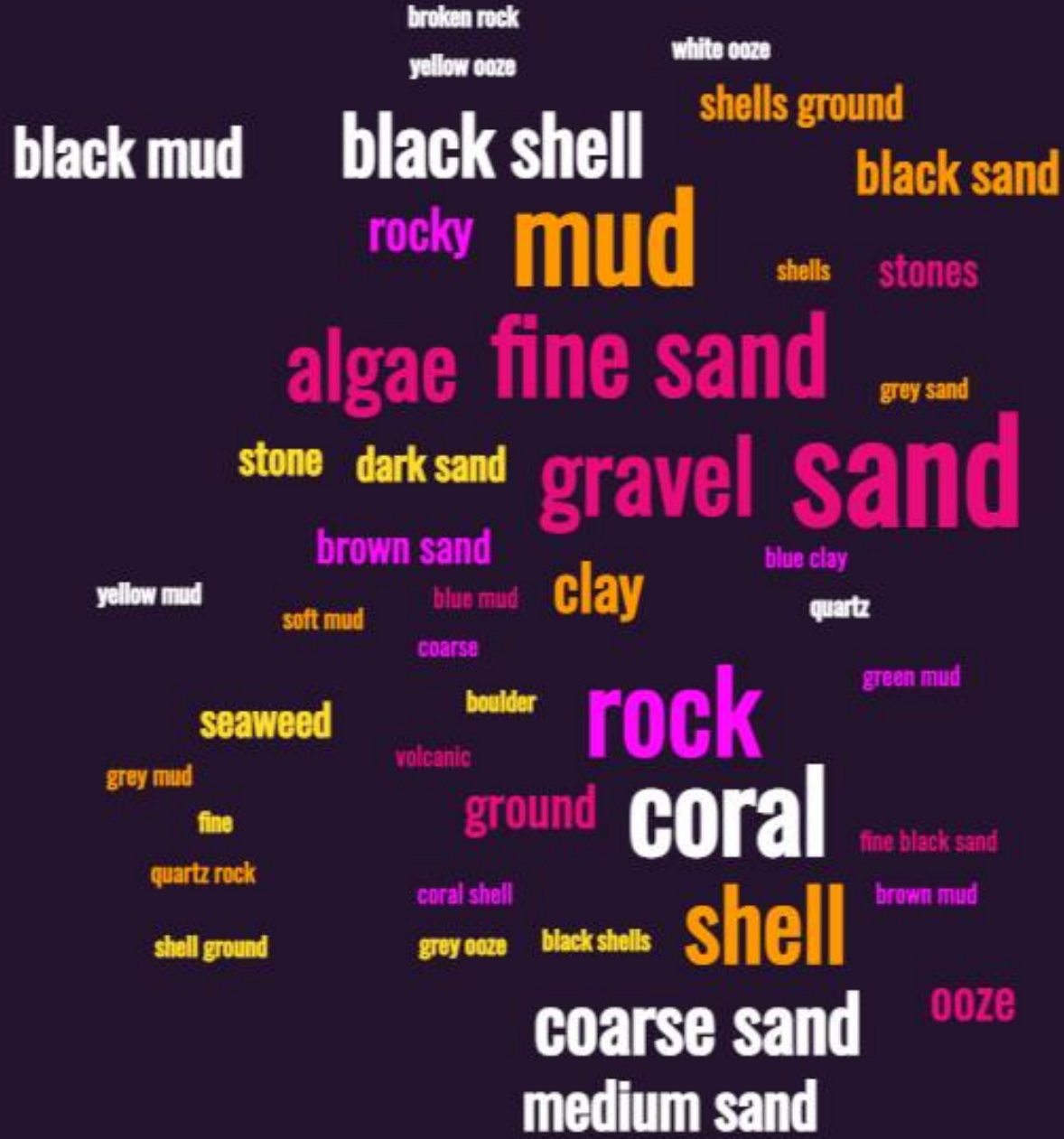
Seabed habitat



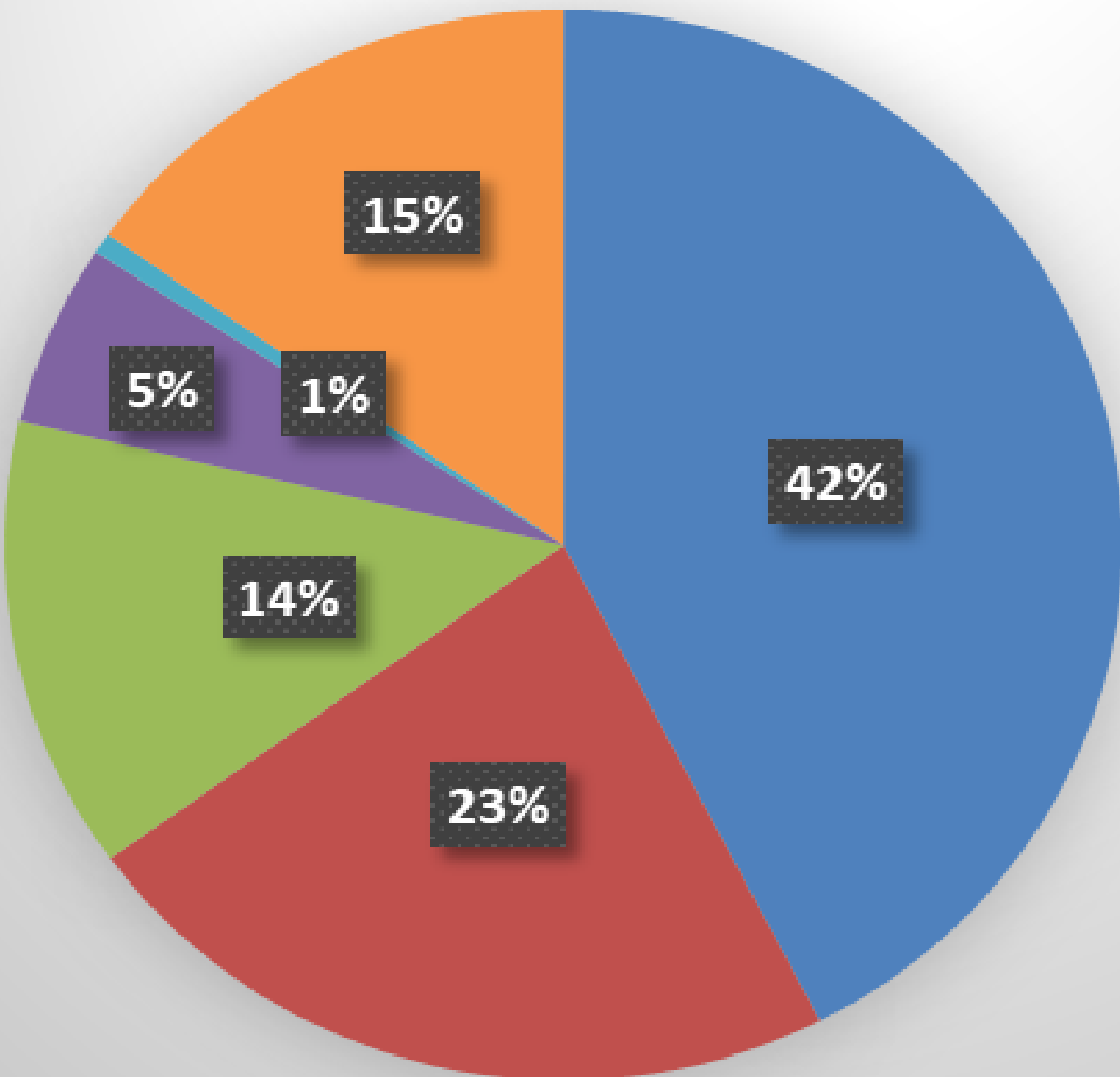
Seabed habitat



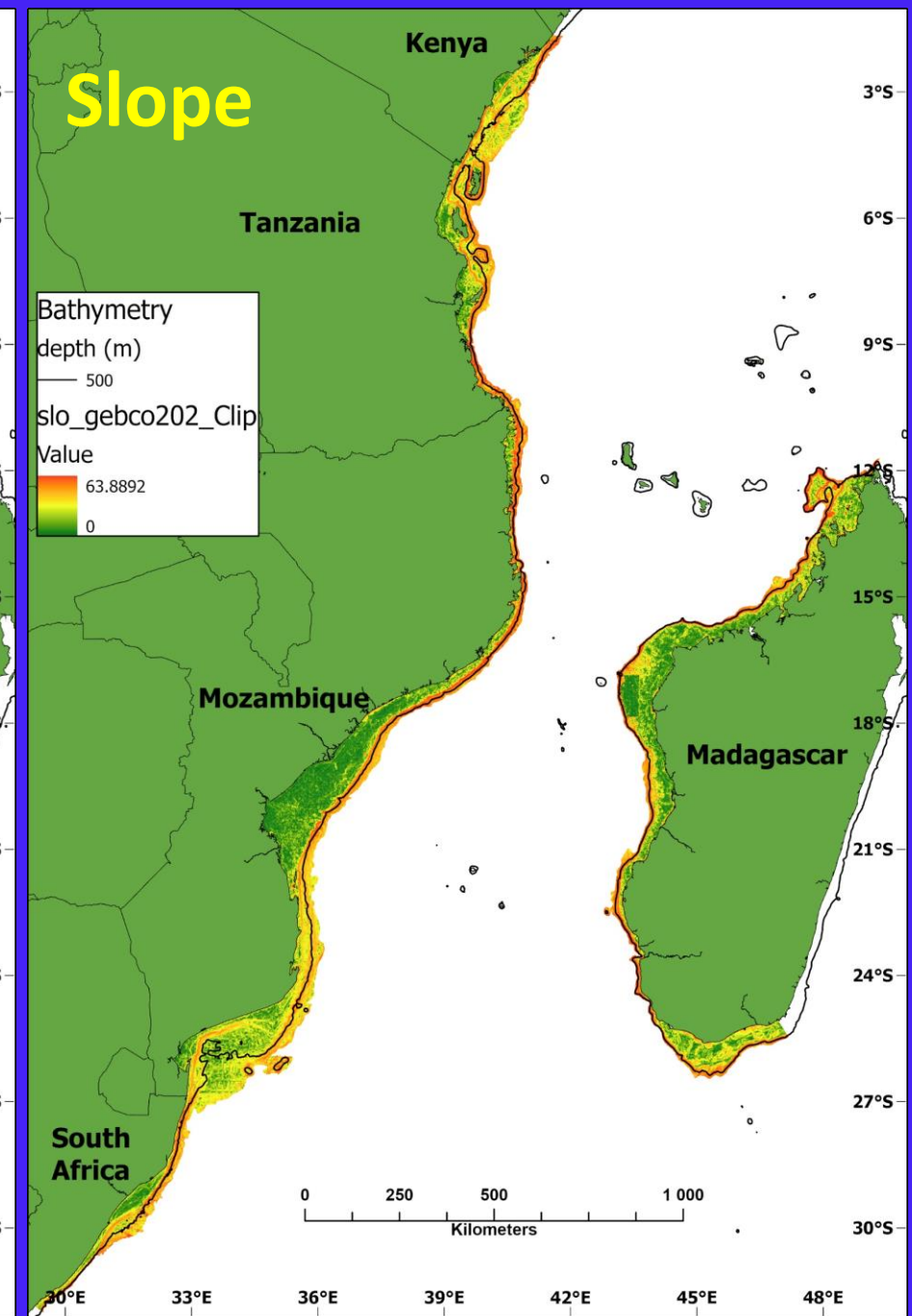
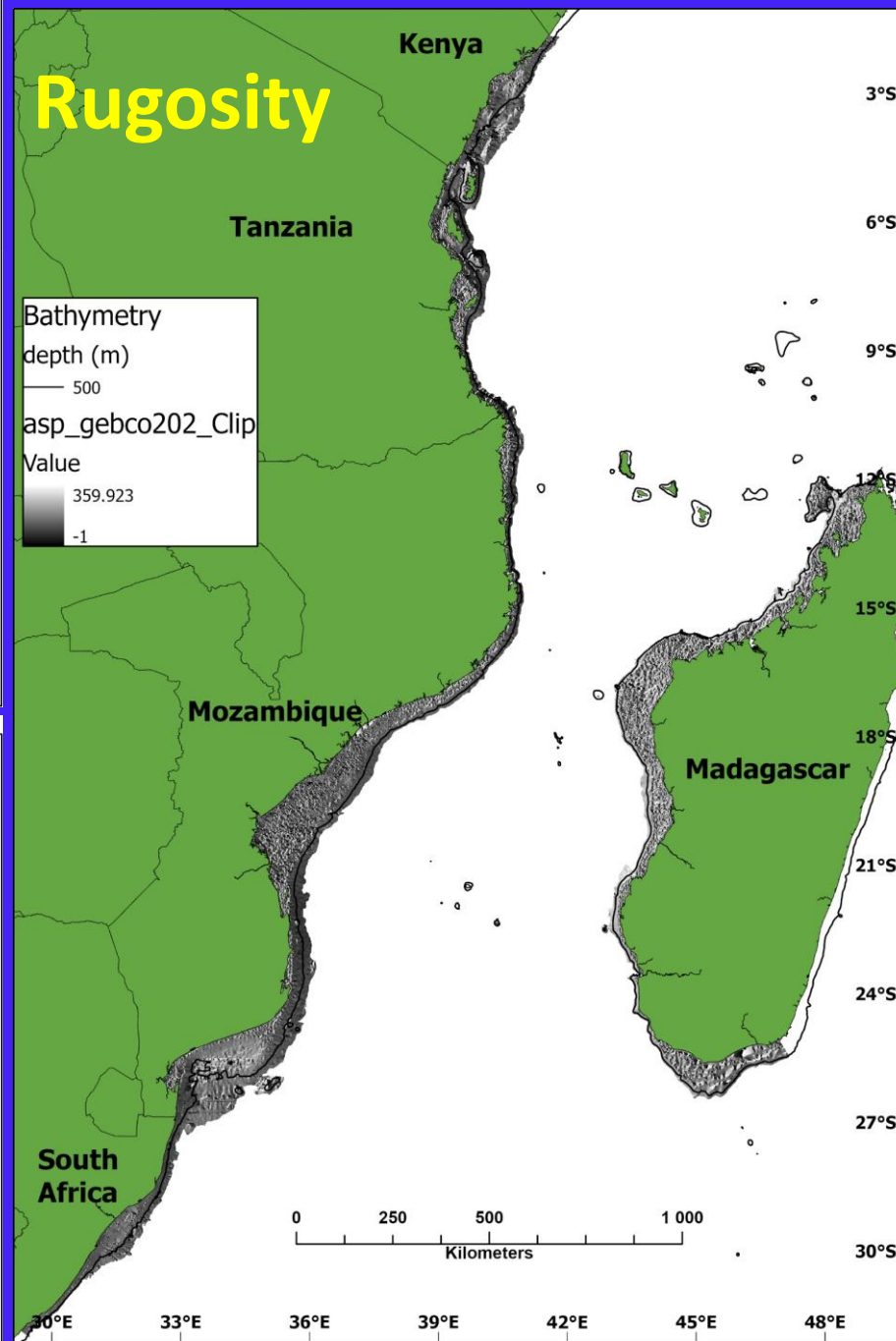
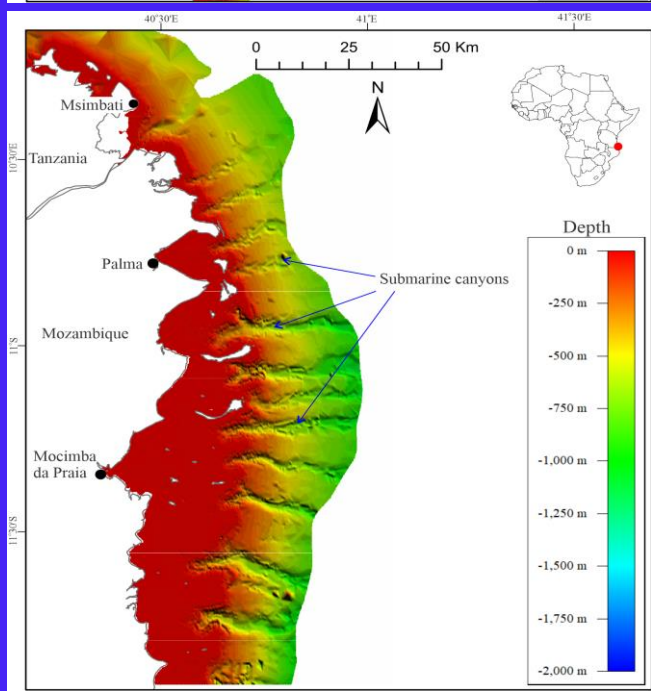
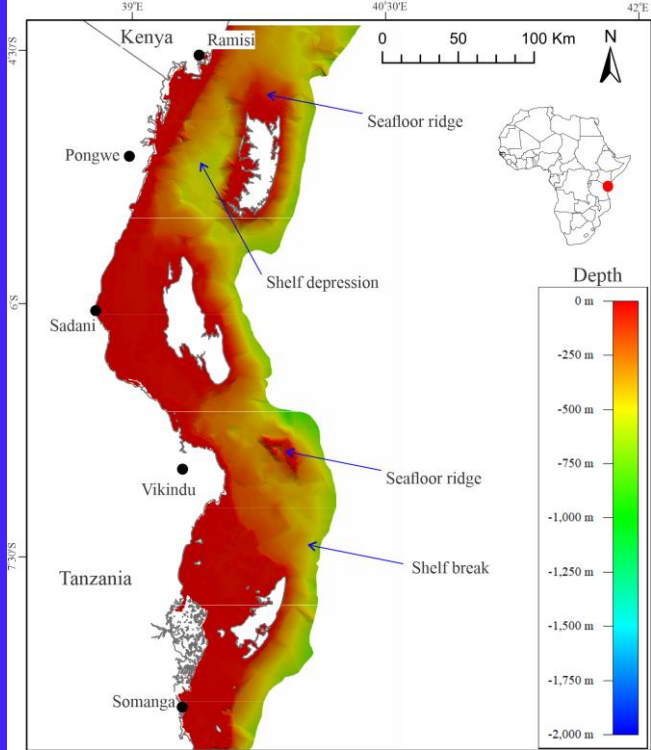
Seabed habitat



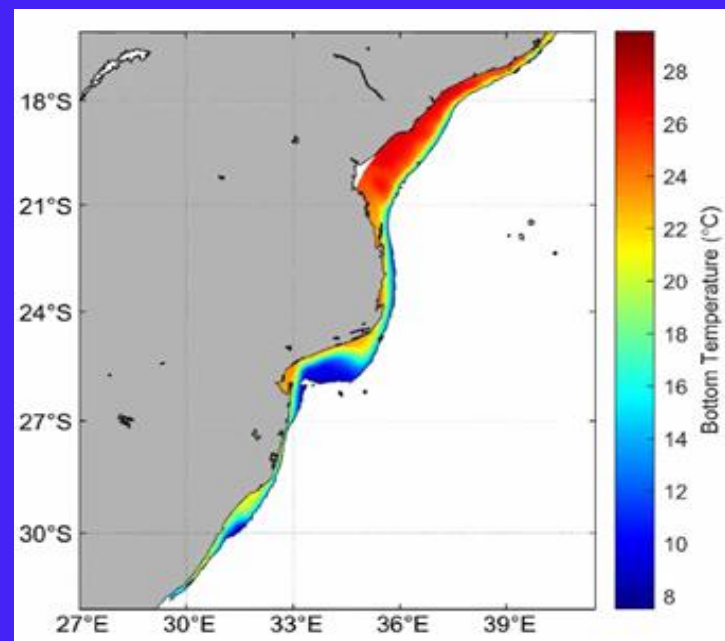
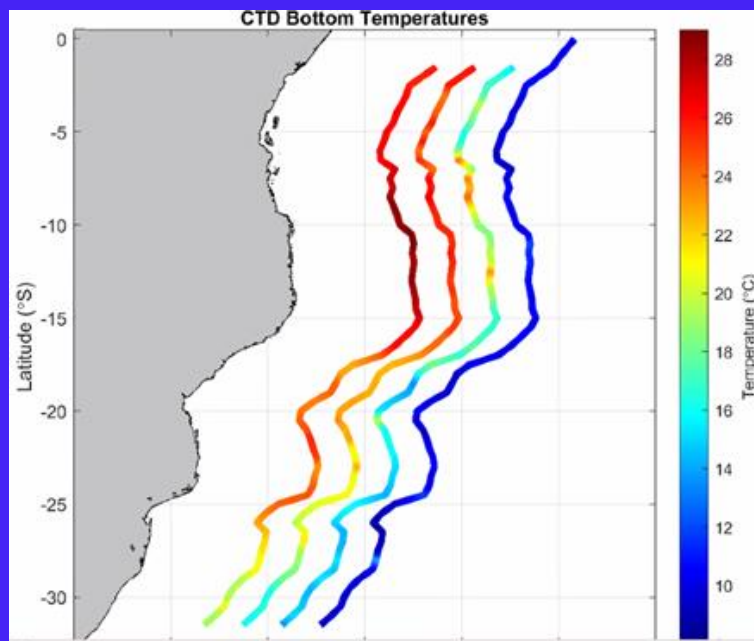
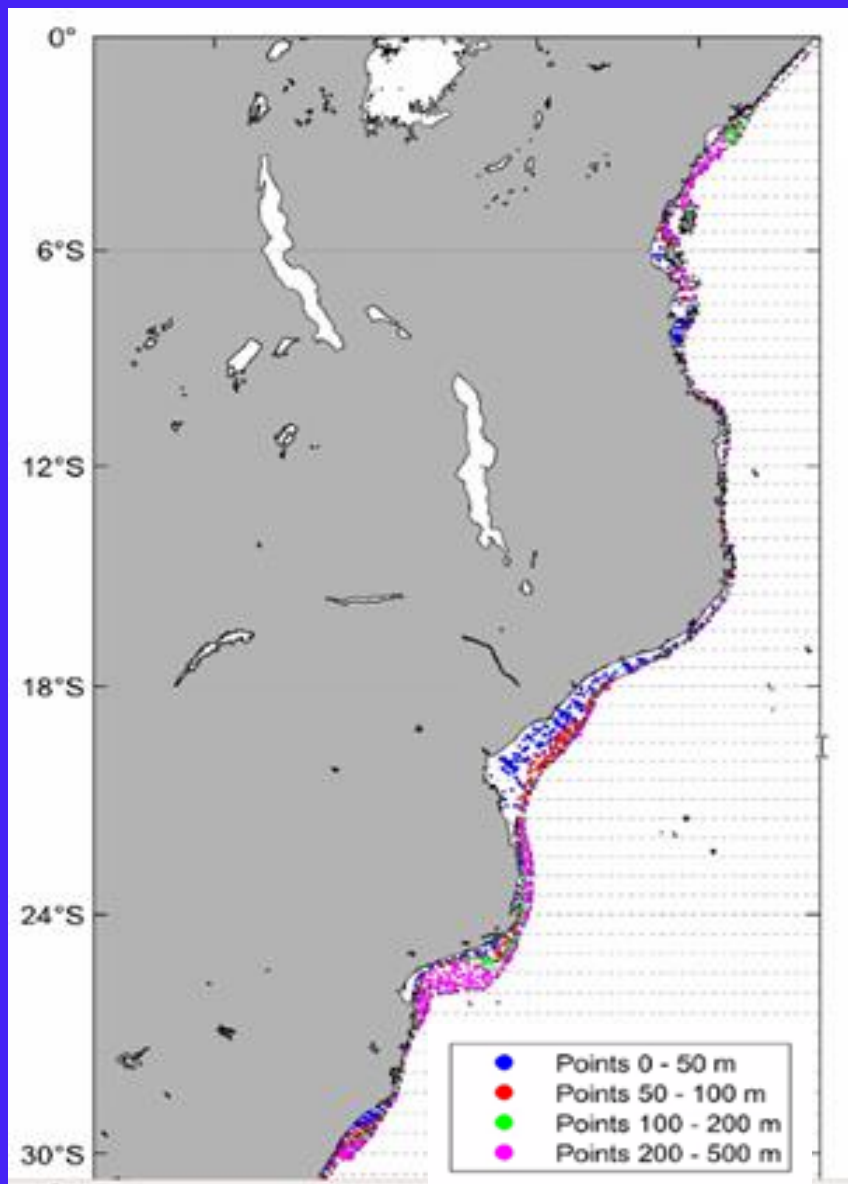
Seabed habitat



- Sand
- Rock
- Mud
- Coral
- Shell
- Mixed

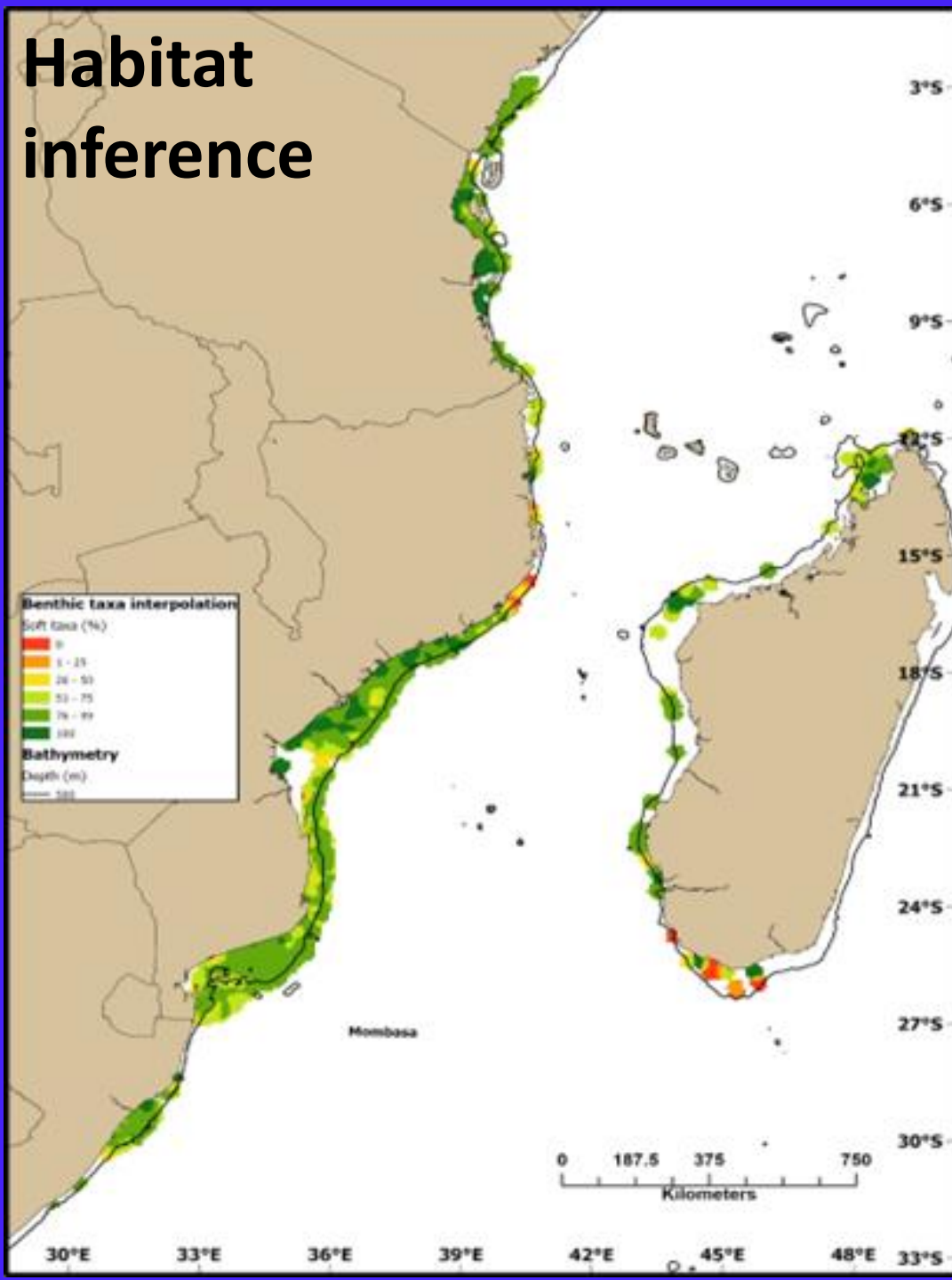


Oceanography

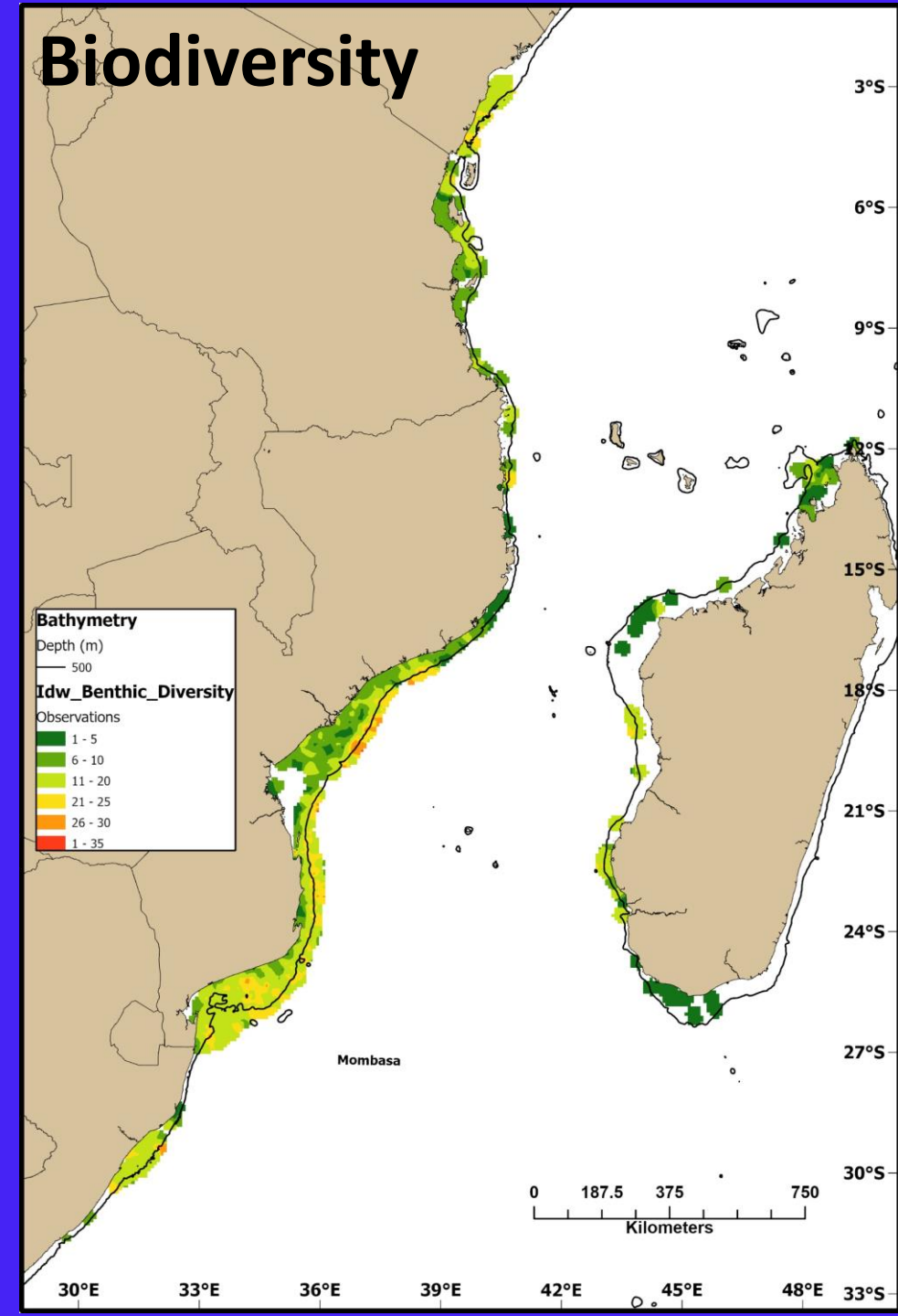


Benthic fauna

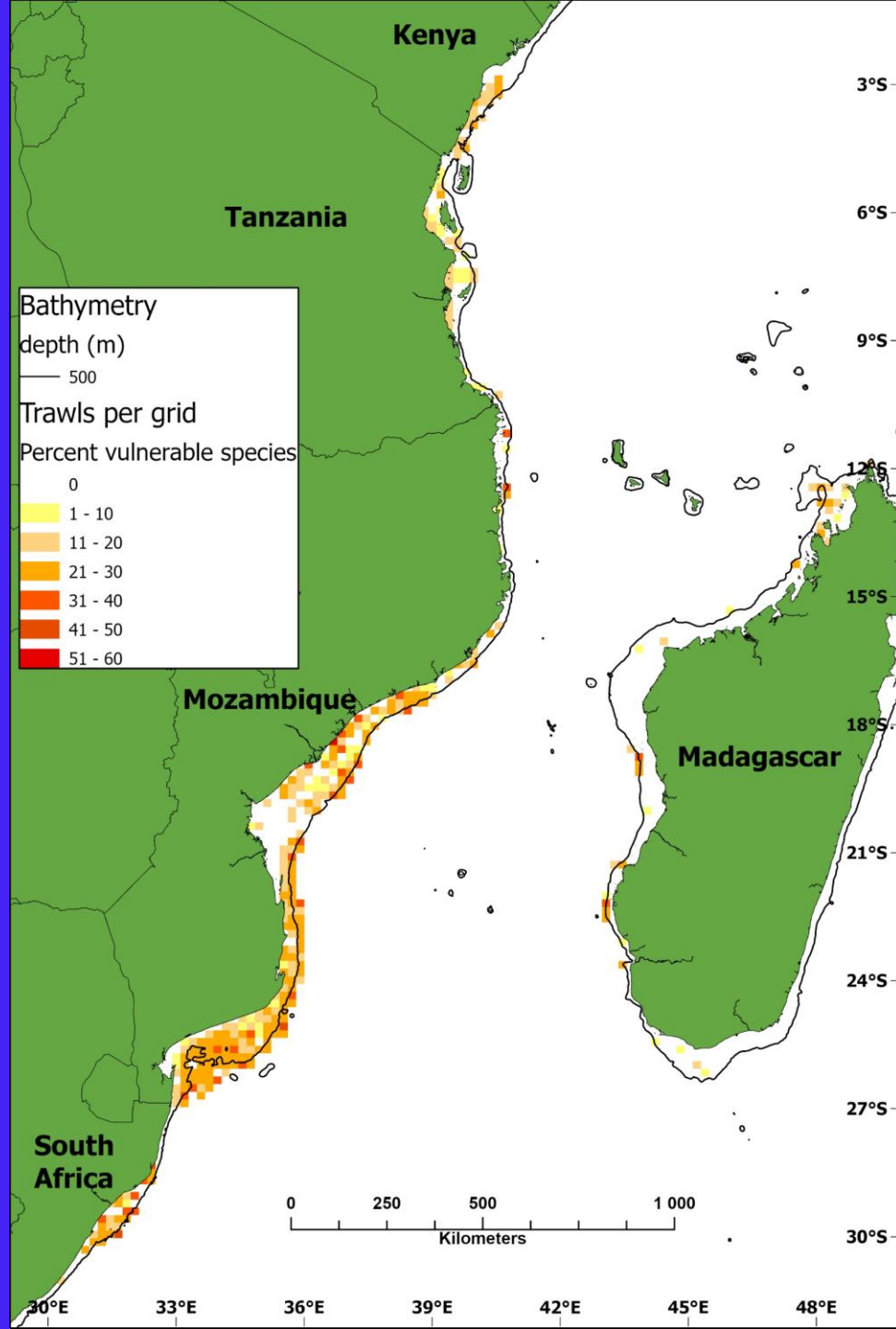
Habitat inference



Biodiversity



Benthic fauna



Vulnerability

- initial trial based on species mobility
- other life history characteristics to be added

Overarching theme

- **Anticipated that there are large amounts of existing data available for the WIO**
- **... collected at great expense, particularly if ship-based**
- **Many of these data were not well inventorized, organized, cleaned, validated**
- **Accessing these data can be problematic**

Next steps

- **Finalize spatial data consolidation**
- **Spatial data analysis and species distribution modelling**
- **Compilation of spatial products**
- **Serve to Nairobi Convention, publish**

Thank you for your attention

