Applying Systematic Conservation Planning techniques to prioritise conservation areas for turtles

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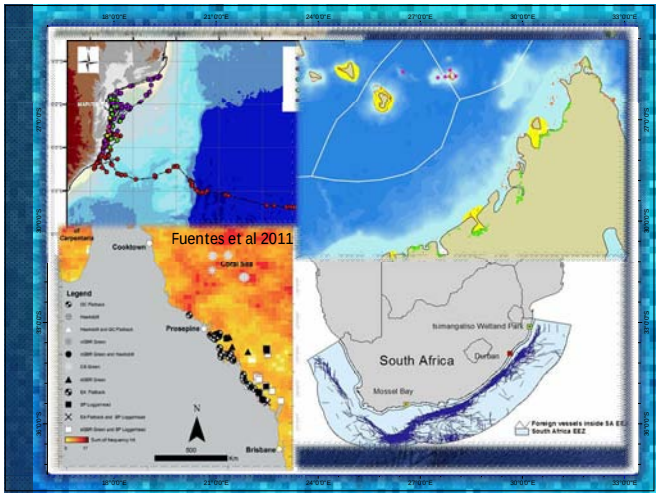
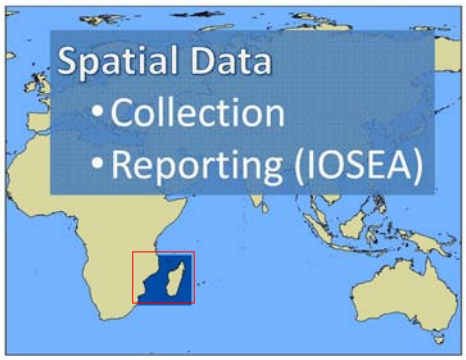
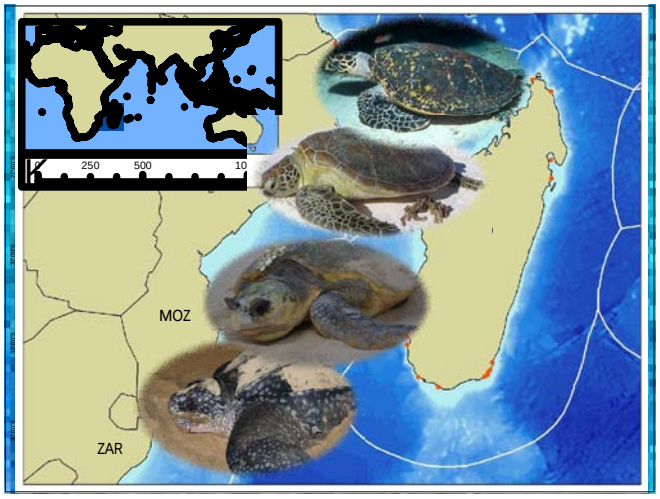
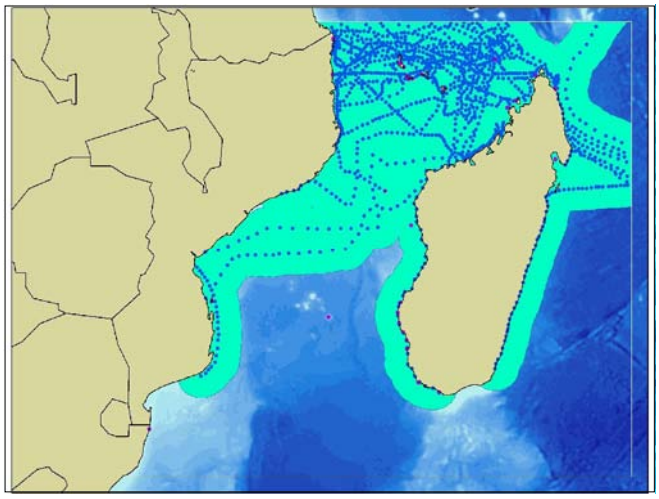


What DO we know...?

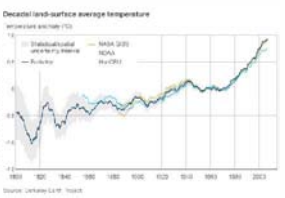




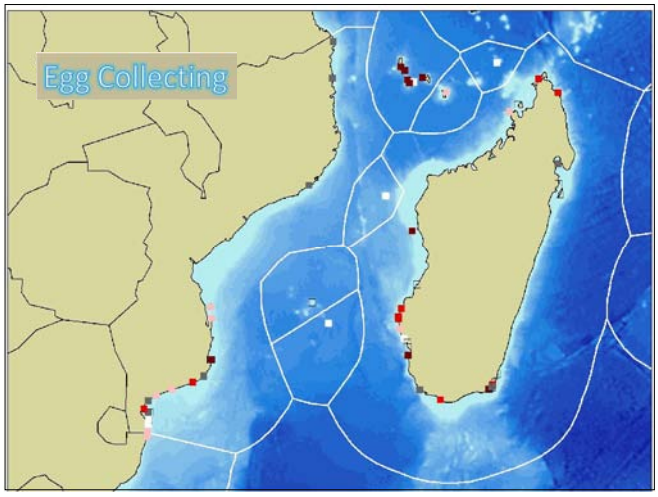


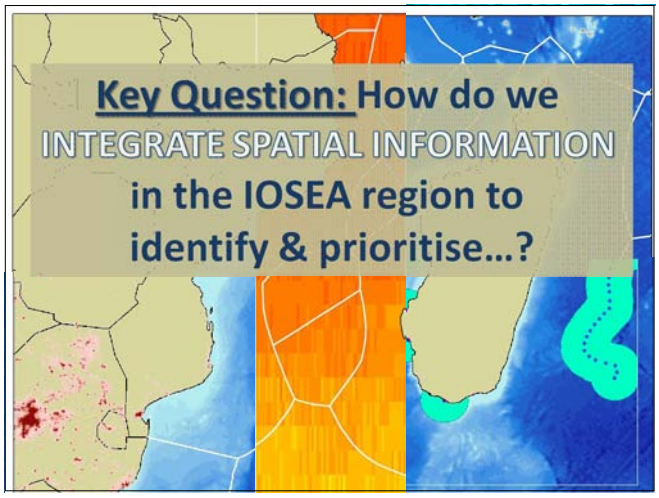
Threats – Natural

- Climate Change?
  - SST (Change)
  - Ocean Acidification
  - Storms



http://www.bbc.co.uk/news/science-environment-15373071





spatial prioritization

- § MPA Design…
  - § Systematic Conservation Planning
  - § (Margules & Pressey 2000)
- § Objectives
  - § Representativeness
  - § Persistence
- § Key features
  - § Complementarity
  - § Irreplaceability

HS = 4 sp SCP = 6 sp

Make decisions about the location of conservation areas… and their configuration and management

For Turtles?

Patterns:
§Turtles (all life history phases)
§Habitat

Processes:
§Migratory Corridors
§Genetic stocks

Threats:
§Natural
§Human Induced

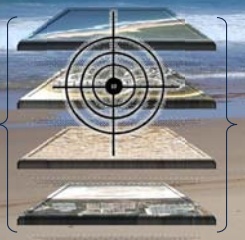
Sites / Species

	I	II	III	IV	V
Cc	1	1	1	0	0
Dc	1	1	0	0	0
Cm	0	0	1	1	0
Lo	0	0	0	1	0
Ei	1	1	0	0	1
Nd	1	0	0	0	0
Σ	4	3	2	2	1

HS = 4 sp SCP = 6 sp

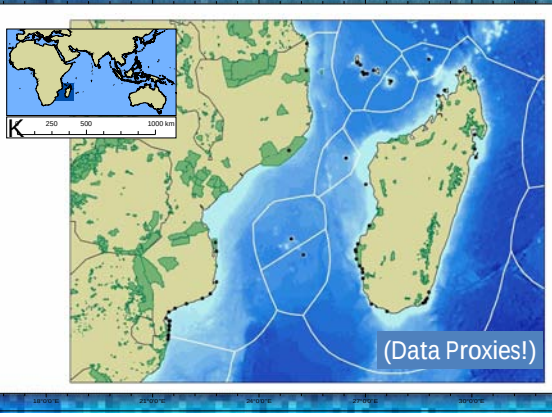
TARGETS?

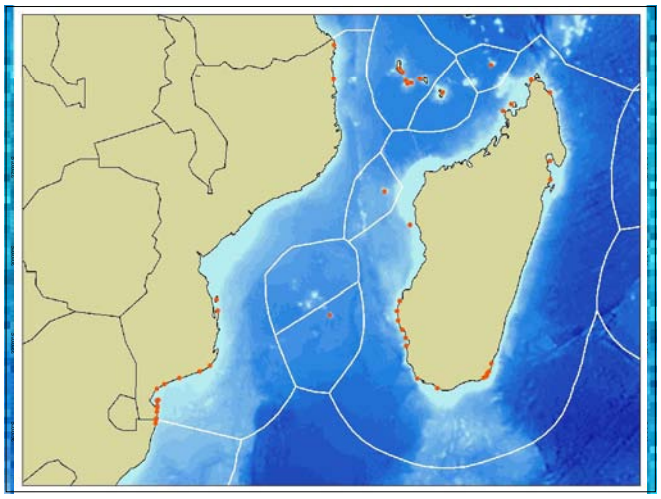
How many turtles…
How much habitat…

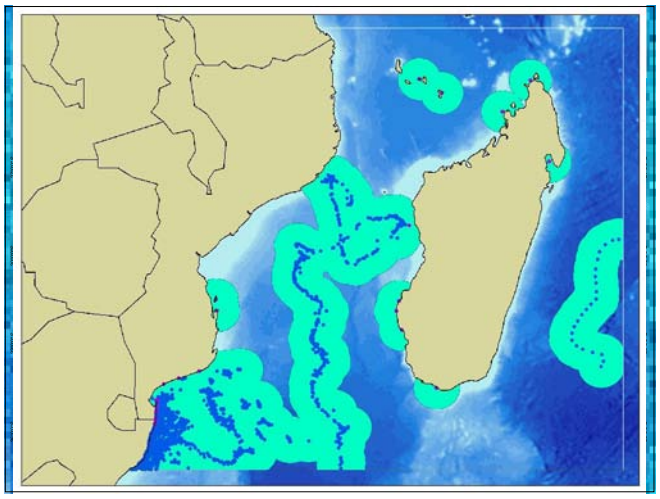


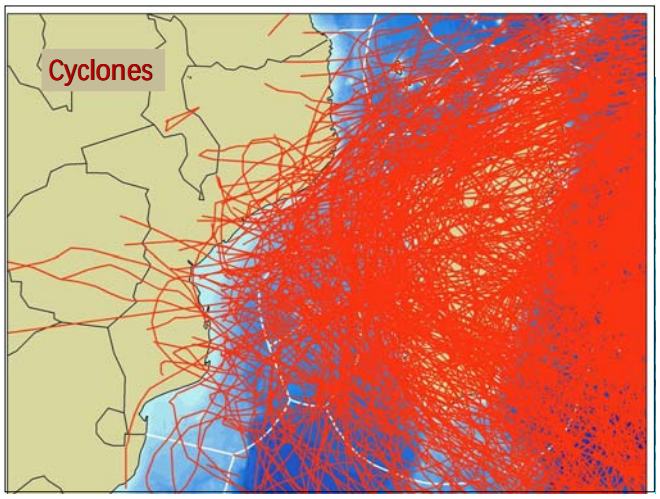
Turtles	Habitat
20%	20%
40%	40%
60%	60%
80%	80%
100%	100%

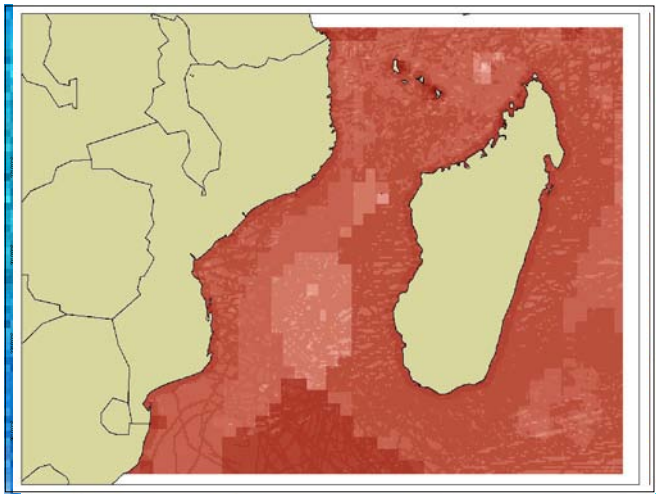
Spatial Plan for the SWIO?

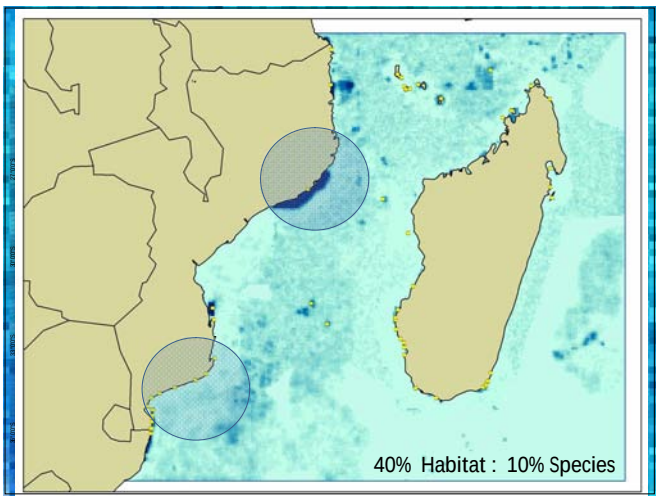


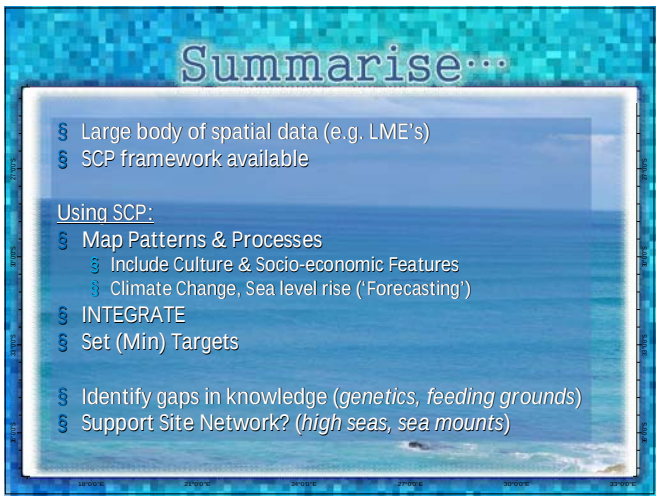


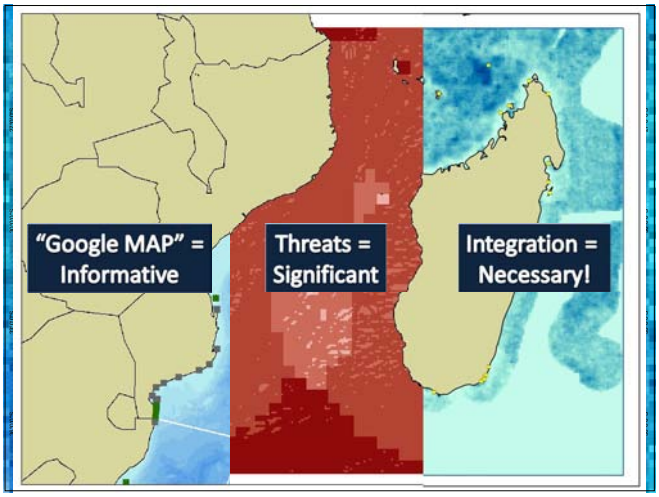



Cyclones




40% Habitat : 10% Species


Summarise…
§ Large body of spatial data (e.g. LME's)
§ SCP framework available
Using SCP:
§ Map Patterns & Processes
§ Include Culture & Socio-economic Features
§ Climate Change, Sea level rise ('Forecasting')
§ INTEGRATE
§ Set (Min) Targets
§ Identify gaps in knowledge (genetics, feeding grounds)
§ Support Site Network? (high seas, sea mounts)


"Google MAP" = Informative
Threats = Significant
Integration = Necessary!