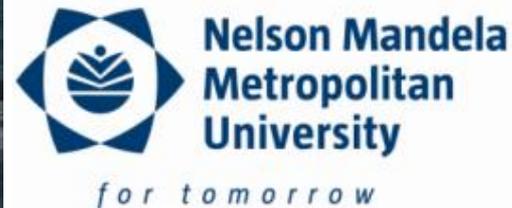


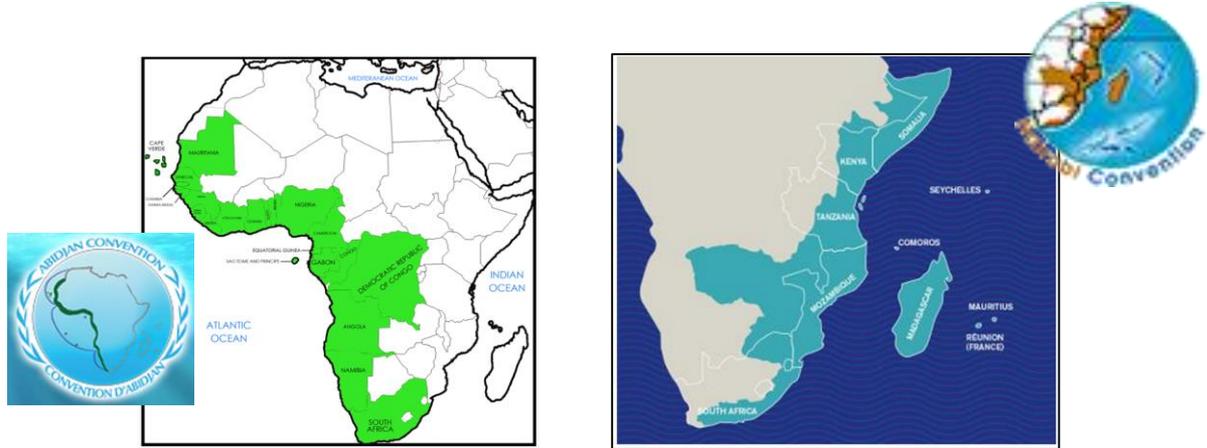
# Making our Marine Spatial Planning research matter

Marine Spatial Planning Research  
NMMU



# Matter to what?

Regional



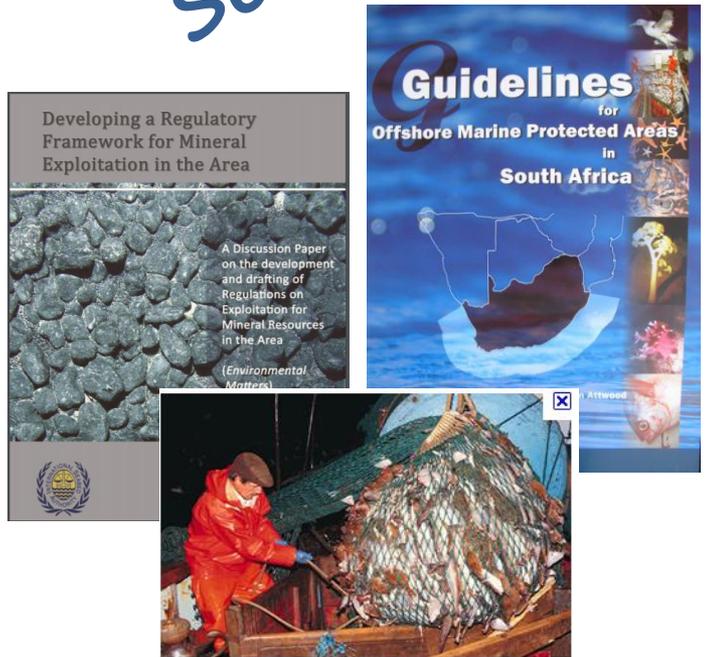
National



Local



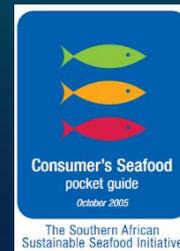
Sector



# What exactly is MSP?

Proactive, comprehensive, science-based decisionmaking process that proactively considers:

- Where human uses can take place on, in, or near coastal and marine ecosystems; and
- What standards should apply to those uses with an overall goal of sustaining or enhancing ecosystem health and function.



# Challenges for MSP



**Protecting Ecosystem Health**



**Incorporating Fishing Sectors**



**Addressing Cumulative Impacts**



**Taking Climate Change into Account**



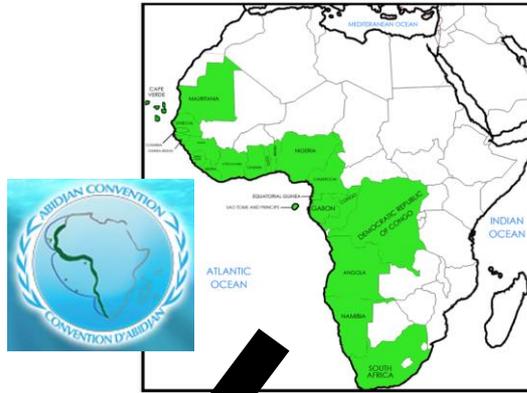
**Making the Land-Sea Connection**



**Using a Robust Structure & Process**

# Matter to what?

Regional



EBSA

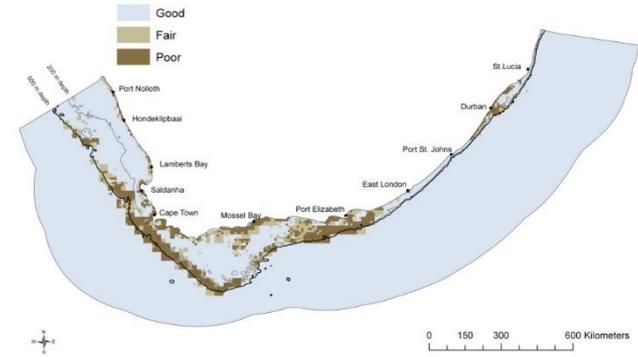
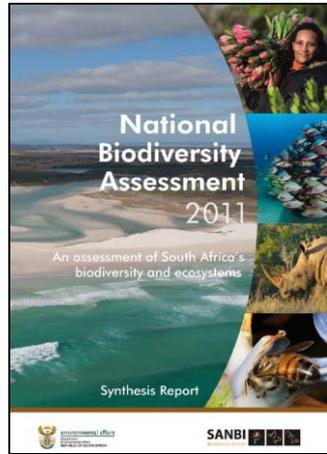
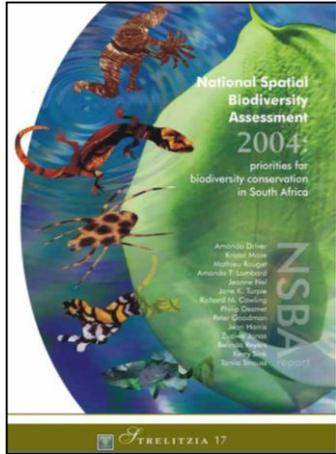
Seamless & Scalable Coastal & MSP for the Ocean Economy of Africa

CSIR

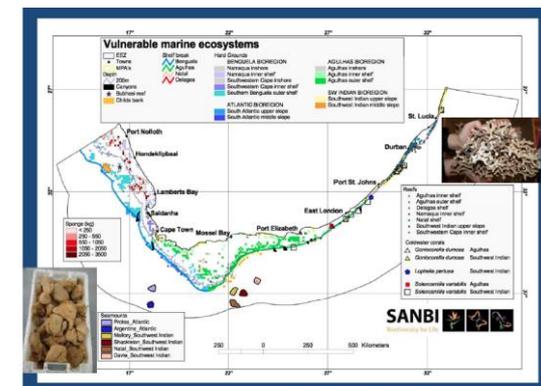
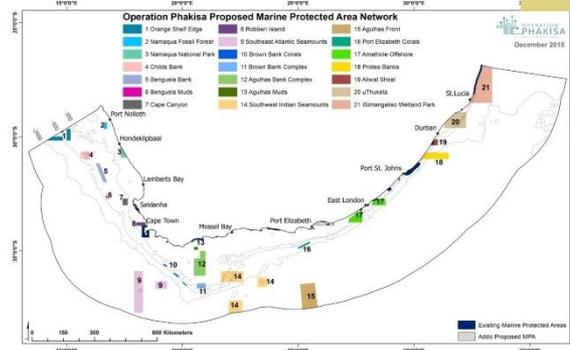
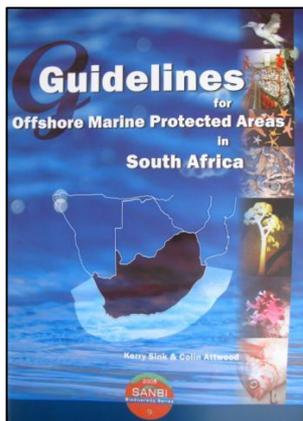
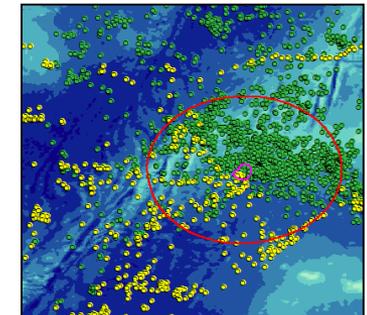
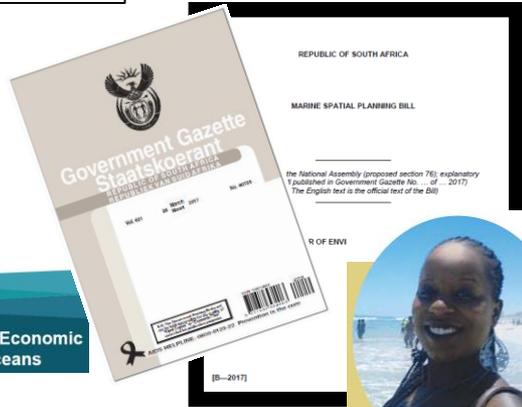


South Africa-Canada Chairs Initiative (SACRI)

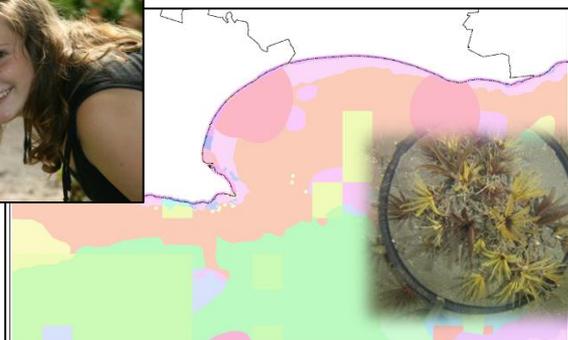
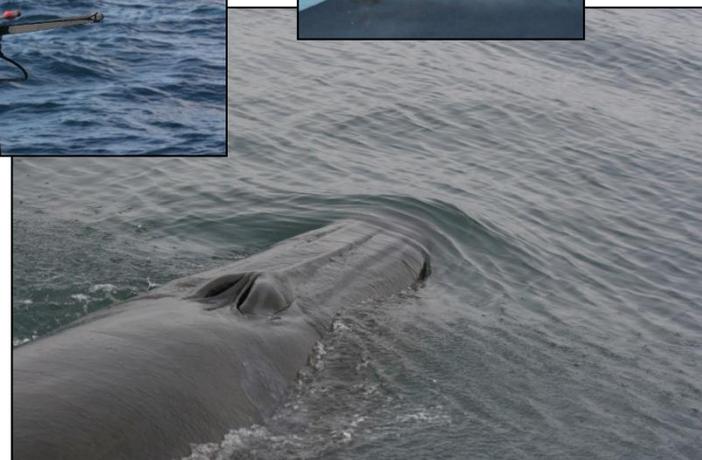
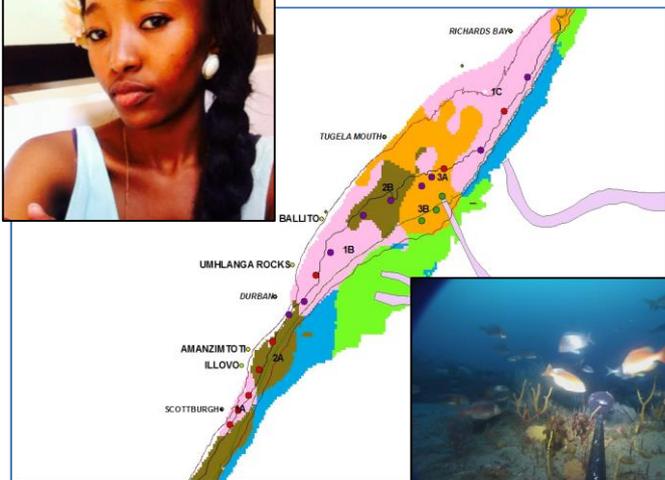
# Matter to what?



National



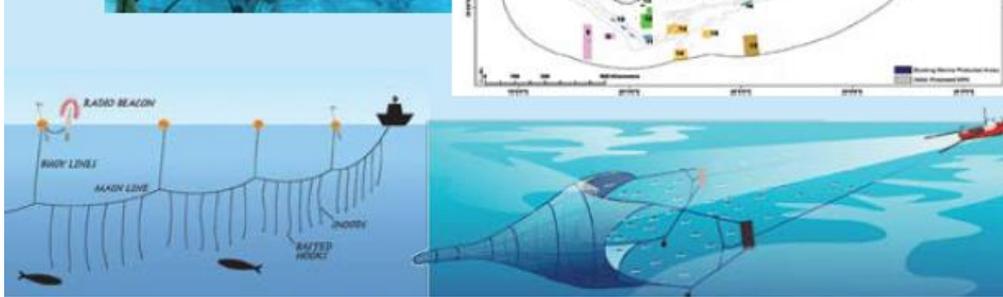
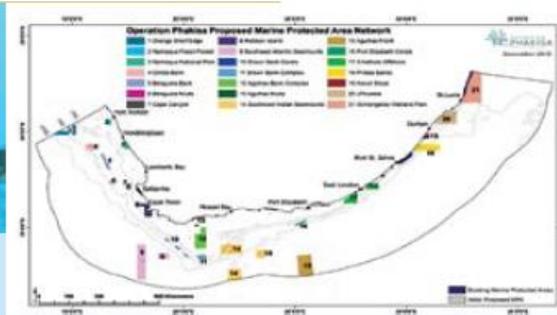
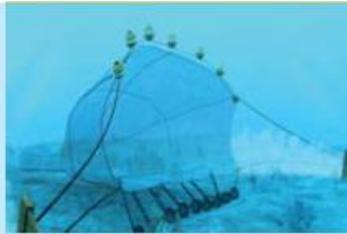
# Matter to what?



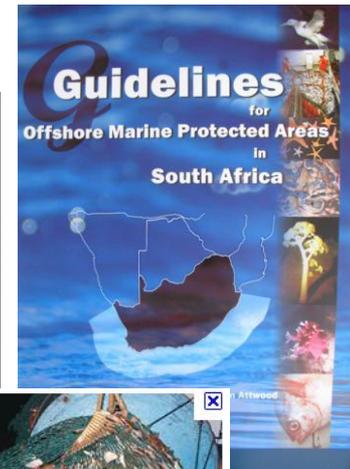
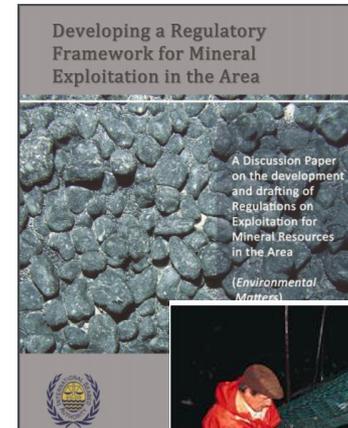
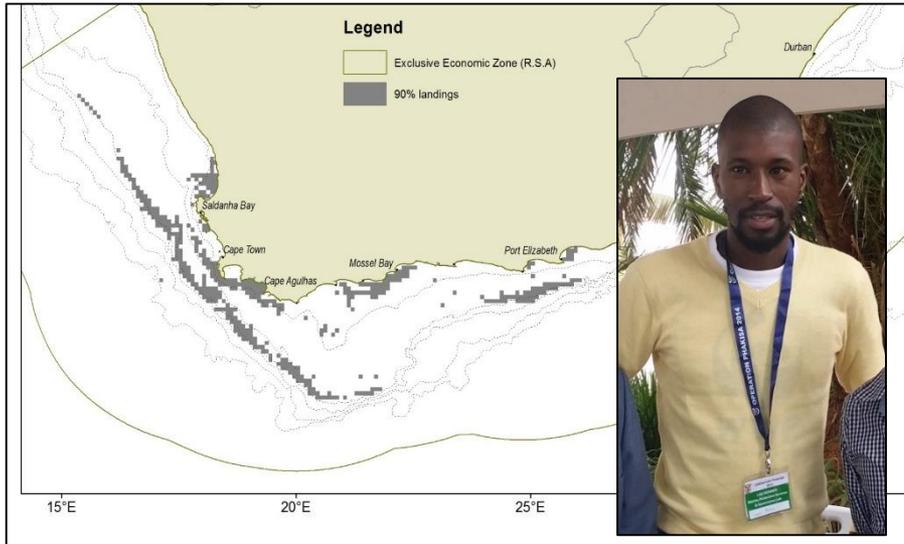
Local



# Matter to what?



Sector



# Challenges for MSP



**Protecting Ecosystem Health**



**Incorporating Fishing Sectors**



**Addressing Cumulative Impacts**



**Taking Climate Change into Account**



**Making the Land-Sea Connection**

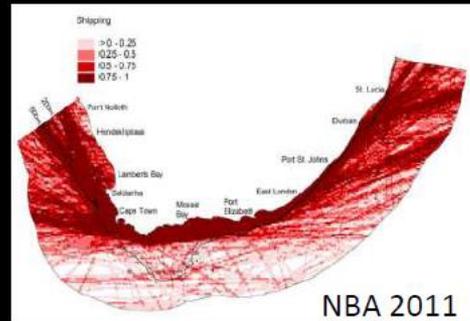


**Using a Robust Structure & Process**

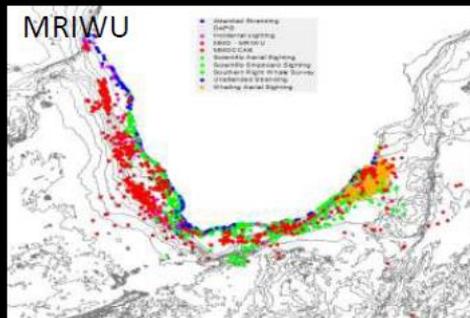
# Scenario planning



*GIS  
Authority Layers*

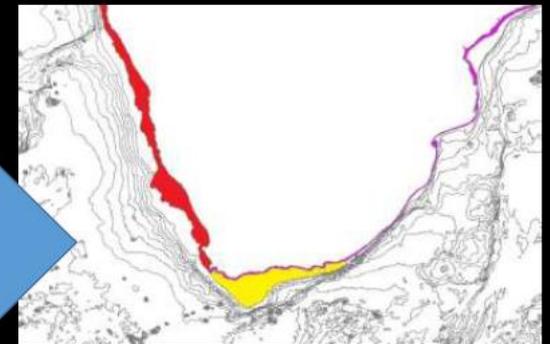


*Remote Sensed  
Layers*



*Research Layers*

Trade-offs between ecological, social and economic objectives and need for scenario planning



**Decision Support Tools  
(e.g. INVEST, MIMES, ARIES)**



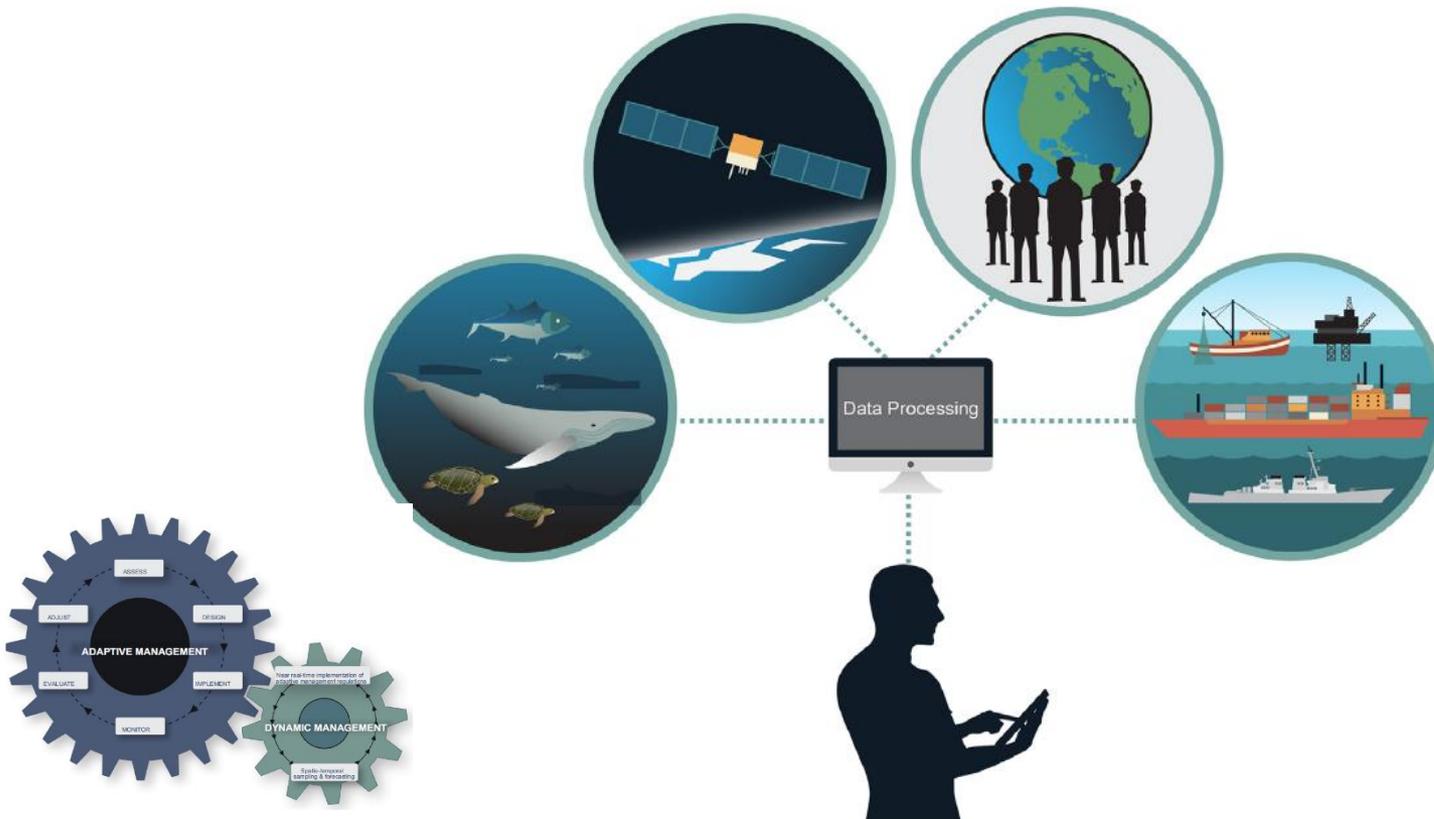
ELSEVIER

Contents lists available at ScienceDirect

# Marine Policy

journal homepage: [www.elsevier.com/locate/marpol](http://www.elsevier.com/locate/marpol)

## Dynamic ocean management: Defining and conceptualizing real-time management of the ocean

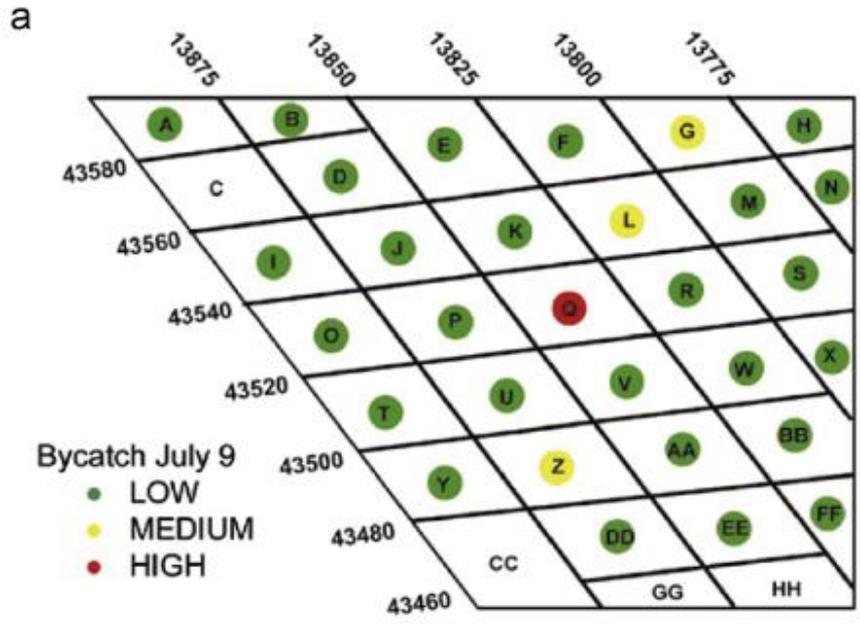


Maxwell  
et al.  
(2015)

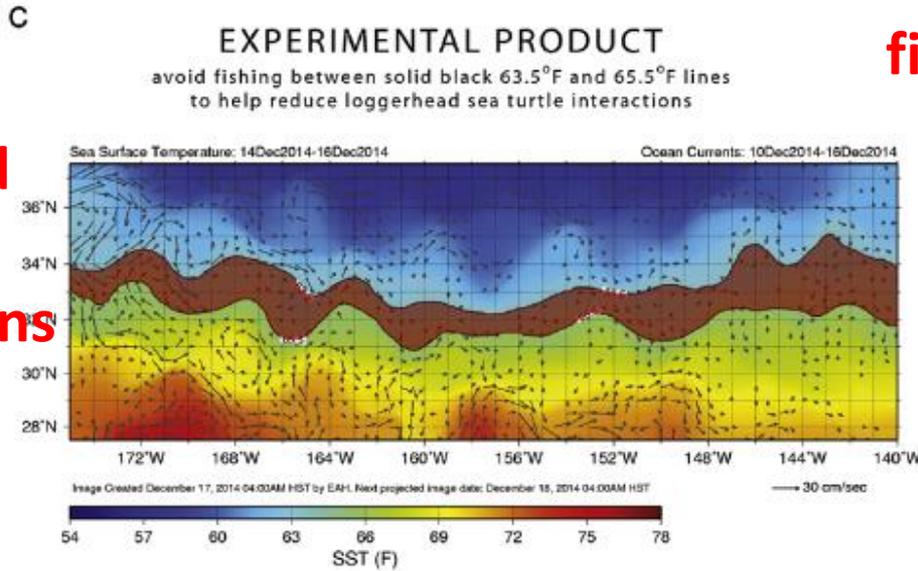
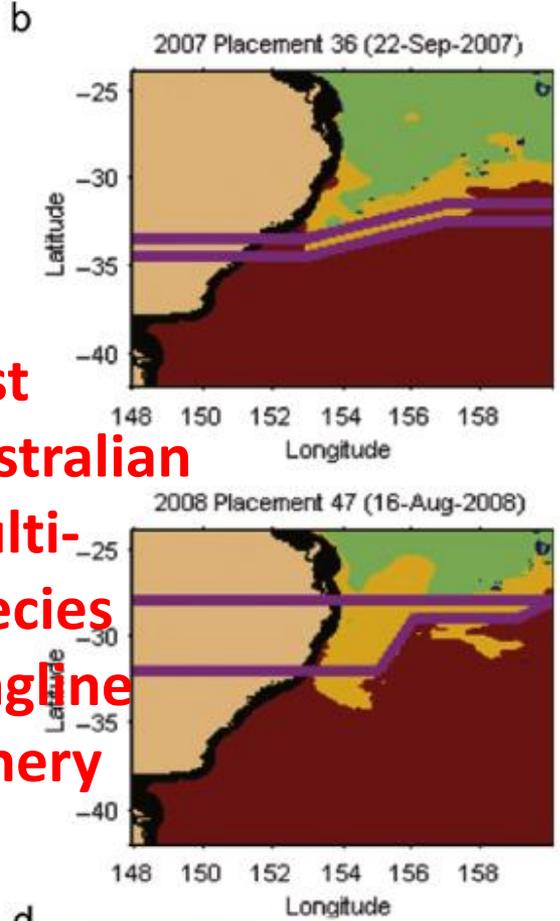
- **Dynamic, real-time spatial management** schemes emerging as innovative & promising approaches for managing bycatch & discards
- **Using real-time information** to manage fisheries more responsively to fish stock dynamics
- Real-time spatial management has allowed for better management & utilization of target & bycatch quotas,
  - catch share programs / risk pools / ITQ



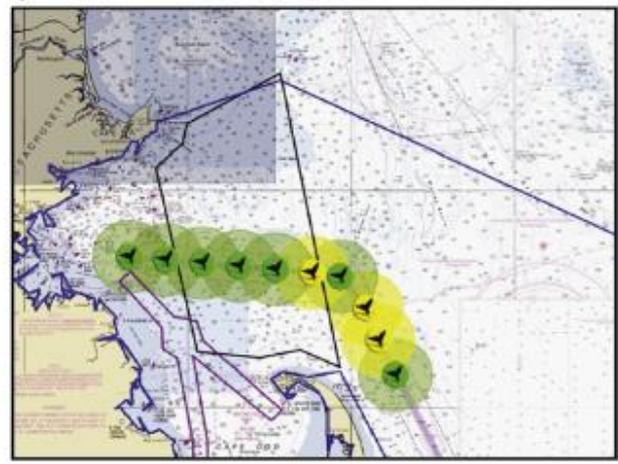
**New England scallop fishery, Bycatch, Daily**



**East Australian multi-species longline fishery**



**Turtle and Whale interactions**



**Maxwell et al. (2015)**



PACIFIC ISLANDS FISHERIES SCIENCE CENTER  
 ECOSYSTEMS AND OCEANOGRAPHY DIVISION  
 2570 Dole Street, Honolulu, HI 96822  
<https://www.pifsc.noaa.gov/eod/turtlewatch.php>  
 contact: Evan Howell@noaa.gov  
 Data provided by Central Pacific CoastWatch node

**TURTLEWATCH**



# <http://www.catchreport.co.za/>



## National Recreational Database Available on

Desktops and Laptops  
Tablets and Smartphones





# COASST

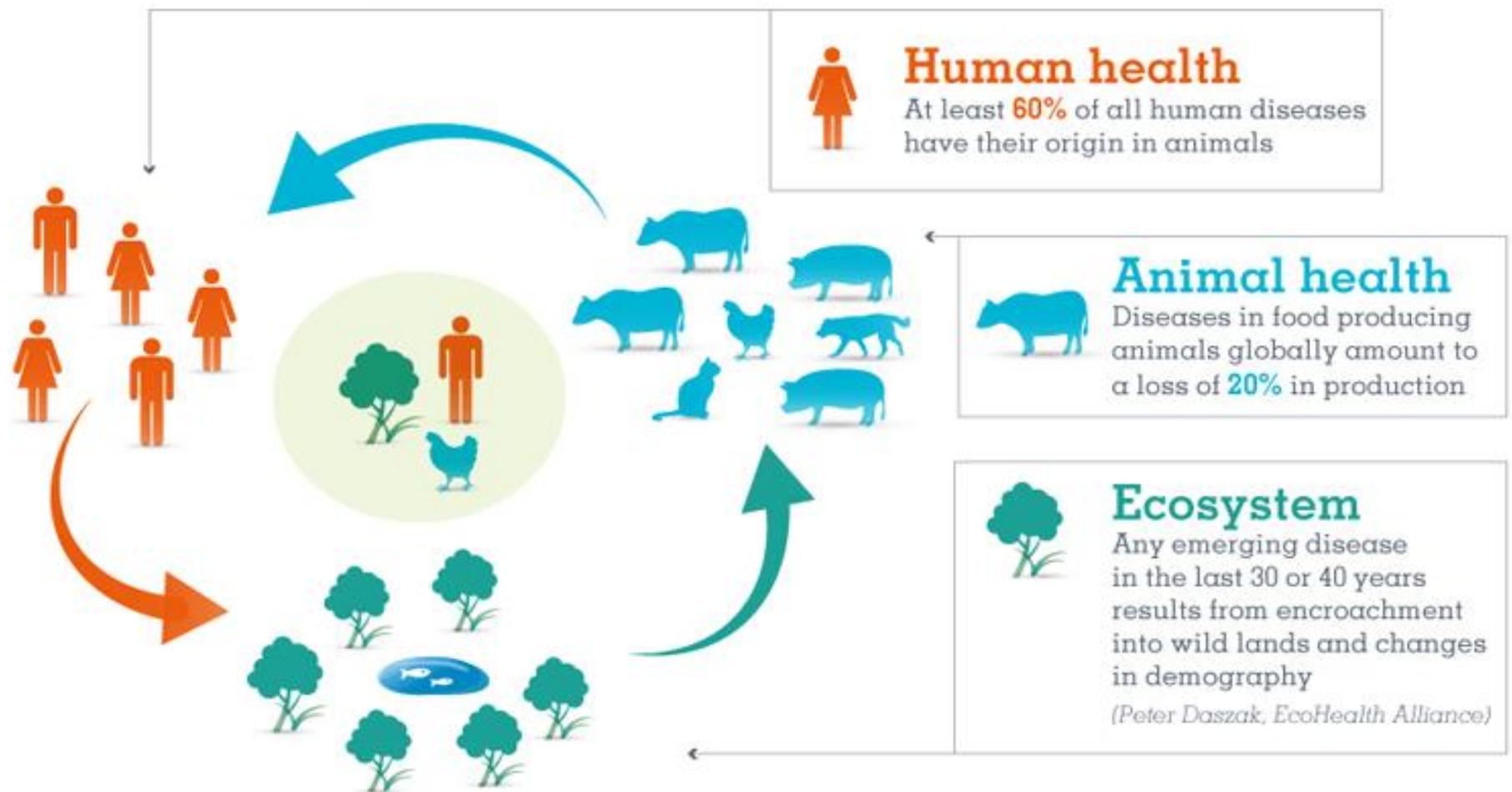
COASTAL OBSERVATION AND SEABIRD SURVEY TEAM



1. beachcast birds
2. marine debris
3. evidence of human use of the beach environment

# One Health

Human health, animal health and ecosystems are **inextricably linked**



# COMPASSIONATE CONSERVATION PARTNERS

The following organisations and experts expressly support the concept of compassionate conservation and work towards increasing the consideration of individual animals in conservation action



Born Free Foundation



WildCRU, University of Oxford



BCSPCA WildARC

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Conservation Practice and Policy

**International consensus principles for ethical wildlife control**

- Sara Dubois , Nicole Fenwick, Erin A. Ryan, Liv Baker, Sandra E. Baker,
- Ngaio J. Beausoleil, Scott Carter, Barbara Cartwright, Federico Costa,
- Chris Draper, John Griffin, Adam Grogan, Gregg Howald, Bidba Jones,
- Kate E. Littin, Amanda T. Lombard, David J. Mellor, Daniel Ramp,
- Catherine A. Schuppli, David Fraser

## Centre for Compassionate Conservation

We are an innovative research, education and advisory centre that improves the welfare of wild animals using a Compassionate Conservation approach.



An underwater photograph showing three divers swimming in clear blue water. They are positioned on the left side of the frame. To their right is a vibrant coral reef with various species of coral and colorful fish. The scene is well-lit, suggesting a shallow depth.

**End**

A photograph of an offshore oil rig on the horizon. The rig is a dark silhouette against a lighter sky. The foreground shows the dark, choppy surface of the ocean with white foam from waves.

**Marine Spatial Planning Research**

**NMMU 2016**