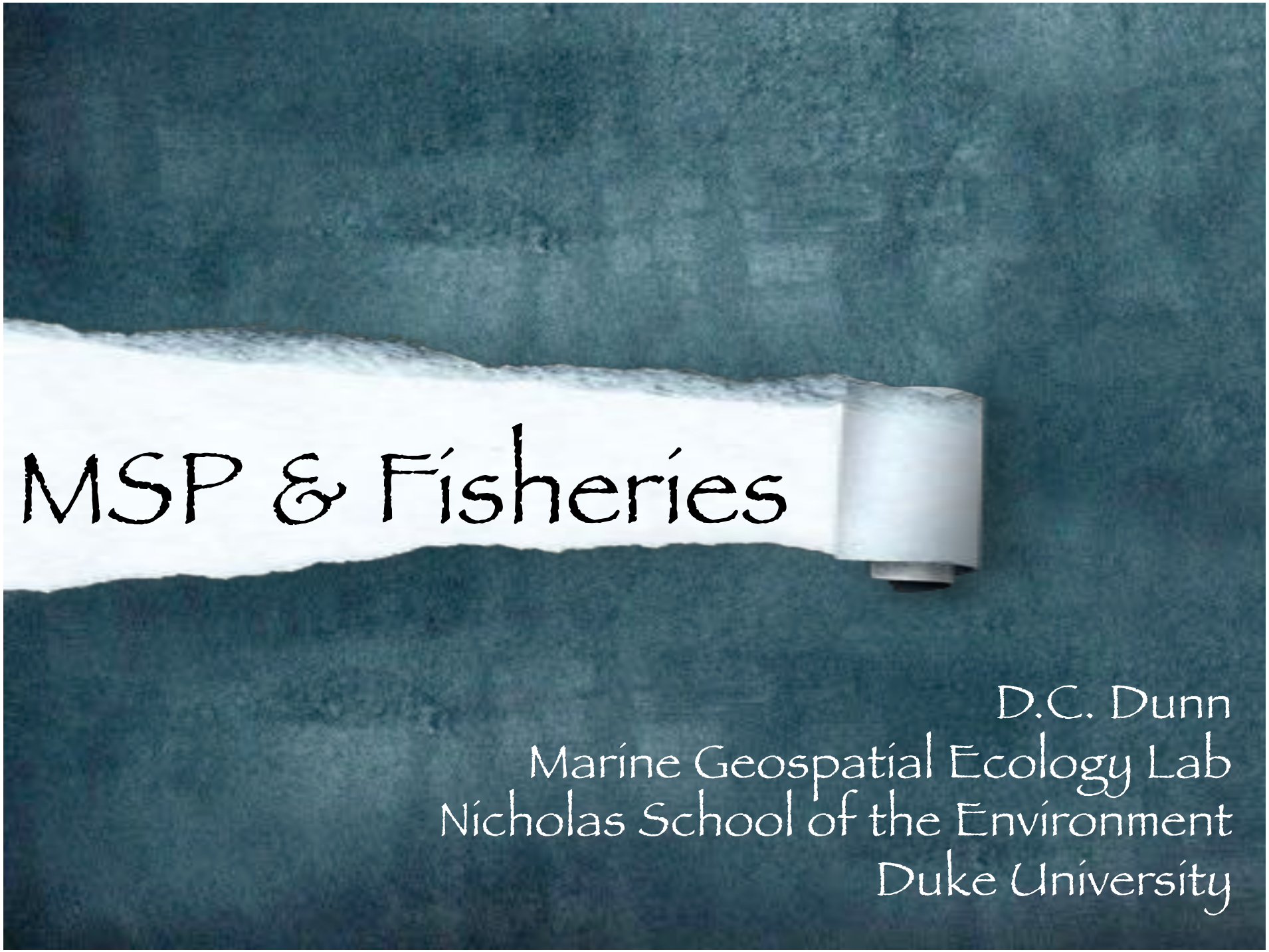

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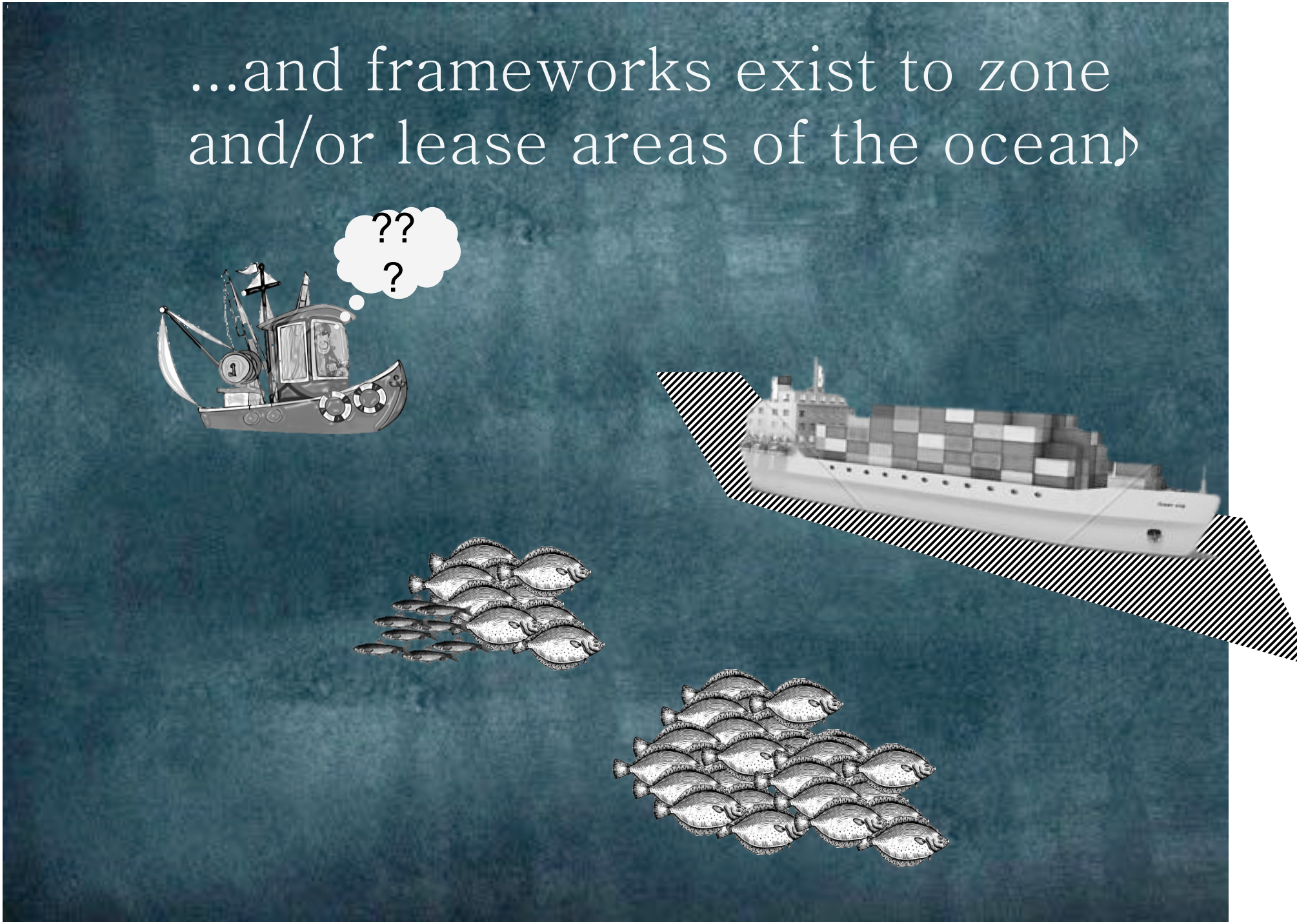
Part I
A Highly Technical Review of the Context in which Fishers & Fisheries Find Themselves

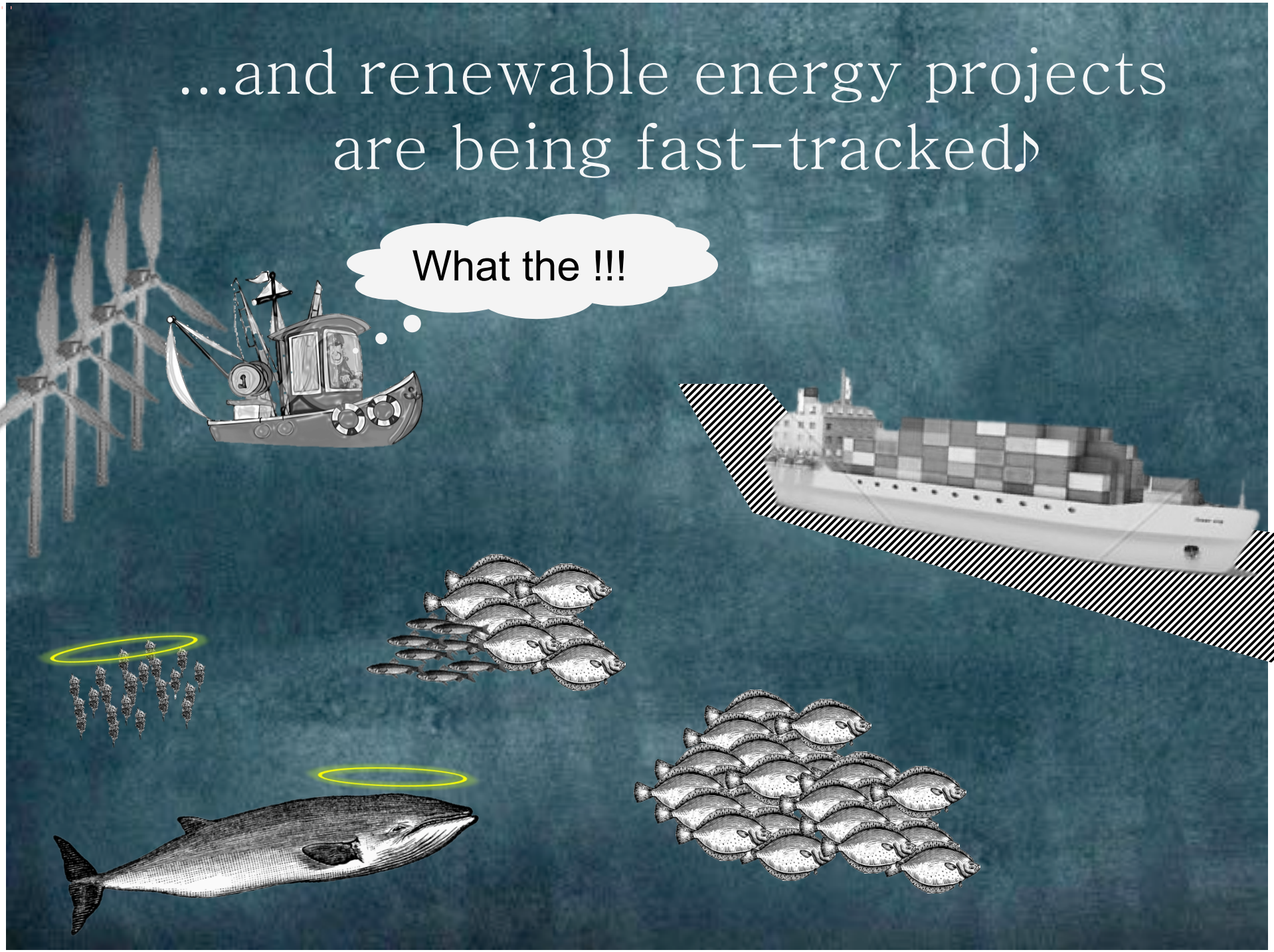
Fisheries don’t have exclusive spatial rights to the ocean under US law

However, they share the sea with other industries

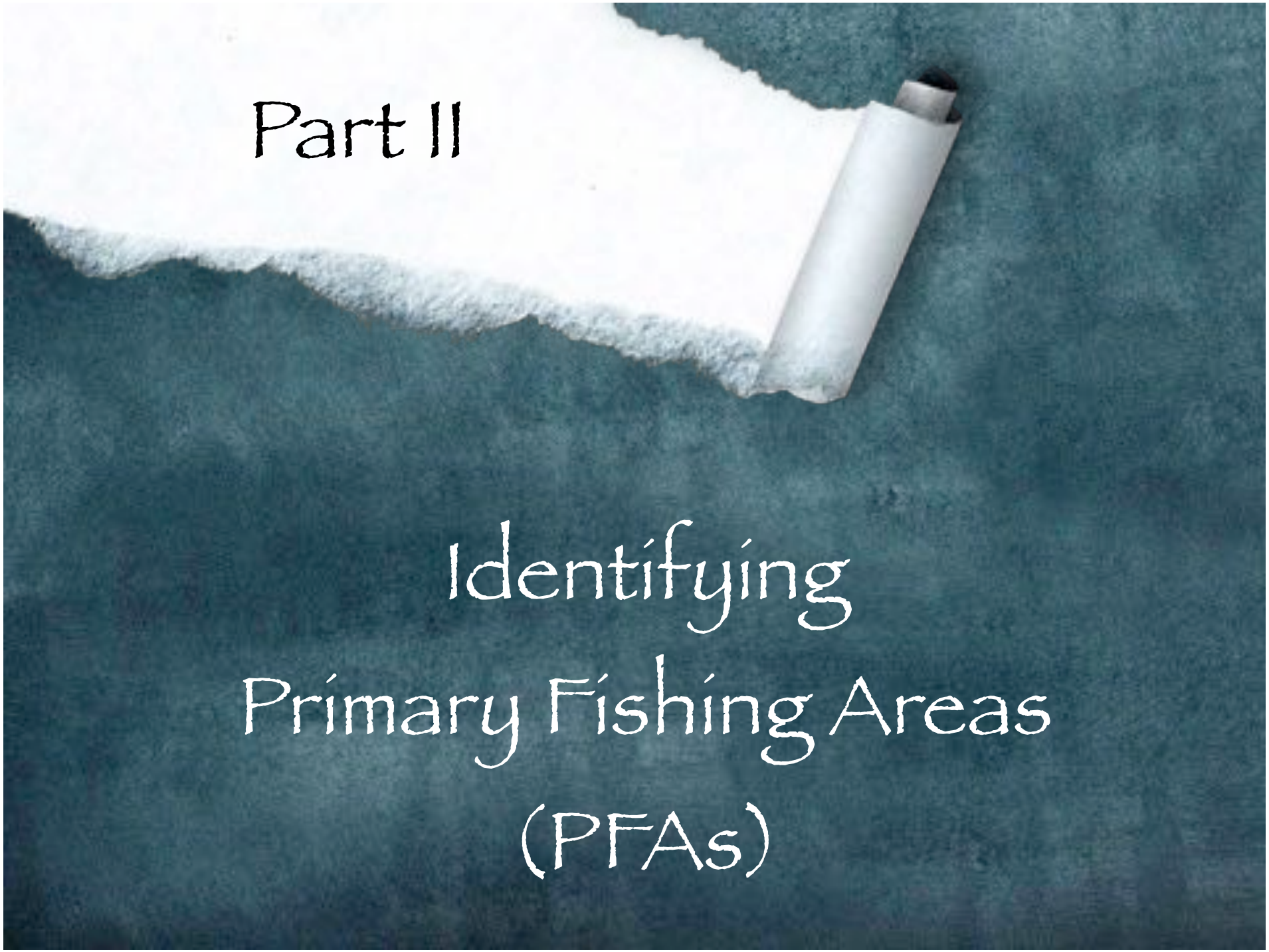
...and frameworks exist to zone and/or lease areas of the ocean♪



...and to protect endangered species and habitats♪
?$#
%!?


...and renewable energy projects
are being fast-tracked♪
What the !!!

It's time to identify and protect fishing grounds for fisheries♪


Part II
Identifying
Primary Fishing Areas
(PFAs)

Data to Identify PFAs

- Individual
- Community
- Catch
- Ecological

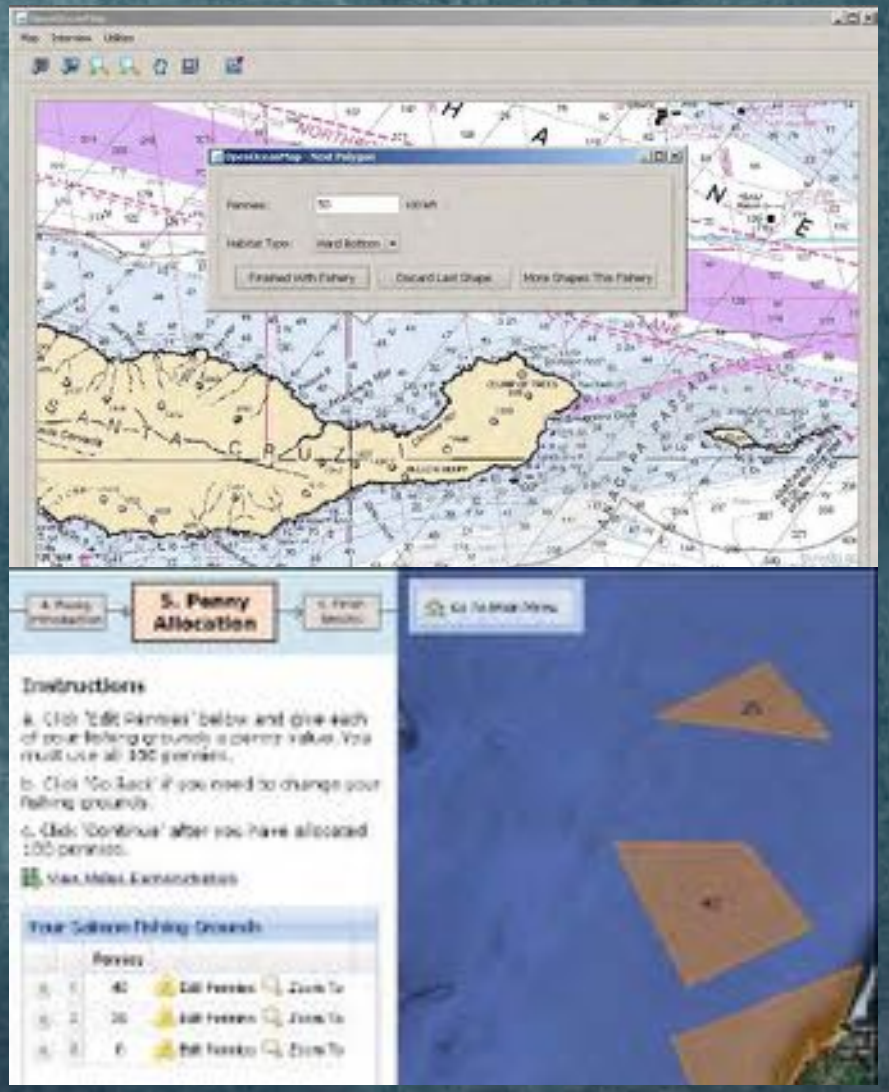
Individual

- Generally: fisher surveys
- Engages fishers about the value they place on specific areas of the ocean

Individual

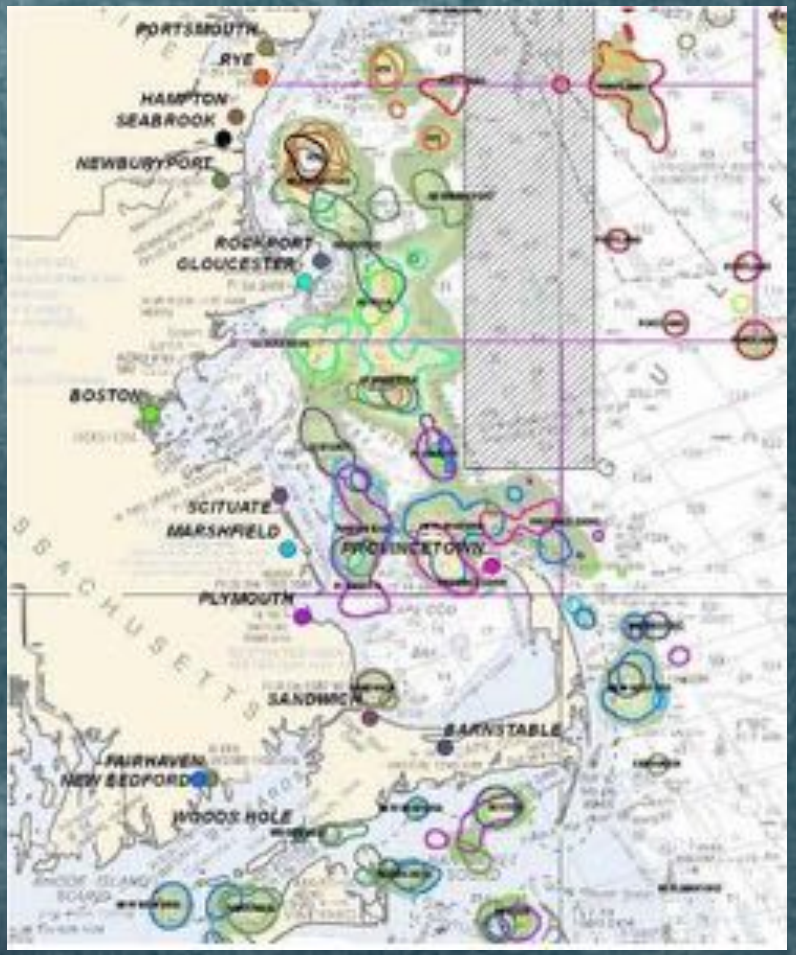
Open OceanMap

- Developed by Ecotrust
- Given 100 pennies to allocate across user-generated shapes
- Used to inform California's MLPA



Community

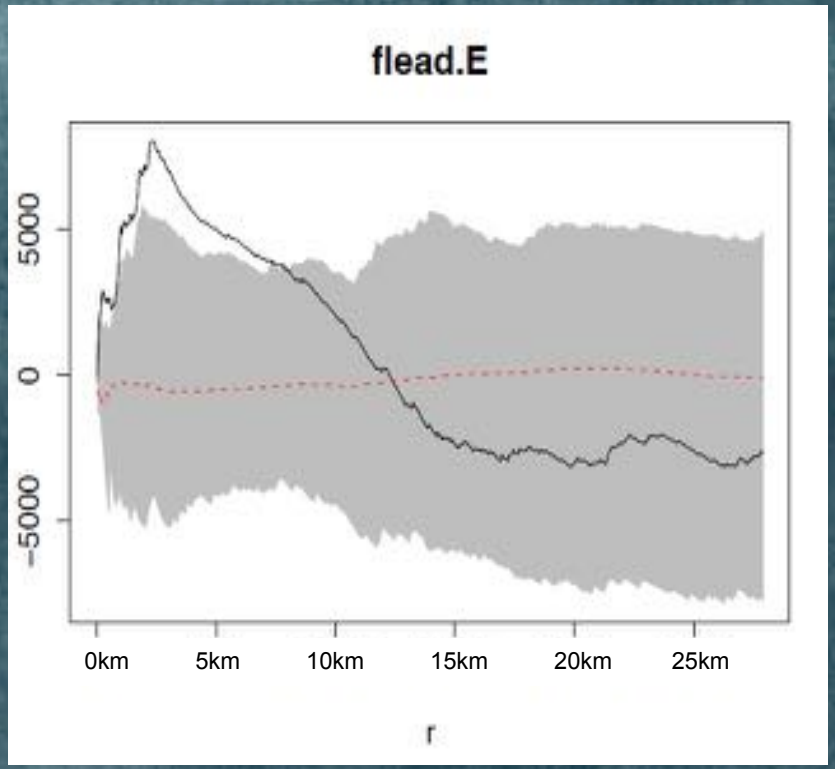
- Identify broader community connections to locations at sea
- Based on:
  - Observer & VTR data
  - Dealer data
  - Fisher & industry surveys



St. Martin & Hall-Arber 2008

Catch

- Define areas of importance based on:
  - Persistence of catch
  - High catch/discard
  - High catch/bycatch
- Based on
  - Observer & VTR data

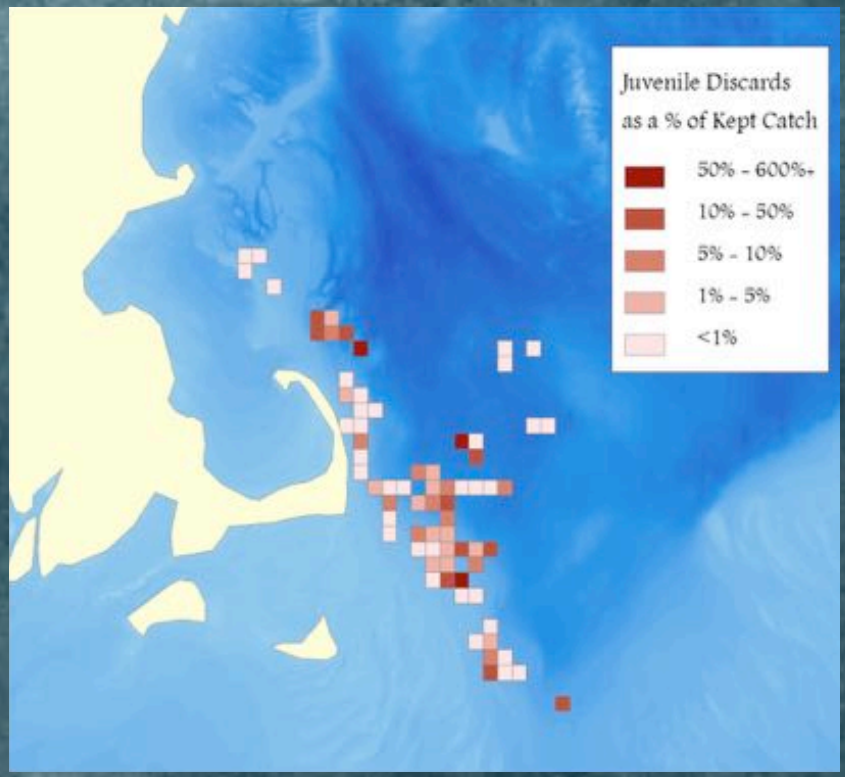


Catch

- Helps to incorporate:
  - Multiple quota issues
  - Size regulations

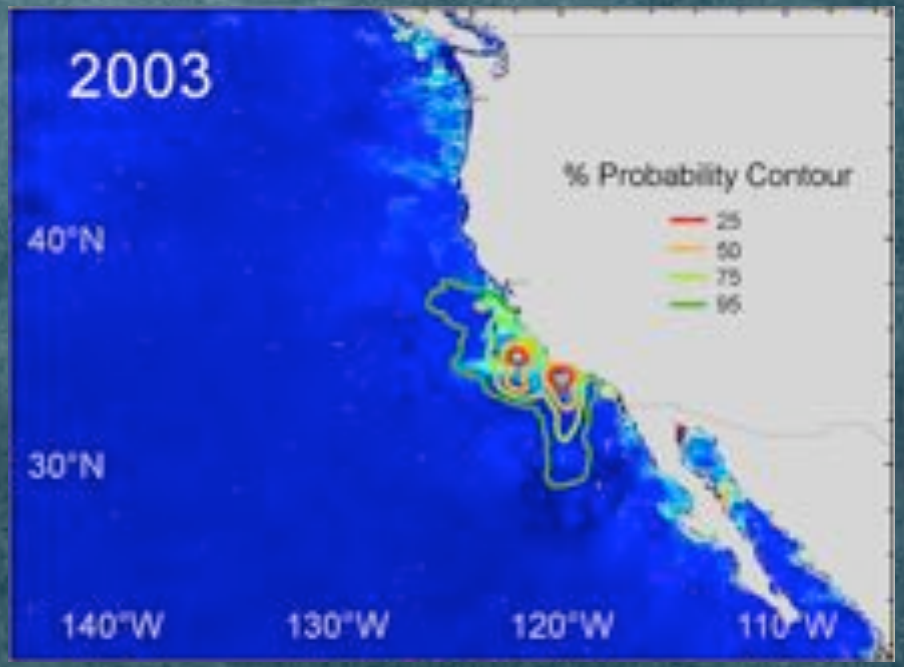
and minimize:

  - Degraded catch
    - Flead, slimed, depredated, etc.



Ecological

- Used to model habitat use by target and non-target species
- Based on:
  - Tracking data
  - Fisheries independent survey data
  - Observer & VTR data



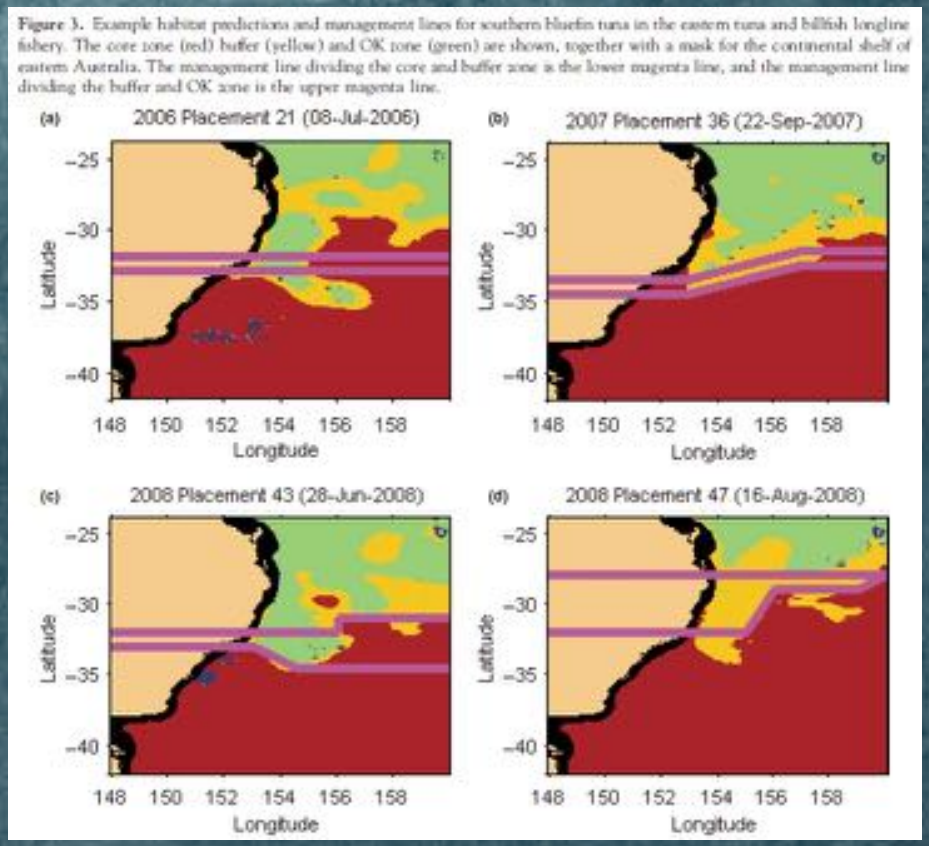
Adapted from Boustany et al. 2010

TOPP

CENSUS OF MARINE LIFE

Ecological

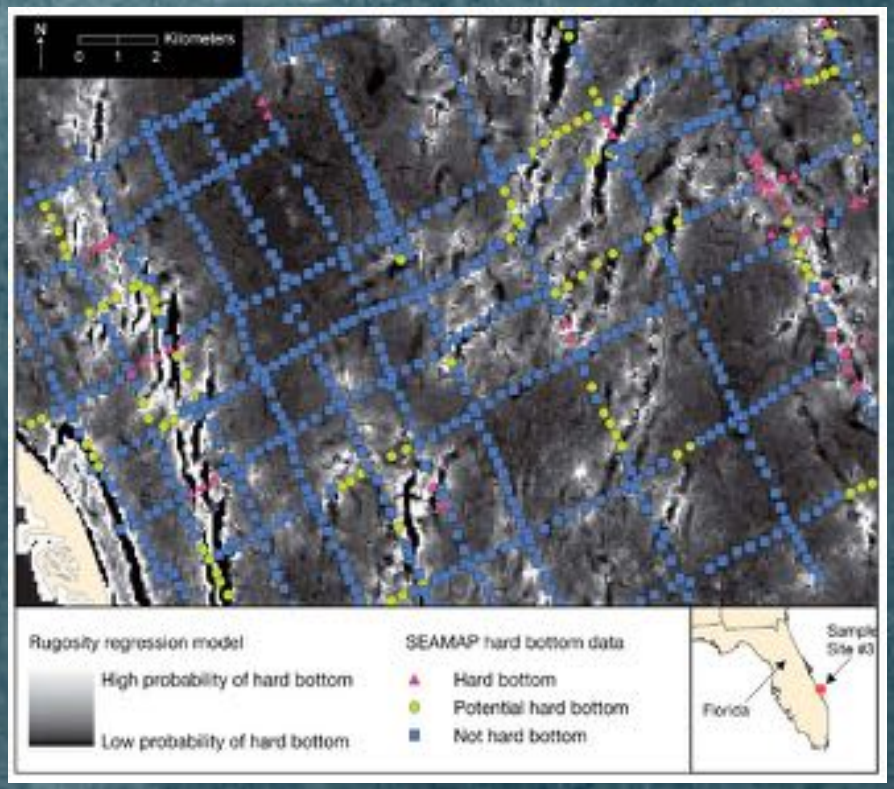
- Can identify:
  - Important life history areas
  - Areas of increased target species use
  - Areas of likely conflict with other commercial species or protected species



Hobday et al. 2010

Ecological

- Can also be used to model habitat itself as a proxy for fish habitat.
  - Particularly useful for hardbottom dwelling species.



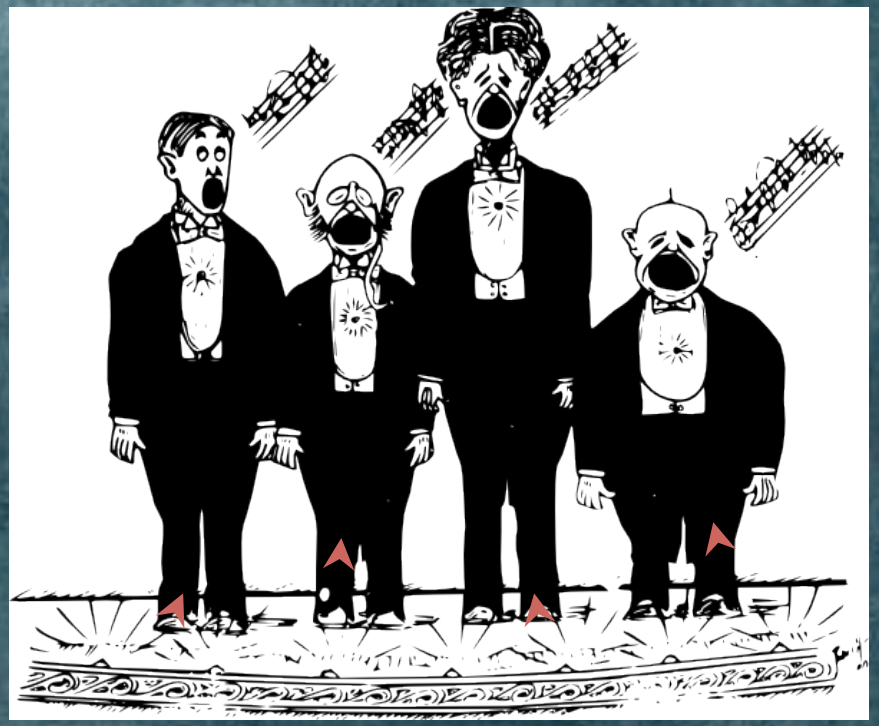
Dunn & Halpin 2009

Part III

Your role...

The Harmony

- None of these data are sufficient by themselves
- They must all be brought together for fisheries to rationally participate in CMSP



Individual

Community

Catch

Ecological

The Conductor

- Mark your territory
- Provide data to MSP processes
- Outreach to fishers
- Improve data collection
  - Increase resolution
  - Increase # of locations for pelagic gear
  - Use VMSs