Marine mammals management toolkit

Ocean Governance

THEME 3

ENTANGLEMENT

ACTIONS BEING UNDERTAKEN BY SBNMS TO MANAGE ENTANGLEMENT

David Wiley

Marine Ecologist and Research Coordinator

Stellwagen Bank National Marine Sanctuary

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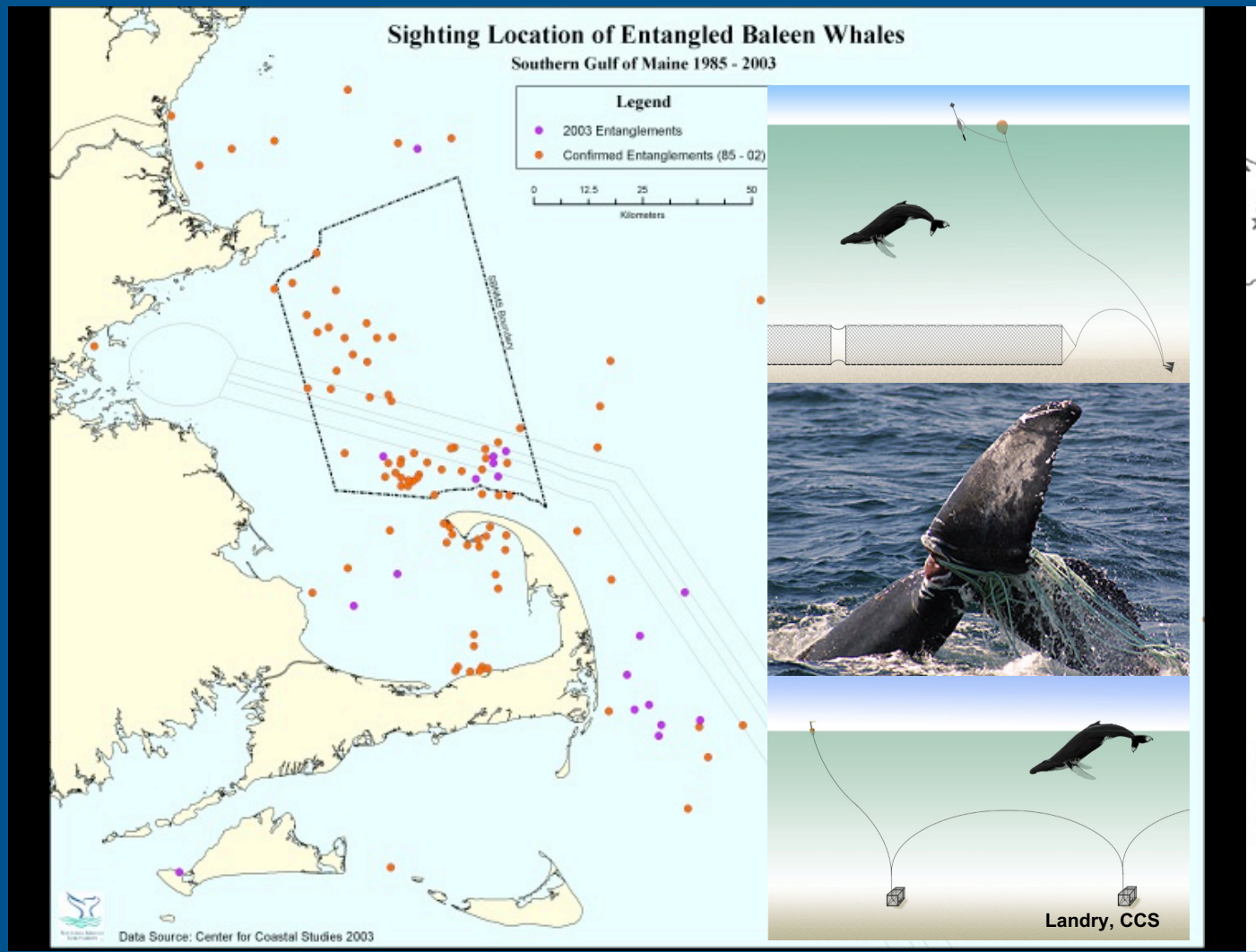
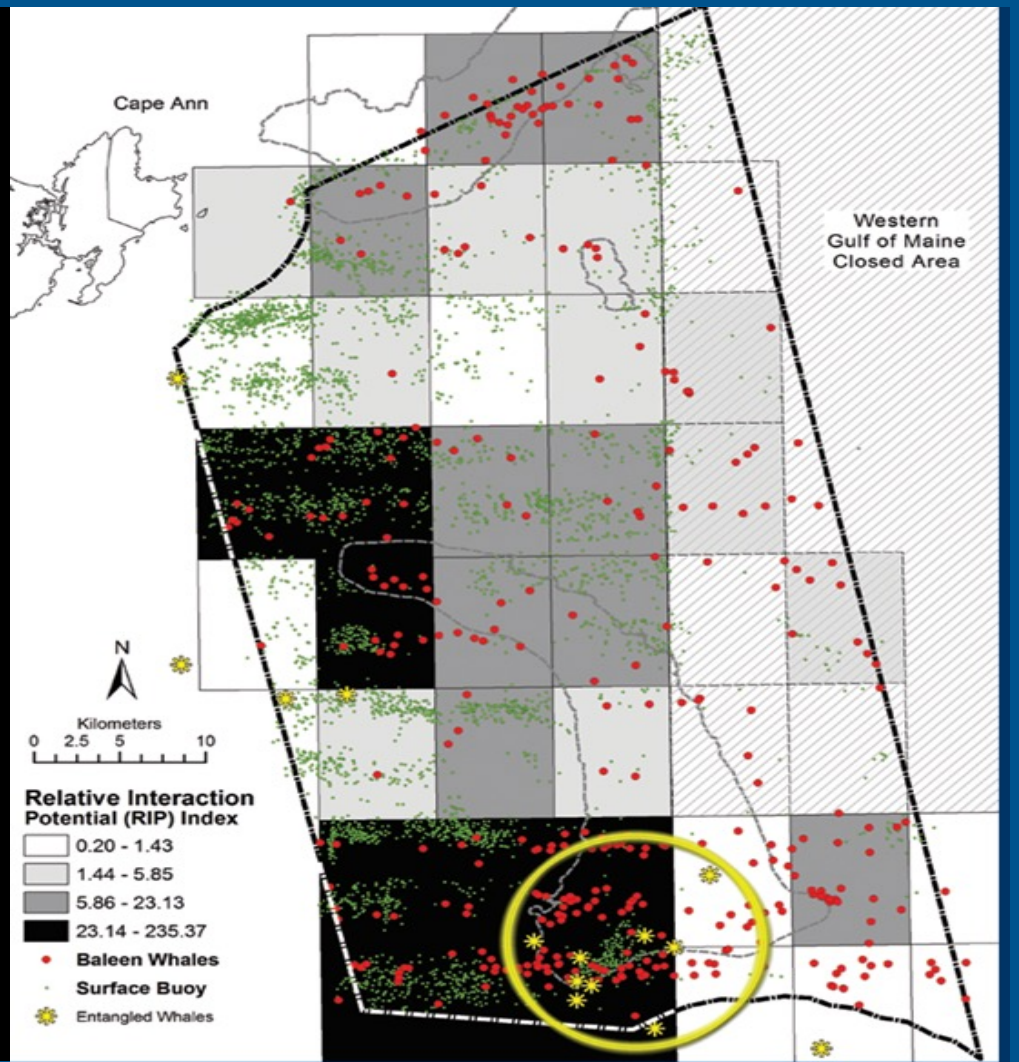
Stellwagen Bank National Marine Sanctuary is a “Hot Spot” for Whale Entanglement





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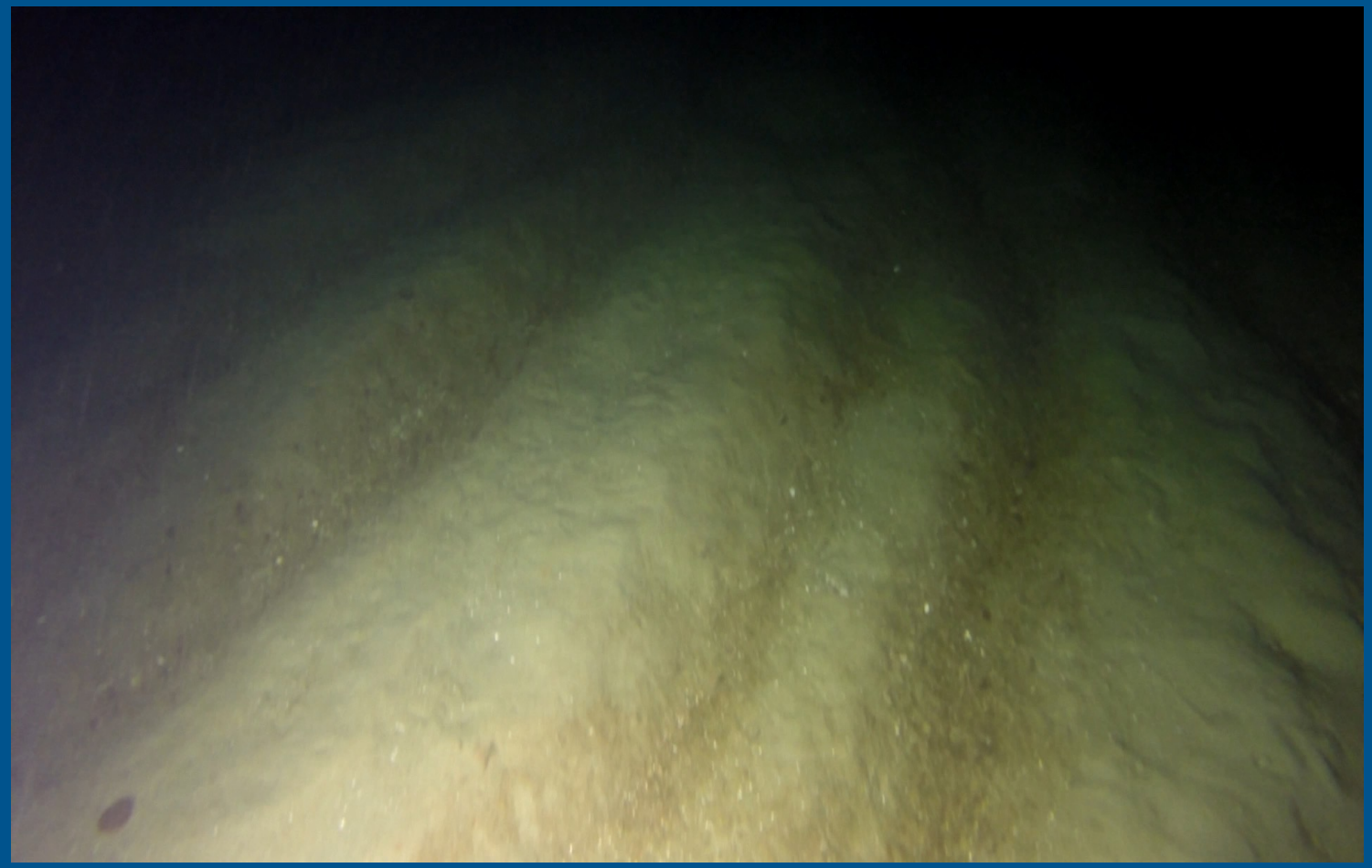
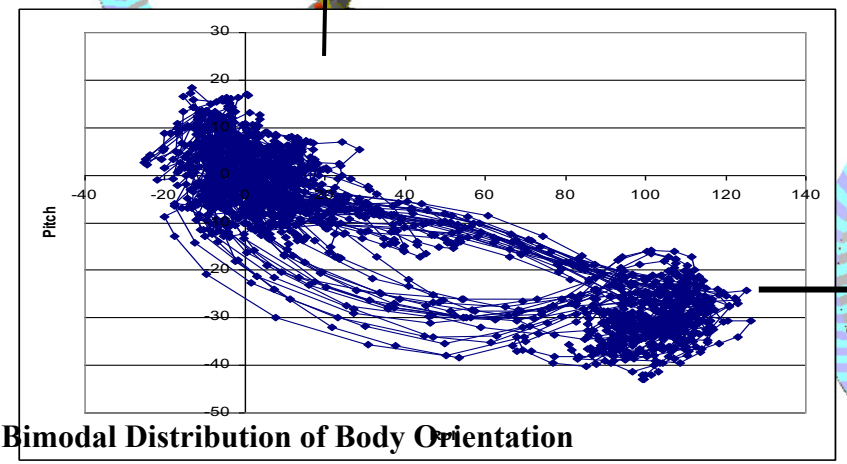
Why is Stellwagen Bank “Hot Spot” for Whale Entanglement



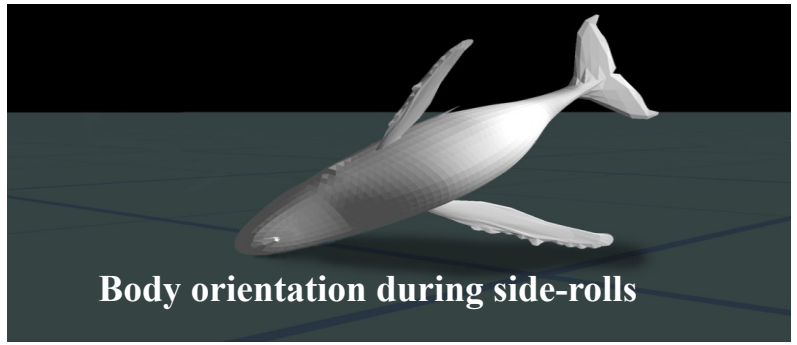
Stellwagen Bank is a feeding area.

The main food is sand lance, a small 15 cm long fish that burrows into the sand.

Tagging data show that humpback whales feed along the bottom, particularly at night.



Bimodal Distribution of Body Orientation



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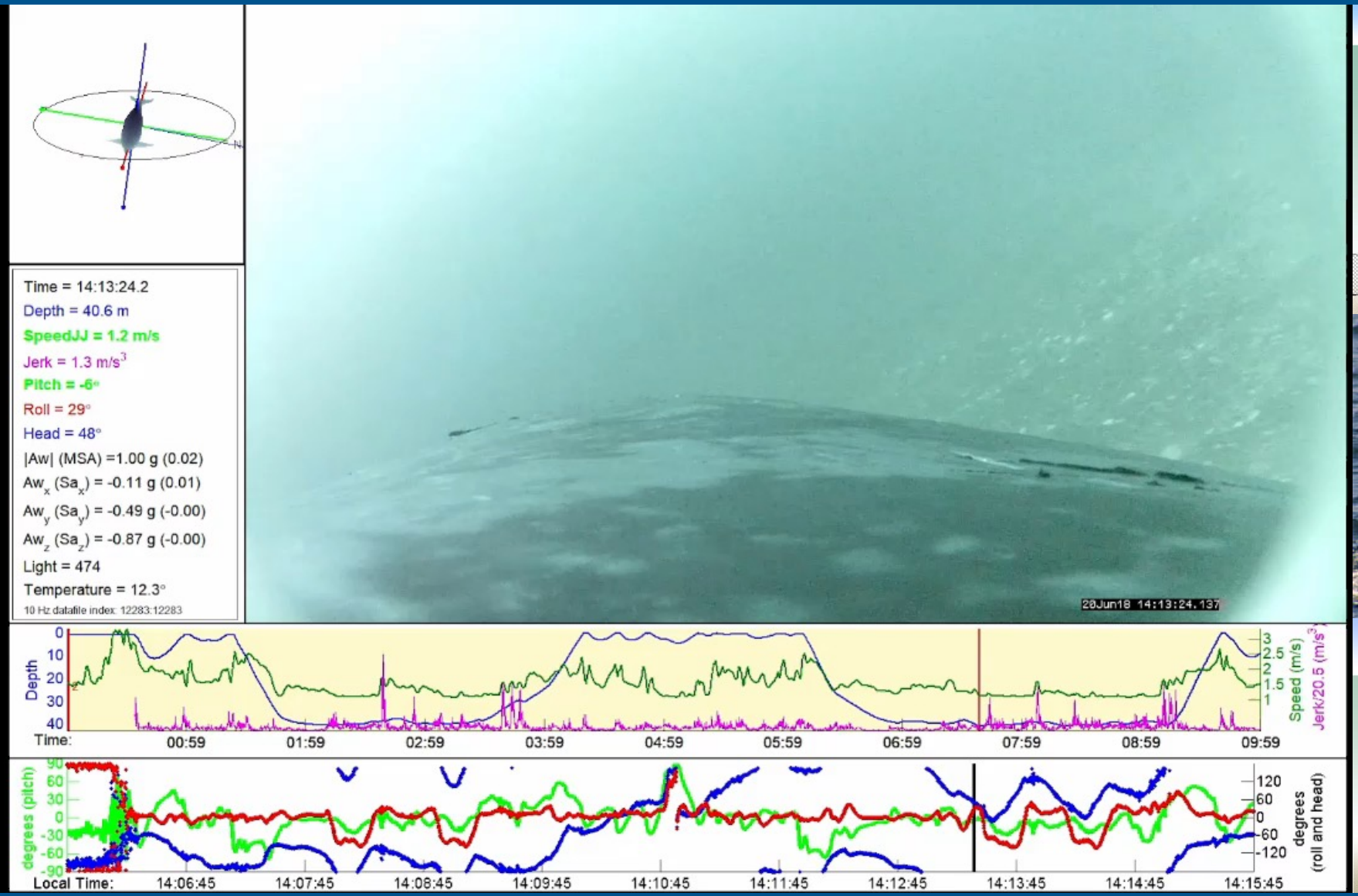

Landry: CCS

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Atlantic Large Whale Take Reduction Team

The Atlantic Large Whale Take Reduction Team is one of several take reduction teams established to help develop plans to mitigate the risk to marine mammals posed by fishing gear. We established the Team in 1996 and it is composed of fishermen, scientists, conservationists, and state and federal officials from Maine to Florida.

https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/atlantic-large-whale-take-reduction-team

Marine Mammal Protection Act Take Reduction Program

The MMPA prohibits take of marine mammals - but provides conditional exception for incidental take in commercial fisheries

- Required if incidental mortality and serious injury exceeds Potential Biological Removal (PBR)
- Take Reduction Planning (TRP):
  - Develop and recommend take reduction measures
  - Consensus-based
- NMFS has the ultimate responsibility to take action

Atlantic Large Whale Take Reduction Team (ALWTRT)	
Group	**# of Members**
Trap/Pot Fishery	18
Gillnet Fishery	5
Conservation/Environmental	6
Academic/Scientific	9
State Managers	14
Federal Managers	5
Fishery Management Organizations	4
Total	**61**

Primarily focused on North Atlantic Right Whales, but also Humpback & Fin

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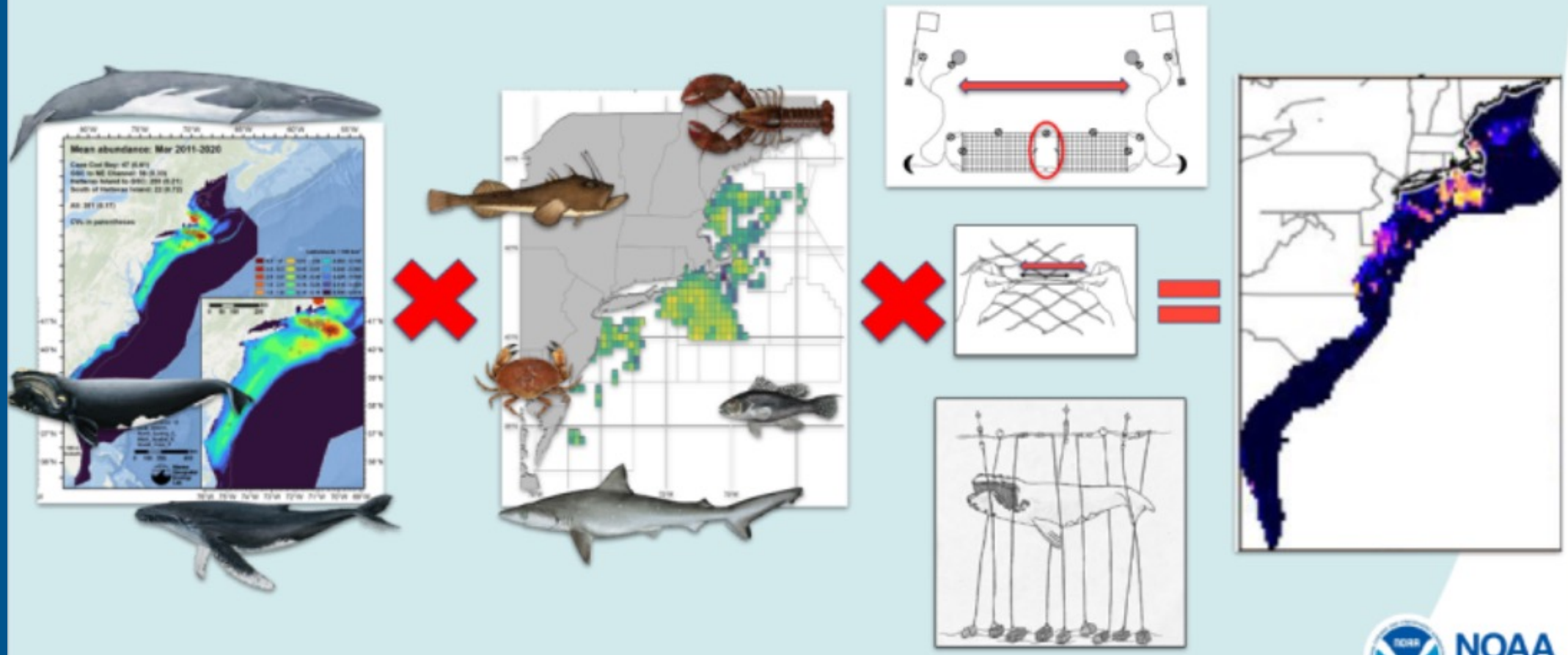
IFAW's & MADMF Lobster Gear Replacement Project 2004-2005

- Over 250 lobstermen participated, each contributing 25% of cost for replacement line.
- 16 rope distributors participated, and contributed a 5% discount on each transaction.
- Grant funding supported a 70% subsidy for each lobsterman to replace his floating groundline with sinking line.
- Approximately 2100 miles, or 150 tons of floating groundline replaced.

Model Structure

Decision Support Tool: Duke University

WHALES ✖ GEAR DENSITY ✖ SEVERITY = *RISK



*Calculated for each month and area and summed across all months area locations

NOAA FISHERIES

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On-demand, also called “ropeless”, systems use far less rope in the water than traditional gear designs. To locate and haul (retrieve) gear, traditional methods tether gear to a rope attached to a buoy at the water’s surface. The main characteristic of on-demand gear is that it does not need this gear-to-buoy tether.

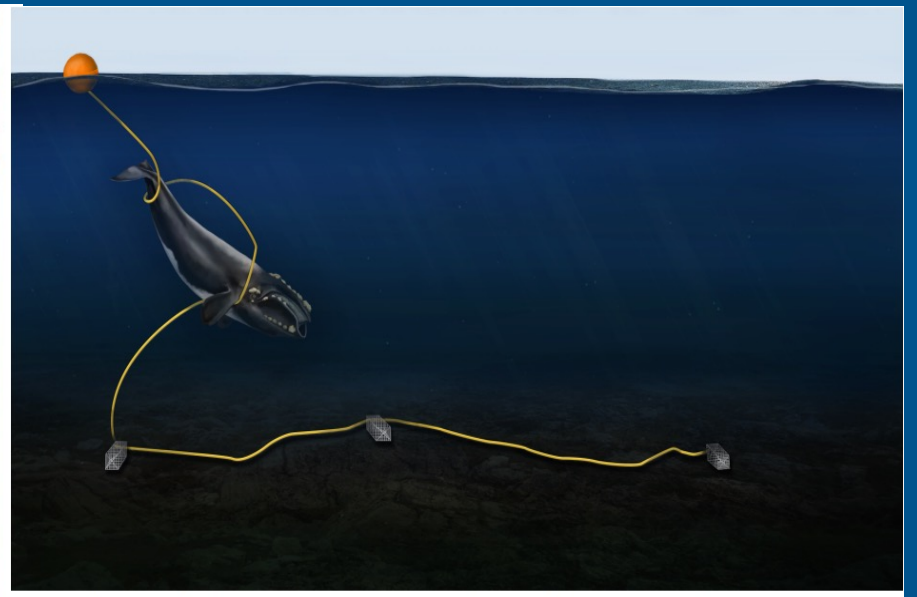

Figure 4. Illustration of whale entangled in a conventional trap/pot fishing gear buoy line.

Northeast Fisheries Science Center

Draft Ropeless Roadmap

A Strategy to Develop On-Demand Fishing

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BUSINESS > Posted **June 16** | Updated **June 17**

Federal ruling in controversial whale lawsuit gives big win to Maine lobster industry

The ruling vacates a biology-based decision – the government's 10-year plan to reduce the risk posed by fishing gear to endangered North Atlantic right whales.

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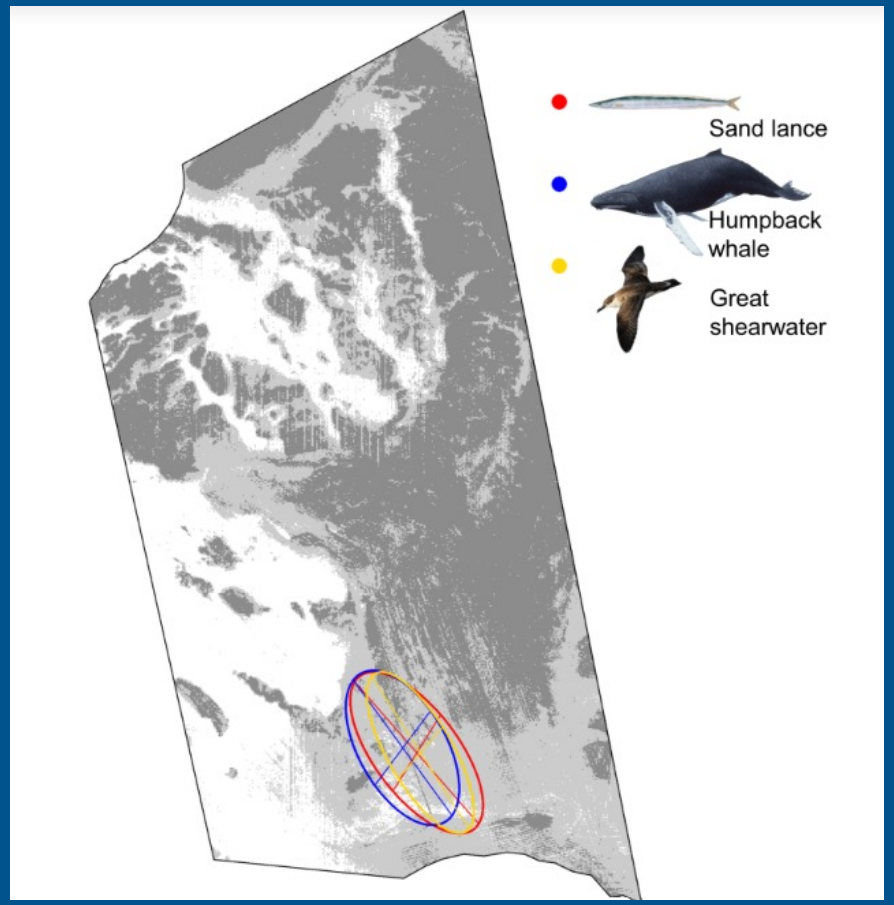
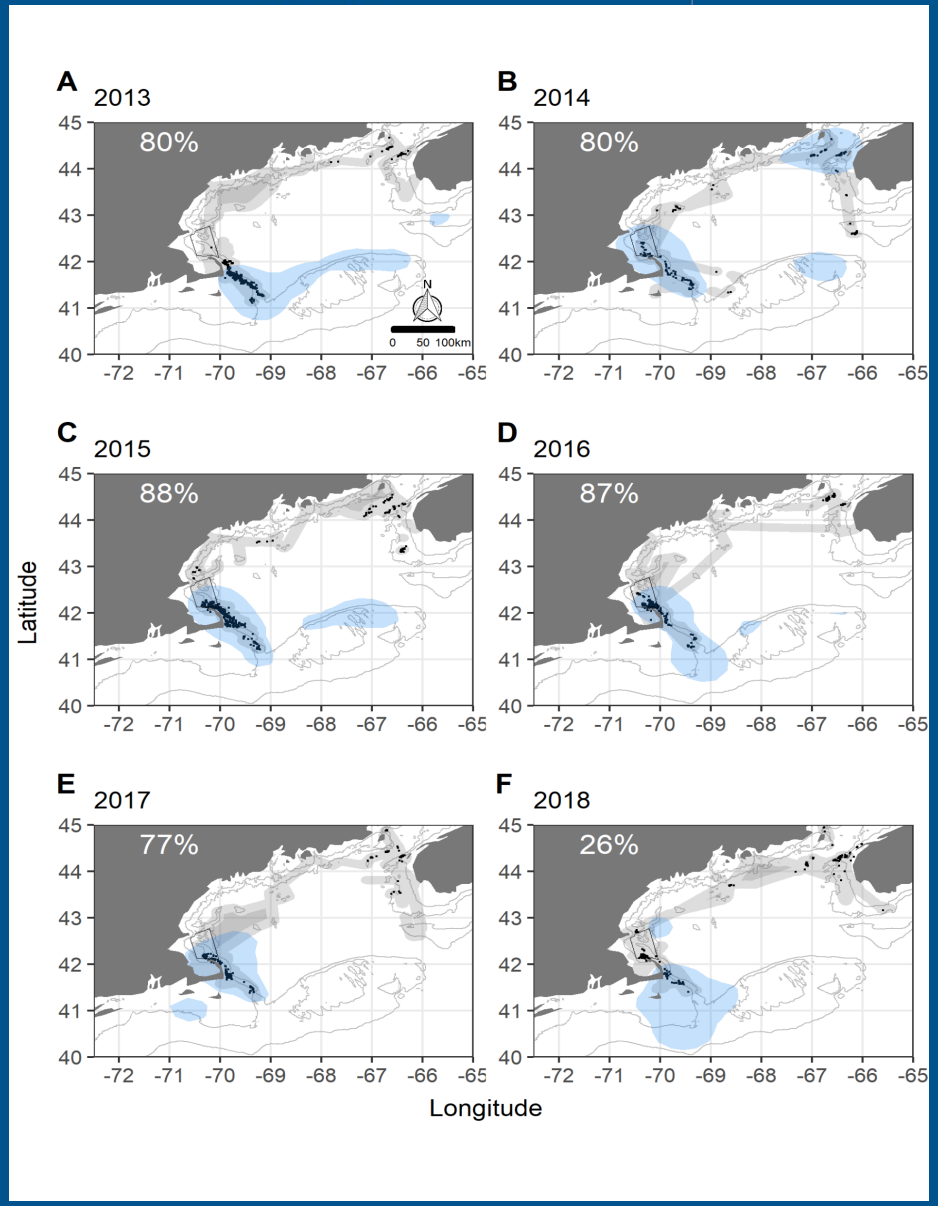
PERSPECTIVES AND NOTES

Conservation Science and Practice
A journal of the Society for Conservation Biology
Open Access
WILEY

High collocation of sand lance and protected top predators: Implications for conservation and management

Tammy L. Silva[1,2] | David N. Wiley[1] | Michael A. Thompson[1] | Peter Hong[1] | Les Kaufman[3] | Justin J. Suca[4] | Joel K. Llopiz[4] | Hannes Baumann[5] | Gavin Fay[2]





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NEWS

Reducing Entanglements and Vessel Strikes Makes Extinction Less Likely for North Atlantic Right Whales

October 17, 2023

A new analytical tool helps users understand how the population will change over 100 years if threats are mitigated.

https://www.fisheries.noaa.gov/feature-story/reducing-entanglements-and-vessel-strikes-makes-extinction-less-likely-north-atlantic

Questions and Discussion

OPEN DISCUSSION