

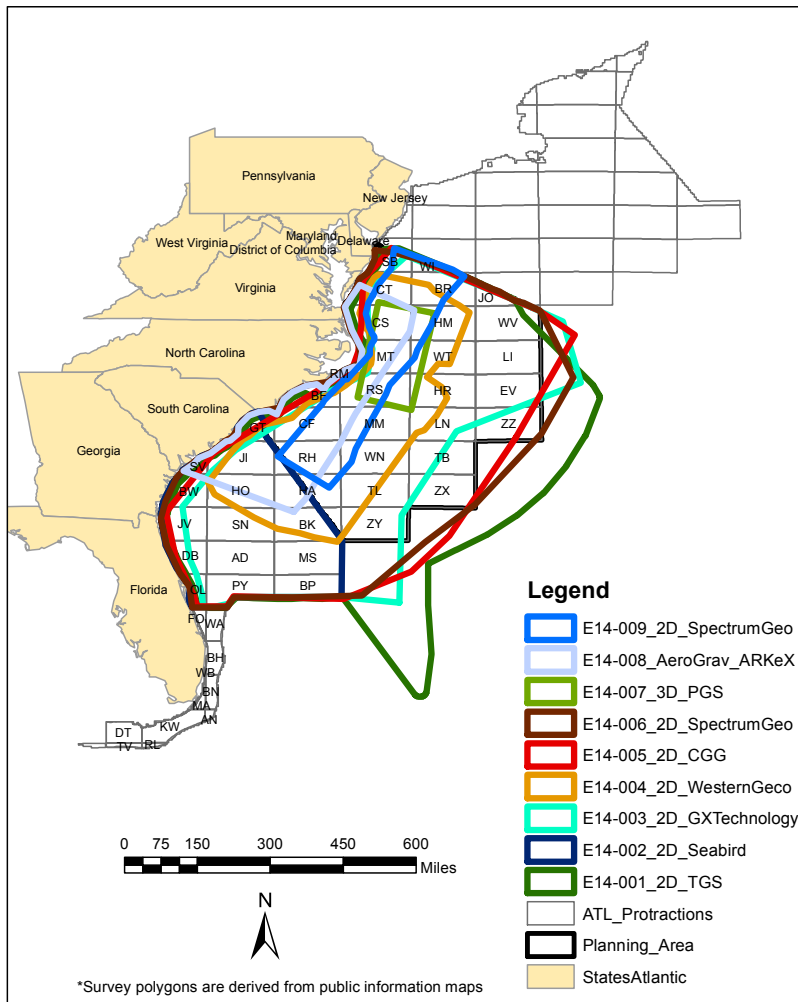
Marine Mammals of the Southeast Atlantic

Andrew J. Read
Nicholas School of the Environment
Duke University Marine Lab
Beaufort, NC



Offshore Drilling Forum
New Bern, NC
July 31st 2015

Atlantic Pending Surveys



What do we know about the marine mammals in this area?

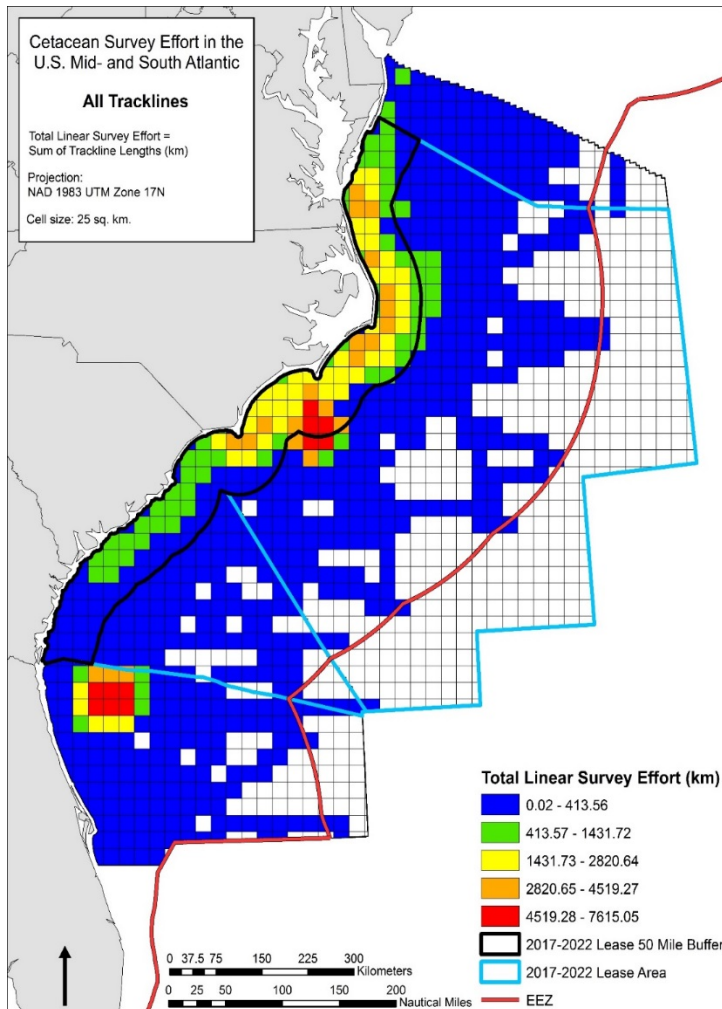
Species occurrence

Distribution

Population Structure

Behavior

Vulnerability



In near-shore waters (less than 50 nm from shore), our knowledge of marine mammals is pretty good.

In the rest of the EEZ our knowledge is incomplete, at best.

Outside the EEZ we are just making things up.

The waters of the proposed lease program and seismic survey areas support a diverse assemblage of whales and dolphins

Seven species of baleen whales



North Atlantic Right Whale and Calf

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Seven species of baleen whales

Twenty-three species of toothed whales



Common Dolphins

The waters of the proposed lease program and seismic survey areas support a diverse assemblage of whales and dolphins (and sea turtles)

Seven species of baleen whales

Twenty-three species of toothed whales

Four species of sea turtles



Loggerhead Sea Turtle

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Twenty-three species of toothed whales

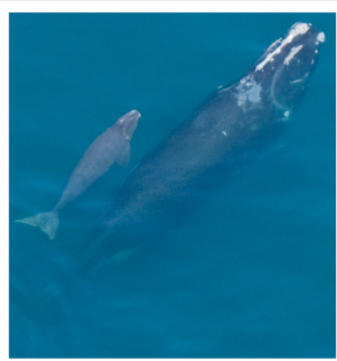
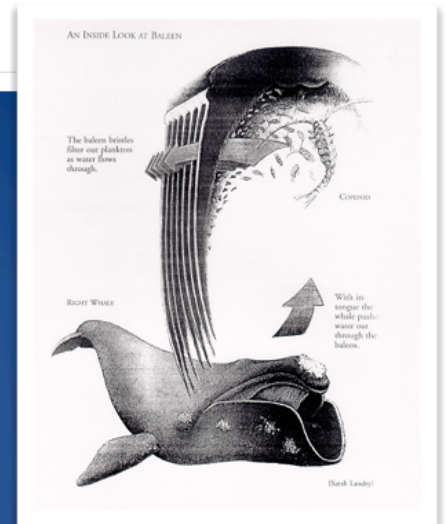
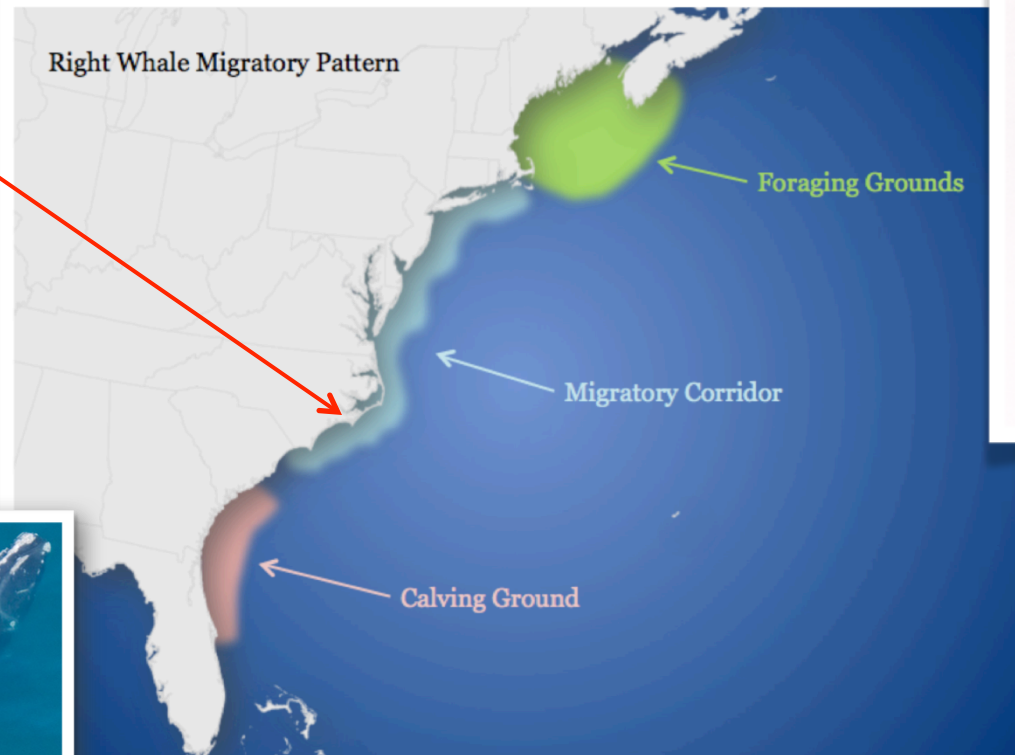
Four species of sea turtles



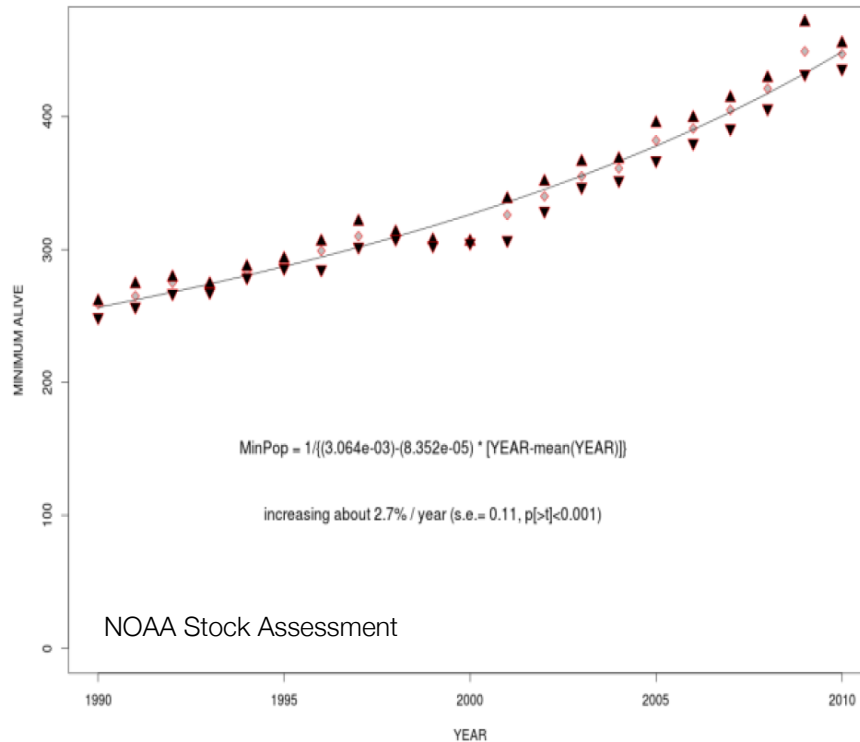
Sperm Whale

Ten of these 34 species are listed as Threatened or Endangered under the ESA

North Atlantic Right Whales



North Atlantic Right Whales



476 individual whales were known to be alive in 2011

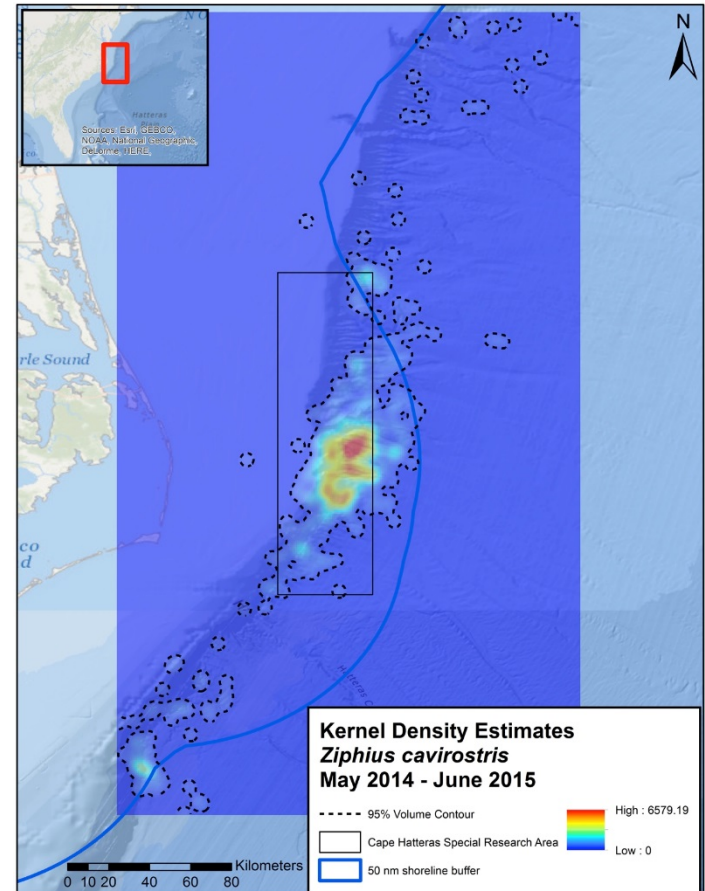
Cuvier's Beaked Whales



These deep-diving whales are particularly susceptible to some anthropogenic sounds

Off Cape Hatteras, they make dives to depths of up to 2,800 m and with durations of up to 98 minutes

Cuvier's Beaked Whales



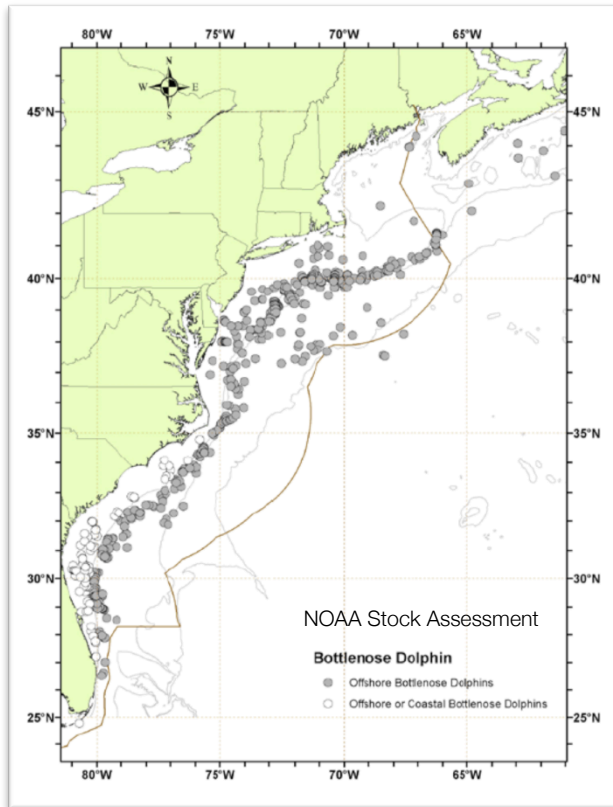
Pelagic Bottlenose Dolphins

“The highest numbers estimated for a particular species are for the bottlenose dolphin, as noted above, and in its case the PEIS estimated potential for Level A takings of up to 11,748 individual bottlenose dolphins a year from air gun surveys and potential for up to 1,151,442 Level B takings.”

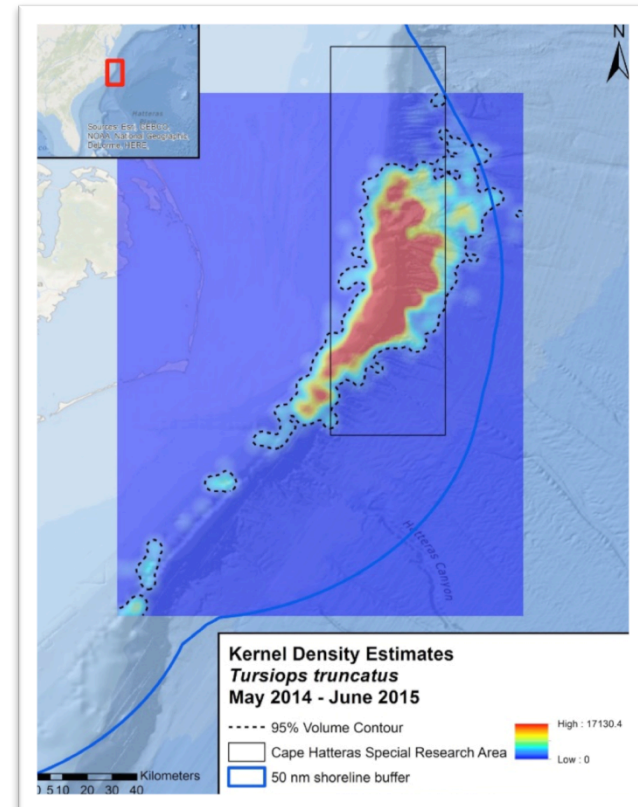


William Y. Brown, Chief Environmental Officer, Bureau of Ocean Energy Management. March 9, 2015.

Pelagic Bottlenose Dolphins

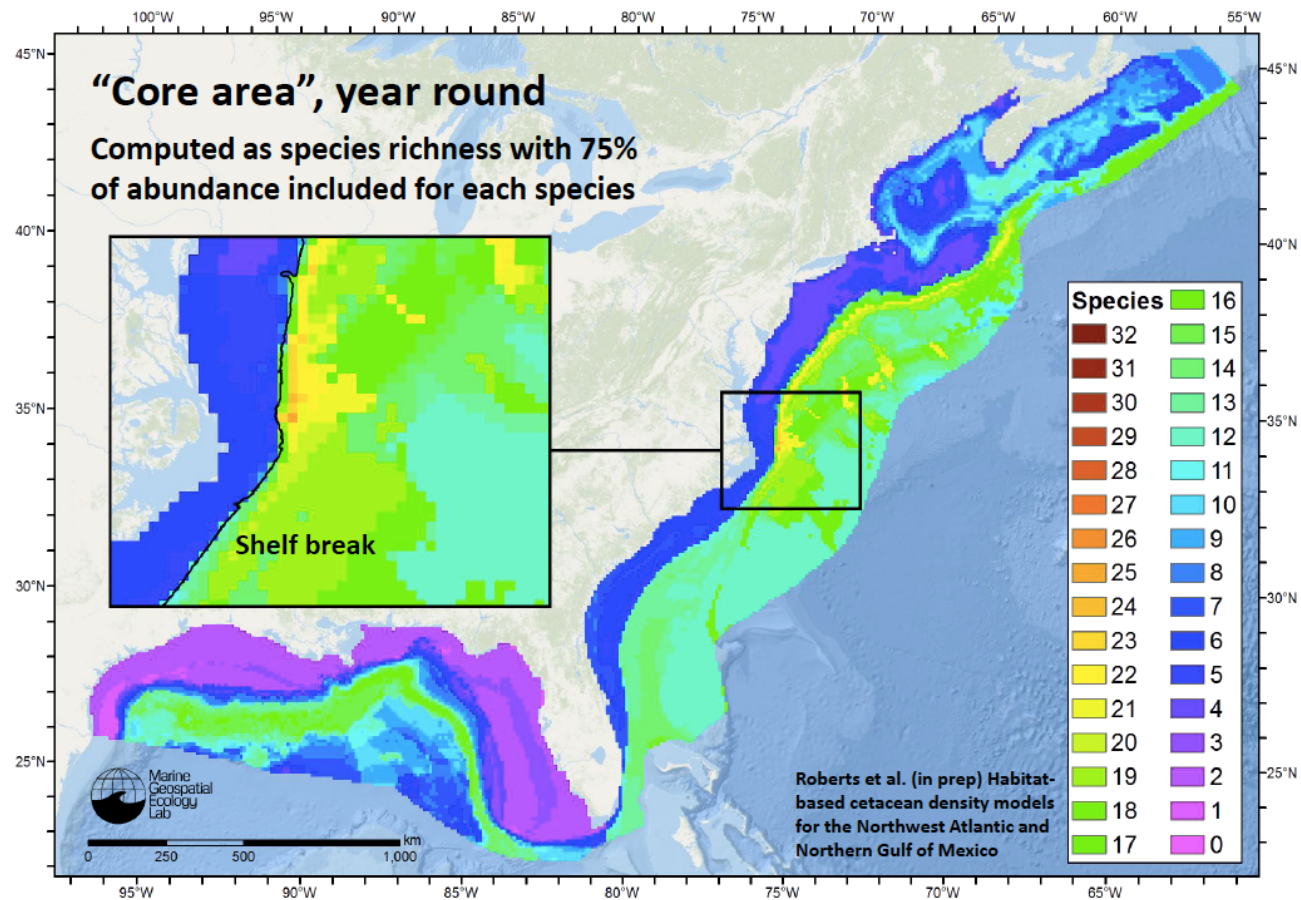


We assume a *single* pelagic stock



But some dolphins call The Point 'home'

High Species Diversity at The Point off Cape Hatteras



A Few Concluding Thoughts

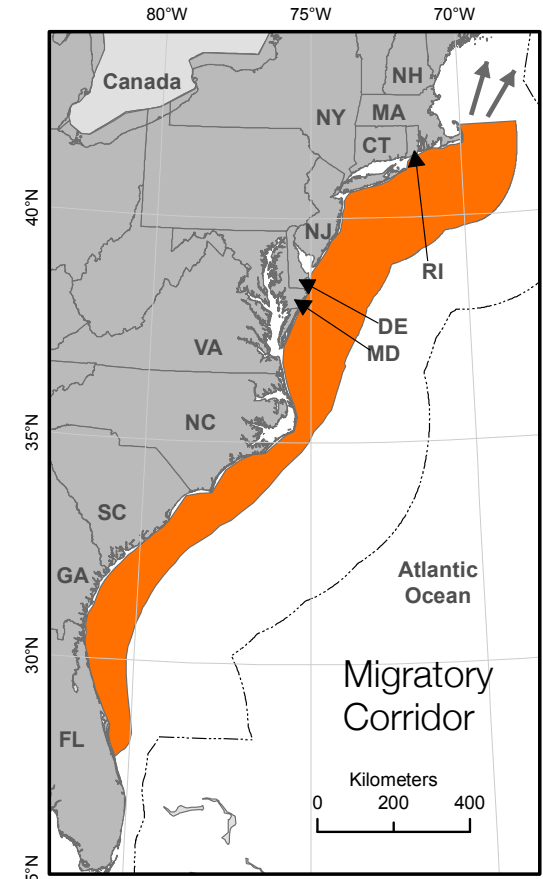
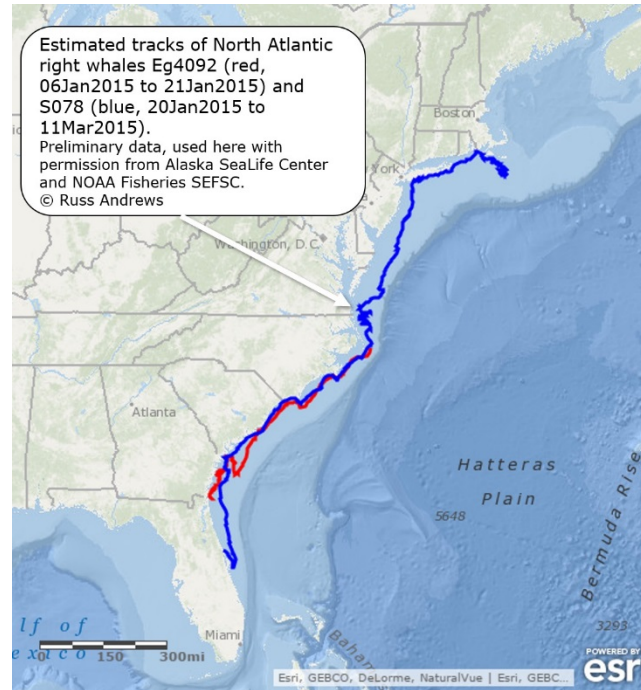
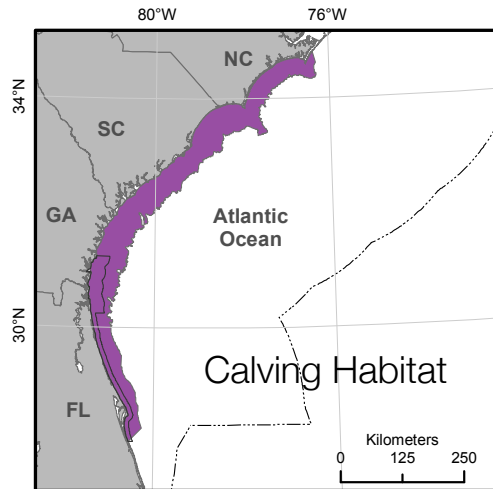
1. Our knowledge of marine mammals offshore of the continental shelf break in the Mid- and South Atlantic is very poor
2. Some vulnerable species, such as right whales, are already at risk as a result of human activities, including fishing and shipping
3. We should not assume that the pelagic realm is one enormous, continuous habitat
4. Some particularly sensitive areas, such as The Point off Cape Hatteras, deserve a special degree of protection



Thank You....

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North Atlantic Right Whales



LaBrecque *et al.* (2015). *Aquatic Mammals* 41: 17-29.