



NOAA
FISHERIES

Southeast
Region

The Big Picture

Marine Mammals and Threats in the Gulf of Mexico

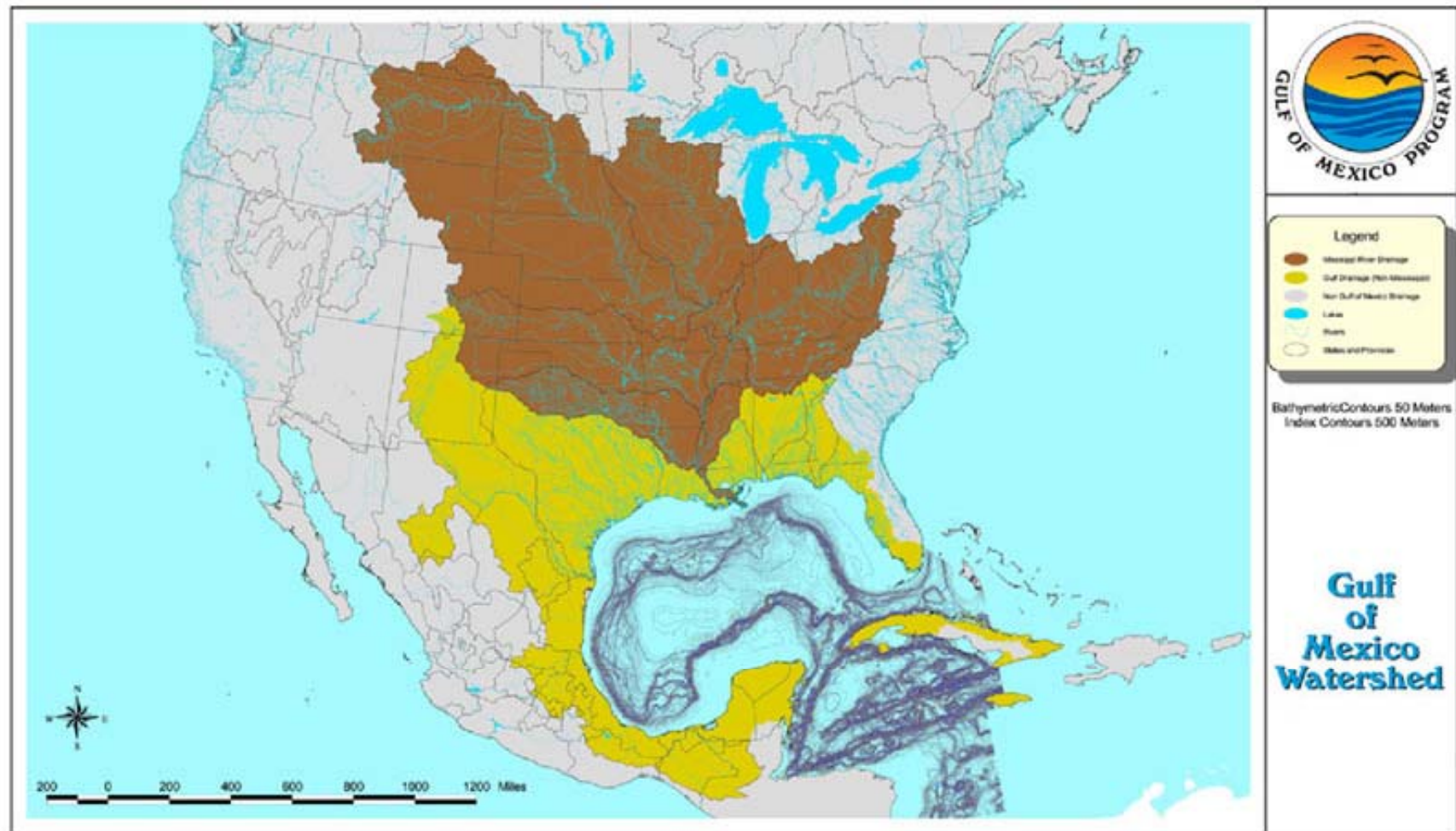
Laura K Engleby
Chief, Marine Mammal Branch
Protected Resources Division
NMFS Southeast Region
April, 2015

Gulf of Mexico



NOAA

Gulf of Mexico



Gulf of Mexico Economy



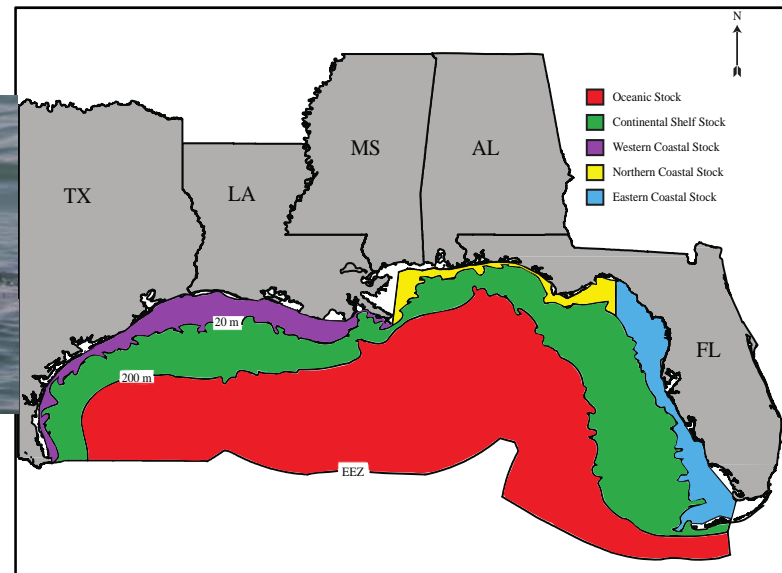
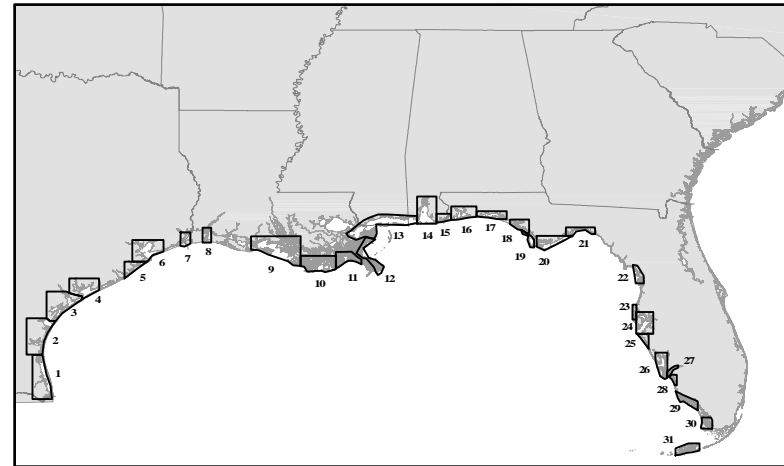
Photo: Sarasota Dolphin Research Program



4/16/2015

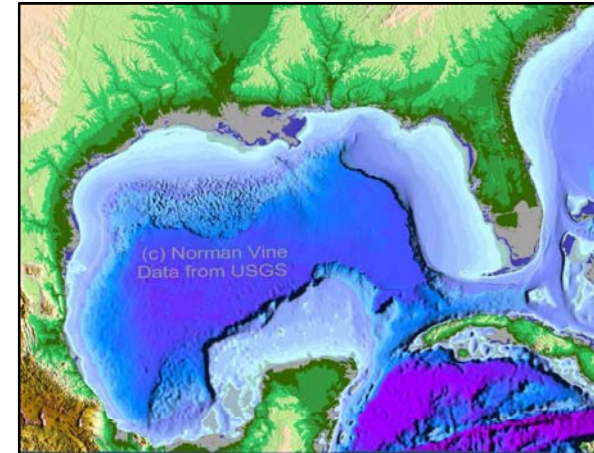
Gulf of Mexico Cetacean Species

- Bays, Sounds & Estuaries
 - Bottlenose dolphins – the 31 BSE stocks are of special concern because in many cases individual dolphins are resident to small areas (i.e., occur there at least 50% of the time).
- Coastal Waters (0 – 20 m)
 - Bottlenose dolphins – 3 stocks
- Continental Shelf (20 – 200 m)
 - Atlantic spotted dolphins – 1 stock
 - Bottlenose dolphins – 1 stock
- Oceanic Waters (≥ 200 m)
 - 20 species – 20 stocks



Gulf of Mexico Oceanic Cetacean Species

- Bryde's whale
- Sperm whale (ESA-listed)
- Dwarf sperm whale
- Pygmy sperm whale
- Cuvier's beaked whale
- Blainville's beaked whale
- Gervais' beaked whale
- Short-finned pilot whale
- Killer whale
- Pygmy killer whale



- Melon-headed whale
- False killer whale
- Risso's dolphin
- Bottlenose dolphin
- Rough-toothed dolphin
- Fraser's dolphin
- Pantropical spotted dolphin
- Striped dolphin
- Clymene dolphin
- Spinner dolphin



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and the Florida Manatee (ESA listed)



Legal Mandates for Marine Mammals



Bryde's Whale



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NOAA-SEFSC permit # 779-1633

Threats to Marine Mammals in the Gulf of Mexico



Threats – Bottlenose dolphin Bay, Sound and Estuarine Stocks (Phillips and Rosel, 2014)

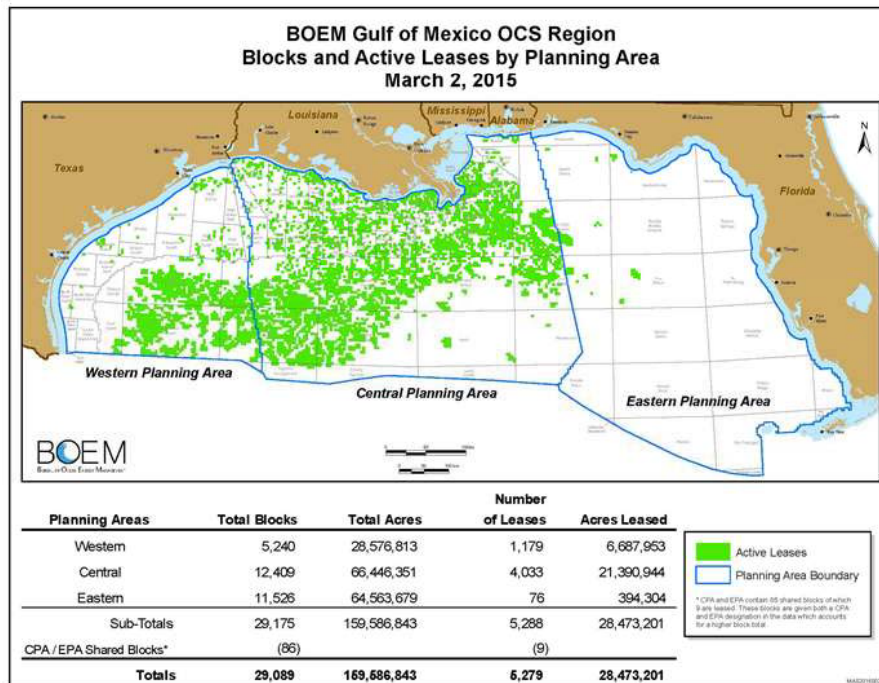
| | | |
|-----------------------|---------------------------|--------------------------|
| Oil and gas pollution | Aquaculture | Adverse weather |
| Heavy metal pollution | Shipping | Freshwater inflow |
| Chemical pollution | Dredging and construction | Habitat loss |
| Marine debris | Tourism and boat traffic | Disease |
| Recreational fishing | Algal blooms | Climate change |
| Commercial fishing | Hypoxia | Unusual Mortality Events |
| Noise | | |

Loss of warm water habitat



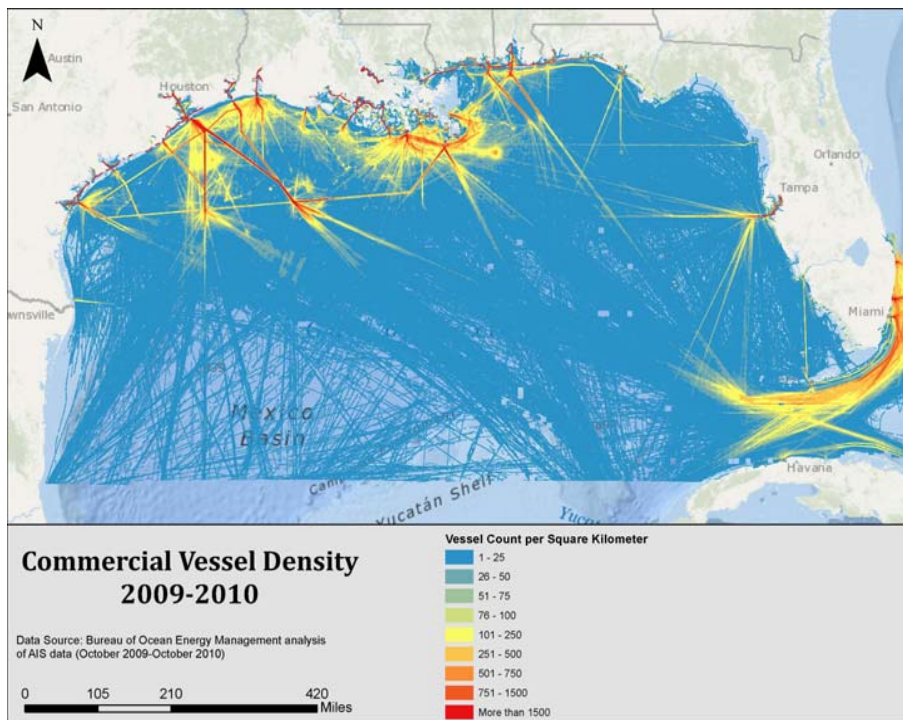
Adapted from Phillips, NM and PE Rosel. 2014. A Method for Prioritizing Research on Common Bottlenose Dolphin Stocks Through Evaluating Threats and Data Availability: Development and Application to Bay, Sound and Estuary Stocks in Texas. NOAA Technical Memorandum NMFS-SEFSC-665 146 p

Threats- Oil and Gas Industry

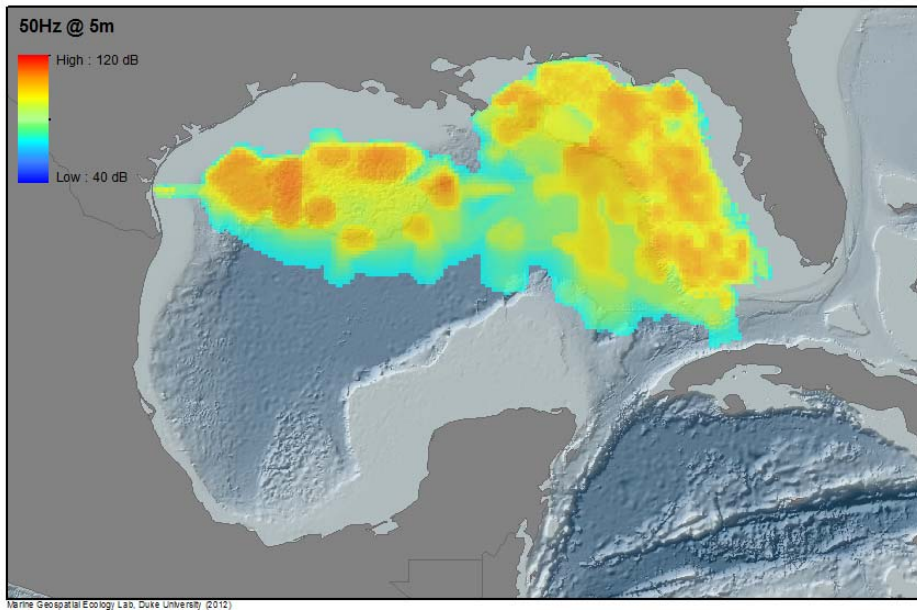


Louisiana Department of Wildlife and Fisheries

Threats – Shipping



Threats - Noise



Cetsound annual average ambient noise modeling seismic surveys



Threats- Fishing



Threat- Wildlife Tourism



Sarasota Dolphin Research Program



How do we reach desired outcome?

- Collect more data
- Standardize data
- Ensure data informs management

Moving Forward



Questions?



Slide on cumulative effects- muraski or my slide?

Understand and address impacts to marine mammals (bottlenose dolphins) in the Gulf of Mexico such as UMEs, energy development, human interactions, and overall poor health from environmental and human pressure.

Address all NRDA related needs (e.g., restoration).

- Facilitate the development of an integrated, multi-disciplinary, partnership **Action Plan for Marine Mammals in the Gulf.**
- Conduct a risk assessment for bottlenose dolphin stocks that overlap with commercial fisheries in the Gulf of Mexico.
- Understand impacts to dolphins by addressing information gaps on abundance, PBR, mortality estimates, and defined stock boundaries.
- Reduce chronic and increasing negative impacts to dolphins from tourism, illegal feeding, and harassment.