



**NOAA**  
**FISHERIES**

Southeast  
Region

# An Overview of the Marine Mammal Stranding Response Program in the Southeast U.S.

*Erin M. Fougères, Blair Mase-Guthrie, Randall  
Wells, Jon Peterson, and Laura Engleby*

March 30, 2018

# Outline

1. Laws governing marine mammal stranding response
2. Overview of strandings and interventions in the Southeast U.S.
3. Why stranding data are important
4. Rehabbed and released pilot whale case example
5. Emerging issues and challenges





# U.S. Laws Governing Marine Mammals

---

- All marine mammals are protected under the Marine Mammal Protection Act (MMPA)
- Some marine mammals are also protected under the Endangered Species Act (ESA)

In the Southeast Region includes:

- Blue whale
- Fin whale
- North Atlantic right whale
- Sei whale
- Sperm whale

# The Marine Mammal Protection Act of 1972

Title I: Conservation and Protection of Marine Mammals

Title II: Marine Mammal Commission

Title III: International Dolphin Conservation Program

Title IV: Marine Mammal Health and Stranding Response

Title V: Polar Bears





# Title IV: Marine Mammal Health and Stranding Response

---

Established the Marine Mammal Health and Stranding Response Program (1992)

- Collect and disseminate data on health and health trends
- Correlate health/trends data with biological, physical, and chemical environmental parameters
- Coordinate effective responses to unusual mortality (and morbidity) events



# Components of the Marine Mammal Health and Stranding Response Program



Hubbs-SeaWorld Research Institute

### Stranding Network



### Disease/Unusual Mortality Event Investigations

### Prescott Grant Program



NOAA

### Tissue Bank/ Quality Assurance



Marine Mammal Conservancy

### Rehabilitation & Release



FWC

### Disentanglement Network



Mote Marine Lab

### Biomonitoring / Health Assessments



### Data Management



# What is a Stranding?

Marine mammals are sometimes found sick, injured, or dead along our beaches. They can also become entrapped or disoriented and unable to return to their natural habitat without assistance (out-of-habitat). These events are called strandings and require investigation by trained Marine Mammal Stranding Network personnel.



# Marine Mammal Stranding Network

Volunteer stranding networks exist in all coastal states. They are comprised of trained responders and veterinarians who are authorized under the MMPA to respond to and rehabilitate live stranded or out-of-habitat marine mammals and investigate dead stranded marine mammals.





# Marine Mammal Stranding Network

---

The MMPA provides two ways in which marine mammal stranding response is authorized:

- (1) Section 109(h) of the MMPA

# Marine Mammal Stranding Network

---

The MMPA provides two ways in which marine mammal stranding response is authorized:

(1) Section 109(h) of the MMPA:

Nothing ... shall prevent a Federal, State, or local government official or employee... from taking, in the course of his or her duties as an official or employee, a marine mammal in a humane manner (including euthanasia) if such taking is for:

- A. The protection or welfare of the mammal
- B. The protection of the public health and welfare, or
- C. The nonlethal removal of nuisance animals



# Marine Mammal Stranding Network

---

The MMPA provides two ways in which marine mammal stranding response is authorized:

- (1) Section 109(h) of the MMPA
- (2) Section 112(c) of the MMPA (Stranding Agreements):

The Secretary may enter into such contracts, leases, cooperative agreements, or other transactions as may be necessary to carry out the purposes of this title or title IV and on such terms as he deems appropriate with any Federal or State agency, public or private institution, or other person.

# Endangered Species Act of 1972

## How does ESA listing affect stranding response?

An ESA permit is required to respond to a stranded, endangered marine mammal. In the Southeast Region, the NMFS Stranding Program Coordinator and Administrator are Co-PIs on the National MMHSRP MMPA/ESA permit and all response must be authorized through them.



Texas Marine Mammal Stranding Network



Hubbs-SeaWorld Research Institute



UNC Wilmington



# Intervention: Capture of free swimming dolphins

- Primarily for animals in distress as a result of human activities (e.g., entangled in fishing gear or marine debris, injured from a vessel collision, trapped due to physical or perceived barrier)
- Other situations where intervention may be warranted:
  - Out of habitat (e.g., in fresh water, pelagic species inshore)
  - Displaced by natural disasters (hurricanes, floods)
  - Orphaned calves



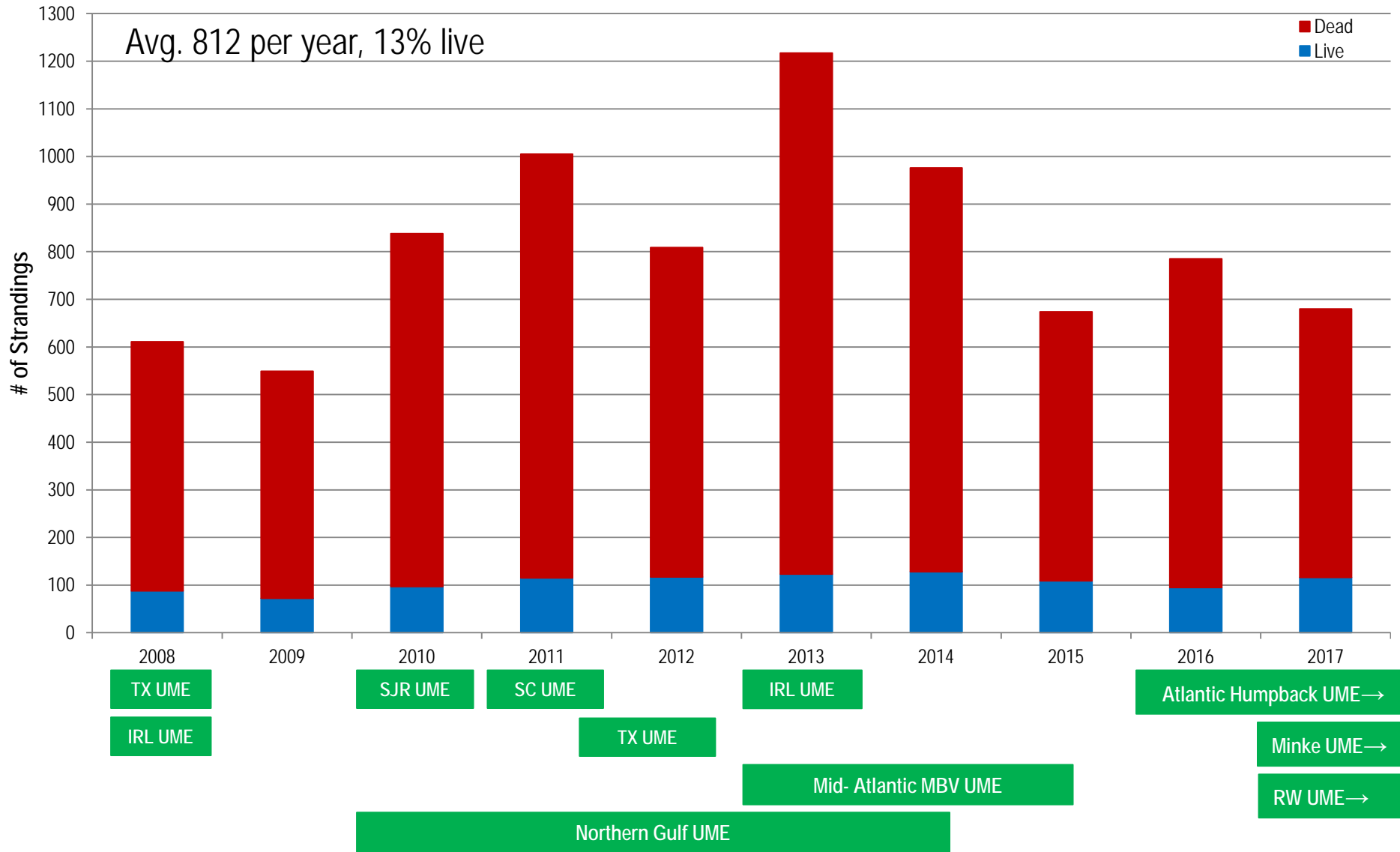
# Outline

1. Laws governing marine mammal stranding response
2. Overview of strandings and interventions in the Southeast U.S.

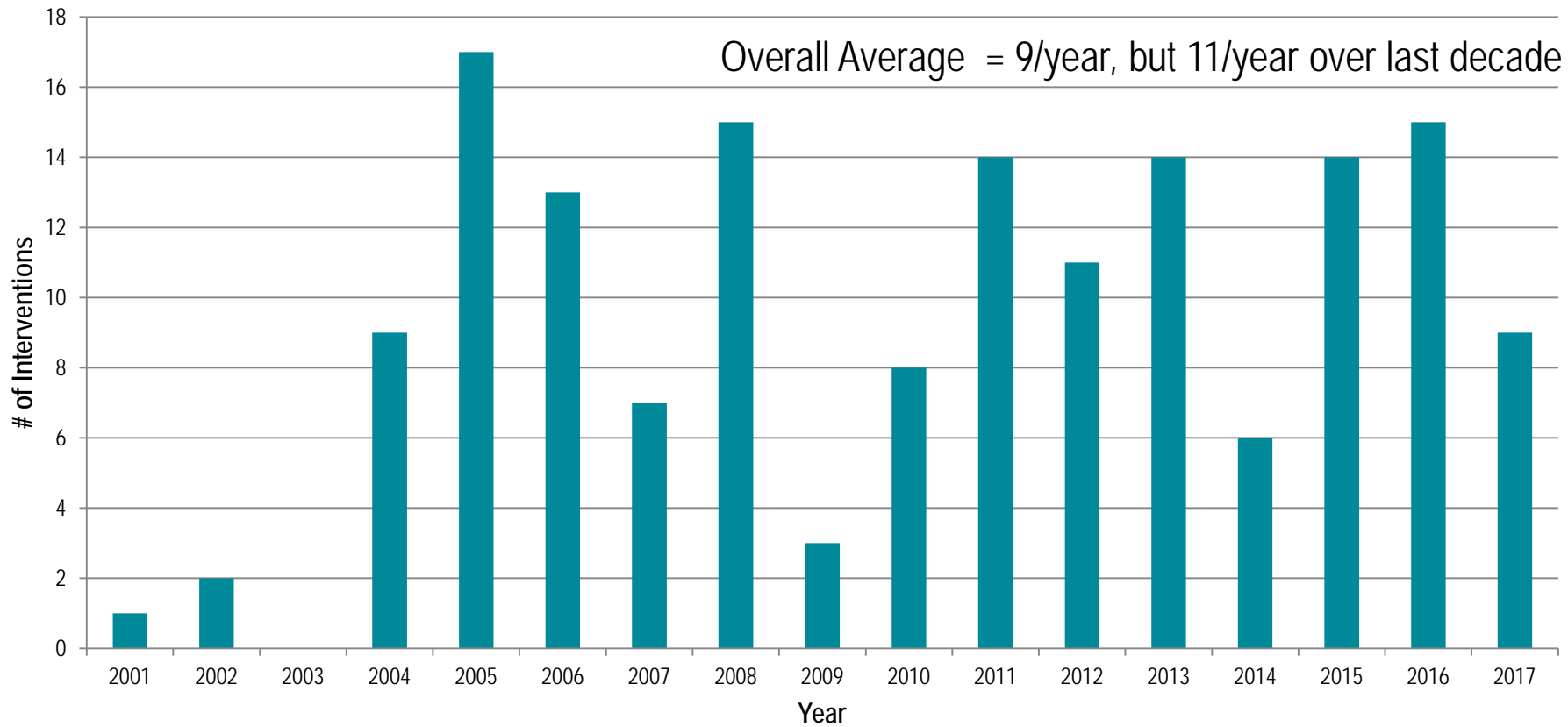




# Southeast Region Strandings:

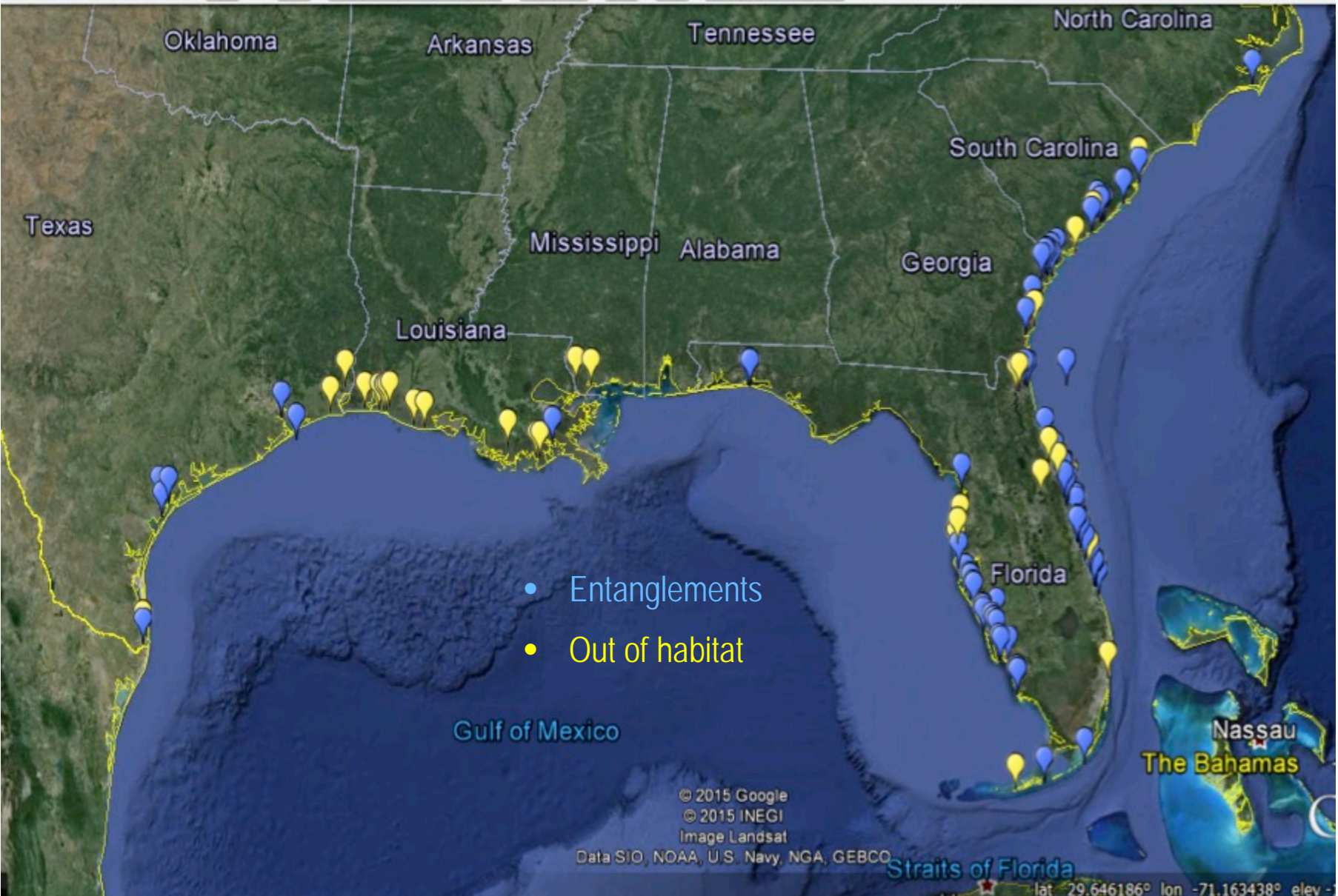


# Total Interventions 2001-2017



Civilian	Network Only	Multi Agency
20%	42%	38%

# Interventions in the Southeast 2004-2014







# Why investigate strandings?



# Why investigate strandings?

## Identify Natural & Anthropogenic Threats:

- Direct human impacts (e.g., vessel strike, entanglement, shootings)
- Anthropogenic chemicals
- Infectious disease
- Biotoxins

## Basic Biology & Distribution

- Species distribution & seasonality
- Mortality rates
- Life history
- Discovery Science: May be only data possible on uncommon species

## Efficacy of management measures

Rosel et al. *Marine Biodiversity Records* (2016) 9:63  
DOI 10.1186/s41200-016-0058-x

Marine Biodiversity Records

MARINE RECORD

Open Access



### First record of Antarctic minke whale, *Balaenoptera bonaerensis*, in the northern Gulf of Mexico

Patrícia E. Rosel<sup>1\*</sup>, Lynsey A. Wilcox<sup>1</sup>, Carolina Monteiro<sup>2</sup> and Mandy C. Tumlin<sup>3</sup>

#### Abstract

**Background:** The Antarctic minke whale, *Balaenoptera bonaerensis*, is a Southern Hemisphere species of balaenopterid whale generally found south of 60°S in austral summer. In the Atlantic Ocean, they migrate north during austral winter as far as approximately 7°S. On 05 February, 2013, a 7.7 m baleen whale was observed floating dead off of

**Results:** Ge  
it was an A

NOAA





# In the Gulf, specifically...

- Stranding data were critical for determining the impacts of the DWH oil spill on marine mammals
  - Impacts of response activities
  - As part of NRDA
- Stranding data provide baselines to evaluate impacts of future spills/disasters on marine mammals
- Monitoring effectiveness and impacts of restoration activities





# Outline

1. Laws governing marine mammal stranding response
2. Overview of strandings and interventions in the Southeast U.S.
3. Why stranding data are important
4. Rehabbed and released pilot whale case example



# Pilot whales and TRT background

- 3 stocks of short finned pilot whales in SE US: (1) Western North Atlantic, (2) PR and USVI, and (3) northern GoM
- Western North Atlantic stock is subject to a take reduction team under the MMPA due to high levels of bycatch in the Atlantic Pelagic Longline Fishery (Pelagic Longline Take Reduction Team), particularly within the mid-Atlantic
- Understanding stock structure, serious injury and mortality is critical for management



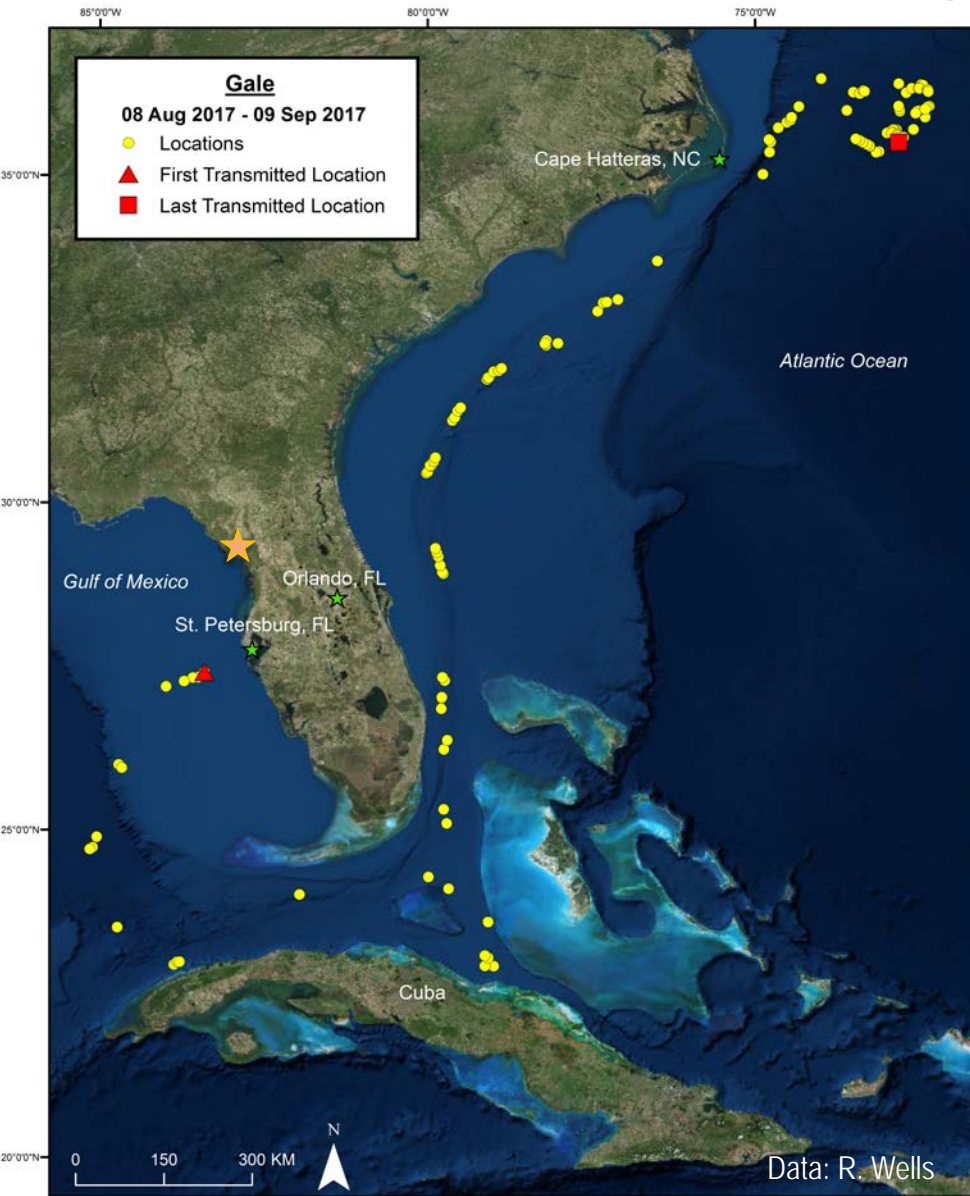
# Short-finned pilot whale mass stranding

- Between June 29 and July 2, 2017, 10 whales mass stranded in Dixie and Taylor counties, FL
- One whale (310cm female, nicknamed “Gale”) was transported to SeaWorld Orlando for rehabilitation
- Given stranding location, animal was assumed to be from northern GoM stock of pilot whales. Therefore, she was released after 37 days of rehab ~180nm west of St Petersburg, FL within the GoM





# Gale post-release monitoring



- Tracked for 32 days until tag stopped transmitting off the coast of NC in an area of known short finned pilot whale habitat

## Implications for:

- Future release site planning and logistics
- Stock structure?
- ...TRTs



# Outline

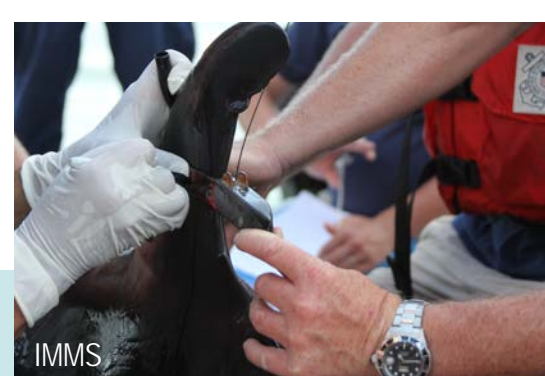
1. Laws governing marine mammal stranding response
2. Overview of strandings and interventions in the Southeast U.S.
3. Why stranding data are important
4. Rehabbed and released pilot whale case example
5. Emerging issues and challenges





# Emerging Issues and Challenges

- Increase capacity to monitor and respond to free-swimming, entangled or out-of-habitat small cetaceans
- Increase standardized data collection, diagnostic and analytical capacity Region wide
- Increase communication and sharing of information/data between Network partners and with NOAA, including collaborative databases
- Integrate stranding data with other health datasets
- Increase capacity to monitor animals that are rehabilitated and released or deemed appropriate for immediate release from the stranding site
- Increase capacity to respond to mass strandings, large whales, Unusual Mortality Events, and natural/anthropogenic disasters
- Understanding impacts of prolonged freshwater exposure





# Questions?



# Multiple Stressors

