

Right Whale Conservation Program

GTM NERR State of The Reserve

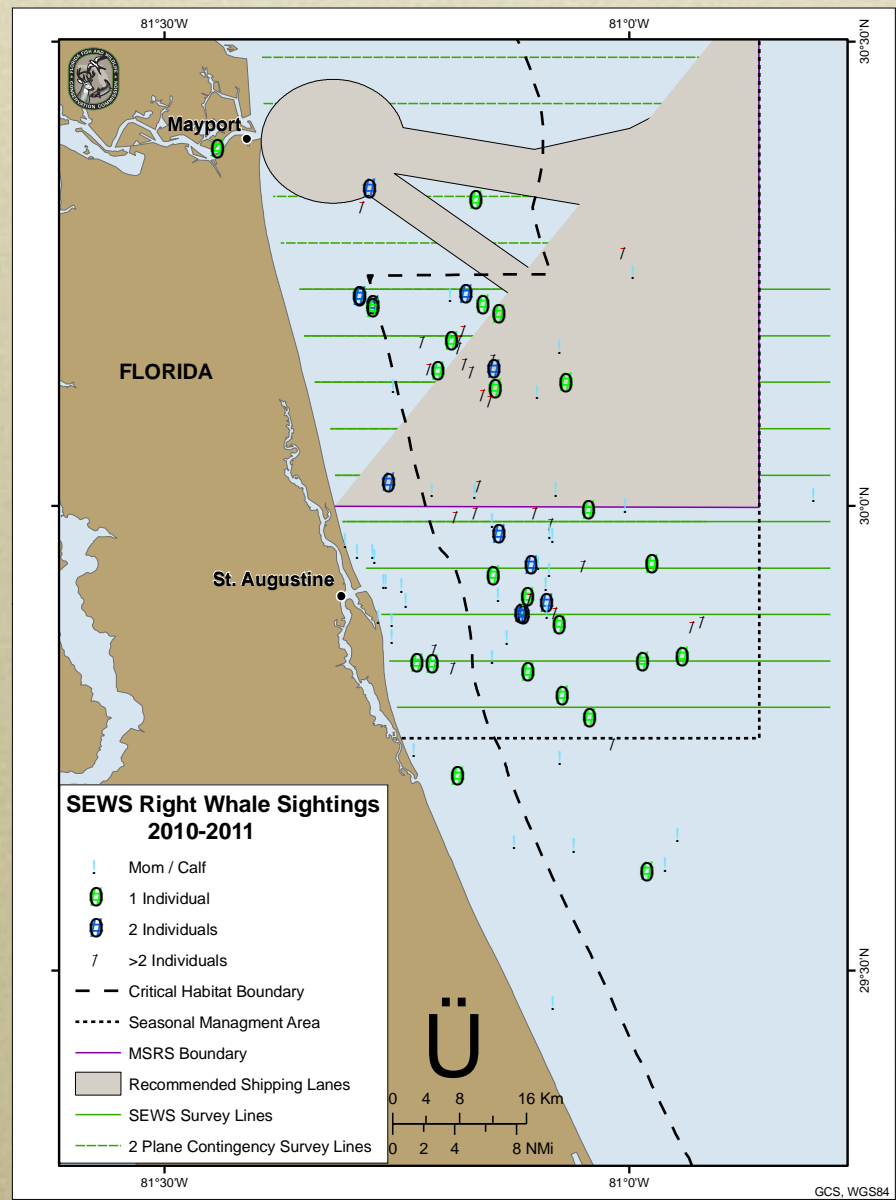
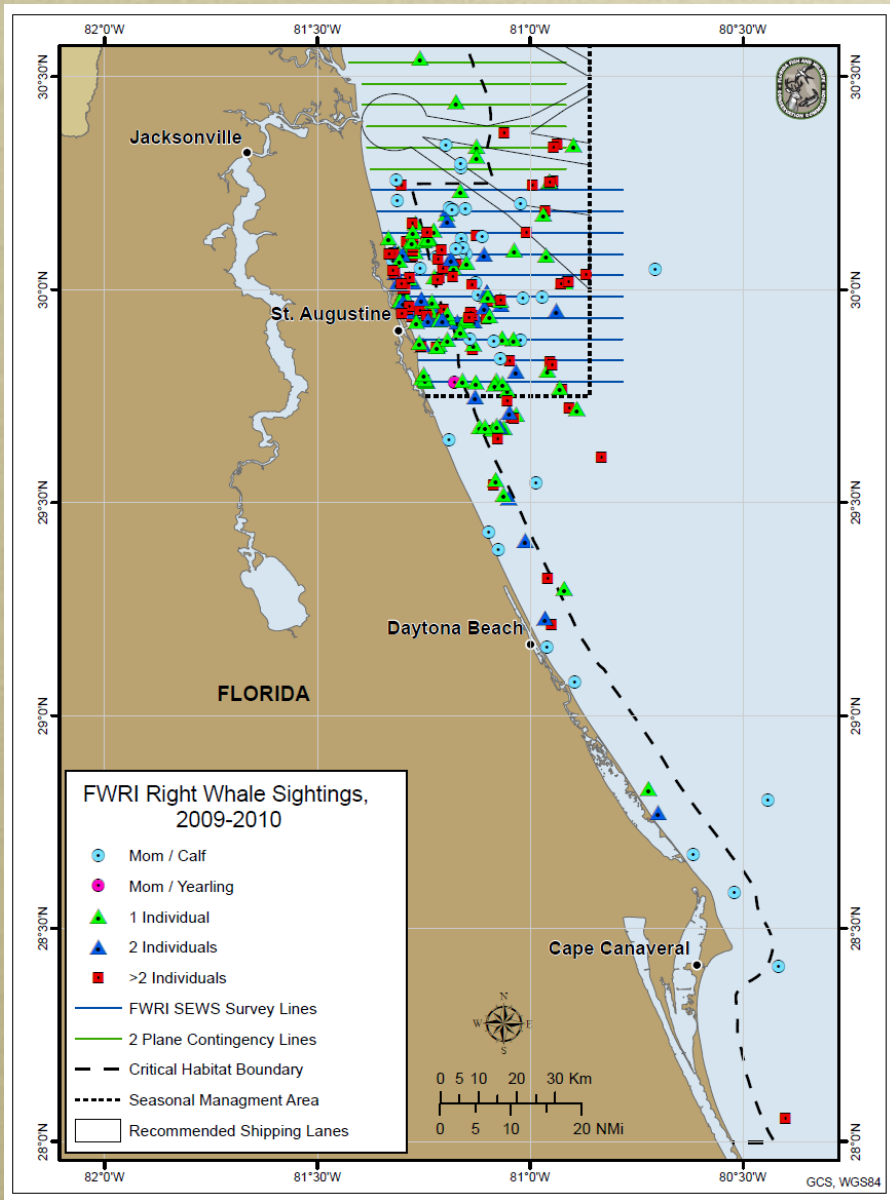
December 2, 2011

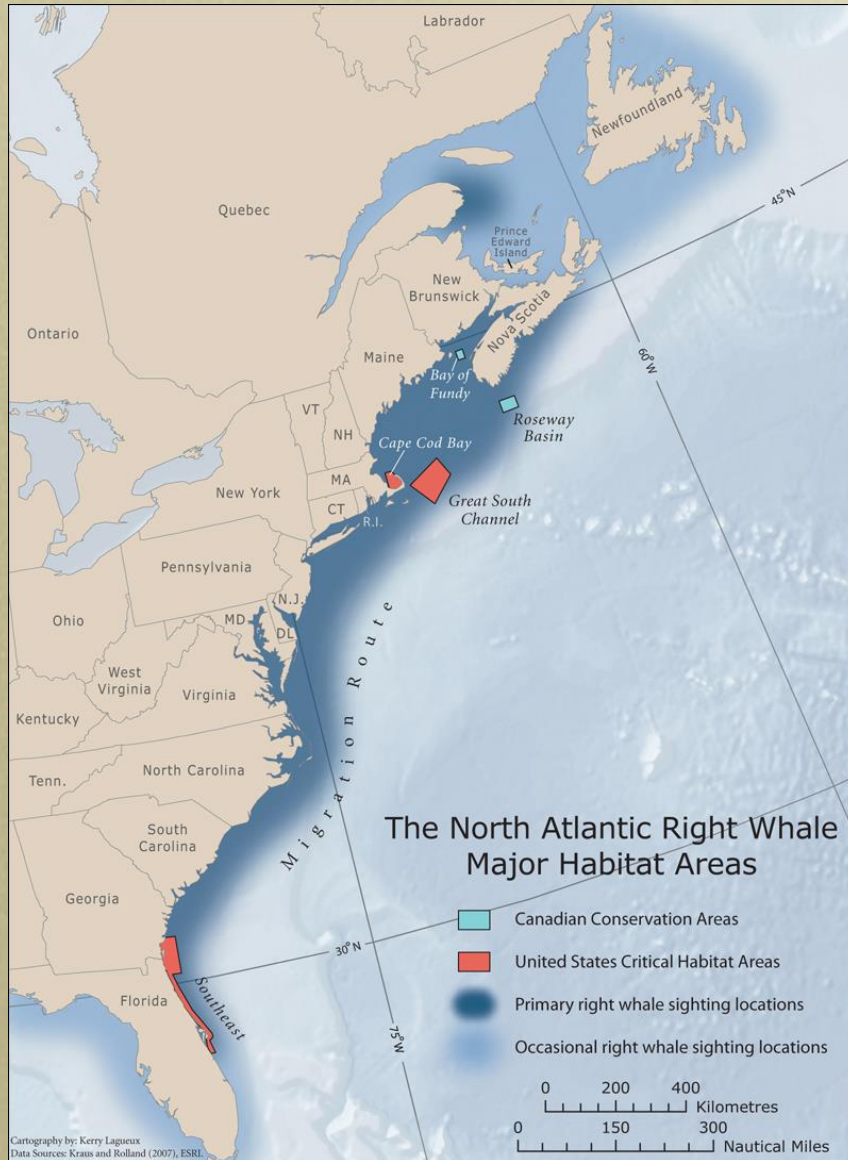
Tom Pitchford



Florida Fish and Wildlife Conservation Commission
Fish and Wildlife Research Institute







- **Six major habitats**
 - **Southeast U.S. (SEUS)**
 - **Great South Channel**
 - **Georges Bank/Gulf of Maine**
 - **Cape Cod Bay**
 - **Bay of Fundy**
 - **Scotian Shelf**

- **Spend the spring and summer months feeding in New England and Canada**

- **Migrate to the SEUS calving area in the winter**

- **Generally present in the SEUS November 15 – April 15; peak sighting months are January and February**

- **Mostly mother/calf pairs and juvenile whales (< 9yrs old) in the SEUS, but adult males and non-calving females are also sighted**



In 2003 FWC entered into a cooperative agreement with NOAA Fisheries under Section 6 of the Endangered Species Act (ESA).

Agreement included right whale conservation and research activities.

Section 6 grants had been previously awarded to agencies of the State of Florida.

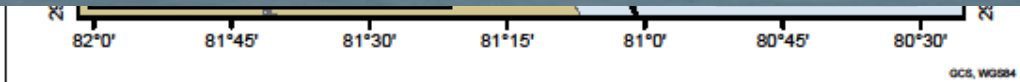
The current agreement covers other species: humpback whales, Johnson's seagrass, smalltooth sawfish, sturgeon (Gulf, shortnose and Atlantic), elkhorn and staghorn coral and sea turtles (five species).



Funding received under Section 6 agreement to implement high priority objectives of the **Northern Right Whale Recovery Plan**:

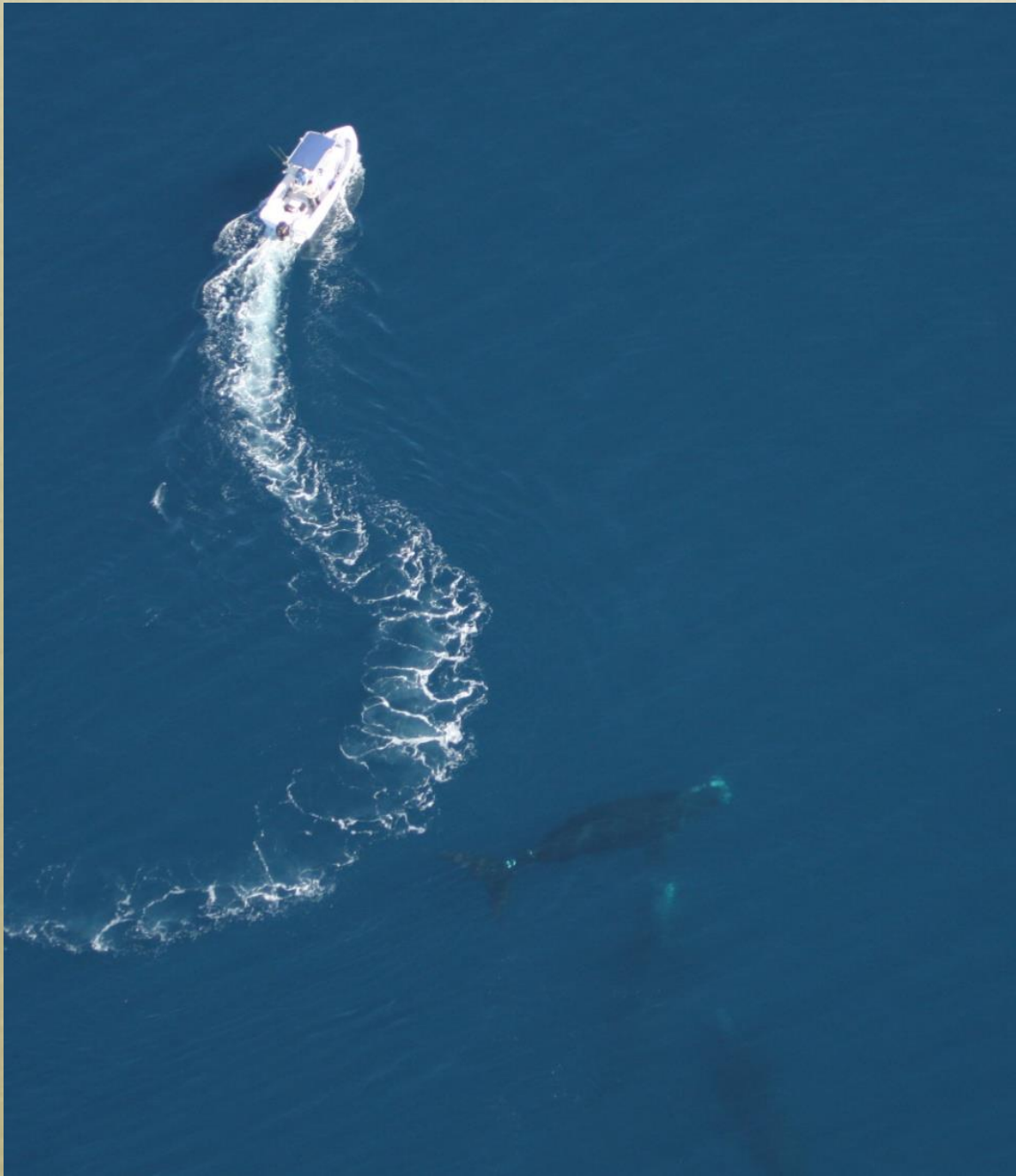
- Reduce ship collisions
- Monitor status and trends of abundance and distribution
- Characterize and monitor right whale habitat
- Reduce injury and mortality caused by fisheries and fishing equipment
- Collect data for the assessment of demographic parameters
- Respond to strandings
- Maintain and update a geographic information system (GIS) for right whale research and management and conduct analyses of aerial survey data, whale habitat and vessel traffic patterns.
- Acquire and analyze automatic identification system (AIS) data to monitor vessel traffic in the southeastern U.S. (SEUS)
- Coordinate federal, state, international and private efforts to implement the Recovery Plan
- Conduct right whale education and outreach activities





GCS, WGS84





Large Whale Disentanglement



- Evaluation of new satellite telemetry equipment to track entangled whales







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near Jacksonville



Small Boat Surveys

- FWC staff collect biopsy samples for genetic analysis



DNR research
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Coordination

- FWC staff facilitate twice-yearly Right Whale Forum
- Participate in the Southeast Implementation Team (SEIT)
- Participate in the Atlantic Large Whale Take Reduction Team
- Participate in the NARW Consortium
- Coordinate with state and federal fisheries management and research partners
- Review permits, rules and actions that may have potential impact on right whales or their habitat (e.g., CZMA consistency determinations, EIS, EIA)



Education and Outreach

- Deployed for response on the west coast of the U.S. and Canada
- Disentanglement works from a variety of angles with a variety of towing and rigging tools affixed to the vessel - for safety and to get the crew as far from the whale as possible
- Disentanglement teams are often unable to free all the gear from entangled right whales the same day they are first reported in a network - GPS telemetry buoys are used to track the whale's movements so the teams are able to plan and quickly respond to whale's location in weather situations are variable.
- The rope removed from an entangled whale is collected and analyzed by experts to attempt to determine the type of gear and how the whale may have become entangled
- www.MyFWC.com



and educational events



Ship traffic monitoring through the Automatic Identification System (AIS)

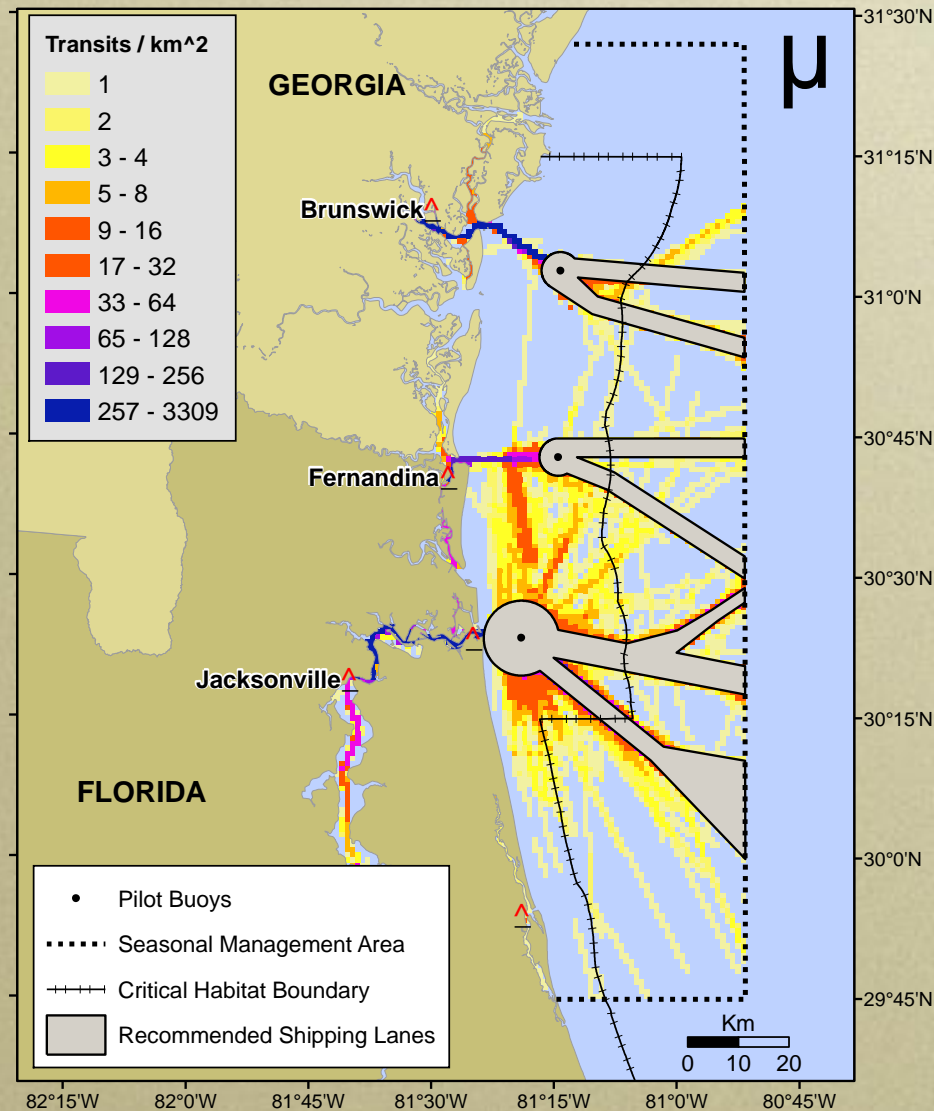
- FWC maintains an AIS receiving station in Brunswick, GA
- Data from the Jacksonville Marine Transportation Exchange's receiver
- AIS server compiles data from both receivers
- Real-time data viewer
- Computer algorithms developed for AIS data processing
- Analysis of traffic patterns (vessel speed and recommended lane usage)
- Provide data summaries to NOAA



Ship traffic density monitored through AIS

2010-2011

REGULATED vessels only



Right whale data GIS maintained by FWC

- Coastline, recommended shipping lanes, critical habitat boundary
- Seasonal and dynamic management areas (SMA, DMA)
- Bathymetric data for the SEUS (bottom depth and bottom slope)
- Seas surface temperature (SST) satellite images
- Mandatory ship reporting (MSRS) data (July 1999 to June 2010)
- Ship traffic data from AIS (December 2006 to present)
- EWS aerial survey effort (from 1991 to present)
- Right whale sightings (from 1991 to present)

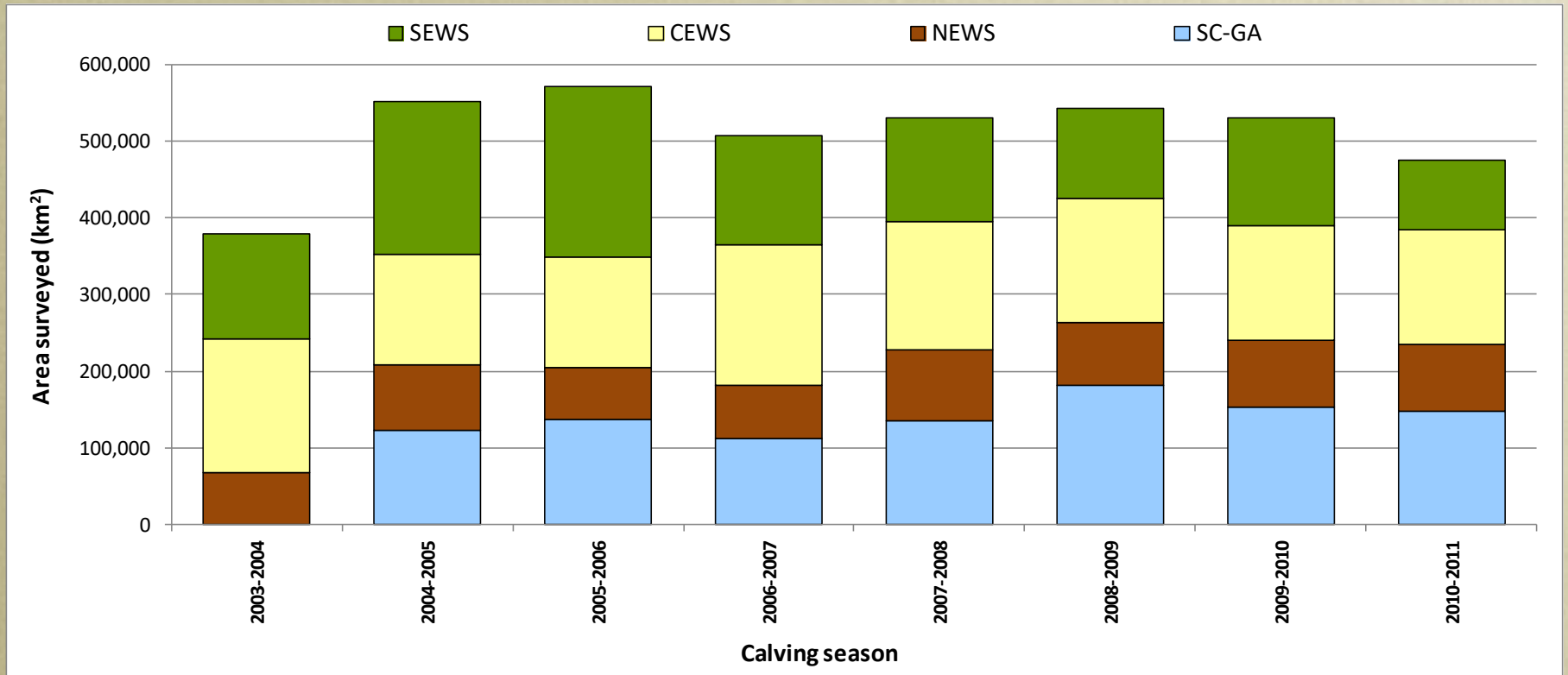


Data Processing and Analyses

- Photo-ID analysis using “intermatch” or season codes
- Compilation of EWS survey effort and whale sighting data
- Right whale distribution and relative abundance
- Sightings per unit effort (SPUE)
- Distance sampling analysis
- Whale distribution in relation to SST
- Evaluation of risk of vessel strikes

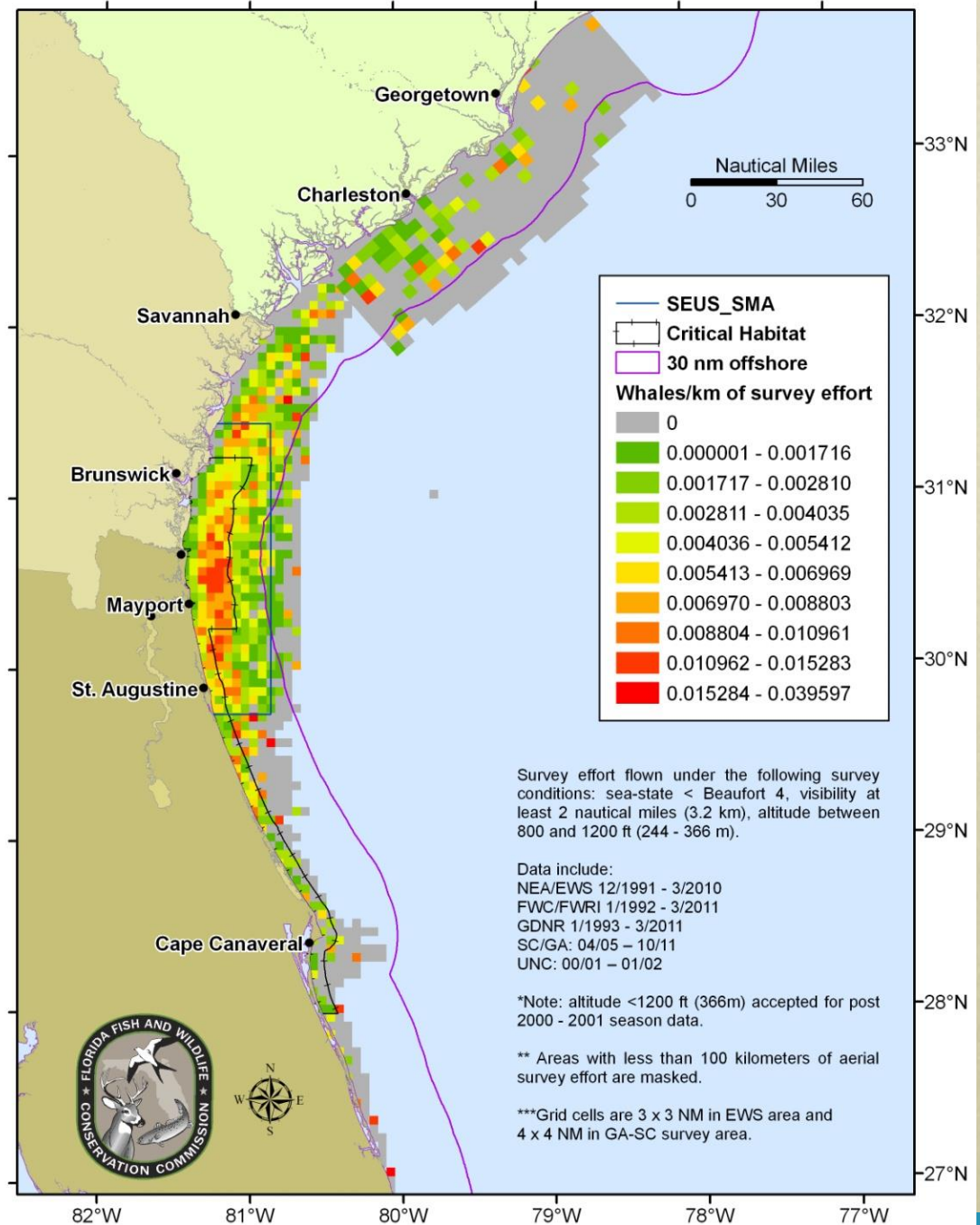


Aerial Survey Effort in the SEUS



Right whale sightings per unit effort (SPUE)

Calving seasons
1991/1992
through
2010/2011





Thank you! Questions?

