



**NOAA**  
**FISHERIES**

**Southeast  
Regional  
Office**

# **S-G Reg-16, Right Whales, and ESA Considerations**

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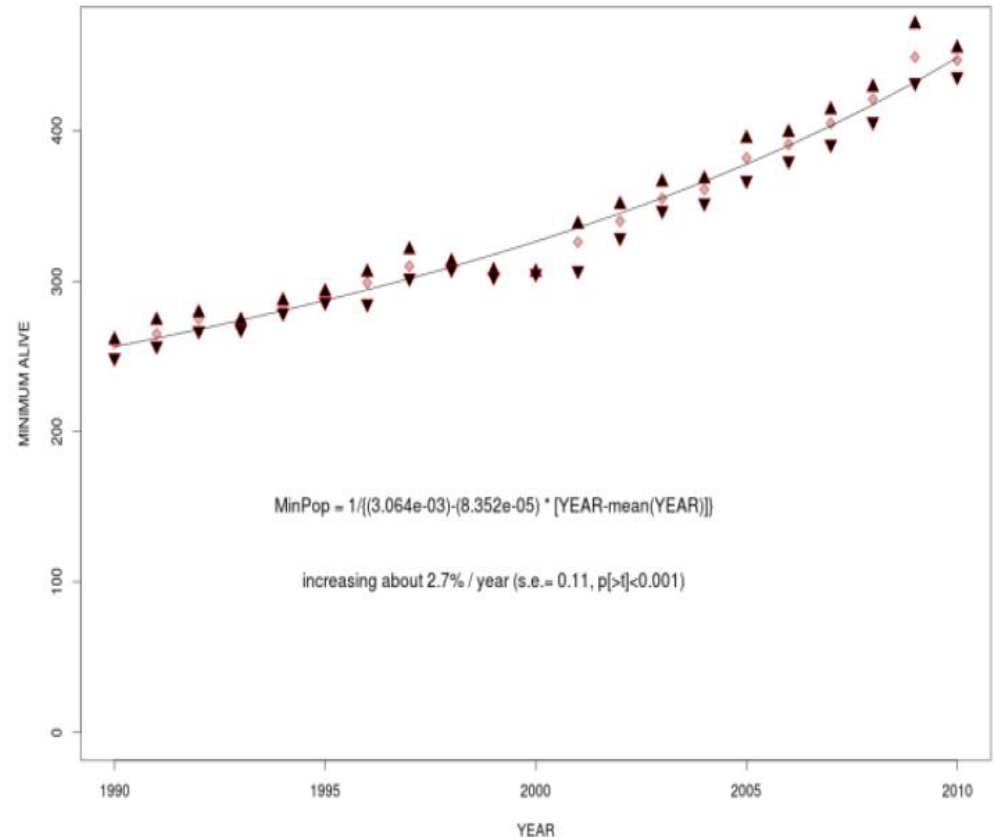
December #, 2014

# Topics

- Right whales: A Little Context
- S-G FMP ESA Consultation-related information (right whales)

# NARW Population

- At least 455 individuals in 2010<sup>1</sup>
- 2.8% estimated mean annual growth rate (1990-2010)<sup>1</sup>



<sup>1</sup> Waring *et al.*, 2013

# NARW Population

- Calf mortality may be as high as 3/year<sup>1</sup>
- Population contains a smaller proportion of juveniles than expected<sup>2</sup>
- Slow growth rate compared to other large whale populations
- Precariously small population
- Frequently exposed to anthropogenic threats
- Endangered under ESA
- Depleted under MMPA

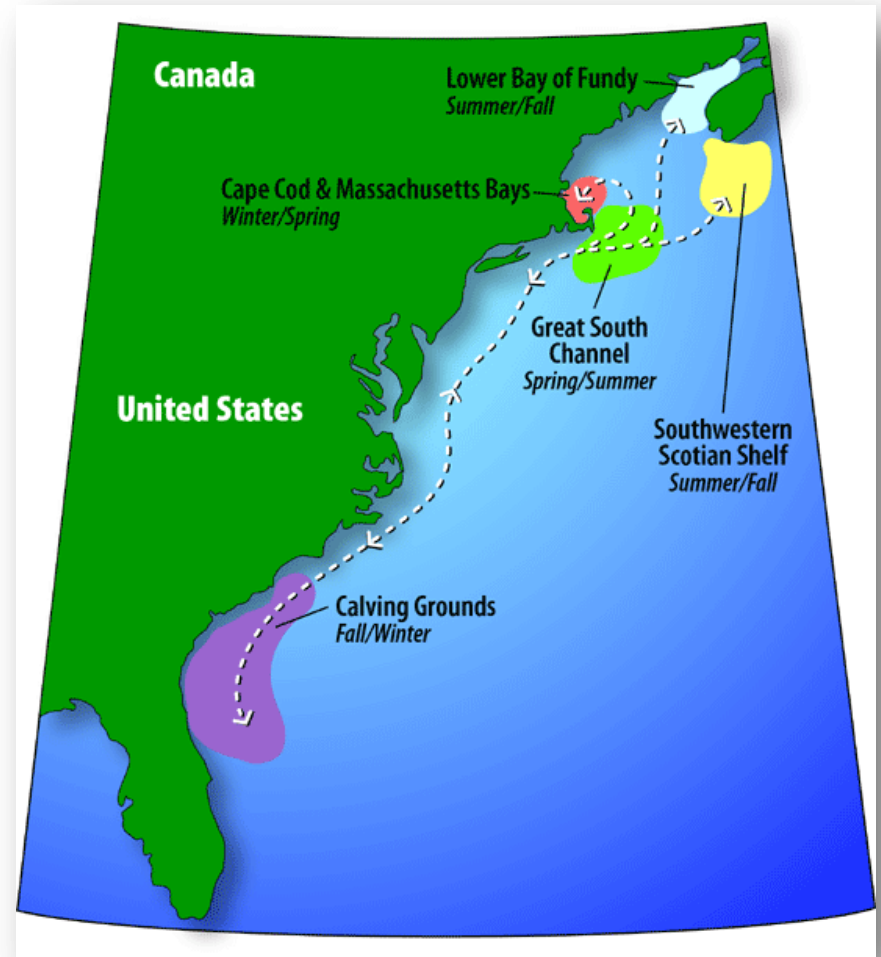
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<sup>1</sup> Browning *et al.*, 2010

<sup>2</sup> Hamilton *et al.* 1998, Best *et al.* 2001

# NARW Distribution

- Feeding/mating areas in the NE
- Only known calving ground in SAFMC AOR
- In the South Atlantic, the Gulf Stream is a limiting boundary





# Some Council ESA Questions/Concerns

- The previous biological opinion said the entanglement risk was discountable so why do we have to worry about this now? What's different?
- Amendment 18A implemented a number of additional restrictions meant to protect right whales; why can't we get rid of the closure?
- There are far fewer pots in the water now than there were a few years ago, how can the current fishery possibly be a risk to Right whales now?
- What is the trigger/timeline/process for developing a Biological Opinion for Reg-16?

# Reminder of Sect. 7 Requirements and Fisheries

- Section 7 (a)(1), Affirmative mandate to conserve: Federal agencies shall use their authorities to carry out programs for the conservation of endangered and threatened species.
- Section 7(a)(2) and (b)(3): Limit Federal actions to only those determined not likely to jeopardize listed species

# S-G/BSB Consultation History (End. Lg Whales)

- 2006 biological opinion
- Amendment 18A reinitiation analysis & determination
- Amendment 19 reinitiation analysis & determination
- Amendment 20 reinitiation analysis & determination

# Snapper-Grouper FMP

## 2006 Biological Opinion

NMFS determined whales are not likely to be adversely affected because:

1. Lack of observer evidence suggesting interactions between black sea bass pots and right whales
2. Proposed provisions under an amendment to the Atlantic Large Whale Take Reduction Plan

# Reinitiation of Section 7 Consultation: General

- Re-initiation of formal consult necessary when:
  - The amount or extent of taking specified in the Incidental Take Statement is exceeded,
  - New information reveals effects not considered,
  - The action is modified in a way that causes an effect not considered in the biological opinion,
  - New species is listed or critical habitat designated that may be affected by the action

# Snapper-Grouper FMP Amendment 18A

(February 15, 2012)

## **Raised concerns about:**

1. Entanglements in trap gear similar to black sea bass pots continue to occur
2. A number of large whale entanglements have occurred in the region since the 2006 opinion.
3. Actual fishery involved cannot be determined in the large majority of entanglements.

# Snapper-Grouper FMP Amendment 18A

## (February 16, 2012)

- Reinitiation of the 2006 opinion was not necessary because:
  - BSB fishing season was unlikely to overlap temporally with endangered large whales
- Noted reinitiation would likely be required if BSB pot fishing extended or was projected to extend in November and beyond.

# Snapper-Grouper FMP Amendment 19

## (June 17, 2013)

- Reinitiation of the 2006 opinion not necessary because:
  - The proposed annual prohibition on the use of black sea bass pots from November 1 through April 30 would prevent interactions between black sea bass pot gear and ESA-listed whales during large whale migrations and right whale calving season, meaning the gear will have no effect on these species.

# Potential S-G Sect. 7 Reinitiation Triggers

- New Information reveals effects not considered
  - New information on right whale distribution
  - New information on entanglements
- The action is modified in a way that causes an effect not considered in the biological opinion
  - Amendment 16's proposed changes to or elimination of fishery closure

# Formal Consultation Process/Timing

- Formal consultation is initiated, if necessary when preferred alternative have been selected (i.e. the propose action is well defined) and all the necessary information has been received.
- Biological opinion issued within 135 days (unless extended) of a complete initiation package
  - 90 days to conclude consultation, 45 days to provide the opinion.

# Jeopardy Analyses

- Evaluate the effects of a proposed action on the likelihood of survival and recovery of listed species
  - First consider if there would be a reduction in the reproduction, numbers, and distribution of any species
  - Then evaluate whether any such reduction would cause an appreciable reduction in the likelihood of survival and recovery:
- Survival means the species' persistence... beyond the conditions leading to its endangerment, with sufficient resilience to allow recovery from endangerment.
- Recovery means improvement in the status of a listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act.
- Evaluates the effects of the proposed action, when added to the status of the species, the environmental baseline, and the cumulative effects, will jeopardize the continued existence of a listed species



# **New Information Since 2006 Biological Opinion**



# NARWs & Habitat Distribution

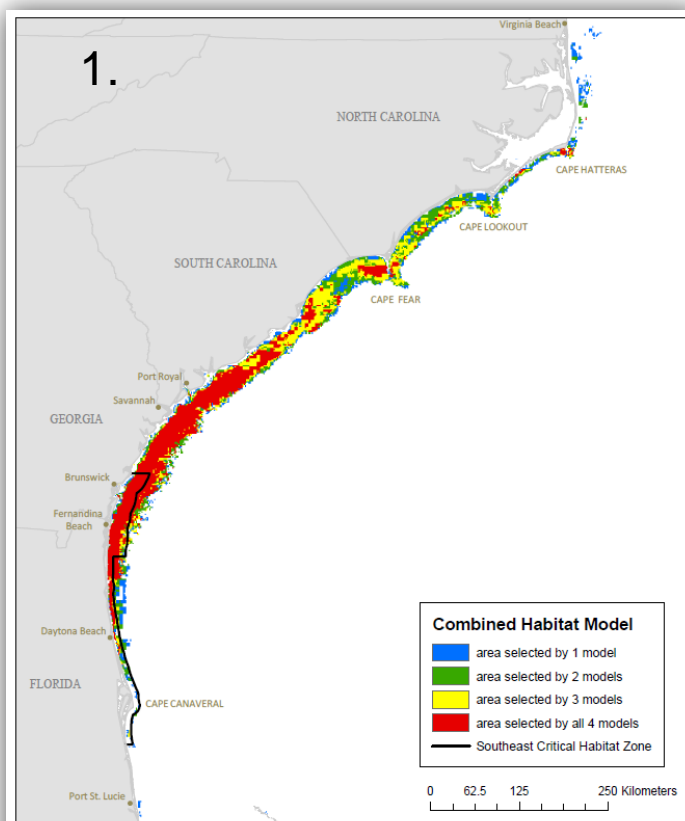
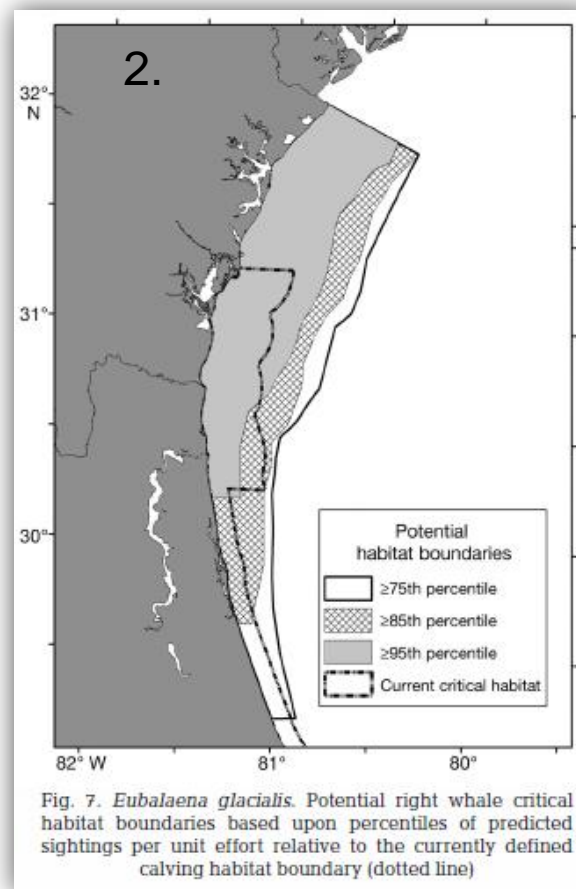


Figure 5: Combined habitat model for the Southeastern U.S. coast showing extent of the current federally designated critical habitat area for right whales.



<sup>1</sup>Good, C. 2008. Spatial Ecology of the North Atlantic Right Whale (*Eubalaena glacialis*). Dissertation. Duke University, Durham, NC.

<sup>2</sup>Keller, C. A., L. Garrison, R. Baumstark, L. I. Ward-Geiger, and E. Hines. 2012. Application of a habitat model to define calving habitat of the North Atlantic right whale in the southeastern United States. *Endangered Species Research* 18(1):73-87.

# Timing and Temporal Extent

- 1) Right whales migrate into the Southeast U.S. at various time during the calving season.
- 2) Early arriving adults (females) and calves have long durations
- 3) Most animals spend as little as 1-3 weeks off SC-FL during the winter
- 4) New animals are detected throughout the core calving area as late as March

FWC/FWRI. 2014. Application of GIS and Remote Sensing for Monitoring and Analyzing Habitat Use of Northern Right Whales in the Southeastern United States Calving Area Critical Habitat. June Semi-annual report. 15 pp.

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- 5) **Whales are present off NC (south of Cape Hatteras) from Nov-Apr.**

# Sighting Limitations

Lack of sightings does not necessarily = whale absence

- Availability bias (whales submerged, quiet)
- Incomplete coverage (poor weather)
- Perception bias (observer error)



# Any Vertical Line is an Entanglement Risk

- When gear type was identified:
  - Pot and gill net fisheries implicated in 89% of HUWH and NARW entanglement cases examined by Johnson et al. (2005)
  - NARW found to be entangled in pot gear 71% of time (gill net 14%)
- 56% of entanglements for both species involved buoy line
- **“...any line rising into the water column poses a significant entanglement risk for these two species.”**

Johnson, A., G. Salvador, J. Kenney, J. Robbins, S. Kraus, S. Landry, and P. Clapham. 2005. Fishing Gear Involved in Entanglements of Right and Humpback Whales. *Marine Mammal Science* 21(4):635-645.

# A Fraction of NARW Entanglements are Detected

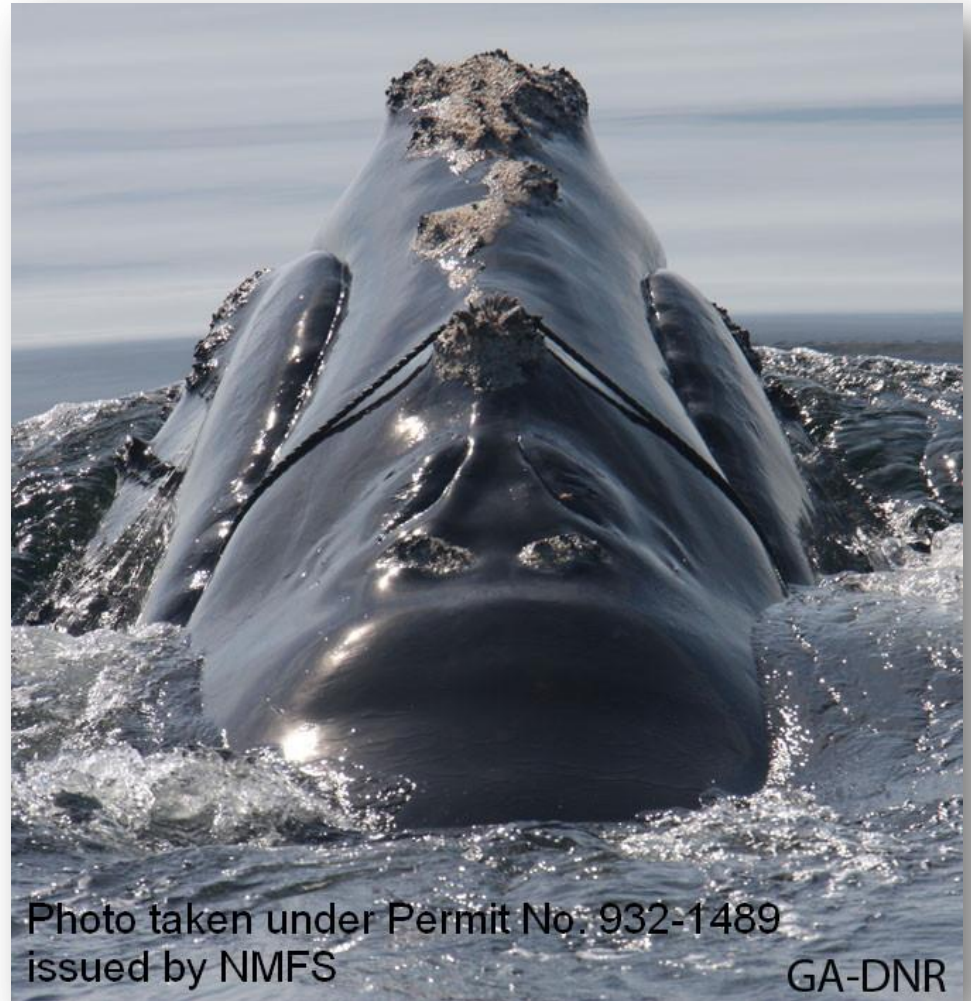
- 83% of all right whales have been entangled at least once
- 60% entangled more than once
- Juveniles were entangled at a higher rate than adults
- 26% of adequately photographed animals acquired new entanglement wounds or scars annually

Knowlton, A., P. Hamilton, M. Marx, H. Pettis, and S. Kraus. 2012. Monitoring North Atlantic right whale (*Eubalaena glacialis*) entanglement rates: a 30 yr retrospective. Marine Ecology Progress Series 466:293-302.

# A Fraction of Gear is Identified

From 2007-2011:

- 17 NARWs entangled in fishing gear
- 0 Identified to fishery or gear type



Waring, G.T., E. Josephson, K. Maze-Foley, and P.E. Rosel, (eds). 2014. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2013. U.S. Department of Commerce, Woods Hole, MA. NOAA Technical Memorandum, 475p.

# Sources of Entanglement Information

- Lg whale entanglements are rarely observed or reported as bycatch in logbooks
- There is no observer coverage for trap/pot fisheries
- We now know that observer reports and bycatch logbooks are not appropriate sources of entanglement information
- Because of the information above, it is no longer valid to state:

*“the best available information indicates there are no documented entanglements or other interactions between black sea bass pot gear and right whales.”*

# Atlantic Large Whale Take Reduction Plan

Hasn't had the results we had hoped for (e.g. PBR has yet to be achieved)

# ESA-Related Take Home Message

- New Information triggers re-initiation of ESA Section 7 Consultation
- Any increase in pot fishing from Nov-Apr is considered a may-affect situation
- BIOP will be on S-G FMP (and all amendments) in EEZ as managed under SAFMC
  - Including Amendment 16, if passed.