NOAA FISHERIES

Office of Protected Resources

U.S. east coast regulatory measures for large whale entanglements

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Greater Atlantic Region

Basics of the Marine Mammal Protection Act (MMPA)

- Enacted in 1972, amended since
- Prohibits “take” of marine mammals, with limited exceptions
- Protection of all marine mammals regardless of status
- Additional protection for Endangered Species Act (ESA)-listed species
- Highly protective standards
  - optimum sustainable population and potential biological removal (PBR) level

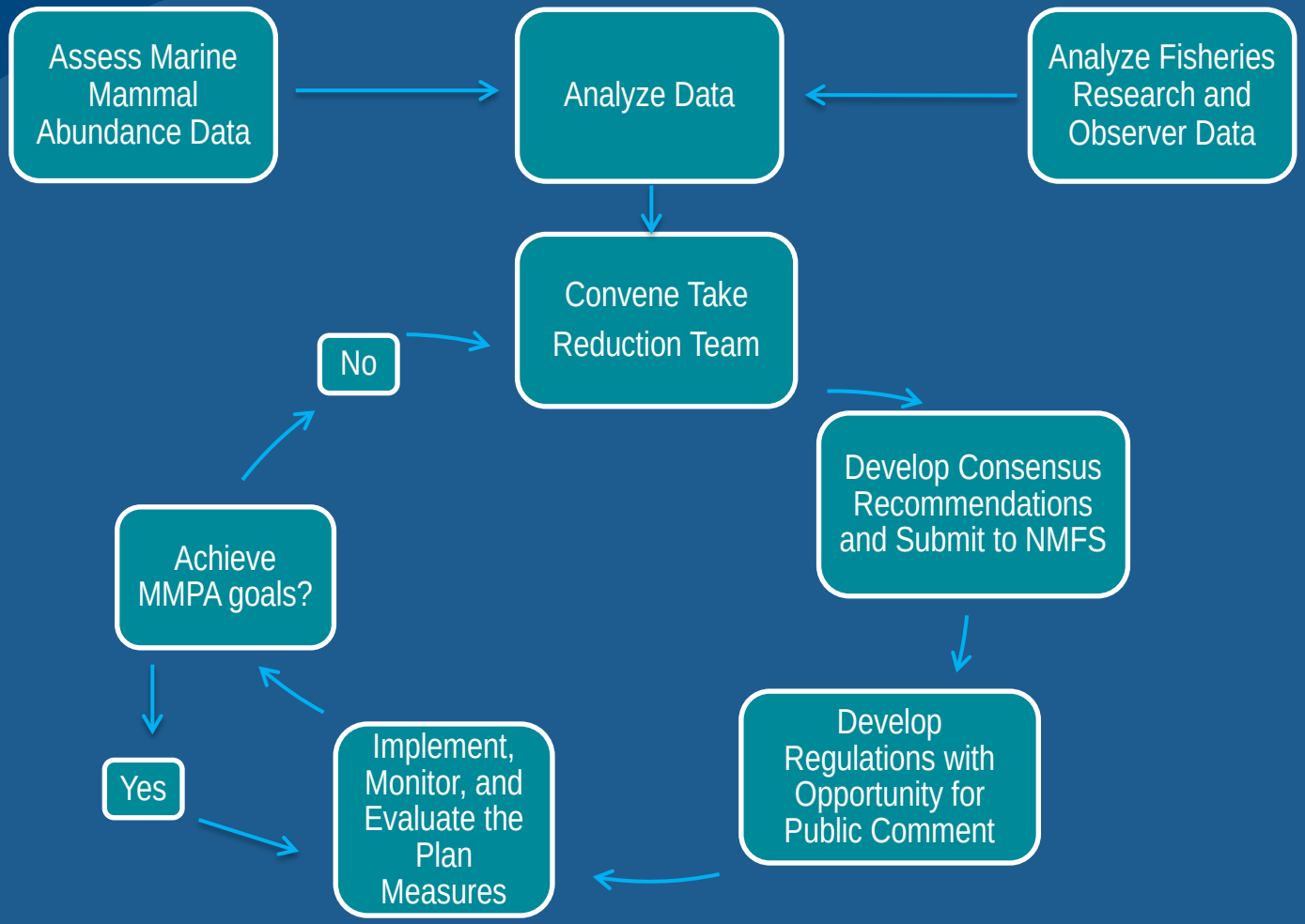
Atlantic Large Whale Take Reduction Team

- Established in 1996
  - Purpose: to develop a plan for reducing the incidental take of right whales, humpback whales, fin whales and minke whales in commercial trap/pot and gillnet gear from Maine to Florida
  - Goal: reduce serious injuries and mortalities to < PBR (PBR=0 for Right Whales at that time)

Take Reduction Plans

- Extensive history and information available at: http://www.greateratlantic.fisheries.noaa.gov/Protected/whaletrp/
- Plan contents:
  - Review of stock assessment information
  - Mortality/serious injury estimates
  - Regulatory or voluntary measures for bycatch reduction
  - Dates for achieving TRP goals

Take Reduction Planning Process

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ALWTRP: Regulatory

- Gear modifications
  - Weak links, sinking groundline, anchoring requirement, minimum number of traps per trawl
- Gear marking
- Time/area closures
  - Trap/pot and gillnet closures
  - Restrictions on setting of shark drift gillnets in SEUS
- Seasonal Area Management*
- Dynamic Area Management*
- Gear Technology lists*

*past requirements

ALWTRP: Non-Regulatory

- Sighting Advisory Program (SAS)
  - Broadcasting right whale locations through e-mail/fax notifications
- Outreach/education workshops
  - NMFS Gear Research Team
- Disentanglement Network
  - Training biologists, state partners, fishermen, USCG staff and others in whale disentanglement protocol
- Extensive Gear and Biological Research Program
  - Involving fishermen in gear development
  - Focus on field testing of gear ideas

Current ALWTRP status

- Continue to monitor the plan according to the Monitoring Strategy (Monitoring Strategy (January 2012))
  - Continue to monitor compliance and enforce regulations.
  - Continue training and coordination efforts with enforcement partners.
- Developing next steps for co-occurrence model to update data and support monitoring of the vertical line rule.
  - Phase I: Improve fishing effort data availability to support the further development and implementation of the Plan. NMFS is looking to cut down on the variability of the effort data and get a comprehensive and consistent set of effort data.
  - Phase II: Improve whale distribution data to include opportunistic and passive acoustic data.

Gear Modifications

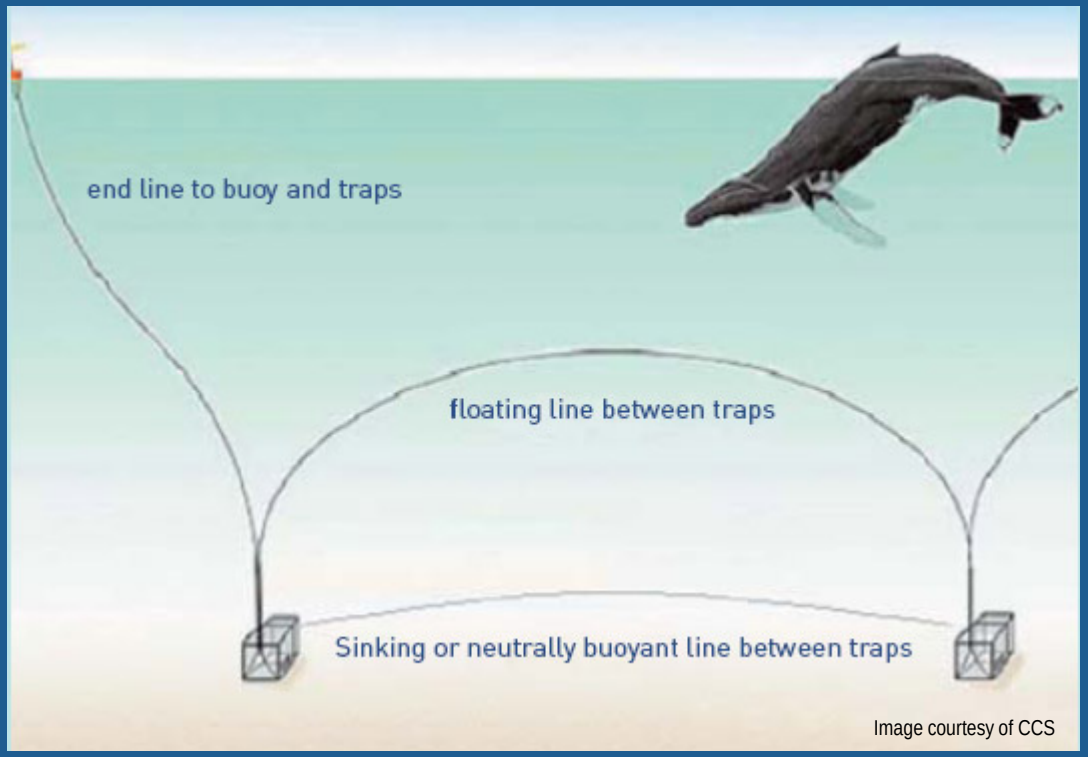


Image courtesy of CCS

Northeast Trap/Pot Fisheries Requirements

Trap/Pot Universal Requirements

- No buoy line floating at the surface.
- No wet storage of gear (all gear must be hauled out of the water at least once every 30 days).
- Fishermen are encouraged, but not required, to maintain knot-free buoy lines.
- All groundlines must be made of sinking line.
- Trawls with less than or equal to 5 traps may only possess 1 buoy line, except in MA state waters.

Trap/Pot Weak Link Requirements

- All buoys, flotation devices and/or weights must be attached to the buoy line with a weak link having a certain breaking strength as defined for each management area on the following pages.
- Weak links must be chosen from the list of NMFS approved gear, which includes: off the shelf weak links, rope of appropriate breaking strength, hog rings, and other materials or devices approved in writing. Weak links must be designed in such a way that the bitter end of the buoy line is clean and free of any knots when the weak link breaks.

Trap/Pot Gear Marking Requirements

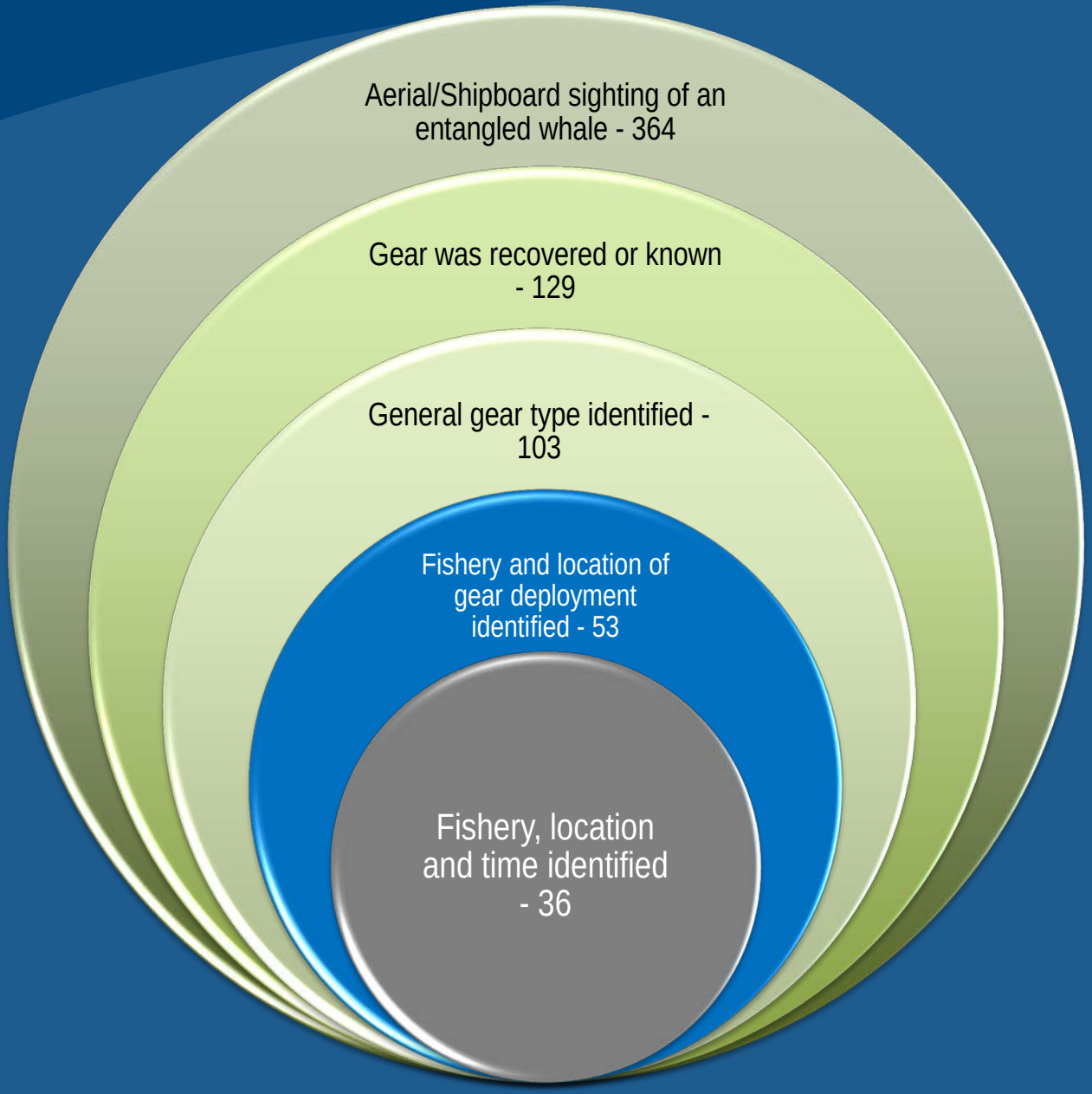
- Trap/pot surface buoys to be marked to identify the vessel or fishery with one of the following: the owner's motorboat registration number and/or U.S. vessel documentation number; the federal commercial fishing permit number; or whatever positive identification marking is required by the vessel's home-port state.
- When marking is not already required by state or federal regulations, the letters and numbers to mark gear must be at least 1 inch (2.5 cm) in height, block letters or Arabic numbers, in a color that contrasts with the color of the buoy.
- Buoy lines are to be marked with three 12 inch (30.48 cm), colored marks: one at the top of the buoy line, one midway along the buoy line, and one at the bottom of the buoy line.
- If the mark consists of two colors, EACH COLOR mark may be 6-inches for a TOTAL MARK of 12-inches.
- Color requirements are defined for each individual management area as described in each management area

Gear Marking

Northeast Trap/Pot Fisheries

Area	Old gear marking color	New gear marking color(s)
Min. trap per trawl exempt RI state waters (singles)	Red	Red & Blue
Min. trap per trawl exempt MA state waters in LMA1 (singles)	Red	Red & White
Min. trap per trawl exempt MA state waters in LMA1 (singles)	Red	Red & Black
Min. tap per trawl exempt MA state waters in Outer Cape (singles)	Red	Red & Yellow
Min. trap per trawl exempt Isle of Shoals, Maine (singles)	Red	Red & Orange
Jordan Basin (all trap/pot)	Red (or Black)	Red (or Black) & Purple
Jordan Basin (all gillnet)	Green	Green & Yellow
Jeffreys Ledge (all trap/pot)	Red	Red & Green
Jeffreys Ledge (all gillnet)	Green	Green & Black

364 Entangled Whales Sightings, 1997 -2008 along Western Atlantic Coast Barriers Regarding Gear Information



Research Program Past Projects

- In-situ observations of lobster gear (end lines and groundlines)
- Design and testing of a variety of weak links
- Work with trap/pot fisheries to introduce the use of multiple trap trawls for reducing end lines in areas where single trap fishing was the traditional fishing method
- Research and development of bottom release mechanisms that release end lines from trap/pot gear if an entanglement occurs
- Time tension line cutter work with manufacturer and industry to free animals anchored in heavy offshore fishing gear
- Ropeless fishing research (e.g., acoustic release, galvanic time release, grappling)
- Stiff rope, glow rope
- Research and at-sea testing for a sinking ground line that would meet the needs of commercial trap/pot fisheries
- Track loss of breaking strength for sinking groundline used for multiple years and compare to the breaking strength of new groundline
- Introduce the first pilot project of recycling floating groundline removed from trap fisheries along the east coast
- Gear density surveys
- Determine what area of trap the groundline separates, at what tension, and what portion of the gear remains
- Examine rope wear (sinking groundlines) resulting from hauling equipment & make adjustments to improve rope durability

Research Program Priorities

Gear based

- •Development of a device for gear marking purposes (e.g. bar code, electronic tagging); should be low-cost, able to handle the rigors of commercial fishing, and be easily affixed to the gear
- •Research related to reducing risk to large whales associated with vertical lines (including lipid soluble rope, thwartable bottom links, the time tension line cutter system, and other technologies)
- •Identify, develop and test field gear marking applications for identity of lost entangling gear during disentanglement attempts of protected species (e.g., large whales)
- •Evolve existing equipment or create new technology to improve disentanglement success rate.

Biological

- •Occupancy of large whales in coastal waters of Maine and in the Mid-Atlantic, from the coast to EEZ
- •Discovery of the principal wintering area for non-calving right whales
- •Research on the vertical distributions of both the processes and prey organisms related to large whale foraging for habitat characterization and predictive modeling


July 22, 1997
• Establish TRP
• Weaklink requirements
• Effective November 15,1997
December 2000
• Gear marking requirements
• Effective February 2001
January 9, 2002
• Establish SAM and DAM program
• DAM effective February 8, 2002
• SAM effective March 2002
June 25, 2007
• Seasonal gillnet closures in Southeast
• Effective July 2007
October 5, 2007
• Expand weaklink requirements
• Implement sinking groundline requirements
• Effective April 2009
• Replaced SAM and DAM program
June 27, 2014
• Vertical line rule
• Additional gear marking requirements
• Effective June 2015
December 12, 2014
• Modification to time/area of closure area
• Effective immediately
May 28, 2015
• Modification to vertical line rule. Effective immediately
• Additional gear marking requirements

Challenges

- Lack of data of where/how large whale entanglements are occurring
- Using preliminary data to support decisions
- Lack of enforcement of current regulations
- Financial burden to fishing industries
- Maintaining active and engaged Team members
  - Members becoming disenchanted with TRT process
  - Lack of consensus recommendations
- Team's unease with letting the Monitoring Plan work
- Public perception that we have no end goal in sight

Questions?

www.nmfs.noaa.gov/pr/interactions