North Atlantic Right Whale Management Update

New England Fishery Management Council
Mystic, CT
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Fishery Related Right Whale Management

- Recap of challenges to right whales
- Marine Mammal Protection Act Take Reduction Efforts
- Endangered Species Act, Section 7
NORTH ATLANTIC RIGHT WHALES

POPULATION IN DECLINE
SINCE 2010

1990: 268 whales
2010: 481 whales
2016: 451 whales

85% HAVE BEEN ENTANGLED AT LEAST ONCE
~100 new entanglements/yr

411 whales likely alive at the end of 2017
10 year calving interval

100 POTENTIAL MOTHERS ESTIMATED ADULT FEMALES

5 CALVES 2017
0 CALVES 2018
7 CALVES 2019
20 KNOWN DEAD SINCE 2017

NOAA FISHERIES
Today’s Challenges

Ecosystem shifts/environmental change causing changes in whale distribution and associated changed or increased exposure to

- US fisheries
- Canadian fisheries
- Canadian vessel traffic

Impacts:
1. Increased Serious Injury & Mortality
2. Sublethal entanglement costs
3. Potentially reduced food
4. Increased migration distance/costs

Contribute to reduced calving
Marine Mammal Protection Act Take Reduction Program

The MMPA prohibits take of marine mammals - but provides conditional exception for incidental take in commercial fisheries

- Required if incidental mortality and serious injury exceeds Potential Biological Removal (one or less right whale)

- Take Reduction Planning:
  - develop and recommend take reduction measures
  - consensus-based

- NMFS has the ultimate responsibility to take action

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Members</th>
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<tbody>
<tr>
<td>Trap/Pot Fishery</td>
<td>18</td>
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<tr>
<td>Gillnet Fishery</td>
<td>5</td>
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<tr>
<td>Conservation/Environmental</td>
<td>6</td>
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<tr>
<td>Academic/Scientific</td>
<td>9</td>
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<td>State Managers</td>
<td>14</td>
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<td>Federal Managers</td>
<td>5</td>
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<td>Fishery Management Organizations</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
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Atlantic Large Whale Take Reduction Plan

July 22, 1997
- Establish TRP
- Weak link requirements
- Effective November 15, 1997

January 9, 2002
- Establish SAM and DAM program
- DAM effective February 8, 2002
- SAM effective March 2002

October 5, 2007
- Expand weak link requirements
- Implement sinking groundline requirements
- Effective April 2009
- Replaced SAM and DAM program

December 12, 2014
- Modification to time/area of closure area
- Effective immediately

December 2000
- Gear marking requirements
- Effective February 2001

June 25, 2007
- Seasonal gillnet closures in Southeast
- Effective July 2007

June 27, 2014
- Vertical line rule
- Additional gear marking requirements
- Effective June 2015

May 28, 2015
- Modification to vertical line rule
- Effective immediately
- Additional gear marking requirements
Current Take Reduction Plan Measures

Area closures:
- Trap pot closures: two areas, over 6,300 mi$^2$. Seasonally closed to trap/pot fishing for three months each
- Gillnet closures: over 28,000 mi$^2$. Seasonally closed to gillnetting for 3 to 6 month periods

Gear Modifications:
- Weak links
- Sinking groundline required broadly (outside of exemption areas)
- Gear marking required broadly (outside of exemption areas)
- “Trawling up” to reduce vertical lines

And other measures; see webpage for complete Plan details
Serious Injury and Mortality from Documented Entanglements in Right Whales has Exceeded PBR Every Year Except for One
Serious Injury and Mortality from Documented Entanglements in Right Whales has Exceeded PBR Every Year Except for Two

*even if we exclude entanglements known to be Canadian and first seen in Canada*
Observed Right Whale Deaths Last Year

Three right whale mortalities, all showing signs of entanglement

• Gear retrieved from January Virginia whale – Canadian snow crab
• No retrieved gear but clear indicators of pre-mortem entanglement in
  • August (Martha’s Vineyard) or
  • October (offshore of Cape Cod)
2018 Take Reduction Team Efforts

Spring 2018 Feasibility Subgroups:

- **Weak rope and gear marking** and **“Ropeless” fishing**
  - Gear marking feasible, economic considerations
  - Weak rope feasible nearshore, concerns about offshore use and economic impact of wholesale change
  - Ropeless fishing: Enforcement, gear conflict, social and economic concerns. Consider for emerging fisheries, general support for fishermen involvement in research

October 2018 Full Group

- Reviewed nine TRT member proposals
- Three work plans developed to direct analysis of relative risk reduction of proposal elements
3 General Themes From TRT Proposals

1. **Reduce risk: reduce probability of entanglement**
   - New and modified seasonal closure
   - Increase visibility of rope to whales (red line/sleeves)
   - Continuation of vertical/water column line reduction strategy
     - Trap caps and reductions as proxy
     - Ropeless technology in new closure areas or new fisheries and aquaculture, or deep trap/pot fisheries
     - Limits on new lines, especially in new closure areas, including aquaculture and experimental fisheries
   - Remove/prevent new floating groundlines
3 Themes from TRT Proposals (cont.)

2. **Reduce impact: reduce severity of entanglements (serious injury or mortality)**

- Reduce breaking strength:
  - 1700 lb breaking strength,
  - rope diameter cap,
  - 3/8 inch rope diameter,
  - Weak sleeves

- Reduce surface system rope configuration

From [Knowlton Presentation to ALWTRT](https://www.example.com/knowlton-presentation-to-alwtrt)
3 Themes from TRT Proposals (cont.)

3. **Inform Future Risk Reduction**
   - Gear Marking
     - Weak sleeve, rope color and painting, improve visibility from aircraft and boats, increase stat/area specific marking, gear or target species marking, coastwide gear marking
   - Monitoring and Reporting
     - VTR, VMS/AIS vessels tracking, lost gear reporting
   - Research
     - Expansion of area covered by aerial and acoustic surveys, ropeless technology operational research
Work Plans

Guide analysis for April 2019 TRT meeting:

1. Evaluate risk reduction options:
   • Closed areas:
     • Work group to develop closed area criteria, triggers, surveys
     • Consider possible state role in dynamic closures
   • Line reduction:
     • Work group to consider line reduction options, socioeconomic impacts
   • Ropeless experimentation planning:
     • Allow in future closed areas
     • Identify mobile gear-less areas
     • Include mobile gear fishermen in research and dialogue
2. Evaluate options to reduce severity of entanglements:
   • Work group including rope engineers, fishermen, scientists, to investigate rope (including testing of various proposed options)

3. Evaluate options to inform risk reduction efforts:
   • Calculate baseline vertical line numbers and compile total and latent effort in all states
   • Collaborate with ASMFC reporting and monitoring efforts
   • Investigate Area 3 enforcement, offshore hauling capacity
   • Research whale movement and behavior, evaluate survey strategies

Canadian collaboration across many of these investigations
Section 7 of the ESA requires federal agencies to ensure that any action **authorized, funded, or carried out** by a federal agency is not likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat – Section 7(a)(2)
Section 7 Finding: Jeopardy or No Jeopardy

Whether an action is reasonably expected, directly or indirectly, to diminish a species’:

- numbers,
- reproduction,
- or distribution

so that the likelihood of survival and recovery in the wild is appreciably reduced

NARW Females-
At rate of decline prior to 2017 mortalities, back to 1990 population in 12 years
Consultations reinitiated in 2017

ENDANGERED SPECIES ACT SECTION 7 CONSULTATION BIOLOGICAL OPINION

Action Agency: National Marine Fisheries Service, Northeast Region Sustainable Fisheries Division
Consulting Agency: National Marine Fisheries Service, Northeast Region Office, through its Sustainable Fisheries Division
Date Issued: July 16, 2013
Approved by: [Signature]

ENDANGERED SPECIES ACT SECTION 7 CONSULTATION BIOLOGICAL OPINION

Action Agency: National Marine Fisheries Service, Greater Atlantic Regional Fisheries Office, through its Sustainable Fisheries Division
Activity: Endangered Species Act Section 7 Consultation on the Continued Implementation of Management Measures for the American Lobster Fishery [Consultation No. NER-2014-00287]
Consulting Agency: National Marine Fisheries Service, Greater Atlantic Regional Office, through its Protected Resources Division
Date Issued: July 31, 2014
Approved by: [Signature]

Batch: Multispecies, monkfish, dogfish, bluefish, skates, mackerel/squid/butterfish, summer flounder/scup/black seabass
What Are We Consulting On?

1. Analysis of fisheries as they are currently operating and managed, or

2. Analysis of fisheries as modified by rulemaking following:
   • Take Reduction Team recommendations and subsequent MMPA rulemaking
   • Anticipated fisheries management rulemaking