Scoping on Further Modifications to the Atlantic Large Whale Take Reduction Plan
Scoping Meeting, Portland, Maine
October 5, 2022

Janet Coit
Colleen Coogan
Dr. Mike Asaro
Dr. Chao Zou
Dr. Jon Hare

Atlantic Large Whale Take Reduction Plan Website
What to Expect

Scope:
● New entanglement risk reduction measures coastwide (lobster, Jonah crab, Atlantic Mixed Species Trap/Pot, and gillnet fisheries)

Agenda:
● 6:10 - 6:40 pm: Opening remarks, presentation on background and remaining risk post-2021 rule
● 6:40 - 9:00 pm: Public comment
● Post meeting - Staff will remain to answer questions

Ground Rules for Speaking:
● We will call names of those who intend to comment from the sign-in sheet first
● We are recording comments and will make them public so please come up to the microphone and state your name for the record
● Be respectful and direct comments at the presenters
● Comments will be limited to 3 minutes.
● Or submit written comments through Regulations.gov using Docket #NOAA-NMFS-2022-0091 Until October 11, 2022
Background
Atlantic Large Whale Take Reduction

Mandated by law (MMPA) when incidental mortality and serious injury in U.S. commercial fisheries exceeds Potential Biological Removal (PBR)

- North Atlantic right whale PBR is less than one mortality and serious injury per year
- Charge is to develop and recommend measures to reduce mortality and serious injury
- Consensus-based
- NMFS ultimately responsible for taking action

Atlantic Large Whale Take Reduction Team

- 60 member team including 23 fishermen
- Right whales, as well as humpback, and fin whales
Fisheries Managed Under the Atlantic Large Whale Take Reduction Plan

**Trap/Pot Fisheries**
- Northeast lobster and Jonah crab trap/pot fishery
- Mid-Atlantic lobster and Jonah crab trap/pot fisheries
- Atlantic mixed species trap/pot fisheries for hagfish, shrimp, conch/whelk, red crab, Jonah crab, rock crab, black sea bass, scup, tautog, cod, haddock, Pollock, redfish (ocean perch), white hake, spot, skate, catfish, stone crab, and cunner
- Atlantic blue crab trap/pot fishery

**Gillnet Fisheries**
- Northeast sink gillnet fisheries for Atlantic cod, haddock, pollock, yellowtail flounder, winter flounder, witch flounder, American plaice, windowpane flounder, spiny dogfish, monkfish, silver hake, red hake, white hake, ocean pout, skate spp, mackerel, redfish, and shad
- Northeast drift gillnet fisheries for shad, herring, mackerel, and menhaden and any residual large pelagic driftnet effort in NE
- Northeast anchored float gillnet fishery for mackerel, herring (particularly for bait), shad, and menhaden
- Mid-Atlantic gillnet fisheries for monkfish, spiny dogfish, smooth dogfish, bluefish, weakfish, menhaden, spot, croaker, striped bass, large and small coastal sharks, Spanish mackerel, king mackerel, American shad, black drum, skate species, yellow perch, white perch, herring, scup, kingfish, spotted seatrout, and butterfish
- Southeast Atlantic gillnet fisheries for finfish, including, but not limited to: king mackerel, Spanish mackerel, whiting, bluefish, pompano, spot, croaker, little tunny, bonita, jack crevalle, cobia, and striped mullet
- Southeast Atlantic shark gillnet fisheries for large and small coastal sharks, including but not limited to blacktip, blacknose, finetooth, bonnethead, and sharpnose sharks
Right whale population estimate
Pace population model, preliminary, as of early 2020

All: 336 (321-350)
Females: 137 (128-145)

Growth slowed around 2010, then declined

Unusual Mortality Event Declared in 2017

- Observed M/Sl since then: 54
- Estimated mortality is 2 to 3 times higher
- Observed births since then: 55
Human Caused Mortality and Serious Injury Exceeds PBR

Range wide Estimated Mortality

Range wide Observed Mortality and Serious Injury

PBR = 0.7

ALWRT recorded webinar from November 2, 2021 (fisheries.noaa.gov/alwrtp), Pace 2021, Henry et al. 2022
U.S. Commercial Fishery Risk Reduction Calculations

- Advised by the Atlantic Scientific Review Group:
  - Use of the total mortality estimate from Pace population model
  - Uses the most-recent published 5 yr. observed M/Sl to apportion the cause of death (vessel strike or entanglement)
- Estimates Canada’s apportionment across three assumptions.

<table>
<thead>
<tr>
<th>PBR - draft 2021 SAR</th>
<th>Annual average estimated mortality 2015-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td>31.2</td>
</tr>
</tbody>
</table>
### U.S. Commercial Fishery Risk Reduction Calculations

- **Advised by the Atlantic Scientific Review Group:**
  - Use of the total mortality estimate from Pace population model
  - Uses the most-recent published 5 yr. observed M/SI to apportion the cause of death (vessel strike or entanglement)
- **Estimates Canada's apportionment across three assumptions.**

<table>
<thead>
<tr>
<th>PBR - draft 2021 SAR</th>
<th>Annual average estimated mortality 2015-2019</th>
<th>Country Apportionment</th>
<th>US mortality based on country assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td>31.2</td>
<td>50% US/50% CAN</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40% US/60% CAN</td>
<td>12.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30% US/70% CAN</td>
<td>9.4</td>
</tr>
</tbody>
</table>
U.S. Commercial Fishery Risk Reduction Calculations

- Advised by the Atlantic Scientific Review Group:
  - Use of the total mortality estimate from Pace population model
  - Use the most-recent published 5 yr. observed M/SI to apportion the cause of death (vessel strike or entanglement)
- Estimates Canada's apportionment across three assumptions.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td>31.2</td>
<td>50% US/50% CAN</td>
<td>15.7</td>
<td>10.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40% US/60% CAN</td>
<td>12.6</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30% US/70% CAN</td>
<td>9.4</td>
<td>6.6</td>
</tr>
</tbody>
</table>
## U.S. Commercial Fishery Risk Reduction Calculations

- **Advised by the Atlantic Scientific Review Group:**
  - Use of the total mortality estimate from Pace population model
  - Uses the most-recent published 5 yr. observed M/SI to apportion the cause of death (vessel strike or entanglement)
- **Estimates Canada’s apportionment across three assumptions.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td>31.2</td>
<td>50% US/50% CAN</td>
<td>15.7</td>
<td>10.9</td>
<td>93.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40% US/60% CAN</td>
<td>12.6</td>
<td>8.8</td>
<td>92.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30% US/70% CAN</td>
<td>9.4</td>
<td>6.6</td>
<td>89.4%</td>
</tr>
</tbody>
</table>
Comparing Risk and Risk Reduction
The Decision Support Tool (DST) is a mapping and modeling tool to examine when, where, and how much fishing with traps and gillnets present entanglement risk to whales.

The model also allows assessment of alternative management options to mitigate risk using actions like:

- Fishing effort reductions
- Seasonal closures
- Changing gear configurations
- Weak ropes

The model returns maps and tables summarizing how the assessed actions changed estimated entanglement risk.

Developed by the Northeast Fishery Science Center in 2019, NEFSC expanded the spatial extent of model from the Northeast to the entire Atlantic from 2021-2022.
DST Math: Gear (density and threat) x Whales = Risk

Example with the New England Lobster fishery for April.

Bright colors indicate high values.

Darker colors indicate lower values.

Model tracks risk monthly to account for seasonality.

Model currently does this for >60 fisheries along the East Coast for multiple species of whales.
Sources: Whale Distribution Model

Duke Whale Distribution Model

- Based on a solid scientific foundation, sound data, and peer-reviewed methods.

- Uses systematic survey, later ground truthed with opportunistic sightings and acoustic detections

- For further information: Atlantic Large Whale Take Reduction Team Webinar planned November 10 from 2-4 pm ET with Dr. Jason Roberts (see fisheries.noaa.gov/alwrtp)
## Fishery Input Data

<table>
<thead>
<tr>
<th>State</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME</td>
<td>ACCSP, Fed VTRs, State VTRs &amp; Observer</td>
</tr>
<tr>
<td>NH</td>
<td>ACCSP, Fed VTRs, State VTRs &amp; Observer</td>
</tr>
<tr>
<td>MA</td>
<td>ACCSP, Fed VTRs, State VTRs &amp; Observer</td>
</tr>
<tr>
<td>RI</td>
<td>ACCSP, Fed VTRs &amp; Observer</td>
</tr>
<tr>
<td>CT</td>
<td>ACCSP, Fed VTRs &amp; Observer</td>
</tr>
<tr>
<td>NY</td>
<td>ACCSP, Fed VTRs &amp; Observer</td>
</tr>
<tr>
<td>NJ</td>
<td>ACCSP, Fed VTRs, State VTRs &amp; Observer</td>
</tr>
<tr>
<td>DE</td>
<td>ACCSP, Fed VTRs &amp; Observer</td>
</tr>
<tr>
<td>MD</td>
<td>ACCSP, Fed VTRs, State VTRs &amp; Observer</td>
</tr>
<tr>
<td>VA</td>
<td>ACCSP, Fed VTRs, State VTRs &amp; Observer</td>
</tr>
<tr>
<td>NC</td>
<td>ACCSP, Fed VTRs &amp; State VTRs</td>
</tr>
<tr>
<td>SC</td>
<td>ACCSP &amp; Fed VTRs</td>
</tr>
<tr>
<td>GA</td>
<td>ACCSP &amp; Fed VTRs</td>
</tr>
<tr>
<td>FL</td>
<td>ACCSP, Fed VTRs &amp; State VTRs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gillnet</th>
<th>Trap/Pot</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Fed</td>
</tr>
<tr>
<td>GOM</td>
<td></td>
</tr>
<tr>
<td>SNE</td>
<td></td>
</tr>
<tr>
<td>MATL (Incl. NC N of Hatteras)</td>
<td></td>
</tr>
<tr>
<td>S-MATL (NC S of Hatteras)</td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td></td>
</tr>
</tbody>
</table>
Post Phase 1
Remaining U.S. Fishery Risk Coastwide

Full summary of regulations for Northeast Lobster and Jonah Crab Trap/Pot Fisheries.
More information on Phase 1 available on the ALWTRP website - fisheries.noaa.gov/takereduction2021
What Have We Done So Far?

2021 Final Rule Overview: NE Lobster & Jonah Crab Focus

Target area of highest overlap of right whales with >90% of buoy lines

Challenge to Team: 60 to 80 percent risk reduction

- Identify risk hotspots and areas with higher predicted whale density as candidates for restricted areas: expanded 1, added 2 new areas

- Gear configurations that broadly reduce the number of buoy lines in the water throughout federal waters: trawling up measures

- Reduce the breaking strength/lethality of lines throughout the Northeast region

- Increase resolution of gear marks, particularly between states and state vs. federal

Web page: fisheries.noaa.gov/2021modifications
Gulf of Maine and Southern New England Post-Phase 1 Risk

Shown as a log-scale/in orders of magnitude

Full summary of regulations for Northeast Lobster and Jonah Crab Trap/Pot Fisheries.
More information on Phase 1 available on the ALWTRP website - fisheries.noaa.gov/takereduction2021
Coastwide Risk by Gear Type

- Remaining NE Lobster/Jonah Crab: 47.5%
- Phase 1 reduction in NE Lobster/Jonah Crab: 46%
- Other Trap Pot: 2.8%
- Gillnet: 3.7%

2021 regulations got us half way there.

Values based on low-resolution calculations.
Remaining risk after Phase 1

Coastwide Remaining Risk by Gear Type

- Remaining NE Lobster/Jonah Crab: 47.5%
- Phase 1 reduction in NE Lobster/Jonah Crab: 46%
- Other Trap Pot: 2.8%
- Gillnet: 3.7%

Values based on low-resolution calculations
Coastwide Remaining Risk by Region

Phase 1 reduction in NE Lobster/Jonah Crab

Gillnet Regions

Gillnet
- Remaining NE Lobster/Jonah Crab
- Other Trap Pot
- 46% reduction

Trap Pot Regions

GOM
- SNE
- MATL
- SE
- 47.5% reduction

PRELIMINARY ANALYSES, SUBJECT TO REVISION
Why We Are Scoping

- An opportunity for citizens to provide early input on the range of issues to be analyzed in an Environmental Impact Statement (EIS)
- Rulemaking anticipated within two years to fulfill MMPA mandate to reduce entanglement risk to right whales by at least another 44%: PBR
- Scoping input will be shared with the ALWTRT to inform their November efforts to recommend modifications to the Take Reduction Plan and considered by NMFS in developing EIS and proposed rule
- Post-scoping opportunities for input:
  - Contact an ALWTRT member that represents you to bring your ideas to the TRT
  - When proposed rule and Draft EIS is published, participate in public comment period and coast-wide public hearings
Initial Scoping: August - October 2021

- Generated initial ideas for U.S. gillnet and mixed species trap/pot, and mid-Atlantic lobster
- Some additional ideas for NE Jonah crab and lobster measures
- Results presented to ALWTRT (May 2022 meetings). Team generated more ideas, with an emphasis on non-NE Jonah crab and lobster
- September 2022 ALWTRT meetings generated more ideas for all fisheries managed under the Plan
Tools in the Toolbox

Weak Rope or Weak Links to Allow Whales to Break Free

**Pros:** Works well in shallower waters  
**Cons:** Have not found workable solution for deep offshore waters though new ½ inch rope being tested

Remove Rope from the Water

**Pros:** Removing rope from water provides significant risk reduction; multiple options  
**Cons:** One end ropeless can increase gear conflicts; hard to determine fair way to set caps and/or enforce caps; trawling up is likely near or at capacity for most vessels

Area Closures to Reduce Overlap Between Ropes and Whales

**Pros:** Removes gear from hotspots, decreasing risk  
**Cons:** Difficult to avoid times of high value and landing rate, depending on how they are done, closures may result in movement of gear to other places without achieving hoped for risk reduction
Examples of Measures Discussed by TRT

- **Broad weak line**
  - Weak line requirements by distance from shore for all fisheries
  - Expand use of weak links in the headrope for gillnet fisheries

- **50% vertical buoy line (VBL) reduction**
  - One end ropeless
  - Trawling up measures for trap/pot fisheries
  - Trap caps
  - Line caps

- **Seasonal Restricted Areas**
  - Apply Trap/Pot VBL restricted areas to gillnet fisheries
  - Expand the South Island Restricted Area in space and time
  - Rolling closures in the Northeast and mid-Atlantic
  - Testing additional areas

*Other (not risk reduction) measures to be considered:*

- **Gear Marking Requirements:** increase number/type of marks
We Need Your Ideas

- Measures that, combined with others, will reduce mortality and injury of right whales in U.S. commercial fisheries by another ~44%, to a cumulative 90% (less than one whale a year)

- Measures to improve resolution of gear marking (e.g. by state/federal waters, region, and/or gear type)

- Information on how measures affect your operations and what we should analyze. See handout for specific valuable input ideas

Tips for Useful Oral Comments (three minute limit):
- Unique, adding something new to conversation
- Specific recommendations
- Succinct - we want to hear from as many people as possible
- Productive - focus on things we CAN do
- Fishermen, specific experience with gear is helpful
- Include any scientific data
How to Participate in Tonight's Meeting

This is primarily a forum for us to hear from you rather than a question and answer session. We will remain after the meeting to answer your questions.

**Ground Rules**
- Be respectful.
- Direct comments to the presenters.
- You may get in line for questions/comments at any time.
- Please limit your comments to 3 minutes so that everyone can have a chance to speak.
- If you have already provided public comment but wish to give another, you may rejoin the queue.

Your comments are being recorded and will be included in the official record of scoping comments.
Public Comments

Comment Period - September 9–October 11, 2022

Submit comments through Regulations.gov using Docket #NOAA-NMFS-2022-0091

Atlantic Large Whale Take Reduction Plan Website