Atlantic Large Whale Take Reduction Plan Proposed Modifications 2021

Request for Comments

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Presentation Overview

Purpose: Provide information to prepare stakeholders to comment on a Proposed Rule and Draft Environmental Impact Statement to modify the Atlantic Large Whale Take Reduction Plan

Background

- Status of Right Whales
- Overview or MMPA Take Reduction Program and Large Whale Take Reduction Team (TRT)

Developing the Proposed Rule

- Recent Take Reduction Efforts
- Alternative Development

NEPA Analysis and Proposed Rule

- Preferred Alternative
- Non-Preferred Alternatives
- Comparison of Biological Impacts
- Comparison of Economic Impacts

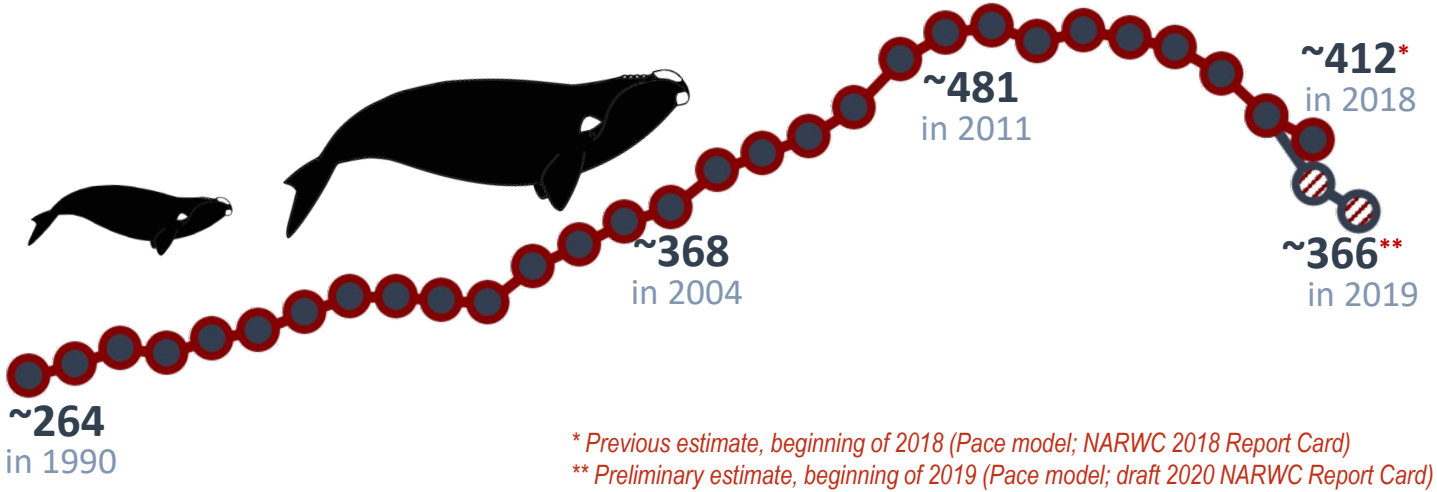
Process for Providing Public Comments

Photo Credit: FL FWC FWRI

Background

NORTH ATLANTIC RIGHT WHALES

References: Pace et al 2017, Hayes et al 2020, Pettis et al 2020
Data on this slide through Dec 8, 2020



** Previous estimate, beginning of 2018 (Pace model; NARWC 2018 Report Card)*
*** Preliminary estimate, beginning of 2019 (Pace model; draft 2020 NARWC Report Card)*

MORTALITIES

32 Known Dead (8 US, 23 CN)
- **8 entanglements (4 US, 4 CN)**
- **10 vessel strikes (2 US, 8 CN)**
- **14 cause undetermined (3 US, 11 CN)**

INJURIES THAT WILL LIKELY RESULT IN MORTALITY

14 Known Seriously Injured (7 US, 4 CN)
- **12 entanglements (8 US, 4 CN)**
- **1 vessel strikes (US)**
- **1 cause undetermined (US)**

Location = Usually country of first sighting of incident, less often of known origin

BY THE NUMBERS

~366†
TOTAL WHALES AT THE BEGINNING OF 2019

<100
POTENTIAL MOTHERS

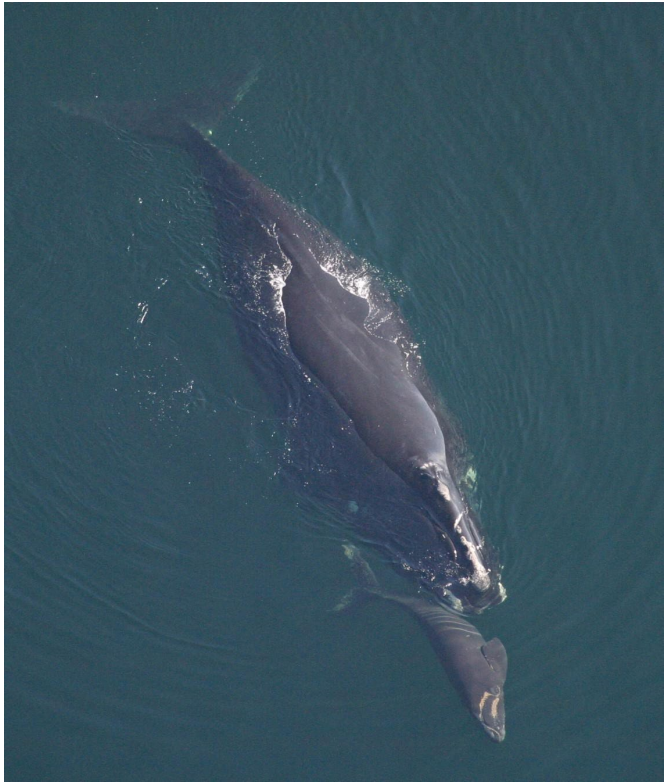
26††
CALVES BORN SINCE WINTER OF 2016/2017

46†††
KNOWN MORTALITIES AND SERIOUS INJURIES SINCE JAN 2017

5
SERIOUS INJURIES AVERTED SINCE JAN 2017

†Oct 2020 NARWC estimate, not yet peer reviewed
††Includes one dead off NC in Nov 2020 and three born through Dec 22, 2020
†††This count may be different from UME page as it includes an SI of unk cause

Right Whale Recovery Efforts



Endangered Species Act (ESA):

- Recovery Plan Implementation Teams
  - Northeast Implementation Team (NEIT)
  - Southeast Implementation Team (SEIT)
- ESA Section 7 Consultations
- Vessel Strike Regulations:
  - Speed reduction management areas
- Species in the Spotlight
- Collaboration with Canada

Marine Mammal Protection Act (MMPA):

- Marine Mammal Health and Stranding Response
  - Unusual Mortality Event
- Marine Mammal Take Reduction Program - specific to U.S. commercial fisheries

Underlined text throughout this presentation are links to more information in the static slide deck at fisheries.noaa.gov/ALWTRP

Marine Mammal Protection Act Take Reduction Program

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

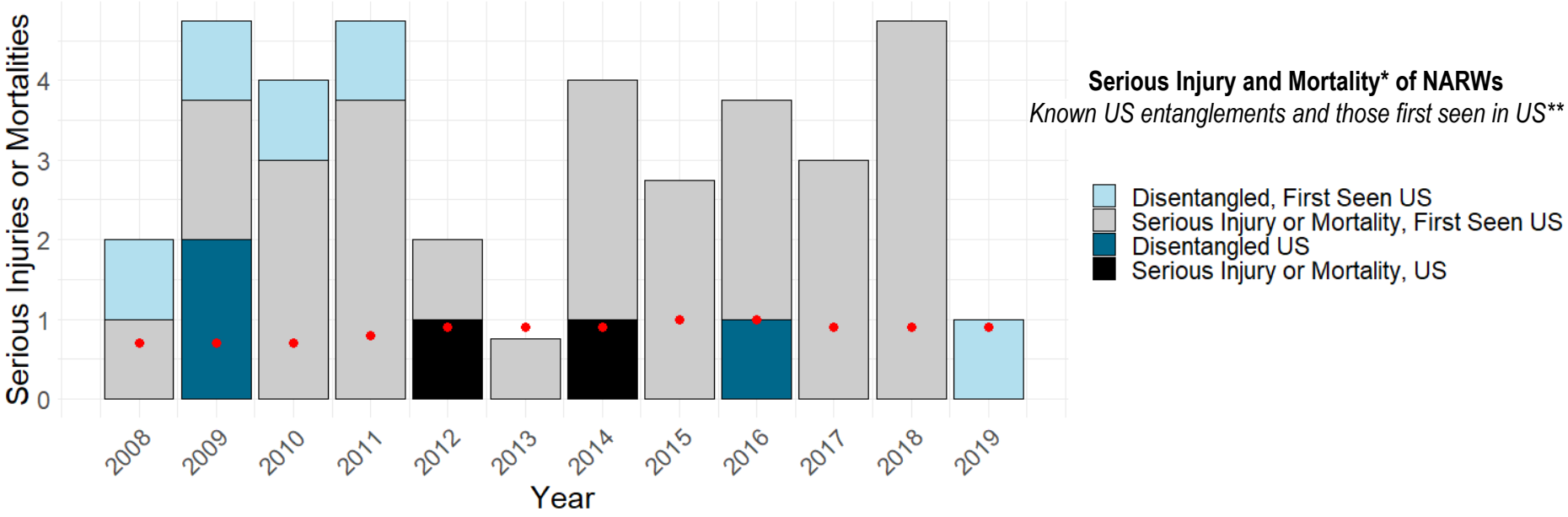
- Required if incidental mortality and serious injury exceeds Potential Biological Removal (PBR)
- Take Reduction Planning (TRP):
  - Develop and recommend take reduction measures
  - Consensus-based
- NMFS has the ultimate responsibility to take action

Atlantic Large Whale Take Reduction Team (ALWTRT)	
Group	**# of Members**
Trap/Pot Fishery	18
Gillnet Fishery	5
Conservation/Environmental	6
Academic/Scientific	9
State Managers	14
Federal Managers	5
Fishery Management Organizations	4
Total	**61**

Site and Source of Entanglements Usually Unknown

Dragon, 2020. Photo taken by CCS.

Serious Injuries and Mortalities Continue To Exceed PBR



*Five year rolling average.
**Graph does not include known Canadian entanglements or those first seen in Canada

Proposed Rule Development

Recent Take Reduction Efforts

Develop recommendations to reduce mortalities and serious injuries of right whales in U.S. fisheries by 60% to 80% to below the potential biological removal level

- Assumes mortalities and serious injuries of unknown origin occur equally in U.S. and Canada
- Decision Support Tool (DST) used to compare/evaluate measures
- Best opportunity for Team to collaborate to provide input on measure
- Start with northeast lobster and Jonah crab fisheries (93% of vertical lines where right whales occur)

Basic Principles for Alternative Development

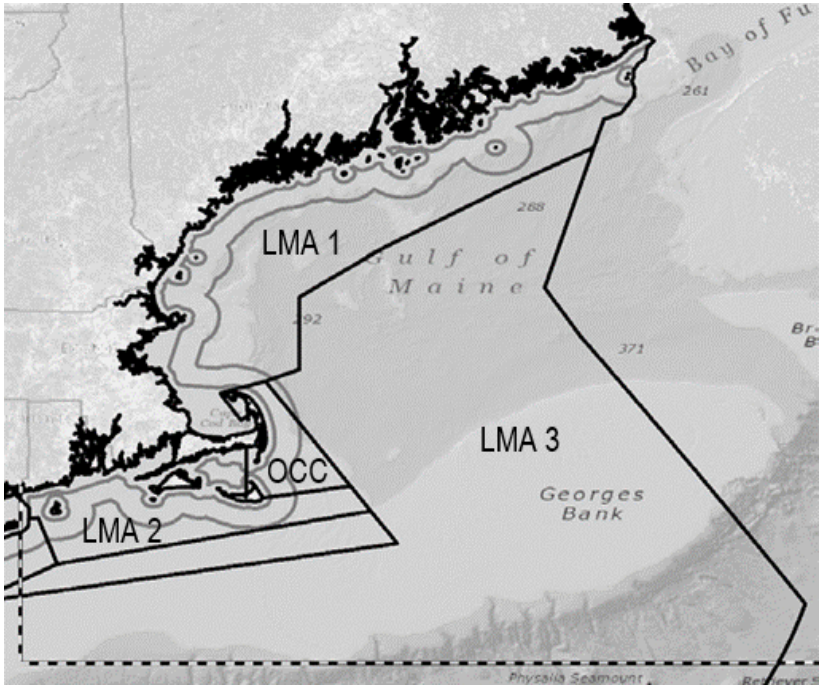
Risk reduction of 60% or greater as assessed with Decision Support Tool (DST)

Consideration of April 2019 TRT Recommendations

- Spread risk reduction across jurisdictions
- Include broad application of reduced line and weak rope
- Jurisdictional approach: incorporate State proposals, American Offshore Lobster Association for LMA3

NMFS Approach:

- Direct the most protection to areas of predictable high seasonal aggregations
- Substantial risk reduction across areas of co-occurrence
- Precautionary measures everywhere



Proposed Rule and Draft Environmental Impact Statement

The National Environmental Policy Act (NEPA) requires an Environmental Impact Statement (EIS) for major actions. Requires alternatives and effects analyses.

The Alternatives and the Proposed Rule

Two alternatives to consider:

- **Preferred**
  - We use terms “preferred alternative” and “proposed rule” interchangeably
  - Primarily derived from proposals and ideas from the states and AOLA
  - Additional measures included for sufficient risk reduction across area

- **Non-Preferred**
  - Contains proposed measures not included in the preferred alternative
  - Some measures contain Scenarios A and B, for example restricted area alternatives in southern New England

PREFERRED ALTERNATIVE / PROPOSED RULE

ALWTRP Measures

- Trawl up by LMA, distance from shore outside of ME exempt waters or 3 nmi
- Restricted areas changed from closure to ropeless (closed to buoy lines)
- Two new restricted areas:
  - South Island Restricted Area Feb -Apr
  - LMA 1 Restricted Area Oct - Jan

    Analyzed proposal: restricted area Oct - Jan

    Co-proposal 1-A: no restricted area

    Co-proposal 1-B: restricted area Oct-Jan based on future determinations

- Region-wide conversion to weaker line
  - Nearshore: a set number of insertions based on distance from shore
  - Offshore: full weak line or equivalent in the top of one line

Risk Reduction	~64%
Reduction in right whale Co-Occurrence	~69%
Proportion Line Weakened	~30%
First Year Cost	**$6.9~$15.4 million**

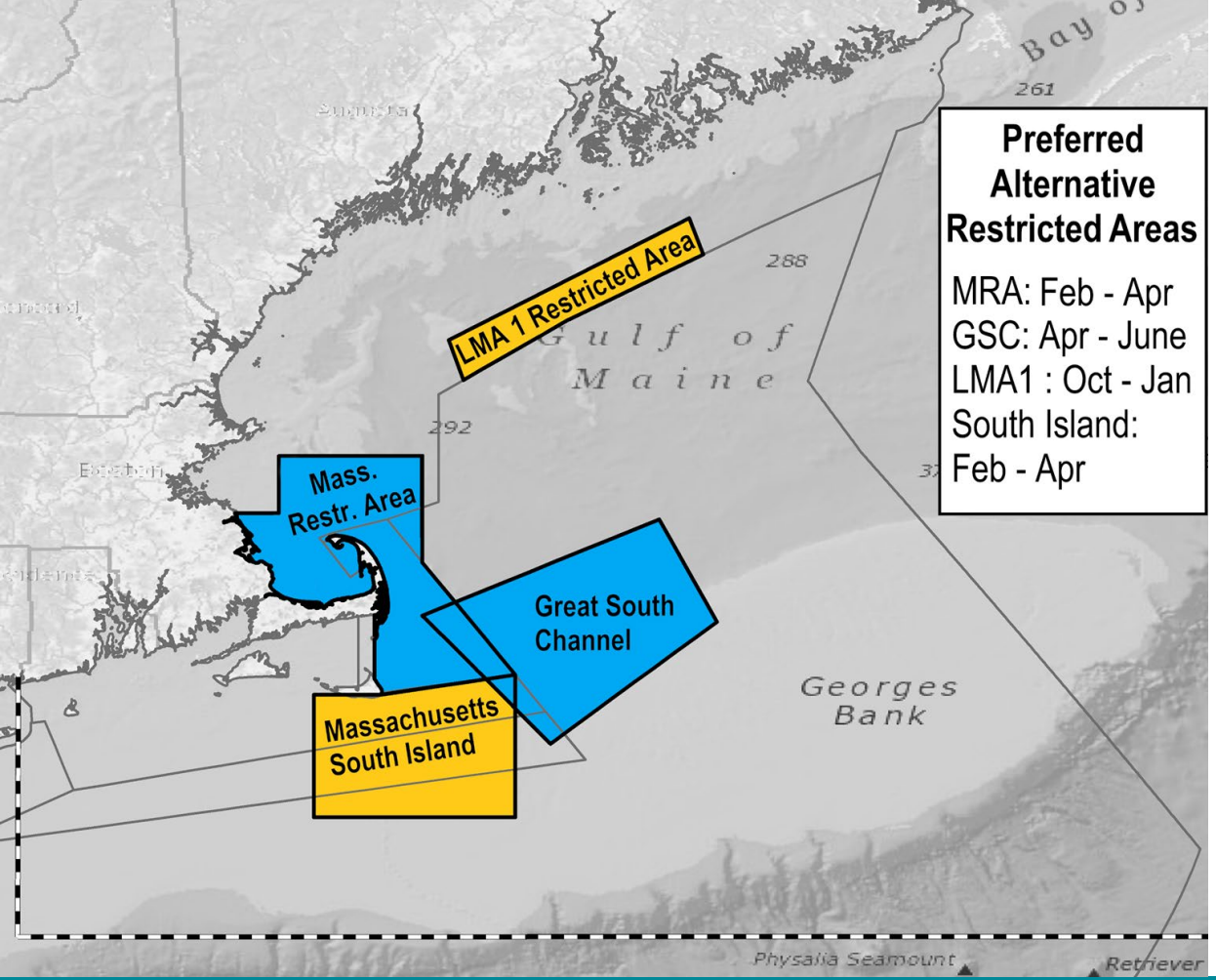
Other Measures

- Ongoing and planned line reduction in LMAs 2 & 3
- No singles on MA vessels larger than 29 ft permitted after 1/1/2020
- Credit for the Massachusetts Restricted Area (MRA) from Feb - Apr
- Delayed open of MRA state waters until surveys confirm whales have left

Preferred Alternative/Proposed Rule:
Line Reduction Measures

Measure	Source
Increased trap/trawl requirements based on distance from shore and/or LMA: • ME state waters outside of exemption 3 traps/trawl • ME 3-6 nm (already 10 traps/trawl for NH, MA) 8 traps/trawl • LMA1 6-12 nm 15 traps/trawl • LMA2, Outer Cape 3-12 nm 15 traps/trawl • LMA 1 & 2 over 12 nm 25 traps/trawl • LMA3 45 traps/trawl	ME and MA for LMA1 and 2 and in consultation with Atlantic Offshore Lobstermen's Association (AOLA) for LMA3
In LMA3, increase maximum ground line length from 1.5 nm to 1.75 nm	AOLA

Preferred Alternative: Seasonal Restricted Areas

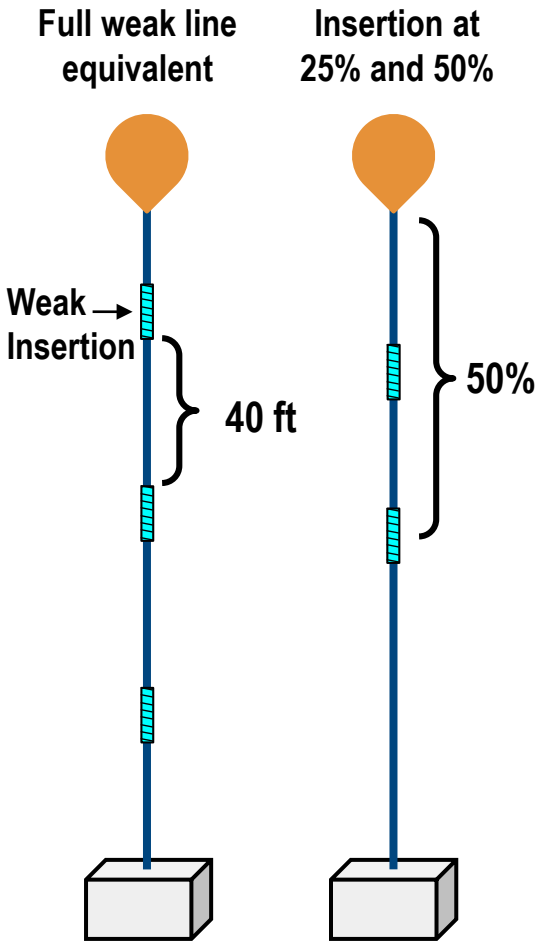


- Existing restricted areas (in blue) modified to allow ropeless (with Exempted Fishing Permit)
- State waters of MRA would be closed by MA in May unless whales leave the area
- Up to two new seasonal ropeless areas proposed (in yellow)

Preferred Alternative: Weak Line Measures

Area	Insertion % from the top	Source
State waters	1 weak insertion at 50%	ME, MA
Maine state waters outside exemption area and all northeast 3 to 12 nm	2 weak insertions at 25% and 50%	ME, MA
12 nm to border (all northeast)	1 weak insertion at 33%	ME, MA
LMA3-weak line (75%)	One full weak line top 75%	AOLA

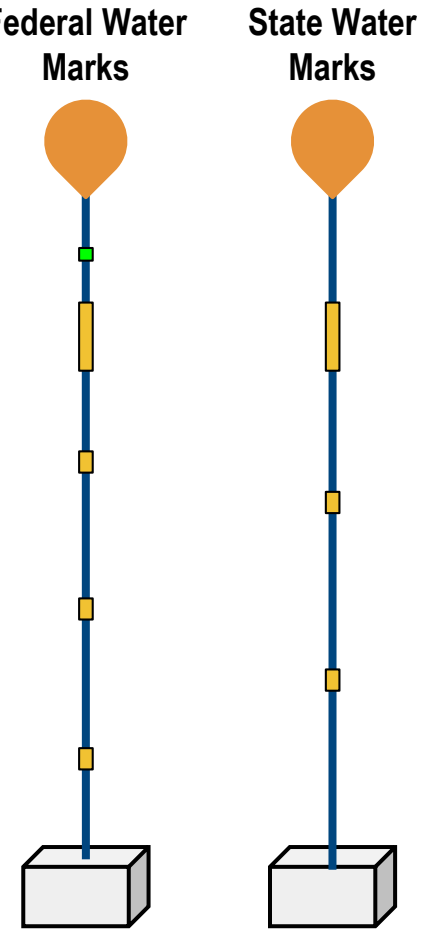
$$\text{Risk Reduction} = \frac{\text{\# of inserts X 40ft}}{\text{depth X scope ratio}} \text{ X risk reduction for full weak line}$$



Preferred Alternative: Gear Marking

- **State specific colors (new and existing marks):**
  - Maine = Purple (already implemented through state regs)
  - New Hampshire = Yellow
  - Massachusetts = Red
  - Rhode Island = Silver/gray
  - LMA3 = Black
- **New three-foot long mark** within two fathoms of surface system
- **State waters:** two one-foot marks, top and bottom half of buoy line
- **Federal waters:** six-inch green mark within one foot of long mark

Example: New Hampshire



NON-PREFERRED ALTERNATIVES

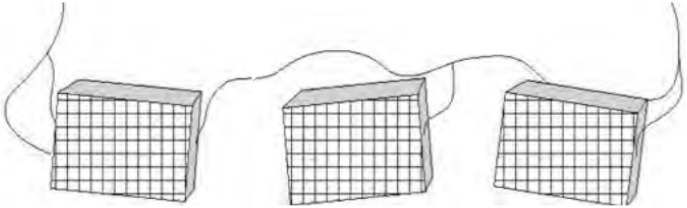
ALWTRP Measures

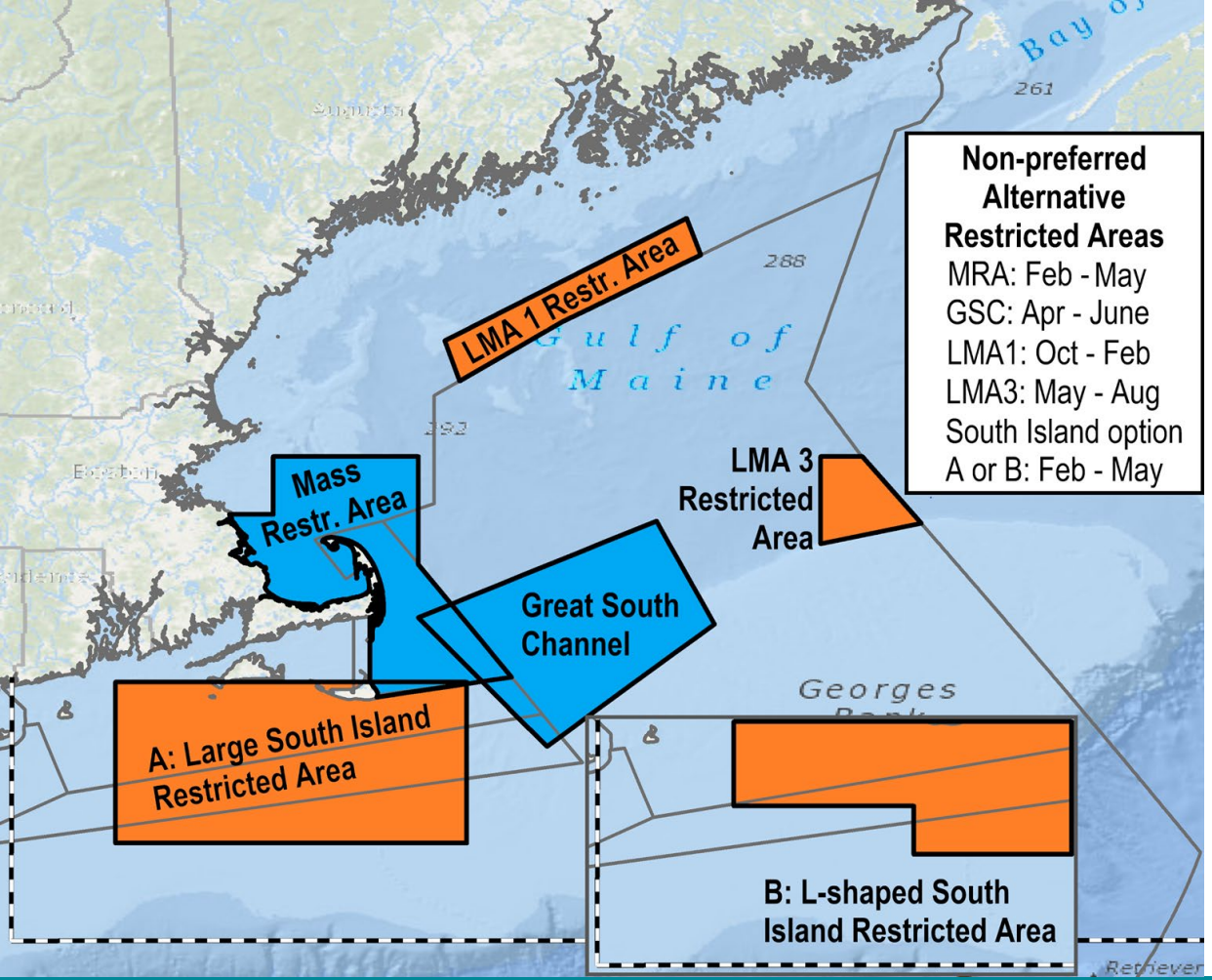
- Line cap 50% of monthly average in federal waters
- Trawl up in LMA3 May - Aug
- Restricted areas changed from closure to ropeless (closed to buoy lines)
- New restricted areas or seasons:
  - Extend the MRA closure, soft open
  - LMA1 Restricted Area, Oct - Feb, soft open
  - LMA3 Restricted Area, May - Aug
  - South Island restricted Area Feb - Apr:
    - **Scenario A:** Large rectangular area
    - **Scenario B:** L-shaped area
- Region-wide conversion to weaker line
  - Nearshore: full weak topper in all lines
  - Offshore options:
    - **Option 1:** One full weak line topper all year
    - **Option 2:** Shorter weak section as topper with a longer weak topper on one end from May - Aug

Risk Reduction	~69 - 72%
Reduction in right whale Co-Occurrence	~83 - 88%
Proportion Line Weakened	~74%
First Year Cost	**$28~$46 million**

Non-Preferred Alternative: Line Reduction Measures

Measure	Source
50% line cap in federal waters based on the monthly average, May - Aug	TRT October 2018 proposal, scoping comments, ASMFC Lobster Whale Working Group
Increase the number of traps/trawl in LMA 3 to 45, May - Aug	AOLA
In LMA3, increase maximum ground line length from 1.5 nm to 1.75 nm	AOLA



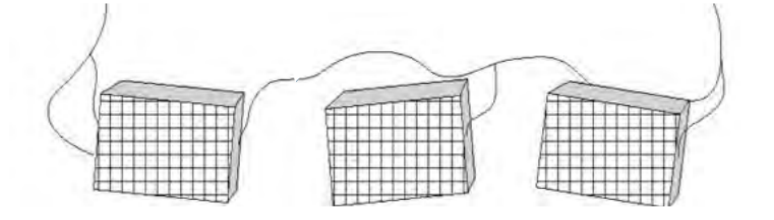


Non-Preferred Alternative: Seasonal Restricted Areas

- Existing restricted areas (in blue) modified to allow ropeless (with Exempted Fishing Permit)
- Three new seasonal ropeless areas proposed (in orange)
- Longer LMA1 Restricted Area than in preferred
- Extension of Mass Restricted Area into May unless right whales leave

Non-Preferred Alternative: Weak Line Measures

Area	Proportion of line weakened	Source
Everywhere outside of LMA 3	Full weak rope in the top 75% of all lines	Proposals, scoping comments
LMA 3 Option 1	Weak line in the top 75% of one line	AOLA
LMA 3 Option 2	One weak line in the top 75% of one line and 20% on other line (May - August), top 20% weak Sep-Apr	AOLA



Non-Preferred Alternative: Gear Marking

- **State specific colors (new and existing marks):**
  Maine = Purple (already implemented by state regs)
  New Hampshire = Yellow
  Massachusetts = Red
  Rhode Island = Silver/gray
  LMA3 = Black

- **New three-foot long mark** within two fathoms of the buoy

- Replace rope in buoy line with rope with **identification tape** that identifies home state and target species

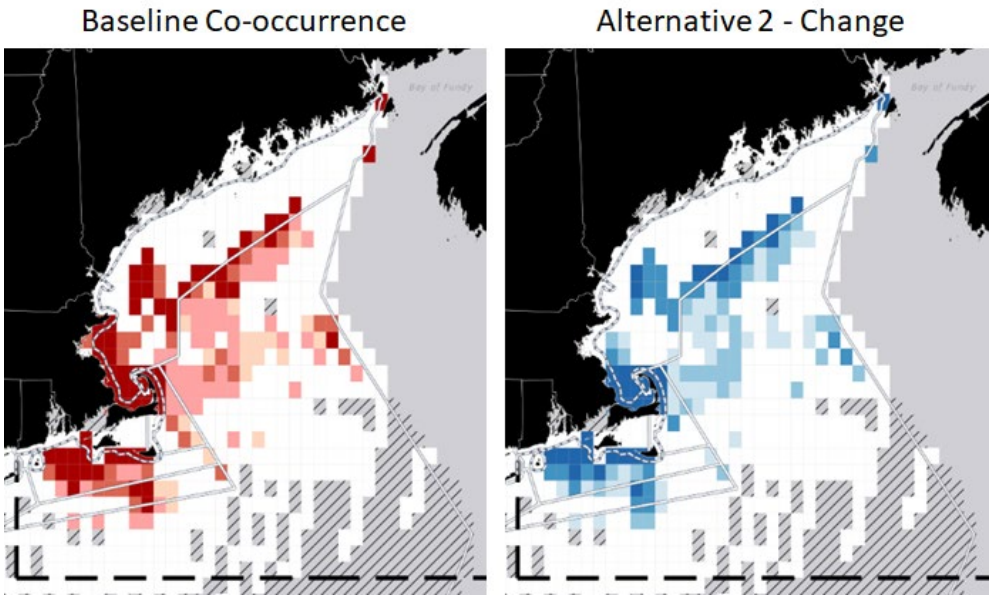
Surface System 3-foot Mark

National Environmental Policy Act Analyses

Biological Impacts: How We Measured

Proxies used to assess the potential biological impacts:

- Percent line reduction
- Percent co-occurrence reduction
  - IEC/NMFS co-occurrence model
  - reduction in overlap between vertical lines & whales
- Percent total line weakened



The darker red cells represent areas of high co-occurrence
The darker blue cells represent areas with greater decrease in co-occurrence
White cells represent low to no co-occurrence
Grey cells represent area where we have insufficient data for co-occurrence

Biological Impacts: Change in Vertical Line & Co-Occurrence

	Preferred Alternative	
	Lines Out	Relocation
% Reduction in Vertical Lines		
Of all lines outside of Maine Exempt waters	19.2%	18.8 %
% Reduction in Co-Occurrence		
Right Whale	69.2%	69.1%
Humpback Whale	19.5%	19.4%
Fin Whale	27.9%	27.9%

Taken from Table 5.9 in DEIS

Biological Impacts: Proportion Converted to Weak Line

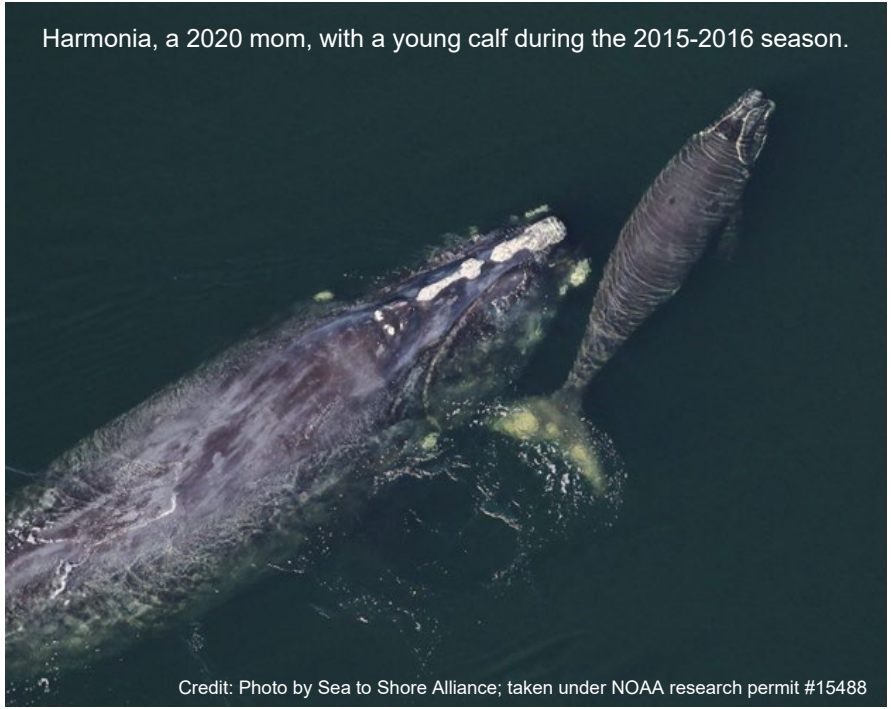
- Every line will have weaknesses introduced, some with full weak rope and some with weak inserts
- Inserts were compared to the full weak rope equivalent of inserts every 40 feet

	Preferred Alternative		Non-Preferred Alternative			
			Scenario A		Scenario B	
	Lines Out	Relocation	Lines Out	Relocation	Lines Out	Relocation
Proportion of line that is less than or equal to 1700 lbs (weak line) or the equivalent						
Maine Exempt Waters	31.7%	31.7%	75.0%	75.0%	75.0%	75.0%
Outside Maine Exempt Waters	26.6%	26.5%	73.4 - 73.9%	73.3 - 73.8%	73.3 - 73.9%	73.3 - 73.8%

Taken from Table 5.8 in DEIS

Economic Impacts: What Costs Impacts Are Analyzed

- **Number of Affected Vessels**
- **Compliance costs for:**
  - Restricted Areas
    - Lines out
    - Relocation
  - Gear Configuration
    - Trawling up
    - Weak rope
  - Gear Marking
  - Buoy Line Cap
- **Comparison of cost efficiency between alternatives**


Harmonia, a 2020 mom, with a young calf during the 2015-2016 season.
Credit: Photo by Sea to Shore Alliance; taken under NOAA research permit #15488

Economic Impacts: Number of Vessels Analyzed in DEIS

State/Area	Measures				
	Weak Rope	Gear Marking	Trawling Up (Preferred)	Trawling Up (Non-preferred)	Line Cap (Non-preferred)
ME (Non-exempt)	2,300	1,185	1,602	0	1,185
NH	241	241	0	0	0
MA	1,216	1,216	21	0	187
RI	131	131	7	0	37
LMA 3	82	82	82	74	82
Total	**3970**	**2855**	**1,712**	**74**	**1,491**

Data Source: IEc.2017 Model Vessel Database (pulled in 2020)

Economic Impacts: Summary of Affected Vessels and Annual Costs of Federally Managed Restricted Areas

Restricted Area	Preferred Alternative			Non-Preferred Alternative					
				Scenario A			Scenario B		
	Vessels Lines Out	Vessels Relocation	Cost Range (in thousands $)	Vessels Lines Out	Vessels Relocation	Cost Range (in thousands $)	Vessels Lines Out	Vessels Relocation	Cost Range (in thousands $)
LMA1	0	45	$106 - $315	0	45	$114 - $340	0	45	$114 - $340
South Island	<2	<1	$0	16	11	$386 - $414	3	7	$219 - $236
Mass Bay Area	-	-	-	138	21	$431 - $444	138	21	$431 - $444
Georges Basin	-	-	-	0	16	$328 - $656	0	16	$328 - $656
Total	**2**	**46**	**$106 - $315**	**154**	**93**	**$1,258 - $1,854**	**141**	**89**	**$1,092 - $1,676**

Adapted from Table 6.19 DEIS

Economic Impacts: Summary of Compliance Costs by Alternatives

Measures	Preferred Alternative (in millions $)		Non-Preferred Alternative (in millions $)			
			Scenario A		Scenario B	
	First Year	6 Years	First Year	6 Years	First Year	6 Years
Gear marking	$2.0	$12.0	$4.3	$15.2	$4.3	$15.2
Weak rope	$2.2	$2.2	$10.2	$10.2	$10.2	$10.2
Trawling up	$2.7 - $11.0	$13.2 - $45.0	$0.8 - $1.8	$2.7 - $6.5	$0.8 - $1.8	$2.7 - $6.5
Restricted Areas	$0.1 - $0.3	$0.6 - $1.9	$1.3 - $1.9	$7.5 - $11.0	$1.1 - $1.7	$6.6 - $10.0
Line cap	-	-	$11.4 - $28.2	$45.5 - $114.0	$11.4 - $28.2	$45.5 - $114.0
Total	$6.9 - $15.4	$28.0 - $61.0	$27.9 - $46.3	$81.2 - $157.3	$27.8 - $46.1	$80.2 - $156.0

Adapted from Table 6.22 DEIS

Comparison Estimated Risk Reduction and Costs*

Indices	Preferred Alternative	Non-Preferred Alternative	
		Scenario A	Scenario B
Co-Occurrence Reduction	69%	86 - 88%	83 - 86%
First Year Co-Occurrence Reduction Costs	$2.8~$11.3 million	$13.5~$31.7million	$13.3~$31.7 million
First Year Costs for Each Percent of Co-Occurrence Reduction	$41,000-$164,000	$155,000-$364,000	$157,000-$375,000

**Costs of other measures that do not reduce risk, primarily gear marking, are included.*

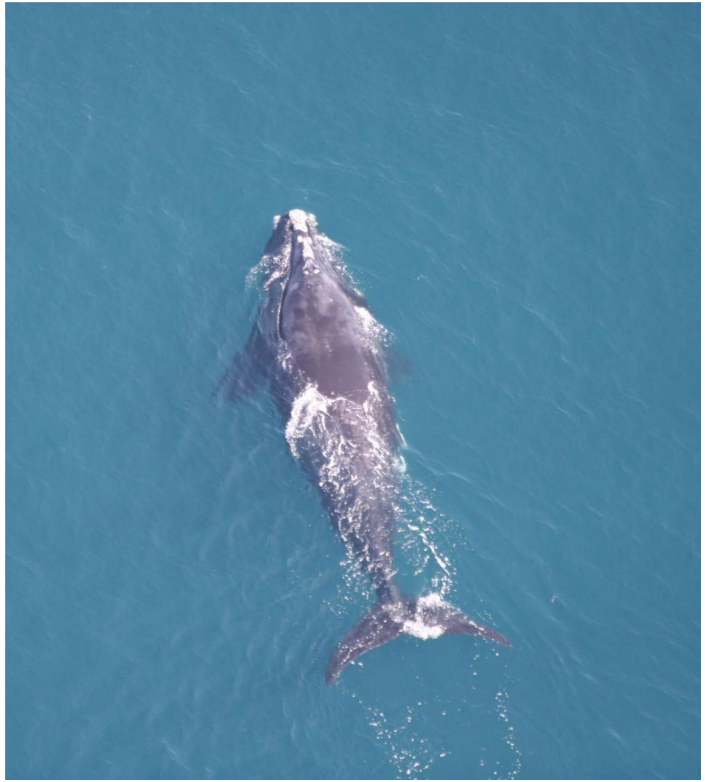
Taken from Tables 1.3, 1.4 and Table 6.22 DEIS

Input needed:

- Are there other equivalent risk reduction options that should be considered? For example, restricted areas not in TRT recommendation.
- Are estimates of time required for gear marking and gear conversion reasonable?
- Maine proposed trawling up or the use of a single buoy line on multi-trap trawls. Comments?
- Some LMA3 vessels may not have deck or rope storage capacity to fish 45 trap/trawls. Comments on consideration of using permit conditions to allow variety as long as the average is 45 traps/trawl in LMA3 would be appreciated. In other LMAs?
- Are weak links at the buoy or at surface system connection needed onces inserts are required within the buoy line?

Next Steps

- Collect comments, analyze, prepare responses
- Update analyses including new data, publications, information from public comments
- Complete and make available Final Environmental Impact Statement (FEIS)
- Complete and file Final Rule after FEIS 30-day cooling off period is completed
- Complete Endangered Species Act Section 7 Consultation on fisheries
    - Issue Biological Opinion by May 31, 2021



Providing Written Public Comment

Attendance at a Public Hearing is not necessary to provide comments

Proposed Rule and DEIS can be found here: fisheries.noaa.gov/ALWTRP

To submit written comments:

- Go to: www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2020-0031
- Click: "Comment Now"
- Identify with Docket Number*: NOAA-NMFS-2020-0031

**You may need to search regulations.gov using the docket number*

Two-Part Public Meetings Plan

Regional Informational Presentations:

- Present overview of information in DEIS and Proposed Rule
- Answer questions on DEIS and Proposed Rule

Public Hearings:

- Brief overview
- Bulk of time for public input

Written comments

- Attendance at a meeting is not necessary to provide comments.
- Written comments due within 60 days of publication.
- Submit written comments at regulations.gov under identification number NOAA-NMFS-2020-0031.

Need more information?

Visit fisheries.noaa.gov/ALWTRP for:

- Draft Environmental Impact Statement
- Proposed Rule
- Public Meeting Schedule
- 'How-To' guides if you are not familiar with GoToWebinar
- Instructions for submitting written comments

Questions?

Contact Colleen Coogan at:
colleen.coogan@noaa.gov or 978-281-9181

Thank you to our many collaborators, particularly the members of the ALWTRT