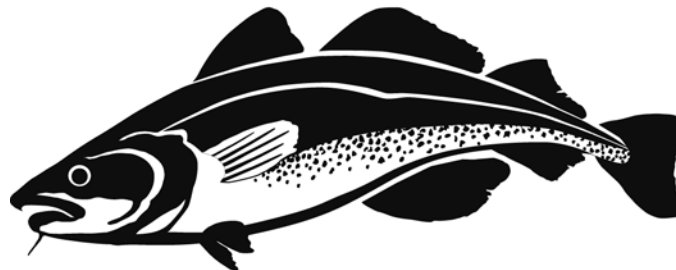


# Anticipated changes to the Atlantic Large Whale Take Reduction Plan affecting Massachusetts trap/pot fisheries

February 18-19, 2020  
Scoping Meetings

**Marine Fisheries**  
Commonwealth of Massachusetts



# Purpose of Scoping

- NMFS' plan to amend Take Reduction Plan to reduce risk of serious injury and mortality to right whales posed by trap/pot gear, specifically vertical lines.
- DMF has been working with NMFS to analyze series of conservation measures to reduce risk.
- Review NMFS' analyses of how Massachusetts can achieve the federally mandated risk reduction targets.

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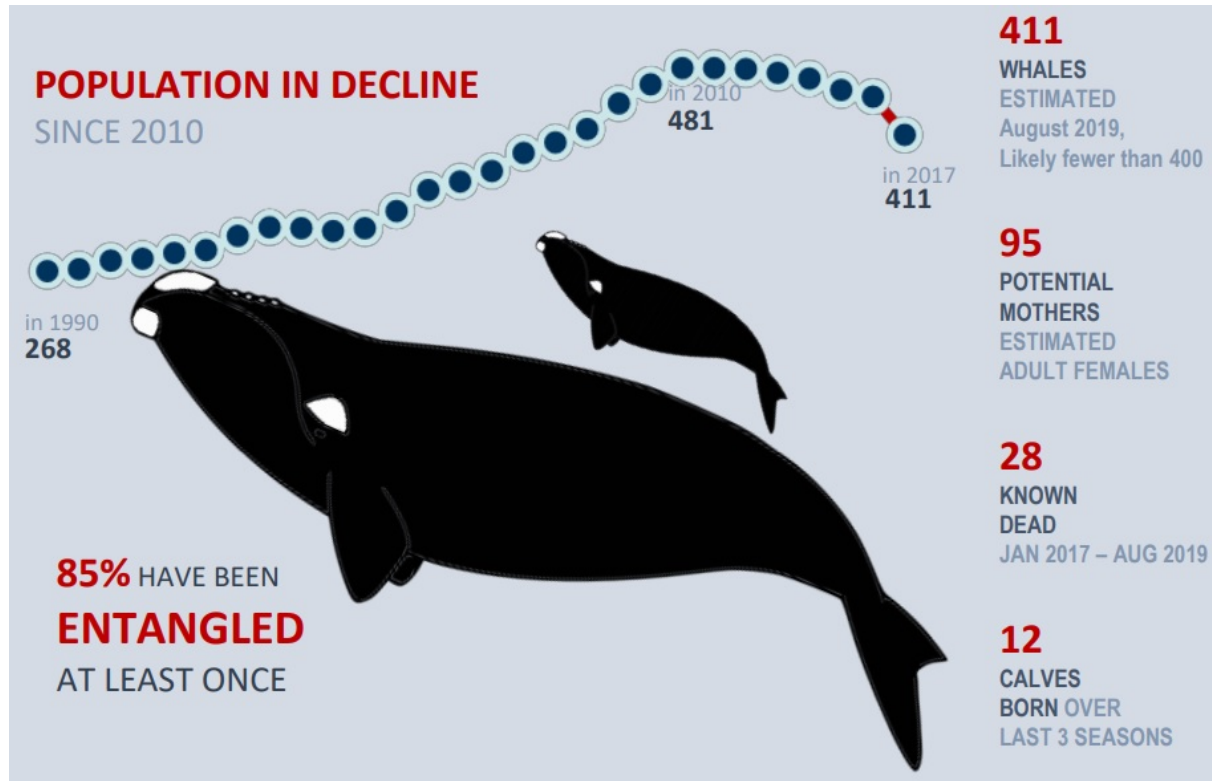


# Background on 2020 TRT amendment

- Right whale population in decline since 2010
- Change in distribution patterns in that time too
  - New habitats
  - “Out of habitat” sightings too (south of islands)
- Reduced calving rate
- Increase in mortality
- Entanglement deaths in new areas (south of islands)



# Right whale population decline

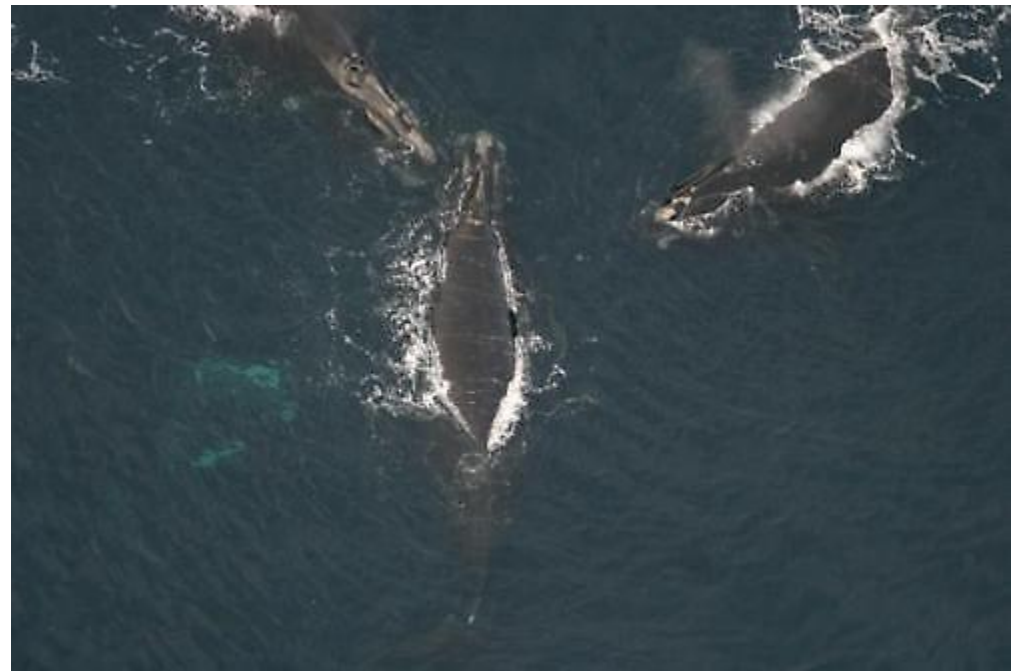
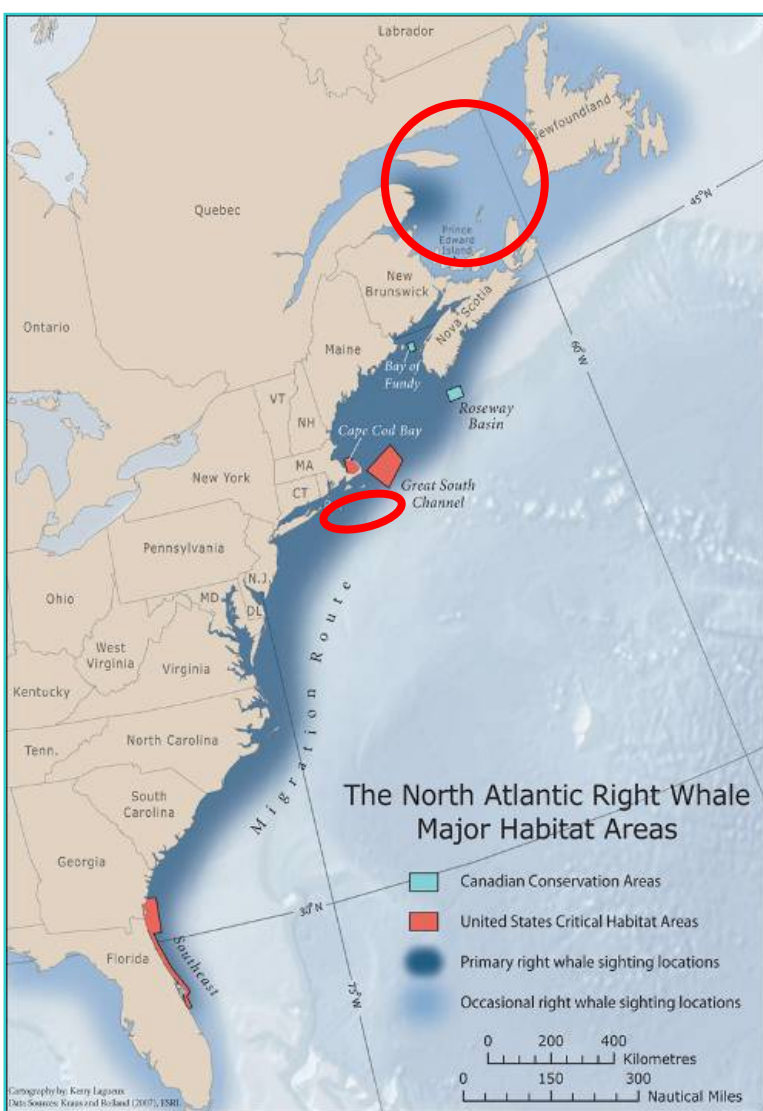


\*29 deaths since Jan 2017

\*10 calves born so far in 2020

# Change in right whale distribution

- Energetic costs of extended migration
- Threats in new habitats
- Changes in food availability and quality



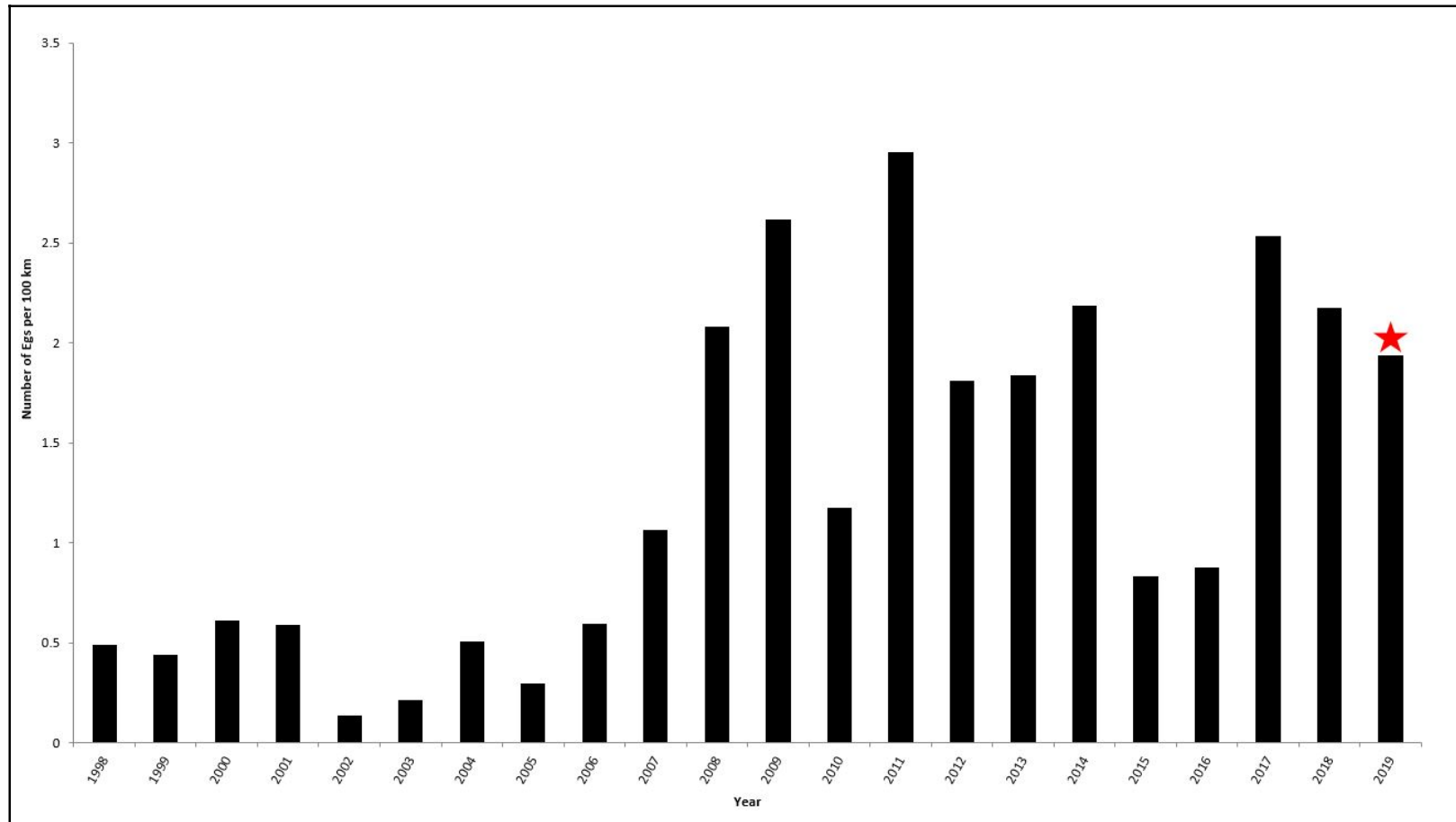


287 individuals documented in 2019  
in CCB and adjacent waters



Approximately 67% of the known population

# Cape Cod Bay SPUE trend



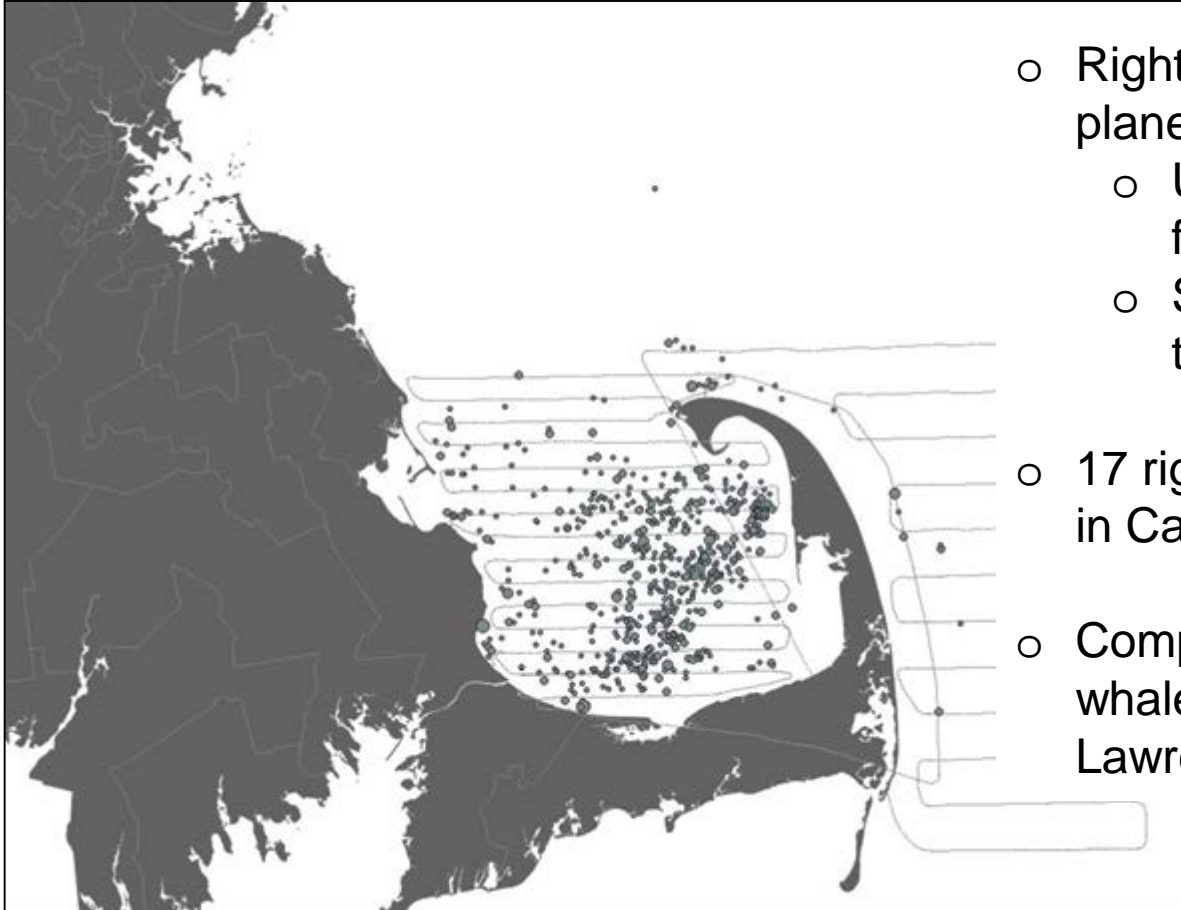
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# Cape Cod Bay 2019 season

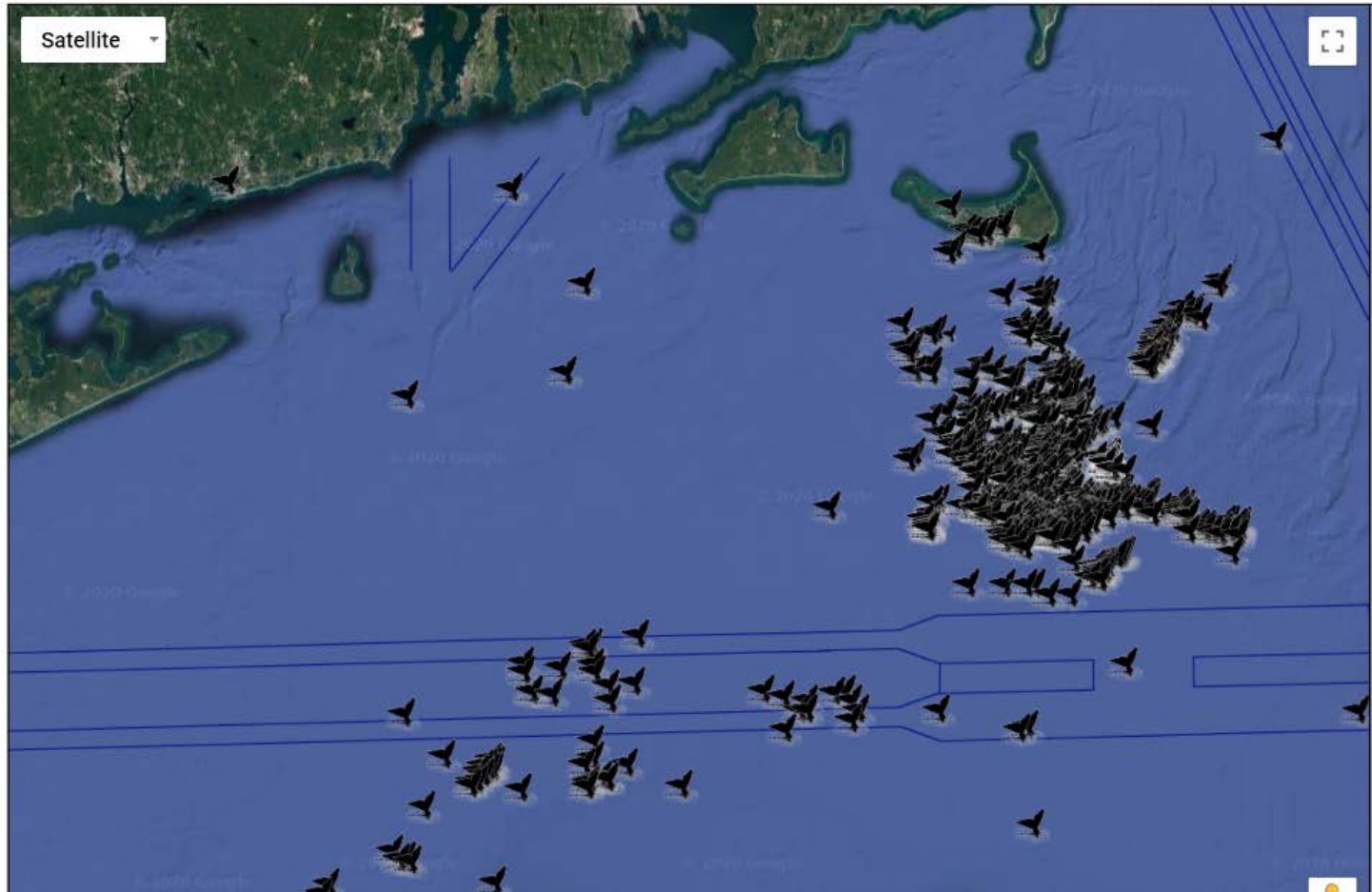


- Right whales use CCB on all planes
  - Use of entire water column for feeding
  - Shift spatial distribution over the course of the season
- 17 right whales/cubic mile of water in Cape Cod Bay
- Compare to 0.02 right whales/cubic mile in Gulf of St Lawrence

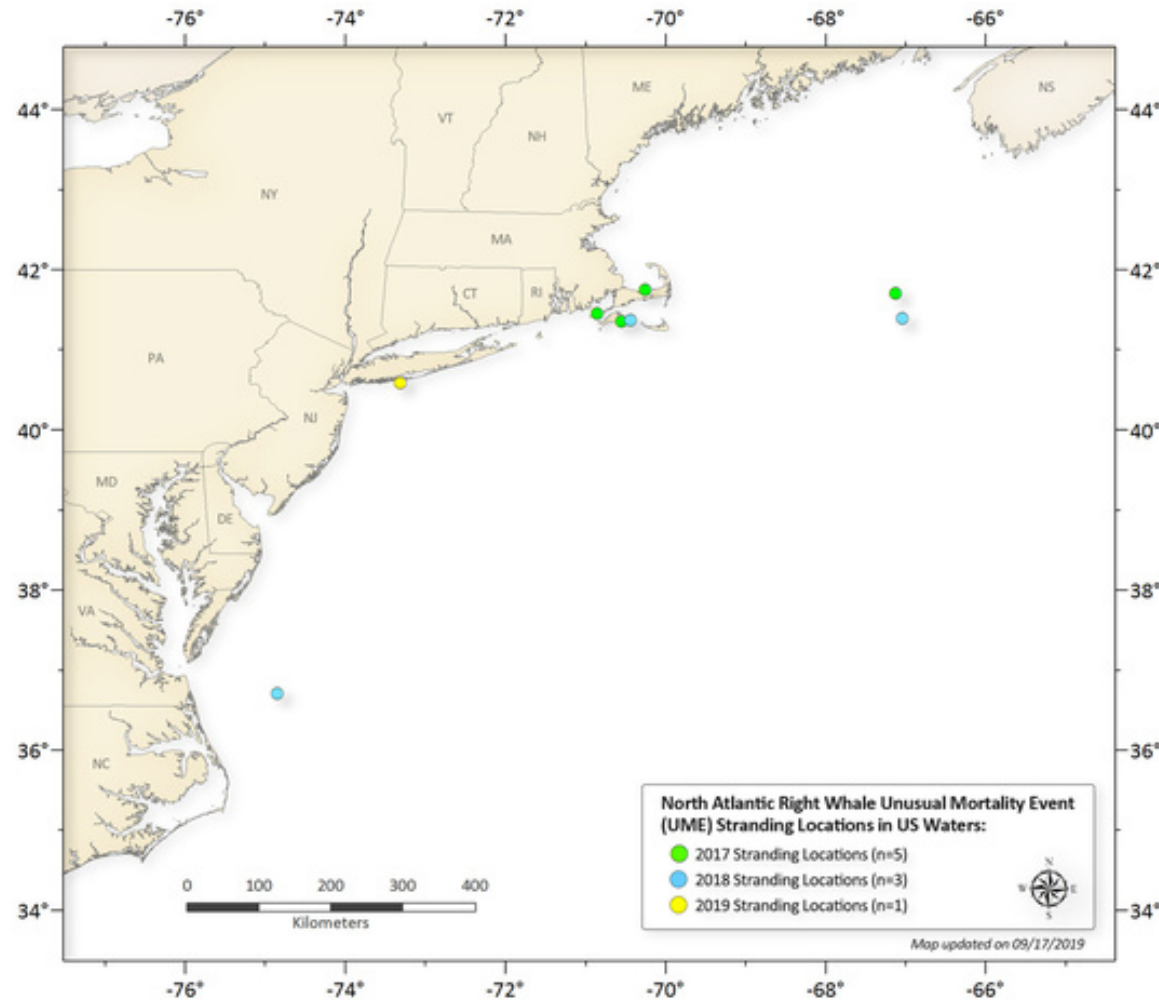




# Sightings Dec 2018 – Feb 2020



# Right whale UME 2017-2019 (US cases)



# Conservation Target

- Modify ALWTRP to reduce impacts of US fixed gear fisheries to below PBR (0.9/year) for right whales
- Goal: achieve 60% reduction in SIM of right whales in US fisheries



# Decision Support Tool

- Risk = whale density \* gear density\* relative risk of gear configuration
- Peer Review of support tool
- Meant to support not replace Team deliberations





# Risk Reduction Measures

- Measures that reduce acute entanglement risk
  - Closures
  - Ropeless fishing
- Measures that reduce dispersed entanglement risk and sub-lethal effects
  - Trawling up
  - 1,700 lb contrivance/rope
  - Trap reductions



# Massachusetts LMA1

Line Reduction by area:	Current Regs	Line Reduction Measure	% Risk Reduction
MBRA Closure	In place since 2015	All Gear removed from area Feb 1 - April 30th	<b>29.1%</b>
Cape Cod Bay	MAMDF Dynamic Season Extension	MBRA Closure extended until whales depart	<b>20.5%</b>
3 to 6 miles	10 traps per trawl	10 traps per trawl	<b>0%</b>
6 to 12 miles	10 traps per trawl	15 traps per trawl	<b>0.4%</b>
12+ miles	20 traps per trawl	25 traps per trawl	<b>0%</b>
Weaker line/contrivance		Configuration	
Coast to 3 miles		1 insertion at 50%	<b>7.9 to 13.7%</b>
3 -12 miles		2 weak insertions in topper 25% and 50% down	<b>4.6 to 10.1%</b>
12 miles to LMA 3 border		1 weak insertion in topper at 35%	<b>0.5 to 3%</b>
			<b>Average = 19.9% (13.0 to</b>
<b>Total Risk Reduction</b>			<b>~69.9%</b>



# LMA OCC

Line Reduction by area:	Current Regs	Line Reduction Measure	% Risk Reduction
MBRA Closure	In place since 2015	All Gear removed from area Feb 1 - April 30th	<b>19.0</b>
Cape Cod Bay	MAMDF Dynamic Season Extension	MBRA Closure extended until whales depart	<b>16.5</b>
Weaker line/contrvance		Configuration	
Coast to 3 miles		1 insertion at 50%	<b>4.5-6%</b>
3 -12 miles		2 weak insertions in topper 25% and 50% down	<b>7.9-17.5%</b>
12 miles to LMA 3 border		1 weak insertion in topper at 35%	<b>1.5-4.5%</b>
			<b>13.9-28% (20.95)</b>
<b>Total Risk Reduction</b>			<b>56.45</b>



## Other options to get to 60%

Line Reduction by area:	Line Reduction Measure	% Risk Reduction
ALL OCC	Eliminate singles on vessels > 30'	34
3-12 Miles Trawling Up	10 trap trawl minimum	1.2
3-12 Miles Trawling Up	15 trap trawl minimum	2.3
ALL OCC	Fishing 1 buoy line on trawls	50.0





# Massachusetts LMA2

Line Reduction by area:	Line Reduction Measure	% Risk Reduction
LMA2 Effort Reduction	Trap Reduction	18.0
LMA2 Proposed Closure	Feb 1 through April 30th	
Weaker line/contrvance	Configuration	
Coast to 3 miles	1 insertion at 50%	6.2-8.3% (7.25)
3 -12 miles	2 weak insertions in topper 25% and 50% down	6.18-13.6% (9.9)
12 miles to LMA 3 border	1 weak insertion in topper at 35%	1.4-4.06% (2.73)
		13.78 to 25.96% (19.9)
Total Risk Reduction		37.9

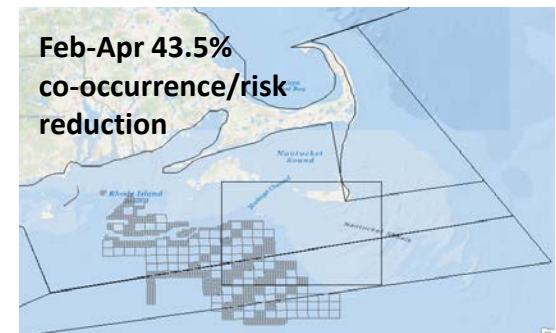
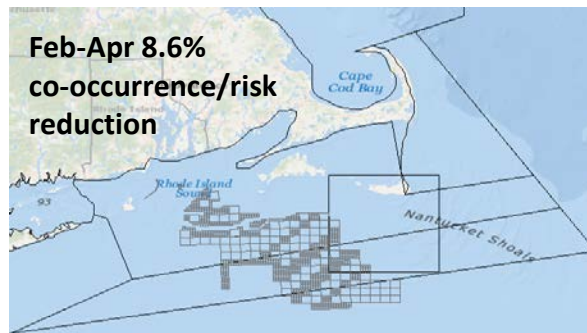
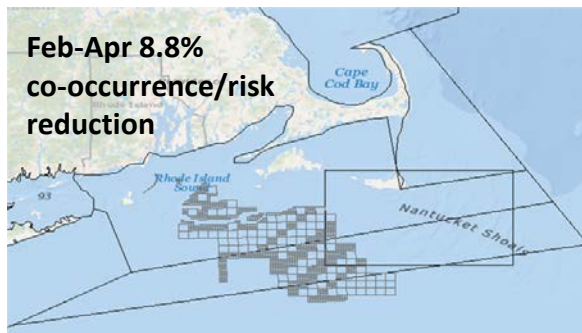
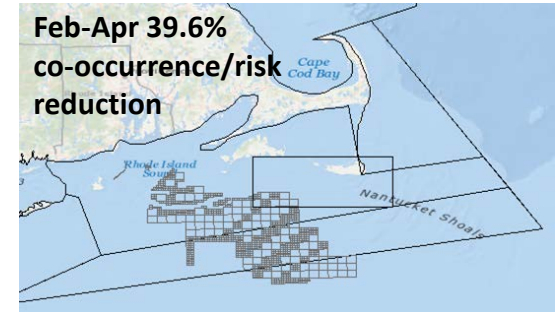
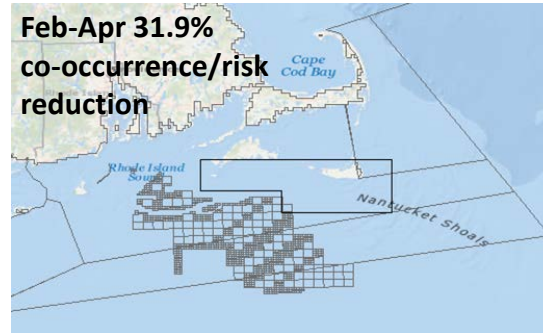
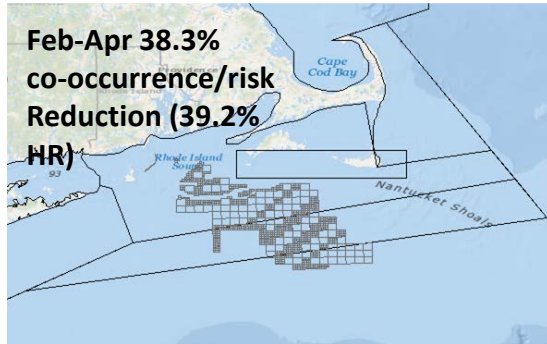


## Other options to get to 60%

Line Reduction by area:	Line Reduction Measure	% Risk Reduction
LMA South of Islands	Seasonal Closure	Many Options
3-12 Miles Trawling Up	10 trap trawl minimum	0.2
3-12 Miles Trawling Up	15 trap trawl minimum	0.9
ALL OCC	Fishing 1 buoy line on trawls	50.0



# South of Island Closure Options



# Options for weak rope

- Sleeves
- 1700 lb line
- NMFS will work with industry to develop a list of acceptable options;
  - Measurable
  - Repeatable
  - Enforceable





# Timeline on Rule Making

- July 2020 proposed rule
- May 2021 implementation



# Comments



February 21, 2020

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