

ALWTRT Informational Webinar: *The meeting will begin at 3:00*

For technical support:
Type your issue into the 'Questions' box

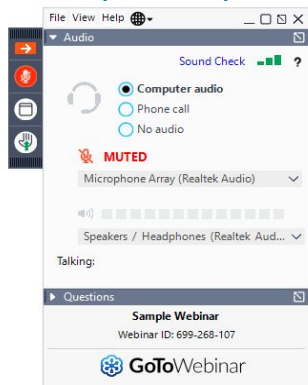
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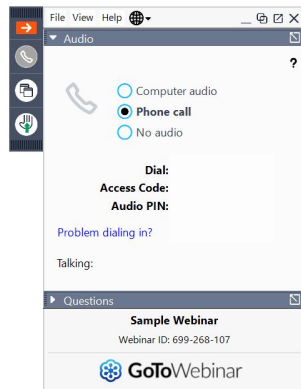


*Green is the
control panel*

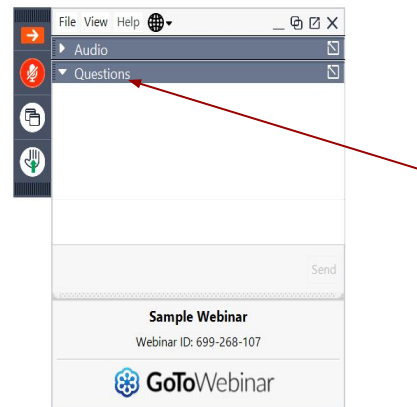
Computer Audio
(Preferred)



Cell phone for audio
(limited internet)




This is the questions box



Find the **Control Panel** and open it by clicking the orange arrow. You can usually find this on the right hand side of your screen. You can expand the grey option bars by clicking the triangle on the left hand side of "Audio" and "Questions".

The **Control Panel** also allows you to mute/unmute by clicking the microphone symbol.

Make sure you can see a red microphone symbol  next to your name in attendees. If you cannot, you will not be able to speak.

Select your **audio settings**. Computer audio is recommended. If you dialed in on your phone and did not enter your audio pin, please redial and enter your audio pin.

Access the audio options by clicking on the grey bar that says "Audio".

This is the **Questions box**, you will use this to 'get in line' for the Q&A. You can also use it to let us know if you are experiencing technical difficulties.

Access the questions box by clicking the grey bar that says "questions".



NOAA
FISHERIES

Atlantic Large Whale Take Reduction Team Informational Webinar

March 19, 2024

Jennifer Goebel, ALWTRT Coordinator
Colleen Coogan, MM/ST Branch Chief
Crystal Franco, NEPA Policy Analyst
Elizabeth Stratton, ALWTRT Implementation
Chao Zou, Chief Economist
Kaleigh Hill, NEPA Support/Economist



New Roles

Jennifer Goebel, ALWTRT Coordinator

Crystal Franco, NEPA Policy Analyst/DST Liaison

New Faces

Kaleigh Hill, NEPA Support/Economist

Liz Stratton, ALWTRP Implementation

A Familiar Face

Chao Zou, Chief Economist

Agenda

| | |
|---------------------------|--|
| 3:00-3:15 (15 min) | Welcome |
| 3:15-3:35 (20 min) | Entanglement Updates/Gear Advisory Group - Dave Morin |
| 3:25-3:55 (20 min) | Council Plans for Reducing Takes of Atlantic Sturgeon - Jenny Couture, NEFMC |
| 3:55-4:10 (15 min) | Calving Update - Kara Shervanick |
| 4:10-4:25 (15 min) | DST Update - Laura Solinger |
| 4:25-4:35 (10 min) | Comfort Break |
| 4:35-4:50 (15 min) | Enforcement Update - Caleb Gilbert |
| 4:50-5:00 (10 min) | Gear Research and Interoperability Workshop - Brian Galvez |
| 5:00-5:15 (15 min) | Aerial Survey Review and Planning - Dani Cholewiak |
| 5:15-5:30(15 min) | Next Steps - Jen Goebel/Colleen Coogan |
| 5:30-5:45 (15 min) | Q and A and Wrap Up |



Welcome

Team Membership Changes

Thank you to our retiring and resigning members and alternates for your years of service!

- Mike Greco, Maryland Department of Natural Resources
- Cindy Driscoll, Delaware Division of Fish & Wildlife
- Clay George, Georgia Department of Natural Resources (now *Southeast Large Whale Recovery Program Coordinator!*)
- Barb Zoodsma, Southeast Right Whale Recovery Coordinator
- Richard Merrick, Academic/Scientific Caucus
- Dave Borden, Atlantic Offshore Lobstermen's Association
- Heidi Henninger, Atlantic Offshore Lobstermen's Association alternate

Welcome New Team Member

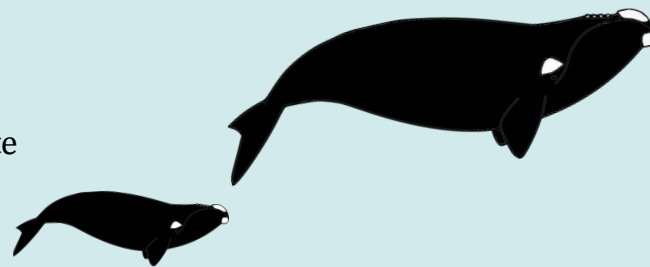
- Kara Shervanick, Southeast Right Whale Coordinator

Welcome Pending New Members

- Erin Meyer-Gutbrod, Academic/Scientific Caucus
- Audrey Ostroski, Delaware Division of Fish & Wildlife
- Hank Soule, Atlantic Offshore Lobstermen's Association
- Jessica Thompson, Georgia Department of Natural Resources
- Chris Rainone, New Jersey Gillnet Fishery
- Liam Sullivan, Rhode Island Gillnet Fishery

And Pending Alternates

- Andrea Bogomolni, NGO caucus for WDC and CLF
- Stephen Ouellette, Atlantic Offshore Lobstermen's Association



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Reminders: Participation in an Informational Webinar

Reminder: This is a webinar held in public, not a public meeting.

- ***Primary Team Members***

- Use the questions box to indicate you have a question during Q&A on presentations
- You will be called on in order of when you put your question in the box
- Chat to host only with tech issues; not for substantive input or discussion
- Appreciate and request that we maintain the collaborative tone of comments and questions

- ***Alternates***

- Engage as public unless sitting in for primary

- ***Members of the public***

- Welcome to observe
- Please email any questions to us at nmfs.gar.alwtrt@noaa.gov

This webinar is being recorded.



Implementation Update: Approved Weak Rope and Links

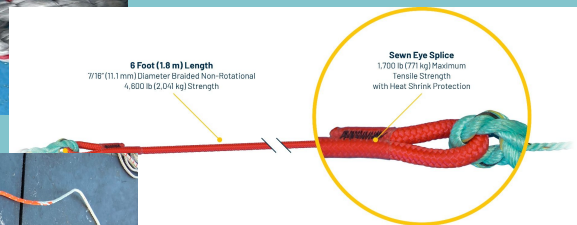
Approved Weak Rope

- 5 types of braided ropes
 - $\frac{3}{8}$, $\frac{5}{16}$, $\frac{1}{2}$, $\frac{5}{8}$
- 8 types of 3-strand ropes
 - $\frac{3}{8}$, $\frac{5}{16}$, $\frac{5}{8}$
- More added as available



Approved Weak Links

- Manufactured plastic
- Breakaway links
- Sleeves
- Splices



Updates: [fisheries.noaa.gov/NE-approved-weak](https://www.fisheries.noaa.gov/NE-approved-weak)



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Observed Entanglements

March 19, 2024

David Morin, Disentanglement Coordinator

2022-2023 Preliminary Entanglement Summary

| Year | Species | Total # | Gear marking color | Gear origin |
|------|----------|---------|--|--|
| 2022 | Right | 5* | Purple - ME state (1) | U.S. trap - ME state (1) |
| | Humpback | 16 | Purple - ME state (2) | U.S. trap - ME state (2) |
| | Minke | 6 | Red - MA state (1) | U.S. trap - MA state (1) |
| 2023 | Right | 6 | Orange and Yellow - Canada (2) | Canadian snow crab (2), Canadian lobster (1), unknown Canadian (2) |
| | Humpback | 23 | Purple - ME state (1), Red & Green - MA fed (3) | Canadian lobster (1), U.S. trap - MA federal (3), U.S. trap - MA (1), U.S. trap - ME state (1), U.S. trap - ME federal (1), U.S. trap - Area 3 (1), U.S. gillnet (1) |
| | Minke | 2 | | |

* includes #5120, entangled in 2022, found deceased in January 2024 on Martha's Vineyard

This information is distributed solely to inform the ALWTRT, and is subject to future review and revision. It has not been formally disseminated by NOAA. It does not represent any final agency determination or policy.

2020-2023 Entanglement Summary by Recovered Color Marks

| Year | Species | Total # | Gear marking color | First Sighting Location |
|------|----------|---------|--|--------------------------------|
| 2020 | Right | 4 | Orange - Canada (1) | Massachusetts |
| | Humpback | 15 | Red - MA state waters (2) | Massachusetts |
| | Minke | 7 | Purple - ME state waters (2) | Maine |
| | Unknown | 1 | | |
| 2021 | Right | 3 | | |
| | Humpback | 21 | Red - MA state (1), Purple & Green - ME fed (1) | Massachusetts |
| | Minke | 4 | Purple - ME state (1), Purple & Green - ME fed (1) | Maine |
| | Finback | 2 | | |
| 2022 | Right | 5* | Purple - ME state waters (1) | Canada |
| | Humpback | 16 | Purple - ME state waters (2) | Massachusetts |
| | Minke | 6 | Red - MA state waters (1) | Massachusetts |
| 2023 | Right | 6 | Orange and Yellow - Canada (2) | Georgia (1), Massachusetts (1) |
| | Humpback | 23 | Purple - ME state (1), Red & Green - MA fed (3) | Maine (1), Massachusetts (3) |
| | Minke | 2 | | |

* includes #5120, entangled in 2022, found deceased in January 2024 on Martha's Vineyard

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Gear Identified by Color Marks - 2020-2023

| | Non-monofilament Entanglements | Proportion of Incidents with Gear Retrieved | Number of Incidents with Gear Retrieved | Number of Incidents with Color Marks on Retrieved or Identified Gear | Proportion of Gear Identified by Color Marks |
|----------|--------------------------------|---|---|--|--|
| Right | 18 | 33% | 6* | 4 | 67% |
| Humpback | 50 | 42% | 21 | 10 | 48% |
| Minke | 19 | 37% | 7 | 5 | 71% |
| Total | 87 | 39% | 34 | 19 | 56% |

There are other ways to identify gear origin that are not included in these calculations.

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Color Mark Sources for Right, Humpback, and Minke Whales

| Color Marks | Large Whales | Right | Humpback | Minke |
|-----------------------|--------------|----------|-----------|----------|
| Maine State | 7 | 1 | 3 | 3 |
| Maine Federal | 2 | | 1 | 1 |
| Massachusetts State | 4 | | 3 | 1 |
| Massachusetts Federal | 3 | | 3 | |
| Canada | 3 | 3 | | |
| Total | 19 | 4 | 10 | 5 |

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Right Whale #5120

Open NOAA OLE case, so no additional gear details available at this time.

Last pre-entanglement sighting in Great South Channel on May 1, 2022*

1st sighting entangled - August 20, 2022

Last sighting alive on June 12, 2023.



Photo from NEFSC
- June 12, 2023

* ME required federal green marks next to every purple mark on May 1, 2022

Right whale #5120

**Open NOAA OLE case, so
no additional gear details
available at this time.**

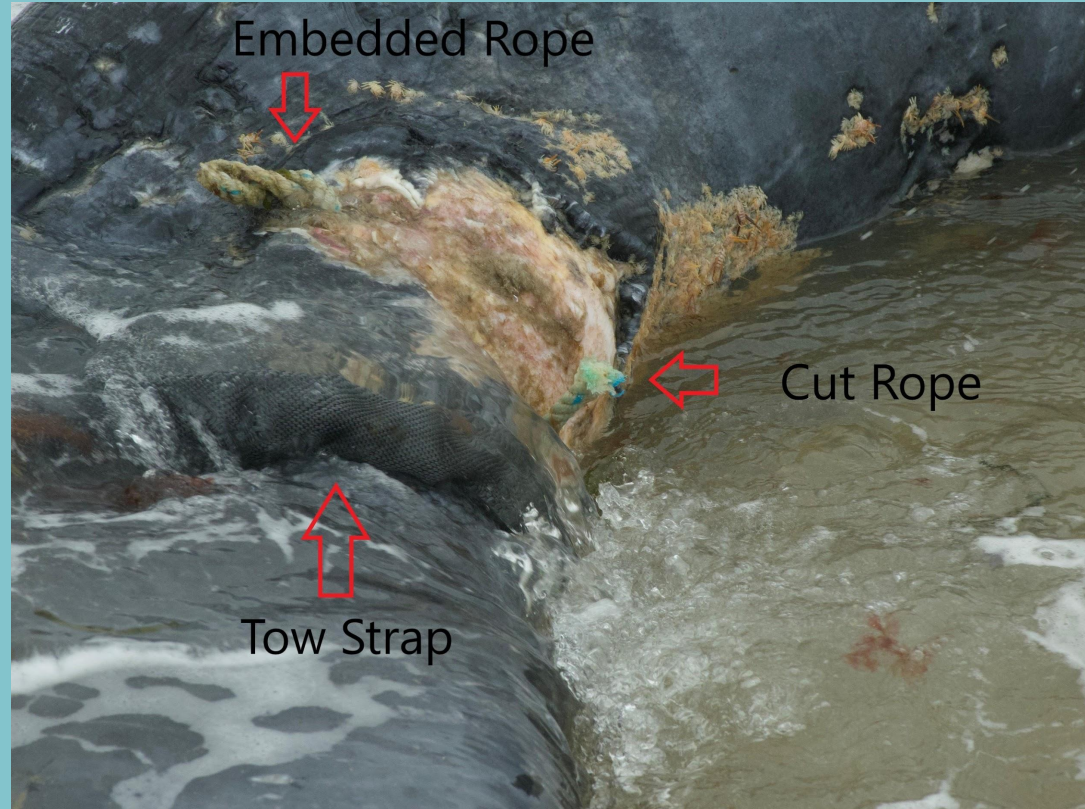
**January 28, 2024 carcass
reported**



Right whale #5120

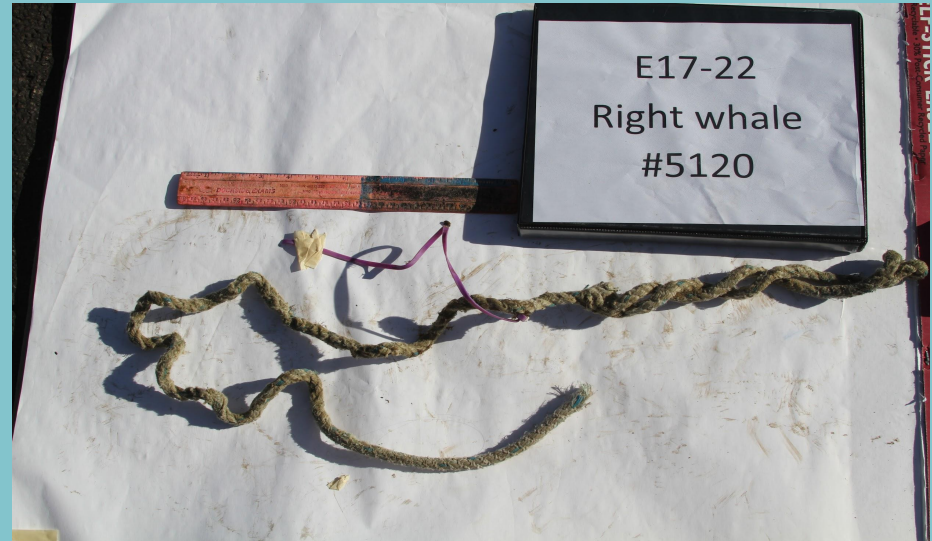
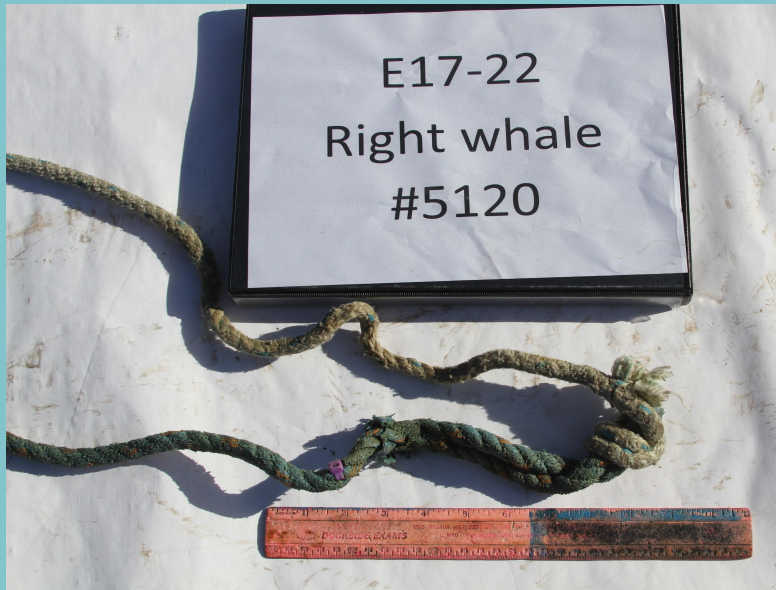
Open NOAA OLE case, so no additional gear details available at this time.

Picture of wound on tail after some gear was removed.



Right whale #5120

Open NOAA OLE case, so no additional gear details available at this time.



Gear Warehouse and Gear Advisory Panel

- Hold right whale #5120 recovered gear viewing day when NOAA OLE case is closed.
- #5120 full case will also be presented virtually.
- Will implement annual “open” gear warehouse day to ALWTRT; still open by appointment.



Atlantic Sturgeon: Management Action to Reduce Bycatch in Monkfish and Spiny Dogfish Gillnet Fisheries

Joint Action of the NEFMC and MAFMC

March 19, 2024

ALWTRT Meeting



New England
Fishery Management Council



MID-ATLANTIC
FISHERY
MANAGEMENT
COUNCIL

Summary: Why this Action?

Last (2021) Biological Opinion (BiOp): develop an action plan to reduce bycatch of Atlantic sturgeon in these fisheries by 2024

Action plan – these matter and should be considered

1. gillnet profile
2. soak time
3. “areas of focus” (season and location/depth)
4. 2021 BiOp focused on gear > 6.5 inches but action plan said: “fisheries managers may find it appropriate and necessary to include [smaller mesh fisheries] in any actions taken to reduce Atlantic sturgeon bycatch.”

Summary: Why this Action?

New Biological Opinion (BiOp) reinitiated and under development - bycatch takes exceeded 2021's BiOp Incidental Take Statement (ITS = take allowance)

Mortality also increased in recent years

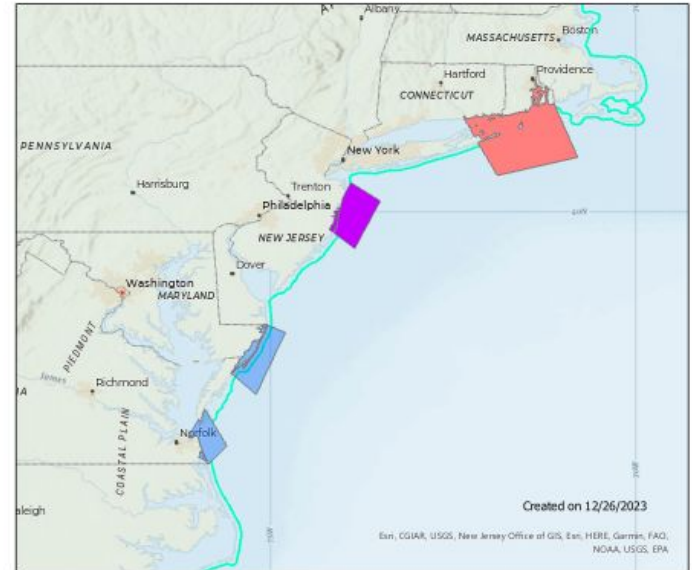
New BiOp will consider all new info (including 2024 sturgeon assessment and this action) to determine if other measures are necessary.

More anticipated reduction now = less chance for a jeopardy finding and less chance of more stringent measures in near future...

Sturgeon Alternative Packages

- Alternative 1: No action.
- Alternative 2: Higher impacts; time/area closures and gear restriction measures.
- Alternative 3: Intermediate; subset of Alt 2.
- Alternative 4: Lower impacts; subset of Alt 2.
- Alternative 5: Only gear restriction measures.
 - Potential sub-alternative exemptions from dogfish overnight soak prohibitions for vessels using <5.25”

All Sturgeon Bycatch Hotspot Polygons for Monkfish and Spiny Dogfish Fisheries



- MNK_SNE_polygon
- Monkfish & Dogfish_NJ_polygon
- Dogfish_SouthernVA_polygon
- Dogfish_DE_MD_polygon
- 3 nm (state waters)

0 20 40 80 Miles



Alternative 1 – No Action

- Violates ESA - Would not satisfy 2021 Biological Opinion's mandate to reduce sturgeon interactions in large-mesh gillnet fisheries
- If Councils choose Alt. 1 No Action NMFS would take action under ESA rule-making process

Alternative 2: High Impact Sturgeon Package (most time/area closures & gear restrictions)

Federal vessels targeting monkfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------------|--------------------------|--|
| Southern New England | Closure | April 1 – May 31 & Dec. 1 – Dec. 31 |
| New Jersey | Closure | May 1 – May 31 & Oct. 15 – Dec. 31 |
| | Low-profile gillnet gear | June 1 – Oct. 14 & Jan. 1 – April 30 (when area is not closed) |

Federal vessels targeting spiny dogfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------|------------------|---------------------------------------|
| New Jersey | Closure | May 1 – May 31 & Oct. 15 – Dec. 31 |
| DE / MD / VA | Closure | Nov. 1 – March 31 |

Alternative 3: Intermediate Impact Sturgeon Package (subset of time/area closures, gear restrictions)

Federal vessels targeting monkfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------------|--------------------------|---|
| Southern New England | Closure | May 1 – May 31 & Dec. 1 – Dec. 31 |
| New Jersey | Closure | Dec. 1 – Dec. 31 |
| | Low-profile gillnet gear | Jan. 1 – Nov. 30 (when area is not closed) |

Federal vessels targeting spiny dogfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------|----------------------------|------------------|
| New Jersey | Closure | Nov. 1 – Dec. 31 |
| | Overnight soak prohibition | May 1 – May 31 |
| DE / MD / VA | Closure | Dec. 1 – Feb. 28 |

Alternative 4: Low Impact Sturgeon Package (less time/area closures & gear restrictions)

Federal vessels targeting monkfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------------|--------------------------|------------------|
| Southern New England | Closure | Dec. 1 – Dec. 31 |
| New Jersey | Closure | Nov. 1 – Nov. 30 |
| | Low-profile gillnet gear | Dec. 1 – Dec. 31 |

Federal vessels targeting spiny dogfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------|----------------------------|---|
| New Jersey | Closure | Nov. 1 – Nov. 30 |
| | Overnight soak prohibition | Dec. 1 – Dec. 31 & May 1 – May 31 |
| DE / MD / VA | Closure | Dec. 1 – Jan. 31 |

Alternative 5: Gear-Only Sturgeon Package (Monkfish low-profile gear; Spiny dogfish overnight soak prohibition)

Federal vessels targeting monkfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------|--------------------------|------------|
| New Jersey | Low-profile gillnet gear | Year-round |

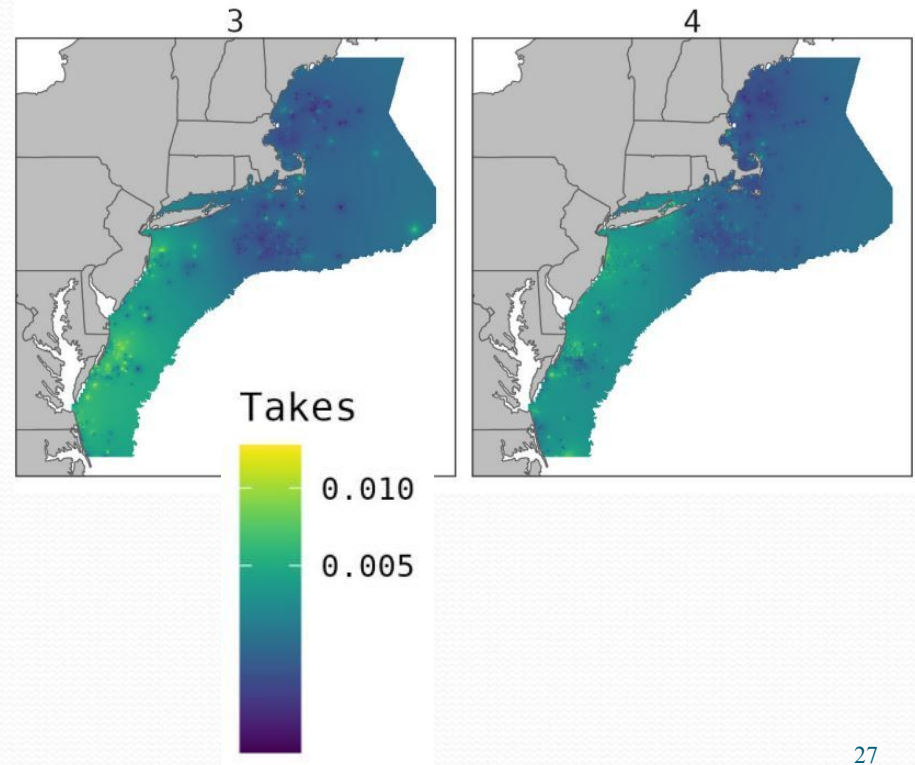
Federal vessels targeting spiny dogfish in federal & state waters

| Which polygon? | Type of measure? | When? |
|----------------|----------------------------|--------------------------------------|
| New Jersey | Overnight soak prohibition | May 1 – May 31 & Nov. 1 – Nov. 30 |
| DE / MD / VA | Overnight soak prohibition | Nov. 1 – March 31 |

Analyses by GARFO

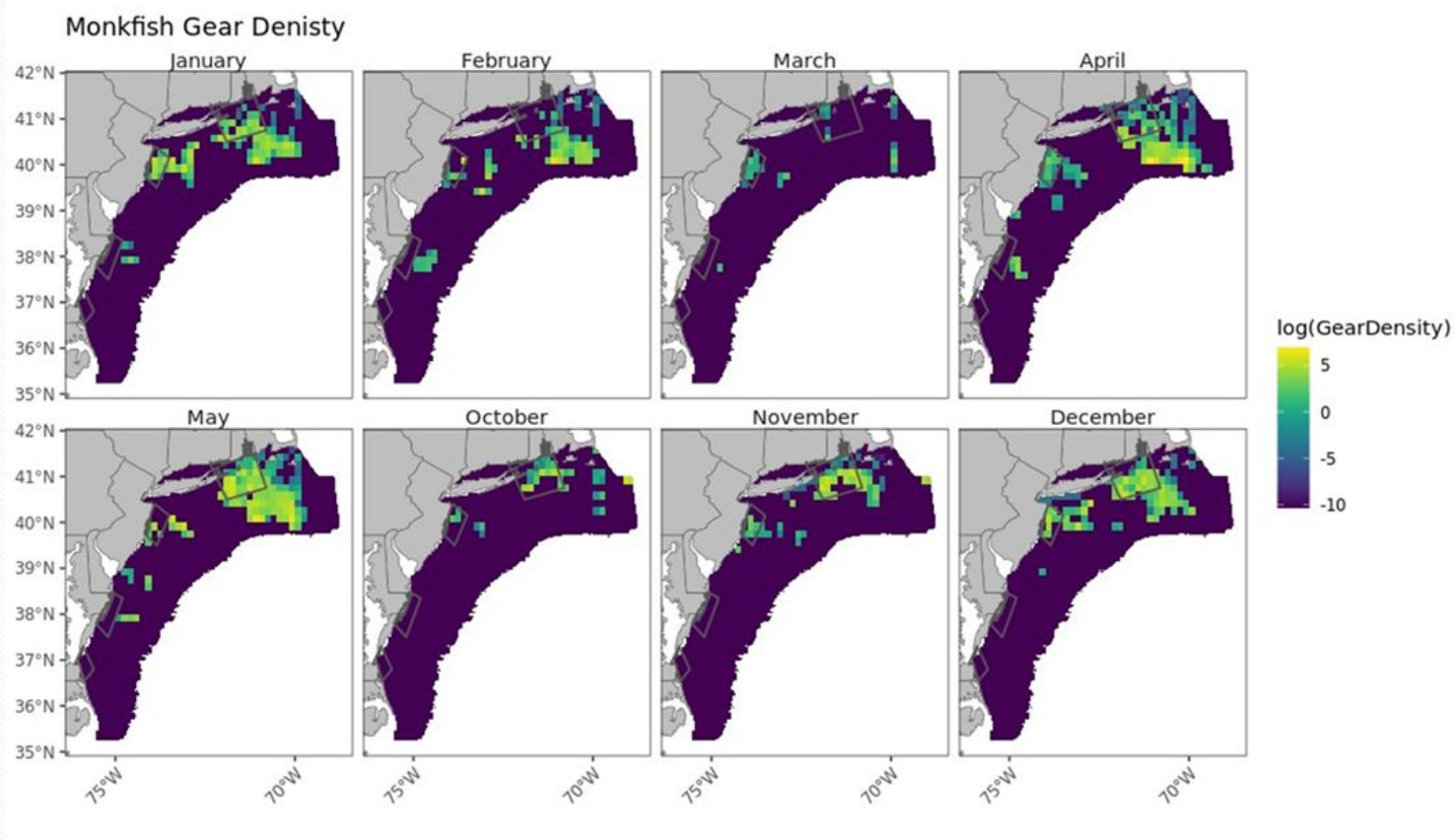
- Adapted the Atlantic Large Whale Take Reduction Team's Decision Support Tool for the Council's sturgeon action
 - **Overall result:** most gear is re-located adjacent to closed areas; some gear eliminated (more eliminated if a 20-mile max. relocation used)
 - Low overall change in sturgeon catch – the model that estimates catch has sturgeon bycatch risk less concentrated
 - Literature suggests focused risk
 - But data spot checked

Example: March and April expected takes per days fished.



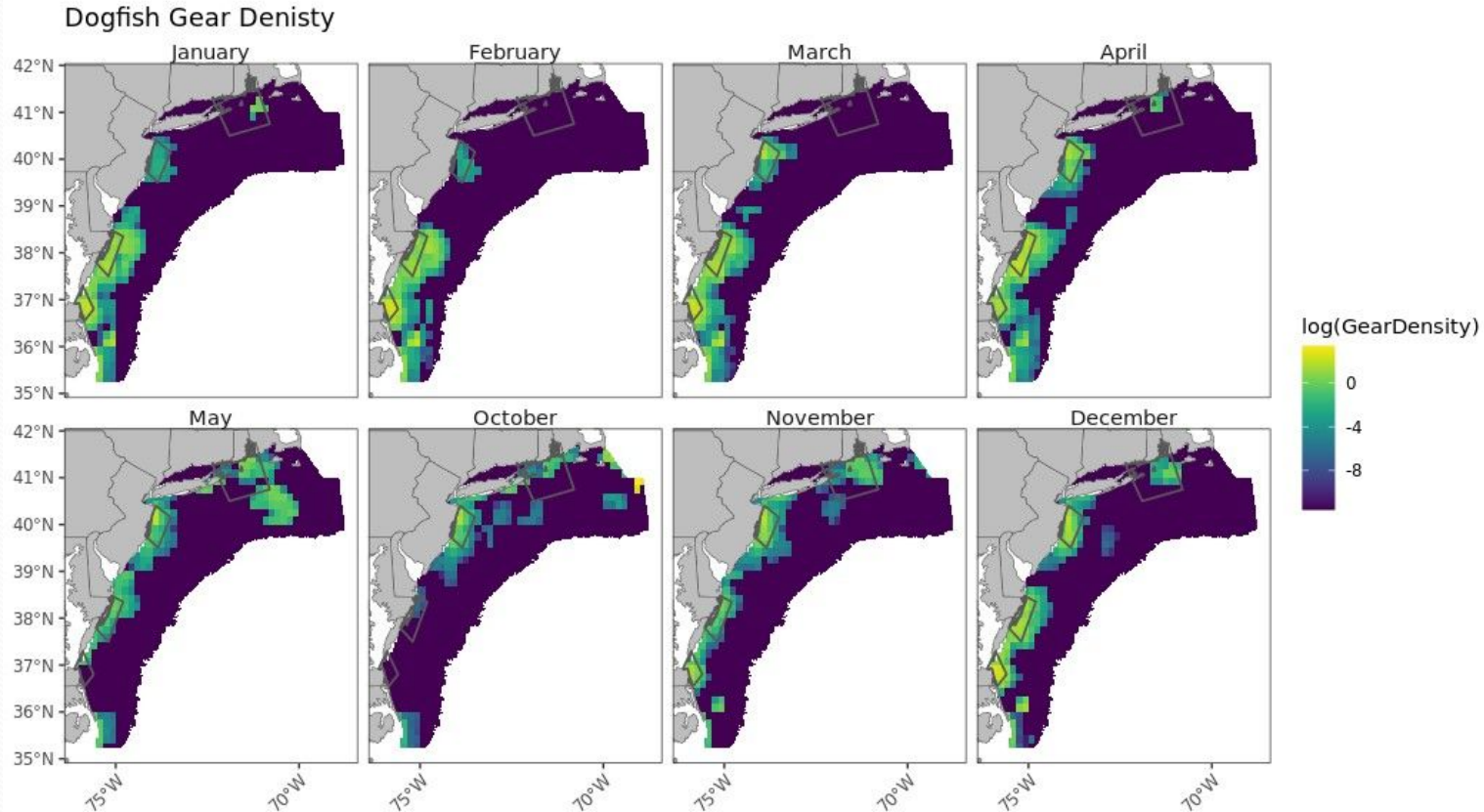
Current gillnet gear density for monkfish

- VTR and VMS data
- 2017-2020
- Compiled by Decision Support Team



Current gillnet gear density for dogfish

- VTR and VMS data
- 2017-2020
- Compiled by Decision Support Team




Expected changes in fishing effort

Table 1: Expected percent reduction of Atlantic Sturgeon takes by federally-permitted vessels using gillnet gears under various actions and behavior (max movement distance) scenarios. Action 1 is 'no action' and other alternatives not involving closures are also not listed.

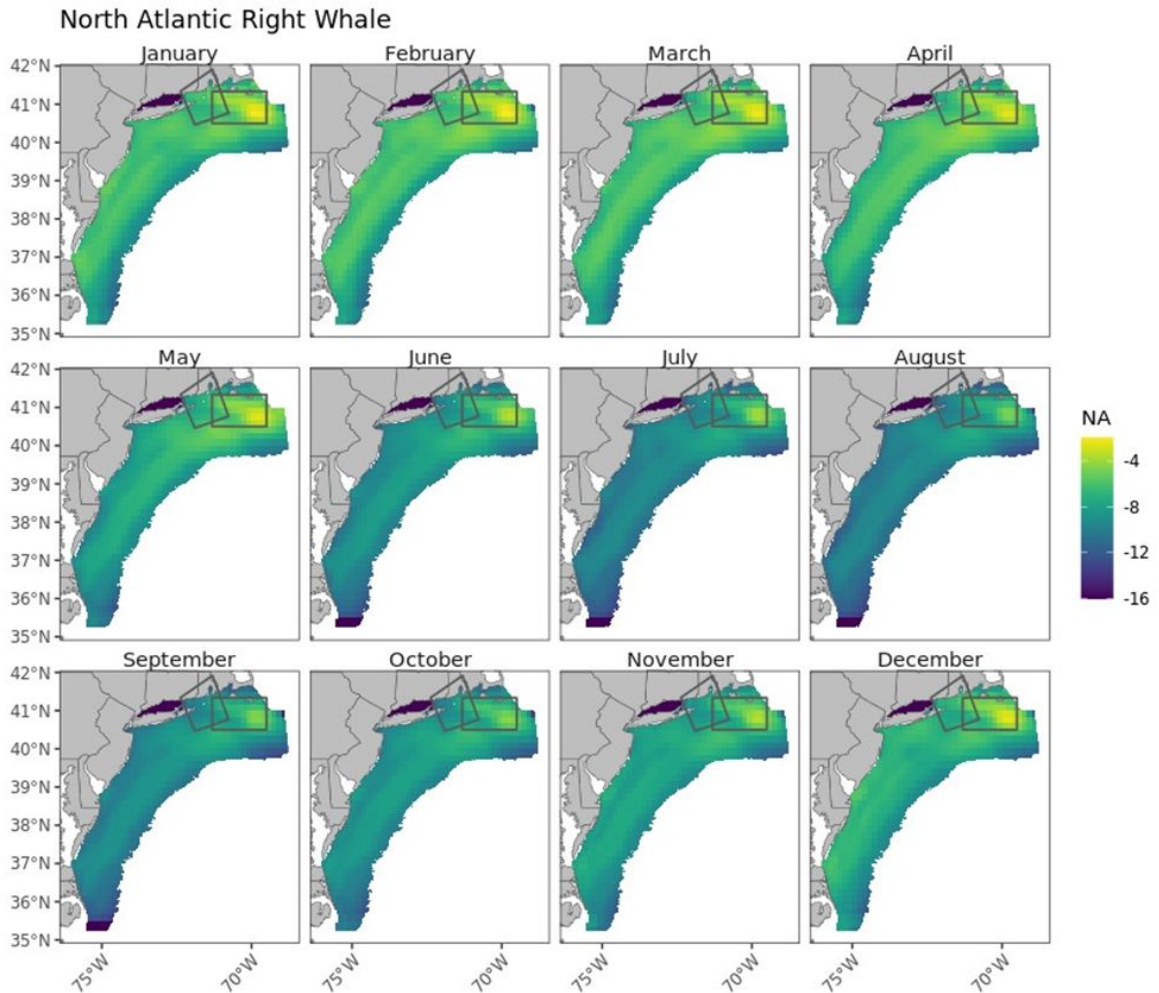
| Action | Max Distance Move (nm) | Percent Reduction |
|--------|------------------------|-------------------|
| 2 | 20 | 13.00% |
| 2 | 50 | 4.20% |
| 3 | 20 | 10.60% |
| 3 | 50 | 3.20% |
| 4 | 20 | 4.10% |
| 4 | 50 | 1.90% |

20-mile relocation distance:
4 – 13% reduction in
sturgeon interactions from all
time/area closures across
both fisheries



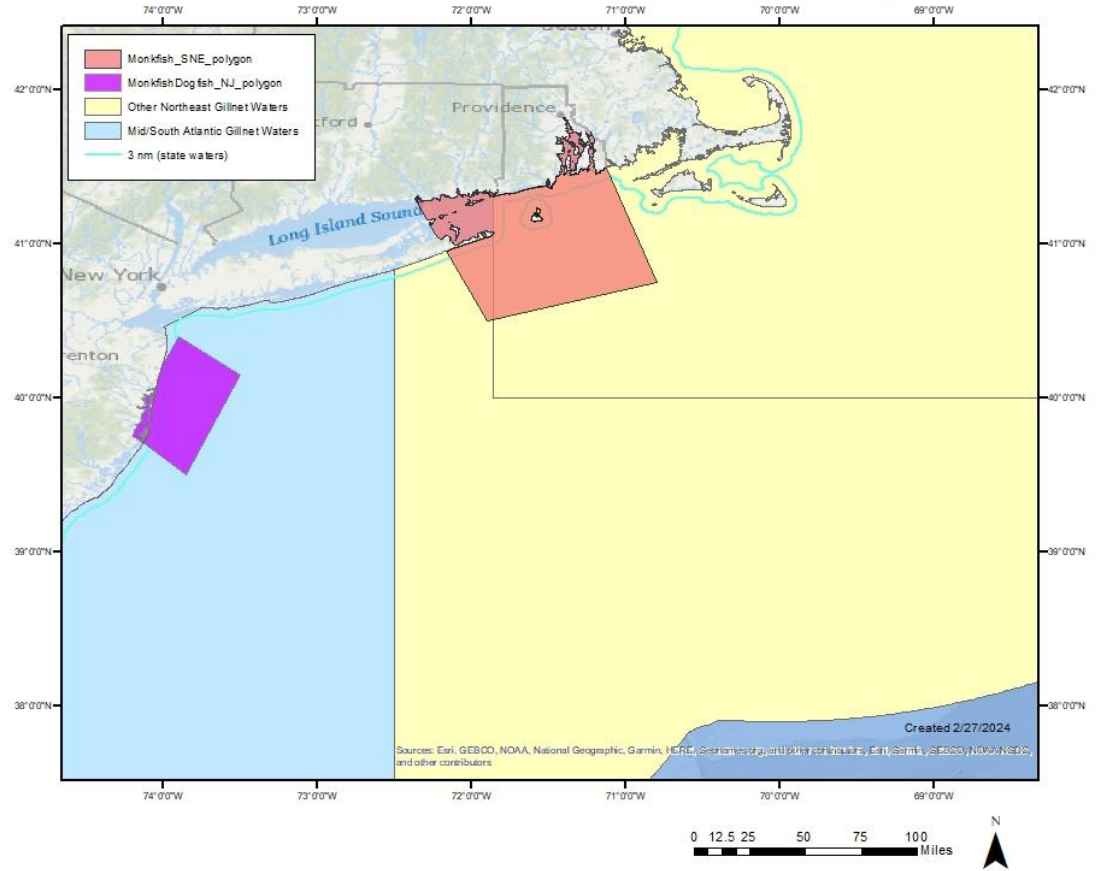
DST and Sturgeon risk mapping analyses to evaluate gear modifications are TBD

North Atlantic right whale habitat relative to SNE polygon and South Island Restricted Area

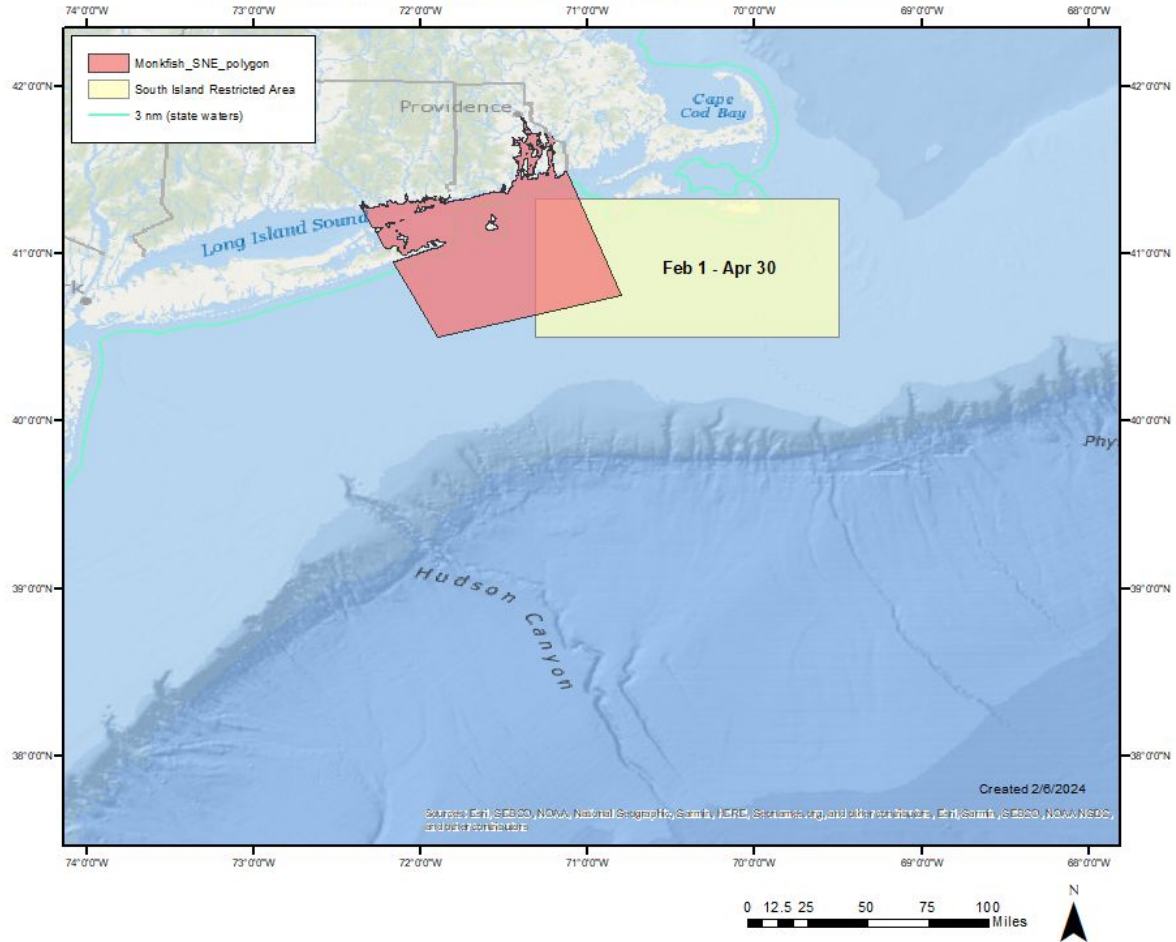


Atlantic Large Whale Take Reduction Plan Gillnet Management Areas

Atlantic Large Whale Take Reduction Plan Gillnet Management Areas and Sturgeon Bycatch Southern New England and New Jersey Polygons

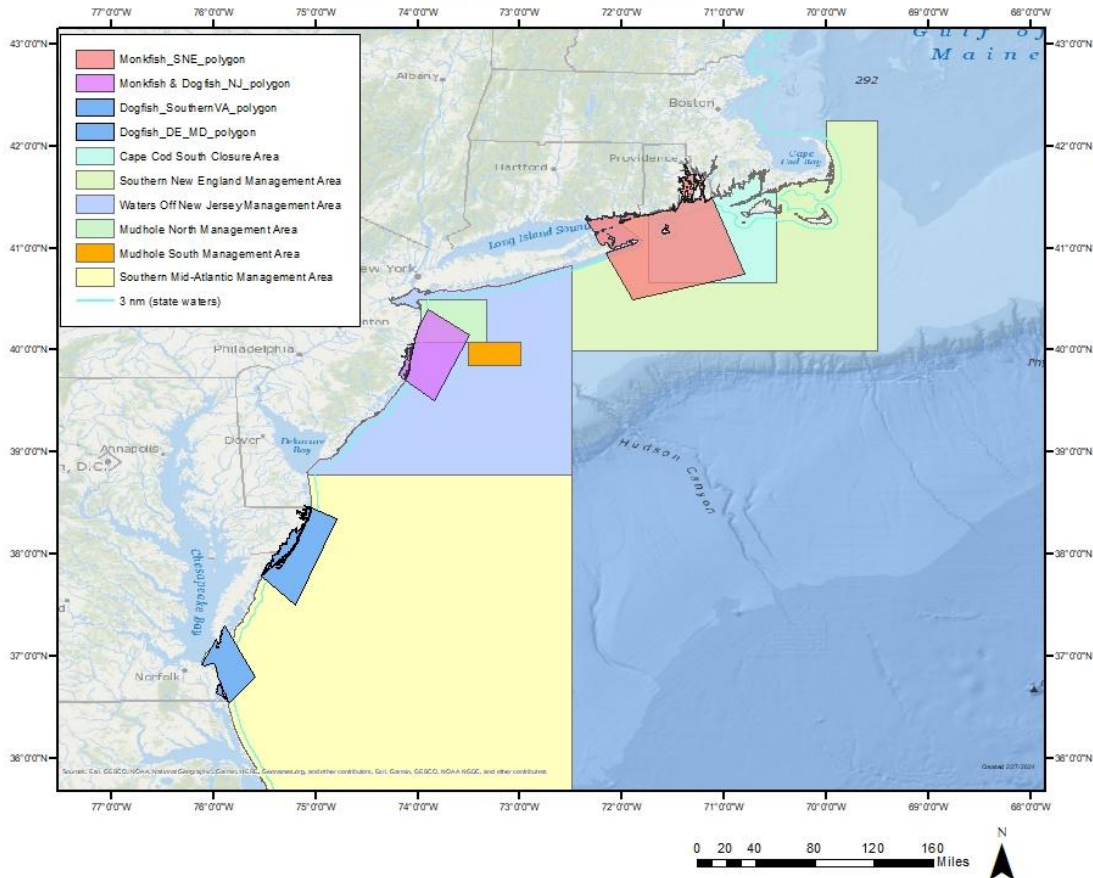


Atlantic Large Whale Take Reduction Plan Potential Gillnet Closure and Sturgeon Bycatch Southern New England Polygon



Harbor Porpoise Take Reduction Plan Areas

Harbor Porpoise Take Reduction Plan Areas and Sturgeon Bycatch Polygons



Summary: Impacts

1. Benefits to sturgeon from time/area closures were less than anticipated due to the model predicting more diffuse spatial risk of fishery interactions than expected.
2. Amount of gear impacted appeared relatively low on a coast-wide basis but may still have high regional impacts.
3. Costs to industry from gear restrictions could be substantial but allow more flexibility for industry to adapt practices and keep fishing (versus with closures).

FMAT/PDT Recommendations

Monkfish

- SNE: no measures
- NJ: year-round low-profile gear requirement (Alt. 5)

Spiny Dogfish

- NJ: prohibition of overnight soaks (Alt. 5); no exemptions for <5.25” mesh
- DE/MD/VA: prohibition of overnight soaks (Alt. 5); exemption for <5.25” in all months except for potentially December which has the highest observed sturgeon takes/trip (*current staff recommendation*).

Other

- More research needed to understand sturgeon bycatch and how to reduce interactions □ uncertain if next BiOp will trigger need for additional measures (beyond this Council action)
- Recognized need to avoid shifting effort from any closures to important North Atlantic Right Whale habitat

AP Recommendations: Monkfish

Southern New England:

- No closures preferred
 - If necessary, avoid April, May, June (economically imp. months)
 - If necessary, Nov most preferable, followed by Dec
- Low-profile gear not yet tested in region, so wait on implementing requirement
- Desire to have other options

New Jersey:

- Support Alt. 5 (year-round low-profile gear) if action must be taken
- No closures

Overall:

- Managers should wait for sturgeon stock assessment results before making other recommendations
- More research needs to be done on 1) sturgeon tagging to inform new BiOp and 2) additional gear modifications

AP Recommendations: Spiny Dogfish

New Jersey:

- Mixed opinions on overnight soak prohibition:
 - One advisor noted day-soaks could be workable

DE/MD/VA:

- Overnight soak prohibition:
 - Support exemption for <5.25" mesh
 - Would end the fishery
 - Equivalent to closure

Overall:

- Concerned about putting people out of business
- Several people did not support any alternatives
- Generally, did not support closures
- Wait for sturgeon stock assessment results before taking any action
- More research needs to be done on:
 - 1) lighter twine sizes and
 - 2) ways to enforce longer soak times (e.g., 23-hr max soak time)

Joint Monkfish Dogfish Committee Recommendations

Monkfish

- **SNE:** no measures recommended
- *NJ:* year-round low-profile gear requirement (Alt. 5)

Spiny Dogfish:

- *NJ:* prohibition of overnight soaks (Alt. 5); year-round exemption for <5.25" mesh (e.g., vessels using ≥ 5.25 " could not do overnight soaks in May and November)
- *DE/MD/VA:* prohibition of overnight soaks (Alt. 5); year-round exemption for <5.25" (e.g., vessels using ≥ 5.25 " could not do overnight soaks from Nov - March)

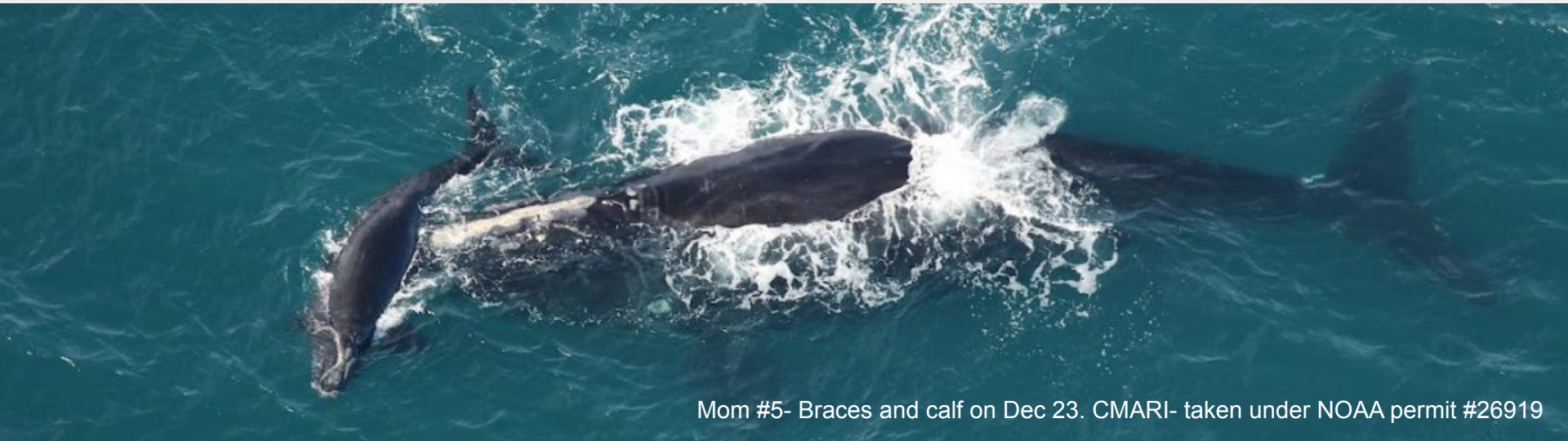
Other:

- Write a letter to NEFSC observer program to develop/implement sturgeon tagging program for dead and live sturgeon to avoid double counting observed sturgeon

Timeline

| 2023 | |
|------------|--|
| APR | Formation of FMAT/PDT; NEFMC - initiates Framework |
| APR-JUN | FMAT/PDT and Joint Dogfish and Monkfish Committee develop range of alternatives; Joint Dogfish and Monkfish AP input |
| JUN | MAFMC – FMAT/PDT tasking |
| JUN | NEFMC – approves range of alternatives for <u>monkfish only</u> |
| SEP | Joint Monkfish/Dogfish Committee with OLE/Coast Guard to refine alternatives |
| SEP | NEFMC – progress report, approve refined range of alternatives for monkfish, and range for dogfish |
| OCT | MAFMC – approve range of alternatives for dogfish & monkfish |
| Fall | FMAT/PDT continue to refine alternatives and begin analyzing alternatives |
| Fall | ASMFC meeting on alternatives |
| 2024 | |
| FEB | NEFMC – review, provide feedback on revised range of sturgeon alternative packages |
| FEB | MAFMC – review, provide feedback on revised range of sturgeon alternative packages |
| MAR | Joint AP meeting (March 5 th) and joint Committee meeting (March 13 th) to select preferred alternatives |
| APR | NEFMC and MAFMC final action |
| TBD | Staff submits framework to NMFS |
| TBD | NMFS publishes proposed rule; NMFS publishes final rule/Implementation |





Mom #5- Braces and calf on Dec 23. CMARI- taken under NOAA permit #26919

2024 Calving season update

March 19, 2024

Kara Shervanick

Southeast Right Whale Coordinator



Overview (as of 3/19/24)

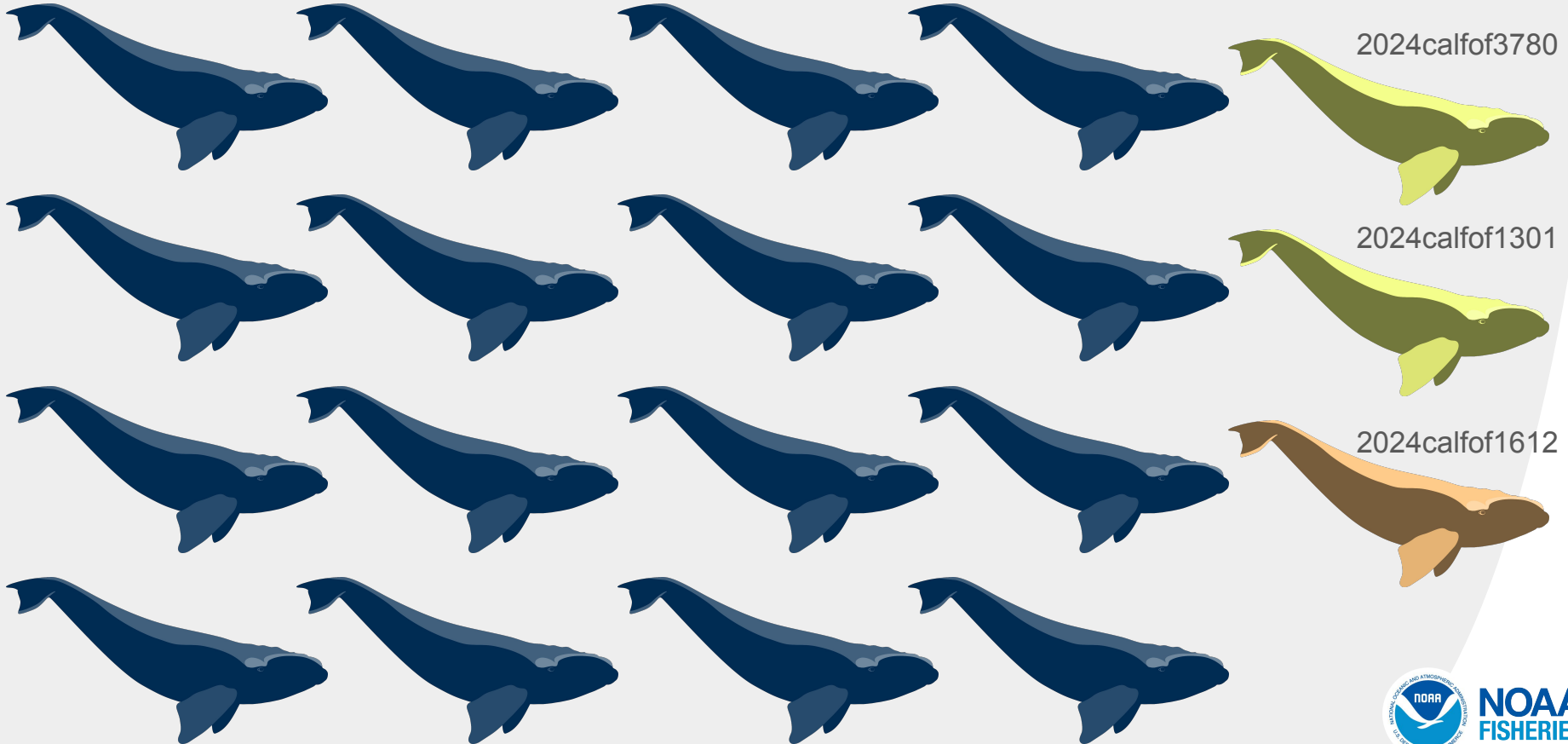
- **Total unique individual whales = 81**
 - Calves = 19
 - Moms = 19 (age range 16 to >42)
 - Known reproductive female = 1 (age >22)
 - Other females = 16 (age range >6 to 37)
 - Males = 19 (age range 7 to >44)
 - Unknown sex = 2 (ages >7 and >22)
 - 2023 calves = 5 (2 F, 1 M, 2 U)

Mom #4- Wolf and calf on Dec 22. FL FWC
taken under NOAA permit #26919



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2024 calves



2024calfof3780

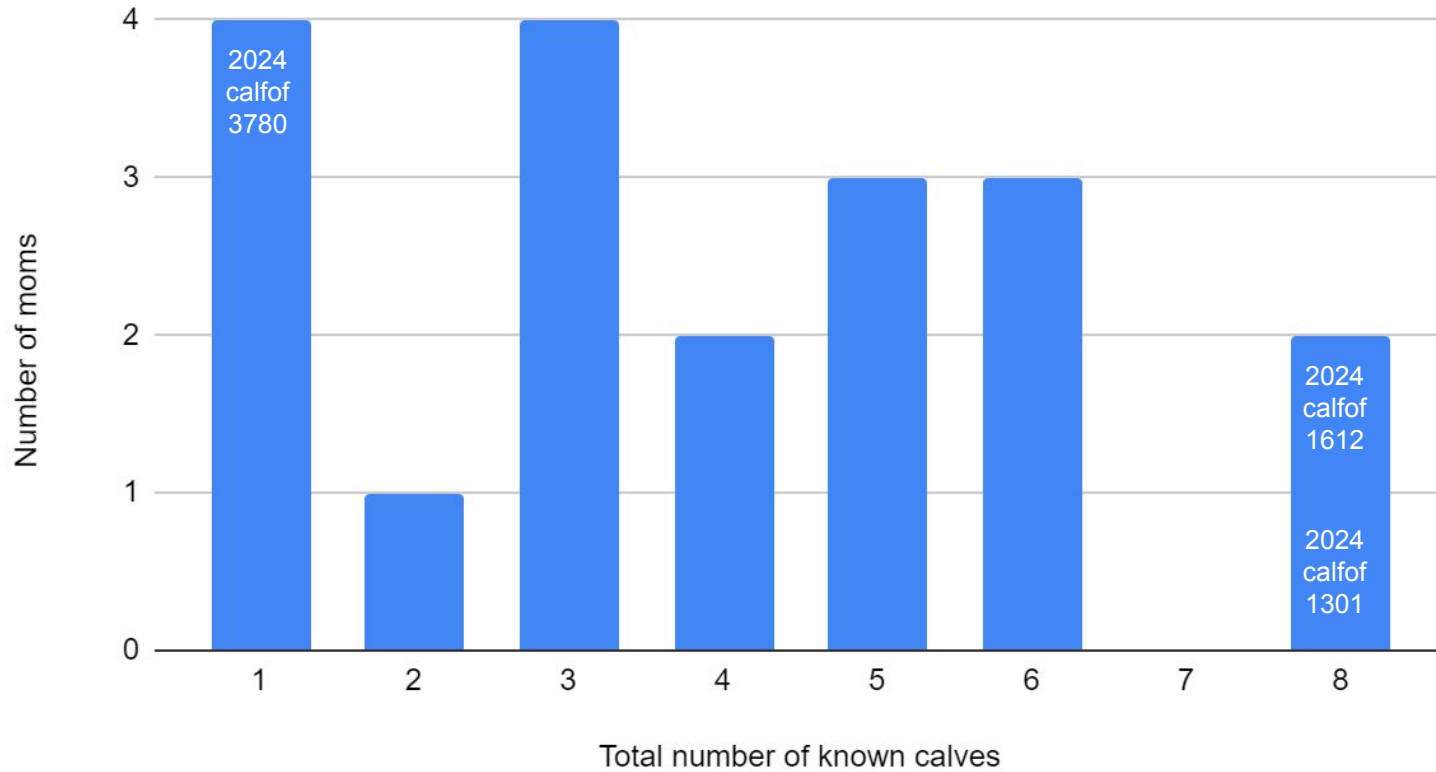
2024calfof1301

2024calfof1612

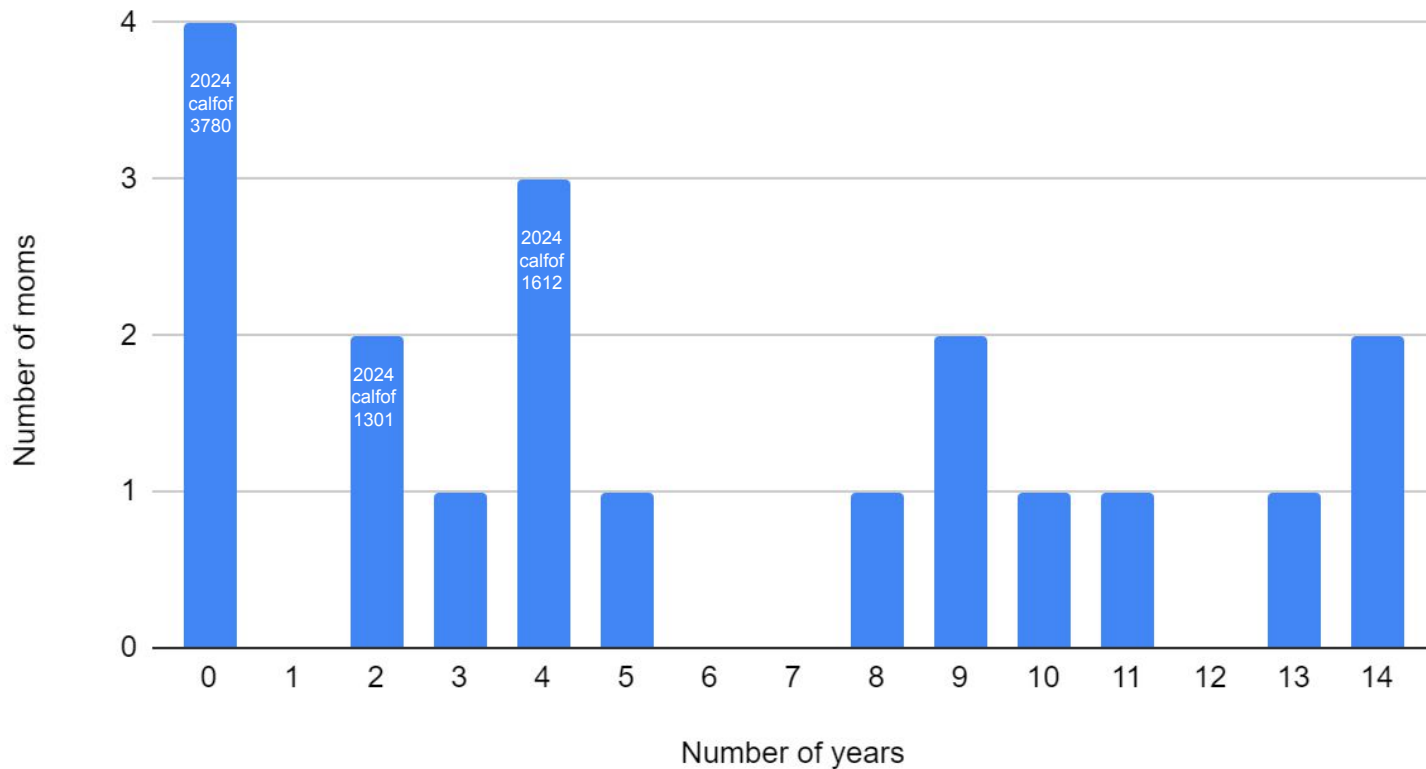


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2024 moms



2024 calving intervals



2024 calf of #1612

TIMELINE

November 28, 2023: A survey team from Clearwater Marine Aquarium Research Institute spotted the first mother-calf pair of the right whale calving season about 7 miles off the coast of Georgetown, South Carolina.

January 6: NOAA Fisheries Southeast Region was notified of a North Atlantic right whale with an injured calf off Edisto, South Carolina. The calf was seen on January 3. Videos shared by the public on social media show several propeller wounds on the head, mouth, and left lip of the calf consistent with a vessel strike.

January 11: Juno (#1612) and her injured calf were seen by researchers on near Amelia Island, Florida.

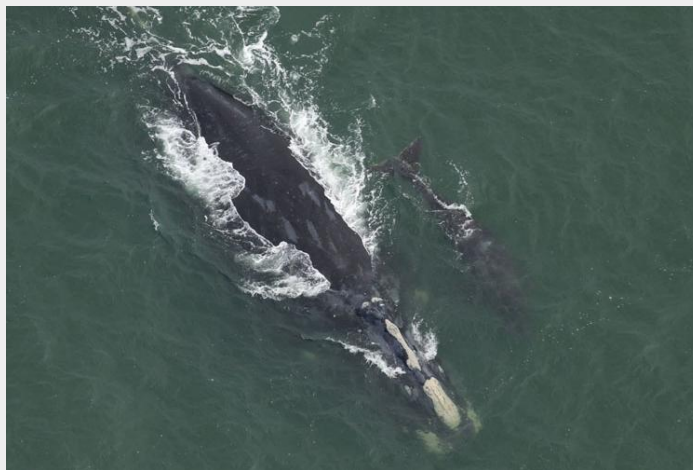
February 26: aerial and vessel survey teams observed Juno and her calf approximately 15 miles off St. Andrew Sound, Georgia. The calf was bleeding from the previously documented vessel strike wounds.

February 27: aerial and vessel survey teams searched for Juno and the calf and found them approximately 2 miles off St. Simons Island, Georgia. There was no visible bleeding from the calf's wounds.

March 2: Juno was seen off St. Augustine, Florida without her calf.

March 3: NOAA Fisheries was notified of a dead North Atlantic right whale stranded on Cumberland Island National Seashore in Georgia. The carcass was heavily scavenged by sharks. Responders identified it as Juno's calf based on the unique injuries and markings documented when the calf was alive.

March 4: experts completed a necropsy of the calf. There were multiple lacerations on the head from the recent vessel strike.



North Atlantic right whale Juno and newborn calf. Credit: Clearwater Marine Aquarium Research Institute, taken under NOAA permit #26919. Aerial survey funded by United States Army Corps of Engineers.



The 2024 calf of #1612 (Juno) washed ashore on Cumberland Island National Seashore on March 3, 2024. Credit: Georgia Department of Natural Resources taken under NOAA permit #24359.



2023 calf of #4340

TIMELINE

Dec 2022: Calf first documented (2023 calving season)

Jan/Feb 2023: Mom/calf venture south of Cape Canaveral

Jan 22, 2024: Yearling sighted off NC by aerial surveys

Feb 3, 2024: Yearling sighted by public south of Canaveral

February 13: NOAA Fisheries was notified of a dead whale floating offshore of Savannah, Georgia. The whale is a juvenile female.

February 14: Calf was identified after an aerial survey team from the Clearwater Marine Aquarium Research Institute searched and found the carcass about 20 miles off Tybee Island, Georgia. This allowed a team from the Georgia Department of Natural Resources to respond, attach a satellite tag, and collect photos and samples to help identify the whale. Sharks have heavily scavenged the whale carcass.

February 15: Experts completed a necropsy of the juvenile female North Atlantic right whale. They found evidence of blunt force trauma including fractures of the skull. The injuries are consistent with a vessel strike prior to death. Additional histological and diagnostic testing of samples is pending.

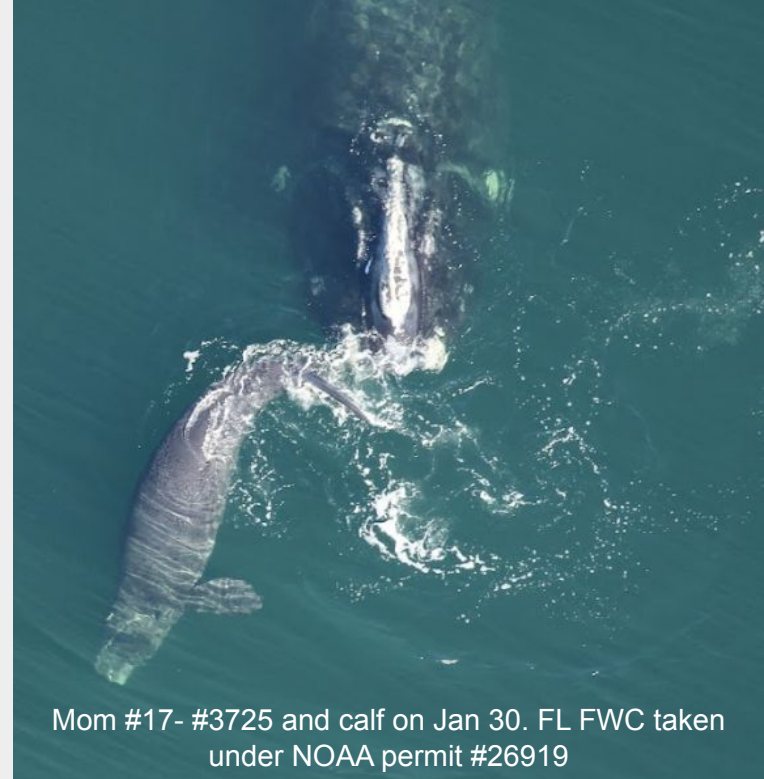


A dead right whale floating about 20 miles offshore of Tybee Island, Georgia on February 14, 2024. Two sharks swim close by. Credit: Clearwater Marine Aquarium Research Institute, taken under NOAA permit 24359. Funded by NOAA Fisheries and Georgia Department of Natural Resources.



Photo credit: Florida Fish and Wildlife Conservation Commission, NOAA permit 24359

Mom and daughter both calve



Questions?

kara.shervanick@noaa.gov



CMARI- taken under NOAA permit #26919. This is not for distribution or use without permission.

Decision Support Tool Updates

March 19, 2024

*Laura Solinger, Alicia Miller, Burton Shank, Jeffrey Walker
Alessandra Huamani, Doug Sigourney, Mike Asaro*

Northeast Fisheries Science Center



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DST Peer Review by ASRG: Reminders

- **Responses and Subsequent Analysis from Panel Review**

- **Duke NARW Habitat Density Model:** Roberts et al. provided simulations of the whale habitat layer representing both individual years and the combined v12 layer used in previous TRT meetings. These are available for testing sensitivity of management actions to variability in the whale layer in future TRT meetings.
- **DST Fishery Layer:**
 - Generated fishery layers representing trip reports from individual years to estimate interannual variability.
 - Evaluated uncertainty in gear distribution given reporting resolution.
 - Ability for selection of individual years to elect as “baseline” and “scenario” years available in new DST version.
- **Threat Model:** Additions to the threat model are being discussed, mostly considering the use of individual whale entanglement simulations and Individual Based Models informed by sightings histories of entangled whales. Given uncertainty in the threat model, the **Co-Occurrence value will continue to be reported for all scenario runs.**
- **Hazards Model:** Model incorporated into DST, and estimates **nearly identical risk/risk reduction to current risk units.** Resulting entanglement/mortality rate estimates are **highly sensitive** to scaling parameters required by the model.
- **Uncertainty Metric:** Because of the many sources of uncertainty, developing a single metric associated with an individual scenario run is difficult. It would require running hundreds of models with all of the whale and fishery simulations, including individual years. **The DST team is committed to describing this uncertainty**, but it will likely not be available for quick-turnaround during TRT meetings. **Analysis of uncertainty will be conducted for alternatives under consideration by the TRT.**

For additional details of these analyses, please refer to this [webinar from June 2023](#)



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DST Updates

- **Publications and Documentation**

- DST model documentation - new Tech Memo available this month
- External peer-review journal publications
 - DST fishery input methods - *in review*
 - Paper formalizing methods of building a fixed-gear fishery layer used as an input in the DST
 - DST model overview - history of its development and application as a tool for stakeholders - *in draft*

- **New data**

- Updated fishery input data for gillnet and trap/pot through 2022
 - Beginning the process of compiling new data
 - Options for selecting individual years
 - Will be completed by summer 2024
- Vertical whale distribution
- NARW Density Surface Model from Roberts *et al.*
 - Next update available in spring 2025 will be added to the DST
 - Sensitivity analyses will be conducted and any change in the risk landscape will be documented
- Lobster Fishery vessel tracking data
 - Early discussions about implementation and what data is being collected
 - MA - started May 2023
 - ME - started December 2023
 - RI and NH - in progress



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DST Web Application

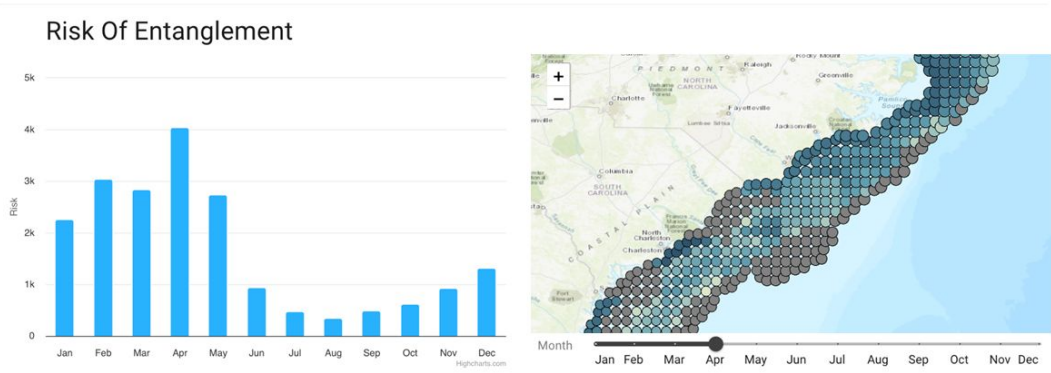
- DST web app in development for stakeholder use
- Intended for release ahead of next round of TRT meetings
- Application will allow users to view risk and model management scenarios by
 - Fishery Type
 - Month
 - Area
- Scenario results will be the same as low resolution model runs conducted by DST Team

NEFSC Decision Support Tool ALPHA

Scenario Actions + ADD ACTION LOAD CSV RUN ▶

| <input type="checkbox"/> | Action | Region | Fishery | Month | Area | Max Rope Strength | String Length | Percentage |
|--------------------------|----------------------|----------|---------|------------|------------|-------------------|---------------|------------|
| <input type="checkbox"/> | Model Constraint | SE, MATL | | | | | | |
| <input type="checkbox"/> | String Length | | TrapPot | 12,1,2,3,4 | LMA5 | | 5 | |
| <input type="checkbox"/> | MaxVertRopeStrength | | TrapPot | | | 1700 | | 0.50 |
| <input type="checkbox"/> | MaxHorizRopeStrength | | Gillnet | | | 1500 | | |
| <input type="checkbox"/> | Closure | | Gillnet | 12,1,2,3 | SEUS South | | | |

DOWNLOAD CSV Items per page: 10 1-5 of 5 < > >>



**Preliminary Design Mockup
For Demonstration Purposes Only**



Stretch break!

Webinar will resume at 4:35 pm





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TRT Enforcement Summary



Caleb Gilbert –
Northeast Division
Compliance Liaison
March 19, 2024

Right Whale Enforcement

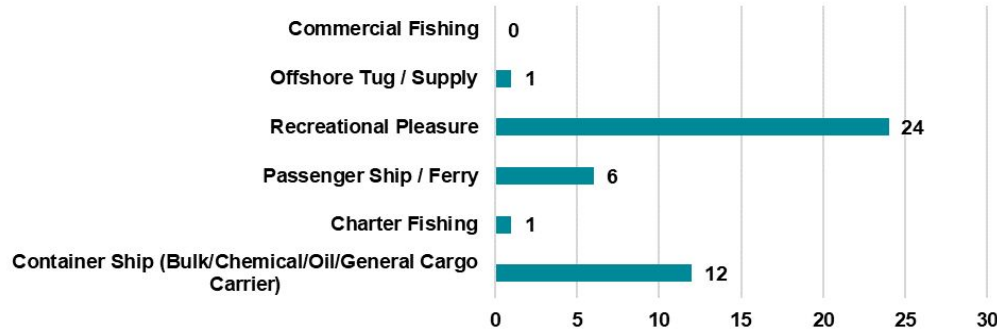


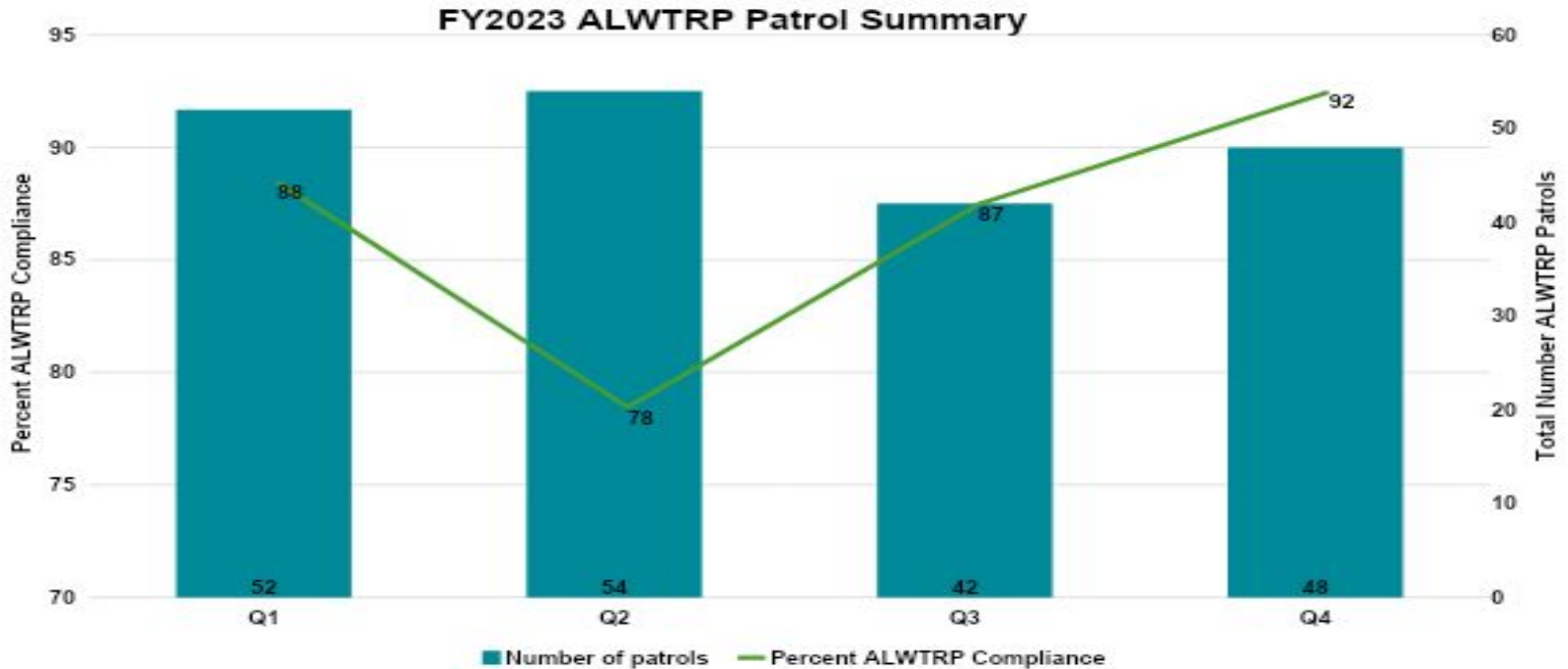
Two prongs of our support for NARW Conservation:

- Speed Rule/SMA enforcement
- ALWTRP/Gear enforcement



CY 2021 - 2022 SMA Violations By Vessel Type

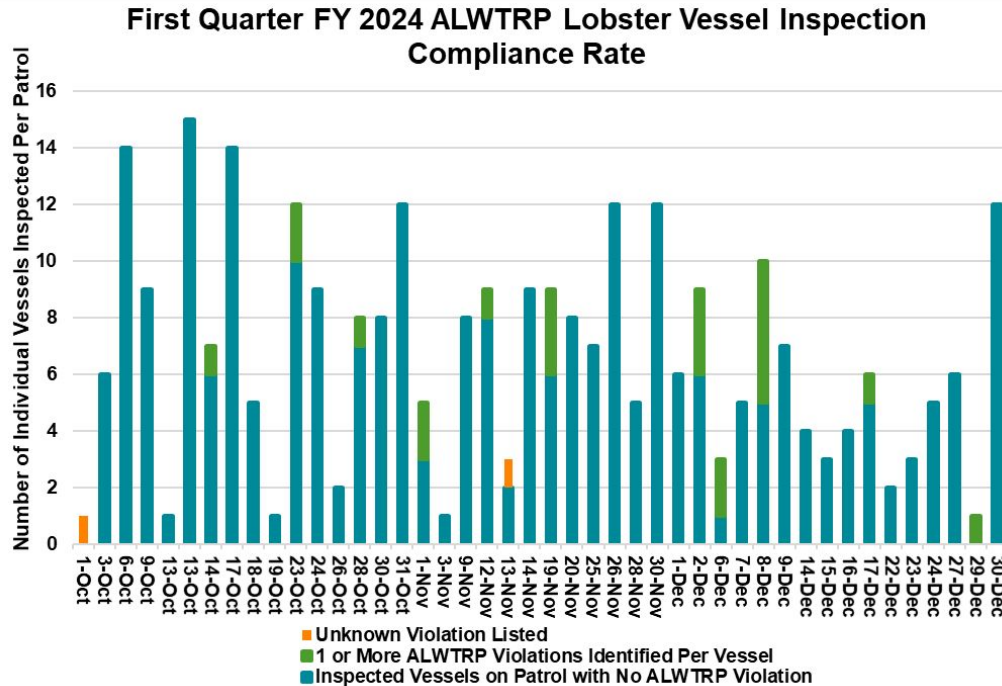




- Combined, OLE and our enforcement partners (mostly MMP) inspected approximately 1,288 separate vessels for compliance with ALWTRP regulations between October 1, 2022 and September 30, 2023.
- No ALWTRP violations were identified on 1,116 of those vessels for a cumulative compliance rate of about 87%.



Q1, FY 2024 ALWTRP Compliance Data



□ For the most up to date reports on ALWTRP enforcement compliance data, please see the quarterly written OLE reports posted on both Council websites.



Ropeless/On-Demand Fishing



Questions?

- Email:
caleb.gilbert@noaa.gov
- Cell: (978) 675-5062
- Office (978) 281-9338
- NED Main Line: (978) 281-9213 (Option #2 for compliance assistance goes to me)
- Enforcement Hotline
24/7: 800-853-1964



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On-Demand Gear Research Update

Updates on the state of the research and the 2023
Interoperability Workshop

NEFSC Gear Research Team

ALWTRT Annual Webinar

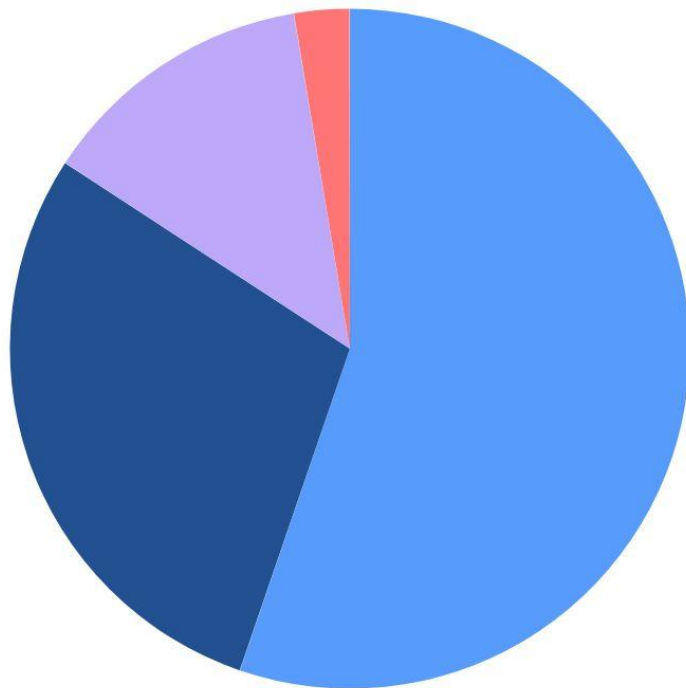
3/19/2024



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Trap/Pot Research Update

38 Active collaborators from ME, MA, RI, and MD



● Massachusetts: 21

● Maine: 11

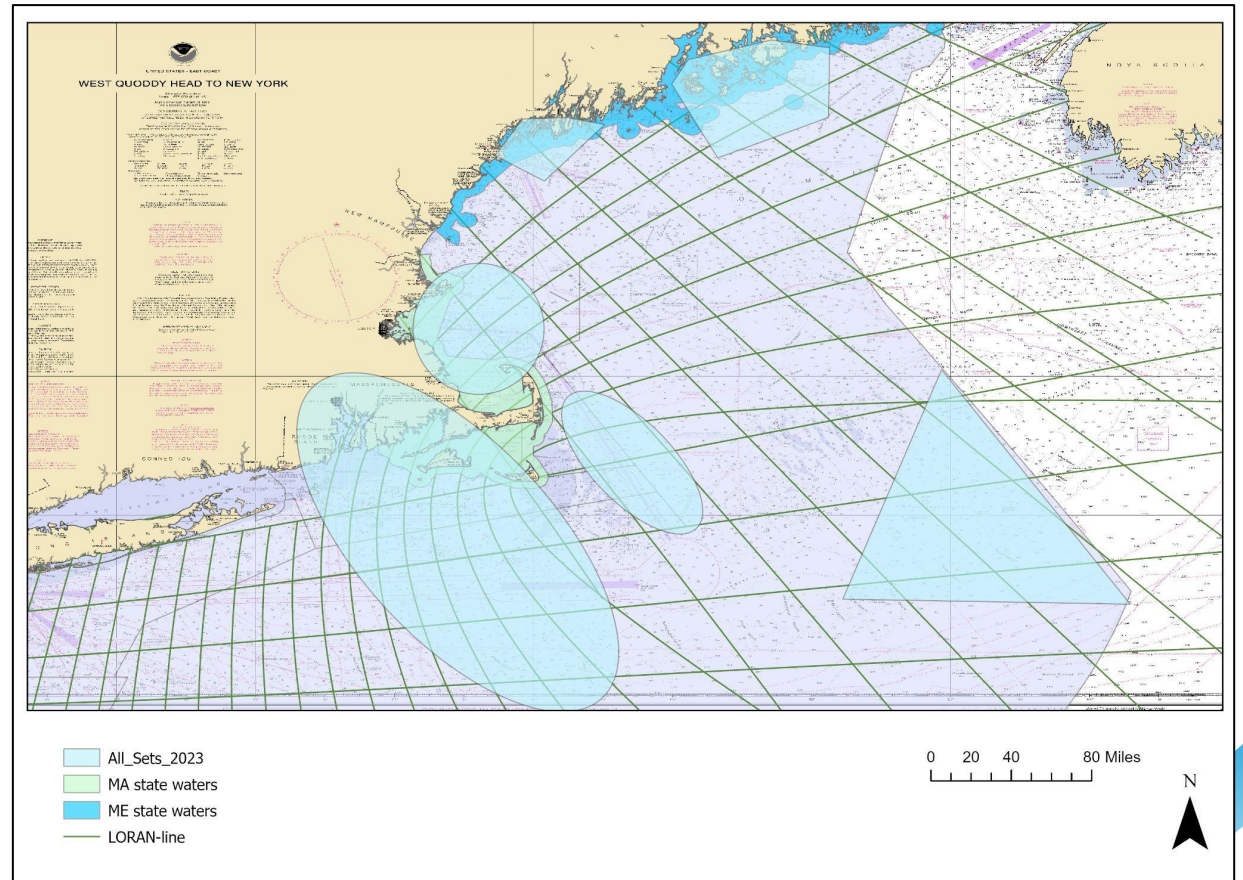
● Rhode Island: 5

● Maryland: 1

Trap/Pot Research Update

2023 Open area testing

- 32 vessels
- 7 manufacturers
- 85% success rate
 - N = 2720

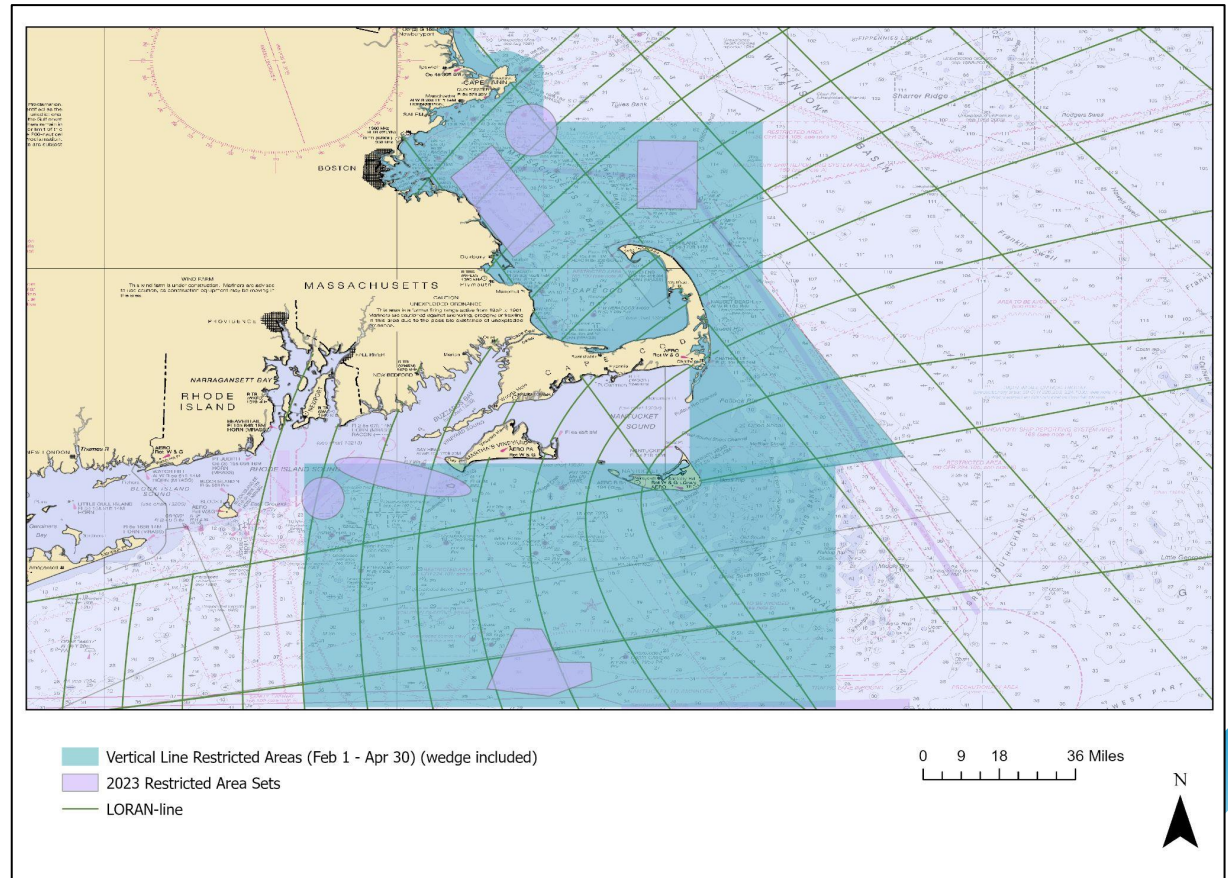


Trap/Pot Research Update

2023 Restricted Area

Experimental Fishery

- 12 vessels
- 3 manufacturers
- 90% success rate
 - N = 533
 - [Report here](#)

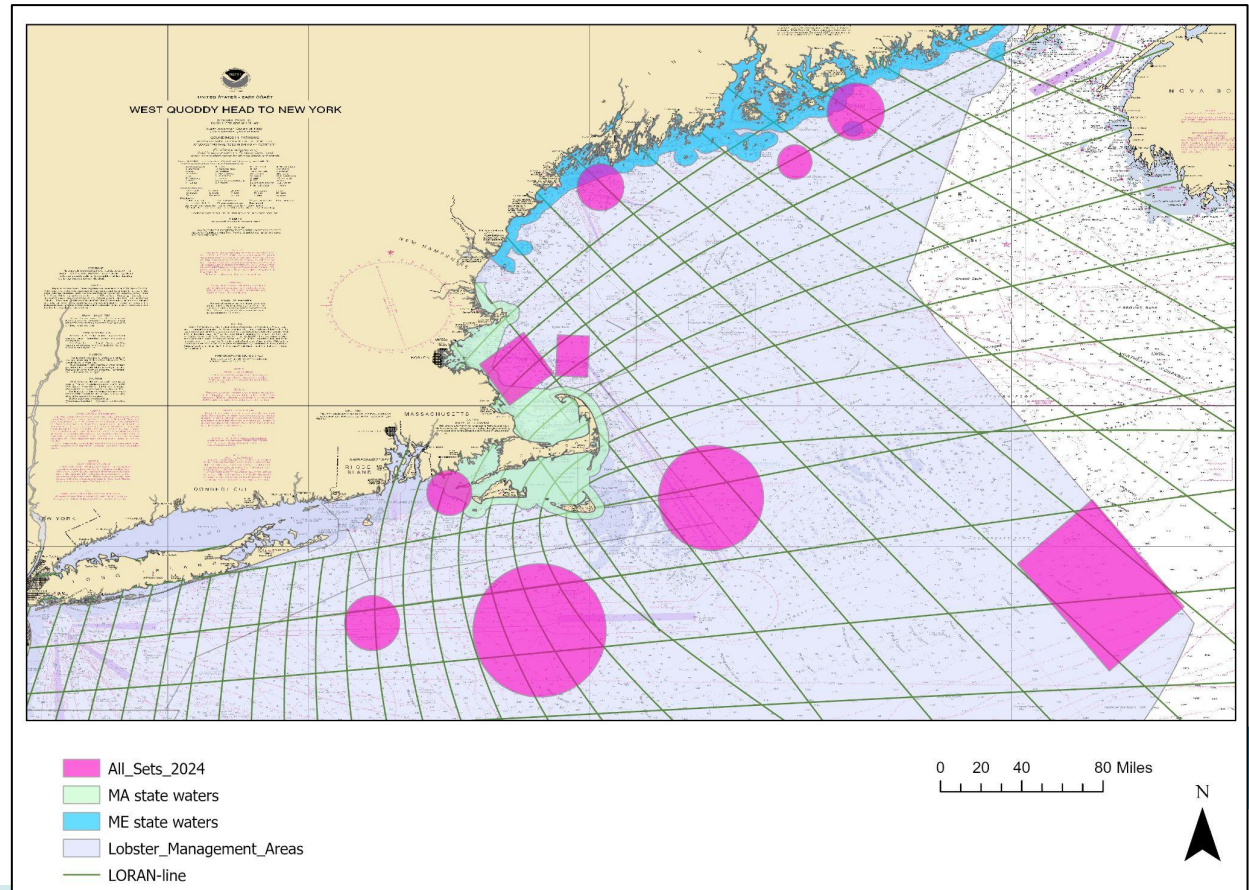


Trap/Pot Research Update

2024 Open area testing

- 24 vessels
- 6 manufacturers
- 82% success rate*
 - N ~ 411

* Early in the year; new collaborators; new gear; changing daily



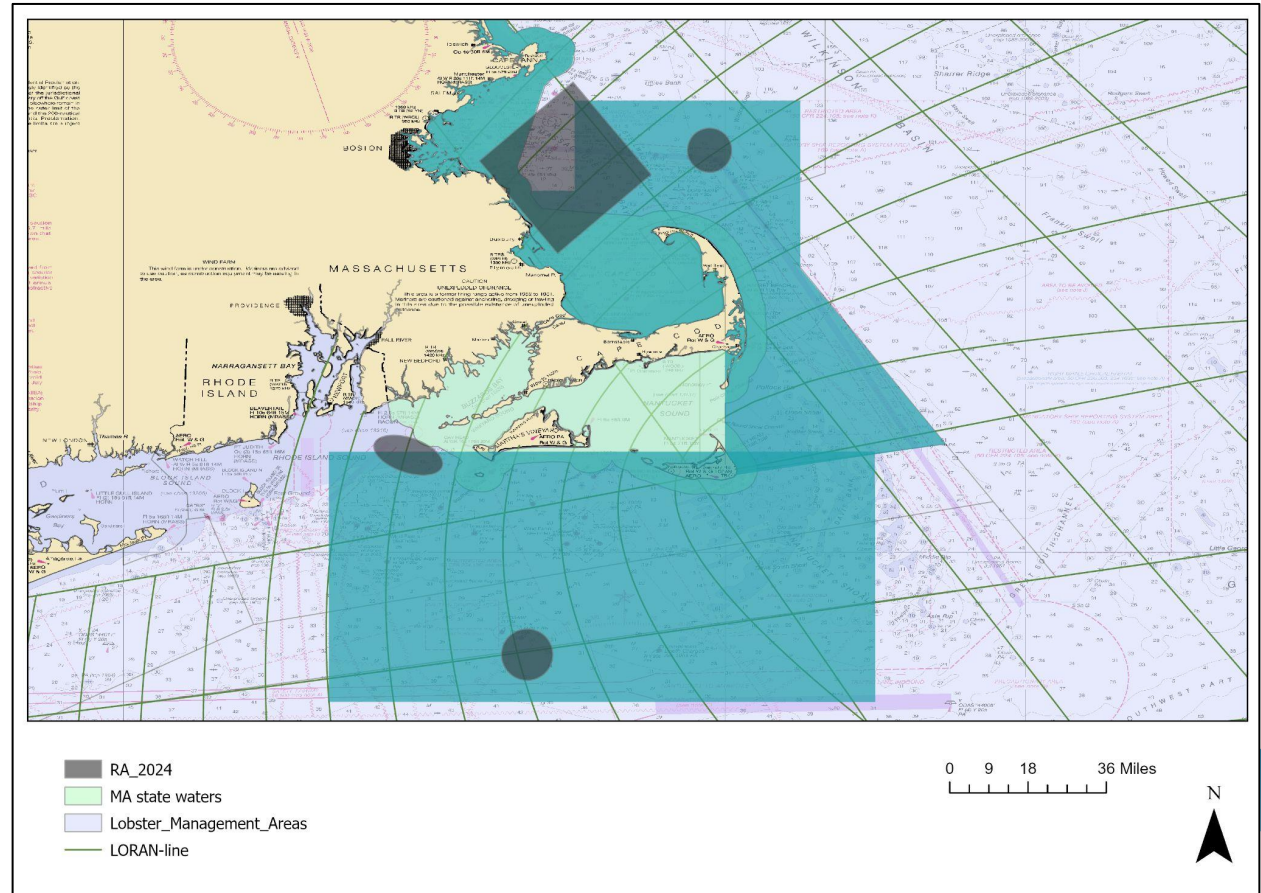
Trap/Pot Research Update

2024 Restricted Area*

Experimental Fishery

- 14 vessels
- 3 manufacturers
- 90% success rate
 - N ~ 157

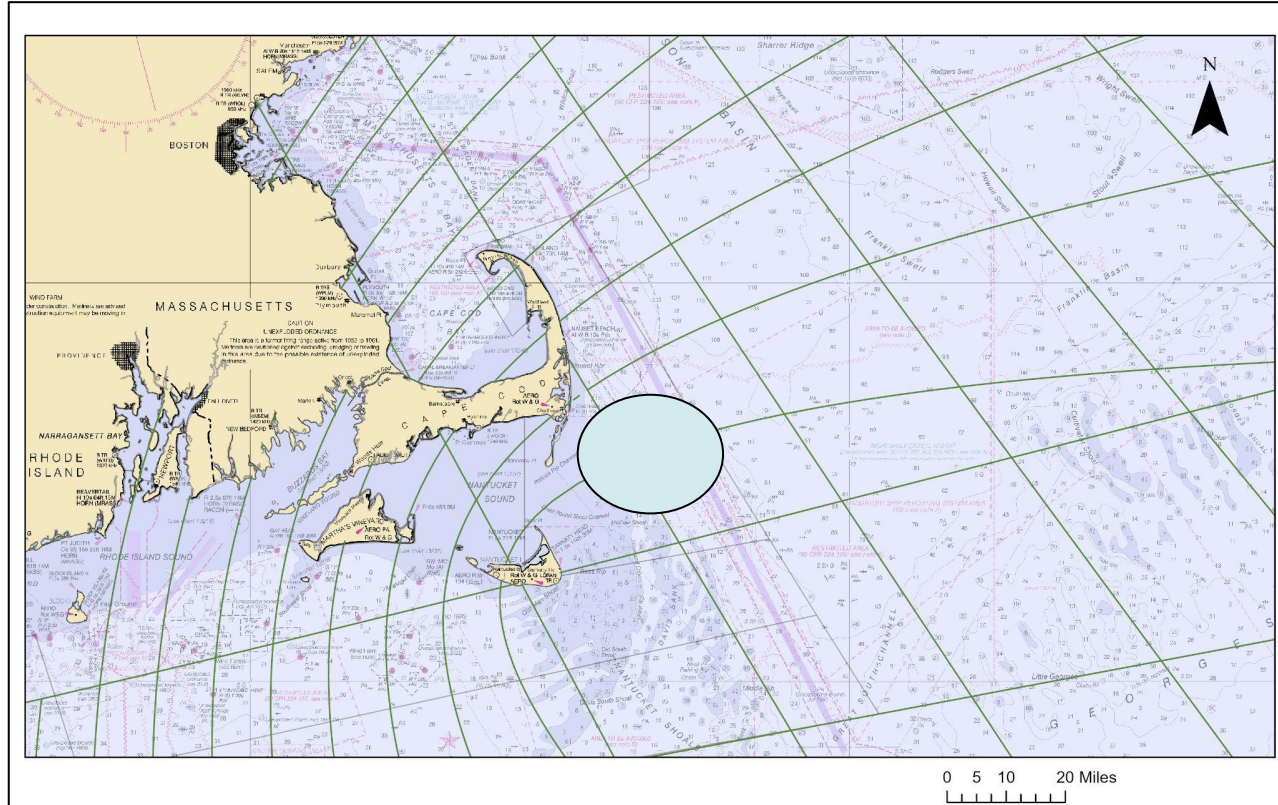
* Changing daily



Gillnet Research Update

2023 Data

- 1 active gillnet collaborator in MA
 - 98% success rate
 - N = 49
- More testing planned with 2 additional MA vessels in 2024



R&D Progress

New Technology

- Planning a new gear solicitation in summer 2024
 - Allows purchase from more manufacturers
- Funding development work for automatic gear marking



R&D Progress

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New Features

- Manufacturer app updates ongoing based on user feedback
- Beta testing of offshore sleds with high flyer float for increased visibility



R&D Progress

New Technology

- Planning a new gear solicitation in summer 2024
 - Allows purchase from more manufacturers
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New Features

- Manufacturer app updates ongoing based on user feedback
- Beta testing of offshore sleds with high flyer float for increased visibility

Cloud Interoperability

- EarthRanger - Integrates separate databases - necessary for cloud interoperability



On-Demand Interoperability Workshop

Action Items

1. Outreach - Analysis for fixed and mobile vessel fishing efforts in vertical line closures to aid in targeted outreach effort to mobile fleet and for modeling potential future acoustic emission scenarios

- GARFO (APSD), MITRE



On-Demand Interoperability Workshop

Action Items

1. Outreach - Analysis for fixed and mobile vessel fishing efforts in vertical line closures to aid in targeted outreach effort to mobile fleet and for modeling potential future acoustic emission scenarios

- GARFO (APSD), MITRE

2. Finalize Metadata Requirements - Formalize working group to refine draft data collection requirements and identify user permissions of data

- ACCSP, MEDMR, NHFG, MADMF, RIDEM, CDFW, OLE, NEFSC, GARFO, DFO, SERO



On-Demand Interoperability Workshop

Action Items

3. Third party data management - Draft white paper on use of third-party data manager to support operational on-demand program; ID who will manage data, access, etc.

- S&T, GARFO, GC, NEFSC



On-Demand Interoperability Workshop

Action Items

3. Third party data management - Draft white paper on use of third-party data manager to support operational on-demand program; ID who will manage data, access, etc.

- GARFO, GC, NEFSC

4. Analysis of existing regulations - Including federal, state, ASMFC, and NEFMC that may be impacted by the adoption of on-demand fishing including virtual gear marking, gear conflict, and other potential requirements

- MEDMR, NHFG, MADMF, RIDEM, OLE, NEFSC, GARFO

MITRE - Evaluation Strategy

1. Quantify unique, objective reqs of the fisheries where on-demand gear is and can be used

- Determine demographics of each fishery to categorize and populate requirements categories



MITRE - Evaluation Strategy

1. Quantify unique, objective reqs of the fisheries where ropeless gear is and can be used

- Determine demographics of each fishery to categorize and populate requirements categories

2. Evaluate acomms proposals in context of existing ropeless fishing gear

- Determine what existing systems can support localization and communication methods specified by FONTUS and others



MITRE - Evaluation Strategy

1. Quantify unique, objective reqs of the fisheries where ropeless gear is and can be used

- Determine demographics of each fishery to categorize and populate requirements categories

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- Determine what existing systems can support localization and communication methods specified by FONTUS and others

3. Evaluate the general efficacy of signaling schemes in proposed standards

- Analysis to determine Pcmr, Pfa and ROC metrics in limiting cases



MITRE - Evaluation Strategy

1. Quantify unique, objective reqs of the fisheries where ropeless gear is and can be used

- Determine demographics of each fishery to categorize and populate requirements categories

2. Evaluate acomm proposals in context of existing ropeless fishing gear

- Determine what existing systems can support localization and communication methods specified by FONTUS and others

3. Evaluate the general efficacy of signaling schemes in proposed standards

- Analysis to determine Pcmr, Pfa and ROC metrics in limiting cases

4. Examine limiting cases of FONTUS and other proposals within simulation framework

- Determine the importance of reliance on real-time connectivity (i.e. cellular, satellite internet) to proposed standard



2024 Research Plans

- Continue gear testing and adding participants as requested
- Evaluate methods to visualize on-demand gear on chart plotter or alternative
 - Leverage VMS receivers on mobile vessels
- Finalize functional specifications of on-demand gear
 - Coordinate a working group
 - Minimum necessary data elements
- Location accuracy of GPS marking - comparing GPS vs acoustic positioning
- Timing comparisons b/w on-demand & traditional practices



NEFSC Aerial + PAM Monitoring Updates: 2023-2024

Atlantic Large Whale Take Reduction Team Webinar
19 March 2024

Danielle Cholewiak, Ph.D.
On behalf of the Protected Species Division
NOAA Fisheries, Northeast Fisheries Science Center



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Aerial Surveillance- Right Whale Surveys - 2023

Multi-functional

- Mark-recapture data used to produce population estimate
- Injury and health monitoring
- Animal distribution/population monitoring
- Informing model development
- Dynamic management
- Supporting on-water data collection

Multi-institutional (data collectors & funders)

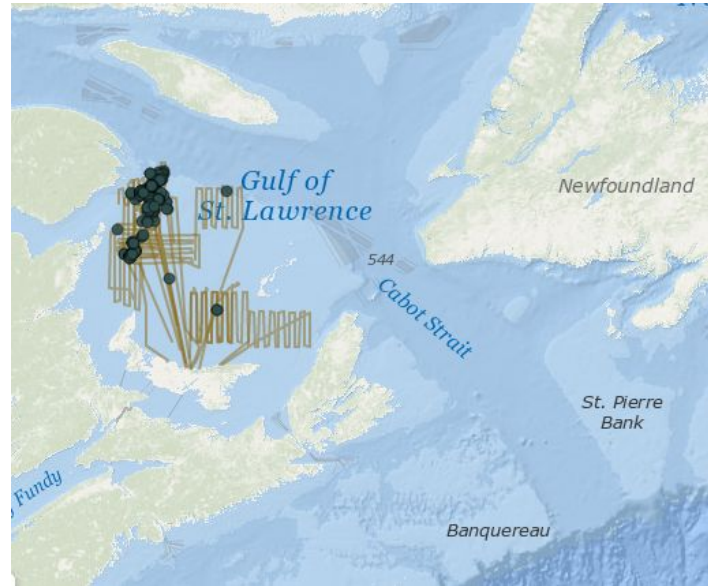
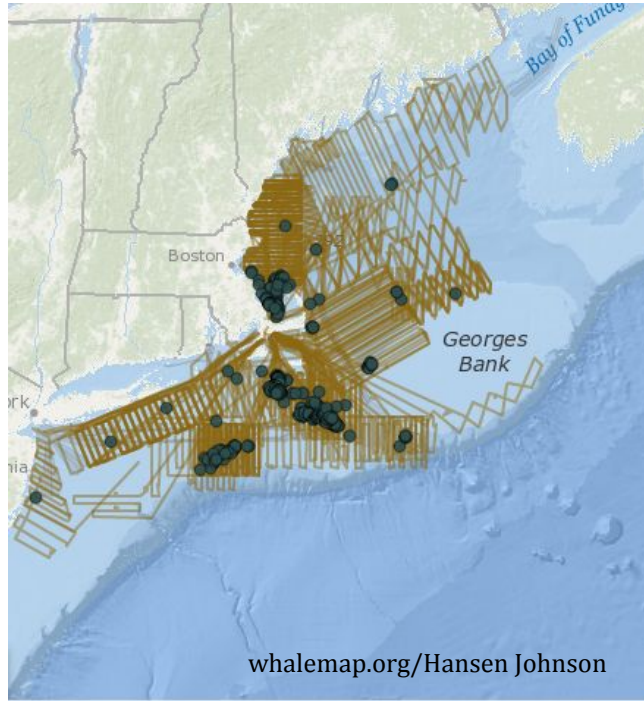
- NMFS, Navy, BOEM, USACE, USCG
- U.S. States (ie. Maine, MA, NY, NJ, GA, FL)
- Partner institutions (ie. CCS, NEAq, CMARI, HDR)



Aerial Surveillance- NEFSC Right Whale Surveys

NOAA Fisheries - NEFSC Effort and sightings in 2023

627 flight hours, 773 right whale sightings

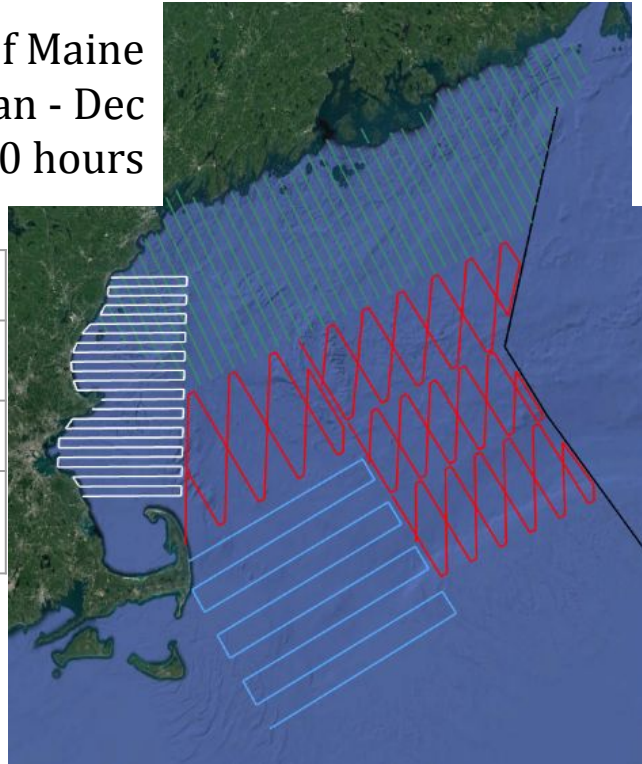


Effort in Canada conducted in collaboration with DFO and TC

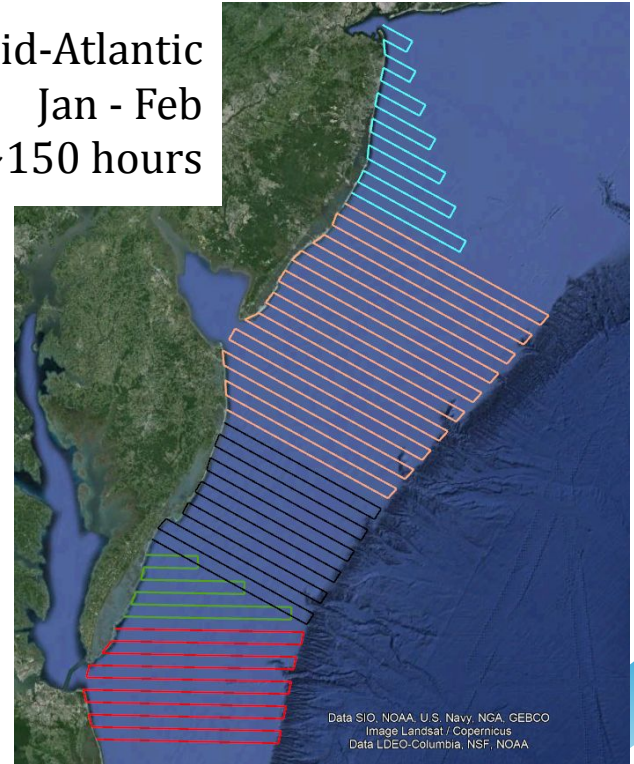
Aerial Surveillance- Right Whale Surveys

NOAA Fisheries - NEFSC contract surveys for 2024

Gulf of Maine
Jan - Dec
~450 hours



Mid-Atlantic
Jan - Feb
~150 hours



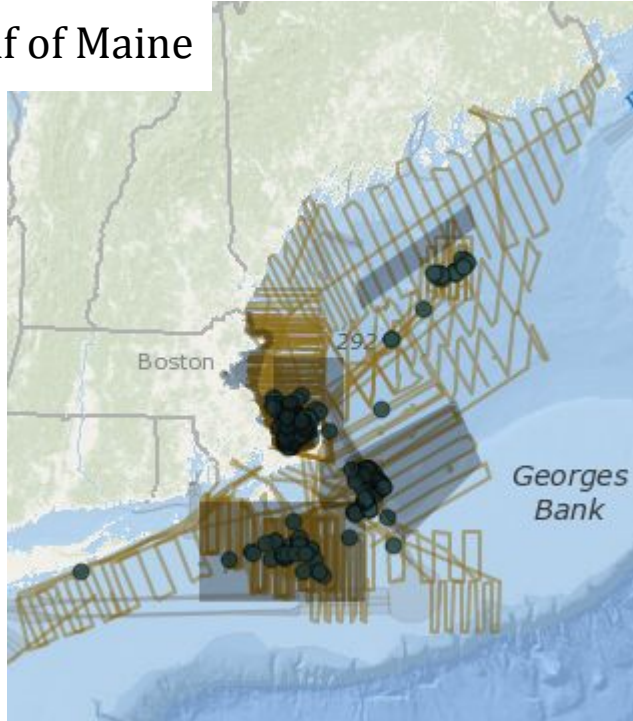
| Area | Frequency |
|--------|---|
| Maine | 1x Jan-Feb, 1x May-Jun |
| Basins | 1x every two months |
| GSC | 1x Jan-Mar, 1x Apr-Jun, 1x Jul-Sep, 1x Oct-Dec |

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus
Data LDEO-Columbia, NSF, NOAA

Aerial Surveillance- Right Whale Surveys

Aerial coverage January 1 - March 18, 2024

Gulf of Maine



Mid-Atlantic



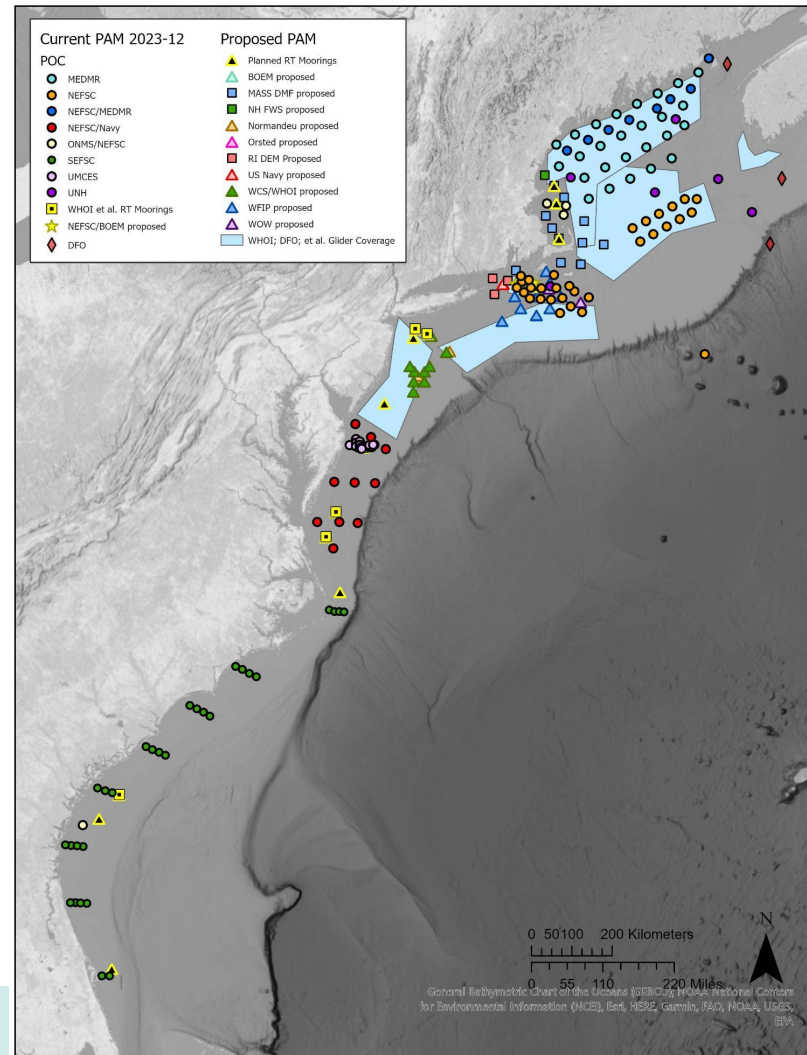
Gray shading indicates seasonal restricted areas. Note that not all areas are in effect for the dates displayed.

PAM: Current Base Infrastructure

- ~125 current archival moorings
- 6 near-real-time moorings
- 5 regions covered by gliders; multiple deployments/year
- Future proposed include >35 archival + 15 more near-real-time moorings

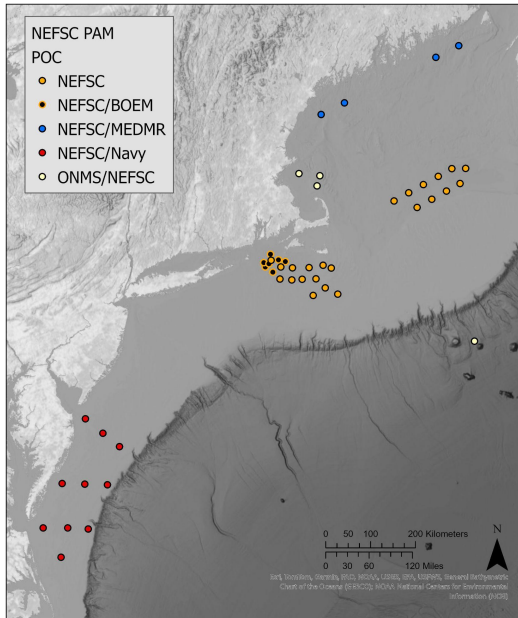
Multi-institutional:

- 16+ institutions/agencies



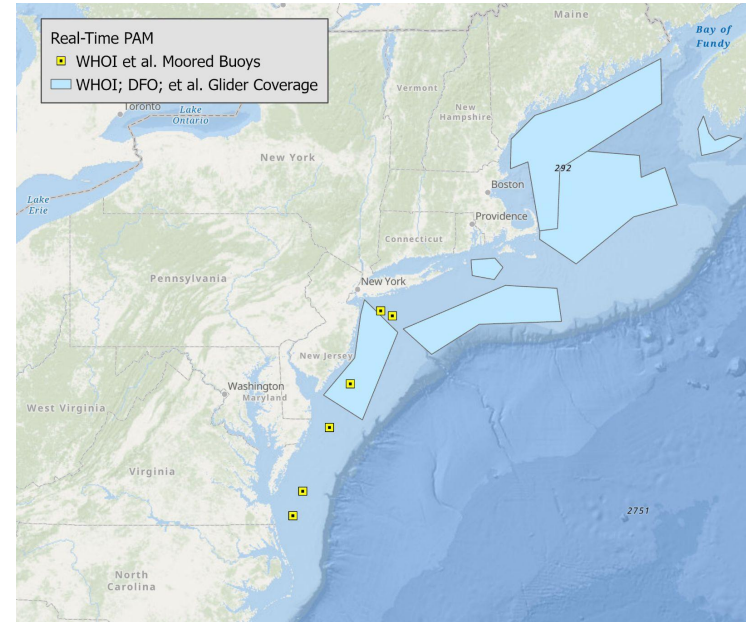
NE Passive Acoustic Monitoring - FY23-24

NEFSC archival recorders - current



- Year-round archival PAM
- Additional recorders by colleagues spanning Florida to Gulf of Maine

WHOI et al. near-real-time platforms



- Detections from fixed moorings and gliders used to trigger voluntary Slow Zones
- Some deployments in collaboration with NEFSC and other partners

In collaboration with Maine DMR, Mass DMF, SBNMS, USN, HDR, UNH and others

NE Region Aerial Survey Coordination Workshop - 1 Feb 2024

Workshop Goals

- Coordinate aerial surveys in the Northeast Region
- Maximize their efficiency and safety
- Facilitate collaboration between managers, scientists, and private sector partners

Participants (>70)

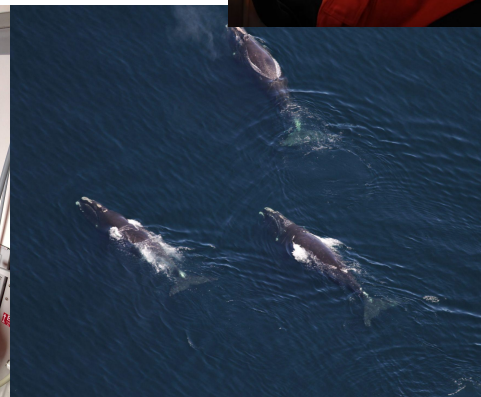
- NEFSC, GARFO, SERO, BOEM, USN, States (Maine, NH, MA, NY, CT, NJ, DE, VA), CCS, NEAq, Duke, WHOI

Format

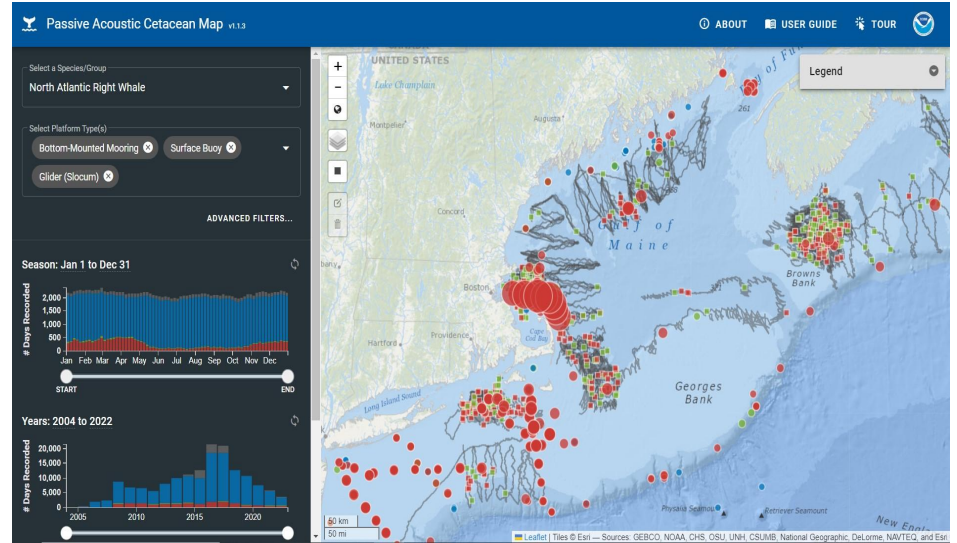
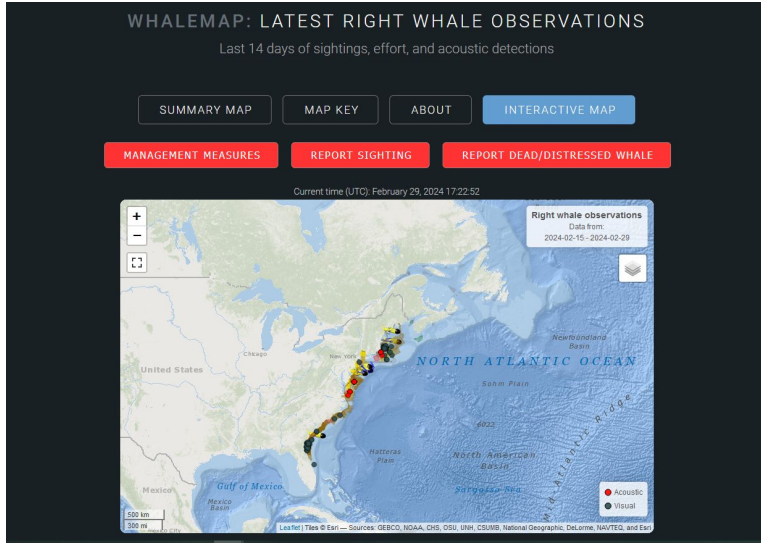
- 4 Topic Sessions, with presentations/panels

Next Steps

- Summary report, potential workgroup follow-ups



Data Dissemination - WhaleMap & PACM



www.whalemap.org*

<https://apps-nefsc.fisheries.noaa.gov/pacm>

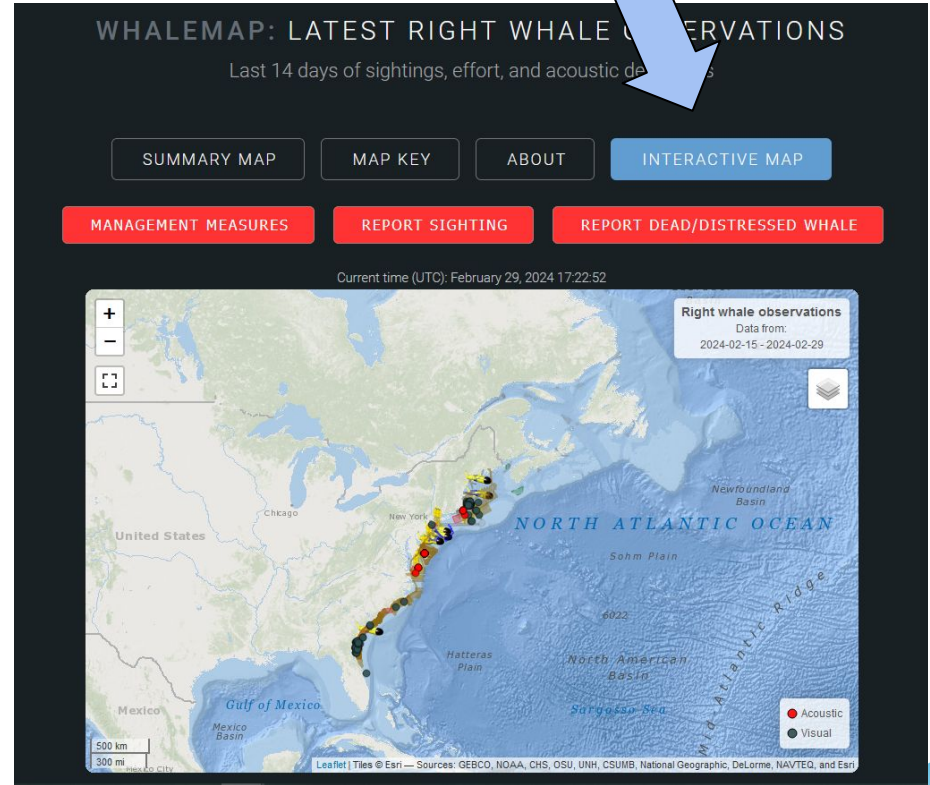
- WhaleMap provides near-real-time sighting and PAM information
- PACM provides archival and near-real-time PAM information

*WhaleMap can also be accessed through NMFS RW sightings page:
<https://www.fisheries.noaa.gov/resource/map/north-atlantic-right-whale-sightings>

Data Dissemination - WhaleMap

WhaleMap provides near-real-time sighting and acoustic detection information

www.whalemap.org



Data Dissemination - WhaleMap

WhaleMap More Information

Data Colors Layers

Choose date(s):

Specific date

Date range

Range among years

Feb-29 — Mar-31 Dec-31

Jan-01 Mar-15 May-28 Aug-10 Oct-23 Dec-31

2023 2022 2021 2020 2019

Choose platform(s):

Plane

Choose platform name(s):

All

Choose species:

Right whale

Go!

Map

Leaflet | Tiles © Esri — Sources: GEBCO, NOAA, CHS, OSU, UNH, CSUMB, National Geographic, DeLorme, NAVTEQ, and Esri

These data are preliminary data, subject to change, and not to be used without permission from the contributor(s)

www.whalemap.org

Data Dissemination - WhaleMap

WhaleMap More Information

Data Colors Layers

Choose date(s):

Specific date

Date range

Range among years

Feb-29 — Mar-31 Dec-31

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2023 2022 2021 2020 2019

Choose platform(s):

Plane

Choose platform name(s):

All

Choose species:

Right whale

Go!

Map

100 km
100 mi

Tracks by platform
plane

Observations by year
2019
2020
2021
2022
2023

Leaflet | Tiles © Esri — Sources: GEBCO, NOAA, CHS, OSU, UNH, CSUMB, National Geographic, DeLorme, NAVTEQ, and Esri

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www.whalemap.org

Data Dissemination - WhaleMap

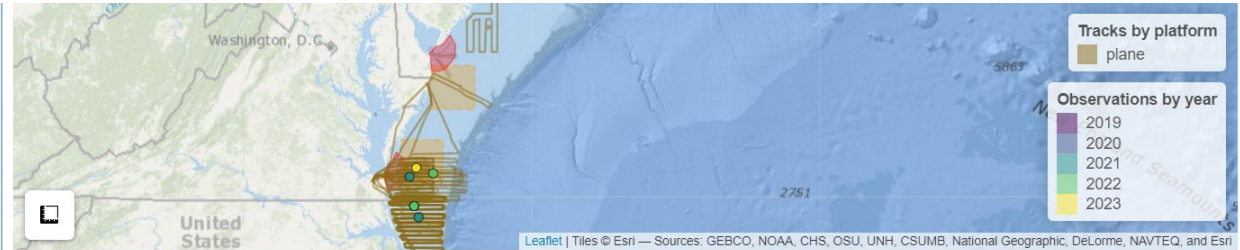
Choose platform name(s):

Choose species:

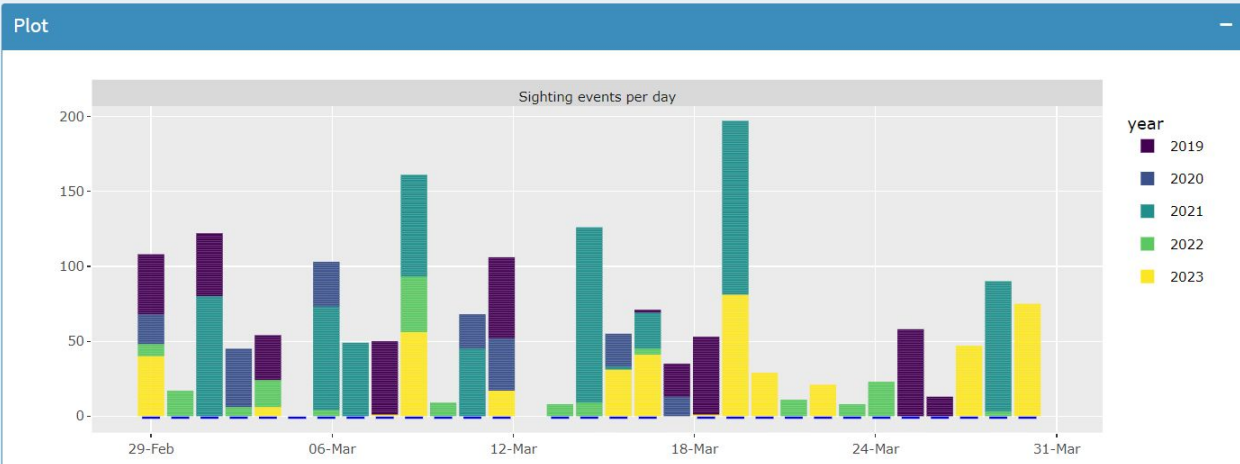
Choose data source(s):

Choose data layer(s):
 Effort
 Possible observations
 Definite observations

Show unverified data:



These data are preliminary data, subject to change, and not to be used without permission from the contributor(s)



www.whalemap.org

Data Dissemination - WhaleMap

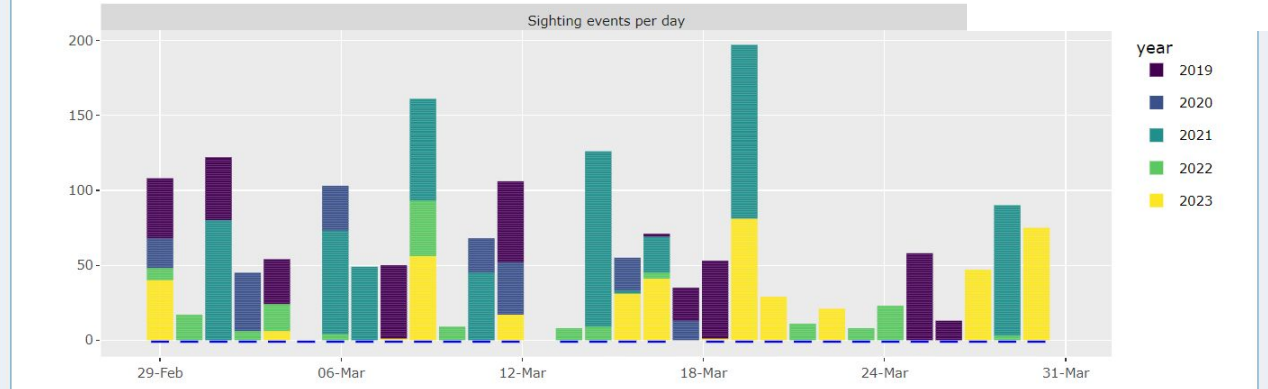
Choose platform name(s):

Choose species:

Choose data source(s):

Choose data layer(s):
 Effort
 Possible observations
 Definite observations

Show unverified data:



www.whalemap.org

Acknowledgements

Thanks to the NEFSC team for assistance with this presentation.

Many institutions and collaborators contribute to the coastwide data collection for North Atlantic right whales. Without these partners, effective monitoring for this species would not be possible. We thank the North Atlantic Right Whale Consortium and all of the contributors for their invaluable efforts.



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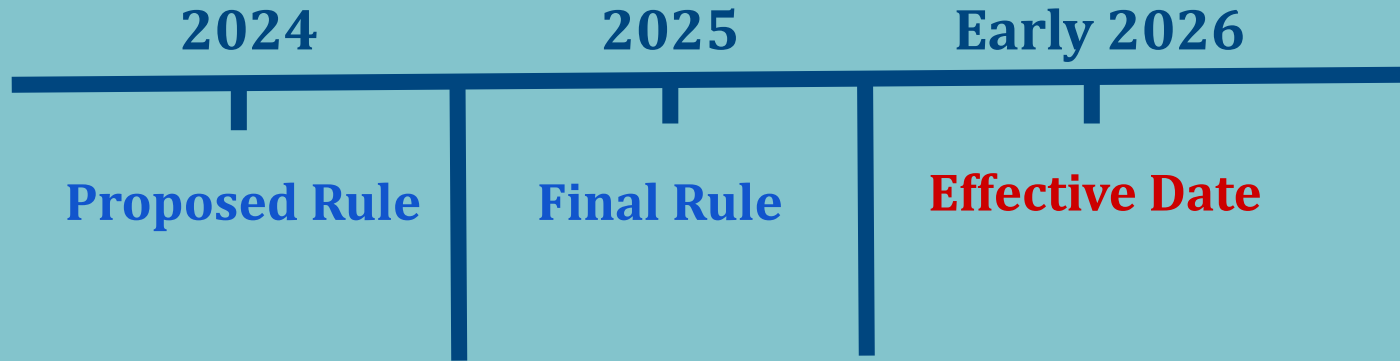


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Next Steps



Gillnet and Other Trap/Pot Rulemaking Timeline



**Team info webinar to orient
on proposed rule**



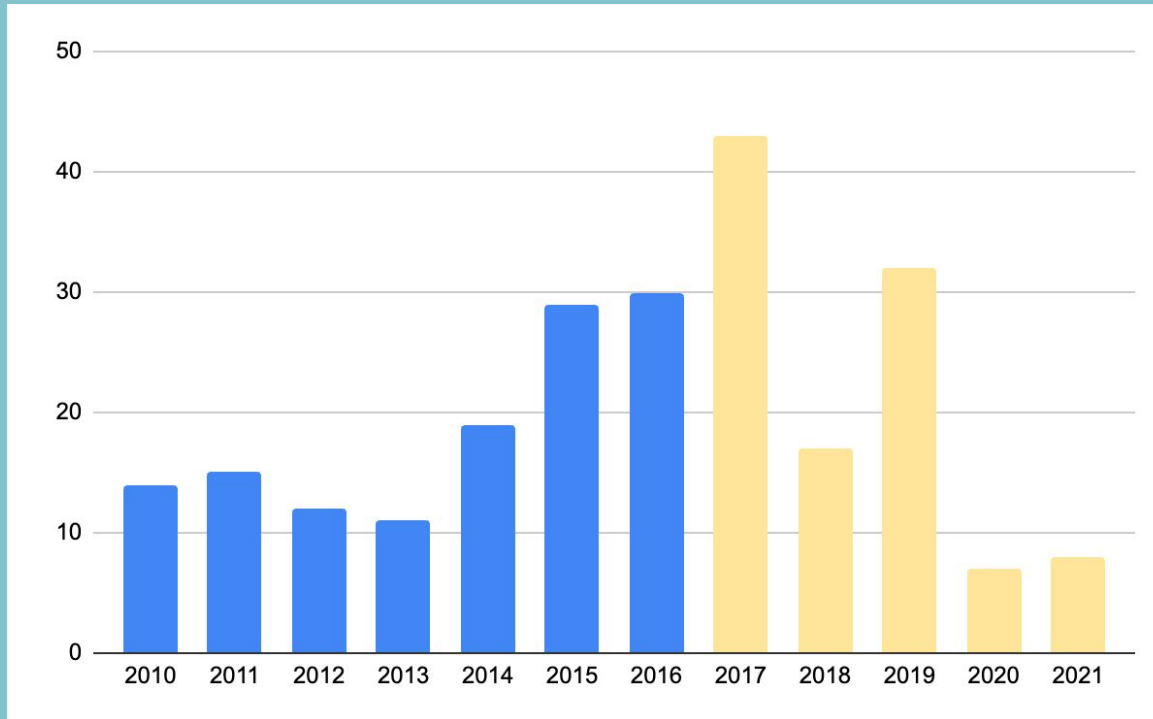
Lobster and Jonah Crab Rulemaking Timeline

Ongoing: Talk to your stakeholders!

| Year | Month | Action |
|------|------------------------|--|
| 2025 | January-February | TRT Webinar(s): Orientation and Planning for Next Rulemaking |
| | March-April | Duke Right Whale Model Updates/Fishing Effort Data (including tracking) |
| | Late Summer/Early Fall | DST New Inputs TRT Meeting 1: Data Review and Preliminary Identification of Elements of Recommendations |
| | October | New Right Whale Population Estimate Released TRT Meeting 2: Preliminary Target; Identify Packages of Recommendations |
| 2026 | January | TRT Meeting 3: Voting on Recommendations |
| | October | Proposed Rule/Comment Period & Team Orientation |
| 2027 | Fall | Final Rule Published |
| 2029 | January 1 | New Rule Effective |

Thinking Ahead

Annual Estimated Mortalities - Years for 5-year Average



Importance of Estimated Mortality in Risk Reduction Target

Target for lobster/Jonah crab rule anticipated in the Fall of 2025

Risk reduction preliminary calculations based on today's numbers

| PBR | Annual average estimated mortality 2017-2021 (Linden) |
|-----|---|
| 0.7 | 21.4 |

Thinking Ahead

Target for lobster/Jonah crab rule anticipated in the Fall of 2025
Risk reduction preliminary calculations based on today's numbers

| PBR | Annual average estimated mortality 2017-2021 (Linden) | Country apportionment | US mortality based on country apportionment |
|------------|--|------------------------------|--|
| 0.7 | 21.4 | 50% US/ 50% CAN | 10.7 |
| | | 40% US/ 60% CAN | 8.56 |
| | | 30% US/ 70% CAN | 6.42 |

Thinking Ahead

Target for lobster/Jonah crab rule anticipated in the Fall of 2025
Risk reduction preliminary calculations based on today's numbers

| PBR | Annual average estimated mortality 2017-2021 (Linden) | Country apportionment | US mortality based on country apportionment | US fishery apportionment - 69% EN Observed M/SI 2019-2023 |
|-----|---|-----------------------|---|---|
| 0.7 | 21.4 | 50% US/ 50% CAN | 10.7 | 7.4 |
| | | 40% US/ 60% CAN | 8.6 | 5.9 |
| | | 30% US/ 70% CAN | 6.4 | 4.4 |

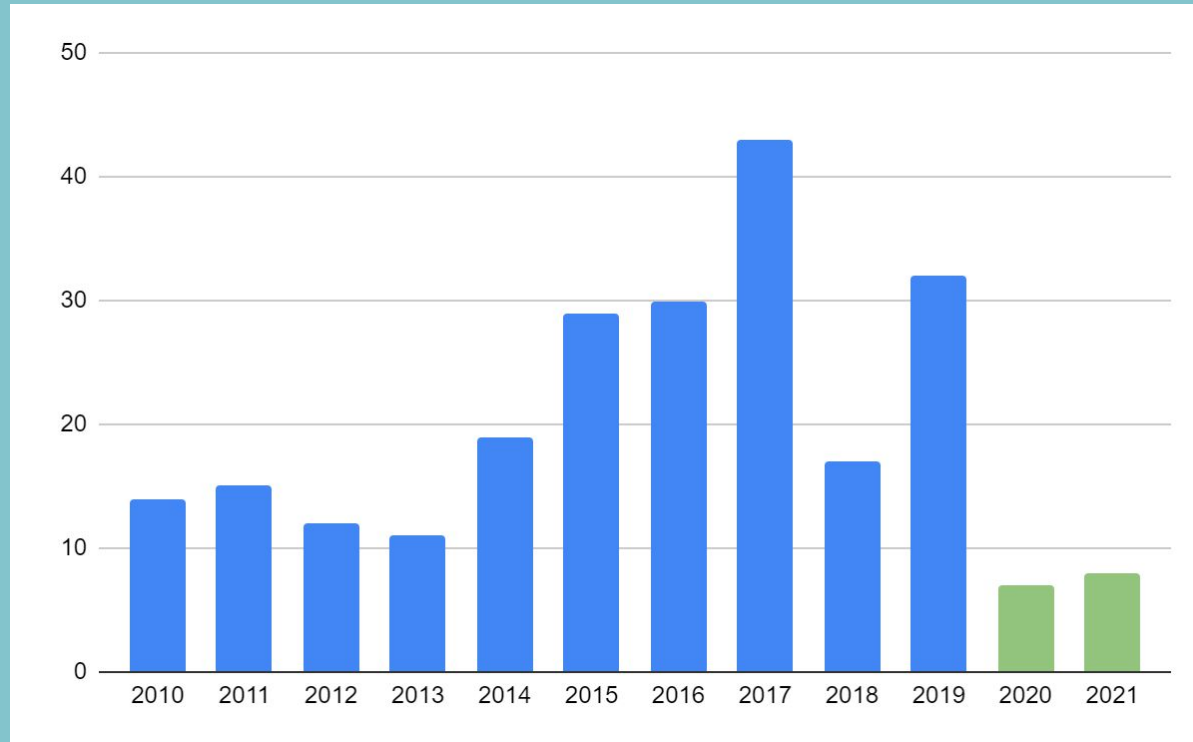
Thinking Ahead

Target for lobster/Jonah crab rule anticipated in the Fall of 2025
Risk reduction preliminary calculations based on today's numbers

| <u>PBR</u> | Annual average estimated mortality 2017-2021 (Linden) | Country apportionment | US mortality based on country apportionment | US fishery apportionment - 69% EN Observed M/SI 2019-2021 | Estimating 48% risk reduction from 2021 and 2025 regs, remaining risk reduction target |
|------------|---|-----------------------|---|---|--|
| 0.7 | 21.4 | 50% US/ 50% CAN | 10.7 | 7.4 | 43% |
| | | 40% US/ 60% CAN | 8.6 | 5.9 | 40% |
| | | 30% US/ 70% CAN | 6.4 | 4.4 | 36% |

Thinking Ahead - Possible Scenario

If Mortalities Stay Low



Thinking Ahead - What If?

Using Most Recent Two Years of Data

| PBR | Annual average estimated mortality 2020-2021 | Country apportionment | US mortality based on country apportionment | US fishery apportionment - 69% EN Observed M/SI 2019-2023 | Assuming 48% risk reduction from 2021 and 2025 regs, remaining risk reduction target |
|-----|--|-----------------------|---|---|--|
| 0.7 | 7.5 | 50% US/ 50% CAN | 3.8 | 2.6 | 25% |
| | | 40% US/ 60% CAN | 3.0 | 2.1 | 18% |
| | | 30% US/ 70% CAN | 2.3 | 1.6 | 7% |

Lobster and Jonah Crab Rulemaking Timeline

Ongoing: Talk to your stakeholders!

| Year | Month | Action |
|------|------------------------|--|
| 2025 | January-February | TRT Webinar(s): Orientation and Planning for Next Rulemaking |
| | March-April | Duke Right Whale Model Updates/Fishing Effort Data (including tracking) |
| | Late Summer/Early Fall | DST New Inputs TRT Meeting 1: Data Review and Preliminary Identification of Elements of Recommendations |
| | October | New Right Whale Population Estimate Released TRT Meeting 2: Preliminary Target; Identify Packages of Recommendations |
| 2026 | January | TRT Meeting 3: Voting on Recommendations |
| | October | Proposed Rule/Comment Period & Team Orientation |
| 2027 | Fall | Final Rule Published |
| 2029 | January 1 | New Rule Effective |

Questions

Use the “Questions” box to get in line



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