Summary of May 12, 2023 Harbor Porpoise Take Reduction Team Webinar on Electronic Monitoring

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1. Introduction

The Harbor Porpoise Take Reduction Team (HPTRT or Team) met on May 12, 2023 via Zoom webinar to learn more about the option of electronic monitoring (EM) in the groundfish fishery and how it may affect harbor porpoise and other protected species data, as well as to address other questions about EM that the Team had raised during its February 2023 annual meeting. The Team also reviewed research priorities at this meeting.

Below is an overview of topics covered and a summary of discussion among the Team during the meeting. Details are available in the presentation slides. A recording of the meeting is also available. Additional information and resources on EM provided during the meeting are included below in Appendix C.

2. Overview of electronic monitoring and observer programs

Electronic monitoring development and strategy

Brett Alger, Electronic Technologies Coordinator for the Office of Science and Technology, NOAA Fisheries, provided an overview of EM programs nationally, their origins, their objectives, and policies concerning the use of the data they gather.

Observer programs and electronic monitoring in the Northeast

Katherine McArdle, Fisheries Monitoring Operations (FMO) Branch Chief of the Fishery Monitoring Research Division (FMRD) of the Northeast Fisheries Science Center, shared an overview of fisheries

observation in the Northeast US Region, including describing and comparing differences among the Northeast Fisheries Observer Program (NEFOP), the At-Sea Monitors (ASM), and Electronic Monitoring programs.

3. Impacts of data changes due to electronic monitoring

Kristin Precoda, Northeast Fisheries Science Center Protected Species Branch, presented an analysis of the potential effects of EM on bycatch estimates and calculation of potential biological removal (PBR) as a result of changing incidental take data availability if the proportion of EM data increases.

4. Team Discussion

The Team had an opportunity to reflect on and discuss the issues raised in the preceding presentations and consider any next steps, requests, or advice it would offer to NMFS. Team member comments and questions included the following *(where applicable, direct responses from NMFS are in italics)*:

- Concern as to how Council and GARFO came to the decision to not include marine mammal bycatch in EM.
    - *GARFO read the purpose of Amendment 16, which set up the groundfish industry-funded monitoring program (aka at-sea monitoring) to provide supplemental coverage in excess of NEFOP. The purpose of the at-sea monitoring program, as designed by the Council, is narrowly focused on groundfish catch accounting only. In practice, ASMs also have been collecting protected species data. When implementing the EM version of ASM, it was determined that ASM had not been intended to collect protected species data and so did not include that in EM Amendment 23. ASM deployments are billed at a seaday rate and collecting additional data (e.g., protected species data) does not result in an increased cost burden to industry. Conversely, EM is billed based on video review time and the time required increases with additional data collection requirements. NMFS does not require the collection of protected species data on EM trips because the agency has a responsibility to keep the EM program cost-effective and believes there is no legal authority to require data collection outside the program's stated goals and objectives. It was noted that the Council could make that change if the Council desires.*
- The inconsistency of marine mammal bycatch data among different monitoring systems is concerning. It sets a poor precedent, especially when compared to or substituting for ASM, which has always collected marine mammal data. However, it is important to note that data collected via ASM is in addition to that collected under the SBRM coverage, and that current coverage rates under Amendment 23 are higher than they were under Amendment 16 to the Multispecies Fishery Management Plan. This is especially relevant in a period of rapid change in the ocean. Particularly when using federal money, the data should be public. We need to think more broadly and consider other fisheries that interact with other protected species as well. Encourage NMFS to incentivize the fishery to collect protected species data.
- A team member expressed the opinion that identifying harbor porpoise seen in EM should not be that much more expensive than reviewing the EM footage without doing so, and not identifying them can put both the animals and the industry in jeopardy because of the relationship between density and PBR.
    - Since the EM program was designed as an alternative to ASM and to record discards, adding additional species changes the mission and can become costly.
    - A Team member expressed that rather than being characterized as "mission creep," expanding the scope of monitoring in EM returns to its original mission.

- The number of active groundfish vessels in the Gulf of Maine is smaller than a decade ago. Congress previously appropriated funds to help with the costs to fishermen of monitoring requirements, though this funding is not guaranteed for future years.
- Since EM collects some harbor porpoise data, it would be helpful to understand how the rate of collection in EM compares to other monitoring methods. It would also be helpful to know how many of the 161 harbor porpoise detected (from the FMRD presentation) are attributable to NEFOP vs. ASM.
    - *The 161 represented NEFOP and ASM harbor porpoise incidental takes from 2016-2023. The question was answered in the presentation*
- Can NMFS reject this decision that protected species cannot be reported or monitored?
    - *If the HPTRT made a recommendation to reconsider marine mammal monitoring under EM as they did under ASM, NMFS could ask the Council to reconsider that position.*
    - *Under the Magnuson-Stevens Act, we can approve, partially approve, or disapprove council actions. For the groundfish fishery, increased monitoring was needed to better manage groundfish stocks. NMFS' role is to assess if the program meets the objective; we are unable to attach conditions or requirements to an action in order to approve it (e.g.,"only if…").*
- NEFOP observers are preferable to ASM or EM to provide the desired level of information for groundfish and protected species.
- Concern raised that self-reporting obligation is not happening, underscoring the need for monitoring/observers.
    - *NMFS responded that self-reporting is occurring as required under the MMPA, and although self-reports may be lower than actual incidents, it is not accurate to say that self-reporting does not happen.*

5. Review of research priorities

Jen Goebel, HPTRT Coordinator, shared the Team's previously stated research priorities for Team review and refinement. She noted that NMFS is working on language to add a research provision to the Take Reduction Plan, based on the Team's recommendation in its February 2023 meeting. She explained that identified research priorities would be helpful in writing regulations, because research priorities could help guide decisions on research proposals that would qualify for a research exemption. Research identified as a Team priority would be more likely to get a research exception certificate.

The Team's research priorities, as last updated in 2015, were as follows:

Priority	**Research Needs – Fishery Bycatch**
1	Evaluate bycatch reduction using higher frequency pingers (50-100 kHz)
1	Test the effectiveness of different gear modifications (e.g., thicker twine, barium sulfate gillnets) for reducing the bycatch of harbor porpoises.

1	Develop a low-cost device or technology that would allow industry to test the functionality of pingers in the field. This could include making modifications to pingers themselves to demonstrate whether or not the pinger is operating (e.g., incorporate a blinking light).
2	Develop and evaluate a device to document and monitor soak times of gillnet gear.
3	Test the use of and effectiveness of pingers in HPTRP management areas in the Mid-Atlantic versus the current gear modification requirements.
Research Needs – Biological Information	
2	Analyze harbor porpoise behavior and use of sonar around gillnets (e.g., pingered, not pingered, gear modifications being used) in the Gulf of Maine and/or Mid-Atlantic using underwater video cameras and/or passive acoustics.
3	Conduct research into the visual capacity of harbor porpoises that may be utilized in the development of potential deterrent and exclusion measures
4	Evaluate changes in distribution of herring resulting from herring fishery (mid-water trawlers) pressure. Analyze the effect this may or may not have on the distribution of harbor porpoises

Team member comments and questions included the following *(where applicable, direct responses from NMFS are in italics)*:

- Regarding the effectiveness of gear modifications: in another process, gear modification due to sturgeon bycatch is causing thinner twine to be under discussion. Consider other management measures under consideration (for example, North Atlantic right whale measures) to avoid conflicting ideas for gear modifications with other TRTs and other protected species. There are also cross-connections among species, e.g. evaluating soak time.
    - *Those discussions are being coordinated within NMFS. This is worth exploring not as regulation but as research.*
- Regarding gear modifications and temporal/spatial management discussion: Priority #3 of the Fishery Bycatch priorities does not appear relevant to the Mid-Atlantic and should not be pursued.
- Regarding development of low-cost devices or technology: If we can't tell whether these devices are operating correctly, that should be one of our top priorities to sort out. We need to know whether the pingers are operating.
- Regarding Biological Information Priority #4: While we recognize the priority and the emphasis on midwater trawlers, given that the Atlantic herring fishery has decreased by 50% and the mackerel fishery has decreased by 80%. This research priority seems theoretical. The fleet/quotas are greatly reduced and are undergoing another round of regulations by NEFMC that may further impact the fleet.

6. Next steps

- NMFS will continue to work on modifying the research provision in the TRP and all of the associated rulemaking documents. The Team will be notified when a proposed rule is available.
- As NMFS gathers information related to Team questions, answers will be shared with the Team. The topic of EM will be discussed at the next HPTRT meeting, when more information on level of adoption should be available.

Following the meeting, Jen Goebel shared the following resources that were identified in the Team discussion:

1. The perils of relying on handling techniques to reduce bycatch in a partially observed fishery: a potential fatal flaw in the False Killer Whale Take Reduction Plan (paper by Robin Baird)
2. The Final Environmental Impact Statement for Amendment 23 (Chapter 7.4, also a summary on page 7)
3. New England Fishery Management Council's page on Amendment 23 - contains comments and other background documents.

7. Appendices

Appendix A: Meeting Agenda

12:00 PM: **Welcome and introductions**

12:15 PM: **Electronic monitoring development and strategy**
Brett Alger, Electronic Technologies Coordinator, Office of Science and Technology

12:30 PM: **Observer programs and electronic monitoring in the Northeast**
Katherine McArdle, Chief, Fisheries Monitoring Operations Branch,Fishery Monitoring and Research Division, Northeast Fisheries Science Center
Nichole Rossi, Electronic Monitoring Lead and Program Support,Fishery Monitoring and Research Division, Northeast Fisheries Science Center
Aaron Diauto, Incidental Take Lead, Fishery Monitoring and Research Division, Northeast Fisheries Science Center

1:10 PM: **Data changes due to electronic monitoring**
Dr. Kristin Precoda, Protected Species Branch, Northeast Fisheries Science Center

1:40 PM: **Break**

1:50 PM: **Discussion**

2:30 PM: **Review research priorities**

2:40 PM: **Public comment**

2:50 PM: **Next steps**

3:00 PM: **Adjourn**

Appendix B: Participants

Of the 37 Team members, 21 Team members and 3 alternates (noted in parentheses after their names) participated during the meeting: Regina Asmutis-Silvia, Sue Barco, Karson Cisneros, Colleen Coogan, Alex Costidis (ALT), Tara Cox, Jane Davenport, Greg DiDomenico, Robin Frede, Erica Fuller, Pingguo He, Jesse Hornstein (ALT), Kristy Long, Kristen Monsell, Jackie Odell, Scott Olszewski, Cheri Patterson, Meghan Rickard, Daniel Salerno (ALT), Somers Smott, Stacy VanMorter, David Wiley, Angel Willey, and Erin Wilkinson.

Appendix C: Available Resources on EM

Electronic Technologies Policies

- National Electronic Technologies Policy Directive (04-115)
- EM Cost Allocation Procedural Directive (04-115-02)
- EM 3rd-Party Data Retention Procedural Directive (04-115-03)
- Procedural Directive on Applying Information Law to EM Data (04-115-04)

National EM Workshops (2019 and 2020)

- Report and video recordings from workshops

ICES Working Group to Integrate Technology in Fisheries (WGTIFD)

- Reports from 2019 - 2021; TORs approved 2022 - 2024

Public Websites

- NOAAs ET Website and EM Story Map
- EM4Fish
- SAFET

Regional EM Programs

- Alaska
- West Coast
- Northeast