



**Mid-Atlantic Fishery Management Council**  
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P. Weston Townsend, Chairman | Michael P. Luisi, Vice Chairman  
Christopher M. Moore, Ph.D., Executive Director

## MEMORANDUM

**Date:** September 19, 2023  
**To:** Council  
**From:** Hannah Hart, Staff  
**Subject:** Northeast Trawl Advisory Panel Update

The Joint Mid-Atlantic and New England Fishery Management Councils' Northeast Trawl Advisory Panel (NTAP) recently held an in-person meeting on July 20, 2023, in Baltimore, Maryland. At the meeting the panel received updates from the Northeast Fishery Science Center (NEFSC), including updates on this year's trawl and bottom longline surveys. The panel discussed recent issues associated with the NOAA Ship Henry B. Bigelow and the hurdles that impacted recent survey efforts. Given these issues, the panel discussed potential contingency plans for future bottom trawl surveys and formed an NTAP Working Group to further discuss this topic. Following the July 20 NTAP meeting, the newly formed NTAP Working Group met on September 5, 2023. Materials from both meetings listed below are provided for the Council's consideration of this agenda item.

- 1) NTAP meeting agenda from July 20, 2023
- 2) NTAP meeting summary from July 20, 2023
- 3) NTAP Working Group meeting agenda from September 5, 2023
- 4) NTAP Working Group Summary from September 5, 2023

## Northeast Trawl Advisory Panel Meeting

### - Agenda-

**Thursday, July 20, 2023**

9:00-5:00

In-person attendance at the Maritime Conference Center (692 Maritime Blvd, Linthicum Heights, MD 21090) in Baltimore, MD with a webinar option available.

#### **Webinar Details:**

<https://midatlanticfisheriesmc.webex.com/midatlanticfisheriesmc/j.php?MTID=m599bd3487bbd9f4b6bccdffee5ba385f>

Meeting number (access code): 2330 382 2064

Meeting password: NTAP\_July2023

Time	Topic/Purpose/Process	Lead	Preparation/Materials
9:00-9:15	<b>Welcome, Introductions, Logistics</b> <ul style="list-style-type: none"> <li>- Introductions</li> <li>- Accept meeting summary from last meeting</li> </ul>	Salerno	<ul style="list-style-type: none"> <li>- <a href="#">NTAP Charter</a></li> <li>- <a href="#">Meeting summary from Jan 2023</a></li> </ul>
9:15-9:45	<b>Center Updates</b> <ul style="list-style-type: none"> <li>- Update on action items from last meeting</li> <li>- NTAP operations manual</li> <li>- Survey updates</li> <li>- Dashboard</li> </ul>	Ford, Mercer, Dunn	<ul style="list-style-type: none"> <li>- Presentation</li> <li>- <a href="#">Orientation manual</a></li> <li>- Rockhopper Catch efficiency <a href="#">dashboard</a> (added <a href="#">glossary</a> based on panel feedback)</li> </ul>
9:45-11:45	<b>Bigelow contingency discussion with decision matrix</b>	Salerno, Ford	<ul style="list-style-type: none"> <li>- Handout</li> </ul>
11:45-2:00	<b>LUNCH &amp; SIMULATOR</b>		
2:00-3:15	<b>Offshore wind fisheries monitoring surveys &amp; survey mitigation</b> <ul style="list-style-type: none"> <li>- NEAMAP definition discussion</li> <li>- What studies are being done?</li> <li>- Survey mitigation implementation strategy</li> <li>- Survey specific mitigation plans- include both BTS and BLLS</li> </ul>	Mercer, Ford, McElroy, Methratta	<ul style="list-style-type: none"> <li>- Presentation</li> <li>- <a href="#">Wind fisheries monitoring studies</a> (Methratta)</li> <li>- <a href="#">ROSA database</a></li> </ul>

3:15-3:45	<b>Restrictor Rope Research</b> <ul style="list-style-type: none"> <li>- Presentation - focus on conclusions</li> <li>- 10 min for questions</li> <li>- Where do we go from here</li> <li>- MAFMC October meeting presentation?</li> </ul>	Jones and Ruhle	<ul style="list-style-type: none"> <li>- <a href="#">Blog post</a></li> <li>- <a href="#">Project webpage</a></li> <li>- <a href="#">Feature Story</a></li> </ul>
3:45-4:45	<b>Brainstorm next research project</b> <ul style="list-style-type: none"> <li>- Goal: 3-5 titles of research projects NTAP would like to see funded</li> </ul>	Mercer	<ul style="list-style-type: none"> <li>- Presentation</li> </ul>
4:45-5:00	<b>Wrap up &amp; adjourn</b> <ul style="list-style-type: none"> <li>- Discuss membership changes, need for new members</li> <li>- Scheduling next full panel meeting (if in the fall, do it virtually)</li> <li>- Scheduling next working group meeting</li> <li>- Topics for next meeting</li> <li>- Feedback on monthly update emails</li> </ul>	Salerno	

Outstanding topics:

- Moulton Task Force update - funding received, projects being done.
- SSEEP and Rago overview and discussion.
- NAFO/TRAC/WKUSER updates.

## Northeast Trawl Advisory Panel Meeting

~ NOTES ~

Thursday, July 20, 2023

9:00 AM - 5:00 PM

### I. Participants

#### A. NTAP Members:

Name	Affiliation	In attendance
Kathryn Ford	NEFSC	x
Phil Politis	NEFSC	
Anna Mercer	NEFSC	x
Tim Miller	NEFSC	x
Dan Salerno	NEFMC Member Co-Chair	x
Dustin Gregg	MAFMC Scientist	x
Jim Gartland	MAFMC Scientist	x
Dan Farnham	MAFMC Member	x
Peter Whelan	NEFMC Member	x
Wes Townsend	MAFMC Member Co-Ch	x
Terry Alexander	MAFMC Stakeholder	x
Emerson Hasbrouck	MAFMC Stakeholder	x
Chris Parkins	ASMFC Representative	x
Pingguo He	NEFMC Scientist	x
Vito Giacalone	NEFMC Stakeholder	x
Mike Pol	NEFMC Scientist	X
David Goethel	NEFMC Stakeholder	x
Sam Novello	NEFMC Stakeholder	
Michael Hiller	MAFMC Stakeholder	
Dan Farnham	MAFMC Member	x

**B. Other Participants:**

Name	Affiliation
Katie Burchard	NEFSC
Hannah Hart	MAFMC
Alexander Dunn	NEFSC
Andy Jones	NEFSC
Ben Church	NEFSC
Alan Blanchi	North Carolina Department of Environmental Quality
Alan Tracy	NEFMC
Aubrey Church	CCCFA
Brandon Muffley	MAFMC
Jameson Gregg	VIMS
Jessica Blaylock	NEFSC
Kyle Cassidy	Orsted
Eric Reid	NEFMC
Gareth Lawson	CLF
Giovanni Giancesin	NEFSC
Geoff Smith	TNC
Rebecca Peters	Maine DMR
Steve Cadrin	SMASST
Steve Wilcox	Mass DMF
Derek Bolser	NMFS
Jack Wilson	NEFSC
Libby Etrie	NEFMC
Ricardo Hernandez	NEFSC
Drew Minkiewicz	FSF
Jerry Leeman	NEFSA
James Fletcher	Commercial Fisherman
Jocelyn Runnebaum	VIMS
Justin Bopp	Massachusetts DMF
Kelly Whitmore	Massachusetts DMF
Kurt Zegowitz	NMFS
Lindsey Nelson	NEFSC
Nicole Caudell	MD DNR
Kiley Dancy	MAFMC
Sefatia Romeo Theken	MA DFG
Stephen Pearson	MAFMC
Andrew Lipsky	NEFSC
Lisa Methratta	NEFSC
Julia Beaty	MAFMC

**II. Notes by Agenda Topic:**

**Welcome, Introductions, Logistics (D. Salerno)**

- Round Table Introductions.
- Last Meeting summary approved.

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**Center Updates (K. Ford)**

**Update on action items from last meeting (1/19/23):**

1	Address questions raised about moving fixed gear, number of invalid tows.	Invalid tows assessment updated (will add to website); added lobster pot discussion to FAQ document (still in draft form)
2	Distribute NEAMAP definition document.	Not done - on agenda for today's meeting
3	Plan restrictor rope research working group meeting to further discuss data, drafting a paper for peer review, future studies, and application of knowledge.	Done - on agenda for today's meeting
4	Use breakout group results and discussion to draft a memo to present to Councils on priority concerns/research recommendations of NTAP.	Done, decided to hold off on the memo to the councils until we have discussion about how to address the inconsistency and refit of the Bigelow
5	Release 2nd draft of the Operations Manual for review.	Done, also completed final version, posted to website, and sent via email to members

**Operation Manual (K. Ford)**

Operation manual is finished. Overview of timeline and results available in the PowerPoint.

Document is a “living document” owned by NTAP. Any member can suggest a change. Send changes/edits to co-chairs and/or MAFMC NTAP Coordinator and/or NEFSC NTAP Lead.

Changes approved by co-chairs will be made by either MAFMC NTAP Coordinator or NEFSC NTAP Lead. Depending on the amount of change/timeliness of change, the document may be updated immediately or less frequently.

There is still an “Appendix” being worked on that has a list of answers to frequently asked questions.

**Survey Updates**

**Bottom Trawl:(K. Ford)**

Spring 2023:

- Bigelow delayed 2 months getting out of shipyard (May 8th departure).
- Lost 43 sea days, significant loss of survey area coverage.
- OMAO unable to properly staff the vessel resulting in only 12-hour operations per day, further impacting area coverage.
- Tows were conducted from 6am-6pm only due to inexperienced vessel crew.

- NEFSC prioritized Georges Bank at nearly full sampling density to meet TRAC obligations.
- 70 of 377 planned stations completed.

Autumn 2023:

- On track to begin September 9th with full survey area coverage planned.
- *\*Contingency plan later in Agenda. See notes further in document.*

### Discussion and Questions:

Q: How was the discussion at the TRAC meeting (July 11-13) affected by the loss in spring survey station?

A: Spring 2023 survey was not used in the stock assessments management or research track process.

Q: Can you talk more about the safety concerns (related to why only daytime ops were allowed)?

A: The CO in charge didn't think it was safe to do anything but daytime.

Q: Problem was not lack of NEFSC biologists it was the crew?

A: We sailed the full science compliment. Captain decided not to run night tows.

Q: This was the captain's call?

A: Correct

### Bottom Long Line: (D. McElroy)

Presented a new graphic image – see PowerPoint.

Stations:

- Completed 100% of stations (45 total) in spring 2023.

Highlights:

- High barndoor skate and red hake catches.
- High white hake catches - for spring, esp. large individuals.
- Some evidence of strong 2020 haddock year class.
- 2<sup>nd</sup> largest halibut caught to date (63 inches).

Lowlights:

- Low overall catch rates.
- Some technical issues (laptops, new data collection software).

Blogs (for more info):

- [Bottom Longline Survey Gets Seal of Approval](#)
- [Whale Tails, Wrymouths, and Other Bottom Longline Survey Surprises](#)

### Discussion and Questions:

Terry: Haddock Catch GOM or GB

Dave: GOM

### NEAMAP update: (J. Gartland)

- NEAMAP is the three inshore surveys:
  - Maine New Hampshire.
  - Mass DMF- running since mid-late 1970s.
  - Mid-Atlantic/Southern New England trawl survey (VIMS)- running since about 2007.
- NEAMAP surveys by VIMS, MA DMF, and ME/NH were successful.
- The VIMS spring survey occurred from April 24 – May 28 and sampled all of the 150 sites that were selected for the cruise using a stratified random design. No major issues to report. Catch was as would be expected.
- The Mass DMF trawl survey was successful this spring. It sampled 98% (101 of 103) of planned stations. The survey was completed over 16 consecutive days with a representative tow for all assigned stations in GOM and backside of Cape Cod. One station each in Nantucket Sound and Buzzards Bay was lost due to excessive weed/algae (both destroyed our nets). Nantucket Sound and Buzzards Bay continue to have large aggregations of scup and weed/algae dominating catch.
- The ME-NH survey started on May 2nd and ended on June 2nd, sampling 81% of planned stations. A combination of bad weather the first week of the survey, fixed gear, and mechanical issues on the boat during the last week of the survey affected our completion rate.

### Discussion and Questions:

Q: Was there any sign of cod recruitment?

A: No

Response: Curious because some people are fishing off of Northern MA and New Hampshire and reporting seeing a lot of 1-3 year old cod's being caught.

### Communications update: (A. Dunn)

NEFSC presented key links to stock assessment information, showed a dashboard which summarizes how the Rockhopper Catch Efficiency Study is used in assessments.

Other updates:

- NEFSC Restrictor Rope Project Page live

### Discussion and Questions:

Q: Is the dashboard on the MAFMC website or center website?

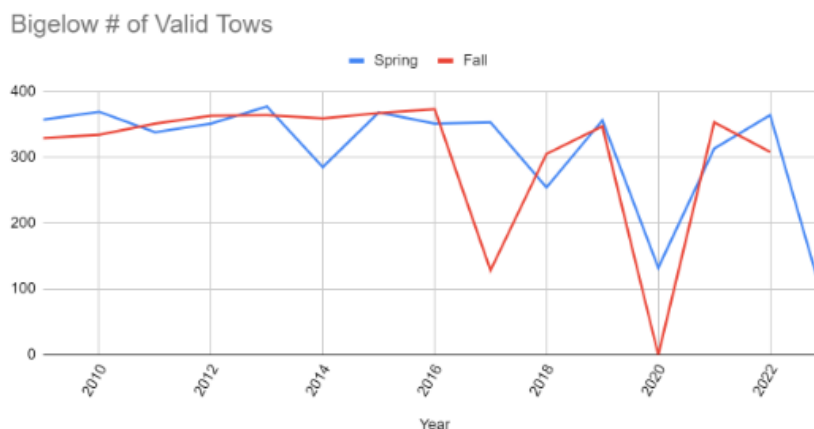
A: It's available to all via a link and a pdf we export.



**Bigelow contingency discussion with decision matrix (D. Salerno, K. Ford)**

The need for a contingency plan to supplement the Bigelow bottom trawl survey sampling was introduced to the panel. The Bigelow availability has been decreasing over time. The vessel’s midlife repair period is nearing and will take place in all of FY 2028. It was also refitted for RV Pisces in 2029. It was explained that there is also a current survey mitigation need for sampling Bigelow stations in offshore wind farms.

Bigelow  
survey  
success



Spring 2014	started late (March 31) due to mechanical issues (interface between the diesel and electric motors)
Fall 2017	started late (Oct 16) due to engine replacement, used Pisces; weather also a challenge
Spring 2018	started late (March 14) due to delays with shipyard repairs; weather
Fall 2018	weather (strong winds) and minor ship repairs needed during Legs 3 and 4
Spring & Fall 2020	spring survey ended early (March 18) & no fall survey due to COVID
Spring 2021	started late (March 13) due to non-COVID medical issue with vessel staff
Fall 2022	loss of 14 days during Legs 1 and 2 due to COVID; weather also a challenge
Spring 2023	started late (May 8) due to delays with shipyard repairs; daytime only ops due to vessel staffing limitations

Less than 300 tows were completed and therefore fewer stations were covered.

The fall and/or spring multispecies bottom trawl survey informs assessments for 51 of 63 stocks assessed by the NEFSC. Assessments use multiple data inputs, not just these two surveys. Many are robust to “hiccups” in the time series, but the consistent performance problems are very concerning. The Science Center cannot know specifically how this year’s loss of stations will impact each of the assessments - this topic is addressed by management and research tracks as well as the Northeast Regional Coordinating Council (NRCC).

The presentation covered multispecies bottom trawl survey objectives and why the Bigelow is used for the multispecies trawl survey and some of the key constraints involved with using the Bigelow. Multiple initiatives prioritize the continuance of this time series.

Explanation of what is being done at multiple levels (NOAA NMFS, NOAA OMAO, NEFSC) to address these constraints. Fleet recapitalization plan, use of Inflation Reduction Act funds to support national survey program, advanced technologies, addressing communications & training, developing a written contingency plan identifying our options - pros and cons of each option, preferred alternatives. Review of advantages and disadvantages of using Industry vessels. Overview of request for proposals issued in 2016 for industry survey platforms. This resulted in no industry vessels that had the same capabilities as Bigelow.

- In discussion it was pointed out that the bar was set very high - why is the exception that they have to have the same specs as Bigelow? Can we lower the expectations? It was also noted that the industry has advanced since 2016, and there might be vessels that do have the same capabilities as Bigelow now.

Decisions to use industry vs research vessel are done for every survey and based on those survey needs as well as cost and logistics. As we develop a contingency plan, we plan to include industry vessels. Need NTAPs help to think through the contingency plan, review various options that are currently on the table.

Goal: consider options for multispecies bottom trawl survey when Bigelow sea days are unavailable -- contingency for the Bigelow time series. "In other words: Who would we call in October if we can't sample all of the stations with the Bigelow?"

Process: use decision matrix to help guide discussion around a complex topic. Helps identify the options that need to be considered. Helps identify areas of disagreement and gaps in knowledge. It does not necessarily give "the right answer." It serves as a guide to the discussion.

Options with considering the objective of the BTS:

1. Pisces - sister ship to Bigelow:
  - a. Sample what you can with Bigelow
  - b. Fills in for remaining stations
  - c. Replaces Bigelow if Bigelow unavailable
  - d. Must be kept in ready condition
  - e. No calibration needed
2. Bigelow + a NOAA research vessel calibrated to Bigelow
  - a. Sample what you can with Bigelow
  - b. Replace GM with larger NEFSC trawl vessel, have it on priority standby (if Bigelow loses stations and Pisces is unavailable, this vessel will pick them up and any other scheduled work will be postponed)
  - c. And .... Class C vessels in plan to come online in 10 years
  - d. Same problems? Staffing, prioritization, stymied by bureaucracy and/or contract timelines
  - e. Calibration needed
3. Bigelow + an industry vessel calibrated to Bigelow
  - a. Sample what you can with Bigelow

- b. Have industry vessel on priority standby (if Bigelow loses stations and Pisces is unavailable, this vessel will pick them up and any other scheduled work/fishing will be postponed)
  - c. Could also be a trawl-capable research vessel
  - d. Operational logistics are more complicated, particularly with last minute schedule changes, mobilization, etc.
  - e. Contracting uncertainty every 5 years (or less)
  - f. Calibration needed
4. Bigelow + another groundfish time series
- a. Sample what you can with Bigelow
  - b. Develop a 2nd time series with industry (preferred) or research vessels over same survey area (i.e., sampling frame)
  - c. Calibration - the 2nd survey could cover unsampled Bigelow stations
    - i. Would be calibrated and conduct 24-hour sampling
  - d. No calibration (2 separate surveys) - leaves gaps in Bigelow coverage
    - i. Similar to NEAMAP expansion concept
    - ii. Expansion of Canada's survey?
  - e. Consistent with calls for expanded survey effort
5. Other Options:
- a. Bigelow + small fleet of industry vessels
    - i. When sea days are limited, Bigelow targets GOM/GB and/or deeper Mid-Atlantic stations
    - ii. Have 2-4 additional vessels that can sample if needed, preference for industry-based, could be other platforms
    - iii. Calibration needed
    - iv. Considerable overlap conceptually with option 3 (Bigelow + calibrated vessel) but more complex
  - b. Bigelow + non-extractive sampling
    - i. Use Bigelow extractive sampling on subset of stations & acoustic/optic/eDNA on others
    - ii. Major change to survey approach, goes beyond the scope of Bigelow contingencies, disruptive to stock assessment process
  - c. No Bigelow - industry-based survey only
    - i. Major change to survey approach, goes beyond the scope of Bigelow contingencies, very disruptive to stock assessment process, risk of loss of biological, oceanographic and ecosystem data
  - d. Panel member suggestion for additional option? (*Nothing mentioned.*)

Suggested Decision Matrix Evaluation Criteria:

- Scientific value (data equivalent or better than what we have now)

- Feasibility (can be done)
- Reliability (option is available for 20+ years, standardized methods can be used)
- Flexibility (can be available with little notice for 1 or more days)
- Complexity (how hard is this to manage)
- Future impact (resilient to anticipated changes including offshore wind)
- Enthusiasm
- Others? (*Nothing mentioned*)

### Discussion and Questions:

Q: Who is the ultimate decision maker?

A: Jon Hare

Q: Model vs no model for stock assessment is a driver for the impact the BTS has?

A: Correct.

Q: Please explain cultural differences?

A: For example, ship operations vs scientist operation perspective. The way the science center conducts our work and the expectations we have for our work are different than a ship crews. For example, counting sea days, currently we don't consider a sea day worth counting unless it's collected data and enough data to really be a full day whereas a ship might count a valid sea day as long as we left the dock.

Q: What is the day rate for the Bigelow

A: \$16k/day - that is a close estimate. Includes staffing for OMAO personnel. **Kurt will confirm.**

Q: The NEFSC cost is operation cost only? Not staff?

A: That includes contractors but not FTEs.

Q: The daytime only sampling model is from Alaska?

A: Correct, based on their sampling needs and limits of onboard berthing. We do some 24-hour sampling on smaller vessels that can use smaller scientific crews.

Q: What are the problems with conflict of interest?

A: **Will follow-up and get back to you**

Q: Requirements for industry vessels need to be downgraded. Outrageous demands, very few vessel can meet those requirements.

A: That's a fair assessment. Original request was to replace the Bigelow capabilities. There are ways around the requirements listed and can still make it work but this introduces different challenges. This is background information to support the discussion ahead.

Q: How important is the autotrawl system?

A: That's a good question to ask in the decision matrix.

Q: Can you poach another region's research vessel?

A: Yes, that is currently our favorite option.

What is overlap with offshore wind? We pitched this as a Venn diagram trying to find options that meet a short-term contingency need, could be used in wind farms, and addresses the refit time period. Maybe that's not the right approach - take each in turn, instead.

Q: How would any of these options affect the problems from last few years issues?

A: Having a NOAA standby 90' vessel like the Pisces

Q: Does the Pisces have a separate crew?

A: Each ship has its own staff of OMAO mariners. These staff can shift from Bigelow and Pisces but there is an issue of project prioritization.

Q: My understanding that this year that the Pisces wasn't even set up to run- and no one available that knows how to use the otter trawl.

A: Yes, that was my understanding.

Q: If Pisces crew went on Bigelow there would still be issue of training and ability to run auto trawl.

A: We would look at using personnel or subject matter staff to help with staffing other vessels.

Q: think we really need to look at staff flexibility in evaluating options

A: 'likely to have adequate staffing is listed under the feasibility component of the decision matrix.

Q: like to comment on Industry run survey being a new style of survey and thus being disruptive to the stock assessment, cannot imagine it is more disruptive than current operations of the Bigelow (or lack there off). Would like to see a compromise decision matrix.

Q: Is the staffing a union issue?

A: OMAO is short on subject matter expertise and also working to fill positions.

Request letter to OMAO to get it done. Suggest higher pay and cross training for everybody. Allows for alternates for important roles.

The Panel discuss the decision matrix options:

With the Pisces and Bigelow schedule- hard to buy into. Nothing we are seeing on these surveys is matching what we (industry) are seeing on the water. If we start out a new survey with an industry vessel. I see no other way. Much more dependability than two RVs. Using Industry vessels for the platform has been an option and idea since 2014.

We can't be more disruptive to the stock assessments than we are today with no sampling. Index based and empirical assessments are driven by Bigelow and have resulted in lower allowable catch. Need to rescale the biomass first, need to calibrate to the Bigelow, but we are calibrating to something that is broken. Isn't this an opportunity to build on something where we feel like we are starting on a good basis. Industry vessel - yes, rescale biomass.

We need back-up plans. Especially for emergencies/last minute issues you need vessels on standby. Contract people to be on retainer. Pay them for 10 days. When an issue occurs with Bigelow they are already paid to go to sea. Uncalibrated vessels capable of towing Bigelow gear as a 5th option. Better than nothing.

Darana R has been doing survey work for 17 years and doesn't meet the RFP requirements. Need to lower expectations a little bit. What does the otter trawl gear performance bring to the table? Retainer can cause further funding issues. VIMS NEAMAP coverage is minimal, sampling density is very poor, not capturing distribution shifts, dietary changes. Combination of Bigelow and Industry based survey could be beneficial. No such thing as too much data. Figuring out how to augment the existing surveys what one goal of this panel. One problem that keeps resurfacing is needing to calibrate. Darana R has no vessel effect, if use restrictor cable to keep gear geometry consistent this data is as good as it gets. Vessel effect would be lesser of two evils.

Why is Gulf of Maine Bottom Longline Survey (BLLS) so successful and how is that different than the Bottom trawl survey? Short-term: what do we do in October if the Bigelow runs into issues again? Long-term: what do we do in the long term for a contingency plan. Both questions could have different answers.

Note: BLLS is different and smaller scale than BTS, BLLS is only GOM. Operating with commercial vessels, including crew and staffing, problems exist but so far, we have been able to overcome them. Need trawl vessel for BTS.

Agree, two solutions. One short term and another long-term when Bigelow is out for mid-life repair.

Industry vessels are available and capable of supplementing or helping with BTS, e.g., NEMAP, wind energy surveys. NEMAP has been a model for other surveys, someday these should go into a larger database. Think that NMFS should start to look now at how it can incorporate this data already being collected in various areas by multiple surveys. I have NEMAP nets and a vessel that is

ready to go. We do wind surveys 4 times a year and I can go in October for 10-15 days (for BTS). We can start to plan for that. Incorporating this data should be part of the plan for moving forward.

Even though we believe that vessels will make a difference in the catch, there are a lot of variables that go into these surveys. How can we change any protocol at all to make the data useful for stock assessments. Cost could be less too. Also, involving private companies for staffing- like observer program? How critical is the one missed year of data?

Net sensors on gear so lots of data from every tow, CTD cast also done with every tow. Capable of accomplishing what is needed. Great opportunity for industry involvement.

Two themes coming out. 1. Lack of trust coming from federal surveys. 2. Frustration with inability to complete survey year after year. What I have seen is that industry surveys are the answers to both those issues. 100% completion rate on industry scallop surveys. Scallop AP members never question population assessment - the debate revolves around where to fish and how much we can catch. Multiple survey methods are used and the differences in these collections are worked out in process, always have variance but they get worked out. Note: scallop surveys are for a single species; multispecies trawl survey is more complex.

Use Bigelow when working but be ready to fill in with the industry.

Q: Smaller surveys are more successful than larger vessel surveys. Why are they so much more successful?

A: Why smaller vessels may have higher success rate, only two people in charge (one science and one operations). Larger surveys have too many chiefs.

Need for contingency to offshore wind. Being nimble. Could do multi-vessel survey, fleet of vessels. Use standardized gear package to mitigate differences, maybe not collecting whole suite of data, some data is better than none, could work in wind areas.

Examples from Alaska like the Sable fish survey. The fishing boat does vessel operations. AFSC provides oversight scientist - work-up of fish is done by observers. These are ways to work on staffing issues.

Q: When it comes to the decision tree- is the industry capable of collecting the best scientific data available. Absolutely yes. But does the science center agree.

A: It's not about whether or not the vessel can collect the data or staff - it's more about whether we have protocols in place, the more vessels we engage in the system the more complicated, not that it can't be done. This is a multi-species survey; funding is an issue. I'd like to present solutions and

decide which are best. We may not need one option that meets every solution. A fair way to have multiple solutions for different needs can come from this exercise.

IRA funds could go a long way to solving trawl survey funding problems. IRA funds extend out to 2027 with a possible rollover.

Yellowtail survey and cod survey used multiple vessels. Lots of concerns did not calibrate (would have blown the entire budget). Set standardized protocol. Vessel sizes were not the same but comparable, we standardized everything else, I think we came up with a robust survey program. When things hit the fan, we have the capability to supplement with a multi-vessel approach.

Standardizing gear from the doors back since early 90's. Maybe 5 different vessels in monkfish survey, didn't worry about boat effect and standardized the gear.

Q: How to proceed with the matrix?

A: It was a tool to guide the discussion, not meant to be collected. **Next step is to draft a layout a variety of options and what each looks like. Return in the next few months, and present at the NEFMC meeting in Sep. 2023. (9/26-28/23)**

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## **LUNCH & SIMULATOR (11:45-2:00)**

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### **Offshore wind fisheries monitoring surveys & survey mitigation (K. Ford)**

#### **NEAMAP definition discussion (J. Gartland)**

From January meeting: Concerned about the "NEAMAP" brand being misused without NEAMAP approval, ROSA is working on creating a document of guidance after reaching out to BOEM asking what they can do. NEAMAP survey definition documentation is being worked out and will eventually be distributed.

Need to reach out to ASMFC NEAMAP committee, new staff leadership this spring. VIMS has been in contact with the new staffer- working on criteria document with protocols. Committee meeting in October.

Jim Gartland (VIMS NEAMAP) sent these following the meeting:

Documentation of VIMS NEAMAP protocols is here:

[http://www.neamap.net/publications/VIMS\\_NEAMAP\\_Peer\\_Review\\_Documents.pdf](http://www.neamap.net/publications/VIMS_NEAMAP_Peer_Review_Documents.pdf)



And the results of our peer review are here:

<http://www.neamap.net/publications/NEAMAP%20Survey%20TOR%20and%20Advisory%20Report%20Final.pdf>

Both of these docs have been available on [www.neamap.net](http://www.neamap.net), which was developed and is maintained by the ASMFC, since 2009. While some of the material is a bit dated now (i.e., the electronic data collection system has been upgraded), the data elements that we collect and the methods that we use to collect them remain unchanged. We did add the elements recommended by the peer reviewers. Feel free to use the information in these docs and/or share as you see fit.

### **Discussion and Questions:**

The original idea of NEMAP was to be an ASFMC umbrella for surveys. Some confusion about which surveys are NEAMAP or supported by NEAMAP.

Offshore wind survey in NY uses VIMS documentation, specification, gear company, standards, and tolerances.

Some think this might not be specific enough. Often offshore wind surveys will have in their fisheries research monitoring plan something like “fish collected will be identified, weighed, and enumerated consistent with the sampling approach of NEAMAP.” Whether they should or not is another discussion

### **Fisheries Resource Monitoring at Offshore Wind Farms (L. Methratta)**

Slide presentation about paper recently published ([Recent paper](#)) about how well offshore wind fisheries studies might address long-term assessment surveys done by the NEFSC.

The study concluded that the 67 studies being done across 9 offshore wind developments as they are currently being done and described are not able to serve as replacements/stand-ins/contingency for the NEFSC surveys.

### **Discussion and Questions:**

Q: What good is all this information gathered?

A: The studies have value to their stated goal to assess change or determine baseline (although in some cases, the baseline development is less than 3 years so is considered too short). However, the value of these surveys to replacing NEFSC sampling has not been explored until this study. Another challenge is that post construction monitoring is also limited to 5 years and really needs to be monitored for the entirety of the project and after as they are decommissioning. (Panel support for longer baseline periods and monitoring for life of projects.)

Panel members that are doing offshore wind studies indicated that they hoped by using NEAMAP protocol the data could be used by NEFSC. As to how to incorporate it is up to the Science Center. Those doing studies in wind farms are open to suggestions.

Discussion around the development of baseline and who decides what a long enough period is. Several panel members expressed frustration with BOEM's and NMFS' lack of authority to require a multiple-year baseline period. There needs to be strong coordination with feds and individual research institutes work in wind farms. ROSA also working to support coordination, standardization, and regional research.

Offshore wind sampling teams expressed that there are opportunities to coordinate, there is an informal working group that includes Cornell, Rutgers, and VIMS to share lessons and develop common practices. Would like NOAA to be more active in providing guidance and ensuring the data collection is more helpful. NEFSC stated that as part of the survey mitigation strategy there will be monitoring standards developed (note: NEFSC received funding to support offshore wind-related work for the first time in FY23).

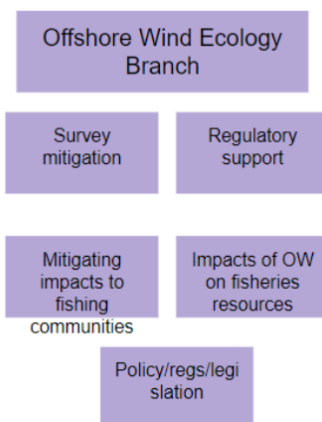
Data: Wind farms need to generate publicly available information not controlled by the wind farms. Unless these discussions are part of the construction and operations plan (COP) and in there it won't happen.

### **ROSA Database**

ROSA Science Director gave an overview of FishForward database available on their website.

### **NEFSC reorganized with the creation of a wind farm team.**

- Partial permanent funding received.
- Supporting staff hiring and research (including external grants).
- Branch Chief is Andy Lipsky
- Going into Population and Ecosystems Monitoring and Analysis Division in FY24 (October 2023)



## Survey specific mitigation plans

Northeast Survey Mitigation Implementation Team (NESMIT)

- Meets every 2-4 weeks
- Working toward implementing [Strategy Actions](#)
  - Organized the team
  - Prioritized the action item list (14 items)
  - Take action on timely actions
    - ROD for Ocean Wind
    - <https://doi.org/10.25923/jqse-x746>
  - Identify other needs and address as pertinent

## Bottom trawl survey mitigation plan

The Bigelow will not be able to tow in wind farm areas; developing a survey specific mitigation.

Two major projects right now:

1. Survey Simulation Experimentation and Evaluation Project (SEEP) - CINAR grant to Gavin Fay
  - Develop a spatial modeling framework to simulate a variety of abundance and distribution scenarios that can be used to evaluate modified survey designs.
  - Project Website: <https://thefaylab.github.io/sseep/>
2. Working with Saltwater INC., Paul Rago.

Propose and evaluate alternative statistical sampling designs including a hybrid spatially balanced random and fixed sampling design in the vicinity of survey regions that may not be accessible in future years.

## Discussion and Questions:

Q: Clarification requested on design where OMAO had said NEFSC can't tow

A: 1 by 1 nautical mile area.

Q: Can we ask BOEM for allowance, has OMAO figured out a vessel length or wind farm spacing that will work? They won't go in them but how close will they go to them?

Note: expectation is that OMAO won't even steam through that area.

A: I have not heard that they won't transit through them. I think they do not go within a 1-mile buffer but **needs to be confirmed**.

Statement by member of the public: wind & BOEM should be required to construct survey equipment similar to electro fishing for freshwater. Use electro survey equipment - it should be built because wind farms generate electricity.

## Bottom Long Line Survey (Dave McElroy)

- Vessels small enough to continue to fish and navigate the area

- Fish 2 shorter inline but separate sets of BLL gear on either side of WE structures - treat as 1 'station' analytically
  - 2 x 0.5 nm (500 hk) sections of the BLL - standard set ~ 1nm (1000 hk)
  - Set them end to end divided by wind infrastructure
- Preclusion from some areas could impact spatial coverage and station density
- May be able to test this mitigation strategy in the GOM Research Array
- Sources of Uncertainty:
  - Final wind energy areas are TBD and may only impact some portions of the BLLS region
  - Floating wind anchoring structures are not fully known and configuration could vary among the companies. Design choices could facilitate easier or further limit access to the WEA's
    - If vertical mooring lines may be able to do a full set
  - GOM research array is outside BLLS footprint
  - Nighttime operational capacity w/in floating wind?
    - Insurance coverage could possibly limit
  - Both Captains believe we may be able to fish w/in
  - But contingent on final structures and orientation

### Discussion and Questions:

Q: Is it possible to see the data from past years overlapped with the areas to simulate impact?

A: Could be done, need more analytical capacity for that.

Q: What would it mean for your catch to have two shorter lines? Is there a separation that would be sufficient to make it work?

A: One thing we have proposed is to get funding and support to test that.

Q: The floating component is so new we don't know what it's going to look like. Will be interesting to see what kind of spacing the BLL will be able to get.

Brief discussion of floating wind, buffers, and habitat types (mud). No clarity yet where wind farms in the Gulf of Maine will be.

### Hook and Line Survey Pilot Project

The cooperative research branch was asked to develop another fixed gear survey to help mitigate loss of trawl survey in the wind farm areas. We are designing a pilot hook and line survey.

Goal: Develop and test the methodology for a new hook and line survey that can be safely deployed in any habitat type and alongside offshore wind turbines and provide data continuity for species in the Northeast region.

### Approach:

- Develop survey design, gear, operations, and protocols in partnership with fishing and science communities (summer/fall 2023)
  - Learn from Southern California Hook and Line Survey (NWFSC)
- Conduct pilot hook and line survey in the Gulf of Maine, Southern New England, and Mid-Atlantic in spring 2023 (in/around existing wind energy areas)
- Review operational success and challenges, analyze data to assess selectivity of gear, and identify necessary modifications to achieve survey goals (fall/winter 2024)
- If interested in participating, please keep this in mind: **the goal is not to start a new survey or time series. It's to pilot operationally how a hook and line survey would work. Are we getting numbers where we can assess biomass over time and space?**

### Discussion and Questions:

Q: Are you going to survey all of Gulf of Maine or just inshore

A: We have a depth range and hope to cover a majority. Some will be in the wind farm area and some will be outside for comparison. This uses jigging so will be an on-shelf survey.

Q: slighter difference in gillnet survey. Trickier in some sense- gill net may be a better gear type.

A: During the pilot will assess what we are catching and size distribution to see if it's what's needed. Gillnet is not a viable tool in the northeast due to permitting and where we are with protected species.

There was a brief discussion of gillnet technology, even with varying mesh sizes it's never the right size for what you want to catch - gillnets have a lot of limitations too. Soak time is also hard to figure out if you're targeting multiple species. What about fish pots? Saturation issue, protected species. Danish seining? Hasn't been investigated.

### Offshore wind news

- Vineyard Wind is going to prioritize installing foundations through the rest of the summer/early fall to meet pile driving time restrictions. Likely start in October.
  - Only the bottom portions of the foundations will be visible above the water instead of the additional transition pieces with navigation day markers and lights. Temporary navigation aids will be installed on top of the bottom portions of the foundations.
  - Navigating through this area may be a bit more difficult given the lower profile of the bottom foundation pieces.
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## **Restrictor Rope Research (A. Jones)**

### **Presentation - focused on conclusions.**

#### Motivation for work

- Evidence in literature for improved trawl geometry with restrictor ropes
- Less information on potential impacts on catch
- Some suggestions that it can impact catches of semi-pelagic species
- Has not been recently explored in the northeast U.S.
- Increasing international interest in restrictor rope impacts
- Restrictors have been used in Norwegian surveys
- Discussed in recent (2022) ICES workshop on the development of the new IBTS GEAR

#### Results:

- Subtle differences in gear metrics (which we expected based on the depths sampled)
- Limited impacts of the restrictor rope on aggregate catches of seven species
- Limited impact on the catch-at-length for seven species as well
- Limited impacts of the restrictor rope on aggregate catches of seven species
- Limited impact on the catch-at-length for seven species

#### Conclusion:

- We observed limited impacts of the restrictor rope on catches
- Worth considering the positive impacts of the restrictor on standardizing gear performance when surveys in wind energy areas are being developed
- Specifically, in scenarios where standardizing net geometry is likely to be more important (e.g., when a large depth range is covered by a survey, or multiple survey vessels may be used)
- In the context of offshore wind, this could potentially help improve consistency across wind developments and help researchers identify cumulative effects
- One caveat is that we do not have enough data to definitively say that there is no effect of the restrictor rope for all species, but we have some confidence based on the diversity of species sampled through this research

#### Next Steps:

- Drafting manuscript for peer review
- Shared with NEFSC/VIMS/Darana R
- Editing and hope to get to full panel soon
- Will likely target fisheries journal such as ICES Journal of Marine Science
- Present work to NEFMC/MAFMC as next step?

### **Discussion and Questions:**

Panel consensus is that this is an impactful study and worthwhile, will be a good tool to put on industry vessels. Should be published and the Journal of Marine Science is okay. Experience from Darana R is that it is easy to deploy, uncomplicated and works well with offshore wind research they are doing. **Next step would be to use it one two or three vessel platforms to test if there is a vessel**

**effect.** If no vessel effect, then it can be used on all vessels in the future without needing to calibrate. One panel member recommended using two vessels (e.g., Heather Lynn, Bulldog) to conduct the surveys use and assess the vessel effect. This would be extremely useful for NEAMAP survey as well.

Brief discussion about using it on the Bigelow. The perspective is that it should be tried. (Note: NEFSC trawl survey lead unavailable to address this topic.) Concern expressed by one panel member that turbulence might be a problem.

Brief discussion of upcoming wind surveys that SMAST is doing, 3 or 4 will start very soon. A good time to implement this, would allow use of industry sized doors. Planning on staying with what they're doing **unless some push from BOEM or NOAA.**

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### **Brainstorm next research project (POSTPONED)**

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### **Wrap up & adjourn (D. Salerno)**

#### **Discuss membership changes, need for new members?**

Only Dustin Gregg is stepping down that we know of.

Bobby Ruhle will be able to represent ASMFC even though he's joining the MAFMC as a Council member.

#### **Scheduling next full panel meeting (if in the fall, planning for a virtual meeting)**

- Will meet virtually this fall
- Please bring ideas to the panel
- Continued with decision matrix
- Hannah Hart will continue to send out monthly email
- December orientation meeting – likely virtual meeting
- Planning for January 2024 for next full NTAP meeting (in-person with virtual option)?
  - Group agreed with plan
- Location preference: TBD

#### **Scheduling next Working Group meeting:**

NTAP working group will address Bigelow contingencies. Pisces is on standby for the fall, but NTAP should weigh in on a contingency plan with multiple strategies to pursue. Will get input from Council's after this fall's meeting, too.

Working Group volunteers are Terry Alexander, Bobby Ruhle, Dan Salerno, Jim Gartland, Anna Mercer, Vito Giacalone, David Goethel, and Eric Reid.

**Kathryn and Hannah will follow up.**

**Topics for next meeting**

- Papers shared in monthly update
- TRAC meeting outcomes

**Feedback on monthly update emails**

**Previous email from Chris R. should be shared with the entire panel**

**Adjourned 4:57 PM**

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## Northeast Trawl Advisory Panel Working Group Meeting

### - Agenda-

**Tuesday, September 5, 2023**

10:00 a.m. -12:00 p.m.

#### **Webinar Details:**

<https://midatlanticfisheriesmc.webex.com/midatlanticfisheriesmc/j.php?MTID=m79b025ca0641f957aae5a62af6bfa3ad>

Meeting number (access code): 2333 975 8341

Meeting password: NTAP\_WG\_Sept2023

#### **Join by Phone:**

U.S. Toll: 1-415-655-0001

Access code: 2333 975 8341

*Please only use this option if you are not connecting to the webinar on your computer or device.*

*Otherwise follow the audio connection prompts to call in when you join the webinar.*

Time	Topic
10:00-10:15 a.m.	Welcome, Introductions, and Logistics
10:15-10:45 a.m.	Develop Terms of Reference (TOR) and review scope of project
10:45-11:45 a.m.	NEFSC Survey contingencies discussion <ul style="list-style-type: none"><li>• Review process and timeline</li><li>• Discuss communication strategies</li><li>• Discuss outline for survey contingency options</li></ul>
11:45 a.m. -12:00 p.m.	Plan next meeting & adjourn

**Northeast Trawl Advisory Panel Working Group**  
**Webinar Meeting Summary**  
**September 6, 2023**

**Working Group Attendees:** Kathryn Ford, Dan Salerno, Wes Townsend, Jim Garland, Robert Ruhle, David Goethel, Eric Reid, Philip Politis

**Additional Attendees:** Hannah Hart, Alex Dunn, Drew Mankiewicz

The Northeast Trawl Advisory Panel (NTAP) created a new Working Group at their July 20, 2023, meeting in Baltimore to address contingency plans for when the NOAA Ship Henry B. Bigelow is not operational or for other reasons that it cannot be used to complete the federal bottom trawl survey. The Working Group met for the first time via webinar on Tuesday, September 5, 2023, to discuss several topics including terms of reference, a potential timeline, and possible contingency options.

**Key Discussion Points and Working Group Recommendations**

- The group agreed on principles and terms of reference:
  - *Describe vessel platforms that can support completing the NEFSC spring and fall BTS when the Bigelow is unavailable.*
  - *Assess the viability of the platform(s) and platform deployment needs from logistical and scientific perspectives and identify where additional information is needed to fully develop a given option.*
  - *Consider options that at a minimum meet stock assessment needs.*
  - *This effort should produce a relatively high-level overview of options and identify information gaps.*
- The group agreed to meet virtually roughly every two months to meet the tentative timeline below.
- Engagement of non-NTAP members was encouraged, particularly additional NEFSC (e.g., Population Dynamics Branch, etc.) and NOAA Office of Marine and Aviation Operations (OMAO) subject matter experts.
- The group agreed that the general approach and organization of the draft contingency option document is acceptable, but it was noted that it will be hard to determine how many data requests will be needed or can be accommodated in a timely matter.
  - It was noted that they will have to treat data requests on a case-by-case basis and keep pushing along given the short timeline.
- There was discussion of an industry vessel option and the scope required to consider this option:
  - To the extent this option would use the same design as the current survey this option would be within the agreed upon scope of the group.
  - To the extent it would use a new design and be more along the lines of designing a new/future multispecies survey it would not be within the agreed upon scope of the group.

- However, it was noted that the group should not limit themselves as to what they suggest for future work to the Councils.
- Understanding the key parameters that must be collected to be considered a “Bigelow contingency” would be helpful - does everything need to be collected or can less data be collected and still provide data useful to assessments?
  - The assumption is that some data is better than no data.
  - This topic needs to be assessed and further discussed.

### **Tentative Timeline for Working Group**

- August 2023: Determine NEFSC staff participants; check with NTAP to see if anyone else wants to participate; send doodle poll for first working group.
- September 2023: First virtual meeting with working group.
  - Write the TOR and review scope of the project.
  - Review process and calendar.
  - Discuss how to communicate.
  - Discuss outline for contingency options.
  - Plan next meeting.
- October/November 2023: Request comments on the draft contingency plan outline.
  - Comment deadline prior to November working group meeting.
- November 2023: Working group meeting (3-4 hours).
  - Discuss the outline and describe each option.
  - Assess the need for another meeting to discuss options.
- Send Draft 1 to working group by January 5, 2024
  - Comment deadline about 45-days
- Between January 5 and February 16, 2024: Working group meeting.
  - Follow up on questions from November.
  - Discuss first draft of the contingency plan document.
- February 16, 2024: Working group draft 1 comments due.
- Week of March 4, 2024: Working group meeting to discuss changes and assess need for a 2nd draft.
- April/May 2024: Finalize document; determine distribution list and process.