

Northeast Trawl Advisory Panel Meeting

~ MEETING SUMMARY ~

Thursday, March 17th, 2022

9:00 a.m. - 1:00 p.m.

Virtual

I. Participants

A. NTAP Members:

Name	Affiliation
Wes Townsend	MAFMC Co-Chair
Tim Miller	NEFSC
Terry Alexander	MAFMC Stakeholder
Robert Ruhle	ASMFC Representative
Pingguo He	NEFMC Scientist
Mike Pol	NEFMC Scientist
Michael Sissenwine	NEFMC Co-Chair
Jim Gartland	MAFMC Scientist
Daniel Salerno	NEFMC Member
Dan Farnham	MAFMC Member
Anna Mercer	NEFSC
Chris Parkins	ASMFC Representative
Emerson Hasbrouck	MAFMC Stakeholder
Kathryn Ford	NEFSC Lead
Phil Politis	NEFSC
Vito Giacalone	NEFMC Stakeholder
Dave Goethel	NEFMC Stakeholder
Dustin Gregg	MAFMC Scientist

B. Other Participants:

Name	Affiliation
Katie Burchard	NEFSC
Andy Jones	NEFSC
Jason Didden	MAFMC
Frank Mirarchi	Stakeholder
Jessica Blaylock	NEFSC
Maggie Ball	NEFSC
Gareth Lawson	Conservation Law Foundation (CLF)
Sam Novello	Gulf of Maine Ocean Resource Alliance (GOMORA)
Melanie Griffin	MA DMF
Kelly Whitmore	MA DMF

Dave Sullivan	GOMORA
Dave McElroy	NEFSC
Jon Grabowski	NEU

II. Summary Discussion Points by Agenda Topic:

(Action items identified in red)

A. Welcome, Introductions, Logistics

Welcome by Kathryn Ford and Mike Sisseweine. Mike Sissenwine announced co-chairs will rotate facilitating the meetings. New members welcomed: Dan Farnham, Emerson Hasbrouck, Michael Hillers, Dan Salerno. Matt Seeley, the previous MAFMC staff support, left MAFMC and Jason Didden is taking over for Matt with logistical help on the MAFMC side of things until Matt's backfill is hired. Jason will assist with transitioning the backfill to NTAP.

- **Brief review of recent activities for the benefit of new members and to contextualize many changes over the last two years.**

Ford provides a brief review of NTAP activities starting in 2020 to present.

- NTAP met in August 2020 - discussed research priorities (led to voting process b/w meetings)
- Fall/winter 2020-2021 Wendy Gabriel retires, Jon Hare becomes NEFSC Staff Lead; NEFSC has funds available for NTAP research
- Dec 2020 - Moulton letter to NEFSC with recommendations based on task force report
- NTAP met in January 2021 - discussed charter and research priorities
- NTAP met in March 2021 - decided on restrictor rope research and process for updating charter
- NTAP met in July 2021 - revised charter to send to Council, updates on restrictor rope study planning; Kathryn Ford introduced as NEFSC Staff Lead
- Councils approve changes to the charter (August 2021 - MAFMC; September 2021 - NEFMC)
- Oct 2021 funds awarded to GMRI/NEU and SMAST for Moulton groundfish work
- NTAP membership application and selection process in Oct 2021 - Jan 2022, 4 new members; Matt Seeley leaves MAFMC, Jason Didden becomes MAFMC Staff Lead
- Research Working Group met in July and November 2021
- Research Working Group Starting field work in June 2022

Questions/Comments:

Question about how working group members were selected (a poll for volunteers occurred for the smaller subgroup to work on details for research).

B. Center Updates

Kathryn Ford gave NEFSC update.

- **Fall & spring survey update**

Fall 2021 survey occurred 9/11/21 - 11/15/21. Summary was released on 11/30/21.

Spring 2022 under way now. Started 3/1/22. Can have access to survey reports online at

<https://repository.library.noaa.gov/gsearch?collection=&terms=resource%20survey%20report> where you can filter by year, NEFSC and non-series report.

Data and metadata is available in InPort: <https://www.fisheries.noaa.gov/inport/>

Trouble with access? Just reach out to NEFSC - Kathryn Ford or Phil Politis.

- **Miller chainsweep update**

Use of this research in assessments is summarized in tables for [2019](#), [2020](#), and [2021](#)

- **Area-swept / wingspread update**

Use of this research: StockEff (formerly known as ADIOS) was updated to factor in the actual swept area measurement recorded with each tow when expanding catch in late December of 2021. All 2022 assessments and beyond will include swept area as a factor.

- **Decoupling Time Series**

CINAR grant research led by Dr. Steve Cadrin at the School of Marine Science and Technology. Cole Carrano is a student working on the project. They used a statistical catch-at-age model to compare performance of a single calibrated survey series to separate *Albatross* and *Bigelow* time series in applications to several stocks of New England Groundfish. Preliminary results show promising improvements in index fits and variable results for index age composition fitting.

- **NTAP orientation document**

Kathryn Ford asked for volunteers to help review and complete orientation document – Mike Pol, Dustin Gregg, and Dan Salerno volunteered. **Kathryn will follow up with them after the meeting to discuss a plan.**

- **Wind - Survey Interactions**

- **SSEEP Workshop Report:** two workshops completed Jan and Feb 2022. Final report should be available in early Fall 2022. SSEEP = Survey Simulation Experimentation and Evaluation Project
- Congress did not support survey mitigation budget in FY22 for offshore wind
- NEFSC did receive some funds for science support for regulatory needs
- Map with black sea bass bottom trawl survey tows that would be impacted by wind farm development from GIS online mapper that Fay group put together for SSEEP project.

- **FY22 budget passed, will know more in about another 30 days.**

- Funding for NTAP not looking promising.
- NEAMAP funding- the omnibus appropriations bill passed a few days ago. It directs NOAA Fisheries to "fully fund both Northeast Area Monitoring and Assessment Program (NEAMAP) trawl surveys, including the Maine-New Hampshire Inshore Trawl Survey." Will know more in a month once funding is received.
- BOEM and NMFS are releasing a draft survey mitigation implementation strategy soon and there will be an opportunity for public comment in the next couple of weeks.

Questions/Comments:

Are "accepted" and "null" tows from the BTS available in survey reports, interested in Fall 2021. –Yes **NEFSC send BTS summary report to all NTAP members**

Note for the SSEEP Project that timing of surveys is potentially important for determining relative abundance indices for stock assessments.

C. Bottom Longline update

Anna Mercer provided an update on Bottom Long Line Survey (BLLS).

- 45 random-stratified stations samples in spring and fall, coincident with NEFSC trawl survey.
- Products include indices of abundance for stock assessments (haddock, hake, wolffish, cod and skate)

Dave McElroy presentation. Presented recent research focused on determining if cod and white hake are less available to the BTS due to greater occurrence in structured habitats. Compared catches from the bottom longline survey to bottom trawl survey.

Analyzed Size Composition comparison between BLLS and BTS

- Data from 2014-2018
- Data from all rough strata for BLLS and from strata used in each assessment for BTS
- Length compositions were compared using the stratified mean abundance at length
- Bhattacharyya coefficient as a measure of overlap of the length frequencies

Conclusions:

- Big differences at the smaller sizes, not surprising with small fish being poorly represented in the BLLS catches.
- Some evidence that habitat could influence the availability of large white hake to the BTS.
- No evidence for habitat-related availability for large cod to the BTS
- Survey comparisons were consistent with comparisons between BTS and commercial landings data
- Results support the continued use of dome-shaped selectivity for white hake in BTS
- Results support the continued use of asymptotic selectivity for cod in BTS

Questions/Comments:

Several specific questions about the BLLS. Recommendations included

- The survey uses gear configuration similar to commercial tub gillnetters (BLLS uses same outside of number of hooks and length of line fished)
- Parse out data from management areas (BLLS drops data from strata that are not relevant to the assessment)
- If a lot of haddock in the area, can't rule out that cod are not present (just not biting), cod won't bite during spawning when they move in large clusters, speak with fishermen about whether a large haddock would be biting hooks with smaller cod present and not biting the hooks? (Gape size and fish behavior likely do affect catch and he does have conversations with captains on things such as this. **NEFSC will ask captains this specific question at upcoming BLLS meeting**)
- Timing of the survey can affect species composition and must be considered. (Survey consistently goes out end of April to early May in spring and end of October into early November in the fall. The composition has been generally consistent. Dogfish are always at the top. Other species fluctuate a bit and we think that is related to biomass, however temperature can be a big factor in fish availability.)
- Is the BLLS used in parallel, in replacement or combined with BTS in assessments? (Starting to be looked at to inform the assessment. When the series is long enough it would most likely be used in parallel to complement BTS.)

Jon Grabowski presentation. Examining Habitat Characteristics and Spatial Footprints of Key Groundfish Stocks (GMRI/ NOAA CINAR).

Dr. Grabowski provided some background on the Congressman Moulton Groundfish Trawl Task Force. It was formed in 2015. Work just started, this presentation is about research objectives and approach.

- Objective 1: Explore the degree to which groundfish stocks use structured habitats
- Objective 2: Quantify the spatial and temporal footprints of groundfish stocks in the Gulf of Maine
- Approach:
 - Quantify relative abundance of groundfish species in simple intermediate and complex habitats using the longline survey
 - Compare with bottom trawl survey catch rates in areas with simple and intermediate complexity where trawling is possible
 - Use the two surveys to estimate densities in complex habitats that are unable to be towed.

Questions/Comments

- Look at the Study Fleet data to see the shift from targeting Cod to other species. (Dr. Grabowski plans to include Study Fleet as one of the sources of data.)

D. Working Group Report

Jim Gartland presentation. Update on the Restrictor Cable Experiment sampling design.

- Research prioritized by the panel in 2021. Objective was to implement an ABBA experimental design to evaluate possible changes in catch composition, catch rate and size distribution due to the addition of a restrictor rope between the doors of the 400 x 12 cm, three-bridle four-seam survey trawl package used by NEAMAP.
- Timeline: work will be tagged onto back of spring NEAMAP survey (early June) and beginning of fall NEAMAP survey (early September)
- Site: Chosen for consistency in depth, bottom types and gear performance without restrictor rope.
- Design considerations: stratified random sampling
- Budget: 170k; 162.2 available after overhead
- Effort:
 - -NEFSC leads field data collection and analysis; VIMS supports
 - ~20 sampling days on the Darana R
 - expect 65-85 paired tows (split between spring and fall)
- Species of interest: scup, butterfish, longfin squid, black sea bass, silver hake, Northern sea robin, spotted hake. Secondary species: little skate, summer flounder, winter skate, window pane, winter flounder. Data will be collected on all fish caught.
- Operational consideration: Spatial offset of pairs 1/8n.mi(0.25 km); attempting to sample same assemblage while minimizing disturbance. Lewy et al 2004 methodology was discussed but the approach was rejected at this time by the working group.
- Towing protocol: NEAMAP: 3.0 kts, 20 minutes, HL 4.7-5.8m, ws 12.3-14.7 m, randomized starting position
- Data elements:

- Tow-level: Site id, restrictor/no restrictor, date and time, positions and direction, speed, net geometry, warp length, tow track depth
- Biological: Species id, aggregate weight, count, individual length
- Hydrographic: water, temp, salinity, dissolved oxygen concentration
- Atmospheric data elements: Air temp, wind spd & direction, barometric pressure, sea state, general weather.

Questions/Comments:

- Recommend you add turbidity or light intensity measurements. (good idea, we could get a measure of water clarity)
- Recommend using door sensor (Yes, sensors will be used. Simrad Px system)
- If found there is no impact of the restrictor cable what would be the consideration of standard use of restrictor cable in surveys. (Can be used to standardize various supplementary surveys including wind surveys. Results not intended to be applied to the BTS to be used on the Bigelow to address over spreading.)
- Will fuel cost affect research? (enough buffer in budget so not expected to right now)

BREAK

E. Future priorities for NTAP

Discussion on what's next for NTAP after the restrictor cable research is complete. Possible areas of focus are laid out across three different topics in the NTAP Charter:

- Understanding the trawl gear performance and methodology
- Evaluate the potential to complement or supplement current NEFSC surveys
- Improving understanding and acceptance of NEFSC trawl survey data quality and results

Key points: account for progress that has been made by NTAP and beyond; consider ranking the priority of each based on our ability to improve our ability to address that problem.

Materials for the discussion: a word document listing the topics that was on-screen during the discussion and an Excel document that listed all topics and sub-topics that was provided as part of the meeting materials.

Summary:

- Topic A: Understanding the trawl gear performance and methodology: Important for NTAP to consider. Specific topics that received support included impact of tow duration on catch (especially of larger fish), wingspread (more twin-trawl studies), and standard “survey lanes” or fixed station designs being considered in the face of offshore wind development. Several mentions of the issue of timing of the survey. Some disagreement - some members expressed “tweaking the gear” less important than bigger survey design questions around spatial/temporal sampling. Specific subtopics discussed as important were A-1 Survey design (station selection, temporal, and spatial considerations) which was recommended to be coupled with B-1 Inter-calibrations between industry vessels and NOAA FS/V Henry B. Bigelow and FS/V Pisces and A-2 Survey operations.

- Topic B: Evaluate the potential to complement or supplement current NEFSC surveys: Important for NTAP to consider. Broad support for this topic, especially creating standardized gear packages so multiple vessels can contribute data to assessments. Must start to consider multiple survey gear types since mobile gear may not be able to operate in wind farms. Support for working on commercial platforms. Broad agreement that NTAP needs to consider the impact of offshore wind development on surveys. Specific subtopics that were discussed as important included B-1 Inter-calibrations between industry vessels and NOAA FS/V Henry B. Bigelow and FS/V Pisces. This would allow industry partners to supplement survey activity and be better positioned to perform the survey in the event that the Bigelow is not available, B-2 Increased trawl survey station density using industry vessels. This effort may improve precision of indices for species that are presently at low abundance, B-3 New industry-based surveys to supplement/complement existing research trawl surveys. This might include fixed-gear surveys in untrawlable habitat or a dedicated trawl survey for bottom tending species, and eDNA.
- Topic C: Improving understanding and acceptance of NEFSC trawl survey data quality and results: One NTAP member directly addressed this topic and felt it was not worthy of further consideration since commercial fishermen fish so differently than the survey operates. Not worth the effort to pursue this. Another NTAP member addressed the topic of more ecosystem based science using big data approaches and better communication of limitations and confidence in survey results (*note: this was mentioned in the section of agenda where wingspread was discussed, but included here due to its relevance to priorities*).
- Role of NTAP in offshore wind. Wind is a priority of NTAP, as it is a priority of the Councils. This led to the recommendation of survey lanes as an area of consideration. Could have a working group within NTAP focused on wind.

Action items: co-chairs determine how to proceed

F. Other Business

- **Bigelow gear performance**
 - Capt Sam Novello noticed that net was overspreading on the Albatross
 - When the survey changed over to a stern trawler, the distance between warps was not addressed and it contributes to the overspreading problem
 - Would like to try putting the two main wires together when towing to see if this addresses or helps to address the overspreading issue.

Summary: NTAP members described swept area study which addresses the concerns raised for several species, if additional swept area work gets prioritized, the method Capt Novello described is an approach to consider. NEFSC noted that based on the results of the swept area study the NEFSC is now using swept area biomass in stock assessments, as of Dec 2021.

- **Next WG meeting in April**
 - End of April
 - Jason will send out a Doodle Poll

- **Timing for next Full Panel meeting**
 - Jason will send out a Doodle poll will be sent out to schedule July meeting
 - Plan on virtual but expectation is to return to in-person meetings maybe in Nov/Dec
- **Budget update** (*note: this was discussed under the NEFSC update section of the agenda*)
 - Jason will look into MAFMC funding for NTAP travel, operations
 - No current funds in NEFSC budget for additional NTAP research

ADJOURNED 12:30