

Northeast Trawl Advisory Panel Working Group

-Webinar-

3 August 2020, 1:00 p.m. – 4:00 p.m.

I. Attendees:

Name	Affiliation
Anna Mercer	NEFSC, CRB
Bill Gerencer	MAFMC Stakeholder
Dustin Gregg	MAFMC Scientist, VIMS
Jim Gartland	MAFMC Scientist, VIMS
Mike Pol	NEFMC Scientist, MA DMF
Philip Politis	NEFSC, ESB
Robert Ruhle	ASMFC Representative, MAFMC Stakeholder
Terry Alexander	NEFMC Member
Tony DiLernia	MAFMC Member
Vincent Balzano	NEFMC Member
Wendy Gabriel	NEFSC, PEMAD
Tim Miller	NEFSC, PDB
Andrew Jones	NEFSC, CRB
Matthew Seeley	MAFMC

- II. **Introduction:** Fishery-independent surveys in the region have been evaluated on a survey-by-survey basis at a national level since March, to determine safe execution in the face of COVID 19. Three separate safety protocols apply to OMAO (NOAA Office of Marine and Aviation Operations, Bigelow), UNOLS (University-National Oceanographic Laboratory Systems, Sharp), and charter vessels (e.g., Gulf of Maine Longline Survey). These protocols affect operations differently depending on the cruise type, but all cruises to date have been cancelled. The Gulf of Maine Longline Survey protocol is still undergoing national review. In the face of these restrictions, the number of sea days available for future surveys will likely decline or be configured differently. Protocols also may evolve over time as new information is available.
- III. **Working Group Introductions, Roles and Responsibilities:** Within the NEFSC, Anna Mercer will contribute facilitation and cooperative research expertise to make progress on fieldwork, and help identify and prioritize; Phil Politis contributes perspective on what the NEFSC bottom trawl survey does, its standard protocols, survey gear, Bigelow operations (e.g., how Working Group proposals could affect operations, and survey expertise; Tim Miller provides expertise in statistical methods, quantitative modelling and can recommend analyses for research topics to maximize probability of being used within an assessment; Andrew Jones provides expertise in execution and analysis. Wendy Gabriel serves as the NEFSC point of contact. (Katie Burchard contributes to and executes planning and organizational abilities.)

From an industry and Council perspective, Terry Alexander brings expertise in gear operations, to improve or advise on improving catchability, and has worked with Center personnel (Phil Politis) on door performance; Vincent Balzano has combined significant fishing and collaborative research survey experience and an interest in communication; Robert Ruhle has experience in gear operations and innovations, NEAMAP survey execution, and is also providing industry perspectives to ROSA on data collection in wind farm areas. Bill Gerencer has been involved in commercial fishing and processing, has worked with MIT Sea Grant on gear evaluations in flume tanks, has served on the Groundfish Advisory Panel and is interested in future planning. Tony DiLernia brings fishery background and is also interested in future planning, especially in the context of impacts of wind farms on future survey operations.

State partners and researchers include Jim Gartland, who, as a principal in the NEAMAP surveys, provides expertise in the execution of surveys, development of new surveys and improved efficiency of surveys (financial and gear). Dustin Gregg is the Chief Scientist for NEAMAP surveys, with experience in logistics, execution and protocol development for surveys. Mike Pol, MADMF, has researched gear development and trawl net design, executed multiple gear comparison experiments, and is affiliated with the Massachusetts DMF trawl surveys, under the NEAMAP umbrella.

- IV. **Objectives of 2020/2021 NTAP Research:** Based on initial responses to an earlier poll and discussion in the course of the Working Group meeting, the following objectives were prioritized:
1. Characterize the differences in catch rates between the NEAMAP and NEFSC trawl surveys in a pilot project focusing on Mid-Atlantic inshore strata and species.
 - a) Are the differences greater than we would expect due to sweep type alone
 - b) What sample sizes would be necessary to develop calibration coefficients for those species?
 2. Extend chain sweep-rockhopper sweep catchability experiments focusing on Georges Bank winter flounder and potentially Georges Bank cod.

Background discussion, other alternatives: There were continued concerns about door performance and bottom contact that remain unresolved. Working to intercalibrate the NEFSC survey with the more-trusted NEAMAP survey could potentially serve as an intermediate step while those concerns were addressed over a longer time frame.

Background discussion, NEAMAP-NEFSC catch rate comparison (“side-by-side”):

An initial NEAMAP-NEFSC comparison would inform whether differences in catch rates are due primarily to sweep differences (after correction for area swept), or whether other factors could be operating.

Development of calibration coefficients can require a broader focus; this effort would be a pilot rather than necessarily producing estimates of calibration coefficients.

This approach could also be used to investigate what would be required to substitute a smaller vessel to sample in wind energy areas.

There was interest in using NEAMAP as a more certain standard and calibrating NEFSC rates to NEAMAP. Any catch rate calibration between the two surveys would introduce additional uncertainty associated with the calibration coefficient itself, however. Some species may have different coefficients of variation by survey type; there may also be more variance in NEFSC numbers because of a wider range of sampled habitat types. Finally, any emerging calibration coefficients may differ in certainty from species to species.

Work would have to be conducted in NEFSC strata areas, because NEFSC cannot access shallow NEAMAP strata. [Depth restrictions to NEAMAP operations – missed this part]. Depending on depth and species restrictions, work may not be applicable to offshore/deepwater species. The most consistent performance of NEFSC gear configuration is in the 40-80 fm depth range, while most concerns about bottom contact are at deeper depths. Moving into deeper strata will require more time than opportunistic paired tows when both NEAMAP and NEFSC survey vessels are relatively closer.

Work with a NEAMAP cookie sweep could be problematic further north; if so, work may not be applicable to northern species on harder bottoms. It could serve as a model to intercalibrate ME/NH and MADMF surveys with NEFSC surveys, however.

A review of the Bigelow-Albatross calibration experiment protocols may be suitable. Those experiments were designed to minimize possible impact of the second vessel on the first vessel's catch.

Operationally, the most efficient approach would be to devote dedicated sea days for side-by-side work. This is unlikely in FY21: there are not likely to be extra days in the FY21 sea day schedule because of demand for rescheduling of cancelled FY20 cruises; and there will be immense pressure to complete both trawl surveys in FY21 given gaps in FY20. Any extra time would likely be devoted to occupying as many stations as possible in each survey. That process is further complicated by unknown effects of new operating protocols, which may change the structure of the sea day schedule (still to be determined) and/or shipboard operations. In the longer term, options for paired tows are possible as long as there is flexibility to respond to changing cruise tracks: tracks are moved inshore or offshore in response to changing weather.

If no work is undertaken in FY21, there may be scope to carry funding forward to FY22, or consider alternative contract funding approaches. Neither approach is without risk, however.

Background discussion, extend chain sweep-rockhopper sweep catchability experiments:

Because of uncertainties in timing/execution of side-by-side experiments in FY21, continuation of the chain sweep-rockhopper sweep catchability experiments would be a potentially more executable option in FY21.

In previous experiments, there were not enough large winter flounder caught to develop swept-area biomass estimates for the Georges Bank winter flounder stock. Meanwhile, swept-area biomass estimates for other Georges Bank species would benefit from additional sampling to increase precision (e.g., yellowtail flounder), although application to roundfish species remains unclear.

Results of experiments can directly inform stock assessments, and can be obtained in a shorter timeframe than side-by-side calibration coefficients and catch rate comparisons. There are clear methods for executing and analyzing results of these types of experiments, as well as consideration in stock assessments.

The potential downside to this work, however, again is uncertainty related to COVID-19: no protocols for charter vessel operations have yet to be approved at the national level. If any protocols were approved, future protocols would potentially be developed on a vessel-by-vessel basis, depending on vessel operation and mitigation measures, and require national approval.

- V. **Other business:** Thanks to Matt Seeley and other MAFMC staff for technical expertise; and thanks to Katie Burchard for drafting the agenda and assembling supporting documentation.