



2018 Planned Council Meeting Topics

as of 5/23/2018

June 5-7, 2018 – Philadelphia, PA

- Atlantic Surfclam and Ocean Quahog 2019 Specifications – *Review*
- Atlantic Surfclam and Ocean Quahog Excessive Shares Amendment – *Review and approve refined range of alternatives*
- Recommend regulatory streamlining options
- Strategic Planning – *Update and discussion*
- ~~Collaborative research program review~~
- NMFS Climate Science Strategy – Update and overview of recent research
- [2018 Mackerel Closure Provisions Framework – Framework Meeting 2 \(final action\)](#)
- [NEFMC Atlantic Herring Amendment 8 - Public Hearing](#)
- [Chub Mackerel Amendment– Update on progress, approve draft goals and objectives, and consider management unit alternatives for consideration by the SSC](#)
- [Summer Flounder Commercial Issues Amendment – Review and approve Draft EIS](#)

August 14-16, 2018 – Virginia Beach, VA

- Swearing-in of new and reappointed Council members
- Election of officers
- Bluefish 2019 Specifications – *Develop and approve*
- Bluefish Allocation Amendment – *Review scoping comments and present potential range of alternatives*
- Atlantic Mackerel Rebuilding Framework With 2019-2021 Specifications and RH/S Cap and Progress Update – *Framework meeting 2 (final action)*
- Summer Flounder 2019 Specifications – *Develop and approve*
- Scup 2019 Specifications – *Review*
- Black Sea Bass 2019 Specifications – *Develop and approve*
- Summer Flounder, Scup, and Black Sea Bass Recreational Management Framework – *Review alternatives and impact analysis; approve ASMFC public hearing document*
- Black Sea Bass 2019 Wave 1 fishery – *Review and approve*
- ~~[Draft 2019-2023 Strategic Plan – Review](#)~~

October 2-4, 2018 – Cape May, NJ

- 2019-2021 Spiny Dogfish Specifications – *Develop and approve*
- 2019 Specifications for Squids and Butterfish - *Review*
- Commercial Fisheries eVTR Framework – *Framework meeting 1*
- ~~[2019-2023 Strategic Plan – Approve](#)~~
- Chub Mackerel Amendment – *Approve public hearing document*
- Industry-Funded Monitoring Amendment update – *Decide whether to proceed*

- Revised MSB goals and objectives – *Adopt*
- Risk Policy Framework

December 11-13, 2018 – Annapolis, MD

- Atlantic Surfclam and Ocean Quahog Excessive Shares Amendment – *Approve public hearing document*
- Bluefish Allocation Amendment – *Approve range of alternatives for public hearings*
- Commercial Fisheries eVTR Framework – *Framework meeting 2 (final action)*
- Summer Flounder, Scup, and Black Sea Bass 2019 Recreational Management Measures - *Adopt*
- Summer Flounder Amendment: Commercial Issues/Goals and Objectives – *Final action*
- Summer Flounder, Scup, and Black Sea Bass Recreational Management Framework – *Final action*
- Black Sea Bass Amendment – *Review initiation and identify issues for consideration*
- Chub Mackerel Amendment – *Final action*
- 2019 Implementation Plan - *Approve*



Status of Council Actions Under Development

AS OF 5/18/2018

FMP	Action	Description	Status	Staff Lead
Summer Flounder, Scup, Black Sea Bass	Summer Flounder Commercial Issues Amendment	The Council and ASMFC are developing this joint amendment to consider revisions to the FMP goals and objectives for summer flounder and commercial management measures and strategies, including federal commercial moratorium permit requalification, commercial allocation, and landings flexibility FMP framework provisions. http://www.mafmc.org/actions/summer-flounder-amendment	The Council will review and approve a draft EIS at the June 2018 Council meeting. Public hearings are tentatively scheduled for September 2018.	Dancy
	Summer Flounder, Scup, and Black Sea Bass Recreational Management Framework	The Council and the ASMFC are developing a joint framework action and addendum to consider adding the following management options to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan: (1) Conservation equivalency for the recreational black sea bass fishery, (2) Summer flounder conservation equivalency rollover, (3) Transit provisions for Block Island Sound for all three species, and (4) Slot limits for recreational fisheries for all three species. http://www.mafmc.org/actions/sfsbsb-recreational-management-fw	A draft public hearing document will be presented at the Council and Board's August joint meeting, with final action tentatively scheduled for December 2018.	Beaty
	Summer Flounder, Scup, and Black Sea Bass Commercial Accountability Measures Framework	This framework considers alternatives to the existing commercial accountability measures for the commercial summer flounder, scup and black sea bass fisheries, with a focus on evaluating and accounting for commercial discards. http://www.mafmc.org/actions/sfsbsb-commercial-am-framework	The Council selected preferred alternatives and approved the framework at the Feb 2018 meeting. Staff is preparing the EA for submission to NMFS	Muffley
	Recreational Black Sea Bass Wave 1 Letter of Authorization Framework	This framework considers opening the Wave 1 black sea bass fishery under a Letter of Authorization (LOA) program. http://www.mafmc.org/actions/bsb-wave-1-loa-framework	For 2019, a Wave 1 fishery will be considered through the recreational specification process. Staff will continue development of the LOA framework for potential implementation in 2020.	Muffley

FMP	Action	Description	Status	Staff Lead
Mackerel, Squid, Butterfish	Chub Mackerel Amendment	This amendment considers adding Atlantic chub mackerel to the Atlantic Mackerel, Squids, and Butterfish FMP. The amendment will consider potential catch limits, accountability measures, and other conservation and management measures required for stocks to be considered “in the fishery.” http://www.mafmc.org/actions/chub-mackerel-amendment	Staff is developing alternatives.	Beaty
	Atlantic Mackerel Rebuilding Framework	This framework action considers rebuilding options for the Atlantic mackerel fishery. http://www.mafmc.org/actions/atlantic-mackerel-rebuilding-framework	The Council reviewed an initial range of alternatives in April 2018. Final action is expected in August 2018.	Didden
	2018 Mackerel Closure Provisions Framework	This framework action will consider recommending that NOAA Fisheries implement a 5,000 or 10,000 pound trip limit when 100% of the commercial quota for Atlantic mackerel is reached. This action is being considered to allow for the continued operation of the Atlantic herring fishery in the event of a mackerel closure. http://www.mafmc.org/actions/atlantic-mackerel-closure-provisions-framework	Final action will be considered at the June 2018 Council meeting.	Didden
Bluefish	Bluefish Allocation Amendment	This amendment considers potential revisions to the allocation of Atlantic bluefish between the commercial and recreational fisheries and the commercial allocations to the states. As part of this amendment the Council and ASMFC will also review the goals and objectives of the bluefish FMP and the quota transfer processes. http://www.mafmc.org/actions/bluefish-allocation-amendment	Staff is developing a scoping document. Scoping is expected to begin in late May 2018.	Seeley
Surfclams and Ocean Quahogs	Excessive Shares Amendment	This amendment considers options to ensure that no individual, corporation, or other entity acquires an excessive share of the Surfclam and Ocean Quahog Individual Transferable Quota (ITQ) privileges. In addition, the goals and objectives for the SCOQ FMP will be reviewed and potentially revised. http://www.mafmc.org/actions/scoq-excessive-shares-amendment	Staff is continuing to refine the range of alternatives for Council consideration in June 2018	Montañez

FMP	Action	Description	Status	Staff Lead
Omnibus	Industry-Funded Monitoring Amendment	This amendment considers measures that would allow the Council to implement industry-funded monitoring coverage in some FMPs above levels required by the Standard Bycatch Reporting Methodology in order to assess the amount and type of catch, monitor annual catch limits, and/or provide other information for management. The Amendment also considers specific coverage levels for the Atlantic mackerel fishery. http://www.mafmc.org/actions/omnibus-observer-funding	Action was postponed until completion of NMFS' electronic monitoring pilot project being conducted by NMFS. The Council expects to receive an update and discuss next steps in October 2018.	GARFO/ Didden
	Commercial Fisheries eVTR Framework	This framework considers requiring electronic submission of vessel trip reports for commercial vessels with permits for Council-managed species.	Staff is preparing initial analyses for Council consideration in October 2018.	Didden
	Risk Policy Framework	The purpose of this framework action is to provide for a review of the ABC control rule framework and Council Risk Policy established in 2010 and to recommend any changes.	Development of the MSE model for summer flounder is continuing with a focus on further incorporation of social and economic factors. The Council will review initial MSE results later in 2018.	Muffley
	Omnibus Amendment for Data Modernization	This amendment will address the regulatory changes needed to fully implement the Agency's Fishery-Dependent Data Visioning Project	The Greater Atlantic Regional Fisheries Office (GARFO) and the Northeast Fisheries Science Center (NEFSC) are continuing to work on the Fisheries Dependent Data Visioning (FDDV) project	GARFO/ NEFSC

Timeline and Status of Recent MAFMC Actions and Amendments/Frameworks Under Review

As of 5/23/2018

Status	Amendment/Framework	Action Number	Council Approval	Initial Submission	Final Submission	NOA Published	Proposed Rule Published	Approval/Disapproval Letter	Final Rule Published	Regs Effective
Complete	Tilefish Framework 2	Tilefish FW 2	4/13/16				10/23/17		3/13/18	4/12/18
Complete	Blueline Tilefish Amendment	Tilefish AM 6	4/13/16			6/14/17	6/28/17	9/13/17	11/15/17	12/15/17
Complete	Omnibus Unmanaged Forage Amendment	SFSBSB AM 20; MSB AM 18; SCOQ AM 19; Bluefish AM 6; Tilefish AM 5; Dogfish AM 5	8/8/16	11/23/16	3/20/17	3/28/17	4/24/17	6/19/17	8/25/17	9/27/17
Complete	Omnibus eVTR Framework	MSB FW 10; Bluefish FW 2; SFSBSB FW 10; Tilefish FW 3	8/10/16		11/17/16		5/24/17		9/11/17	3/12/18
Complete	Omnibus ABC Framework	MSB FW 11; Bluefish FW 3; SFSBSB FW 11; SCOQ FW 2; Tilefish FW 4; Dogfish FW 3	6/12/14		7/31/15		7/19/17		4/11/18	5/11/18
Complete	Commercial Scup Quota Period Framework	FW 12	5/10/17	11/16/17	2/15/18	N/A	2/26/18		4/19/18	5/21/18
Open	New Jersey Special Management Zones		12/12/16				2/13/18			
Open	Squid Amendment		6/7/17	12/12/17	3/21/18					
Open	Summer Flounder, Scup and Black Sea Bass Commercial Accountability Measure Framework		2/14/18							

Timeline and Status of Current and Upcoming Specifications for MAFMC Fisheries

As of 5/23/2018

Current Specifications	Year(s)	Council Approval	Initial Submission	Final Submission	Proposed Rule	Final Rule	Regs Effective	Notes
Atlantic Mackerel	2016-2018	6/9/15		8/24/15	1/22/16	4/26/16	5/26/16	
Bluefish	2016-2018	8/11/15			3/31/16	8/4/16	8/1/16	
Spiny Dogfish	2016-2018	12/7/15	3/11/16	5/20/16	6/22/16	8/15/16	8/15/16	
Summer Flounder	2017-2018	8/9/16	10/11/16	11/17/16	11/15/16	12/22/16	1/1/17	
Black Sea Bass	2017-2018	2/15/17	3/15/17	5/1/17	4/14/17	5/25/17	5/25/17	
Golden Tilefish	2018-2020	4/12/17		7/5/17	9/7/17	11/7/17	11/2/17	
Blueline Tilefish <i>(see note)</i>	2018	4/12/17			6/28/17	11/15/17	12/15/17	2018 specifications set via final rule implementing Amendment 6 to the Tilefish FMP
Surfclam and Ocean Quahog	2018-2020	6/6/17			12/8/17	2/6/18	3/8/18	
Squid and Butterfish	2018-2020	6/7/17		8/24/17	12/13/17	3/1/18	4/2/18	
Scup	2018-2019	8/8/17	10/2/17	12/1/17	11/7/17	12/22/17	12/22/17	
Blueline Tilefish	2019-2021	4/11/18						
Summer flounder (recreational measures)	2018	12/12/17	3/5/18	4/10/18	4/11/18			
Black sea bass (recreational measures)	2018	2/14/18	3/5/18	4/10/18	4/11/18			

Upcoming Specifications	Year(s)	Council Meeting (*subject to change)
Bluefish	2019	August 2018
Summer Flounder	2019	August 2018
Black Sea Bass	2019	August 2018
Atlantic Mackerel	2019-2021	August 2018
Spiny Dogfish	2019-2021	October 2018

MAFMC 2019 COUNCIL MEETINGS

February 12-14, 2019	Hilton Virginia Beach Oceanfront 3001 Atlantic Avenue Virginia Beach, VA 23151 757-213-3000
April 9-11, 2019	Icona Golden Inn 7849 Dune Drive Avalon, NJ 08202 609-368-5155
June 4-6, 2019	Yotel Hotel (TENTATIVE) 570 10 th Ave. New York, NY 10036 646-449-7700
August 6-8, 2019	Courtyard Philadelphia Downtown 21 Juniper St. Philadelphia, PA 19107 215-496-3200
October 8-10, 2019	Durham Marriott Center City / Durham Convention Center 201 Foster St / 301 W. Morgan St. Durham, NC 27701 / Durham, NC 27701 919-768-6000 / 919-956-9404
December 10-12, 2019	Westin Annapolis 100 Westgate Circle Annapolis, MD 21401 410-972-4300

PROPOSED 2018 DELIVERABLES

This section provides an overview of deliverables expected by the end of the implementation plan period. Since many of the proposed implementation activities cannot be measured with traditional metrics, the list of deliverables establishes a mechanism for measuring the Council's progress toward achieving the goals and objectives of the strategic plan.

SUMMER FLOUNDER, SCUP, BLACK SEA BASS

- 2019 specifications for summer flounder and black sea bass (develop and approve)
- 2019 specifications for scup (review)
- 2019 recreational management measures for summer flounder, scup, and black sea bass
- Advisory panel fishery performance reports
- Summer flounder amendment: commercial issues and goals and objectives
- Summer flounder, scup, and black sea bass recreational management framework (conservation equivalency, slot limits, and transit provisions)
- Summer flounder, scup, and black sea bass commercial AM framework
- Black sea bass wave 1 LOA framework
- Summer flounder recreational management project (contract)

MACKEREL, SQUID, BUTTERFISH

- 2019 specifications for squids and butterfish (review)
- 2019-2021 specifications for Atlantic mackerel (develop and approve)
- Advisory panel fishery performance reports
- Butterfish cap review
- Review and revise FMP goals and objectives
- Chub mackerel amendment
- Atlantic mackerel framework/amendment to address rebuilding
- Industry funded monitoring amendment (ongoing - GARFO lead)

RIVER HERRING AND SHAD

- RH/S cap for Atlantic mackerel fishery for 2019-2021 (develop and approve)
- RH/S progress update

BLUEFISH

- 2019 specifications for bluefish (develop and approve)
- Advisory panel fishery performance report
- Bluefish allocation amendment (scoping and development)

GOLDEN AND BLUELINE TILEFISH

- 2019 specifications for golden tilefish (review)
- 2019-2021 specifications for blueline tilefish (develop and approve)
- Advisory panel fishery performance reports
- Golden tilefish permit issue

SURFCLAMS AND OCEAN QUAHOGS

- 2019 surfclam and ocean quahog specifications (review)
- Advisory panel fishery performance reports

- Excessive shares amendment (ongoing)
- ITQ review project (contract)

SPINY DOGFISH

- 2019-2021 spiny dogfish specifications (develop and approve)
- Advisory panel fishery performance report

ECOSYSTEM AND OCEAN PLANNING/HABITAT

- EFH redo (ongoing)
- Regional habitat assessment (ongoing)
- Add deep sea coral protection areas to national MPA network
- EAFM risk assessment
- Offshore energy development issues

GENERAL

- 2019-2023 strategic plan development
- Commercial fisheries eVTR framework
- Advisory panel appointments
- For-hire compliance/accountability issue (cooler labeling)

COMMUNICATION AND OUTREACH

- Implementation of council communication and outreach plan (ongoing)
- Council action web pages
- Fact sheets and outreach materials

SCIENCE AND RESEARCH

- Mid-Atlantic collaborative research program review
- 2016 – 2017 Mid-Atlantic collaborative research projects (review results)
- Omnibus amendment for data modernization (ongoing - GARFO lead)
- Risk policy framework

POSSIBLE ADDITIONS

- Black sea bass amendment
- Capacity amendment for *Illex* squid
- FMP for bullet and frigate mackerel, bonito, and false albacore
- Surfclam and ocean quahog framework adjustment to NEFMC habitat amendment
- Allocation review criteria for all FMPs



Mid-Atlantic Fishery Management Council

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Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: April 17, 2018
To: Dr. Chris Moore, Executive Director
From: Tilefish Survey Review Committee, Council Staff
Subject: Report of the Pilot Tilefish Survey Review

In January 2017, the Council funded a fisheries-independent pilot survey out of SUNY Stony Brook for golden tilefish (GTF) and blueline tilefish (BLT) from Georges Bank to Cape Hatteras. The goals and objectives put forth by the survey are as follows:

1. Establish a comprehensive fishery-independent bottom long-line survey for golden and blueline tilefish along the Atlantic coast
2. Quantify the number of individuals and size-structure of the two species
3. Determine the spatial distribution of both species and identify preferred depth strata across size range
4. Evaluate the role of environmental variables in driving the observed spatial distribution patterns
5. Evaluate proposed sampling intensity and statistical power

Following publication of the final report in December 2017, a Pilot Tilefish Survey Review Committee (Committee) was established to peer review the report and its findings and provide recommendations regarding future tilefish research and survey implementation. The Committee met via webinar on April 16, 2018 with the following Committee members in attendance: Paul Rago (MAFMC SSC), John Carmichael (SAFMC Staff), George Sedberry (SAFMC SSC), Marcel Reichert (SAFMC SSC), Nate Bacheler (SEFSC), Dave McElroy (NEFSC), Matthew Seeley, Brandon Muffley, and José Montañez (MAFMC Staff).

The goals of the meeting were to respond to the terms of reference (TORs) that address the survey objectives and provide recommendations on next steps/future directions for the survey. The meeting began with a welcome and introduction from Council staff followed by an overview of the TORs. The Committee then provided comments to address each TOR.

Pilot Tilefish Survey Review Terms of Reference

1. *State if the final report addressed the goals and objectives stated in the request for proposals.*

The Committee determined that the report addressed all goals and objectives identified in the survey proposal and request for proposal. The requirement in the request for proposals identifying the need for a survey to sample the full range of GTF and BLT from the northern extent of their range to Cape Hatteras was met. The design, execution, and analysis were appropriate, however, the catches, especially for BLT were too low to develop a reliable index with sufficient precision for use in stock assessments. The principal investigators (PIs) adequately demonstrated the feasibility of field methods and provided strong analyses of the results, despite the low sample size of BLT.

2. *Evaluate the appropriateness and robustness of the survey design and methodology. Were the results of the pilot survey clearly interpreted?*

The survey design was robust and conducted in collaboration with all stakeholders, but given the low catches, in particular for BLT, the design may have to be re-evaluated (potentially by increasing the number of stations) to reduce uncertainty. The implementation protocols appeared to be feasible and the interpretation of the data was appropriate and valid given the effective post hoc analyses, which contained good recognition of the limitations.

Comments:

- Bait size should be relative to hook size instead of standardizing bait size across all hook sizes.
- Consider use of Smith (2016) methodology for hook saturation bias.
- Frequency of zero catch (any species) do not cause concerns about 1 gear saturation unless the zero catches are the result of baitless hooks. The overall catch rate was only 5% catch rate (30,000 hooks with 1,300 fish caught, Supplemental Table 1) and about 2.5% for tilefish. However, if the hooks are baitless upon haulback then other species or invertebrates may be stripping the bait, thereby reducing potential catches of the target tilefish species.
 - Provide information on leading hook with bait or not; and if a baited hook came back empty (no catch and no bait)
- Need to have a more consistent soak time. Look into standardizing the soak time with the South Atlantic surveys.
- Look at species composition and bycatch species relative to soak time.
- Update and clarify the supplemental figure that shows total catch relative to soak time as there may be species-specific differences relative to the soak time due to differences in behavior, for tilefish and other species.
- Note bait presence or lack of, on a per hook basis to assist in identifying an appropriate soak time.
- Provide additional information as to when sets were made and how many were before and continued until after sunset.

- There appears to be inconsistent use of “effort” across the report in terms of CPUE (e.g., compare Fig 2 vs Fig 8). This should be defined within each graph or be applied consistently across the report.

Recommendations:

- According to BLT data collected from the MARMAP SEAMAP-South Atlantic Long Bottom Longline survey south of Cape Hatteras, BLT bottom substrate preference may differ from GTF. The shallowest sampled strata were 75 meters, so the survey may have missed BLT in shallow waters (~ <50 meters).
 - Use only one hook size (small or medium) may be more appropriate in future. The small hooks seem to have overall higher catch rates and an increase in the proportion of undersized fish. The current assessment model provides little evidence of incoming recruitment and would therefore be improved with such information.
 - If continued as is, need to think about how a multi-hook survey could be used in an assessment. Either separate indices would be developed or a standardized weighting approach would need to be developed. This may add unnecessary complexity to the relative abundance index without adding much to the assessment. Separate hook-specific abundance indices would have higher variances and proper estimates of the covariance among catch rates for different sizes would be difficult to compute.
 - The pilot survey seems to have clarified the hook selectivity issues for Golden Tilefish. Using the small or medium hook size may be best for moving forward. Analyzing effect of bait size and hook size effects would require another pilot study.
 - Clarify that the same hook brand was used and standardize it with South Atlantic surveys.
 - It would be very useful to have information from hook timers, but the reviewers understand the difficulties associated with them.
 - If an appropriate approach to use hook timers can be developed, data collected from hook timers may only be needed for a year or two and could be stopped.
 - There was limited temporal coverage (just summer), which does not provide much information on temperature preference – need additional sampling to occur.
 - The survey’s timing in mid-summer might have helped to lower spiny dogfish bycatch
3. *Could this survey design and methodology be used to develop an index of abundance and stock dynamics for tilefish?*

If the survey was continued as conducted in the pilot, an index of abundance could be developed for GTF. Due to the low encounter rates for BLT, many aspects of the survey design would need to be modified (depth strata, samples per strata, hook size, bait size, etc.). Furthermore, the Committee stated it is premature to make these recommendations given the magnitude of interannual variability is unknown. The Committee suggested that

the survey may be more effective if the targeted species (and associated habitat/location) was alternated to every other year.

Comments:

- Consider adding a table of hook size (as columns) vs fate (caught, baited, empty) as rows to demonstrate potential effects of gear saturation.
- Consider how rates for different hook sizes would be handled as tuning indices in stock assessment models.

Recommendations:

- Consider a multi-year option with increased sampling intensity; or one targeted species per year with specific design and the other in the next year with a specific design
 - Likely only 1-year break – lose the information on recruits into the fishery (smallest fish caught (30-40 cm) are ~3 years old and are retained by fishery at ~4 years old)
 - Modify strata in future surveys to cover the shallower BLT habitat.
4. *Could the survey design and methodology presented in the final report (or a modification of it) be coupled with fishery-independent surveys conducted by SEAMAP-South Atlantic?*

The Committee concluded that modifications are necessary to make the surveys directly compatible. Survey compatibility would only apply to BLT due to the one-unit stock's extensive range. GLT are separate stocks, so the development of one comprehensive survey index would not be helpful to the assessments for GLT in the Southeast.

The MARMAP SEAMAP-South Atlantic Long Bottom Longline is the most compatible survey. A detailed description of this report is available in Carmichael et al. (2016). The main differences are the strata and depth sampled, number of hooks, hook size (one versus 3), bait (whole squid vs 1"x1"), and sampling season. (The survey in the SA is conducted and funded as a collaborative effort by SEAMAP-SA and MARMAP, both housed at SCDNR).

5. *Identify strengths and weakness on the continuation (development) of a comprehensive tilefish survey, including comments on applicability of the survey design, and comprehensive versus single species survey approach.*

Overall, the investigators have done an outstanding job of evaluating the results to date through identifying relationships between environmental data and catch rates. This information should be used in the future to assist in refining the survey coverage.

The Committee agreed there is a clear need of a comprehensive long-term survey for tilefishes in the mid- and south Atlantic regions. This type of survey has been listed as a high priority research area in various (SEDAR) stock assessments and other reports, and has strong support from the South Atlantic and Mid-Atlantic SSCs and Councils.

Continuation of this survey in a form that will increase catches and is comparable with survey efforts South of Cape Hatteras (SEAMAP-SA/MARMAP) will be extremely useful for (region wide) BLT stock assessments. Whether the survey is conducted annually or every other year will depend highly on availability of funds and cost-benefit of conducting a survey for either or both GLT and BLT.

Sampling efforts in collaboration with the industry can be cost effective and powerful in terms of buy-in (stakeholder involvement). However, the nature of a long-term fishery independent survey requires consistency (e.g. sampling methods and seasons) and longevity. This means that it is imperative that participants are cognizant of the scientific constraints and long-term commitment requirements for participation.

Comments:

- The investigators recognize the limitations of an optimal allocation scheme, when compared to the current survey design, since it depends strongly on the magnitude of estimated variance. In many instances, optimal configurations are not stable over time. Implementation of optimal design for year t in year $t+1$ may in fact lead to worse performance.

Recommendations:

- Consider how the hook size data would be used to either create an estimate of abundance or be used in a stock assessment model.

6. *Make recommendations to improve the survey design and implementation; e.g., sampling effort for golden and blueline tilefish, cost-benefit of changes to the survey design. Comment on potential funding sources for the implementation of future fishery-independent tilefish surveys.*

The Committee agreed that it may be highly cost effective to run the survey for a single species every other year (GTF, BLT, GTF, BLT, etc.). This will hopefully reduce fuel costs, boat time, staff effort, etc. due to not having to cover as much spatial coverage in each survey. This will allow for more stations per species and ultimately increase the overall precision of the survey.

See TOR 2 for additional specific comments on ways to improve the survey design and implementation.

Comments:

- Consider effects of bait loss and saturation on abundance estimation, using methodology of Smith 2016.
- Consider the effects of multiple hook sizes and rationale for retaining.
 - Need a more detailed consideration of size selectivity.
 - Propose table of hook size vs size composition—supplemental figure 3. But, scaled for numbers caught.
- Work up the current (flow) meter data.

- This may serve as an adjunct with a camera related system and may also help define a bait plume footprint.
- Analyses of effect of soak time was inadequate because there was not enough variation in soak time. Regression is pretty much determined by high leverage points on boundaries. A plot of confidence intervals would be helpful.
- Stratum variances can be expressed as a negative binomial with $\text{predicted_var} = \text{mean} + \alpha * \text{mean}^2$, with alpha about ~ 1.04 . This has important implications for precision of estimates and for future survey designs.
- Can boost the revenue slightly by only using the small hooks.

Potential funding sources: Marine Fisheries Initiative (MARFIN), NOAA Cooperative Research Program (CRP), Southeast/Northeast Fisheries Science Centers.

Recommendations:

- The survey may not have adequately sampled BLT habitat. BLT bottom type preference may differ from GTF. The shallowest sampled strata were 75 meters, so the survey may have missed BLT in shallow waters ($\sim <50$ meters). Alter survey strata locations to gather more informative data and thus, become more cost effective.
- There was limited temporal coverage (just summer), which does not provide much information on thermal habitat preference across seasons – need additional sampling to occur.

7. *Could the survey design and methodology presented in the final report (or a modification of it) be coupled with other fishery-independent surveys? E.g., method for assessing blueline and golden tilefish stocks using a baited underwater video system.*

Yes, this survey design could be coupled with other fishery-independent surveys. Coordination of efforts and survey design will significantly increase the utility of the collected data for assessments and management. Coupling with additional survey methods can be useful yet, many surveys use different gear, sample at various times, target different regions, etc. The lack of consistency between surveys needs to be considered and adjusted on a survey-to-survey basis to help all variables become more consistent.

Comments:

- The use of video may be limited due to the water depth and associated low light conditions, as well as, the need to cover a much larger area.
 - This may require a light source, which may affect the survey observations and survey design.

Recommendations:

- Think in the context of what is needed for future assessments and what is actually feasible in a single survey.
 - Video surveys may be an effective approach for evaluating habitat/burrows, but there is no way to know if they are occupied/

- Is this an attempt to build a mechanistic, multi-gear estimator of abundance?
- OR, is it part of a population model that incorporates removals with fishery independent and dependent abundance indices?
- One potential linkage would be to use the bottom current measurements to develop a bait plume footprint.
- Differences in soak time, hook size, and hook spacing may be important. May need to rely on literature or conduct separate experiments.

8. *Other Comments or Issues*

- How important is it to conduct a BLT survey index of abundance – considering the cost-benefit of the survey and the fishery?
- Survey experienced limited bycatch and was able to focus on tilefish.
- Commercial vessel platform – probably the best approach from a practical (set-up, crew etc.) and public relations approach; need clear protocols for captains to follow to minimize their effects and minimize leeway.
- Operational costs (\$6,000) was quite reasonable for other fishing-based platforms and when compared to the use of a scientific vessel.
- Depth and area stratification is appropriate for GTF – may want to reconsider for BLT.
- The easiest way to increase the precision is to increase the number of stations. Increasing the catch per station does very little to nothing for the precision (see additional comments on survey catch rates and variance).
- Standardize methods (including type and number of hooks, length of gangions, length of ground line, soak time, sampling season, and bait) among surveys regionally.
 - There are significant operational and analytical challenges to making the different surveys similar enough to combine data.
 - In some cases, this may not be surmountable or creates significant analytical problems (e.g. different habitat and bottom types).
- Consider (continued) use of hook timers.

References

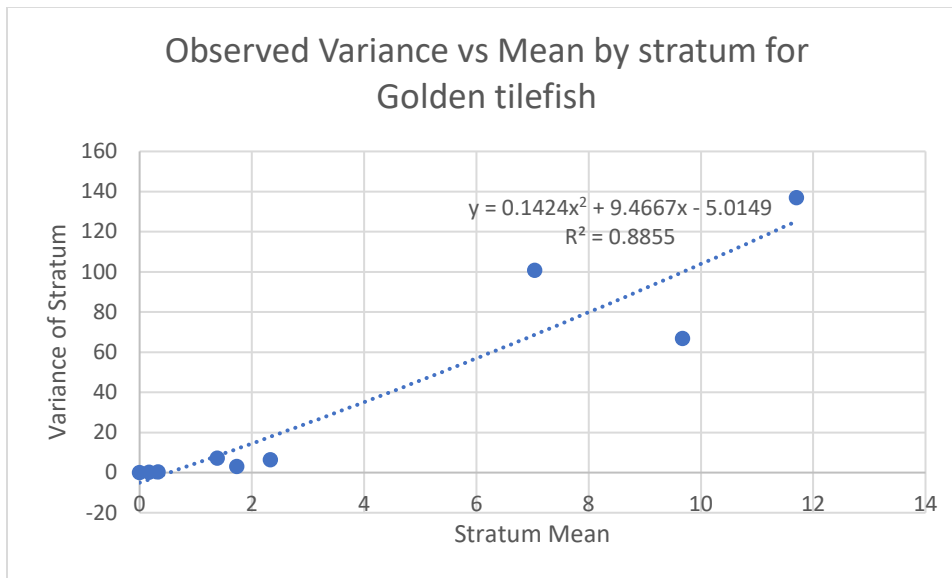
Carmichael, J, M Duval, M Reichert, N Bacheler and T Kellison. 2015. Workshop to determine optimal approaches for surveying the deep-water species complex off the southeastern U.S. Atlantic coast. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-SEFSC-685. 24 p. doi:10.7289/V5GB222C

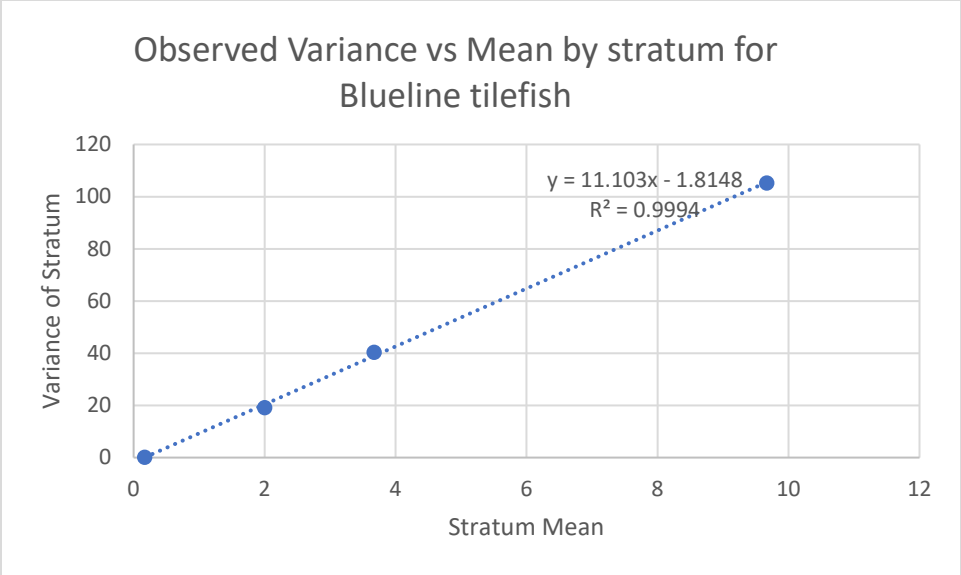
Smith, S. J. 2016. Review of the Atlantic Halibut longline survey index of exploitable biomass. Can. Tech. Rep. Aquat. Sci. 3180: v + 56 p

Appendix

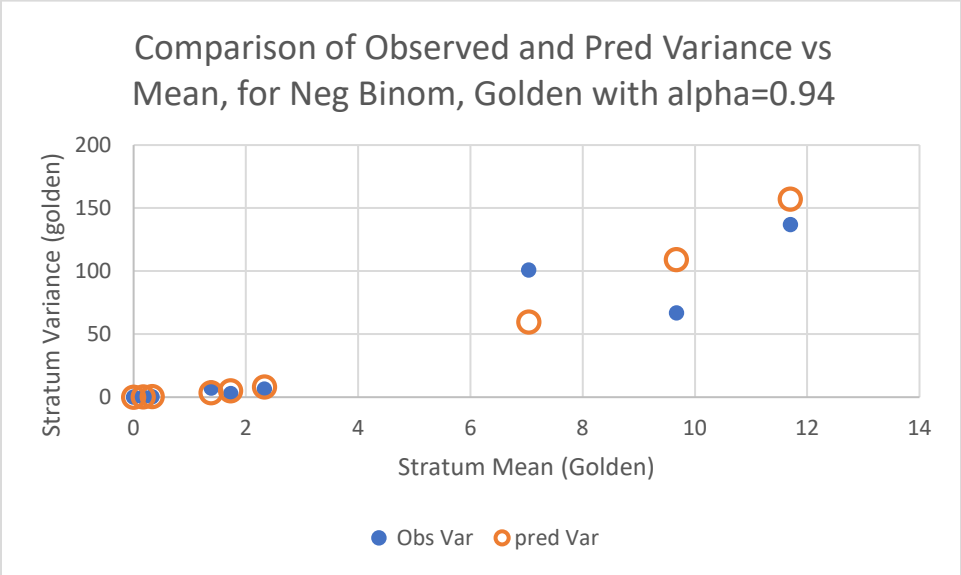
Additional comments on survey catch rates and variance.

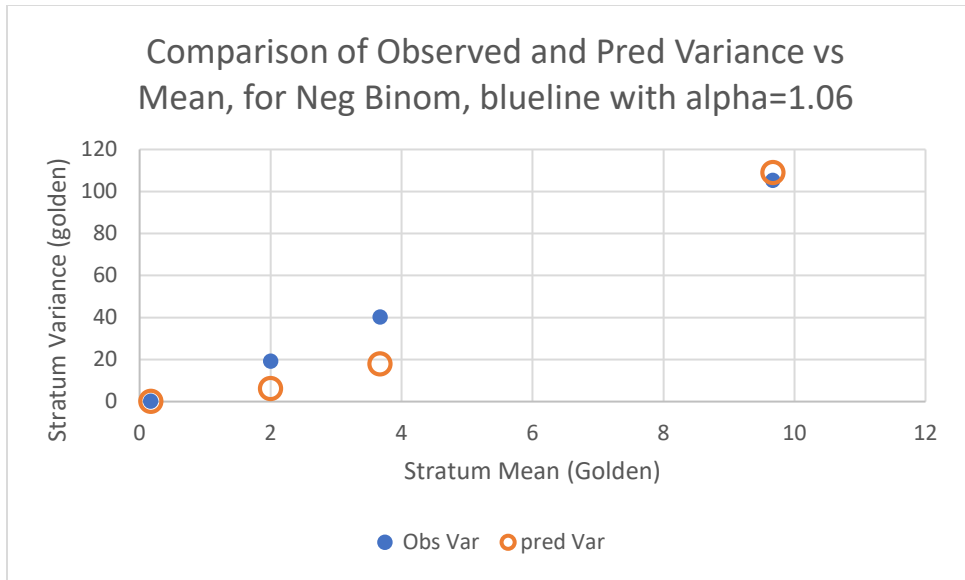
At several times during the discussion last week, we noted the low catches of blueline tilefish in particular, and the difficulties that posed for developing an abundance index. Such concerns are warranted for the collection of biological samples. Moreover, we are generally more comfortable stating that relative abundance has declined 50% when catch rates go from 10 per set to 5, rather than 0.1 to 0.05 per set. However, increasing the total average catch per set should not be the primary determinant of that comfort level. Instead it is the relative precision of the estimate that should give us comfort, not the magnitude per se. To examine this, I first looked at the relationship between the variance and mean catch rates per stratum. If fish are distributed in patches, then theory suggests that the catches should follow a negative binomial model wherein the variance is a function of the mean plus the mean squared. In a Poisson model the variance will equal the mean. Using the data in the report, (Table 7, Table 8, Table 9) I plotted the variance vs the mean for Golden, Bluelines and combined and fitted a negative binomial model as $\text{Var} = \text{mean} + \alpha * \text{mean}^2$. The results are shown below:





Negative Binomial parameterization of Mean variance relationship for Golden Tilefish





The negative binomial model seems plausible for golden but less so for blueline. To examine the effects of increased catch per set, I used the above fit for the negative binomial to predict the variance for an increase in the mean of 10X. Since the variance increases with the square of the mean, you might expect that very little gain in precision occurs. The computations are given below.

Baseline Scenario

Species	stratum	n_h	Wh	ybar_h	sd_h	var_h	var_h/n_h	Wh^2
Golden	3.2	10	0.157	0.17	0.41	0.1681	0.01681	0.024649
Golden	3.3	26	0.215	7.04	10.04	100.8016	3.876984615	0.046225
Golden	3.4	3	0.012	0.33	0.58	0.3364	0.112133333	0.000144
Golden	4.2	10	0.147	1.38	2.67	7.1289	0.71289	0.021609
Golden	4.3	20	0.172	9.67	8.17	66.7489	3.337445	0.029584
Golden	4.4	3	0.016	2.33	2.52	6.3504	2.1168	0.000256
Golden	5.2	6	0.084	0	0	0	0	0.007056
Golden	5.3	22	0.184	11.7	11.7	136.89	6.222272727	0.033856
Golden	5.4	3	0.014	1.73	1.73	2.9929	0.997633333	0.000196

y-strata 5.62465

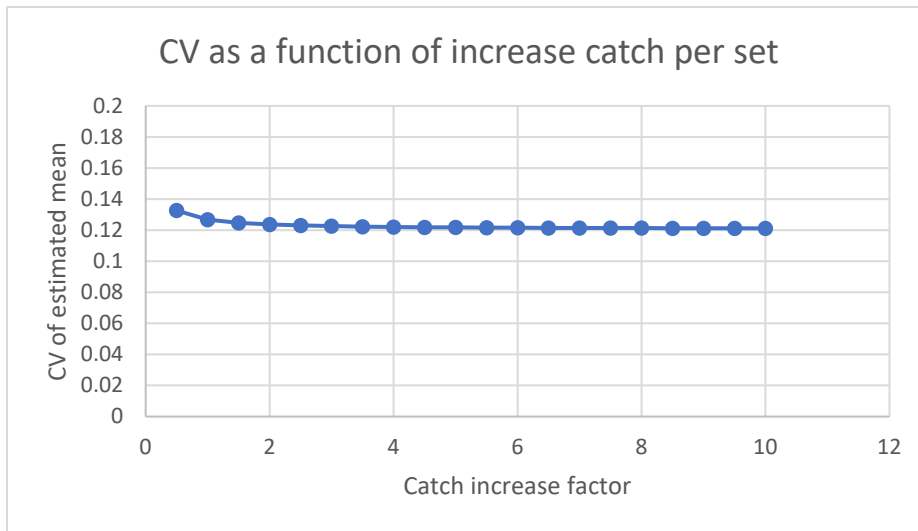
Var_stratified 0.505182626
 SD stratified 0.710762004
 CV_stratified 0.126365552

The 10X scenario is below

10X Catch Scenario

				Factor					
				10	Pred SD	Pred Var			
<i>Species</i>	<i>stratum</i>	<i>n_h</i>	<i>Wh</i>	<i>ybar_h</i>	<i>sd_h</i>	<i>var_h</i>	<i>var_h/n_h</i>	<i>Wh²</i>	
Golden	3.2	10	0.157	1.7	2.169239	4.7056	0.47056	0.024649	
Golden	3.3	26	0.215	70.4	72.28282	5224.806	200.9540923	0.046225	
Golden	3.4	3	0.012	3.3	3.824343	14.6256	4.8752	0.000144	
Golden	4.2	10	0.147	13.8	14.55533	211.8576	21.18576	0.021609	
Golden	4.3	20	0.172	96.7	99.10411	9821.626	491.08128	0.029584	
Golden	4.4	3	0.016	23.3	24.24676	587.9056	195.9685333	0.000256	
Golden	5.2	6	0.084	0	0	0	0	0.007056	
Golden	5.3	22	0.184	117	119.8063	14353.56	652.4345455	0.033856	
Golden	5.4	3	0.014	17.3	18.12627	328.5616	109.5205333	0.000196	
y-strata				56.2465			Var_stratified	46.44781339	
							SD stratified	6.815263267	
							CV_stratified	0.121167775	

Note that the CV is almost the same. I examined the predicted CV over a range of multipliers in the following graph.



The obvious take-home message is that increasing the catch, when the catches follow a negative binomial distribution, does not have much effect on relative precision.

In contrast, sampling theory suggest that the biggest gains in precision come when you can increase the number of stations. To examine this effect, I looked at a range of increases in the number of stations.

Sampling Effort Increase Scenario

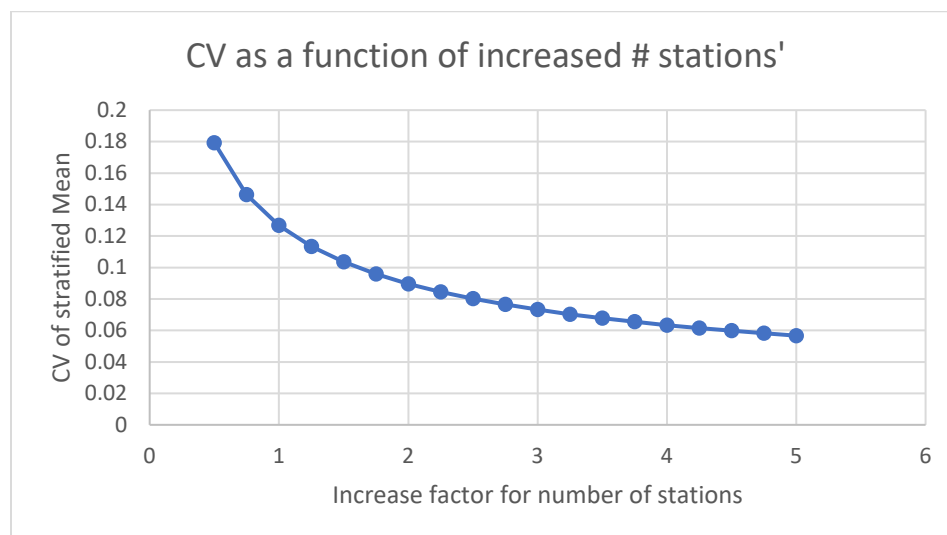
		Sample Size Adj Factor 2		Mean Adj Factor 1	Pred SD	Pred Var		
<i>Species</i>	<i>stratum</i>	<i>n_h</i>	<i>Wh</i>	<i>ybar_h</i>	<i>sd_h</i>	<i>var_h</i>	<i>var_h/n_h</i>	<i>Wh^2</i>
Golden	3.2	20	0.157	0.17	0.447276	0.200056	0.0100028	0.024649
Golden	3.3	52	0.215	7.04	7.654023	58.58406	1.126616615	0.046225
Golden	3.4	6	0.012	0.33	0.665775	0.443256	0.073876	0.000144
Golden	4.2	20	0.147	1.38	1.833187	3.360576	0.1680288	0.021609
Golden	4.3	40	0.172	9.67	10.34018	106.9193	2.6729814	0.029584
Golden	4.4	6	0.016	2.33	2.824191	7.976056	1.329342667	0.000256
Golden	5.2	12	0.084	0	0	0	0	0.007056
Golden	5.3	44	0.184	11.7	12.41232	154.0656	3.501490909	0.033856
Golden	5.4	6	0.014	1.73	2.200594	4.842616	0.807102667	0.000196

y-strata 5.62465 Var_stratified 0.254088446

SD stratified 0.504071866

CV_stratified 0.089618352

In this example a two-fold increase in sampling stations reduces the CV from 0.126 to 0.090. Over a range of sample size increases the effects are even more pronounced.



Of course the costs of increased sampling stations vs longer strings are not equal, but it is clear that increases in average catch per se will not do much to increase the precision (ie reduced the variance).



PELAGIC FISHERIES: U.S. AND EUROPEAN PERSPECTIVES AND SHARED EXPERIENCES

The Mid-Atlantic Fishery Management Council will hold a workshop in collaboration with the European Union's Pelagic Advisory Council. The objective of the workshop is to provide a forum for U.S. and European fishermen, managers, and scientists to interact and discuss possible solutions to the complex problems associated with the small-mesh pelagic fisheries in their countries. The workshop will involve a combination of presentations, group discussions, and field trips designed to give participants first-hand knowledge of local fishery operations and issues. Additional information and updates will be posted on the Council's website at <http://www.mafmc.org/workshop/us-eu-pelagics-workshop>.

Agenda

April 30 – May 3, 2018

Beauport Hotel Gloucester
55 Commercial St
Gloucester, MA 01930
Telephone 1-844-282-0008

Monday, April 30

5:30 p.m. – 7:30 p.m. **Welcome Reception**
Gloucester House Restaurant, 63 Rogers St, Gloucester, MA 01930

Tuesday, May 1

9:00 a.m. – 9:30 a.m. **Introduction and Welcome** (Chris Moore, MAFMC Executive Director, and Mike Pentony, GARFO Regional Administrator)

9:30 a.m. – 10:15 a.m. **Overview of the relevant fisheries, their management, bycatch issues, and stakeholder participation** (Jason Didden and Verena Ohms)

10:15 a.m. – 11:00 a.m. **Implications of Ecosystem Approaches to Fishery Management (EAFM) for pelagic fisheries** (Sarah Gaichas, NEFSC)

11:00 a.m. – 11:45 a.m. **Recent/upcoming NMFS Science Center Socio-Economic work on EAFM and/or bycatch** (Min-Yang Lee, NEFSC)

11:45 a.m. – 12:30 p.m.	Roundtable discussion on EAFM issues - U.S./European perspectives
12:30 p.m. – 2:00 p.m.	Lunch
2:00 p.m. – 5:00 p.m.	Site visits in Gloucester, MA
2:00 p.m. – 3:30 p.m.	Swan Net <i>41 Great Republic Dr., Gloucester, MA 01930</i>
3:45 p.m. – 5:00 p.m.	Cape Seafood <i>3 State Fish Pier, Gloucester, MA 01930</i>

Wednesday, May 2

9:00 a.m. – 9:10 a.m.	Day 2 Overview
9:10 a.m. – 9:45 a.m.	Bycatch 1: Gear/Mesh approaches (Shannon Bayse, UMass)
9:45 a.m. – 10:30 a.m.	Bycatch 2: Communication and fishermen behavior-based approaches – Shoreside Monitoring (Dave Bethoney, SMAST; Brad Schondelmeier, Mass DMF; and Gerry O’Neil, Cape Seafoods)
10:30 a.m. – 11:15 a.m.	Bycatch 3: Electronic Monitoring (Nicole Rossi, NEFSC; Morgan Wealti, Saltwater Inc.)
11:15 a.m. – 12:00 p.m.	Roundtable discussion on bycatch issues – U.S./European perspectives
12:00 p.m. – 1:30 p.m.	Lunch
1:30 p.m. – 2:30 p.m.	Industry involvement in surveys/assessment (Jon Hare, NEFSC Director)
2:30 p.m. – 3:30 p.m.	Role of acoustics in U.S. science/management (Mike Jech, NEFSC)
3:30 p.m. – 4:30 p.m.	Open discussion/public comment
4:30 p.m. – 5:00 p.m.	Recap

Thursday, May 3

9:30 a.m. – 11:00 a.m.	Wrap-up, open discussion, public comment
11:00 a.m. – 1:00 p.m.	Travel to New Bedford / Lunch on the way
1:00 p.m. – 2:00 p.m.	Tour of the Buyers and Sellers Exchange (the Auction) <i>62 Hassey Street, New Bedford 02740; www.baseseafood.com</i>

- 2:15 p.m. – 3:15 p.m.** **Tour of the NORPEL Pelagics Processing Plant**
4 Fish Island, New Bedford 02740; www.norpel.com
- 3:30 p.m. – 5:00 p.m.** **Tour of the New Bedford Whaling Museum**
18 Johnny Cake Hill, New Bedford 02740; www.whalingmuseum.org
- 6:00 p.m.** **Dinner**
The Waterfront Grille, 36 Homer's Wharf, New Bedford, MA 02740

2018 SPRING NRCC MEETING AGENDA

Hotel Providence – 139 Mathewson Street, Providence RI 02903

Conference call-in information: (866) 822-6179

Participant Code: 5003656

The conference call line will be available on an as-needed basis. Members should inform NRCC coordinators if anyone will be calling in for a particular agenda item.

All times are approximate

Tuesday, May 15

0900-0910

1. Welcome, Introductions, Announcements
(Pentony, Hare, Gilbert)

0910-1200 (Break as needed)

2. Long-term Assessment Prioritization Progress and Other General Assessment Topics (*Note: the NRCC will review/finalize the assessment schedule on Day 2*)
Discussion leader: NEFSC
 - Update on Progress of the NRCC Assessment Working Group
 1. Review suggested process and definitions for management track and research track
 2. Review strawman schedules for the two tracks
 3. Present plan for forming future NRCC research working groups
 - Marine Recreational Information Program (MRIP)-impacted Assessments: Discuss strategies for MRIP management track assessments including timing (e.g., draft alternative schedule) and process for these assessments (apply new management track process?)

1200-1300 Lunch

1300-1400

3. Report on Differences in Discard and Landing Estimates
Discussion leaders: Lanning/Simpkins
 - GARFO and NEFSC will provide an update on coordinated efforts to align methodologies, where possible.

1400-1445

4. Discuss and Refine Current List of Analytical Tools
Discussion leader: Simpkins

1445-1615

5. Discuss Where Various Datasets are Stored and the Feasibility of Developing a Single Warehouse
Discussion leader: Beal/ACCSP

1615-1700

6. Update on Northeast Trawl Advisory Panel (NTAP)

Discussion leaders: *Identified below*

- Review NTAP Charter (Stockwell)
- Review NTAP engagement in Bigelow trawl survey performance (NEFSC)

1700 *Adjourn Day 1*

1800 *Cocktails and Dinner at Andino's, 171 Atwells Ave*

(<http://andinosprovidence.com>)

- Located 0.6 miles (13-minute walk) from hotel
- Complimentary valet parking available
- Cocktails at 6pm, followed by dinner at 7pm

Wednesday, May 16

0830-1000

7. Formalize Assessment Schedules

Discussion leader: NEFSC

- Consider modifications and approval of proposed assessment schedules, based on discussions from yesterday.
- Discuss strategies for MRIP management track assessments

1000-1015 *Break*

1015-1030

8. NEFMC Program Review

Discussion leader: Nies

- Discuss results of the independent review of the NEFMC, specifically recommendations that relate to NRCC activities

1030-1115

9. Review of NRCC: Current Process and Procedures

Discussion leader: Pentony

- Discuss thoughts on NRCC: *How do we think the NRCC is functioning currently and what improvements could be made?*

1115-1145

10. MRIP Transition: Potential Management Implications

Discussion leaders: Kerns/Gilbert

- Update NRCC on potential short-term and long-term recreational/commercial allocation implications following the MRIP transition.

1145-1215

11. Aquaculture in Federal Waters

Discussion leader: Gilbert

- Status of permitted and proposed Exclusive Economic Zone (EEZ) water aquaculture projects
- Update on status of developing a regulatory process for aquaculture in EEZ waters

1215-1315 Lunch

1315-1415

12. Updates on Fall 2017 Action Items

Discussion leaders: *Identified below*

- Update on forming a standing committee between NEFMC, MAFMC, and SAFMC to discuss straddling and moving stocks through the Council Coordination Committee process (Nies/Moore)
- Update on continued development on the 2018 Climate Workshop (Hare)
- Status of funding opportunities for coastwide deepwater species longline survey (Hare)
- Update on vessel trip report instructions and incorporation of species codes for species that are landed but not reported (Gouveia)
- Update on 508 Compliance (Weinberg/Gilbert)

1415-1515

13. Meeting wrap up

- Complete any unfinished discussions or unresolved new business
- Review action items and assignments
- Identify Fall 2018 (NEFMC host) meeting date
- Adjourn meeting

1515 Meeting adjourns

2018 May Council Coordination Committee Meeting

About

The Council Coordination Committee meets twice each year to discuss issues relevant to all councils, including issues related to the implementation of the Magnuson-Stevens Act.

Schedule – Day 1

TIME	SUBJECT	PRESENTER
1:00 - 1:10	Welcome/Introductions	Dan Hull/Chris Oliver
1:10 - 1:15	NOAA Fisheries Update	Chris Oliver
1:15 - 2:30	Budget Update > Presentation	Brian Pawlak
2:30 - 3:00	Bycatch Update > Presentation	Sam Rauch
3:00 - 3:15	Break	
3:15 - 3:45	Electronic Monitoring Policy Directive > Presentation	Brett Alger/Councils
3:45 - 4:00	Data Modernization > Net Gains Report > Net Gains Presentation	Dorothy Lowman
4:00 - 4:30	Development of Electronic Monitoring (EM) in the North Pacific > Presentation	Diana Evans
4:30	Adjourn for the Day	
4:30 - 5:00	Demonstration of EM (dock outside)	Alaska Fishermen Stephan Rhoads

Schedule – Day 2

TIME	SUBJECT	PRESENTER
8:00 - 8:30	Coffee and Pastries	
8:30 - 9:30	Legislative Update and CCC comments > Legislative Committee Update > Congressional Activities Report > Legislative Committee Call Report > Working Paper Additions > Working Paper > Draft Letter to Congressman Don Young	Gregg Waugh/Dave Whaley
9:30 - 10:15	Recusal Policy- Discussion Paper	Adam Issenberg
10:15 - 11:00	EBFM Regional Implementation plans > Presentation	Sam Rauch
11:00 - 11:15	Break	
11:15 - 11:45	Exempted Fishing Permits – Use and review > Presentation	Glenn Merrill/Councils
11:45 - 12:15	BSIA Update > Presentation > White Paper	Cisco Werner/Councils
12:15 - 1:30	Lunch on your own	
1:30 - 2:30	NMFS Policy Directives & Prioritization > Presentation > Policy Directive System	Jennifer Lukens/Chuck Tracy
2:30 - 3:15	Allocation Reviews > NPFMC Allocation Review Progress > Policy Implementation	David Witherell Alan Risenhoover
3:15 - 3:30	Break	

TIME	SUBJECT	PRESENTER
3:30 - 4:30	Research Priorities > Presentation > Research Priorities Letter > NMFS Response	Tom Nies/Cisco Werner
4:30	Adjourn	

Schedule – Day 3

TIME	SUBJECT	PRESENTER
8:00 - 8:30	Coffee and Pastries	
8:30 - 9:30	Aquaculture Policy Updates > Lessons from GMFMC FMP	Sam Rauch/Carrie Simmons
9:30 - 10:00	International Affairs/Seafood Inspection	Sam Rauch
10:00 - 10:30	Regulatory Reform progress reports	Alan Risenhoover/Councils
10:30 - 10:45	Break	
10:45 - 11:45	Recreational Fisheries Overview > Presentation	Russ Dunn
11:45 - 12:00	Citizen Science > Cornell/SAFMC Poster Narrative > Citizen Science Program	Mark Brown
12:00 - 1:30	Lunch on your own	

TIME	SUBJECT	PRESENTER
1:30 - 2:45	NEFMC Program Review > Presentation > Touchstone Report > FAO Overview > Final Prospectus	Tom Nies
2:45 - 3:00	NOAA Fisheries Website Transition	Rebecca Ferro
3:00 - 3:15	Break	
3:15 - 4:15	CCC Workgroup Reports > Overview <ul style="list-style-type: none"> • Communications Group • Habitat Committee > Habitat Update Presentation • Scientific Coordination Subcommittee 	Maria Shawback/ Diana Evans/ Chuck Tracy
4:15 - 4:30	CCC TOR and Meeting Schedules > CCC TOR > 2020 Calendar and Meeting Schedule > Meeting History	David Witherell/ Tom Nies
4:30 - 4:45	Other Business and next meeting	Gregg Waugh
4:45 - 5:00	Wrap up and next meeting	Dan Hull
5:00	Adjourn	