New England Fishery Management Council
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Rick Bellavance, *Chair* | Cate O'Keefe, PhD, *Executive Director*

MEETING SUMMARY

Habitat Joint Committee and Advisory Panel

January 13, 2025
1:00 – 4:00 p.m.
Webinar

The Habitat Committee (Committee) and Advisory Panel (AP) met jointly via webinar on January 13, 2025, at 1:00 P.M. to continue work on the Council's Essential Fish Habitat (EFH) Review. This included a discussion on 1) the technical information, next steps, and future Council actions related to fishing impacts to EFH and measures to minimize adverse effects, necessary updates to EFH including prioritization across multiple Council actions during 2025-2027, and conceptual frameworks for designating Habitat Areas of Particular Concern and evaluating cumulative effects on EFH; 2) recommendations for next steps and future Council actions developed during the December joint meeting with MAFMC's Ecosystem and Ocean Planning Committee; 3) habitat and ocean planning work priorities for 2025; and 4) other business.

MEETING ATTENDANCE: Habitat Committee: Melissa Smith (Committee Chair), Geoff Smith (Vice Chair), Peter Aarrestad, Togue Brawn, Peter Burns (Greater Atlantic Regional Fisheries Office; GARFO), Michelle Duval (MAFMC), Eric Hansen, Peter Hughes (MAFMC), Scott Olszewski, Alan Tracy, and Peter Whelan. Habitat Advisory Panel (Habitat AP): Chris McGuire (AP Chair), Gib Brogan, Rip Cunningham, Lane Johnston, Jeff Kaelin, Meghan Lapp, Drew Minkiewicz, Ron Smolowitz, and David Wallace. Other Council Members in attendance: Rick Bellavance; NEFMC staff: Michelle Bachman (Plan Development Team (PDT) Chair), Jamie Cournane, Jenny Couture, Rachel Feeney, Julian Garrison, and Janice Plante; MAFMC staff: Jessica Coakley (EFH Fishery Management Action Team (FMAT) Chair), Tori Kentner, and Brandon Muffley. NOAA General Counsel: Mitch MacDonald. Stellwagen Bank National Marine Sanctuary staff: Alice Stratton and Sam Tolken. There were approximately ten other attendees.

KEY OUTCOMES

1. The Committee and AP recommend the Council adopt the recommended actions for each of the EFH Review components as outlined in the NEFMC EFH Review Summary Report.
2. The Committee and AP also agreed to the plan for updating EFH designations via trailing actions over the next three years, including the list of species planned for evaluation during each year.

There were no formal motions made.

- Regarding the technical information of the five-year EFH Review:
    - Several Committee members and advisors were concerned about the data inputs and assumptions of the Fishing Effects model, the framing of impacts, and how model outputs could be interpreted to inform management policies and decision-making.

    - Several Committee members and advisors were concerned about the extent to which fishery-independent survey data sources are representative of variability in species habitat use, particularly with respect to seasonal and climate change-related shifts.
    - Several Committee members and advisors expressed interest in the efficacy of HAPCs and how quantitative evaluation of cumulative impacts and use cases of HAPCs can inform management actions.
- Regarding the recommendations for future Council action by EFH Review component:
    - Several Committee members and advisors asked for clarification on the remaining steps in the EFH Review process, namely the involvement of the Habitat Committee and AP.
    - The Committee Chair asked for clarification on the roll-out and communications plan for sharing the products of the EFH Review electronically.
- Regarding 2025 Habitat and Ocean Planning Work Priorities:
    - The Committee Chair asked for clarification on EFH next steps for the upcoming six months with respect to Habitat Committee input and when EFH Review documents will be finalized.
    - The GARFO representative asked for clarification on whether the NEFMC will take action on the EFH Review in January, given that it is being finalized after the MAFMC Council meeting in April.
- No other business was discussed.

Introductions, Approval of Agenda, and Other Updates

The Committee and AP Chairs introduced the Committee and the Advisory Panel, welcomed attendees, and sought approval of the agenda. There were no agenda changes.

One advisor asked for clarification on when the MAFMC EOP AP will have an opportunity to offer feedback on MAFMC species prioritization for EFH designation updates. Ms. Coakley responded that MAFMC is in the process of scheduling a joint EOP AP and Committee meeting, expected this winter. She also noted that MAFMC initiated action for an EFH Review and Omnibus Amendment simultaneously, that will address EFH designation updates for all MAFMC-managed species at the same time via an amendment to multiple FMPs (i.e., no need for species prioritization). This differs from NEFMC's plan to update a subset of EFH designations each year from 2025-2027 using a phased approach.

Agenda Item #1: Technical Information on the Five-Year EFH Review and Agenda Item #2: Recommendations for Future Council Action, by EFH Review Component

Recap of EFH Components Presented at December Joint Committee Meeting

Michelle Bachman recapped the four EFH components that were discussed during the joint NEFMC Habitat Committee and MAFMC Ecosystem and Ocean Planning (EOP) Committee meeting held on December 18, 2024. The relevant component reports included Non-Magnuson-Stevens Act (MSA) Fishing Activities (Component 3), Non-Fishing Impacts to EFH (Component 4); Food Habits of Council-managed Species (Component 7), and EFH Research Needs (Component 9). Specifically, she briefly reviewed the content of the reports and the draft PDT / FMAT recommendations for each component. The recommendations were agreed to in December by the Joint Committee.

Discussion:

Members of the Habitat Committee and Advisory Panel did not have any specific questions or comments on the recap of the four EFH components.

EFH Component 2: Fishing Impacts and Component 6: Adverse Effects Minimization Measures

Michelle Bachman reviewed the EFH components on Fishing Impacts (Component 2) and Adverse Effects Minimization Measures (Component 6), noting that the two are closely related and evaluated in a combined components report. She provided a brief background on model development and reviewed the current approach that uses the Fishing Effects (FE) model, which includes finer spatial and temporal resolution and outputs that are more understandable. She also presented example draft model outputs, key takeaways of model outputs, and the challenges related to transitioning prior model scripts to integrate with the new Catch Accounting and Monitoring System (CAMS) database. Example model results were only discussed given staff are still evaluating and troubleshooting model outputs. Additional results will be added to the Fishing Impacts report when they are available. Ms. Bachman briefly discussed the Fishing Impacts Literature Database Project and the current approach taken for Adverse Effects Minimization Measures. She concluded by reviewing the recommendations for Council action for these two components.

Discussion:

Committee and AP members were mainly concerned about the data inputs and assumptions of the Fishing Effects (FE) model, the framing of impacts, and how the model outputs could be interpreted to inform management policies and decision-making. One Committee member asked for clarification on why the model outputs of the older Swept Area Seabed Impact (SASI) model and current FE model differed by a factor of ten. Staff clarified that her comment about a 10x difference was related to the trawl outputs for the current FE model runs vs. the prior FE model runs (data through 2017) and seemed to be the result of an error with the swept area data inputs, which the PDT and FMAT are troubleshooting. However, to the Committee member's point, she did note that SASI and FE model output are different from one another. While both models equate swept area to fishing effort, the FE model constrains fishing effort such that habitat impacts cannot exceed 100% in a given grid cell versus SASI, which did not have an upper threshold for the impact estimates. Consequently, the scale of impacts is represented differently between the SASI and FE models, so it is difficult to compare the magnitudes directly. The Committee member was concerned about using different models to evaluate EFH and recommended using one model for any updates to EFH designations. Staff responded that the approach transitioned from using SASI to the FE model to have a higher resolution of model outputs and that these tools are regularly validated. Overall, the current FE results seem consistent in space and time from those generated using SASI.

One AP member was concerned that the Fishing Effects model and disturbance from fishing and swept area are characterized only as adverse effects (versus potentially beneficial impacts). The AP member noted that there could be positive effects of fishing such as increased productivity for certain species, and cautioned against minimizing these positive effects as a goal. The models do make the presumption that impacts are adverse, which is based on evidence of diminished habitat quality, function, and structural complexity. Staff noted that, in discussing policy changes to management measures such as adjusting existing habitat management areas spatial boundaries, the Council could choose to account for beneficial impacts of fishing on EFH as it evaluates the magnitude of adverse impacts.

The AP member also sought clarification on how the effects of replicate tows over identical survey tow paths are considered in the Fishing Effects model, which is particularly relevant for the scallop and trawl fisheries. Staff responded that effort is not likely to be uniform in space and that the fishing effort input data are not at the necessary resolution (e.g., tow by tow data by fishery) to account for replicate tows; instead, the model assumes the proportion of a grid cell contacted by fishing does not exceed 100%. That said, staff noted that conversations with the North Pacific Fishery Management Council (NPFMC) could offer useful perspectives on this matter given much of the data in that region is on a finer tow-by-tow resolution. The advisor also emphasized the importance of incorporating fishing effort data by month to account for the seasonal variation in habitat use and the corresponding seasonal fishing impacts to EFH. Staff noted that while fishing effort is at a monthly resolution, habitat characteristics and vulnerability do not vary seasonally. Recognizing that habitats change throughout the year, it would be more realistic to allow susceptibility parameters in the model to vary by month, but further research and/or a literature review would be needed to inform those parameters.

Another advisor asked to clarify the example model outputs for scallop dredge fishing impacts, how to interpret the results in the context of management, and the implications of the color gradient. Staff clarified the scales of outputs in each of the figures and explained that, depending on the questions asked, these outputs could be framed as a proportion of scallop EFH or a proportion of scallop fishing grounds. Averages shown here are across the entire domain, including areas where scalloping does not occur. The advisor echoed the earlier concerns regarding how fishing impacts are framed as adverse. Interpretation of model results (i.e., habitat impacts) and any changes in management would depend upon the Council's risk policy, annual priorities, and management tradeoffs, which could be discussed in the near term (e.g., 2-5 years) when boundaries of spatial management are re-evaluated (per OHA2 recommendations). The AP member asked if other new literature or research could help inform this decision-making process on impact thresholds to consider as it relates to adverse effects to fisheries productivity; however, staff noted that existing literature does not provide clear guidance on impact thresholds to consider, though additional conversations with the PDTs, APs, Committees, and Council could be helpful.

One AP member asked for clarification on the professional judgement involved for determining the model's susceptibility / recovery parameter estimates and interpreting the outputs of the Fishing Effects model given this appears highly subjective. The original SASI model documents, Omnibus Habitat Amendment 2 (OHA2) Appendix D, and the Grabowski et al. (2014) paper provide details on the process for developing those parameters, namely which parameters were informed by scientific literature vs relying more heavily on professional judgement when research was not available. There are fewer long-term impact and recovery studies, as noted during Northern Edge discussions and when the Council evaluated the Gallager et al. 2022 before-after-control-impact study. The susceptibility and recovery parameters were first developed in 2008 / 2009 and revisiting them has been an ongoing process, involving collaboration with the NPFMC and sensitivity analyses.

Another advisor agreed with the staff recommendation to update the fishing impacts modeling work more frequently (not more than annually), noting that the EFH designations would generally be updated every five years per EFH regulation. Another advisor recommended emphasizing data needs as part of this modeling update work, which staff noted is encompassed as part of the staff recommendation (i.e., updates to data collection, modeling methods, assumptions, and other considerations).

Public Comment:

- **Shaun Gehan (Law Offices of Shaun M. Gehan)** asked whether there were established methods to assess the practicability of adverse effects measures, given the Fishing Effects model focuses

on identifying / quantifying adverse effects. He recommended considering fishing effort and productivity over time to inform whether fishing effects are adverse or beneficial.

Staff responded that when the Scientific and Statistical Committee reviewed quantitative practicability indices early in the development of OHA2, they were concerned about implementing an analytical approach for evaluating tradeoffs / practicability, where habitat impacts and some measure of benefit, such as revenue generated, were combined into a single index. However, she noted that this consideration can be noted in the report and potentially re-examined by the Council in the future. Assessing the practicability of adverse effects measures could be informed by information generated through several Inflation Reduction Act (IRA) projects, namely in evaluating the drivers of fisheries resource change (e.g., fishing, climate, etc.).

EFH Component 1: EFH Designation Methods and Species Prioritizations

Julian Garrison discussed the EFH Designation Methods (Component 1), including the structure of the report and a brief overview of the data inputs, modeling approach, and example figures of current and draft revised EFH map footprints. He also outlined the recommended schedule for EFH designation actions for 2025-2027, which is detailed in a separate memo. Staff requested AP and Committee input on the schedule for EFH designation updates, species prioritization criteria, and the process for evaluating revised EFH designation maps and text.

Discussion:

Overall, the Committee and AP were concerned about the extent to which fishery-independent survey data sources are representative of variability in species habitat use, particularly with respect to seasonal and climate change-related shifts. One AP member sought clarification on the surveys used for the species distribution models (SDMs), noting that the federal offshore trawl surveys may not be representative of species' habitat use throughout the year due to the surveys' limited spatial and temporal footprint. The inshore and offshore fishery-independent survey data are described in the EFH Designation Methods component report and the survey's seasonal data gaps are included in the EFH Research Needs component report. The SDMs evaluate each species' niche relative to environmental factors in order to identify suitable habitat areas within the survey footprint, even if surveys did not encounter a given species in that time or area (in other words, the SDMs are able to interpolate over unsampled areas based on modeled relationships between species and environmental variables in sampled locations).

Several Committee and AP members asked if the PDT considered the variability of timeframes in the survey data with respect to climate change and ocean industrialization (e.g., offshore wind). The groups were concerned that such a broad temporal range (2000-2019) of the survey data and SDMs would likely not be indicative of current habitat use and recommended either verifying consistency across the whole time series (e.g., using fish catch as an indicator) or constraining analyses to more recent data (e.g., after 2010). The PDT and FMAT considered tradeoffs between having sufficient data to support the modeling work and whether the entire time series is representative of contemporary habitat use. Model results can be curtailed to a subset of this time series as appropriate; also, one of the outputs shows trends over time, which could be used, for example, to determine whether the spatial extent of the EFH maps are reflective of current habitat use. Staff also noted that cross-validation is being used to evaluate model uncertainty and performance to help ensure model predictions are generalizable.

One advisor appreciated NEFMC's approach for species prioritization of EFH designation updates and asked whether the MAFMC could consider similar recommendations. Ms. Coakley clarified that NEFMC

is taking a phased approach for EFH designation updates over three years and MAFMC is planning an Omnibus action for all species, immediately following the conclusion of the EFH Review. EFH designation text and model-based maps have already been drafted for multiple MAFMC-managed species.

The Committee and AP members did not have specific comments or questions on the species prioritization schedule but sought clarification on the remaining steps in the process, namely the involvement of the Habitat Committee and AP. Staff clarified that in the next several months, final model runs will be completed for NEFMC species prioritized in 2025 and that draft EFH designations will first be presented to the individual species PDTs. After incorporating PDT and other expert input, the mostly finalized versions will be presented to the Habitat Committee and AP. The Committee and AP members seemed comfortable with deferring to staff on this process.

NEFMC EFH REVIEW SUMMARY REPORT

Jenny Couture gave a presentation on the NEFMC EFH Review Summary Report, which is NEFMC-specific (whereas a similar report will be prepared by MAFMC staff for their March EOP meeting and April Council meeting). She discussed the structure and contents of the report, noting that the Cumulative Impacts (Component 5) and Habitat Areas of Particular Concern (HAPCs; Component 8) components are included only in the summary because the level of information did not warrant separate reports. Ms. Couture also discussed the purpose of the technical review and the intended audience for each EFH component.

Discussion:

The discussion on the Cumulative Impacts and HAPCs components focused on the efficacy of HAPCs and how quantitative evaluation of cumulative impacts and use cases of HAPCs can inform management actions. One Committee member clarified that one of the figures used in the staff presentation depicts overlap of non-offshore wind with model-predicted habitat footprints (though other figures from that analysis included overlaps with offshore wind). Generally, they agreed that this type of figure could be a useful example for how to visualize overlap and interactions between EFH and cumulative impacts.

Another Committee member asked whether there has been any review of existing HAPCs and Habitat Management Areas (HMAs) during this process, particularly on their performance with respect to original intent of designation. Staff responded that HMA boundaries and effectiveness were not evaluated as part of this EFH Review but will be considered as part of any trailing action to reconsider these management areas, which could occur around 2028 (OHA2 recommended evaluating avoidance and minimization measures on a 10-year cycle). Staff reiterated that HAPCs are useful tools used in EFH consultations, and that designating an area as an HAPC does not inherently mean the area will be further restricted with additional fishing regulations. The Committee member recommended that HAPCs be evaluated on an ongoing basis rather than intermittently. This would likely require Council prioritization given resources involved. Ms. Coakley noted that MAFMC has had qualitative discussions on the efficacy of HAPCs (e.g., summer flounder and submerged aquatic vegetation; tilefish HAPCs that were subsumed by deep sea coral area designations) and that these HAPC designations are useful for emphasizing specific habitat types during EFH consultations. It is likely a combination of the specific habitat type and the presence of an HAPC designation for why HAPCs are successfully considered during these consults; both can be used to emphasize fish habitat concerns and urge specific federal projects to implement EFH conservation recommendations.

An advisor also asked whether there were any examples in New England in which an HAPC had been helpful in the EFH consultation process. Staff noted an example where an offshore wind developer was siting an offshore substation in Southern New England and was evaluating an area without EFH or HAPC designation that was surrounded by a habitat designation. GARFO and Council staff emphasized that the 'gap' in EFH was likely due to poor trawl survey sampling and not due to lack of cod spawning in the region. Knowledge gained via development of the Southern New England HAPC about cod spawning locations helped support our engagement in that process. Staff also noted that the HAPC in Southern New England has been referenced multiple times in offshore wind documents, though it is uncertain the extent to which the presence of HAPCs resulted in meaningful avoidance and mitigation measures. The GARFO representative noted that HAPC designations often prompt a more thorough evaluation when developing conservation recommendations. Generally, GARFO works with and tries to identify habitat (and fishery-related) issues to the Bureau of Ocean Energy Management (BOEM) and developers early. Staff encouraged the Committee and AP to consider the educational value for the Council of developing EFH / HAPC designations and acknowledged that it can be challenging to quantify HAPC effectiveness.

One advisor reiterated the value of developing quantitative indices to measure cumulative impacts (a PDT / FMAT recommendation). The AP member cautioned that information in EFH consultations is not available until after Draft Environmental Impact Statements (DEIS) are published, at which point the public comment period is closed. She thought the EFH consultation information would be useful specifically to inform public comments, environmental impact assessments, and state consistency certifications—especially since EFH documents can serve as federal recognition of impacts of a proposed project. While EFH consultations develop conservation recommendations, these are not requirements; staff agreed it would be useful to have environmental information early in the process.

Regarding the implementation and uses of the EFH Review, the Committee Chair noted there had been discussions on how the products could be shared electronically and asked for further clarification. Staff are planning to develop a more detailed roll-out and communications plan to ensure that products and resources are accessible, interactive, and can incorporate feedback over time. This plan would outline the locations and target audiences of specific products and could involve a joint NEFMC / MAFMC webpage, which could link to the various R-Shiny applications and data portals.

AGENDA ITEM #3: 2025 HABITAT AND OCEAN PLANNING WORK PRIORITIES

Michelle Bachman presented updates to the habitat staffing and work planning structure for 2025, noting that within the habitat team, she and Julian Garrison will focus on EFH, while Jenny Couture will focus on ocean planning-related issues. Ms. Bachman noted that most of the 2025 work will be focused on EFH but that other habitat or ocean planning issues can be presented and/or raised as needed.

Discussion:

The Committee Chair asked for clarification on EFH next steps for the upcoming six months with respect to Habitat Committee input and when EFH Review documents will be finalized. The NEFMC will receive a presentation on the EFH Review during the January Council meeting and MAFMC will receive a similar presentation during their April Council meeting. As such, while most of the component reports are mostly complete, except for the Fishing Impacts report (Component 2), staff will hold off on finalizing and transmitting the EFH Review and online products (e.g., R-Shiny applications) to NOAA until after the MAFMC April meeting due to the joint nature of the technical review. Staff noted that the NEFMC PDT is planning to begin using model outputs to draft EFH designation maps and text for NEFMC species starting this spring. As discussed earlier in the meeting, these draft designations should

be vetted (e.g., with species PDTs, assessment biologists, literature, etc.) before bringing them before the Habitat Committee. The Committee Chair noted that there is substantial information to consider, and encouraged subsequent meetings should be in person or hybrid when discussing modeling outputs and draft designations. Staff also noted it could be useful to discuss the EFH roll-out process and best practices with colleagues at the other Councils and agreed that an in-person meeting would be preferable.

The GARFO representative asked for clarification on whether the NEFMC will take action on the EFH Review in January, given that the reports are being finalized after the MAFMC Council meeting in April. Staff responded that the intent is for the Council to understand and endorse the EFH Review so that staff may begin using this information in various aspects of fisheries management, namely updates to EFH designations for the species prioritized for 2025.

AGENDA ITEM #4: OTHER BUSINESS

No other business was discussed.

The meeting adjourned at approximately 4:00 P.M.