New England Fishery Management Council
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MEETING SUMMARY

Habitat Plan Development Team

May 22, 2025
1:00 p.m.

The Habitat Plan Development Team (PDT) met via webinar at 1:00 p.m. on May 22, 2025 to discuss Essential Fish Habitat (EFH) designations (maps and text descriptions) including: (1) a recap of the approach for designation updates; (2) reviewing map and model outputs for each of the ten species slated for EFH updates in 2025; (3) an overview of the process for revising EFH text descriptions; (4) feedback on discussion questions for consultation with species PDTs and Advisory Panels (APs); and (5) other business, as necessary.

MEETING ATTENDANCE: Michelle Bachman (PDT Chair), Jennifer Couture, and Julian Garrison (NEFMC); Sabrina Pereira (NMFS/GARFO); David Packer (NMFS/NEFSC); Dr. Peter Auster (University of Connecticut/Sea Research Foundation); Tori Kentner (MAFMC); Dr. Chris Haak (Monmouth University); Julia Livermore (Rhode Island DEM, DMF); Anne Simpson (Maine DMR); Dr. Fiona Hogan (RODA); Melissa Smith (Committee Chair). Council staff members Emily Bodell, Angelia Miller, and Jamie Cournane attended to learn about EFH updates for their FMPs. In addition, about 7 other people attended.

KEY OUTCOMES

- PDT members appreciated the time and effort put into the EFH modeling and mapping.
- The PDT encouraged staff to consider how to share the updated EFH designations and modeling products and how they can inform other management contexts beyond EFH consultations. This is particularly relevant for non-fishing activities and climate-related processes.
    - Suggestions included clear, concise descriptions of mapping and modeling products as well as ensuring figures are easily interpretable.
- PDT members discussed draft maps and model outputs for each species, generally noting the importance of examining recent (i.e., the last five years) trends and data.
- PDT members suggested additional resources and datasets that could inform text descriptions and modeling work.
- The PDT generally found the draft discussion questions for species PDTs and APs clear and comprehensive but also encouraged staff to be explicit in setting expectations for how the feedback would be incorporated into the designation revisions process.

AGENDA ITEM #1: EFH DESIGNATION UPDATES APPROACH

Council staff briefly recapped the planned workflow for EFH updates over the next three years as well as the model-based approach for updating EFH designations. Staff provided several updates to the process and timeline, to better coordinate meeting timing with the Habitat PDT, AP, and Committee as well as species PDTs and APs before the Council takes final action in September. Staff also noted that species-specific effects of fishing relative to individual EFH designations will be included in the framework. One PDT member encouraged staff to consider how to operationalize the updated EFH designations in other

management contexts beyond EFH consultations, particularly where EFH may interact with non-fishing activities and processes.

Public Comment:

- There were no comments from the public on this agenda item.

Follow-Ups:

- None

AGENDA ITEM #2: EFH MAP AND MODEL OUTPUTS BY SPECIES

Dr. Chris Haak reviewed the process of translating species distribution model outputs into draft EFH map footprints, as well as specific, additional modeling outputs. PDT members discussed ways to handle species' persistent vs transient use of habitat in the EFH designations as well as account for long recovery times of some habitats from disturbance by human activities. Council staff then presented the draft EFH footprint maps, 20-year trend maps, and model smooth terms (importance of environmental variables) for each of the ten species. PDT members suggested that the framework should descriptively compare the updated to past designations for all species.

Species-specific discussions are summarized below:

Monkfish

- The PDT noted that the draft EFH footprints were similar between juveniles and adults, with juveniles absent from shallower areas relative to adults.
- One PDT member shared anecdotal experience of finding juvenile monkfish in high energy areas but was surprised to see a large gap in the footprint on Georges Bank and Nantucket Shoals. They suggested examining other survey results with different gears (e.g., scallop survey gear) to address whether the gaps arose from gear selection.
    - Dr. Haak noted that the smooth terms for juvenile monkfish indicated a negative relationship with high water velocity, which could in part explain the gap.
- Another PDT member suggested examining the most recent five years of data, particularly in the fall, given recent comments from fishermen about fishing picking up later in the season each year.

Atlantic herring

- The PDT noted that the lowest quantile was missing from the juvenile herring EFH map.
- One PDT member confirmed that the herring EFH footprints generally seemed to align with other acoustic data they have examined recently.
- Dr. Jamie Cournane (NEFMC Herring FMP coordinator) noted that the fishery has not been encountering herring recently in Southern New England and echoed the earlier suggestion to examine the most recent five years of data, particularly around 2017 when the fishery began to decline. She also suggested that the PDT examine a stakeholder engagement report from the herring Research Track Assessment[1], which summarizes recent industry perspectives and experience with the fishery.

Atlantic cod

[1] https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2025&species_id=21&stock_id=6&review_type_id=5&info_type_id=5&map_type_id=&filename=Stakeholder-WP.pdf

- The PDT noted differences in the smooth terms between juvenile and adult cod, particularly for variables related to wave energy. Adult cod occurrence had a positive relationship with wave energy, whereas for juveniles the relationship had a unimodal peak but fell off at higher wave energy. Dr. Haak pointed out that the magnitude of the effect was smaller for juveniles.

Little skate

- Tori Kentner wondered whether to limit the EFH footprint to the mouths of certain estuaries (e.g., Chesapeake Bay) for little skate and other skate species, noting that there was no inshore occurrence further up the estuaries, despite sampling in those locations. The PDT discussed whether there was a way to quantitatively determine where to cut off the inshore footprint, for example with a salinity threshold. Ms. Kentner will explore this issue further.

Winter skate

- None, though see point above regarding a cutoff for the estuarine EFH footprint for skates.

Barndoor skate

- The PDT noted that there has been an increase in catch of barndoor skate in trawl surveys since the last EFH designation update based on 2005, which now provides sufficient data to model juveniles separately from adults.
- The PDT thought it was generally reasonable to expect narrow "tails" in the designation footprint, which reflects habitat use in very deep areas such as canyons and along the shelf edge, especially in the more southern parts of its range.
- One PDT member suggested examining fishery data off Delmarva, as they were surprised that barndoor skates were not more prevalent in that area or off New Jersey.

Clearnose skate

- The PDT noted that some areas of the EFH footprint for clearnose skate would not be in the final designations because they are not located in the Exclusive Economic Zone (EEZ).
- One PDT member was surprised to not see clearnose skate EFH footprint on Stellwagen Bank, given that they have seen them via remotely operated vehicles (ROVs) and that they have been caught in trawl surveys elsewhere in the Gulf of Maine. Another PDT member noted that they tend to have a more southerly distribution and only occasionally further north seasonally. The PDT suggested examining the time series report that was done for the Stellwagen condition report[2] exercise, which documented clearnose skates in Gulf of Maine (see Table 1 of report).

Thorny skate

- The PDT noted that there has been research indicating separate size-dimorphic populations of thorny skate, though for the EFH work, juveniles and adults were combined in a single model.
- The PDT discussed how the updated EFH designations and modeling effort could be used to inform ecosystem component species work under the Inflation Reduction Act (IRA) initiatives. PDT members noted that habitat descriptions and the species covariance matrices could be useful in identifying overlapping niches, particularly for species that lack major fisheries.

Smooth skate

- The PDT noted that the EFH footprint was mostly within the Gulf of Maine but also included cells along inshore coasts and along the shelf edge further south, especially for juveniles. Dr. Haak explained it was an artifact extrapolating to shallow depths (beyond the range of those

[2] 2020 Condition Report - Findings of Status and Trends

observed) for the inshore areas, but that the deeper, shelf edge footprint may be more reasonable to expect.
- One PDT member suggested removing the zeroes from the predicted vs observed plot for clarity and changing the plot title from "TRUE" to "OBSERVED".

Rosette skate

- Similar to barndoor skates, the PDT noted that there were no inshore data for rosette skate but that there were sufficient offshore survey data to fit a single, combined model for adults and juveniles, despite initial concerns that this might be a data poor / unmodeled species.

General discussion

- One PDT member clarified when the model products and EFH maps would be next discussed by Council members. Staff responded that the maps and products would be discussed at the Habitat Committee meeting later this summer, likely in August.
- Dr. Haak noted that the trends maps depict purely linear trends within each grid cell, but that two dimensional plots of modeled (spatially-integrated) overall density could be generated and these may depict year-to-year fluctuations over the modeled period.
- One PDT member encouraged the PDT to examine the recent periods (e.g., most recent five years) for all species if there was continued interest from the Committee and Council; otherwise, this approach seems warranted for individual species (i.e., see discussions above on monkfish and herring).

Public Comment:

- Lou Chiarella, GARFO HESD noted that the EFH consultations process tries to address the transient nature of some species' habitat use and the need to protect habitats with longer recovery times. Specifically, time-of-year restrictions are considered as part of the consultations process, and the process also evaluates potential short-term and long-term impacts to the habitat to build in appropriate recommendations.
- Mr. Chiarella was also concerned that presenting the EFH designations as a heatmap, rather than a single footprint, could lead to habitat areas being dismissed as less important by action agencies or developers. He noted that the heatmaps would be valuable for developing EFH conservation recommendations, and supported sharing these maps as an additional information product.

Follow-Ups:

- **Haak:** Investigate and troubleshoot missing bottom quantile for juvenile herring map
- **Kentner / Staff:** Explore quantitative approaches to limiting inshore skate footprints to the mouths of estuaries.
- **Haak:** Generate additional plots that depict non-linear changes in species' average predicted density.
- **Staff / EFH team:** Brainstorm how to share additional model outputs and how this information can be used in other management processes besides EFH consultations (likely in collaboration with MAFMC partners).
- **Bachman, Garrison, and Haak:** Write clear, concise descriptions of each modeling output (maps, figures, etc.) and environmental variable to ease understanding and interpretability.
- **Haak:** Re-label "TRUE" to "OBSERVED" in predicted vs. observed plots and remove "zeroes" for clarity. Improve descriptions of smooth terms to make them more descriptive / intuitive.

AGENDA ITEM #3: EFH TEXT REVISIONS PROCESS

Council staff presented a brief overview of the approach to revising EFH text descriptions, which includes a literature review of recent (i.e., since 2018) and seminal publications. Staff noted that revisions will occur alongside and be informed by consultations with species PDTs / APs throughout summer 2025. Staff also noted that these updated text descriptions will be occurring in parallel with MAFMC's IRA project to update EFH Source Documents, which could further inform consultation work. One PDT member clarified whether the EFH framework(s) would address climate or other drivers. Staff noted that these processes could be discussed if they relate directly to species' distributions but ecosystem-wide implications would be more appropriate to be included under the relevant IRA projects. Dr. Cournane suggested the research track assessment reports under Term of Reference 1 as a jumping off point for recent cod[3] and herring[4] literature references.

Public Comment:

- There were no comments from the public on this agenda item.

Follow-Ups (Next Steps):

- **Garrison, Bachman:** Continue to develop draft designations and circulate to PDT for input.

AGENDA ITEM #4: DISCUSSION QUESTIONS FOR SPECIES PDTS AND APS

The PDT provided the following feedback on discussion questions for species PDT / AP consultation on model outputs and maps:

- Dr. Cournane suggested holding a joint PDT and AP meeting for Atlantic herring EFH, since the groups together could address the discussion questions.
- One PDT member suggested asking species PDTs and APs about specific geographic features and locations, in addition to the habitat features and environmental variables not captured by model smooth terms (i.e. discussion question 5).
- One PDT member clarified whether feedback from the species PDTs and APs was going to only inform text revisions or if there would be enough time to incorporate them into EFH map footprints. They suggested making that distinction explicit upfront to set expectations for feedback. Staff noted that EFH designations include both the text and the map components, so they should be aligned.

Public Comment:

- There were no comments from the public on this agenda item.

Follow-Ups (Next Steps):

- **Garrison, Bachman:** Share discussion questions with species PDTs and APs during their meetings.

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[3] https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=5&map_type_id=&filename=ToR%201%20Report%20Chapter.pdf

[4] https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2025&species_id=21&stock_id=6&review_type_id=5&info_type_id=5&map_type_id=&filename=ToR_1-WP.pdf

AGENDA ITEM #5: OTHER BUSINESS AND NEXT STEPS

Council staff shared two additional agenda items:

(1) Coonamessett Farm Foundation (CFF) recently finished its seasonal multibeam and drop camera surveys under its Great South Channel Habitat Management Area (GSC HMA) Exempted Fishing Permit. CFF is currently analyzing data but plans to share its second progress report later in the summer.

(2) There are two ongoing petitions seeking access to the Closed Area II Habitat Closure Area on the Northern Edge and to GSC HMA via the Office of Management and Budget deregulatory initiative. Council staff do not have any information at this time about whether or how the Council may be involved in this process, but will follow up with the PDT as needed.

Public Comment:

- There were no comments from the public on this agenda item.

Follow-Ups (Next Steps):

- **Bachman, Garrison:** Schedule a follow-up meeting with the chairs of the Habitat Committee and AP to coordinate polling for a joint Committee / AP meeting, which will inform the timing of the EFH framework drafts and other follow-up Habitat PDT meetings (two expected, one before and one after the joint Committee / AP meeting).
- **Bachman, Garrison:** Schedule the next PDT meeting for July.
- **Bachman, Garrison:** Circulate feedback from species PDT and AP consultations to the Habitat PDT.
- **Bachman, Garrison:** Continue coordinating with FMP leads on timing of upcoming PDT and AP meetings.

The meeting adjourned at approximately 3:30 p.m.