New England Fishery Management Council
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DRAFT MEETING SUMMARY

Habitat Plan Development Team

May 3, 2021
10:30 a.m. – noon

Agenda

The PDT (1) recommended edits to the Council's 2020-2024 research priorities related to habitat topics, (2) identified information requests for the principal investigator related to the before-after-control-impact study of habitat impacts on the Northern Edge of Georges Bank, and (3) discussed updates that might be made to the Council's renewable energy policy. The suggestions and recommendations discussed during the meeting will be brought to the next joint Habitat AP and Committee on May 10, 2021.

Meeting attendance

PDT members included Michelle Bachman (Chair), Peter Auster, Sharon Benjamin, Jenny Couture, Geret DePiper, Rachel Feeney, Moira Kelly, Alison Verkade. Sam Asci and Jonathon Peros from the Council staff also attended, as did Habitat Committee chair Eric Reid. Other attendees included Kelly Whitmore and Melissa Smith.

Discussion

The PDT discussed the Council's 5-year research priorities related to habitat issues. (Some of these originated with the habitat PDT and some were developed by others.) The group recommended modifications to how some priorities were described, and suggested additions in the notes field of the database for many priorities. The notes field is mostly used to tracks ongoing research relevant to the priorities. The chair committed to cleaning up the edited priority descriptions and notes fields in the day following the meeting for distribution to the Committee; these will be provided separate from this meeting summary. Below are some brief notes on the discussion about each item.

- #82: Non-use values of deep-sea corals and tradeoffs between protection and fishing
    - Can we re-frame this item to better get at the types of research that would benefit management? What are the recovery times of these habitats? What is their EFH value?
    - While the Council has not discussed when they might consider additional management of deep-sea coral habitats, marine protected area 30x30 initiatives may be a potential driver of future management.

  - The notes should include an accurate timeline for the next round of Deep-Sea Coral Research and Technology Program funding for the Northeast; the Council should communicate any relevant research priorities during the planning process. The chair will follow up with appropriate NOAA staff (Martha Nizinski and Heather Coleman).
- #83 – Quantify seabed contact for various gears
  - Not aware of new research specific to the Northeast region but identified some studies from other areas for the notes.
- #84 – Characterize/evaluate current management areas
  - Studies of fish condition inside vs. outside of closures are an important part of such an evaluation, i.e., the Sherwood and Grabowski study[1] on cod inside and outside closures.
  - Would be productive to expand this type of study to other areas and species.
- #85 – Evaluate habitat recovery following fishing gear impacts
  - Would analysis of coral habitat images be productive here, as suggested in the notes? State of deep-sea corals chapter[2] includes some discussion of fishing impacts.
  - References: book chapter on nursery habitats; Ken Able multiscale habitat selection models
- #86 – Methods to reduce impacts of scallop and clam dredging
  - What are the benefits of modified gear?

What are the effects of gear on EFH for other species, e.g., what are the effects of
  - trawl gear on scallop recruitment?
  - Importance of considering impacts in specific settings.
- #87 – Relationships between species and habitats
  - Example of blue crab study[3]; but no real investment in addressing these linkages in a quantitative way for assessing tradeoffs.
  - NHRA models can be used to generate field-testable hypotheses about relationships; models should be a starting point, not the endpoint.
- #88 – Fixed gear effects on habitat
  - Not aware of new studies in Northeast; new UK paper[4]
- #89 – Targeted studies to understand function and vulnerability of deep-sea coral habitats

[1] Sherwood, G. D. and J. H. Grabowski (2015). "A comparison of cod life-history parameters inside and outside of four year-round groundfish closed areas in New England, USA." ICES Journal of Marine Science: Journal du Conseil **73**(2): 316-328.

[2] Packer DB, Nizinski MS, Bachman MS, Drohan AF, Poti M, Kinlan BP (2017). State of Deep-Sea Coral and Sponge Ecosystems of the Northeast United States. In: Hourigan TF, Etnoyer, PJ, Cairns, SD (eds.). The State of Deep-Sea Coral and Sponge Ecosystems of the United States. NOAA Technical Memorandum NMFS-OHC-4, Silver Spring, MD. 62 p. Available online: http://deepseacoraldata.noaa.gov/library.

[3] Ralph, G., R. Seitz, R. Orth, K. Knick and R. Lipcius (2013). "Broad-scale association between seagrass cover and juvenile blue crab density in Chesapeake Bay." Marine Ecology Progress Series **488**: 51-63.

[4] Rees, A., E. V. Sheehan and M. J. Attrill (2021). "Optimal fishing effort benefits fisheries and conservation." Scientific Reports **11**(1): 3784.

  - Two studies to reference – Fountain et al. *Paramuricea* growth[5]; Metaxas connectivity paper on Canadian side of Georges Bank[6]
- #90 – Refine benthic shear stress estimates
  - Possible to look at this issue using existing seabed imagery?
  - Two hypotheses – high stress results in unstable communities, and high stress leads to animals adapted to those conditions.
  - Peter Harris paper – lack of relationship between seabed stress and animals[7]
- #91 – Targeted sampling of geological and biological seabed features
  - Can we be more specific about where (GOM? SNE? Other locations?) we would benefit most from additional data?
  - Can we build on data collection for offshore wind? Note that the spatial resolution of benthic data collected to support wind development is too coarse to resolve habitat features at fine (sub-meter) scales. Nonetheless data sharing initiatives (i.e., NOAA/Ørsted MOA) are still a positive development. Data collected are still useful, but important to ensure that they are used appropriately.
  - Maps provide an informational foundation for all activities in the landscape and without these high-resolution foundational maps, we have much greater uncertainty about before/after effects of development.
- #101 – Understand species responses to climate change and effects on fisheries
  - Suggest that we would want to understand changes at the level of individual species and considering interactions between species.
  - Can these models be downscaled to provide advice at the scale of individual project areas?
  - NHRA is addressing this.
- #102 – Ecosystem operational advice
  - No suggested edits.
- #104 – Evaluate fishability of offshore wind farms and aquaculture sites
  - Suggested minor adjustments to description and updates to studies referenced in notes.
- #105 – Develop habitat suitability models to explore climate effects
  - Noted NHRA and ICES work[8] on this topic.
- #106 – Effects of offshore wind and aquaculture development on species

[5] Fountain, C. T., R. G. Waller and P. J. Auster (2019). "Individual and Population Level Variation in the Reproductive Potential of Deep-Sea Corals From Different Regions Within the Gulf of Maine." Frontiers in Marine Science **6**(172).

[6] Metaxas, A., M. Lacharité and S. N. de Mendonça (2019). "Hydrodynamic Connectivity of Habitats of Deep-Water Corals in Corsair Canyon, Northwest Atlantic: A Case for Cross-Boundary Conservation." Frontiers in Marine Science **6**(159).

[7] Harris, P. T. (2012). On Seabed Disturbance, Marine Ecological Succession and Applications for Environmental Management: A Physical Sedimentological Perspective. Sediments, Morphology and Sedimentary Processes on Continental Shelves**:** 387-404.

[8] ICES Workshop on the Use of Predictive Habitat Models in ICES Advice: https://www.ices.dk/community/groups/Pages/WKPHM.aspx

  - Priority description - is this limited to certain types of stressors, e.g., acoustic as indicated by one of the referenced studies? Or broader topic to include benthic change, electromagnetic fields, hydrodynamic changes, etc.
  - Suggested adding survivorship as a metric of interest, in addition to behavior and reproductive success.
- #107 – Assess how changes in surveys due to offshore development will affect fisheries management advice
  - Work is ongoing at NEFSC.
- #108 –Can fishery management changes mitigate effects of offshore wind and aquaculture?
  - No ongoing studies identified. Be sure examples are focused on fishery management adjustments, and not effects of offshore projects on fishing, which seem to be a better fit for priority #104.

Next, the PDT discussed follow up requests for Dr. Scott Gallager, who presented his before-after-control-impact scallop dredge study to the PDT in April. The PDT has some specific requests related to why three sites were pooled together and had identified some potential inconsistencies in fish counts shown in different presentations. More generally, the PDT was looking for a write up of the methods, results, and conclusions from recent analyses, in addition to the PowerPoint slides provided. Dr. Gallager indicated that a publication was in preparation but waiting for this publication to begin a detailed discussion of the applications of the results to management is probably not needed, from a technical standpoint, and might not be desirable in terms of the Council's timeline for deciding whether to move forward with a management action. In advance of a publication, a written report would be extremely helpful to ensure that the PDT understands the results sufficiently to communicate with the Committee about the potential management implications of the work. The PDT also wished to clarify whether only recent results based on analysis of additional images should be used, or if there are results from the final RSA report and prior presentations that should be considered as well. The PDT also wondered whether habitat maps would be available as GIS products (not only as static maps) for overlay with other data sets and area boundaries. The PDT Chair will follow up with Dr. Gallager on these issues.

Finally, the PDT briefly discussed the idea of updating the Council's renewable energy policy. The PDT was in general agreement that some adjustments would be helpful at this point. There was some general discussion of how the policy is used – i.e., does BOEM consider the Council's recommendations? Ms. Bachman noted that sometimes NMFS has referred to our policies (energy, cables) when commenting to BOEM, and that we refer to them in comment letters as well. The policies are useful internally for guiding the types of comments we provide, and the exercise of writing and updating the policies is inherently valuable from the perspective of educating Council staff, members, and others.

The PDT thought it would be valuable to say something about tradeoffs at a very high level that BOEM might find useful; i.e., there are benefits of offshore wind in terms of reducing CO_2 emissions, but it is important to be smart about development considering the potential for environmental effects. Also, the policy should emphasize learning by doing and adaptive management, i.e., applying lessons from current projects to future projects. Ms. Couture will

identify potential changes during the Committee meeting next week and the PDT can continue work on this issue later in the spring/summer if the Committee agrees there is value in doing so.

The meeting adjourned approximately at 12:05 pm.