Habitat Advisory Panel and Habitat Committee Meetings
Northern Edge Framework, EFH Review, Wind Energy Updates, 2024 Work Priorities

August 23, 2023 – via Webinar
August 24, 2023 – Wakefield, MA
Northern Edge Habitat-Scallop Framework
Reminder of Northern Edge Priority

- The Scallop and Habitat Committees will develop an action for access to the northern edge Habitat Management Area (HMA), including development of access area program for modified area.

- Note: northern edge HMA = Closed Area II Habitat Closure Area, in yellow-orange outline at right.
Today’s Goals

- Review outline for full range of actions, alternatives, and options
  - Ask and address any questions
  - Identify any concerns or omissions
- Provide feedback on habitat-focused alternatives (Action 1)
  - Habitat Protection Zone(s) including buffers for conservation and enforcement
  - Minimum rotational interval for habitat recovery
**ACTION 1 – Habitat Protection Measures**
- Alternative 2 – Identify Habitat Protection Zone(s)
  - Identify portions of the CAII Habitat Closure as Habitat Protection Zone(s) with buffer
- Alternative 3 – Set a minimum rotational interval for habitat recovery
  - Option A – 10 yrs
  - Option B – 5-6 yrs
  - Option C – 3-4 yrs

**ACTION 2 – Scallop Rotational Areas**
**ACTION 3 – Fishing Mortality Targets & Possession Limits**
**ACTION 4 – Program Operations**
**ACTION 5 – Seasonal and Gear Restrictions**
**ACTION 6 – Scientific Monitoring**
Action 1 – Rationale

- Habitats within CAII Habitat Closure Area are heterogeneous in terms of the distribution of biological/geological seafloor features
  - Different locations not uniformly vulnerable to fishing
- Concept of Habitat Protection Zones is to clearly delineate more vulnerable areas to set aside to minimize EFH impacts
  - Scallop rotational areas (Action 2) would then be identified from the remaining portions of the CAII Habitat Closure, considering relative scallop abundance and size/shape of areas
- Minimum closure time between rotational fishing opportunities would allow habitats to recover
Action 1 Alternative 2 - Habitat Protection Zone(s) and Buffers

- Where are the areas that are incompatible with scallop dredging given potential impacts of fishing on EFH?
- Should fishing be avoided within a certain distance of these zones to minimize impacts?

High complexity area identified in 2008 NEFSC benthic survey with 500-m buffer, Gallager et al. epifauna contours
Action 1, Alternative 2 – Habitat Protection Zones

- Areas of complex/more vulnerable habitat to set aside
  - **Rationale/supporting information:** Acoustic mapping, imagery, analysis from NEFSC cruises and subsequent RSA-funded BACI study on the Northern Edge can be used to identify sites
    - Previously discussed triangle of complex habitat south of scallop beds; need to consider whether other areas should be set aside as well

- Buffer
  - **Rationale:** Boundary around complex epifaunal habitat would better protect complex habitat
    - Avoids sedimentation from dredging and removal of features directly adjacent to complex areas, would promote faster recovery
    - Need to consider what an appropriate distance would be
    - Also, what features exist outside (in a gradient away from) triangle complex habitat?
Action 1, Alternative 3 – Minimum Rotational Interval

- Concept is that for this rotational area, frequency of scallop access would be largely based on habitat recovery considerations
  - Habitat recovery could be determined by return of certain species, biodiversity, recovery of certain % cover, & other community measures
- Should consider interactions between dredge impacts, removing scallops, and community dynamics between taxa
  - Could have different recovery trajectory depending on intensity of impact and amount of fishing effort
- Evidence/support: Gallager, et al. BACI study, Harris, et al. 2014 study re-impact and closed area sites, recent literature on fishing gear effects
Option A – Minimum of ten years
   • Rationale: all impacted areas returned to or exceeded pre-impact habitat complexity 68 months after initial impact; additional time beyond this would allow sensitive habitat to further contribute to the function, habitat quality, and value for other species/sediments before another dredge impact interval
   • Good habitat quality would be restored and maintained over a longer time period

Option B – Minimum of five years
   • Rationale: 2 yrs not sufficient for complex habitat to recover to 100% before impact; epifauna/mussel/tunicate community significantly decreased in abundance & species richness after impact and remained as such after 22 months; after 5 yrs 8 months after initial impact, all areas returned to or exceeded pre-impact habitat complexity

Option C – Minimum of three years
   • Rationale: 2 yrs after dredge impact, species richness fully recovered in 2/3 low epifauna sites, infauna were not significantly different, and no significant differences in echinoderm abundance
Reminder: 2021 Northern Edge Habitat White Paper

Conclusions

- No new information to invalidate or suggest different OHA2 conclusions
- 2 RSA studies have contrasting results but are difficult to compare because of different study designs
- More sensitive habitats with fragile, structure-forming and slow growing species frequently disturbed have lower recovery rates
- Need further research to examine recovery at longer time intervals to inform potential rotational fishing access
  - Allow sufficient time for habitat recovery while minimizing loss of habitat value to managed species
- For any new habitat management approach:
  - Need to consider regional fishing activity, stock status
  - Need to identify and evaluate tradeoffs between species productivity, habitat conservation, and effects on fisheries/fishing fleets
Reminder: High level results of BACI study

- 2022 BACI final report [here](#)
- Six original sites, half complex habitat (epifauna, mussels, shell hash), half sand/gravel
- Impact of dredging greater in complex habitat than sand/gravel immediately after disturbance
  - Two years after dredging, complex habitat sites not fully recovered
- Three sites resampled in 2022
  - Six years after dredging, no significant differences detected between control and impacted areas (biodiversity, species richness, epifauna)
- Higher abundances of scallops generally found in less complex habitat
  - Dr. Gallager: may be potential for defining boundary that separates scallops from vulnerable areas
For Habitat PDT, AP, and Committee’s awareness → no input needed at this time

ACTION 2 – Scallop Rotational Areas

- Alternative 1 – No Action
- Alternative 2 – Inside and outside CAII and Habitat Closure
- Alternative 3 – Inside CAII and Habitat Closure only

Considerations

- Where are high densities of scallops now and in the past?
- Is additional area beyond footprint of scallops needed to allow space for laying to / cutting (vessel safety and resource implications)
- Need to make area simple enough for enforcement purposes (straight lines, minimal vertices, minimum dimensions)

2022 NEFSC HabCam predicted scallop biomass (kg per km²) relative to the high complexity area identified in 2008 NEFSC benthic survey, Gallager et al. epifauna contours, and cod spawning grounds.
Conceptual Framework - Actions 1 and 2

- Action 1, Alternative 1 (No Action) - No Habitat Protection Zones
- Action 2, Alternative 1 (No Action) - No Scallop Access Area

- Action 2, Alternative 2 – Habitat Protection Zone
- Action 2, Alternative 2 – Scallop Access Area inside/outside

- Action 2, Alternative 2 – Habitat Protection Zone
- Action 2, Alternative 3 – Scallop Access Area inside only

For all spatial configurations, Action 1, Alternative 3 sets the minimum rotational interval.

There might be alternative configurations for Habitat Protection Zones:
ACTION 3 – Fishing Mortality Targets and Possession Limits
- Alternative 1 – No Action
- Alternative 2 – Fishing Mortality Targets OR Maximum Total Swept Area
- Alternative 3 – Possession Limits
  - Option A – Maximum 9,000 lb possession limit
  - Option B – Maximum 12,000 lb possession limit

ACTION 4 – Program Operations
- Alternative 1 – No Action
- Alternative 2 – Timed entry system
- Alternative 3 – Carryover provision
- Alternative 4 – VMS Polling Rates

For Habitat PDT, AP, and Committee’s awareness ➔ no input needed at this time
ACTION 5 – Seasonal and Gear Restrictions

- Alternative 1 – No Action
- Alternative 2 – Seasonal Restrictions
  - Option A – August 15 – November 15
  - Option B – August 1 – October 30
- Alternative 3 – Gear Restrictions

ACTION 6 – Scientific Monitoring

- Alternative 1 – No Action
- Alternative 2 – Target Observer Coverage

Future Appendix: Develop Information to Support Future Management

- Science and Research Objectives
- Possible Adjustments to Habitat Closure Area
- Possible Adjustments to Sub-ACLs and Accountability Measures

For Habitat PDT, AP, and Committee’s awareness → no input needed at this time
Synergies/relationships between alternatives should be considered

- Overall goal is to minimize impacts to habitat
  - Maximum fishing mortality rate OR maximum total swept area would have implications for both habitat and scallop resource
  - Seasonal restrictions could have bycatch, scallop resource, and habitat implications/impacts
  - Timed entry and seasonal restrictions could have similar impacts
  - Etc.
Planned Habitat PDT work

• Evaluate options for rotational interval, intensity in terms of habitat impacts and recovery
• Consider maximum total swept area as a proxy for dredge fishing impact
• Create maps with identified Habitat Protection Zone(s) and buffer options, overlaid with 2023 Scallop survey data (survey results expected late August) and any available SMAST data
• Review and analyze lobster study fleet data
• Review documents including the Atlantic Cod Stock Structure Working Group report and most recent lobster stock assessment for relevant information.

NOTE: Habitat PDT work can occur separately from Scallop PDT while scallop specifications are underway
Planned Scallop PDT work

• Update meat weight anomaly
• Area-specific shell-height / meat-weight curves from dredge survey data
• Contact Canadian scientists about potential biological information on scallops in this area, including the timing of spawning events
• Assemble time series of scallop abundance and biomass
• Assemble time series of VMS data for the open bottom adjacent to the CAII-N
• Compile reports on target and achieved observer coverage in the fishery

NOTE: Scallop PDT work on this action will largely occur after specifications are well underway (late fall?)
Received a presentation on electronic monitoring from Niki Rossi (NEFSC) given interest in how EM could be used on the Northern Edge

Discussed observer coverage rates and the desire to have higher coverage levels given the area has been closed for 30+ years
  - Need to do additional work and understand the scope of access to the area

Presented information on seasonal scallop yield and spawning, lobster fishing activity, egg-bearing lobsters, and cod spawning in the region
  - Need to understand more about gear conflict and seasonal lobster fishing
  - Need to evaluate work from the cod stock structure working group

Interest in understanding the results from the 2023 scallop surveys to know the magnitude of potential scallops in the Northern Edge region
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2022</td>
<td>Council prioritizes action</td>
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<tr>
<td>2023</td>
<td>Kickoff meeting with PDTs, staff, as appropriate to define scope/goal and objectives</td>
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<td>CTEs, APs review draft goal and objectives</td>
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<td>Council approves goal and objectives, initiates action</td>
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<td></td>
<td>Assemble spatial and other data and information</td>
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<td>PDTs draft range of alternatives</td>
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<td></td>
<td>CTEs, APs review range of alternatives</td>
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<td></td>
<td>Council has initial discussion of draft alternatives</td>
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<td>PDTs revise alternatives as needed</td>
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<td></td>
<td>CTEs, APs review draft range of alternatives</td>
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<td>Council reviews range of alternatives, suggests revisions</td>
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<td>2024</td>
<td>Council reviews range of alternatives and preliminary impact analysis, identifies range of alternatives</td>
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<td></td>
<td>PDTs, CTEs, APs review range of alternatives and impacts analysis. APs and CTEs recommend preferred alternatives. Staff completes impact analyses</td>
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<td></td>
<td>Council final action</td>
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<td>Staff completes and submits action to NOAA Fisheries</td>
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<tr>
<td>TBD</td>
<td>NOAA Fisheries Review</td>
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<tr>
<td>Fall</td>
<td>Decision</td>
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- Many opportunities to check in with the Council on progress towards development and analysis of alternatives
- Goal – NMFS decision in Fall of 2024 prior to 2025 scallop specifications (final Council action Dec. 2024, fishing year starts April 1, 2025)
Today’s Goals

- Review EFH designation principles and draft workflow
  - Ask questions and provide feedback
  - Note: SSC subpanel will review methods in September, so the approaches are a work in progress
- Discuss logistics of EFH review action and make a recommendation to inform 2024 priorities discussions
  - Phased into two separate actions vs. omnibus approach?
    - If phased, how to prioritize species?
  - Council might initiate a management action in January 2024
General principles for revising EFH designations

1. Consider applicability to EFH consultations
2. Apply new, model-based approaches to maps and text for juveniles and adults
3. Consider climate change and shifting distributions
4. Focus on bounding the spatial extent of EFH
5. Detail where life stages may be found & specific habitat types utilized
6. Emphasize connectivity between life stages
7. Be mindful of continuity of sampling and sampling effects that may appear in the data
8. Clearly explain methods to enable replicability
Decision points for revising EFH

Offshore:

- Focus on model-based approaches for mapping, text
  - Use Community Basis Function Model results as basis for EFH map (based on federal trawl survey; separate model results for adults/juveniles available for most species\textsuperscript{1})
  - Prefer counts models but if not, presence/absence models
  - Evaluate model fit, multi-model averaging approach, uncertainty
  - Via EFH text, document influential model variables and important species dependencies/correlations
- If can’t be modeled\textsuperscript{1}, evaluate federal survey info

\textsuperscript{1} Thorny skate, offshore hake are likely exceptions
\textsuperscript{2} Atlantic salmon, deep-sea red crab, Atlantic wolffish, Atlantic halibut
Decision points for revising EFH

Inshore/nearshore (state waters and EEZ):
- Identify species range using trawl surveys, seine surveys, commercial/recreational catch, literature review
  - Inshore trawl surveys as primary dataset - using a threshold encounter rate for EFH determination
  - Seine surveys for distribution and abundance (generally target juveniles, pair with trawl survey findings)
  - Commercial/recreational catch data
  - Literature review for species geographic extent
- Use literature and climate vulnerability crosswalk for text descriptions re-habitat types, salinity zones used inshore
Decision points for revising EFH

Inshore / offshore integration:
- Is there continuity of sampling between inshore and offshore footprints?
- How much is the species’ distribution shifting, e.g., due to climate change? Is there range contraction, expansion, etc.?
- Does the species occur in continental slope depths beyond the trawl survey, inshore of coastal surveys?
- Does this species occur outside of the Northeast region?
  - Are these other areas surveyed, is there relevant literature/data, existence of state regulations, etc.
  - Do other areas contribute to EFH, or is occurrence minor/negligible?
EFH Reviews

• MSA requires review and revision of EFH components every 5 years
  • All NEFMC designations were updated via OHA2, effective April 2018
  • https://www.nefmc.org/library/omnibus-habitat-amendment-2
  • https://s3.us-east-1.amazonaws.com/nefmc.org/NEFMC_EFH_Designations.pdf

• EFH review ensures NOAA Fisheries and Councils incorporate most recent and best science available into fishery management for EFH
• Specific required components for EFH review
• Reviews usually lead to need to revise habitat components of FMPs though an action
EFH Components of FMPs

1. Description and Identification of EFH
2. Fishing activities that may adversely affect EFH
3. Non-Magnuson-Stevens Act fishing activities that may adversely affect EFH
4. Non-fishing related activities that may adversely affect EFH
5. Cumulative impacts analysis
6. Conservation and enhancement (includes minimization of adverse effects of fishing)
7. Prey species
8. Identification of HAPCs
9. Research and information needs
10. Review and revision of EFH components of FMPs
Possible structure of Council action(s)

- Omnibus action with EFH review components for all 28 species
  – or –
- Multiple (2?) actions with EFH review components for subset of species
- EFH can be designated in a framework
- Action will need to address all elements of EFH review
- Will need to consider how to address conservation and enhancement component
## Prioritizing species

<table>
<thead>
<tr>
<th>Species</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1. American plaice</td>
<td>• Includes species with recently completed research track assessments: American plaice, Atlantic cod, haddock</td>
<td>1. Atlantic halibut</td>
<td>• Includes all species without CBFMs: Atlantic halibut, Atlantic salmon, Atlantic wolffish, deep-sea red crab</td>
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<tr>
<td>2. Atlantic cod</td>
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<td>2. Atlantic salmon</td>
<td>• Sea scallops in Phase 2 to give additional time to develop model</td>
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<td>3. Haddock</td>
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<td>3. Atlantic wolffish</td>
<td>• Includes other groundfish stocks that don’t have recent or upcoming research track</td>
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<td>4. Red hake</td>
<td>• Includes all small mesh species to allow review with PDT and other experts at one time</td>
<td>4. Deep-sea red crab</td>
<td>• Yellowtail research track scheduled for 2024</td>
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<td>5. Silver hake</td>
<td>• Includes all 7 skates together to allow review with PDT and other experts at one time</td>
<td>5. Atlantic sea scallop</td>
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<td>6. Offshore hake</td>
<td>• Includes herring</td>
<td>6. vs Acadian redfish</td>
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<td>7. Little skate</td>
<td>• Includes monkfish</td>
<td>7. Ocean Pout</td>
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<td>8. Smooth skate</td>
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<td>8. Pollock</td>
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<td>10. Winter skate</td>
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<td>10. Windowpane</td>
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<td>12. Clearnose</td>
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<td>12. Witch flounder</td>
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<tr>
<td>14. Atlantic herring</td>
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<tr>
<td>15. Monkfish</td>
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**Phase 1 (2024)**

**Phase 2 (2025 or 2026)**

- Includes all small mesh species to allow review with PDT and other experts at one time
- Includes all 7 skates together to allow review with PDT and other experts at one time
- Includes herring
- Includes monkfish

- Includes that species with recently completed research track assessments: American plaice, Atlantic cod, haddock
- Includes all small mesh species to allow review with PDT and other experts at one time
- Includes all 7 skates together to allow review with PDT and other experts at one time
- Includes herring
- Includes monkfish
Next steps for EFH Review

- NEFMC-MAFMC SSC-subpanel to meet September 29th (1-5 pm)
  - Review and provide feedback on principles, workflow, and methods
  - Will illustrate concepts via example EFH designations
- Continued planning for Council action
  - Staff will develop an action plan, including timeline, for NEFMC review
Offshore Wind
Updates

- 4C Offshore website to see all lease areas worldwide: [https://map.4coffshore.com/offshorewind/](https://map.4coffshore.com/offshorewind/)

Future Comment opportunities:

- Gulf of Maine: comments to BOEM on NCCOS spatial modeling and data inputs (no official comment period…) – draft WEAs with comment period expected in fall
- 3 Central Atlantic final Wind Energy Areas off DE, MD, VA to prepare environmental assessment – due Aug. 31st
- Deepwater 2.0 (floating, off NY) spatial analysis draft report expected soon

Prior Comment Opportunities:

- Revolution Wind EFH Conservation Recommendations [letter](#) sent from Councils to BOEM (no official comment period…)
- Beacon Wind NOI submitted 7/26
Council priorities
Progress towards 2023 priorities

- **Southern New England HAPC** (submitted August 2022) – GARFO working on a public notice about the action (w/comment period)
- **Atlantic salmon FW** (submitted May 2023) – comments expected this month on preliminary submission from GARFO
- **Northern Edge Habitat-Scallop Framework** – established goal/objectives, began drafting range of alternatives
- **EFH review** – working with MAFMC FMAT on EFH and HAPC designation methods; SSC review of methods planned for September 29
- **Offshore wind** – engaged in Gulf of Maine spatial modeling, project-specific comment opportunities, Coast Guard PARS, Central Atlantic Call Areas, etc. (13 letters as of 8/16)
- **Area Based Management** – in the process of launching GIS application/dashboard; drafting an article for Marine Fisheries review
- **Climate Change Scenario Planning** – developed a menu of potential actions; Climate Coordination Group and Climate Innovation Group will begin meeting this fall; working actions into workplans/priorities across organizations
Possible 2024 Council Priorities – Habitat-related Council actions

• Working with the Scallop Committee, develop Framework to consider scallop fishery access opportunities on the Northern Edge of Georges Bank
  • Planned completion mid-2024; could change
• Review and consider revisions to EFH and HAPC designations
  • We are at 5 years post-OHA2 in 2023, although timing somewhat flexible
  • Likely to complete a similar amount of work in 2024 whether the action is omnibus or phased
  • Helpful to coordinate with MAFMC amendment
• Habitat impacts (NEPA analyses) of management actions
Possible 2024 Council Priorities – offshore wind and habitat partnerships

- Collaborate on offshore wind science issues with ROSA, RODA, NMFS, BOEM and others
- Develop habitat and fishery related comments on non-fishing activities, focusing on OSW leasing and OSW impacts to fisheries, EFH, and surveys
  - Engagement prior to leasing seems most important
  - Working with NOAA to identify habitat conservation recommendations also important role for the Council (we designate EFH)
- Foster and contribute to habitat science and management partnerships, through participation in the CCC Habitat Work Group, Northeast Regional Habitat Assessment, and ASMFC Habitat Committee
Possible 2024 Council Priorities - climate

• Are there habitat-related aspects of potential actions in Climate Change Scenario Planning menu?
• Are there habitat-related ideas that could fit into Inflation Reduction Act proposals?

• No concrete recommendations yet, but staff are developing ideas and suggestions are welcome
• These initiatives will require time and resources, which affects the rest of our 2024 workplan
Other Business