



New England Fishery Management Council

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COUNCIL SOLICITING CONTRACT WORK

Northeast Regional Habitat Assessment-Habitat Climate Vulnerability Assessment Matrix and Species Narratives Development

Project Description

The New England Fishery Management Council (NEFMC) requires the services of an independent contractor to develop informational products for fishery managers that integrate the results of three assessments: the Northeast Regional Habitat Assessment (NHRA), the Northeast Fish and Shellfish Climate Vulnerability Assessment (FSCVA), and the Northeast Habitat Climate Vulnerability Assessment (HCVA). This is a temporary contractor role, commencing on or about July 1, 2021, with expected completion by December 31, 2022. The contractor will work closely with the Council's Habitat Plan Coordinator as well as other NHRA and HCVA investigators.

Project Background

The Northeast Regional Habitat Assessment, led by the New England and Mid-Atlantic Fishery Management Councils, is producing spatiotemporal models that describe species distributions as a function of dynamic environmental factors as well as species covariances with one another. Concurrently, the National Marine Fisheries Service is finalizing their Northeast Habitat Climate Vulnerability Assessment that assesses the vulnerability of 52 marine, estuarine, and riverine habitats in the Northeast U.S. to climate change. This HCVA builds on a Northeast Fish and Shellfish Climate Vulnerability Assessment (Hare et al. 2016), which examined fishes' climate vulnerability based on life history. The HCVA complements the FSCVA by improving our understanding of how the vulnerability of habitats will impact fish and shellfish populations that depend on them. This project provides the Councils with an opportunity to integrate the outputs from the HCVA, FCVA, and NRHA projects for use in fisheries management.

The major objectives for this project are to (1) refine and advance a preliminary habitat-species vulnerability matrix and (2) develop species narratives for prioritized managed and forage species in the region. The matrix will summarize which species use which habitat types, by life stage, and identify habitat and species climate vulnerabilities. The species narratives will describe how the vulnerability of habitats to climate change may impact the vulnerability of those species, with a focus on species that are highly dependent on highly vulnerable habitats. The narratives will draw from several existing sources of information, including HCVA and FSCVA results, the Atlantic Coastal Fish Habitat Partnership habitat-species matrix (Kritzer et al. 2016), essential fish descriptions, and species profiles drafted to support NRHA work. The NHRA species profiles describe distribution, essential fish habitat (EFH) designations, habitat use, stock status, and management. Additional literature review may be required to fill in gaps about the dependence of species on specific habitats. An initial version of the matrix, as well as draft species narratives for alewife, Atlantic cod, black sea bass, and summer flounder have already been prepared.

The Council seeks a contractor to complete the list of tasks below. Overall, our objective is to complete narratives for 50 species as part of this contract, with the remaining 20 species completed if possible, as resources permit. The timeline for this effort is July 2021 through December 2022, though most work is expected to be completed by July 2022 to align with the end date of the Northeast Regional Habitat Assessment.

Phase 1 (July 2021-October 2021) Tasks

1. Further develop and expand the draft habitat vulnerability matrix that synthesizes information about species and habitat vulnerability to climate change and identifies the dependence or occurrence of species on specific habitat types. Include information on potential synergistic effects of climate and non-climate anthropogenic stressors on habitats.
2. Incorporate results into species narratives for up to 36 managed and prey species in the Greater Atlantic Region for use in EFH consultations, ecosystem context for fisheries management decisions, and integration with NRHA products, using resources identified above, plus additional literature review when required. See table below for species list by phase.
3. Monthly check-ins with PIs to ensure work products and deliverables are as expected. Participate in broader NHRA or HCVA team meetings as needed.
4. Incorporate feedback and edits and produce final species narratives. Prepare Phase 1 task completion report for review by PIs.

Phase 2 (November 2021-February 2022) Tasks

1. Further develop and expand the draft habitat vulnerability matrix that synthesizes information about species and habitat vulnerability to climate change and identifies the dependence or occurrence of species on specific habitat types. Include information on potential synergistic effects of climate and non-climate anthropogenic stressors on habitats.
2. Incorporate results into species narratives for up to an additional 14 managed and prey species in the Greater Atlantic Region for use in EFH consultations, ecosystem context for fisheries management decisions, and integration with NRHA products, using resources identified above, plus additional literature review when required.
3. Incorporate results into species narratives for up to an additional 20 managed and prey species in the Greater Atlantic Region for use in EFH consultations, ecosystem context for fisheries management decisions, and integration with NRHA products, using resources identified above, plus additional literature review when required.
4. Develop criteria for synthesized ranking of most vulnerable species and habitats based on habitat and species vulnerabilities, to support conservation recommendations in EFH consultations (and potentially EFH and Habitat Area of Particular Concern designations). This will involve the development of ranking criteria across species/habitat vulnerability and habitat dependence.
5. Develop communications products for use in various fora.
6. Monthly check-ins with PIs to ensure work products and deliverables are as expected. Participate in broader NHRA or HCVA team meetings as needed.
7. Incorporate feedback and edits and produce final species narratives. Prepare Phase 2 task completion report for review by PIs.

Necessary office space and equipment (including software) will be provided by the contractor.

Approved travel expenses will be reimbursed by the Council and need not be included in the contractor's proposal.

Desired Experience and Demonstrated Skills

1. Background in marine fisheries biology, ecology, habitat science, climate science, and/or habitat modeling, including knowledge of Greater Atlantic Region managed and forage species.
2. Familiarity with the federal fisheries management in the Greater Atlantic Region, including a basic understanding of the Magnuson-Stevens Fishery Conservation and Management Act and regulatory guidance.
3. Strong writing skills. Demonstrated ability to summarize complex issues in clear, easily read documents.
4. Demonstrated ability to work well as part of a team but with considerable independence and initiative and strong interpersonal skills.
5. Ability to research and compile fisheries habitat and scientific research with minimal supervision.

Application Submission Contact

Interested professionals are encouraged to submit a letter of interest, current resume or CV, examples of similar work completed for other organizations or publications, and a proposed budget for this work. The budget must identify hours and fees for each enumerated task described above for both Phases 1 and 2. In addition, applicants should describe the approach that would be used to meet the requirements of this project, including deliverables. Travel expenses need not be included in the budget as approved travel will be reimbursed by the Council. Letters of interest and supporting materials should be received **no later than May 31**, and addressed to Thomas Nies, NEFMC, 50 Water Street, Mill 2, Newburyport, MA 01950, or by e-mail tnies@nefmc.org. Questions concerning this proposal should be directed to the same address. We anticipate reviewing applications and awarding a contract by mid-June.

This work will be funded under New England Fishery Management Council Award #FNA20NMF4410001. Compliance with the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 109-479 as amended) and the Council's standard contract terms and conditions will be expected. The Council's standard terms and conditions are available upon request.

NEFMC takes affirmative action toward to ensuring equal opportunities; the Council encourages women-owned businesses, protected veterans, and individuals with disabilities to submit letters of interest and other requested materials for consideration under this announcement.

Disclaimer

1. All costs associated with the preparation and presentation of the proposal will be borne by consultants submitting letters of interest.
2. Materials submitted will not be returned.
3. Respondents must disclose any relevant conflicts of interest and will be expected to comply with all federal grant contracting requirements.
4. The Council reserves the right to accept or reject any or all letters of interest received; negotiate with all qualified potential candidates; cancel or modify the RFP in part or in its entirety; and/or change the application guidelines, when it is in its best interests.

Table 1. Species narratives to be developed during each project phase.

Phase 1, Tier 1
Alewife, American Shad, Atlantic Cod, Atlantic Salmon, Atlantic Sturgeon, Black Sea Bass, Blueback Herring, Horseshoe Crab, Ocean Quahog, Red Drum, Shortnose Sturgeon, Spotted Seatrout, Striped Bass, Summer Flounder, Winter Flounder
Phase 1, Tier 2
Acadian Redfish, American Eel, Atlantic Halibut, Atlantic Mackerel, Atlantic Sea Scallop, Atlantic Surfclam, Atlantic Wolffish, Barndoor Skate, Blue Mussel, Cusk, Golden Tilefish, Northern Shrimp, Ocean Pout, Pollock, Scup, Spot, Tautog
Phase 2, Tier 1
American Plaice, Haddock, Longfin Inshore Squid, Red Hake, Silver Hake, Yellowtail Flounder, Atlantic Herring, Blueline Tilefish, Chub Mackerel, Northern Shortfin Squid, Rosette Skate, Smooth Skate, Spiny Dogfish, Windowpane Flounder
Phase 2, Tier 2
Bluefish, Butterfish, Clearnose Skate, Little Skate, Monkfish, Winter Skate, American Lobster, Atlantic Croaker, Atlantic Menhaden, Spanish Mackerel, Blue Crab, Eastern Oyster, Green Sea Urchin, Knobbed Whelk, Northern Quahog, Rainbow Smelt, Sand Lance, Softshell Clam, Deep-Sea Red Crab, Offshore Hake