



New England Fishery Management Council

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Scallop RSA Priorities for 2027/2028 and 2028/2029 Award Cycles

High Priority (Priority 1)

1. **SCALLOP RESOURCE SURVEYS:** Industry-based scallop surveys using dredge and/or optical tools conducted at varying sampling intensities (e.g., intensive and regional), and analysis of collected survey data needed to support annual Atlantic Sea Scallop fishery management and scallop science needs. This includes industry-based surveys within Georges Bank and/or the Mid-Atlantic, and the Gulf of Maine, including the Northern Gulf of Maine Management Area. Surveys that extend sampling efforts beyond the currently known extent of the sea scallop resource, and small-scale spring surveys in access areas that provide additional data prior to April 1 are encouraged. Additional survey effort is encouraged in access areas nearing the end of their rotational cycle, as well as in areas with known high densities of juvenile scallops. Survey results must be available by early August of the year in which the survey is conducted (e.g., survey results that would inform 2028 fishing effort decisions must be available by mid-August 2027). The survey or surveys do not need to be carried out by a single grant recipient. In addition, the data needs of some resource areas benefit from redundant surveys that use different sampling technologies (e.g., optical and dredge). Survey data will be used to develop estimates of total and exploitable biomass. Successful projects may be asked to provide data in a standardized format. The primary objective of these surveys would be to provide length frequencies, abundance, and biomass estimates.

Medium Priorities: (Priorities 2-6, Not Listed in Rank Order – Equal Importance)

2. **SCALLOP BIOLOGY:** Research on Atlantic sea scallop biology, including studies aimed at understanding recruitment processes (e.g., reproduction and gonad development, timing of spawning, larval transport, larval and early post-settlement stages, source/sink dynamics, age and growth, and yield), spatial population dynamics of the scallop resource, and examination of environmental stressors (anthropogenic and natural) and climate change on all of these processes. This priority also includes research on natural mortality processes, such as scallop predation (e.g., starfish, crab, snails), discard mortality, juvenile mortality events, and disease and parasites. The results of biology research should be informative to scallop stock assessments and projection models (current and future) and to support decision-making by fishery managers.

3. **COMMERCIAL FISHING GEAR:** Commercial dredge and gear research to improve scallop catch efficiency, improve scallop size selectivity, reduce scallop damage (discard and incidental mortality), reduce non-target species bycatch, and to reduce fuel consumption and improve energy efficiency. Research under this priority area could incorporate social science methods to explore fishermen perspectives and decision-making associated with gear modifications.
4. **FISHING IN HIGH DENSITY AREAS:** Research to examine the impacts of intensive fishing effort in areas of high scallop densities on non-harvest mortality or sublethal effects. This includes impacts of sediment disruption, impact of high volumes of viscera on the benthic environment and water quality, scallop shell damage, repeated harvest/discarding cycles on scallop mortality, and re-examination of non-harvest mortality assumptions. This may include research that occurs concurrently with harvest. This priority includes research utilizing social science methods to better understand fisherman's behavior and decision-making and ways to improve fishing practices to minimize non-harvest mortality and maximize yield.
5. **BYCATCH:** Identification and evaluation of methods to reduce the impacts of the scallop fishery with respect to bycatch of small scallops and non-target species. This would include projects that evaluate the impact of high-grading and fishing behavior on incidental scallop mortality, characterize spatial and temporal distribution patterns of non-target species, collect and analyze catch and bycatch data on a near-real time basis, as well as the associated discard mortality rates of key bycatch species. Research efforts focusing on non-target bycatch should provide results that would help the scallop industry avoid or respond to the implementation of accountability measures. Projects should consider the enforceability and feasibility of regulations in the commercial fishery.
6. **SCALLOP RESOURCE ENHANCEMENT:** Research focused on the development of Atlantic sea scallop enhancement tools (spat collection, seed rearing in hatcheries, grow out of juvenile scallops, disease resistance, and offshore seeding of hatchery reared spat) to supplement the scallop population and fishery harvest in the federally managed scallop fishery. Research could focus on the development of standards and best practices for using husbandry techniques to enhance the wild capture fishery while mitigating the impact of predators or could evaluate the economic feasibility of enhancement efforts. Research could also focus on projects that aim to develop and(or) refine techniques for growing seed from spat and transplanting those scallops to beds in federal waters, focusing on the identification of suitable habitat that is viable for scallop growth. Projects conducted in state waters should describe plans to comply with local and state regulations, as well as describe how research findings are applicable to scallop

enhancement in federal waters. Projects are encouraged to share best practices and lessons learned to advance the state of knowledge in this field.

General Research Needs (Priorities 7-9, Not Listed in Rank Order – Equal Importance):

7. **HABITAT CHARACTERIZATION AND FISHERY IMPACTS:** Research on fishery impacts includes (but is not limited to): identification of which species and life history stages depend on particular habitats vulnerable to alteration by the scallop fishery for use as nursery, over-wintering, or spawning areas; evaluation of long-term or chronic effects of scallop fishing on the ecosystem; habitat recovery potential from fine scale fishing effort; before / after gradient designs. Habitat characterization includes (but is not limited to) research aimed at identifying and assessing the waters and substrate necessary to scallops for spawning, breeding, feeding, and growth to maturity. In particular, projects that would evaluate Essential Fish Habitat (EFH) closures and Habitat Management Areas to assess whether these areas are accomplishing their stated purposes and to assist with better definition of the complex ecosystem processes that occur in these areas would be of interest. Finally, investigation of variability in dredge efficiency across habitats, times, areas, and gear designs to allow for more accurate quantitative estimates of scallop dredge impacts on the seabed and other managed species, and the development of practicable methods to minimize or mitigate those impacts would also qualify under this research priority.
8. **WIND:** Research aimed to support scallop management through studies that assess biological and ecological impacts of offshore wind energy development, and scallop production. This priority also includes research that aims to characterize the impacts of offshore wind energy development on scallop surveys through simulation modeling recommended by the Scallop Survey Working Group, and research that assesses the utility and feasibility of alternative sampling tools.
9. **TURTLES:** Research to support the investigation of sea turtle behavior in the Mid-Atlantic and Georges Bank (via satellite tagging or other means). This could include, but is not limited to, research to understand their seasonal movements, vertical habitat utilization, and the status and range of the population in response to climate change. This research could assist in the collection of data that may be required by current or future biological opinions, to address reasonable and prudent measures of the biological opinion and could be used to evaluate current turtle regulations (e.g., timing and spatial extent of gear modifications). Oceanographic data collected during turtle research should be analyzed and products provided to managers to support decision making (e.g., bottom temperature data and maps).