# Council Research Priorities 2019 – 2023

**Recent Activity:** Per the Magnuson Stevens Reauthorization Act of 2006, Councils are required to develop five-year research priority plans and submit them to the Secretary of Commerce. The Council had been updating this list once every 5 years. As of September 2018, the Council plans to annually update this list, and is in the process of implementing a research priority setting process. The Scallop PDT met on January 9, 2019 to discuss potential ways to update the Council's research priorities, focusing only on scallop related priorities.

**Next Steps:** Input from this meeting will be considered by the Council's SSC at an April meeting. The Council is expected to update 5-year research priorities at their April 2019 meeting.

**Anticipated Outcomes from AP and Committee meeting:**

1. Review the full list of scallop priorities.
2. Develop input to the SSC and Council for updating the 5-year research priorities (2019-2023).
    a. Consider the following PDT input.

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*NEFMC Research Priorities 2019 – 2023: PDT input on changes. Staff input on revised priority*

**a. PDT recommends changing this priority:**

#12: Scallop life history work focusing on natural mortality, including all sources of non-harvest mortality such as predation, disease, and **discard** ~~incidental~~ mortality.

**b. PDT recommends striking this priority (#32):**

~~#32: Evaluate the efficacy of existing and potentially General Category scallop exemption areas and seasons.~~

**c. PDT recommends consolidating these two priorities (#76 and #80), and modifying it to reflect flatfish AMs.**

#76: Characterize habitats within scallop fishing grounds: identification of nursery and over-wintering habitats of species vulnerable to habitat alteration by scallop fishing.

#80: Studies that would help evaluate current and potential habitat management areas and Habitat Areas of Particular Concern.

**Staff input/suggestion for modified priority:** "Studies that characterize and evaluate current and potential HMAs and HAPCs within scallop fishing grounds: identification of nursery and over-wintering habitats of species vulnerable to habitat alteration by scallop fishing."

**d. PDT recommends consolidating these four priorities (#77, #78, #79, #81).**

#77 - Experimental examination of gear impacts on seabed habitats in Northeast US waters that take effort, season, sedimentary character and biological community into account.

#78 - Evaluate habitat recovery following impact with scallop dredges or trawls.

#79 - Examine fine scale fishing effort distributions in relation to fine scale habitat distribution.

#81 - Evaluate long-term or chronic effects of scallop fishing on marine resource productivity.

**Staff input: New, longer priority: Combine #78 and #81, put #77 at the end, strike #79:**
"Evaluate habitat recovery following impact with scallop dredges or trawls, and long-term or chronic effects of scallop fishing on marine resource productivity. This include an Experimental examination of gear impacts on seabed habitats in Northeast US waters that take effort, season, sedimentary character and biological community into account."

| # | Title | Description, rationale, potential use | Priority | Status | FMP | Species | Broad categories | Cross-listing | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **12** | Scallop life history work focusing on natural mortality, including all sources of non-harvest mortality such as predation, disease, and incidental mortality. | | Important (near term) | unknown | Sea scallop | Scallops | Population dynamics | RSA | |
| **32** | Evaluate the efficacy of existing and potentially General Category scallop exemption areas and seasons. | Investigate potential means to improve access to healthy stocks while minimizing impacts to stocks needing conservation. | Important (near term) | underway | Northeast multispecies, Sea scallop | Groundfish, Scallops | Fisheries management | RSA | NEFMC sent a letter to GARFO in 2017 requesting expansions of exemption areas. GARFO is working to evaluate. |
| **33** | Research to elucidate modes of infection, transmission and distribution of scallop diseases and parasites that may adversely impact scallop health, meat quality and reproductive viability. | Special attention should be directed to conditions that may result in modifications to the scallop rotational area management strategy to maximize yield. | Important (near term) | underway | Sea scallop | Scallops | Fisheries management | RSA | Susan Ingalls has been funded through S-K in 2017. |
| **34** | Evaluate ways to control predation on scallops. | Managing to optimize yield/recruit; natural mortality events can impact short and long-term management. | Strategic (future needs) | not begun | Sea scallop | Scallops | Fisheries management | unknown | |
| **35** | Research to address potential implications of spat collection, seeding and relocation of scallops for enhancement purposes in light of unknown impacts of diseases and parasites. | | Strategic (future needs) | underway | Sea scallop | Scallops | Fisheries management | RSA | CFF has been funded to do some of this work. |
| **36** | Research that investigates the factors affecting scallop fishing power and estimates of how they relate to projections of landings per unit of effort. | | Important (near term) | underway | Sea scallop | Scallops | Fisheries management | RSA | SMAST (Wright, Cadrin, O'Keefe) funded by RSA to complete LPUE work. It was presented to the SAW 65 workgroup. |
| **37** | Research related to identifying the major sources of scallop management uncertainty and measuring their potential effects on future fishery allocations. | | Important (near term) | unknown | Sea scallop | Scallops | Fisheries management | unknown | A15 lists sources of mgmt. uncertainty. Scallop CTE wants to look at carryover as a potential 2019 priority, & the PDT would consider mgmt. uncertainty in this evaluation. |
| **76** | Characterize habitats within scallop fishing grounds: identification of nursery and over-wintering habitats of species vulnerable to habitat alteration by scallop fishing. | Would facilitate development of or revisions to spatial management approaches for habitat protection. | Strategic (future needs) | underway | Sea scallop | Scallops | Habitat | unknown | Partially completed through OHA2. |
| **77** | Experimental examination of gear impacts on seabed habitats in Northeast US waters that take effort, season, sedimentary character and biological community into account. | Sampling should follow an appropriate experimental design, such as before-after control impact (BACI). Pay attention to studies that replicate the broad scale impacts of commercial levels of fishing activity rather than single impact studies, and to monitoring long-term recovery of habitat features. | Important (near term) | underway | Multiple | Multiple | Habitat | unknown | Scott Gallagher's Closed Area II study of scallop dredge impacts is an example of this. See Priorities #78-80. |

| # | Title | Description, rationale, potential use | Priority | Status | FMP | Species | Broad categories | Cross-listing | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **78** | Evaluate habitat recovery following impact with scallop dredges or trawls. | Would help develop or revise spatial management approaches for habitat protection. | Urgent (essential) | underway | Sea scallop | Scallops | Habitat | RSA | RSA has funded Scott Gallagher at WHOI to compete 3 years of BACI work in the EGB HAPC. |
| **79** | Examine fine scale fishing effort distributions in relation to fine scale habitat distribution. | Would help develop or revise spatial management approaches for habitat protection. | Urgent (essential) | underway | Sea scallop | Scallops | Habitat | RSA | RSA has funded Scott Gallagher at WHOI to compete 3 years of BACI work in the EGB HAPC. |
| **80** | Studies that would help evaluate current and potential habitat management areas and Habitat Areas of Particular Concern. | Assess whether these areas are accomplishing their stated purposes; better define the complex ecosystem processes occurring in these areas. | Important (near term) | underway | Sea scallop | Scallops | Habitat | RSA | RSA has funded Scott Gallagher at WHOI to compete 3 years of BACI work in the EGB HAPC. |
| **81** | Evaluate long-term or chronic effects of scallop fishing on marine resource productivity. | Would help develop or revise spatial management for habitat protection. | Strategic (future needs) | unknown | Sea scallop | Scallops | Habitat | unknown | |
| **82** | Identify and evaluate methods to reduce the habitat impacts of scallop fishing, including studies that evaluate variability in scallop dredge efficiency across habitats, times, areas. | Would support development of gear-restriction vs. closure area management approaches. | Strategic (future needs) | underway | Sea scallop | Scallops | Habitat | unknown | |
| **95** | Identify "hot spots" within the scallop fishery using data on observed take of sea turtles and other suitable information. | Need data on observed turtle interactions for other fisheries or fishery surveys in the area where the scallop fishery operates. | Strategic (future needs) | underway | Sea scallop | Scallops | Protected species | RSA | There has not been an observed take of a turtle in a scallop dredge in several years. CFF funded for many years to do sea turtle research. |
| **96** | Develop gear modifications or fishing techniques that may reduce or eliminate the threat of sea turtle interactions without unacceptable reductions in target retention in all fisheries. | | Strategic (future needs) | underway | Multiple | Multiple | Protected species | unknown | MADMF funded in 2016 with a NMFS Species Recovery Grant to study leatherback behavior off Cape Cod to help reduce entanglements. CFF funded with 2015 S-K grant. |
| **104** | Evaluate the social and economic impacts and consequences of area rotation on the scallop fishery, including evaluation of potential distributional effects and impacts on other fisheries. | | Important (near term) | not begun | Sea scallop | Scallops | Human dimensions | RSA | 2019/2020 RSA priority to conduct MSE. Also related to 2018 priority of follow-up to OHA2. |