

Scallop PDT Input on 2021/2022 RSA Research Recommendations

The PDT developed its recommendations by reviewing the 2020/2021 priorities. Edits are shown in track changes, and PDT input is provided in comments.

The PDT used the 2020/2021 priority list and has made recommendations in track changes.

SURVEYS (High Priority)

1. Survey Related Research

Survey results must be available by early August of the year in which the survey is conducted (e.g., survey results that would inform 2022⁺ fishing effort decisions must be available by mid-August 2021⁰). ~~The survey or surveys do not need to be carried out by a single grant recipient. Survey data will be used to develop estimates of total and exploitable biomass to be used for setting fishery catch limits and allocations.~~ Successful projects may be asked to provide data in a standardized format. ~~The primary objective of these surveys would be to provide an additional broad-scale biomass index estimates in addition to the federal survey to improve the overall precision of the scallop biomass estimate produced by the Scallop Plan Development Team.~~

Commented [JP1]: The PDT recommends moving descriptions of how the survey data is used into the initial description of high priority surveys.

1a. An intensive industry-based survey of each of the relevant scallop rotational areas (Closed Area II, ~~Closed Area I~~, Nantucket Lightship, Elephant Trunk and Hudson Canyon) that will provide estimates of total and exploitable biomass to be used for setting fishery catch limits under the rotational area management program.

Commented [JP2]: Closed Area II – Dredge and optical survey funded here for 2021. Argument that this is enough coverage, and counter point that that this will be one of the more important areas for fishing in 2022 and should stay on the list.

1b. an intensive industry-based survey of areas of importance (i.e., open areas with high scallop recruitment or areas of importance to the fishery). For 2021¹⁹, the priority areas are where scallop recruitment was observed during 2020¹⁹ surveys, and areas of the Gulf of Maine that have recently been or are likely to be fished (~~Stellwagen Bank~~).

Commented [JP3]: PDT recommends adding Closed Area I AA after some recruitment was observed in the southern portion of the AA in 2019 observer data.

1c. a resource wide industry-based survey of scallops within Georges Bank and/or Mid-Atlantic resource areas. ~~The survey or surveys do not need to be carried out by a single grant recipient. The primary objective of these surveys would be to provide an additional broad-scale biomass index in addition to the federal survey to improve the overall precision of the scallop biomass estimate produced by the Scallop Plan Development Team.~~

Commented [JP4]: The PDT noted that there are tradeoffs in using the ranked system and “general priorities”. This is a way for the Council to state its preference for which projects get funded if there are similar reviews.

GENERAL RESEARCH (Not in rank order, priorities 2 – 8 are of equal importance)

2. Dredge Efficiency: An evaluation and synthesis of dredge efficiency research to support scallop fishery management. Research may focus on analyses of ~~existing data sets~~.

Commented [JP5]: Members of the PDT felt that this has been an important issue, several projects have been funded, and there is still some synthesis work to do with existing data sets.

~~3. Research to assess the impact of offshore wind energy development on the Atlantic sea scallop resource, including, but not limited to, baseline information gathering about abundance, biomass, distribution, growth, and seasonal yield; oceanographic models to assess potential for impact on larval patterns and settlement; questions of fishability, including impact of turbine spacing and orientation on safety and gear interactions, potential time of year restrictions for construction activities, and potential changes to management plan to increase feasibility of fishing; economic analyses of potential impacts to fishery and individual ports; impacts of noise, vibrations, and sedimentation during construction and operations.~~

Commented [JP6]: Currently RSA is funding two, two year projects. The PDT proposed the following questions as a way to evaluate the priority: 1) What is missing from the present efforts that would justify having more funding? What is the role of the scallop RSA in funding wind energy research? The PDT noted that there is funding from other sources, such as BOEM, and new groups (RODA and ROSA) that may have input on what the research needs area for offshore wind. The PDT recommended taking this off for a year, and seeing what the results of funded work before putting this back on the list.

Commented [MB7R6]: There is a BOEM-funded project on particle modeling in teh MA and MA-RI wind energy areas related to this topic.
<https://www.boem.gov/sites/default/files/documents/environment/environmental-studies/NSL-19-04.pdf>

4. Research to support the investigation of turtle behavior and its potential impact on the scallop fishery 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.

Commented [JP8]: No turtle research funded in 2020/2021 cycle. NOAA is currently completing biological opinion for the scallop fishery. Scallop fishery overlaps with the distribution of sea turtles. The PDT noted that this is a protected species issue, and could have impacts on the scallop fishery. PDT recommended keeping this as a priority with expanded language.

5. Bycatch research: 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 determine seasonal bycatch rates of non-target species, characterize spatial and temporal distribution patterns, 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 pending or potential implementation of accountability measures. Projects should consider the enforceability and feasibility of regulations in the commercial fishery.

Commented [JP9]: The PDT had no recommended changes. Still a priority.

6. Scallop meat quality research: Research aimed at describing the occurrence of disease and parasites, as well as understanding the mechanisms and processes (including the life cycle, distribution and transmission, and relationship to sea turtles) that affect scallop product quality; research aimed at evaluating the impact of density dependence and the potential impacts of area rotation on scallop product quality, marketability, meat weights, and seasonal monitoring would be particularly useful.

Commented [JP10]: The PDT did not reach consensus on whether or not to recommend this as a priority. Those in favor of keeping it in felt that this is a priority that allows researchers to write proposals in response to emerging issues, and that this is an area where research could have a positive impact for the scallop industry. Those who felt that it should be removed from the list noted that several projects have been funded already, and that issues like gray meats have not been a concern recently. There was general consensus that describing the occurrence of disease and parasites could be done through monitoring and surveys vs. understanding the mechanisms and processes of disease.

7. Research on scallop biology, including studies aimed at understanding recruitment processes (reproduction, timing of spawning, larval and early post-settlement stages, age and growth, and yield), examination of environmental stressors on reproduction and growth, and research related to scallop spat and seeding projects. This priority also includes research on natural mortality, such as scallop predation (e.g., starfish, crab, snails, and dogfish), discard mortality, and juvenile mortality events. This priority includes research on scallop biology in the Gulf of Maine region.

Commented [JP11]: The PDT supported retaining this as a priority, noting that while many issues are covered here, it can be a way for new and novel projects to come forward. Scallop biology is fundamental to scallop management. There was also discussion that some wind-energy issues could be covered under this priority.

8. Evaluation of rotational management: An evaluation and synthesis of rotational management to support scallop fishery management. Research may focus on analyses of existing data sets. Research aimed at evaluating the impact of fishing pressure in access areas, and the potential impacts of area rotation on scallop product quality, marketability, meat weights, and non-harvest mortality. Data collection in the Gulf of Maine: This priority includes research aimed at developing approaches for determining optimal survey coverage, frequency, and design in Gulf of Maine. This may include research that evaluates past and current approaches to survey design in the Gulf of Maine (not just the NGOM management unit). This priority may also include projects that evaluate the cost benefits of research survey design including coverage, frequency, timing, and survey gear, and monitoring the fishery (landings and discards) relative to the net socio-economic benefits. Possible research could include, but is not limited to, evaluation of past and current approaches to survey design in the Gulf of Maine (not just the NGOM management unit) and simulation modelling.

Commented [JP12]: The PDT recommends adding a new priority – evaluation of rotational management. This could be done using existing data (how as rotational management performed over time), or an evaluation (BACI study) of how a high density set of scallops responds to fishing pressure.

Commented [JP13]: This was a recommendation that came out of SARC 65. RSA program review recommended the formation of a scallop survey advisory panel (or something like that). The PDT recommends removing this in 2021/2022.

PDT's RSA recommendations – smoothed version, updated numbering

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