FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The Scallop RSA Program was established through the Scallop Fishery Management Plan (FMP) to address scallop research priorities identified by the Council. NMFS, in coordination with the Council, is soliciting proposals for scallop research to be conducted under the 2017/2018 Atlantic Sea Scallop RSA Program. Set-aside quota will be awarded to successful applicants.

B. Program Priorities

Projects funded under the Scallop RSA Program must enhance the understanding of the scallop resource or contribute to scallop fishery management decisions. Priority is given to funding research proposals addressing the below list of 2017 and 2018 Scallop Research Priorities.

Applicants are encouraged to consider previously funded scallop research projects when developing proposals. Applicants responding to scallop survey priorities are encouraged to review and consider the findings of the Scallop Survey Methodologies Peer Review, which was convened by the Northeast Fisheries Science Center in March 2015. This includes efforts to increase the level of coordination between scallop survey efforts. Reports and additional information for this peer review are posted at: www.nefsc.noaa.gov/saw/scallop-2015.

2017 and 2018 Scallop RSA Research Priorities

HIGHEST (listed in order of importance)

1. Survey Related Research (a, b, and c have equal priority)

1a. an intensive industry-based survey of each of the relevant scallop access areas (Closed Area I, Closed Area II, Nantucket Lightship, Delmarva, 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. To support these area management decisions, survey data and biomass estimates must be available by early August of the year in which the survey is conducted (e.g. survey results that would inform 2018 fishing area decisions must be available by August 2017). Areas scheduled to be open in the

following fishing year generally have a higher priority than other areas. For 2017 the priority areas to survey in order of importance are likely to be: Elephant Trunk, the access area in the southern part of Closed Area II as well as the extension south of Closed Area II. (An intensive industry-based dredge survey of the Nantucket Lightship and surrounds was funded for two years (2016/2017) through the 2016 Scallop RSA process.)

1b. an intensive industry-based survey of areas that may be candidate access areas in the future (i.e., open areas with high scallop recruitment or closed areas that may open to fishing). For 2017, the priority area is the "sliver" north of the current access area in Closed Area I with known concentrations of scallops, which is currently part of an Essential Fish Habitat (EFH) closed area. (An intensive optical survey of the Northern Edge and surrounding areas was funded for two years (2016/2017) through the 2016 Scallop RSA Program.)

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. Survey results must be available by early August of the year in which the survey is conducted (e.g., survey results that would inform 2018 fishing effort decisions must be available by early August 2017). (A broad, resource wide industry-based dredge survey of the Mid-Atlantic resource area, including Delmarva, Elephant Trunk, and Hudson Canyon, was funded for two years (2016/2017) through the 2016 Scallop RSA process.)

HIGH (of equal importance)

- 2. 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 reduce impacts on small scallops through gear modifications, determine seasonal bycatch rates of non-target species, characterize spatial and temporal distribution patterns, gear modifications to reduce non-target bycatch and avoid fishery conflicts, 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.
- 3. Scallop meat quality research: Research aimed at describing the occurrence, as well as understanding the mechanisms and processes (including the life cycle and disease processes)

that affect scallop product quality (i.e., scallops with grey meats or evidence of disease/parasites); research aimed at evaluating the impact of density dependence and the potential impacts of area rotation on scallop product quality, marketability, and meat weights would be particularly useful, including seasonal monitoring.

MEDIUM (listed in order of importance):

- 4. Research to support the investigation of non-harvest mortality of scallops. This includes research on natural mortality, such as scallop predation (e.g., starfish, crab, and dogfish), incidental mortality (i.e., scallop mortality of uncaptured scallops that interact with gear but are not captured), and discard mortality (e.g., shucked scallops that are discarded due to meat quality, tearing, or size preference). The assumed non-harvest (natural, incidental, discard) mortality rate used in the assessment is very uncertain; research that would improve the understandings of non-harvest mortality and refine the assumed rate would be useful. Any research that is going to potentially inform the next benchmark assessment for scallops should be available by December 2017 so that results can potentially be considered in the assessment.
- 5. Research to support the investigation of loggerhead turtle behavior in the Mid-Atlantic (via satellite tagging or other means) to understand their seasonal movements, vertical habitat utilization, how and where interactions with scallop dredge gear are occurring, and the status of the population. This includes monitoring of scallop dredge and scallop trawl operations, and the development of further gear modifications if monitoring should indicate current designs are not eliminating the threat or harm to sea turtles or are resulting in unacceptable reductions in scallop catch.
- 6. Research to evaluate the potential impacts of scallop spat and seeding projects.

OTHER (of equal importance)

7. Habitat characterization research including (but not limited to): Before-After-Control-Impact (BACI) dredge studies; identification of nursery and over-wintering habitats of species that are vulnerable to habitat alteration by scallop fishing; evaluation of long-term or chronic effects of scallop fishing on the ecosystem; and habitat recovery potential from fine scale fishing effort. In particular, projects that would evaluate present and candidate EFH closures to assess whether these areas are accomplishing their stated purposes and to better define the complex ecosystem processes that occur in these areas. Finally, investigation of variability in dredging efficiency across habitats, times, areas, and gear designs to allow for more accurate quantitative estimates of scallop dredge impacts on the seabed and

development of practicable methods to minimize or mitigate those impacts. (A before after control impact study and optical survey of the Northern Edge area was funded for two years (2016/2017) through the 2016 Scallop RSA Program.)

- 8. Research projects designed to either 1) examine whether chemicals, water quality, and other environmental stressors affect reproduction and growth of scallops (e.g., jet fuel, pesticides, ocean acidification, etc.); 2) research other scallop biology projects, including studies aimed at understanding recruitment processes (reproduction, timing of spawning, larval and early post-settlement stages), and seasonal growth patterns of scallop shell height and meat and gonad weight; or 3) research to actively manage spat collection and seeding of sea scallops.
- 9. Research that investigates factors affecting fishing power and estimates of how they relate to projections of landings per unit of effort (LPUE).
- 10. Other resource surveys to expand and/or enhance survey coverage in areas that have the potential to be important resource areas, but which currently lack comprehensive survey coverage (e.g., inshore areas east of the current NOAA Fisheries survey strata or deeper than the surveyed area, Northern Gulf of Maine resource, etc.).

C. Program Authority

Statutory authority for this program is provided under sections 303(b)(11), 402(e), and 404(c) of the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1853(b)(11), 16 U.S.C. 1881a(e), and 16 U.S.C. 1881c(c), respectively. The Scallop RSA Program is established through the Scallop FMP (69 FR 35193, June 23, 2004) and implementing regulations at 50 CFR 648.56.

II. Award Information

A. Funding Availability

No federal funds are provided for research under this notification. Rather, funds generated from the sale of landed scallop RSA quota shall be used to cover the cost of research activities, including vessel costs. The Federal Government is not liable for any costs incurred by the researcher or vessel owner should the sale of set-aside quota not fully reimburse the researcher or vessel owner for their expenses. Any additional funds generated through the sale of set aside landings, above the cost of the research activities, shall be retained by the vessel owner as compensation for the use of his/her vessel.