Atlantic States Marine Fisheries Commission

FY2019 Request for Proposals (RFP)

Regional Shellfish Aquaculture Research Consortia

Funding Opportunity Description

The Atlantic States Marine Fisheries Commission (Commission), in partnership with the National Oceanic and Atmospheric Administration (NOAA), is seeking proposals to form regionally focused research consortia that will address critical research needs surrounding shellfish aquaculture. Proposals for any shellfish species will be accepted, however, oysters are the priority species. For FY19, Congressional funds are available to support ongoing research for off-bottom shellfish production in coastal areas. Research should focus on shellfish genetics, disease, seed production and transport, environmental interactions and impacts, regulatory challenges and, socio-economic modeling. Additionally, regional partnerships are encouraged to classify and preserve natural genetic variation in shellfish.

Congress also recognizes that the shellfish farming industry is composed of hundreds of small farmers who are unable to fund critical research in the fields of shellfish disease, food safety, technology development, warming waters, and ocean acidification. To improve coordination and consistency, they have directed NOAA's National Marine Fisheries Service (NMFS) Office of Aquaculture to find ways to engage and partner with industry, academic institutions, and States to conduct collaborative research to address the challenges facing this growing industry.

For over four decades, NOAA has been an international leader in aquaculture research and technology development. Innovative research has been conducted by scientists within NOAA, through collaborative research with academic and private sector partners, via international and bilateral research initiatives with foreign scientists, and through NOAA-run competitive grants programs for marine aquaculture. Areas of emphasis have included research on environmental effects, aquatic health, nutrition, early life history culture techniques, aquatic species restoration, stock enhancement, and ecosystem management.

The overall goal of NOAA's research initiatives is to provide science knowledge for the agency's regulatory and resource management decisions and foster innovative and sustainable approaches to the aquaculture industry. By partnering with the Commission, NOAA is able to target this research toward specific, regionally relevant topics that will produce meaningful improvements to the industry.

Background

The farming of oysters and other shellfish presents an opportunity for the seafood industry to diversify and expand production in this region. Traditional wild oyster harvest (utilizing cultch

planting methods and naturally occurring reefs) has been limited in recent years for a variety of reasons, but even as wild harvest recovers in some regions, production of farmed oysters has the potential to assist in balancing the seafood trade deficit, diversify the region's seafood products, and help maintain local processing and working waterfront facilities.

Oyster farming, however, presents technical, regulatory, and market challenges. While cage culture of oysters has been underway in the Atlantic region for years, such farming methods must to be adapted to local physical and water quality conditions. Coastal and marine spatial analysis may be required to locate oyster farms in areas that do not conflict with other marine uses and critical habitat areas. In addition, local, state, and federal permitting requirements and processes need to be developed or adapted to allow for expanded oyster production via cage culture and other emerging methods.

In many regions, efforts to coordinate commercial oyster farming activities with oyster restoration efforts have had some success. For example, state shellfish initiatives in Virginia, Maryland, North Carolina, Connecticut, and Rhode Island have engaged shellfish farmers, environmental and oyster restoration groups, state and local agencies, foundations, and others to find ways to work together to more quickly get shellfish into coastal waters. These types of multi-disciplinary partnerships are highly encouraged.

The goal for the requested proposals is to form a **Research Consortium** to address at least one or more of the priorities listed below to advance the development and improvement of the US shellfish farming industry in this region.

For the first phase of this call, interested applicants should submit **pre-proposals** outlining the membership and organizational structure of their consortium, research objectives and proposed timeline. Upon review of the pre-proposals, the Review Committee reserves the right to perform "teaming" of multiple applicants into a single consortium. For example, if a promising proposal is lacking a critical component that could be delivered by another applicant, the Review Committee can request that both applicants collaborate on a single full proposal. In this event, both applicants will be contacted by representatives of the Review Committee to describe the proposed "teaming" and to answer questions from the applicants.

For full proposals, applicants will be expected to secure commitments from their team members, create an administrative infrastructure for planning, coordinating, quality control, and reporting. This will be included in a draft strategic research plan for the Consortium being proposed. Consortia will need to justify their proposed research plan based on impact to the industry. Consortia will include active participation from industry, academia and government,

and strong preference will be given to those proposals that include participation from government labs. **Final Awards** will be made to winning Consortia for approximately 5 years at a funding level up to $880,000 per year depending on the number of projects funded. All funding is subject to the availability of appropriated funds.

Research Priorities

(1) Regional shellfish farm planning, siting, and/or coordination which would include:

- Identifying suitable locations for shellfish farming,
- Coordinating oyster farming activities with restoration efforts,
- Avoiding, reducing, or resolving user conflicts
- Minimizing impacts to endangered species critical habitat or marine archeological sites
- Generating state or regional shellfish-focused initiatives,

(2) Identify regulatory constraints and challenges to shellfish farming including:

- Recommending state regulations to allow for off-bottom cage culture,
- Produce science-based tools and information to answer production, environmental impact, and other permitting questions,
- Developing gear modifications to avoid protected species and habitat impacts,
- Improving regional production data and reporting, and
- Resolve conflicts related to Interstate transport of seed

(3) Identify production and technical challenges hindering full implementation of shellfish farming which may include:

- Designing, modifying, and testing of production methods suitable for oyster farming,
- Implementing genetic selection programs for local stocks to improve production performance,
- Developing disease and pest mitigation methods
- Monitoring local water quality and environmental impacts on, and of oyster farms
- Development of seed stock, including tetraploid broodstock

Pre-Proposal Guidelines

Pre-Proposals should clearly outline the project objectives, general methodologies, research outputs, qualifications of the investigators who would perform the work, where the work would be performed, and a budget outline. It is critically important to clearly and explicitly articulate how the proposed work addresses the research priorities identified in this document. Pre-

Proposals should also indicate how the results of the proposed work will be communicated to interested parties and the public, and clearly define what success will look like at the end of the funding period. Pre-Proposals should not exceed 5 pages in length.

Please follow the instructions for preparing proposals for Commission awards (Attachment A). Applicants should be willing to work closely with the Commission staff. In the event that the Review Panel wishes to encourage "teaming", applicants will be expected to participate in discussions with the Review Panel and any other applicants also encouraged. These discussions will be facilitated by Commission and NOAA staff.

Full Proposal Guidelines

Full proposals are expected to provide a much greater level of detail about the organizational structure and management of the Consortium being proposed. Elaborating on what was included in the pre-proposals, the Review Committee expects to see complete and specific descriptions of the roles and tasks of each participating entity, research methods and objectives (including near and long term goals), anticipated impact of the work, and a clear plan for communicating results to stakeholders and the public. A complete and detailed budget should be provided, with the understanding that adjustments may be required in subsequent years depending on research results and progress.

Duration, Eligibility, and Funding

Funds for this project are provided by NOAA Award No. NA18NMF4720321. If the proposal is accepted for funding, the projects must comply with all federal government audit principles/procedures and the Department of Commerce's Financial Assistance Standard Terms and Conditions. The Commission will fund proposals on a competitive basis. Researchers at U.S. academic institutions, research laboratories, for-profit companies/firms, nonprofits, and state agencies are all eligible. Proposals from foreign entities are not eligible, however funding can be used to contract foreign expertise where needed. Proposals involving multiple investigators are encouraged and expected. The majority of the proposed work should be conducted in the U.S. Atlantic coast region. Any U.S. federal government agencies, including Regional Fishery Management Councils, are not eligible to receive salary funding through this solicitation, but may provide "in kind" contributions to a Consortium (facilities, expertise, tools, etc). Proposed activities will be expected to be completed within in the funding period described in any of the successful proposals.

The Commission expects to make approximately $880,000 available for new awards under this RFP for Year 1 (as described below), subject to the availability of appropriated funds. The Commission may, at its discretion, issue one, multiple, or no awards.

The Commission anticipates a 5-year program of funding for the Consortium, but all awards will be subject to the availability of appropriated funds. The Commission expects the start date for funding agreements to be August 1, 2019, or as negotiated.

The Commission will accept pre-proposal submissions including ideas that still require proof-of-concept R&D efforts as well as those for which some proof-of-concept demonstration already exists. Submissions requiring proof-of-concept R&D can propose a project with the goal of delivering on the program metric at the conclusion of the period of performance. These submissions must contain an appropriate cost and project duration plan that is described in sufficient technical detail to allow reviewers to meaningfully evaluate the proposed project. If awarded, such projects should expect a rigorous go/no-go milestone early in the project associated with the proof-of-concept demonstration. Alternatively, submissions requiring proof-of-concept R&D can propose a project with the project end deliverable being an extremely creative, but partial solution. However, the Applicants are required to provide a convincing vision how these partial solutions can enable the realization of the program metrics with further development.

Applicants proposing projects for which some initial proof-of-concept demonstration already exists should submit concrete data that supports the probability of success of the proposed project.

The Commission will accept only new submissions under this call. Applicants may not seek renewal or supplementation of their existing awards through this call.

The Commission plans to fully fund your negotiated budget at the time of award, subject to the availability of appropriated funds.

Reporting Requirements

Successful applicants will be required to submit semi-annual status reports on all research activities, including activity summaries, research results (when appropriate), updated budgets and any proposed changes, amendments or omissions (subject to negotiation with the Commission). At the conclusion of the performance period, a full and complete final report will be submitted to the Commission detailing all research activities, results and impacts.

Submittal Instructions

Investigators must submit by email an electronic copy of the proposal. Electronic files must be a single file in Microsoft Word or Adobe PDF format and must be sent via e-mail to Dr. Louis

Daniel (ldaniel@asmfc.org) for receipt no later than **5:00 p.m. EST on March 15, 2019**. "Consortia RFP" must be specified in the subject line. Proposals not received by the deadline will be returned without review. Proposals failing to comply with content and format requirements will not be accepted.

Proposal Evaluation

All proposals meeting the specified requirements will be evaluated through a technical review of independent experts. Proposals will be ranked based on the extent to which they meet the following criteria.

> *Program Goals and Priorities* - The project contributes to the overall goals, and has specific, quantifiable performance metrics to evaluate project success in the region, and will measurable improve the success and sustainability of the US shellfish industry
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> *Technical Merit* - The project is technically sound and feasible and there is a clear, logical, and achievable work plan and timeline. Project engages appropriate technical experts throughout project planning, design, and implementation to ensure activities are technically-sound and feasible.
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> *Budget Justification* - Costs are allowable, reasonable, and budgeted in accordance with the Commission's project-specific cost categories (Appendix A) and are in compliance with *OMB Uniform Guidance* as applicable.

Decisions will be disseminated to P.I.s by June 1, 2019 and research is expected to begin no later than August 1, 2019. The initiation of research is contingent on all federal documentation (e.g. NEPA) being completed.

For more iInformation, please submit questions to:
Contact: Dr. Louis Daniel
Email: ldaniel@asmfc.org
Phone: 252.342-.478