

NRAC ANNUAL PROGRESS REPORT

INSTRUCTIONS: An annual progress report for each funded project must be provided to NRAC by June 30 of each year.

Project Title	The Scallop Research Collaborative
Reporting Period	<u>10/1/2020- 9/30/21</u>
Author (Chair)	Meggan Dwyer
Key Word	Scallops, research, aquaculture, networks
Funding Level	\$12,386
Participants: Names, Institutions and Contact Info	UMaine Aquaculture Research Institute; Meggan Dwyer (meggan.dwyer@maine.edu) & Phoebe Jekeliek, UMaine (phoebe.jekeliek@maine.edu)
Project Objectives	<p>The purpose of establishing the SRC is to convene aquaculturists, wild harvesters and researchers to work synergistically toward the following objectives:</p> <ul style="list-style-type: none"> ● Determine the current state of scallop research and identify research bottlenecks to industry economic growth ● Network researchers with industry (aquaculturists, harvesters, processors and dealers) to meet the needs of the industry using existing forums and broader funding initiatives ● Collaborate on funding proposals that address the research and capacity needs of the scallop industry ● Propose synergistic research solutions that can be used as models in the NE region ● Conduct activities that elucidate the mutual benefits of collaboration between wild harvest and aquaculturists
Anticipated Benefits	<p>State briefly how the project will benefit the aquaculture industry – directly or indirectly.</p> <p>Establishing a mechanism for connecting industry and researchers to funding opportunities for research that overcomes bottlenecks to growth will benefit scallop aquaculture and allow it to grow to its predicted potential.</p>
Project Progress	<p>Summarize concisely for each objective the progress toward accomplishment to date. This has an 8,000 character limit.</p> <p>Due to delays in funding, the March 5th, 2020 Fishermen’s Forum was used to announce the Scallop Research Collaborative at the Maine Sea Grant Scallop Aquaculture Session instead of hosting a full workshop. Further delays in funding due to COVID resulted in the funding being further delayed until October 2020 and necessitated a shift in the deliverables and timing of the grant. Due to a change in position since the original submission, Co-PI Phoebe Jekeliek became a UMaine PhD candidate and therefore, due to her deep involvement in scallop research, was the best choice for the funded graduate RA position. In December 2020, the SRC re-announced itself via a database of scallop aquaculturists and harvesters as collected through Maine Sea</p>

Grant and Scallop Advisory Council networks and DMR harvester aquaculture leases and harvester permits. [A survey of R&D needs](#) was conducted from January 2, 2021 to January 22, 2021 and garnered 46 responses. The survey was used to build a facilitated virtual workshop format in collaboration with Maine Sea Grant and that workshop took place on 1/22/21 with 40 participants. This resulted in a 3 hour workshop and a [recommendations report](#) that will be included in the final SRC technical report. From there, SRC in acknowledgement of the need to keep momentum with meetings put together a [scallop research virtual seminar series](#) that will bring researchers from both government and academia together around scallop related topics. The first seminar, “*Looking back and Looking Forward in the Maine Scallop Industry*” by Amber Lisi, Lead Scallop Biologist with the Maine Department of Marine Resources, took place March 29, 2021 and the second seminar “*What can genetics tell us about sea scallop seed sources?*” by Dr. Paul Rawson took place on May 27, 2021. At least two more seminars are planned for August and September in 2021. In the meanwhile, the Research Assistant has gathered data from researchers around the state for the ongoing [scallop research database](#) and the SRC sends periodic newsletters (a preferred method of communication identified as part of the workshops) to announce SRC and other scallop related events statewide. UMaine has recently greenlighted in person gatherings so SRC hopes to conduct at least one of the planned field trips in 2021. Also, the 2022 Fishermen’s Forum and Northeast Aquaculture Conference are planned to take place in person in 2022 and therefore will be the sites of the final workshops.

Accomplishments:

Outreach Overview Describe in general how your results have been extended to the intended users. OR, if they haven’t yet, explain when & how this will occur. So far, the network results have been shared via website, research database, e-newsletters, and virtual seminars and workshops. In the future, we hope to restart the planned in person workshops at Fishermen’s Forum and the Northeast Aquaculture Conference as well as the field trips to farms and wild caught industry around the state.

Targeted Audiences Provide information on the **target audience** for efforts designed to **cause a change in knowledge, actions, or conditions.** Aquaculture industry (existing and potential), SAC and other policy-makers at state and federal level, Gulf of Maine wild caught industry, shellfish processors/dealers, multidisciplinary researchers, and consumers.

Outputs: Outputs are tangible, measurable products (website, events, workshops, products [AV, curricula, models, software, technology, methods, websites, patents, etc.], trainees, etc.). Do NOT include publications as they’re listed separately. Completed deliverables for this grant to date are: one industry/researcher workshops, completed 1/22/21 with 40 participants one industry/ researcher survey; [see here](#)

	<p>an online project database for all scallop projects, see here Given the lack of ability to gather in 2020 and 2021, SRC established an online seminar series and has conducted two virtual seminars thus far and will hold two more by the end of the grant.</p>
<p>Outcomes/Impacts:</p>	<p>Describe how findings, results, techniques, or other products that were developed or extended from the project generated or contributed to an outcome/impact. Outcomes/impacts are defined as changes in Knowledge, Action, or Condition.</p> <p>So far, the Scallop R&D Survey has been downloaded 60 times and the SRC has been used a fact gathering and networking platform by a larger Scallop Aquaculture Investment Initiative led by the Gulf of Maine Research Institute, Center Enterprises Inc, and the University of Maine to advance scallop aquaculture through private investment. The SRC has been instrumental in guiding the investment in research topics that are a bottleneck to scallop aquaculture. Scallop aquaculture related federal grants submitted by UMaine researchers have totaled \$1.5 million in FY21 and an Aquaculture Innovation specialist was hired in May 2021 at the Darling Marine Center to advance bivalve hatchery research including scallops as a result of responding to industry needs.</p>
<p>Impacts Summary</p>	<p>Provide short statements (2-3 sentences) about each of the following: (pre-established fields for Researchers to complete short statement answers)</p> <ol style="list-style-type: none"> 1. Relevance: Issue – what was the problem? The wild caught scallop industry landings are declining and the emerging aquaculture industry is slow growing due to bottlenecks to growth that affect both. 2. Response: What was done? A Scallop Research Collaborative that enables collaboration between the established wild caught scallop fishery, the emerging scallop aquaculture industry and researchers was formed to be mutually beneficial and address issues that create roadblocks to an expanded scallop aquaculture sector in Maine. 3. Results: How did your work make a difference (change in knowledge, actions, or conditions) to the target audiences? 4. Scallop industry learn the research resources available to them. Scallop 5. aquaculturists gain knowledge of wild caught industry needs and vice 6. versa. Researchers gain knowledge of wild caught industry and Scallop aquaculturist needs. 7. Recap: One- sentence summary The scallop resource is shared among wild fisheries and aquaculturists so creating a place to convene around a sustainable future for this resource will benefit industry members across the board.
<p>Publications</p>	<p>Follow the format to list publications in the following categories: n/a</p> <ul style="list-style-type: none"> • Presentations: <ul style="list-style-type: none"> ○ Oral ○ Posters • Peer-reviewed: <ul style="list-style-type: none"> ○ Print (journal, etc.) ○ Digital (websites, videos, etc.) • Non-Peer-reviewed: <ul style="list-style-type: none"> ○ Extension factsheets ○ Popular articles

<p>Students/Participants:</p>	<p>Provide the following information for every student that worked with you during the reporting period:</p> <ul style="list-style-type: none"> • Name: Phoebe Jekeliak • Whether Degree was completed during the reporting period (name, yes/no): no • New or Continuing Student: Continuing • Capstone/Thesis Title (actual or anticipated): eDNA Methods in Scallop Aquaculture in Maine • Date of Graduation: n/a • Provide link to thesis/dissertation document: <i>n/a</i> 			
<p>Partnerships</p>	<p>List any partners that you worked with on your project. Provide the following information for each Partner:</p>			
	<p>Partner Maine Dept. of Marine Resources</p>	<p>Specific Type</p>	<p>Level</p>	<p>Nature of Partnership</p>