#### Funded Projects for Sea Grant's FY2021 "Food from the Sea" Careers Program

# Food from the Sea: Supporting the Next Generation of Alaska's Seafood Harvesters and Growers

#### Alaska Sea Grant

Alaska Sea Grant will engage a wide array of stakeholders and partners in a planning process to help new entrants for Alaska's commercial seafood harvesting and growing industry sectors start and conduct successful businesses. The project team will compile current seafood industry workforce development efforts as well as current needs through analysis of existing plans and in-person listening sessions. The second part of this project will translate needs to strategies through an in-person strategy session. Workgroups in this session will develop training plans that leverage programs and resources, facilitate regional access by stakeholders and complement existing workforce development products and programs. These products will be shared widely within the state and with other Sea Grant programs, adding value to training efforts in Alaska and beyond.

# Building Sea Grant capacity as a Sea Career Training Program Leader: Contributions from California

#### California Sea Grant

California Sea Grant will address the commercial fishing and aquaculture training needs of California and build Sea Grant's capacity as a leader in training by strengthening the current California Fishing Apprenticeship Program (CFAP), expanding the CFAP to include aquaculture training, and strengthening communication among Sea Grant's Food from the Sea Careers Network. The project team will consult with diverse fishing and aquaculture industry members from throughout California and West Coast Sea Grant colleagues to: modify existing fishing curriculum to better address new crew member needs; gather input on aquaculture industry needs and develop a list of training standards for entry level staff; develop incentives strategies and short training workshops for veteran fishermen and aquaculturists who will sponsor apprentices; and develop DEI-informed plans for participant recruitment and networking.

# A Next Gen Seafood Industry: Framing a Career-Development Program for Those Earning a Living off the Water

#### Georgia Sea Grant

This project will create a planning framework for the development and implementation of commercial fishing and aquaculture career development programming in the south Atlantic region. The project team, made up of members from Georgia, North Carolina and South Carolina Sea Grant programs, will do so by assessing existing industry-related career development resources; organizing focus groups with fishing and aquaculture industry representatives to solicit input on what is needed to build effective career development initiatives in the region; and conducting a gap analysis to identify specific short-, medium- and long-term strategies that will help support and sustain industry-desired workforce development needs across the region and per state. Upon completion of these efforts, the project's findings will be shared with industry stakeholders and the rest of the Sea Grant Fisheries Network through virtual meetings.

### Strengthening Hawai'i's Seafood Workforce and Educational Opportunities for the Next Generation of Young Fishers and Aquaculturists

#### Hawai'i' Sea Grant

Hawai'i Sea Grant aims to identify the current aquaculture, fisheries and related (e.g., marine science, maritime trades) career opportunities across Hawai'i; examine the skills and experience needed of young aquaculturists and fishers by employers in the aquaculture and fisheries workforce on Hawai'i Island as a prelude to future statewide and Pacific regional efforts; and explore the current undergraduate programs that provide the necessary knowledge, skills and training to enter aquaculture, fisheries and related career paths across Hawai'i. The findings from this study will inform educators within the University of Hawai'i System, and those within the fishing, aquaculture, and nonprofit sectors of how to improve their individual efforts to ensure successful pathways for recruiting and employing the next generation of young fishers and aquaculturalists.

#### Food from the Sea: A Regional Gulf of Mexico Approach

Louisiana Sea Grant, Mississippi-Alabama Sea Grant, Texas Sea Grant, Florida Sea Grant This project will bridge the gaps between various state and regional efforts and bring together Gulf of Mexico Sea Grant fisheries and aquaculture personnel and partners to build a regional collaboration and develop planning frameworks that identify what is needed to initiate programs, workshops, and services to enable new fishermen, aquaculturists, and seafood sector professionals to enter career paths and make a living supplying seafood from the Gulf of Mexico coastal regions. In order to increase the Gulf of Mexico Sea Grant network's capacity to address the critical concern of an aging fleet, support development of new industry, and enhance workforce capacity for fisheries, seafood, and aquaculture industries, project objectives include forming a collaborative network among the Gulf State Sea Grant programs to identify workforce areas of focus, determining the workforce needs of industry and Sea Grant's capacity and needs to implement training programs, including compiling existing resources and programs, and developing comprehensive summary documents for all areas and the planning frameworks for the areas of focus.

### Capture and Culture Fisheries of Maine: Training the next Generation Maine Sea Grant

Maine Sea Grant, Maine Center for Coastal Fisheries, and Maine Coast Fishermen's Association will identify the challenges and opportunities that can be addressed through training programs to help prepare the next generation of seafood harvesters and producers in Maine. The partners will undertake a comprehensive needs assessment that evaluates the challenges faced by individuals entering the wild capture and aquaculture sectors, whether they seek a job in a seafood business or want to follow the owner-operator model common in Maine's fishing industry. In addition to assessing needs through interviews on the docks, focus groups, workshops, and surveys, the team will conduct an in-depth inventory and analysis of existing workforce training programs, K-12 and community college programs, as well as industry-led programs for young participants. The inventory will pay particular attention to the needs of the growing number of young women entering the sector as well as the needs of traditionally underserved or underrepresented groups in Maine. In collaboration with other Sea Grant programs, the inventory will look at successes and challenges in various training and mentorship models in the region and around the nation.

### Young Fishermen's Training Framework: A Future for Cape Cod Maritime Traditions MIT Sea Grant

MIT Sea Grant and Cape Cod Commercial Fishermen's Alliance will scope and develop a training program framework that will recruit, train, retain, and support young fishermen in New England's commercial fishing industry, to include: place-based curriculum covering seamanship, navigation, electronics, gear, vessel operations, safety, basic fishing skills/knowledge, business planning, transition and growth, and sustainable commercial fishing practices rooted in the community's heritage of wild fisheries while also accommodating the growing aquaculture and charter industries; definition of clear industry entry points and a standard process to connect captains with competent aspiring fishermen; incorporation of existing fishermen and local fishing industry service businesses, local knowledge, and established training resources into the training of young fishermen; and strategic mechanisms to retain and advance diverse young fishermen into the commercial fishing industry with the long-term goal of economic growth for fishing communities.

#### Casting a Wider Net: Building Resilience in the Pacific Northwest by Increasing Career-Connected Training and Education Opportunities in Seafood Production Oregon Sea Grant

Past work by Sea Grant Extension specialists in Oregon and Washington has made it clear that new pathways toward seafood careers are needed. The project team, composed of Oregon and Washington Sea Grant specialists, will work directly with local experts and stakeholders to examine approaches to support existing and developing workforces. Over the six months of the project timeframe, specialists will identify and cultivate invested stakeholders for, and further identify and develop the core components of, a regionally relevant, transferable training program for commercial fishermen and aquaculturists. The project will also develop an implementation plan and budget, to allow the project to move from planning to application.

### Developing a Comprehensive, Modern, Hybridized Training Program for Aspiring Commercial Fishermen in Rhode Island

#### Rhode Island Sea Grant

Rhode Island Sea Grant will work with training leaders in the Rhode Island seafood sector to develop a comprehensive, rigorously evaluated and adapted curriculum for training fishermen to be long-standing and productive contributors to the state's vital seafood industry. The resulting plan will be fully operation-ready with a science-based and expert-approved curriculum as well as clear and practical guidance for leadership, mentorship, evaluation, and professional development and support activities. The planning framework developed will include: seamanship, navigation, electronics and safety; vessel and engine care, maintenance, and repair; and sustainable fishing practices.

### Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center

#### South Carolina Sea Grant Consortium

South Carolina Sea Grant Consortium will develop a Southeast Regional Fisheries and Aquaculture Training Center blueprint, with partners in McClellanville, South Carolina, focused on addressing fisheries workforce training needs in the Southeast region of the U.S. The blueprint (a feasibility study + business plan) will be the culminating product of a six-month study involving workshops and focus groups with South Carolina's commercial fishing sector and key representatives in McClellanville, as well as a learning exchange with an existing fisheries training center. This project will explore critical questions necessary to advance the training center, addressing subjects such as: the justification of a training center, based on costs and benefits; the organizational structure of a training center; identifying fishing and aquaculture industries benefiting most from training programs (ex. shrimp trawling, oyster mariculture, soft-shell crab shedding, charter fishing, etc.); determining key technical skills to be addressed through training (ex. business management, engineering and technology, navigation, shellfish culture techniques); and investigating scientific, managerial, and legal considerations.

#### Great Lakes Future Fishers Initiative: Developing a State and Tribal Great Lakes: Commercial Fishing and Seafood Processing Apprenticeship Program Wisconsin Sea Grant, Michigan Sea Grant

This project will create a framework for a Great Lakes' commercial fisheries and fish processing apprenticeship program. The effort will span six months and will involve an exploratory analysis, a regional online survey, and semi-formal group discussions. The project team will evaluate existing apprenticeship frameworks and will review apprenticeship and training options with Great Lakes licensed commercial and Tribal fishers to determine what skills and knowledge would be most beneficial for them and their businesses. Commercial fishers, fish processors, and regulatory agencies in the Great Lakes region have expressed interest in mentoring the next generation of the industry's workforce using structured, cross-discipline training curricula. Anishinaabe fishers, multi-generational fishing families, and regulatory agency staff are among those who will influence the development of the framework of the proposed apprenticeship and benefit from the outcomes of this work. The project team considers it a priority to build the framework with stakeholders and rightsholders from diverse Great Lakes cultural and historical perspectives. The framework will be disseminated to stakeholders and rightsholders in anticipation of working collaboratively with them to implement an apprenticeship program in Great Lakes waters. Additionally, the project team will identify potential challenges to the success of a commercial fishing/fish processing apprenticeship program and gather information that could be used for developing new commercial fishing businesses, expanding processing capacities across the regional seafood industry, and enhancing the current workforce.