

Sea Grant “Food from the Sea” Careers Program: *Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center*

Proposal Submitted to: **U.S. Department of Commerce – National Oceanic and Atmospheric Administration (NOAA), Oceanic and Atmospheric Research (OAR)**

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Submission Date: April 27, 2021

Title: Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center

Lead Program: South Carolina Sea Grant Consortium

Abstract

We seek funding to 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 US. The blueprint (a feasibility study + business plan) would 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 would 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)
- Investigating scientific, managerial, and legal considerations

The resulting *blueprint* of this collaborative process would serve as the foundation for the region to channel resources towards further development of the training center. While specific contents of the blueprint will be determined by stakeholders, it is expected that the study will include the following components: capital costs, equipment, and personnel needs; commercial fisheries economic outlook; workforce and labor market analysis; competitive analysis; pro-forma financials; and risk management.

McClellanville is an ideal location for fisheries workforce enhancement, as the area currently has: (1) a need for fisheries training formally expressed by the town's seafood businesses; (2) a newly formed 501(c)(3) non-profit fisheries organization willing to assist with developing the training center; (3) a rural and diverse community with strong commercial fishing heritage that has expressed their desire to remain a commercial fishing community; (4) a strategic location geographically centered between Jacksonville, FL and Cape Hatteras, NC (a region with similar fisheries and workforce needs), and (5) close proximity to Charleston, SC, where amenities, services, potential students and instructors, and transportation hubs are easily accessible.

The long term vision of a regional fisheries training center aligns with needs and missions across multiple entities, at local and regional scales, including the South Carolina Seafood Alliance, McClellanville Watermen's Association (MWA), McClellanville Community Foundation (MCF), South Carolina Shellfish Growers Association, South Carolina Sea Grant Consortium, and North Carolina and Georgia Sea Grant programs. Such a training center can enhance fisheries-related job opportunities, promote coastal heritage, and generate revenue for fisheries-dependent communities. Funding for this collaborative, multi-stakeholder study will ensure a grassroots approach, reach potential benefactors across the southeastern region, and develop a template for other centers in the Southeast.

Introduction/Background/Justification

The motivations for this project are driven by two factors: (1) a need for facilities, programs, and mechanisms to develop skills necessary to sustain commercial fisheries production in the southeast; and (2) an expression of interest by fisheries stakeholders in McClellanville, SC, to assist in their effort to sustain their stronghold as a commercial fisheries and seafood hub in the region. Both factors have been assessed by Sea Grant specialists through years of engagement, and in both formal and non-formal needs assessments. Further background information on these two factors are provided here:

Background on Regional Need for a Fisheries Training Center

The South Carolina commercial fishing industry has decreased dramatically in participation in recent years, with commercial trawling licenses declining by 87% from 2007 to 2017 (Peterson, 2018), and landings steadily declining (Figure 1). According to the South Carolina Department of Natural Resources, from 2014-2020 gill net permits holders declined from 155 to 88, and there are currently only 39 permit holders of the snapper-grouper complex in the state of South Carolina (Angel Curry-Brown, personal communication, July 28, 2020). The drivers behind this decline are complex, but fishermen and academics often allude to an increasingly complex regulatory environment, low-cost seafood imports, a lack of generational skills and assets transfer, and a devaluing of the profession (Sweeney-Tookes and Fluech, 2018; Mirabilio, Fleming & Anderson, 2014; Nash, 2013).

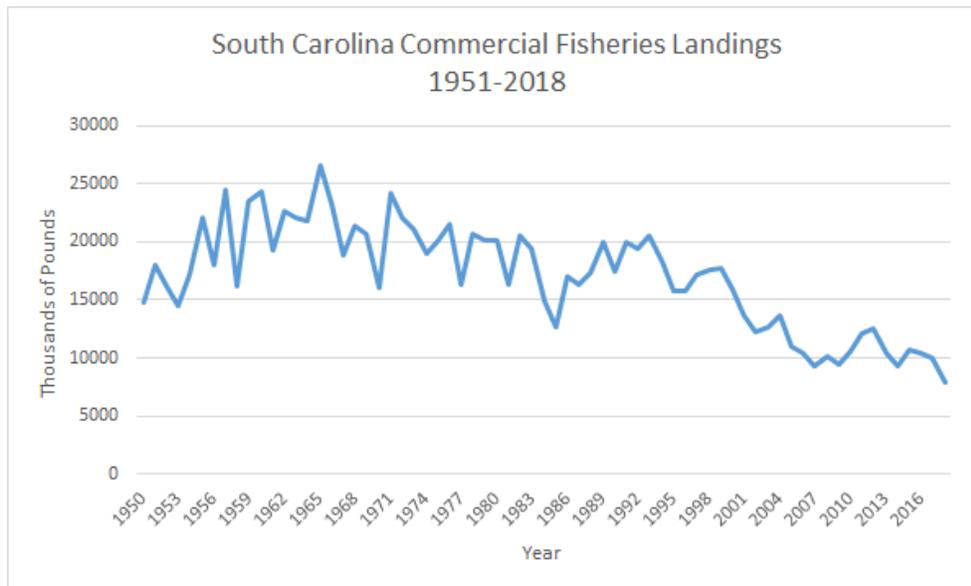


Figure 1: Decline of commercial fisheries landings in South Carolina from 1951-2018. Data retrieved from the Atlantic Coastal Cooperative Statistics Program (accsp.org)

Consumers in South Carolina depend heavily on imported or non-local seafood sources (Rhodes, 2014) and national seafood supply chains. This trend is reflected nationally as well, as imported seafood constitutes between 62% and 90% (depending on source and accounting methods) of US consumption (NMFS, 2020; Gephart, 2019). Current efforts at the federal level are attempting to offset this trade imbalance by encouraging greater domestic production of seafood (e.g.

[Executive Order Promoting American Seafood Competitiveness and Economic Growth](#) and [Young Fisherman's Development Act](#)).

The composition of commercial fisheries has changed in the region. In Beaufort, South Carolina, historically the shrimp capital of South Carolina, only one new boat has been built in thirty years. Approximately ten shrimp trawlers are in McClellanville, ten functional trawlers are in Beaufort, and two are in Shem Creek (whereas there used to be 30). Approximately five more shrimp trawlers are scattered between more rural coastal areas (Collins & Von Harten, 2020). The traditional route for new participants in the fishery was through familial generations. Yet intergenerational transfer of knowledge has not been occurring in recent years. Previous generations fished under different market situations and regulatory environments that yielded greater revenue and higher wages. New ways of knowledge-transfer and skills development - adapted to today's market and regulatory conditions - are required to support seafood production.

While it is generally believed that participation in the major southeastern fisheries have declined over the years, trends in permit holders for all fisheries are difficult to track due to changes in record keeping (Angel Curry-Brown [SC-DNR], personal communication, July 28, 2020). Yet when examining regional trends in landings, Figure 2 shows a steady decline in the states of North Carolina, South Carolina, Georgia, and Florida (east coast), over the last four decades. Total volume has leveled since 2006. A decreasing or leveling-off of production, paired with aging fleets and retiring workforce signifies an unsustainable system of harvest and production, thus indicating a need for investment into human capital.

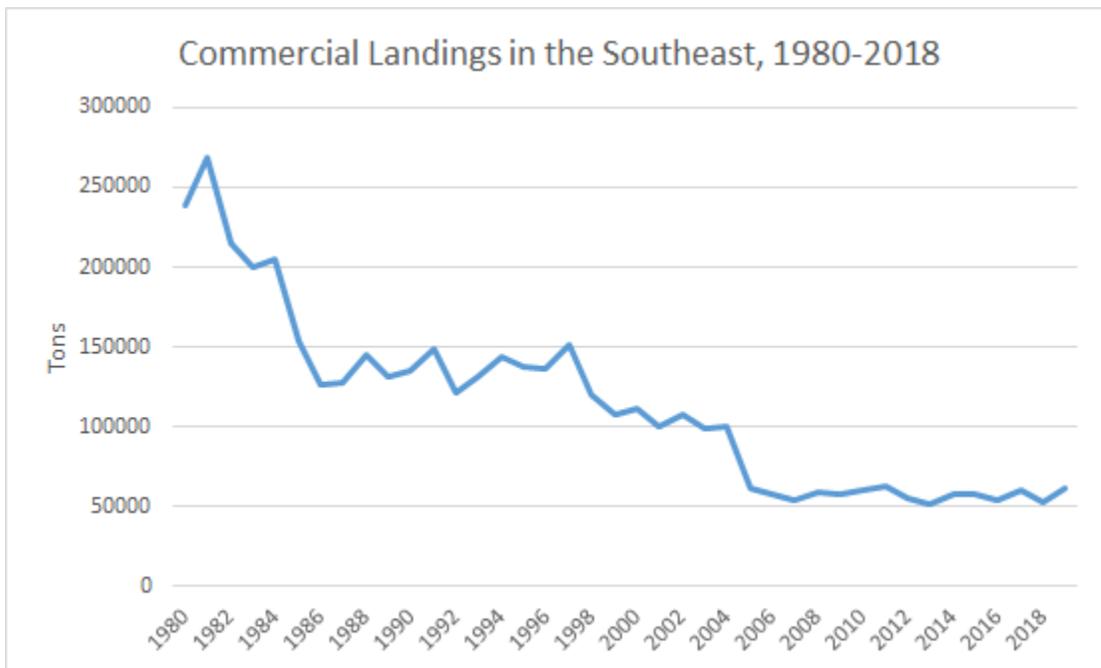


Figure 2: Landings in the southeastern US since 1980, all species (Source: NMFS Commercial Fisheries Landings Tool)

While wild-caught fisheries production have declined or stayed steady and have specific workforce issues, aquaculture workforce training presents numerous opportunities for the region.

The growth in shellfish aquaculture in recent years is a promising supplement or alternative to commercial fisheries professions. The increase in production and industry value has grown dramatically in recent years, as shown in Figure 3. (The exception is 2020, where it's generally assumed that restaurant closures due to COVID-19 lowered demand and prices).

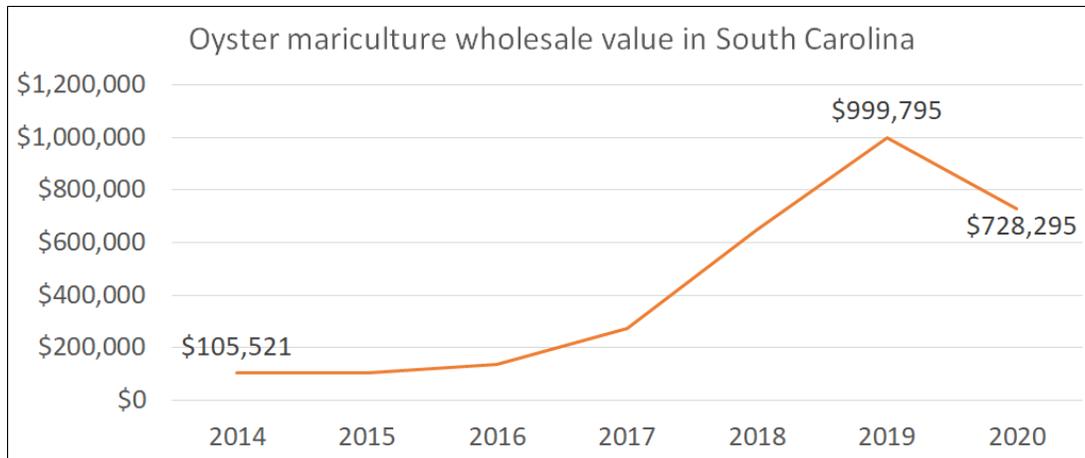


Figure 3: Mariculture production (wholesale values) growth in South Carolina, 2014-2020 (Source: South Carolina Department of Natural Resources)

Unlike commercial fishing, shellfish aquaculture has seen an increase in new entrants in recent years. Reasons include: lower capital costs and liabilities (relative to offshore fishing), proximity of the resource to land, the controlled environment to manipulate growth, the generally favorable perception of its economic and environmental impacts, and the availability of lease sites. Interest in integrating shellfish aquaculture training into working waterfront economies has increased, as demonstrated by increased participants in the few existing regional shellfish aquaculture training programs (Personal communication, Bryan Snyder, April 13, 2021). Incorporating shellfish aquaculture training into the *Blueprint* will be an important consideration through this process.

Background of the Community of McClellanville

McClellanville is a small fishing village with a population of less than 500 that has sustained itself economically by the commercial harvest of approximately 47 species (personal communication, Rutledge Leland, April 18th, 2021). McClellanville's seafood wholesalers' average gross revenue over the past five years is \$6.9 million (personal communication, Rutledge Leland, April 18th, 2021). A significant portion of this income supports harvesters and their families.

In 2017 McClellanville's largest seafood business owner, Rutledge Leland of Carolina Seafoods, announced his retirement and his hope for perpetually preserving the working waterfront as a base-of-operations for all local watermen. Carolina Seafood currently handles 70% percent of the shrimp that comes into Charleston County, which is 30 percent of the shrimp that comes into South Carolina (Peterson, 2018). It is one of the last of a handful of seafood houses left in the state. Due to reasons mentioned above, the retirement of Mr. Leland, coupled with an ageing workforce, and the threatened sustainability of commercial fishing could have a significant impact on this regional seafood hub. Stakeholders are seeking investment and diversification of

income streams that can support – rather than replace – the commercial fishing heritage of the area. Mr. Leland has said: "I don't want it to become a condo city. I want it to be a commercial fishing dock. I'm part of the community, and that's what I like to see." (Holleman, 2016).

This situation has brought stakeholders together to discuss the future of the industry. The town's seafood businesses make up the largest portion of the workforce, including captains, crew, dock facility workers, retail and office personnel, value-added producers, and distributors.

Recognizing that the seafood industry is a core economic and cultural asset, the town, its citizens, industry partners, and the watermen are collectively planning for the future. Multiple initiatives to tackle this problem are currently underway.

In 2017, the Town applied for and received a \$25,000 Municipal Association of South Carolina (MASC) grant to research and report on successful models from other coastal communities. *A Viable Future for McClellanville's Working Waterfront (2019)* by Carolina Common Enterprise, identified a model from Ocracoke, North Carolina, and in July of 2019 the town hired the Ocracoke project consultant, Robin Payne.

On December 16, 2019 the town held a visioning session with the community. Led by the Berkeley-Charleston-Dorchester Council of Governments, attendees identified locations of open spaces to preserve and discussed where a local non-profit could be of assistance (e.g. waterfront sustainability, environmental education, affordable housing, etc.). With the support of the residents and Town Council, the McClellanville Community Foundation (MCF) was incorporated in June 2020. MCF's primary role is stewardship of working waterfront property and ensuring the sustainability of the seafood sector. MCF would be the principal stakeholders in pursuing and informing the parameters of a blueprint for a new training center.

Through this process, McClellanville, its stakeholder groups, and Mr. Leland determined a course of action bound by a common vision held by all participants. The town seeks "a simple, specific, and practical description of the purpose of the business and the means used to carry it out." Questions posed by the stakeholder groups include:

1. What alternatives exist for the continued operation of Carolina Seafood under new ownership or management?
2. How can McClellanville harvesters make more money from seafood?
3. How can The Town of McClellanville keep its commercial waterfront working to support the harvesters?
4. Importantly, considering McClellanville occupies an important position in a larger system of seafood harvesters & wholesale channels, how can McClellanville leverage their interdependency to ensure the future of its seafood industry? (Carolina Common Enterprise Report, 2019).

One potential path forward that could boost domestic seafood participation and production is a fisheries and aquaculture job training program. The McClellanville Watermen Association (MWA) have recognized the role that training facilities could have in a letter to the South Carolina Department of Natural Resources (SCDNR): "Training programs – for local watermen and prospective non-watermen employees on seafood business management, processing, record keeping, wholesale and retail operations, required licensing, and value-added product

development. Training of multiple people ensures continued operation of a facility, for example, in a weather event or change in ownership." (Letter to SCDNR from MWA, March 8, 2021; Re: Disaster Relief Funding Feedback Request.) There is interest, resources, and facilities (including a now-vacant middle school) that could be utilized for a training center (Michelle McClellan, personal communication, April 20, 2021).

Project Objectives

Goal: Develop a stakeholder-driven planning blueprint for a commercial fisheries and aquaculture training center that provides region-wide benefits and is replicable
Objective 1: Provide a forum for the McClellanville community and fisheries/aquaculture experts to develop solutions to fisheries workforce issues
Objective 2: Provide a learning exchange for local fishermen, in which lessons-learned are incorporated into future workforce development programs for the southeast
Objective 3: Increase community cohesion through progressing toward a common goal and the advanced networking incurred from this collaborative process

The overarching goal of this project is to develop ***a stakeholder-driven planning blueprint for a commercial fisheries and aquaculture training center***. The blueprint will be a modified business plan, in the sense that the financial and analytical contents will be sufficient for financial institutions to understand its lending worthiness, yet it can simultaneously be interpreted and used by McClellanville and other working waterfront communities as a how-to guide to develop such a training center in order to provide the foundation for a replicable process that can be transferred to other communities.

There are intermediate objectives throughout the process that will advance the effort to provide regional fisheries job opportunities, promote coastal heritage, and generate revenue for fisheries-dependent communities. The proposed collaborative process will (1) *provide a much-needed forum for the MCF, MWA, state-wide fisheries experts, and other stakeholders to develop solutions to the decline in fisheries participation and other workforce issues*. The MWA is in a unique position as one of very few cooperatively managed fisheries organizations in the Southeast, and has momentum from recent grant awards, regional support, and self-initiated leadership roles. They have invested time to restructure their operations and approach, and they have committed and signed onto new "Conservation Commitments" to emphasize their approach towards sustainability. Their unique position makes them a valuable potential pilot program and a regional hub for passing on fisheries skills and knowledge to new generations.

One of the activities to be carried out is a (2) *learning exchange*, in which three commercial fishermen and two Sea Grant specialists will visit an operational training center, the Commercial Fisheries Center of Rhode Island, to learn about the Commercial Fisherman Apprenticeship Program (CFAP). The lessons learned from this opportunity will be an outcome in itself, and project team members will ensure that these lessons are incorporated into future workforce development programs for the southeast. The project team has already reached out to the

Executive Director of the Rhode Island Commercial Fisheries Center, Fred Mattera, to confirm their interest in hosting learning exchange participants.

A final intermediate objective includes the *(3) increased community cohesion* from making progress toward a common goal and the advanced networking incurred from this collaborative process. The long-term vision of workforce development will bring together sectors that do not often work together, such as learning institutions (community colleges), financial institutions, fishermen, and regional businesses, with SC Sea Grant facilitating these partnerships and interactions. Furthermore, while this project would stand to benefit the whole Southeast region, the focus on McClellanville enables Sea Grant to support a rural and underserved community with strong maritime cultural heritage and substantial importance to the region's seafood availability.

General work plan and milestones

This project will be carried out in the following phases:

1. Pre-planning and research [Month 1]
 - a. Planning: project team members will meet virtually to kick-off the project and to coordinate processes such as in-person meeting logistics, material needs, tasks, and responsibilities. Goals and agenda of first meetings will be developed.
 - b. Committee identified and confirmed: this committee will be made primarily of project team members (PI, co-PIs, and associates), McClellanville stakeholders such as Carolina Seafoods representatives, MWA and MCF representatives, and town administrators.
 - c. Research and data aggregation: important research will be related to success and challenges of other nationwide fisheries training centers, as well as costs associated with learning centers (e.g. instructor salaries, apprenticeship compensation, facilities and equipment costs, accreditation costs).
2. Public meeting #1 (in-person) [Month 1]
 - a. Pre-project survey will be held to gauge perceptions of the training center concept, fisheries and aquaculture workforce needs, and other concerns
 - b. Half-day in-person meeting at the McClellanville Community Center will be held. Residents of McClellanville and stakeholders potentially impacted by a training center will be invited to participate and provide input. Breakout groups will discuss certain components of the plan, as well as the viability of different organizational structures. The objective of the first public meeting will be primarily assessing needs, concerns, and questions related to a fisheries training center.
3. Committee meeting #1 (in-person) [Month 1]
 - a. Immediately following the public meeting, the first committee meeting will take place, in which a skeleton blueprint will be drafted. The skeleton will be informed by the public meeting outcomes, prior research, project planners, and the agri-business consultant. The scope of organizational structure will also be determined (e.g. apprenticeship programs, technical college association, certification, the integration of nature-based tourism, etc.).

4. Learning Exchange [Month 2]
 - a. Five participants identified by the committee will be selected to travel to the Commercial Fisheries Center of Rhode Island to learn about the Commercial Fisherman Apprenticeship Program (CFAP). Participants will learn about the administration, curriculum, operations, successes and challenges to a program that closely resembles a program to be initiated in the southeast. Lessons learned will be incorporated into the Blueprint. This has been discussed with staff at the Rhode Island Commercial Fisheries Center, and their program is welcoming to our visitation.
5. Blueprint draft developed [Months 2, 3, 4]
 - a. Co-PI Richards will lead the development of the draft blueprint, using an adapted framework combining previous successful business plan models modified by the input received from the public meeting and committee meeting
 - b. Example components of the blueprint - based on previous iterations of feasibility studies and business plans conducted by the project team - are provided in Appendix 1.
6. Committee meeting #2 (virtual) [Month 4]
 - a. The committee will meet to discuss the blueprint draft. Gaps and needs will be addressed, questions answered, and outstanding tasks will be assigned
7. Blueprint second draft developed [Months 4, 5]
 - a. A second draft based on committee suggestions will be developed and designed in a form to present at a public meeting
8. Public meeting #2 (in-person) [Month 5]
 - a. Half-day in-person meeting at the McClellanville Community Center will be held to discuss the draft training center blueprint progress. Residents of McClellanville and stakeholders will discuss gaps or special considerations of the draft blueprint. Input from fisheries managers, regulators, and experts will also be sought. Critical concerns and questions will be addressed and suggestions for moving forward will be discussed.
 - b. Post-project survey will assess the outcomes and participant perceptions of the workshops and focus groups, the development of the blueprint, lessons learned, and recommendations for moving forward (or not) with the training center
9. Committee meeting #3 (in-person) [Month 5]
 - a. Committee members will convene to make final suggestions and amendments to the blueprint
 - b. Committee members will discuss the dissemination and outreach plan for the blueprint
10. Blueprint finalized [Month 6]
 - a. Final technical components and editing and layout will be carried out
11. Dissemination and outreach [Month 6]
 - a. The blueprint will be distributed according to the committee plan, which will likely include using all appropriate media outlets. Intended audiences will include: Sea Grant programs nationwide; the Sea Grant Fisheries Extension Network (FEN); the Sea Grant Aquaculture Network; the National Working Waterfronts Network, and professional fisheries and learning associations in the Southeast. Regional state agencies, chambers of commerce, financial institutions, technical colleges, and other partners with a potential role in the training center development will be contacted as appropriate
 - b. Next steps - mainly concerning potential funding, administration, and partnerships for the training center

Milestone Timeline

Milestone	Sep2021	Oct2021	Nov2021	Dec2021	Jan2022	Feb2022
Meeting Planning	x					
Public Meeting #1	x					
Committee Meeting #1	x					
Learning exchange		x				
Blueprint draft development		x	x			
Blueprint draft finalized				x		
Committee Meeting to review draft (virtual)				x		
Public Meeting #2					x	
Committee Meeting #2					x	
Blueprint finalized						x
Dissemination/outreach						x

Project Team

NAME	POSITION	ROLE	RELEVANT EXPERIENCE
Graham Gaines - PI	Living Marine Resources Specialist, South Carolina Sea Grant Consortium (SCSGC)	Project coordinator, and inform fisheries and aquaculture training designs for blueprint	Graham has 12 years' experience developing and managing community-based fisheries and aquaculture improvement projects in multiple regions, and holds a Masters in Resource Management from University of Akureyri, Iceland
April Turner - co-PI	Coastal Communities Program Specialist, SCSGC	Workshop facilitator; organize the workshop with the town	April has spent 21 years with the Consortium developing programs and projects to educate citizens, public officials, and municipal staff about sustainable land- and water-resource planning; has an M.S. in parks, recreation, and tourism management from Clemson University
Matt Gorstein - co-PI	Interim Assistant Director for Development and Extension; and Coastal Economics Specialist, SCSGC	Provide economic data, budget needs, costs, economic impact; design of survey (pre and post)	Matt has an M.S. in Food and Resource Economics from University of Florida with 9 years of experience in developing coastal science and outreach projects; he specializes in economic data collection, survey development, fostering sustainable economic development, and stakeholder engagement

Steve Richards - co-PI	Director of the South Carolina Center for Cooperative and Enterprise Development, Clemson University	Lead on Training Center Blueprint	Steve has more than twenty years' experience in writing business plans and feasibility studies. In the last 3 years, Steve has completed feasibility projects for a national butcher academy, heirloom rice production, oyster aquaculture, and community farms located at two children's homes in South Carolina
Robin Payne – Associate	Consultant for coastal communities and non-profit fisheries organizations;	Workshop facilitator, liaison with watermen	Robin has 15 years experience with seafood-based communities in organizational development and value-added production. In 2016 Robin's Ocracoke, NC model on Small Scale Fisheries was selected by Food and Agriculture Organization of the United Nations (FAO) as the USA model on strengthening organizations and collective action in fisheries.
Sarah Pedigo - Associate	Shellfish Aquaculture Specialist, SCSGC	Inform aquaculture training design	Sarah has earned a M.S. in marine science from UNC Wilmington, where she studied conditioning of the Eastern Oyster, and worked in the UNCW Shellfish Research Hatchery

Anticipated outcomes

There are short-term and long-term outcomes anticipated with this project, detailed below:

	<i>Outcomes</i>	<i>Benefactors</i>
<i>Short-term Outcomes</i>	New data and information related to feasibility of fisheries and aquaculture training programs in the southeast	Southeast region seafood businesses; Fisheries Extension Network; South Carolina Seafood Alliance; South Carolina Shellfish Growers Association; Regional professional fisheries and aquaculture associations
	Decisions made benefit the future of economic sustainability of McClellanville	Seafood businesses in South Carolina, especially Charleston County; MWA, MCF; South Carolina Sea Grant Consortium
	Strengthened professional networks	Seafood businesses; regional learning institutions; regional business and development centers; Sea Grant programs and affiliated partners
	Community cohesion and capacity building	Town of McClellanville

<i>Long-term Outcomes</i>	A model blueprint for a fisheries training center that can be adapted to fit similar communities and institutions interested in advancing fisheries workforce development	Nationwide fisheries-dependent communities; Sea Grant programs nationwide; educational institutions
	A foundation and pathway are set for a workforce development program to benefit commercial fisheries and aquaculture in the southeast	Seafood businesses and fishermen in McClellanville, South Carolina, and the South Atlantic region
	Progress towards the Consortium's vision for sustainable fisheries and aquaculture: "Sustainable fisheries and aquaculture in the coastal region are economically vibrant and are compatible with changing demographics, business development, regulatory environments, and long-term conservation of natural and cultural resources."	Coastal communities of South Carolina and the South Atlantic region at large

Coordination with other program elements

This project integrates research, extension, and education into a community-based approach to sustainable development.

Research

Early phases of the project will be research-driven to understand needs and potential outcomes of workforce development. This work has already begun, and will continue in the pre-planning stages. Emphasis will be on nationwide success stories, and parallel programs in the field of fisheries training. The feasibility study and business plan development is a research-driven exercise, and will be carried out by an experienced researcher in the field of agriculture and commodity-based enterprises. The feasibility study will lean heavily on original data collection.

Extension

Extension work in this project includes the public meetings and committee meetings, with significant involvement from resource users and coastal community groups. Input will be sought from SC-DNR managers and scientists, as well as regional fishermen and seafood producers that may benefit from workforce development. Sea Grant personnel attached to this project have many years experience in this field.

Education

The learning exchanges for southeastern fishermen to witness a successful training and apprenticeship program will be an outcome in itself. Lessons learned will be shared widely with the community and project partners. Finally, findings (lessons learned from the community engagement process and the blueprint) will be widely disseminated to ensure a strong educational component. Project PIs will utilize familiar outreach methods to ensure all relevant networks associated with fisheries and aquaculture workforce have access to findings. Outcomes are anticipated to be of high value for Sea Grant programs in Georgia and North Carolina, as well as to the National Sea Grant program. The Fisheries Extension Network and Southeast Regional Aquaculture network would benefit from such a blueprint, as well as the process.

Ongoing and cross-cutting programs and projects at the Consortium

The project is cross-cutting among multiple efforts currently underway with the Consortium. Among them are projects supported by the National Sea Grant Office, USDA, and other regional funding agencies. These efforts include:

- Developing a Framework to Expand Comprehensive Training Opportunities for Prospective Shellfish Growers in North Carolina, South Carolina, and Georgia (NSGO)
- Shellfish Aquaculture Research and Training Facilities - Return on Investment Study (NSGO Rapid Response)
- Strategic Plan for Improving South Carolina Seafood Infrastructure and Operations (USDA Local Food Promotion Program, in partnership with South Carolina Seafood Alliance)
- A Viable Future for McClellanville's Working Waterfront (Municipal Association of South Carolina)
- McClellanville and South Carolina Sea Grant: Catch Together Grant

Relevance to the Consortium's Strategic Plan

Concerning internal program elements with South Carolina Sea Grant Consortium, the proposed work aims to deliver on Sea Grant's *Sustainable Fisheries and Aquaculture* priority area. Within the Consortium's Strategic Plan, this project addresses the following objectives:

- Objective 1.2 - Enhance the seafood industry through translational research and technology transfer aimed at increasing sustainability, production, and profitability
- Objective 1.3 - Foster enhanced communications among the fisheries and aquaculture industry, resource management agencies, and the public regarding living marine resource management and policy in South Carolina.
- Objective 2.1: Seafood businesses adopt socially and economically viable and sustainable production practices

Summary of Supporting Letters from Partners

<i>Supporting Organization</i>	<i>Name</i>	<i>Significant Comments</i>
McClellanville Watermen’s Association	Edward Taylor, Chip Racine, Ralph Thomas, Gardner McClellan, Jeff Spahr - officers	“The planning activities and subsequent training center “Blueprint” will help us to understand what workforce development efforts are required to realize the potential for South Carolina’s coastal economy and working waterfronts.”
McClellanville Community Foundation	Thomas Johnston, representative	“Training offered in business models for seafood management and marketing, emerging markets, sustainable harvesting practices, and vessel care and maintenance are all core components of the future of our Town.”
Town of McClellanville	Michelle McClellan, town administrator	“The town recognizes the need for professional development opportunities in the field of commercial fisheries and aquaculture to achieve sustainability of the regions’ working waterfronts.”
South Carolina Seafood Alliance	Amy MacKown, Executive Director	“This proposal would initiate a much-needed process for ensuring future generations have access to local seafood by creating a system for new individuals to enter the seafood trade, which is currently experiencing a greying of the fleet in South Carolina.”
South Carolina Shellfish Growers Association	Julie Davis, President	“The planning activities and subsequent training center “Blueprint” will be beneficial for coastal South Carolina in that it will provide training for new and beginning farmers to ensure a more rapid trajectory to success in shellfish farming.”
Lowcountry Oyster Company	Trey McMillan, oyster grower and SC rep to East Coast Shellfish Growers Assoc.	“As an oysterman myself, I understand the difficulties of finding good, trained staff in my area and think this proposal will help address that issue.”
North Carolina Sea Grant	Susan White, Executive Director	“I also was pleased to learn that the town’s seafood industry is following a model similar to Ocracoke, N.C., in forming a watermen’s association. And, in fact, it was organized by the same person.”

Georgia Sea Grant	Bryan Fluech, Extension Director	“The South Carolina Sea Grant Consortium should be commended by their efforts to address these issues in such a comprehensive manner. I am confident they have the right personnel and partnerships in place to make this project a success.”
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Appendix 1: Draft Blueprint Example Components

Project Description/Process Description

- Project details. Include capital costs and equipment needed
- Curriculum considerations, regulatory hurdles and constraints
- Labor and workforce needs
- Needs of potential employers

Marketing Section

- Industry economic outlook. What is the big picture for this service?
- Market Size and Trends. This defines the target market for training services, how large that market is, and if the market is growing or contracting
- Employer survey and analysis. What jobs are needed, how much do these jobs pay, and where are they located?
- Competitive analysis. What other occupations or job training programs are available for the same group of potential enrollees? What is the predicted enrollment in the proposed program?

Financial Analysis

- Gross margin analysis. Cost of services provided and contribution to overhead from each training program or service. What is the ideal size and scope of the proposed training facility?
- Overhead cost analysis. Includes breakeven analysis and growth assumptions.
- Pro-forma Financials: five years of balance sheets, five years of profit and loss, and three years of cash flow by month.

Feasibility

- Borrowing and repayment ability (if debt financed).
- Sensitivity analysis. Base case, probable case, and worse-case scenarios. Possibly include expected value (or probability) of each scenario happening.
- Risk management: What are the critical factors to be managed in the business plan to insure a base case scenario and protect against a worse-case scenario?

References and literature citations

Carolina Common Enterprise (2019). Unpublished Commissioned McClellanville Report.

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Rhodes, R., Von Harten, A. and Turner, A. (2008). Coastal Waterfront Access Challenges and Opportunities for South Carolina Marine Fisheries Stakeholders. Project Final Report, June, 2008, South Carolina Extension Program, South Carolina Sea Grant Consortium, Charleston, SC. http://www.scseagrant.org/pdf_files/Waterfront-Access-Report.pdf

Sweeney-Tookes, J. and Fluech, B. (2018). Georgia's Fishing Traditions and Fishing Futures; Oral Histories of Commercial Fishing. Presentation retrieved from <https://workingwaterfronts.org/projects/georgia-fishing-memories/> on April 15, 2021.

DATA SHARING PLAN

All primary and secondary data collected for the development of the blueprint will be available in the final blueprint document. For those interested in the raw data, data will be made available in accordance with the NOAA Data Sharing Directive. Interested parties should contact S.C. Sea grant Consortium at (843) 953-2078.

ABBREVIATED NOAA ENVIRONMENTAL COMPLIANCE QUESTIONNAIRE

Instructions: Answer EVERY question in the yellow square below it.

Questions are selected from the full 62-question NOAA Environmental Compliance Questionnaire (available at www.nepa.noaa.gov), as such questions are not in numerical order.

Grant number and/or Project ID (if available)
A/AQUA20-1
Project Title
Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center
Name and contact information for the person completing this form
Susannah Sheldon; susannah.sheldon@scseagrant.org
State Sea Grant Program
South Carolina
<u>PROPOSED ACTIVITY</u>
Describe the proposed activity, including: <ul style="list-style-type: none">• The purpose, objectives, and goals
<p>The overarching goal of this project is to develop a stakeholder-driven planning blueprint for a commercial fisheries and aquaculture training center. The blueprint will be a modified business plan, in the sense that the financial and analytical contents will be sufficient for financial institutions to understand its lending worthiness, yet it can simultaneously be interpreted and used by McClellanville and other working waterfront communities as a how-to guide to develop such a training center.</p> <p>Objective 1: Provide a forum for the McClellanville community and fisheries/aquaculture experts to develop solutions to fisheries workforce issues</p> <p>Objective 2: Provide a learning exchange for local fishermen, in which lessons-learned are incorporated into future workforce development programs for the southeast</p> <p>Objective 3: Increase community cohesion through progressing toward a common goal and the advanced networking incurred from this collaborative process</p>
Is the proposed activity a continuation or part of an ongoing activity? If yes, then: <ul style="list-style-type: none">• Describe any changes to the proposed activity since it was initiated, including progress toward achieving its objectives/goals; and• Provide any additional information, previous environmental review documents, and/or reports from previous years.
No
Describe sampling, collecting, or observation protocols and operational procedures
The project involves a six-month effort, beginning September 2021, and includes 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 would explore critical questions necessary to advance the training center.
Will the proposed activity require the cataloging and compiling of sources of socioeconomic data? If yes, then please explain.
Socioeconomic data will be collected during the afore-mentioned workshops and focus groups, as well as through review of data associated with other nationwide fisheries training centers and associated costs. No PII will be collected as part of this effort.
Does the proposed activity consist solely of software research and manipulation? If yes, please explain.
No
Does the proposed activity utilize a new or untested scientific technology or method? If yes, then describe briefly the technological process or methodology and potential environmental effects of the proposed activity.
No
What amount (total numbers and/or weight) of fish or invertebrates are proposed to be caught? What is the size (weight, length, and age class) of each species targeted for capture?
N/A
List non-target species that may occur in the proposed sampling area and specify how many of each non-targeted species are expected to be caught.
N/A
Will the proposed activity introduce genetically modified organisms, species bred for specific traits (e.g. disease resistant stocks), or non-indigenous species into an area?
No
Describe the processing methods to be used to conduct the research.
N/A
<u>LOCATION</u>
Describe the proposed activity location, including, if available and appropriate, geographic coordinates (latitude, longitude in DD MM.MMM), river mile markers, etc. for all distinct phases of the proposed activity.
McClellanville, South Carolina
Is the location of the proposed activity in a previously undisturbed area? If yes, then explain if the proposed activity would degrade or disturb the previously undisturbed area.
No
Are there pre-existing or ongoing uses at the location of the proposed activity? If yes, then describe and explain the pre-existing or ongoing uses at the location of the proposed activity or, if not known, describe how pre-existing/ongoing uses will be determined.

No
Describe the characteristics of the location of the proposed activity by: <ul style="list-style-type: none">• indicating whether it includes unique geographic areas of notable recreational, ecological, scientific, cultural, historical, scenic, economic, or aesthetic importance;• describing any anticipated changes over time to the natural landscape and/or viewshed that would result from the proposed activity;• listing any ecologically significant or critical areas in the location of the proposed activity, including areas that are normally inundated by water or areas within the 100- year flood plain;• essential fish habitat and habitat areas of particular concern designated under the Magnuson-Stevens Fishery Conservation and Management Act; • listing any critical habitat areas for Endangered Species Act-listed species;• listing any marine protected areas or national marine sanctuaries in the location of the proposed activity;• listing any part of refuge lands, wild or scenic rivers, wetlands, or prime/unique farmland in the location of the proposed activity;• listing any properties listed or eligible for listing on the National Register of Historic Places, National Historic Landmarks, or National Monuments; and• listing any religious or cultural sites of any Federally recognized Indian Tribes or Native Hawaiian organizations in the proposed activity area.
Our study location does not include any areas covered by the above regulations.
Are minority or low-income communities located in the area of the proposed activity? If yes, then describe how the minority or low-income communities may be impacted by the proposed activity.
It is possible that survey participants will be minorities and/or low-income individuals. They are impacted by the opportunity to participate in the study, to attend the public presentations, and to give feedback on the results at the public meetings. Results from these studies may ultimately be used to shape policy that benefits these communities.
<u>PROJECT PARTNERS, PERMITS AND CONSULTATIONS</u>
List all other interested or affected Federal, state, and local agencies, Native American tribes or Native Hawaiian organizations, non-governmental organizations, and private individuals which may potentially be interested and/or affected by the action.
Partners and interested parties include: the Town of McClellanville; South Carolina Department of Natural Resources; local, state, and regional seafood businesses; Fisheries Extension Network; South Carolina Seafood Alliance; South Carolina Shellfish Growers Association; Regional professional fisheries and aquaculture associations; Watermen of McClellanville (WMA); McClellanville Community Foundation (MCF)
Are Federal, state, or local permits, authorizations, waivers, determinations, or consultations required for the proposed activity to comply with all applicable environmental laws and regulations? If yes, then: <ul style="list-style-type: none">• list and provide the status of all required Federal, state, or local permits, authorizations, waivers, determinations, conditions, and consultations, as applicable; and• provide copies of all required Federal, state, or local permits, authorizations, waivers, or determinations that you have secured.

No
<u>SAFETY</u>
Describe potential unique or unknown risks to human health or the environment from the proposed activity.
N/A
Describe the potential to generate, use, store, transport, or dispose of hazardous or toxic substances. Please include the following: <ul style="list-style-type: none">• a list of any hazardous substances (as defined by 29 C.F.R. 1910.120(a)(3)) that will be involved in this project and any hazardous wastes (as defined by 40 C.F.R. 261.3) that may be generated during the proposed activity;• any hazardous contaminants that may be uncovered and/or disturbed by the proposed activity; and• a list of the procedures/protocols that will be followed to ensure safe handling of hazardous substances and proper disposal of all hazardous wastes.
N/A

<u>AQUACULTURE (IF APPLICABLE)</u>
Will the proposed activity be conducted in a closed system mesocosm/aquaculture facility or in open water (coastal or Federal waters)?
N/A
If using aquaculture gear, describe whether gear would be deployed short-term (1-2 years) or long-term (2+ years) and describe the number of cages/nets, lines, anchors, etc. that would be used during the course of the study. What type and size of cages/nets, lines, anchors, etc. would be used?
N/A
What amount (total numbers and/or whole weight in pounds) of fish or invertebrates are proposed to be captured for culture purposes (i.e., broodstock)? What is the target size (weight and length) and age class of each species to be captured for culture purposes?
N/A
What amount (total numbers and/or whole weight in pounds) of fish or invertebrates are proposed to be cultured? What is the estimated size (weight and length) and age class of each species targeted for harvest at the end of each culture period?
N/A
If the proposed activity involves the use of any specialized equipment that may introduce sound into the environment, then provide a description of the noise(s), including frequency (Hz), amplitude (dB), angle (or degrees) radius the noise may travel from the source, and other relevant technical specifications. Compare the noise(s) generated by the proposed activity with ambient noise conditions, if known. Also, discuss the length of time and frequency of occurrence that the noise is expected to be introduced into the environment.
N/A
If the proposed activity involves the use of any specialized equipment that may introduce sound into the environment, then provide a description of the noise(s), including frequency (Hz), amplitude (dB), angle (or degrees) radius the noise may travel from the source, and other relevant technical specifications. Compare the noise(s) generated by the proposed activity with ambient noise conditions, if known. Also, discuss the length of time and frequency of occurrence that the noise is expected to be introduced into the environment.
N/A

Graham Gaines

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34 Reeds Rd., Beaufort, SC 29907

WORK EXPERIENCE:

Living Marine Resources Specialist, South Carolina Sea Grant Consortium **Charleston, SC; September 2019 – present**

Develop and implement marine science research and outreach projects, particularly related to commercial fisheries, mariculture, and sustainable seafood production. Liaise with fisheries and aquaculture stakeholders to identify problems related to sustainable use of marine resources, then work with researchers, government agencies, NGOs, and resource users to develop methods to address those problems. Particular emphasis on social science methods, equity in access to fisheries markets and aquaculture opportunities. Build capacity of regional fisheries and seafood-related organizations. Write research papers, develop and review grant proposals, and manage grant-funded projects.

Marine Resources Specialist, The Nature Conservancy **Yap, Micronesia and Savannah, GA; April 2015 – May 2019**

Coordinate and monitor marine conservation projects across ten sites in the Western Pacific region, from April 2015 – April 2018; subsequent role was to develop marine fisheries strategies for TNC Micronesia, Georgia, and Alaska Chapters. Identify cost-effective fisheries engagement opportunities and oyster management strategies. Develop environmental and socio-economic indicators, and work with key project partners to deliver on the implementation and reporting on projects. Serve as point-of-contact for fishers and resource users. Provide technical support in the subjects of fisheries management, mariculture, and climate adaptation.

Auditor; Seafood Chain-of-Custody, MRAG Americas, Inc. (contractor for Marine Stewardship Council) **Savannah, GA; June 2017 – February, 2019**

Audit seafood businesses that handle Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC) certified seafood within their chain-of-custody. Conduct traceability, input-output, and mock recall tests to assess integrity of management system. Inspect certified seafood products against MSC and ASC standards for chain-of-custody. Plan, communicate, and consult with seafood industry representatives concerning sustainable seafood choices.

Marine Environment Specialist, Yap (Micronesia) Marine Resource Management Division / US Peace Corps Response **Colonia, Yap, FSM; June 2014 – April 2015**

Develop and implement projects related to fisheries conservation and management. Conduct feasibility analyses of clam, seaweed, and sea cucumber aquaculture. Perform stock assessments of commercially valuable macroinvertebrates. Develop and maintain key scientific databases. Write and edit reports to be used by government agencies and the general public. Consult with communities and resource stakeholders on relevant marine environmental issues. Assist with annual program strategies and budget for the division.

Fisheries Observer **AIS Inc. (contractor for National Marine Fisheries Service)**

New Bedford, Massachusetts – USA; Feb. 2013 – June 2014

Collect data onboard commercial fishing vessels for the NMFS to be used for fisheries management decision making. Use appropriate sampling methods to determine the total catch composition (by species for multiple fishing fleets). Perform biological sampling for vulnerable species. Document interactions with marine mammals, turtles, birds, and other protected species. Perform safety checks and socio-economic surveys with boat captains.

Environmental Resource Manager

United States Peace Corps

Dravuni Village, Fiji; May 2009 – April 2011

Work and live within a rural coastal community, assisting to manage environmental resources sustainably. Implement and lead a mudcrab (*Scylla serrata*) farming project. Coordinate with multiple stakeholders within communities, regional government agencies, and universities to improve freshwater infrastructure projects. Partner with Conservation International to develop a watershed enhancement project, involving an extensive tree nursery and mangrove planting program.

EDUCATION: **Masters of Natural Resource Management (MRM)**
University of Akureyri – Ísafjörður, Iceland, 2011-2013

Bachelor of Arts, English Studies (BA), Sociology Minor
The University of Georgia - Athens, GA, 2001-2005

Research emphasis on socio-economic impacts of cod ranching in Westfjords, Iceland

Relevant Coursework: Natural Resource Economics and Policy, Eco-certification and Labeling, International Natural Resource Law, Fisheries Management, Integrated Coastal Zone Management, Applied Methodology for Environmental Research, Aquaculture

ACTIVITIES, COMMITTEES AND ACCOMPLISHMENTS:

- Advisory/Steering Committee Member with:
 - South Atlantic Fisheries Management Council (SAFMC) Outreach and Communications Advisory Panel
 - South Carolina Seafood Alliance
 - South Atlantic Red Snapper Research Project and Greater Amberjack Stock Assessment Project Steering Committees (funded by National Sea Grant Office)
 - Tamil Resource Conservation Trust (Yap, Micronesia)
 - Alaska Local Fish Fund Steering Committee (2018-2019)
- Content Lead for TNC's 2018 Global Science Gathering
- ISO 14001 Certified (Environmental Systems Auditor) (present)
- Certified as an Endangered Species Monitor through the U.S. National Marine Fisheries Service (2014)
- National Marine Fisheries Observer of the month (February, 2014)
- PADI Open Water scuba certified (2006)
- Conversational in Spanish and Fijian languages

APRIL L. TURNER

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EDUCATION

- **Master of Parks, Recreation, & Tourism Management, Clemson University, 1992-1994**
Concentration: Natural Resource Management
- **Bachelor of Arts in Geography, University of Colorado, 1986-1989**
Concentration: Environmental Conservation

PROFESSIONAL EXPERIENCE

Coastal Communities Extension Specialist

South Carolina Sea Grant Consortium

June 2000 – Present

Works independently and in collaboration with other Extension specialists and Consortium member institution partners to provide programs, tools, and resources on a variety of topics, such as working waterfronts, green infrastructure, low impact development, and nature-based recreation and tourism to enhance community efforts to address the pressures of coastal growth and promote sustainable land and water resource planning throughout the eight coastal county region of South Carolina. Experience with conducting formal and informal stakeholder and organizational needs assessments; designing and conducting decision-making workshops for diverse stakeholders; building working groups, planning teams and collaborative partnerships; facilitating collaborative teams of managers, scientists, regulators, and policy makers; and conducting and analyzing evaluation of events and processes.

Environmental Planner II

SC Dept. of Health & Environmental Control –

Office of Ocean and Coastal Resource Management

February 1998 – June 2000

Managed and coordinated Planning Division outreach and information dissemination activities through the development and maintenance of a website, the publication of informational articles, and development of educational workshops. Provided technical assistance to public officials and other government agency personnel on matters related to coastal zone management. Also, participated in research, design, contract development, and management of coastal zone research projects.

Environmental Planner I

SCDHEC-OCRM, The Charleston Harbor Project

October 1996 – February 2000

Work primarily with principle investigators to develop public education products from Charleston Harbor Project (CHP) studies, research projects, and management activities involving non-point source water quality, biological resources, recreational and cultural resources. Compiled and processed CHP quarterly and semi-annual reports and coordinated the production and distribution of educational publications and other materials.

PROFESSIONAL SERVICE & APPOINTMENTS

2018 – present	Member, Design Team for the National Extension Tourism Network
2018 – present	Member, National Working Waterfronts Network Advisory Committee
2017 – present	Team Co-lead, National Sea Grant Tourism Visioning Team
2016 – present	Committee Member, South Carolina Clean Marina Program Committee
2016 – 2018	President, South Carolina Nature-Based Tourism Association

2014-2016	Team Lead, Working Waterfronts Technical Team, Governors' South Atlantic Alliance
2014 – 2017	Member, Palmetto Environmental Education Certification Program Steering Committee
2014-2017	Chair, National Sea Grant Sustainable Coastal Community Development Network
2013-2018	Member, National Working Waterfronts Network Outreach and Education Committee
2010-2014	South Atlantic Regional Coordinator, National Sea Grant Sustainable Coastal Community Development Network
2006 – 2016	Member, South Carolina Nature-Based Tourism Association Board of Directors
2005 – present	South Carolina Coastal Information Network

SELECTED PUBLICATIONS, REPORTS, & PRODUCTS

- *South Carolina Nature-Based Tourism Association* website; (www.scnatureadventures.com); pub. Feb. 2020
- *Working Waterfronts Community Forums: Resources and Responses to Questions* website; (<https://www.scseagrant.org/working-waterfronts-forum/>); published Mar. 2017
- *Natural Asset Planning: A Connected Land Conservation Plan of the East Cooper Region of South Carolina* report; published December 2016, 43pp.
- *South Carolina Coastal Information Network* website (new). (www.sccoastalinfo.org); published Sep.2016
- Ashley River Blue Trail: A Map & Guide to the Scenic Ashley River; waterproof map published Jan. 2016
- Blueways-Greenways Web-Mapping Application and Project Briefing Book (<https://gis.cofc.edu/bluewaygreenway.htm>); published Dec. 2015
- Ellis, K., C. Berg, D. Caraco, S. Derescher, G. Hoffmann, B. Keppler, M. LaRocco, and A. Turner. 2014. *Low Impact Development in Coastal South Carolina: A Planning and Design Guide*. ACE Basin and North Inlet-Winyah Bay National Estuarine Research Reserves, 462pp.
- *Jasper County Natural Resources Conservation Plan*. Edited by A. Turner, L. Fairchilds and C. Graves. 88 pp., S.C. Sea Grant Consortium, 2007.
- Turner, A.L. 2006. Summary of Trends in Land Use Policy and Development in the Coastal Southeast. In, G.S. Kleppel, M.R. DeVoe, and M.V. Rawson (eds.), *Land-Use Change in the Coastal Zone: managing environmental quality in rapidly growing regions*. Springer-Verlag, New York.
- Ashley Scenic River Advisory Council. 2003. Ashley Scenic River Management Plan. S.C. Department of Natural Resources, Columbia, S.C., 74 pp.

Graduate Committees

- Catharine Parker, M.S., Environmental and Sustainability Studies Program, College of Charleston, completed May 2018
- Alex Smith, M.S., Environmental and Sustainability Studies Program, College of Charleston, completed May 2017
- Ashley Buffington, M.S., Environmental and Sustainability Studies Program, College of Charleston, completed December 2015

Matthew Gorstein

Mattgor9@gmail.com
Charleston, South Carolina

Education

Master of Science in Food and Resource Economics

December 2014

University of Florida: College of Agricultural and Life Sciences

Bachelor of Science in Business Administration: Economics

May 2013

University of Florida: Warrington College of Business

Employment

South Carolina Sea Grant Consortium

January 2021 – Present

Interim Assistant Director for Development and Extension

- Led the Consortium's extension program – managing a team of 6 extension specialists
- Coordinated annual reporting metrics for the extension team by setting up a data collection system and schedule
- Built partnerships with federal, state, academic, local government, and non-profits to foster input and leverage skills for various coastal science projects
- Led the development of grant proposals to advance coastal science research and outreach in South Carolina
- Provided input into the Consortium's strategic planning, request for proposals, and study groups initiatives
- Conducted short and long range project and program planning

South Carolina Sea Grant Consortium

August 2019 – Present

Coastal Economics Program Specialist

- Developed methods and monitoring system to document the market and non-market benefits of South Carolina's ocean and coastal natural resources
- Developed methods and monitoring system to document the market and non-market benefits of South Carolina Sea Grant's products and programs
- Characterized the status and trends of South Carolina's Blue Economy: fisheries, tourism, coastal recreation, ports, ecosystem services
- Wrote grant proposals for competitive funding opportunities
- Planned and administered stakeholder engagement workshops in urban and rural settings within the coastal environment
- Developed capacity building tools focused on business planning for shellfish aquaculture
- Developed aquaculture consumer perceptions surveys and aquaculture producer surveys for implementation in coastal areas
- Collected, analyzed, and managed economic data from sources such as the US Census, Bureau of Economic Analysis, and Bureau of Labor Statistics
- Authored technical reports, contributed to the design of infographics, drafted presentations, and other communication products
- Presented socioeconomic research at conferences and workshops, to technical and non-technical audiences

National Oceanic and Atmospheric Administration

December 2014 – July 2019

Natural Resource Economist

- Project lead for NOAA's National Coral Reef Monitoring Program (NCRMP) Socioeconomic Component
- Project lead for a cost-benefit analysis of shoreline infrastructure options including green, gray, and hybrid adaptation approaches
- Lead economist on an ecosystem service valuation projects concerning the storm damage reduction value of wetlands
- Led capacity building workshops in Micronesia focused on training participants in survey implementation and analysis of socioeconomic monitoring data
- Developed socioeconomic indicators for monitoring coastal communities
- Administered human use and socioeconomic surveys in coastal fishing communities
- Contributed to the development of short and long range strategic plans for socioeconomic research
- Managed, maintained, and analyzed large data sets while adhering to confidentiality and ethics guidelines
- Worked extensively with partners throughout NOAA's Coral Reef Conservation Program (CRCP) and National Estuarine Research Reserves (NERRs)
- Utilized economic methods including damages avoided, travel cost, hedonic analysis, and benefit transfer in projects within a coastal management setting
- Utilized knowledge of SPSS and SAS to generate statistical models and make statistical inferences
- Supervised a student intern

Publications

Wongbusarakum S., **M. Gorstein**, R. Pomeroy, C. Anderson, and A. Mawyer. *in publication*. "Assessing Social Adaptive Capacity in Micronesian Fishing Communities." Manuscript submitted to *Marine Policy*.

Gorstein, M. 2020. "Assessing South Carolina's Ocean Economy: Where We Have Been and Where We Are Going." South Carolina Sea Grant Consortium Report. Charleston, SC. Peer-Reviewed White Paper.

Wongbusarakum S., T. Kindinger, and **M. Gorstein**. 2020. "Assessing Socio-Economic Indicators to Improve Their Usefulness for Resource Management in the US Pacific Islands." U.S. Dep. Commerce, NOAA Tech. Memo. NOAA-TM-NMFS-PIFSC-98, 67p.

- Wongbusarakum, S., V. Brown, A. Loerzel, **M. Gorstein**, D. Kleiber, M. Quinata, M. Iwane, and A. Heenan. 2019. "Achieving Social and Ecological Goals of Coastal Management Through Integrated Monitoring." *Journal of Applied Ecology* 56(11): 2400-2409.
- Gonyo, S.B., T.L. Goedeke, K.E. Wolfe, C.F.G. Jeffrey, **M. Gorstein**, M. Poti, and D. Dorfman. 2019. "An Economic Analysis of Shipping Costs Related to Potential Measures to Manage the Co-Occurrence of Maritime Vessel Traffic and Whales in the Channel Islands Region." *Journal of Ocean and Coastal Management* 177: 179-187.
- Gorstein, M.**, J. Loerzel, P. Edwards, and A. Levine. 2019. "National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for USVI, 2017." US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-35, 72p.
- Gorstein, M.**, J. Loerzel, P. Edwards, A. Levine, and M.K. Dillard. 2019. "National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for CNMI, 2016." US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-34, 69p.
- Gorstein, M.**, J. Loerzel, P. Edwards, A. Levine, and M.K. Dillard. 2018. "National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for Guam, 2016." US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-32, 64p.
- Loerzel, J., C.S. Fleming, and **M. Gorstein**. 2018. "Ecosystem Services Valuation of the Central Georgia Coast, including Sapelo Island National Estuarine Research Reserve and Gray's Reef National Marine Sanctuary." US Dep. Commerce, NOAA Tech. Memo., NOS NCCOS 248. 85p.
- Gorstein, M.**, J. Loerzel, A. Levine, P. Edwards, and M.K. Dillard. 2018. "National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for Hawai'i, 2015." US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-30, 69p.
- Loerzel, J., L. Knapp, and **M. Gorstein**. 2017. "Gauging the Social Values of Ecosystem Services in the Mission Aransas National Estuarine Research Reserve." US Dep. Commerce, NOAA Tech. Memo. NOS NCCOS 243. 79p.
- Loerzel, J., **M. Gorstein**, A.M. Rezaie, S.B. Gonyo, C.S. Fleming, and A. Orthmeyer. 2017. "Economic Valuation of Shoreline Protection within the Jacques Cousteau National Estuarine Research Reserve." US Dep. Commerce, NOAA Tech. Memo. NOS NCCOS 234. 78p.
- Gorstein, M.**, J. Loerzel, P. Edwards, A. Levine, and M.K. Dillard. 2017. "National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for Puerto Rico, 2015." US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-28, 64p.
- Fleming, C.S., M.K. Dillard, S.D. Regan, **M. Gorstein**, E. Messick, and A. Blair. 2017. "A Coastal Community Vulnerability Assessment for the Choptank Habitat Focus Area." US Dep. Commerce, NOAA Tech. Memo. NOS NCCOS 225. 92p.
- Gorstein, M.**, J. Loerzel, P. Edwards, A. Levine, and M.K. Dillard. 2016. "National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for South Florida, 2014." US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-25, 57p.
- Goedeke, T. L., A. Orthmeyer, P. Edwards, M.K. Dillard, **M. Gorstein**, and C.F.G. Jeffrey. 2016. "Characterizing Participation in Non-Commercial Fishing and other Shore-based Recreational Activities on St. Croix, U.S. Virgin Islands." US Dep. Commerce, NOAA Tech. Memo. NOS NCCOS 209. 93p.
- Gorstein, M.** 2014. "Determining The Characteristics of Seafood Consumers and Their Preferences for Fresh Seafood: Evidence from Household Scanner Data in Five US Markets." University of Florida Institutional Repository; Thesis and Dissertations Collection. 76p.

Skills

- Sustainable economic development
- Capacity building
- Market and non-market economic valuation
- Survey development
- Statistics (IBM SPSS, JASP, SAS Enterprise Guide)
- Coastal management
- Stakeholder engagement
- Presenting to scientific, management, and stakeholder audiences
- Socioeconomic monitoring

Steven T. Richards

Agribusiness Extension Associate Biographical Sketch

Education and Training

2022	Ph.D. (candidate) Plant and Environmental Sciences, Clemson University, Clemson, SC
1998	M.S. Agricultural Economics, The Ohio State University, Columbus, Ohio
1997 - 1998:	Economics Research Assistant, The Ohio State University, Columbus, Ohio
1996	M.B.A The McGregor School of Antioch University, Yellow Springs, Ohio
1992	B.S. Food Science and Nutrition, The Ohio State University, Columbus, Ohio

Professional Experience

6/1/2017-Present Extension Associate, Clemson University Agribusiness Team, South Carolina

I work with the statewide Agribusiness Team on topics such as business planning, feasibility studies, marketing plans, and risk management. A few recent projects:

- Writing a comprehensive, ten-year strategic plan for The Farm at Thornwell Children's Home in Clinton, SC
- Performing feasibility studies: oyster farming in Bennetts Point, SC, and a butcher academy in St Stephen, SC
- Helping start and fund a growers' cooperative (processing and marketing) on St. Helena Island, SC
- Working with new and beginning farmers: specializing in diversified, organic, and sustainable farming operations
- Developing statewide educational programs: business planning, farm transitions, and specialty crop marketing

3/2016 - Present Principal, Alongside Business Consulting, LLC, Savannah, Georgia

As the Principal of Alongside, I contracted directly with businesses as well as partner with Rockwell Business Solutions and HJ Corbett & Associates. A selection of projects is shown below:

- Consulting and preparing a business and management plan for Willowsford Conservancy Farm in Ashburn, VA
- Implementing a workflow efficiency/process improvement plan for a logistics firm in Savannah, GA
- Acting as an outsourced-CFO for an HVAC contractor in Bluffton, SC and a maintenance firm in Chattanooga, TN
- Designing a comprehensive quality assurance plan (HACCP) for a butcher (local meats) in Bluffton, SC
- Preparing a feasibility study for Mepkin Abbey (Moncks Corners, SC) for growing Carolina Gold rice.

10/2010- 3/2016 General Manager of Operations: Casa Larga Vineyards & Glenora Wine Cellars

Oversaw all daily operations of two separate Finger Lakes (New York) winery businesses. Operations included two wine production facilities, vineyards, and restaurant and event venues. I was responsible for both the financial and strategic direction of the businesses.

- Reorganized the businesses through streamlining production, selling underperforming assets, shedding excess inventory, improving product quality, and reallocating staff
- Refinanced debt into a much more favorable loan package and made critical capital improvements to the business
- Increased sales by starting new retail outlets, creating new products, and expanding wholesale distribution
- Increased profits at both locations by more than 100% within a two year period

10/2006-10/2010 Senior Business Consultant, Farm Credit East, Phelps, NY

Farm Credit East is the largest Agricultural Lender in the Northeastern United States, with loan volume of \$6 billion. Consulting specialties included business planning, financial analysis, benchmarking, key performance indicators, and business succession planning. Some notable projects and achievements:

- Served as a CFO-for-hire for dozens of small and mid-sized family businesses
- Helped launch many successful businesses through business planning and sourcing investment capital
- Awarded the Farm Credit Marketing Award for bringing in the highest amount of new business in 2007
- Developed the Winery Benchmark, a profitability enhancement tool used by all the Farm Credit East consultants

12/1998-10/2006 Senior Extension Associate, Applied Economics and Mgmt., Cornell University

While at Cornell, I directed two Cornell University non-profit programs focused on assisting family businesses with business startups, business plans, business analysis, profitability improvement, and business succession.

- Supervised 40 employees and \$2.2 million in grants and contracts
- Personally consulted with over 900 family businesses to improve their profitability and future viability
- Authored 17 business workbooks, some of which are used as business planning resources in 8 states
- Cornell University Awards: Specialist of the Year, Best Publication, and Faculty Achievement Award

Steven T. Richards

Agribusiness Extension Associate Biographical Sketch

6/1992-7/1997 Production and Quality Assurance, Bob Evans Farms and ConAgra

I worked in the food processing industry in both quality assurance and production. The ConAgra Cook Family Foods plant (now Smithfield Foods) in Grayson, Kentucky, and Bob Evans Farms in Xenia and Springfield Ohio. Some achievements:

- Increased pre-prepared product profits by 22% while cutting production time and increasing quality
- Saved over \$1 million in two years through statistical process control (SPC)
- Increased product shelf-life by more than 10% through HACCP implementation
- Received the Highest Production Award and the Highest Quality Award

Awards, Certifications, and Professional Activities

Certified Agricultural Consultant by the American Society of Agricultural Consultants

Dale Carnegie Course Awards: Leadership, Human Relations, and Public Speaking

Farm Credit Tax Preparer Certification and Farm Credit Tax Specialist Certification

BREI Certified Business Retention and Expansion Master Consultant

Cornell University: Faculty Achievement Award, Outstanding Publication Award, Extension Specialist Achievement Award

NY Association of Agricultural Agents: Epsilon Sigma Phi, Honorary Extension Fraternity Award

Member: Savannah Chief Financial Officer Council and Downtown Business Alliance, Savannah Georgia 2018-Present

Volunteer: Friends of Barnabas (Help for the Unemployed) 2016-2018

Treasurer: Real Champions, Inc. (Mentoring for Rural Youth) 2016-2018

Board Member: Libraries for Kids, International 2020-Present

Grants and Contracts Received, Clemson University

\$1.4 million in grants, contracts, and awards between March 2018 and May 2021. Grantors were USDA Risk Management Agency, USDA Rural Development, USDA NIFA, USDA NRCS, and individual contracts. Also helped producers and cooperatives apply and receive \$2.1 million in grants during the same time period. More details are available, if needed.

Grants and Contracts Received, Cornell University

\$2.2 million in grants, contracts, and awards received between 2002 and 2006. Grantors were the USDA Risk Management Agency, NY State Department of Agriculture and Markets, and Cornell Department of Applied Economics and Management Smith Lever Funds and Hatch Funds. More details are available, if needed.

Peer Reviewed Publications (Last 12 months)

Richards, S & Motallebi (2021). Survey Captures South Carolina Oyster Consumer Preferences. Abstract for Aquaculture America Annual Conference and Proceedings. Accepted April 2, 2021.

Cheplick, D., Motallebi, M., Richards, S., Dickes, L., Gaines, G., and Walters, K. (2021). Seafood Consumption Preferences and Attributes Influencing Awareness of South Carolina Aquaculture Products. Journal of Food Distribution Research. Submitted March 12, 2021.

Richards, S., & Motallebi, M. (2021). New survey shows COVID-19's impacts on South Carolina oyster farmers and offers hope for recovery. Journal of Agriculture, Food Systems, and Community Development, 10(2), 1–4. <https://doi.org/10.5304/jafscd.2021.102.016>

Richards, S., & Vassalos, M. (2021). COVID-19 and Consumer Demand for Local Meat Products in South Carolina. Journal of Agriculture, Food Systems, and Community Development. Submitted and accepted March 1, 2021

Richards, S., & Vassalos, M. (2020). COVID-19 amplifies local meat supply chain issues in South Carolina. Journal of Agriculture, Food Systems, and Community Development, 10(1), 1–5. <https://doi.org/10.5304/jafscd.2020.101.001>

Richards, Steven. "The South Carolina Shellfish Industry Faces a Challenging Recovery After COVID-19". Clemson Land Grant Press #LGP 1071. June 18, 2020.

Richards, Steven. "Impacts of COVID-19 Restaurant Closures on the South Carolina Shellfish Industry". Clemson Land Grant Press #LGP1070. June 17, 2020.

Graham Gaines Current & Pending Support

TITLE OF PROJECT	SUPPORTING AGENCY	TOTAL \$ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED
<u>CURRENT</u>				
National Sea Grant College Program, Extension and Amendments	National Sea Grant Program	\$5,268,624	02/01/2018 – 01/31/2022	12 months

**April Turner
Current & Pending Support**

TITLE OF PROJECT	SUPPORTING AGENCY	TOTAL \$ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED
<u>CURRENT</u>				
National Sea Grant College Program, Extension and Amendments	National Sea Grant Program	\$5,268,624	02/01/2018 – 01/31/2022	12 months

Matt Gorstein
Current & Pending Support

TITLE OF PROJECT	SUPPORTING AGENCY	TOTAL \$ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED per year
<u>CURRENT</u>				
National Sea Grant College Program, Extension and Amendments	National Sea Grant Program	\$5,268,624	02/01/2018 – 01/31/2022	3 months
<u>PENDING</u>				
Studying How Things Fall Apart: Exploring Municipal Services System Failures to Help Develop Science-Based Decision-Points in South Carolina Coastal Communities	NOAA Climate Program Office	\$298,218	9/1/2021-8/31/2023	0.2 months
Promoting Gullah Geechee Maritime Cultural Heritage and Enhancing Economic Resilience through a Gullah Geechee Seafood Trail	NOAA Saltonstall-Kennedy Program	\$282,768	9/1/2021-8/31/2023	0.8 months
Sea Grant Reef Fish Extension Proposal	National Sea Grant Program	\$55,100	9/1/2021-8/30/2025	0.25 months
Sea Grant COVID-19 impacts to Seafood Resources Proposal – extension disaster training	National Sea Grant Program	\$200,000	9/1/2021-8/31/2023	0.25 months



April 24, 2021

National Oceanic and Atmospheric Administration
Oceanic and Atmospheric Research
Sea Grant "Food from the Sea" Careers Program
1315 East-West Highway
Silver Spring, MD 20910

Dear NOAA OAR:

The McClellanville Watermen's Association support the application for "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center" facilitated by the South Carolina Sea Grant Consortium.

Our organization was established to save McClellanville's local seafood industry, identify new paths towards achieving sustainability and preserve our maritime heritage.

Through interactions with regional seafood businesses and analysis of our own needs, a primary concern is the lack of a trained workforce in the field of commercial fisheries and aquaculture. The workforce shortage in the industry is an obstacle to our regional growth potential.

The planning activities and subsequent training center "Blueprint" will help us to understand what workforce development efforts are required to realize the potential for South Carolina's coastal economy and working waterfronts.

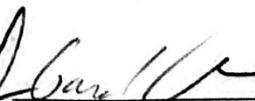
Thank you for this opportunity.

Sincerely,
2020/22 Officers,
McClellanville Watermen's Association


Edward Taylor


Chip Racine


Ralph Thomas


Gardner McClellan


Jeff Spahr

The McClellanville Community Foundation

19 April 2021

National Oceanic and Atmospheric Administration
Oceanic and Atmospheric Research
Sea Grant "Food from the Sea" Careers Program
1315 East-West Highway
Silver Spring, MD 20910

Dear NOAA OAR Grants Administrator:

I am writing this letter to document and offer our support of the proposal, "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center", initiated by the South Carolina Sea Grant Consortium in partnership with the Town of McClellanville (SC) and the McClellanville Watermen Association.

We recognize the need for professional development opportunities in the field of commercial fisheries and aquaculture and encourage the development of a plan to address this issue, as this proposal intends to do.

The *McClellanville Community Foundation* (hereinafter, Foundation) represents the interests of the broader McClellanville Community across a variety of sectors. Our Bylaws offer, in part, our purpose: [the Foundation] *is dedicated to improving the region of McClellanville, South Carolina through strategic grantmaking, leadership and community engagement, and direct charitable programming in the areas of arts and culture, education, social services, **environmental conservation and the historic and cultural preservation of the local working waterfront*** (emphasis added).

For the following reasons, the planning activities and subsequent training center "Blueprint" would be particularly beneficial for our Community and, therefore, of interest to the Foundation. The preservation of the working waterfront (which is actually the cultural and economic hub of our Community) must be based on a strategic way forward that is grounded in the reality of the industry and the opportunities before it. Training offered in business models for seafood management and marketing, emerging markets, sustainable harvesting practices, and vessel care and maintenance are all core components of the future of our Town. In fact, we believe that the supporting infrastructure for these types of services could be readily established in our Community and on our waterfront.

The Foundation's Board and I are looking forward to working with the team of researchers dedicated to this project. If you have any questions, please do not hesitate to call or email me. The Foundation and I are eager to serve this process.

Sincerely,

Thomas Johnston, Chairman
The McClellanville Community Foundation
843.818.8808; tjohnston@globalwatercenter.org

Mayor
Rutledge B. Leland, III

Town Council
Aaron L. Baldwin
Christopher B. Bates
Robert J. Gannon
James E. Scott

Phone: (843) 887-3712



405 Pinkney Street
McClellanville, SC 29458

Town Administrator
Michelle A. McClellan

Zoning Administrator
Kathryn S. Basha

Fax: (843) 887-3094

April 20, 2021

National Oceanic and Atmospheric Administration
Oceanic and Atmospheric Research
Sea Grant "Food from the Sea" Careers Program
1315 East-West Highway
Silver Spring, MD 20910

Dear NOAA OAR Grants Administrator:

The Town of McClellanville is in support of South Carolina Sea Grant Consortium proposal "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center".

The Town recognizes the need for professional development opportunities in the field of commercial fisheries and aquaculture to achieve sustainability of the regions working waterfronts.

The Town has a long and rich history of seafood as its primary economic activity. The Town is committed to the preservation of its working waterfront and has been part of a collaborative effort to explore and implement economical and practical solutions to sustain the town's seafood industry.

The planning activities and subsequent training center "Blueprint" would be particularly beneficial in the following ways for our Town:

- Provides necessary education for area youth wishing to pursue a trade within the industry.
- The availability of properly trained commercial seafood managers reduces the threat of dependence on aging industry managerial positions.

- Supports the Town's community expressed objective of retaining and thereby preserving the fishing heritage and culture of the region.
- Furthers the Town's initiative to incubate educational programs consistent with our assets.

We are looking forward to working with the team of researchers dedicated to this project and providing our support in whatever ways we can.

Sincerely,



Michelle A. McClellan
Town administrator



SOUTH CAROLINA SEAFOOD ALLIANCE
Advocating for healthy and safe seafood sources

April 19, 2021

National Oceanic and Atmospheric Administration
Oceanic and Atmospheric Research
Sea Grant "Food from the Sea" Careers Program
1315 East-West Highway
Silver Spring, MD 20910

Dear NOAA OAR Grants Administrator:

I am writing this letter to document our support of the proposal "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center", initiated by the South Carolina Sea Grant Consortium, in partnership with the Town of McClellanville (SC) and the McClellanville Watermen Association. We recognize the need for professional development opportunities in the field of commercial fisheries and aquaculture, and encourage the development of a plan to address this issue, as this proposal intends to do.

Our organization seeks to enhance economic opportunities, sustainability, and long-term stability for the South Carolina seafood community. The planning activities and subsequent training center "Blueprint" would be particularly beneficial in the following ways for our organization:

- This proposal would initiate a much-needed process for ensuring future generations have access to local seafood by creating a system for new individuals to enter the seafood trade, which is currently experiencing a greying of the fleet in South Carolina.
- South Carolina's coastal economy relies heavily on our tourism industry and fresh, local seafood is a keystone to that economic engine with many visitors coming to enjoy locally harvested seafood at our restaurants.
- In addition to the restaurant industry, this proposal also would directly economically benefit our fishing community and aid in preserving a critical aspect of our coastal culture and heritage which is at risk without next generation fishermen entering the industry.
- Many of our fishing docks and aquaculture operations are located in rural areas where job opportunities are scarce. This proposal would help bring new career opportunities to those rural areas and help small coastal communities thrive via the same seafood operations that have defined their communities for decades.

I am looking forward to working with the team of researchers dedicated to this project, and providing our support in whatever ways we can. If you have any questions, please do not hesitate to call or email me at the contact information below.

Sincerely,

Amy MacKown
Executive Director
South Carolina Seafood Alliance
scarolinaseafood@gmail.com



April 19, 2021

National Oceanic and Atmospheric Administration
Oceanic and Atmospheric Research
Sea Grant "Food from the Sea" Careers Program
1315 East-West Highway
Silver Spring, MD 20910

Dear NOAA OAR Grants Administrator:

I am writing this letter to document our support of the proposal "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center", initiated by the South Carolina Sea Grant Consortium, in partnership with the Town of McClellanville (SC) and the McClellanville Watermen Association. We recognize the need for professional development opportunities in the field of commercial fisheries and aquaculture, and encourage the development of a plan to address this issue, as this proposal intends to do.

The South Carolina Shellfish Growers Association (SCSGA) is a member-driven organization of clam and oyster farmers and harvesters. The SCSGA works on behalf of its members on a broad spectrum of issues, including environmental protection, shellfish safety, regulations, technology, and marketing.

- Promote public appreciation, education, and consumption of clams, oysters, and other types of shellfish
- Inform policy makers and regulators to protect a way of life
- Encourage a collaborative partnership between all of South Carolina's shellfish farmers to inspire climate action
- Engage in constructive dialogue with state regulatory agencies to ensure compliance
- Spearhead governmental policies that represent particular interests of shellfish growers, wholesalers, restaurants, and consumers
- Open lines of communication among our members and supporters to share technology, development, management, and operational ideas

The planning activities and subsequent training center “Blueprint” will be beneficial for coastal South Carolina in that it will provide training for new and beginning farmers to ensure a more rapid trajectory to success in shellfish farming. Successful farms create jobs in rural coastal areas and promote appreciation for the wise use of our shared natural resource. There is a tremendous outlet for local seafood in the Southern US and well trained farmers will be able to build businesses to meet that demand now and into the future.

I am looking forward to working with the team of researchers dedicated to this project, and providing our support in whatever ways we can. If you have any questions, please do not hesitate to call or email me at the contact information below.

Sincerely,

A small, square image showing a handwritten signature in blue ink that reads "Julie Davis". The signature is written in a cursive style on a light-colored background.

Julie Davis
President, SC Shellfish Growers Association
843-694-4499
scshellfishpresident@gmail.com



April 19, 2021

National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Sea Grant "Food from the Sea" Careers Program
1315 East-West Highway SSMC3
Silver Spring, MD 20910

Dear NOAA OAR Representative:

I am writing this letter of support for the proposal submitted by the South Carolina Sea Grant Consortium called "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center". I understand that this project is in partnership with the town of McClellanville and the McClellanville Watermen Association.

This project seeks to create a blueprint for professional development and training for commercial fisherman and aquaculture. As an oysterman myself, I understand the difficulties of finding good, trained staff in my area and think that this proposal will help address this issue.

I am looking forward to working with the partners on this project (South Carolina Sea Grant Consortium and Clemson University) to maximize the benefits of this grant, and sincerely hope that NOAA will consider funding it. If you have any questions, please do not hesitate to call or email me at the contact information below.

Sincerely,

Trey McMillan
President, Lowcountry Oyster Company
Vice President, SC Shellfish Growers Association
SC Representative to the East Coast Shellfish Growers Association
Trey@lowcoysters.com
843-844-2400



NORTH CAROLINA SEA GRANT

NORTH CAROLINA State University • BOX 8605
Raleigh, NORTH CAROLINA 27695-8605
TELEPHONE: 919-515-2454 • FAX: 919-515-7095
WEB SITE: WWW.NCSEAGRANT.ORG

April 26, 2021

Jonathan Pennock, PhD, Director
National Sea Grant Office
National Oceanic & Atmospheric Administration
1315 East-West Highway, Rm 11735
Silver Spring, Maryland 20910

Re: Special Projects J - "Food from the Sea" Careers Program

Dear Jon and Grant Review Committee:

I am writing in support of the proposal titled, "Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center," initiated by the South Carolina Sea Grant Consortium (SCSGC), in partnership with the Town of McClellanville and the McClellanville Watermen Association.

The SCSGC is asking for \$25,000 to conduct a feasibility study, and then, to develop a business plan, for a watermen training center, to be located in McClellanville, S.C., similar to that occurring in Rhode Island. The business plan would be informed by community/stakeholder meetings, and includes a learning exchange to the training center in Rhode Island. I recently learned that the Town of McClellanville was awarded a Hometown Economic Development Grant to work on an economic development plan to preserve its working waterfront. So, this will leverage nicely that effort.

I also was pleased to learn that the town's seafood industry is following a model similar to Ocracoke, N.C., in forming a watermen's association. And, in fact, it was organized by the same person. In 2007, the N.C. General Assembly implemented some recommendations from the Waterfront Access Study Committee that was chaired by then North Carolina Sea Grant executive director Mike Voiland. With help from Sea Grant extension staff, Ocracoke was able to secure grant monies that allowed the watermen's association to buy the recently closed fish house and secure the last 67 years of the original 99-year lease. Since then, they have developed a retail market and educational exhibit along the village's waterfront.

We recognize the need for professional development opportunities in the field of commercial fisheries and aquaculture, and encourage the development of a plan to address this issue, as this proposal intends to do. We continue to expand our commitment to fostering a "next generation" seafood industry in our state, as well as regionally, in partnership with other state Sea Grant programs, and should this effort receive funding, will provide our support in whatever ways we can.

If you have any questions, please do not hesitate to call me at 919-515-2455 or email snwhite3@ncsu.edu.

Sincerely,

Susan White, PhD
Executive Director, North Carolina Sea Grant



**Marine Extension and
Georgia Sea Grant**
UNIVERSITY OF GEORGIA



Marine Extension and Georgia Sea Grant
715 Bay Street
Brunswick, Georgia 31520
p: 912.264.7269
e: 239.247.3946

April 20, 2021

National Oceanic and Atmospheric Administration
Oceanic and Atmospheric Research
Sea Grant “Food from the Sea” Careers Program
1315 East-West Highway
Silver Spring, MD 20910

Dear NOAA OAR Grants Administrator:

On behalf of UGA Marine Extension and Georgia Sea Grant, please accept this letter of support for the Food from the Sea proposal titled, *“Developing a Blueprint for a Southeast Regional Fisheries and Aquaculture Training Center”*, initiated by the South Carolina Sea Grant Consortium, in partnership with the Town of McClellanville (SC) and the McClellanville Watermen Association.

We recognize the need for professional development opportunities in the field of commercial fisheries and aquaculture, and encourage the development of a plan to address this issue, as this proposal intends to do. The South Carolina Sea Grant Consortium should be commended for their efforts to address this issue in such a comprehensive manner. I am confident they have the right personnel and partnerships in place to make this project a success.

UGA Marine Extension and Georgia Sea is committed to supporting our colleagues with this effort as needed. We find it to be a meaningful project worthy of funding. Thank you for your consideration, and please do not hesitate to contact me if you have any questions.

Sincerely,

Bryan Fluech
Associate Marine Extension Director
UGA Marine Extension and Georgia Sea Grant