eeBLUE Aquaculture Literacy Mini-Grants Program

Evaluation Report for the 2024 Cohort

December 2025

Prepared by Blueblossom Consulting

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Reed Smith of Calusa Oyster Company, a farm based in Lower Tampa Bay, is featured in the "From Hatchery to Habitat" exhibit at the Tampa Bay Watch Discovery Center in St. Petersburg, FL. Photo credit: Calusa Oyster Company

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Executive Summary

The 2024 eeBLUE Aquaculture Literacy Mini-Grants Program demonstrated how modest, flexible investments can produce durable educational and community outcomes when grounded in collaboration and authentic storytelling. Nine projects blended science, culture, and sensory experience to connect diverse audiences with aquaculture practitioners, aquatic ecosystems, and coastal communities. Collectively, grantees estimate their projects generated over 29,000 impressions across in-person activities and virtual platforms. Public audiences accounted for the largest share of diverse engagement, followed by students (K–12 and culinary or higher education) and formal or nonformal educators.

Grantee reports highlighted that experiential and story-driven engagement most powerfully deepened aquaculture literacy. Farm visits, oyster-shucking demonstrations, cooking events, and classroom activities that linked flavor to farming practices consistently produced the highest perceived shifts in participant knowledge, attitude, behavior, and skill. Participants moved from curiosity to trust—and from *learning about* aquaculture to *participating in* it.

Across the cohort, a unifying pattern emerged: **connection drives literacy**. Direct, sensory engagement practices such as touching, tasting, and talking with industry practitioners transformed abstract science into shared understanding and improved trust. These experiences fostered stewardship and long-term support for sustainable aquaculture and coastal resilience.

Cross-sector partnerships amplified these impacts, engaging 73 unique external partners across the cohort. While partner financial contributions were limited to one grantee, in-kind support and expertise were dominant, reflecting high levels of collaborative resource sharing. Educators created trusted spaces for learning; farmers and chefs offered authenticity and fresh perspectives; scientists ensured accuracy; and community partners opened up new pathways to venues and audiences. Together they co-developed durable products such as curricula, exhibits, podcasts, media, and event plans that will continue to serve audiences beyond the grant term.

Best practices for community engagement included meeting people where they gather (farmers markets, libraries, aquariums, restaurants, festivals), using inclusive design (bilingual materials, free/low-cost access, virtual options, family-friendly programming), and leveraging sensory/cultural framing and digital media to help introduce or extend learning across place and time. Together, these strategies often turned one-time encounters into ongoing community engagement.

By linking education, industry, and community through inclusive, human-centered design, eeBLUE is cultivating a growing national network that makes aquaculture literacy a shared public value.

Background

The eeBLUE Aquaculture Literacy Mini-Grants Program is a collaborative initiative of the North American Association for Environmental Education (NAAEE) and the National Oceanic and Atmospheric Administration (NOAA) designed to strengthen public understanding of sustainable aquaculture through education, engagement, and partnership. This program brings together NAAEE's network of environmental education professionals with NOAA's Office of Education, NOAA Fisheries and the National Sea Grant Office to advance aquaculture literacy nationwide.

Launched in 2020, the eeBLUE partnership bridges educators, scientists, and industry experts to foster ocean and environmental literacy. Within this initiative, the mini-grants programs provide small to moderate, rapid-impact grants that enable informal learning institutions and aquaculture professionals to develop innovative, community-relevant educational experiences centered on aquaculture literacy. Each project emphasizes cross-sector collaboration to reach audiences that may otherwise lack access to aquaculture education.

Defining Aquaculture Literacy

Aquaculture is the practice of raising and harvesting animals and plants in aquatic settings. It supports U.S. seafood production, creates year-round employment, and contributes to habitat restoration, species protection, and coastal resilience.

Aquaculture literacy occurs when individuals possess the knowledge, skills, and values to make informed decisions about seafood, ocean stewardship, and sustainable resource management. This concept builds on NOAA's Community Resilience Education Theory of Change and the broader goals of environmental literacy: cultivating knowledge, skills, and dispositions that lead to sound environmental decisions and sustainable community actions.

2024 eeBLUE Aquaculture Literacy Mini-Grants Program

The 2024 cycle (July 1, 2024 to July 31, 2025) funded nine projects across four NOAA Fisheries Regions, issuing a total of $165,384 in grants. Grantees received between $10,433 and $20,000 to implement their projects. Table 1 lists grantees, project names, and award amounts and is described in greater detail in *Appendix A*.

Table 1. eeBLUE grantees, projects, and awarded amounts

Grantee	Project Name	Grant Award
IBSS Corp	Tide to Table, Farm to Food: Exploring the Merroir of Ocean-Farmed Seafood	$20,000
Maine Aquaculture Innovation Center	Farmer's MAI-Kit	$19,980
Martha's Vineyard Shellfish Group	Expanding Social License for Private Aquaculture on Martha's Vineyard	$19,223
Maryland Sea Grant	Aquaculture in Agriculture	$10,433
North Carolina Sea Grant	Advancing Shellfish Mariculture Literacy in North Carolina	$19,994
Saltwater Classroom	Empowering Ocean Stewards: Restorative Aquaculture and Inclusive Oyster Farming Education	$18,790
South Carolina Aquarium	Increasing Oyster Aquaculture Awareness in Charleston, South Carolina	$17,190
Tampa Bay Watch Discovery Center	From Hatchery to Habitat: How Conservation Aquaculture Benefits the Bay	$20,000
University of New Hampshire	Developing and Piloting an Aquaculture Podcast to Enhance Aquaculture Literacy	$19,774
	Total	$165,384*

(*) rounded to the nearest dollar

Each grantee partnership worked to

- bring aquaculture education to new or expanded audiences;
- build educator and communicator capacity to meaningfully interpret aquaculture science;
- develop creative, culturally relevant engagement strategies;
- integrate aquaculture into broader discussions about food systems, resilience, innovation, and social license.

Projects ranged from tastings, cooking and handling demonstrations, and classroom curricula or teacher resources to podcasts, mini-documentaries and educational videos, exhibits, and farm tours. This model leverages small to mid-size grants to catalyze meaningful, locally led change and to build on the 2021 mini-grants cohort's success in flexibility, collaboration, and rapid adaptation.

Evaluation Approach

The eeBLUE initiative partnered with Blueblossom Consulting ("Blueblossom") to evaluate the impacts of the 2024 mini-grants program. Blueblossom synthesized grantee outcomes and feedback to identify best practices for advancing aquaculture literacy and strong partner network development.

Guiding Questions

1. What can the information grantees report about project implementation and results tell us about the mini-grants program's outcomes?
2. How can the information reported by grantees about project outcomes be synthesized into best practices for community engagement with aquaculture literacy discussions?
3. What can the information reported by grantees about project partnerships tell us about cross-sectoral collaborations to reach diverse audience groups?

Methodology

Grantees submitted standardized mid-year and final reports via Google Forms, including a Partnership Reporting Form documenting the scope and scale of collaboration and evidence such as photos, deliverables, and participant testimonials. They presented projects in a virtual symposium preceded by an evaluative reflection session facilitated by Blueblossom. We supplemented data with additional findings such as media coverage, eeBLUE blogs, and social media content.

We applied qualitative coding to all data sources to identify themes related to outcomes, community engagement, and partner collaboration. To deepen the partnership analysis, we compared contributions across grantees, categorizing them by financial, in-kind, expertise, and marketing support. Findings were mapped to a logic model to illustrate how project activities advance aquaculture literacy goals. Partnership data was analyzed alongside these materials to identify collaboration patterns and generate a partner network map showing how grantees and partners strengthened the national aquaculture literacy network. The logic model is available in this report as *Appendix B* and the partner map as *Appendix C*.

Considerations

As with any evaluation process based largely on self-reported data, several factors should be considered when interpreting the findings of this report:

1. **Self-Described Results:** The evaluation relied primarily on grantee-submitted reports and self-described outcomes. While these provide valuable firsthand insights, they may reflect subjective interpretation, selective reporting, or optimism bias rather than fully independent verification of results.

2. **Variable Reporting Depth:** Although standardized forms improved consistency, the depth and quality of responses varied across grantees. Differences in writing style, staff capacity, changes in project leadership, and documentation practices may have influenced data completeness and comparability.

3. **Limited Quantitative Measures:** Most evidence was qualitative (narratives, photos, quotes). Quantitative data, particularly for audience reach, were often estimated rather than verified. Grantees reported that indirect and virtual engagement counts (e.g., social media, archived webinars, exhibits) were difficult or impossible to track, resulting in approximate or omitted figures. Audience reach totals should therefore be interpreted as indicative rather than definitive; that is, reasonable reflections of perceived program scale, not statistically validated counts.

4. **No Partner Validation:** The evaluation did not include direct partner or participant interviews to corroborate reported partnerships or impacts. As a result, findings depend on the accuracy and perspective of grantee accounts, and to a very limited extent, digital project content shared by grantee partners.

5. **Short Evaluation Timeline:** The reporting and analysis period concluded shortly after project completion, capturing mainly immediate outcomes. At the end of the grant period, some projects were still being finalized. Longer-term effects on aquaculture literacy, partnerships, and sustained programming could only be assessed to a limited extent.

At a Tampa Bay Watch event, menu items such as fresh Florida oysters and sea purslane serve as tasty reminders of the joy and economic benefits that come from caring for our waters. Photo credit: Beth Reynolds

Ryan Bethea of Oysters Carolina empties a bag full of tasty oysters from his farm. Photo credit: Justin Kase Conder

Findings

Overview

The 2024 mini-grants program advanced eeBLUE's goals by supporting community-based projects that deepened understanding and acceptance of sustainable aquaculture. Direct, in-person engagement produced the highest-quality learning and clearest evidence of attitude and behavior change. Virtual and indirect modes introduced or expanded reach—especially among public audiences—and helped sustain impact. Together, these approaches demonstrate how modest community-rooted investments generate a broad and lasting ripple effect: expanding awareness, strengthening partnerships, and normalizing sustainable aquaculture as an essential part of the food system.

Key Finding 1. Cross-Sector Collaboration Expands Reach and Credibility

Educators, farmers, chefs, and scientists combined expertise and audiences to co-create authentic, credible experiences. Local venues and networks (libraries, markets, aquariums, restaurants, and nonprofits) made aquaculture visible in everyday life.

> "These partnerships also expanded our reach and credibility, making it easier to engage educators and community members."

> "By designing curriculum with input from educators, industry professionals, and community members, we've ensured that it will be relevant and approachable."

> "Collaborating with [our partners] ensured the curriculum reflected both scientific accuracy and practical, place-based knowledge."

Farmer shows students an oyster cage. Photo credit: South Carolina Aquarium

Key Finding 2. Experiential Learning Turns Knowledge into Skills and Action

Experiential learning (direct, sensory engagement paired with reflection) grounded abstract ideas in real contexts, from visiting farms to shucking oysters to cooking ocean-farmed salmon. Participants described these moments as transformative: culinary students and educators alike reported that connecting farming practices to flavor or classroom lessons changed how they teach, cook, or choose seafood.

> "Culinary students, most of whom had never handled geoduck or even oysters, learned to prepare and taste both."

> "This discussion empowered audience members to source farmed oysters and/or request farmed oysters from restaurants or purveyors to increase demand for farmed oysters, thereby increasing demand and potential for more oyster farms, sustainable local seafood, and job creation."

> "[A culinary student] shared that understanding the link between ocean farming and flavor shifted her career vision; she now plans to feature sustainably farmed seafood and merroir education in her future restaurant concept."

Oyster Farmer Smokey McKeen shows how to shuck a Maine Oyster. Photo credit: Logan Willans

Key Finding 3. Authentic Voices Build Public Trust

Hearing directly from aquaculture farmers, chefs, and scientists turned skepticism into curiosity. Personal narratives revealed aquaculture as a blend of innovation, heritage, and stewardship. Exhibits, films, and podcasts brought these voices to wider audiences, pairing storytelling with imagery and/or sound to build empathy and credibility. Grantees often described this authentic communication as the tool that transformed awareness into trust and inspired ongoing engagement. In testimonials, participants described their connection with farmers as the moment they "saw the people behind the product."

> "Prior to this, their avoidance of farmed salmon had been based solely on negative press rather than personal experience."

> "One [participant] said that she felt that the featured farmer really cared about the animals and she felt so much better about eating farmed salmon."

In December 2024, Ollie Becker, filmmaker at Circuit Arts, interviewed Ed Bugbee, retired Oak Bluffs shellfish constable, Mike Zoll, retired Dukes County extension agent, and Rick Karney, director emeritus of MVSG (from left to right), at the Hughes Hatchery in Oak Bluffs, MA. Interviewees reviewed archival photos and newspaper clippings, discussed the local politics of conservation and development on Martha's Vineyard in the 1970s, and shared firsthand accounts of what led to the formation of Martha's Vineyard Shellfish Group, Inc. in 1976. Photo credit: Nina Ferry Montanile

Key Finding 4. Inclusive Design Broadens Audiences

Projects that prioritized inclusion achieved broader representation and stronger retention. Bilingual materials, hybrid events, and community-based venues such as restaurants, markets, libraries, and nonprofits helped expand participation to families, inland communities, and underrepresented groups. This approach to engagement fostered belonging, repeat attendance, and the shared belief that aquaculture is for everyone.

> A participant that identified as a member of the LGBTQ+ and BIPOC community shared in a testimonial, "We learned so much about oysters and aquaculture in general. (I think it's valuable for kids to understand where their food comes from and how it gets on the table, something I was reminded about that we don't discuss enough.) Most importantly, I think that we all loved it so much because it was a great day of togetherness for our family, just enjoying each other's company and the shared experience."

> "This project is aligned with… providing unique, accessible, and inclusive food experiences and conservation connections for members of the community that may be financially excluded from pricey food events at high-end establishments."

Community members enjoy a shared experience. Photo credit: MAIC Staff

Key Finding 5. Adaptive Learning Supports Innovation and Resilience

Teams that tested and refined their approaches through feedback and reflection delivered more relevant and resilient programs. Adaptability to personnel changes, weather, construction, and seasonal demands on farmers also turned setbacks into opportunities for innovation. This signals a field that learns from practice, continuously refining how aquaculture literacy is taught and experienced.

> "The ability of each organization to adapt and instantly foster professional introductions to one another and the local community was invaluable for this project and supported other related work."

> "Although [our] plans to engage with the community fell through, we were able to identify great opportunities to connect with other audiences that could also benefit from the grant project in different ways."

> "What began as a small 'Meet the Farmer' series quickly expanded as farmers' busy schedules required a more flexible approach—prompting collaborations with two partner organizations and resulting in six major events featuring eight farmers, raw bars, shucking demos, and touch tanks."

Tampa Bay Watch staff work together to repair building damage after Hurricane Milton. Photo credit: Tampa Bay Watch

Audience Reach

The nine projects achieved an estimated 29,012 impressions through in-person, virtual, and self-guided experiences. Because many grantees reported approximate figures—especially for indirect and online engagement—this section presents two complementary perspectives on audience reach. Table 2a summarizes the *scale* of participation using broad magnitude ranges, while Table 2b describes the *depth* of participation across hands-on, guided, and self-guided formats. Together, these tables offer a more accurate and meaningful representation of audience engagement than precise counts alone.

Across projects, students and educators were the most consistently engaged audiences, while public participants represented the largest overall reach, particularly through indirect and digital pathways. Industry professionals (e.g., farmers, distributors, and chefs) engaged in smaller numbers and primarily as implementation partners—contributing depth, authenticity, and technical expertise rather than expanding audience reach.

Overall, these patterns highlight that aquaculture literacy efforts succeeded not only in reaching broad audiences, but also in fostering high-quality, experiential engagement and involving community and industry partners in ways not traditionally seen in ocean literacy programming.

Table 2a. Summary of Audience Reach by Magnitude

Audience	Direct In Person	Direct Virtual	Indirect In Person	Indirect Virtual
Public	High	High	High	High
K–12 Students	High	Low	Medium	Low
Other Students	Medium	Low	Medium	Low
Educators	Medium	Low	Medium	Medium
Farmers/ Distributors	Low	Low	Low	Low
Chefs	Low	Low	Low	Low

Legend Option A: Low = 1–100, Medium = 101–1,000, High = 1,001+

Note: Lower-range counts (<100) tend to reflect direct headcounts; higher-range totals (>1,000) are generally estimated due to the nature of indirect and digital engagement.
Table 2b. Summary of Audience Engagement Intensity

Audience / Types of Community Engagement	Hands-On / Experiential	Live / Guided (Virtual or In Person)	Self-Guided / Digital
	Deep, immersive, often hands-on learning experiences (shucking, farm tours, workshops, tastings, labs, hands-on activities)	*Meaningful but less tactile; still interactive (live virtual webinars, Q&A panels or interviews, guided walk-throughs, presentations)*	*Passive or self-guided interactions (exhibits without facilitators, recorded webinars, podcasts, social media impressions, web hits)*
Public	●○○	●●○	●●●
K–12 Students	●●●	●○○	●○○
Other Students	●●●	●●○	●○○
Educators	●●●	●●●	●●○
Farmers/Distributors	●●●	●○○	●○○
Chefs	●●●	●○○	●○○

Engagement Intensity Legend:

- High = ●●●; the audience participated in this format frequently and/or in a more intensive way
- Medium = ●●○; the audience engaged in this format occasionally and/or in a less intensive way.
- Low = ●○○; the audience rarely engaged in this format or only through brief exposure.

Answers to Evaluation Questions

Question 1. Program Outcomes

Guiding Question: *What can the information grantees report about project implementation and results tell us about program outcomes?*

Main Outcomes

Connection to people, flavor, and place drove aquaculture literacy. When science, culture, and food converged through shared sensory experience, curiosity turned into understanding and understanding evolved into trust.

Outcomes were evident across four interrelated domains:

- **Knowledge**: Participants gained deeper insight into aquaculture's ecological, economic, and cultural dimensions. Many were surprised to learn aquaculture products can be as sustainable and regionally distinctive ("merroir") as wild catch. Educators who engaged in curriculum-based projects reported increased confidence integrating aquaculture into lessons aligned with science and Career Technical Education (CTE) standards.
- **Attitude**: Story-driven learning from farmers, distributors, or chefs reshaped perceptions from uncertainty to enthusiasm. Participants described pride in local aquaculture and recognition that sustainable seafood contributes to coastal stewardship and community resilience.
- **Behavior**: Exposure to aquaculture practices prompted measurable actions: teachers adopted new lessons or teaching units; culinary students and chefs chose to use farmed species in dishes and competitions; community members began seeking responsibly sourced seafood; and partnerships continued or evolved beyond the grant period.
- **Skill Development**: Hands-on participation built practical and transferable skills—shucking, seafood preparation, storytelling, and interpretive communication skills—that also strengthened workforce readiness and aquaculture education and outreach capacity.

Collectively, these outcomes demonstrate that aquaculture literacy extends beyond awareness into tangible learning, behavior, and community action.

Community and Industry Benefits

Beyond individual learning, grantees generated visible benefits for both the community and the aquaculture industry. Collaborative tastings, gatherings, and exhibits elevated aquaculture's visibility and positioned farmers, chefs, and educators as ambassadors for sustainability.

Partnerships among educators, producers, and local businesses fostered two-way learning: participants gained firsthand insight into aquaculture practices, while producers expanded their visibility, customer base, and public trust.

Aquaculture emerged as part of community identity and coastal heritage. Exhibits, tastings, demonstrations, and social media campaigns framed it as a community-rooted enterprise tied to local culture, tourism, and food economies. Participants increasingly saw aquaculture as integral to regional life and for younger audiences, as a viable, science-based career pathway linking stewardship, innovation, and food security.

Several projects will continue beyond the grant period, having established enduring infrastructure, materials, and relationships that sustain mutual benefit. Collectively, these outcomes demonstrate that aquaculture literacy not only informs individuals and connects communities but also strengthens industry resilience, fosters workforce awareness, and builds shared understanding of how responsible aquaculture supports ocean stewardship and long-term coastal resilience.

Mechanisms Driving Outcomes

Three interconnected mechanisms consistently explained how outcomes were achieved:

- Hands-On Learning made aquaculture tangible. When participants handled shellfish, visited farms, or smelled, prepared, or tasted seafood, they connected knowledge with practice through direct sensory experience. Teachers and students reported stronger retention and confidence explaining aquaculture to others, while public participants described greater curiosity and willingness to try farmed products.

- Storytelling Through Food and Place translated technical concepts into accessible, personal meaning. Culinary events, cultural framing, and interpretive exhibits linked flavor, tradition, and ecosystem to the science of seafood production. These narratives reframed aquaculture as part of local food systems rather than a distant industry.

- Building Trust in Practitioners proved essential for shifting attitudes. Authentic encounters with farmers, chefs, and scientists humanized aquaculture, reduced skepticism, and built credibility through the sharing of authentic, local voices. Trust and connection emerged as the emotional foundation of literacy and stewardship; specifically, people were more likely to learn from those they could see, hear, and relate to.

Together, these mechanisms illustrate that aquaculture literacy grows through relationships and connection as much as information. When learning invites curiosity, sensory engagement, and trust, understanding becomes enduring.

Question 2: Best Practices for Community Engagement

Guiding Question: *How can the information reported by grantees about project outcomes be synthesized into best practices for community engagement with aquaculture literacy discussions?*

The same mechanisms that fueled learning also defined effective engagement across diverse audiences. Projects succeeded by meeting people where they gather—markets, schools, festivals, online spaces—and by partnering with trusted local institutions. Food, storytelling, and media served as powerful entry points that invited participation across ages and backgrounds.

Key Practices

- **Sensory and Social Learning**. Cooking workshops, tastings, and farm tours anchored learning in shared sensory experience. By blending science with culinary exploration, grantees made aquaculture tangible and relatable. One project described how children who had never tried shellfish before eagerly sampled geoduck and clams, prompting parents to reconsider their own seafood choices.
- **Culturally Grounded Framing**. Events rooted in regional foodways—such as heritage festivals, cooking demonstrations, and community dinners—positioned aquaculture as part of regional identity and pride. Storytelling through recipes and chef-farmer collaborations helped audiences see aquaculture as both a science and a way of life.
- **Accessible and Inclusive Design**. Grantees broadened participation by offering free or low-cost events, bilingual interpretation, hybrid formats, and deliberate outreach to audiences not traditionally engaged in ocean education. Collaborations with schools, libraries, and nonprofits reached working families, non-English speakers, and rural residents, while one grantee partnered specifically with an LGBTQ+ organization. These partnerships revealed unexpected audiences and lasting community connections.
- **Digital, Hybrid, and Resource-Based Storytelling**. Digital and interpretive tools extended engagement beyond single events, sustaining learning across place and time. Podcasts, webinars, live-streamed tastings, short films, and exhibits connected audiences with farmers and chefs through their own voices. QR-linked recipe cards, educator guides, and traveling exhibits provided ways to revisit and share learning, ensuring that aquaculture literacy could continue to grow long after events concluded.

These strategies deepened participation rather than merely increasing numbers, transforming aquaculture literacy into an ongoing community conversation.

Question 3: Cross-Sectoral Collaboration

Guiding Question: *What can the information reported by grantees about project partnerships tell us about cross-sectoral collaborations to reach diverse audience groups?*

Collaboration across education, industry, community and scientific sectors was the foundation of every project's success. Each partner contributed complementary strengths—credibility, cultural connection, technical knowledge, and audience access—that together amplified reach and made aquaculture more accessible in everyday spaces. Grantees collectively engaged 73 external partners, emphasizing in-kind support and knowledge exchange over direct funding (additional funding was reported by only one grantee), reflecting the program's emphasis on shared capacity and cross-sector synergy. These partner functions are summarized in Table 3 below.

Partner Roles and Contributions

- Education partners provided trusted learning environments, access to students and educators, and the pedagogical expertise needed to translate aquaculture science into meaningful, standards-aligned or experiential lessons. They hosted field trips, workshops, and classroom demonstrations, integrated aquaculture into new or existing curricula, and mentored students through harvesting and culinary experiences that connected learning to career pathways (CTE).
- Industry partners supplied authenticity, technical knowledge, seafood products, and in-kind materials that grounded learning in real practices. Farmers, distributors, and chefs shared firsthand perspectives and co-created events, tastings, and exhibits that linked aquaculture products to stewardship and flavor.
- Community partners contributed venues, outreach and marketing support, and cultural connection. Libraries, markets, museums, businesses, visitor centers, and local nonprofits helped host and promote programs, recruited participants, and ensured that aquaculture learning reached families, inland audiences, and underrepresented groups. Their involvement transformed everyday community spaces into hubs of aquaculture literacy.
- Scientific partners provided the research foundation and national alignment that anchored each project in credible, evidence-based information. Through collaborations with NOAA, Sea Grant, and university scientists, grantees ensured accuracy in educational content, linked local work to national aquaculture initiatives, and strengthened the program's collective credibility and reach.

Table 3. Key Partner Functions

Function	Description	Outcome
Content and Expertise Exchange	Co-developed or exchanged input on educational content and media	Increased accuracy and authenticity
Resource and Venue Sharing	Provided product, equipment, event space, and staff support	Broadened geographic and demographic reach without incurring new costs
Marketing and Co-Promotion	Joint outreach through partner networks and channels	Expanded visibility and attendance
Capacity Building	Cross-training among educators and practitioners	Strengthened institutional skills and networks

These findings underscore that authentic collaboration, not funding alone, drives impact in small to moderate grant programs.

Best Practices for Effective Collaboration

Across projects, strong partnerships were rooted in shared vision, clear communication, and mutual benefit. Grantees who viewed collaboration as an ongoing relationship rather than a one-time transaction sustained momentum even amid staffing changes, construction delays, and partner availability challenges.

Three practices strengthened partnership quality:

- **Early and Inclusive Planning**. Teams that involved partners from the proposal stage aligned goals, timelines, and roles from the outset. This proactive approach built shared ownership and ensured that cross-sectoral perspectives were represented in project design.
- **Shared Ownership and Visibility**. Projects framed as joint community efforts benefited from clear recognition and transparency around responsibilities. Co-branding, shared communications, and joint events fostered accountability and mutual pride in outcomes.
- **Clear Communication and Flexibility**. Regular check-ins, virtual meetings, and open decision-making helped teams navigate challenges, especially around scheduling and partner capacity. Many projects faced constraints in aligning with aquaculture farmers' limited availability during harvest seasons. To adapt, some projects engaged lesser-known producers with smaller operations or off-season availability, while others partnered with chefs, educators, or distributors to represent aquaculture practices when farmers were unavailable.

In addition to planned collaborations, several new partnerships formed organically as projects unfolded. Local businesses, community institutions, and event organizers often stepped forward after attending programs or seeing media coverage, offering new venues, audiences, and resources. These emergent relationships broadened the scope and visibility of aquaculture literacy, demonstrating the catalytic role of trust and shared enthusiasm in expanding the network.

Despite these creative approaches, no single model has yet emerged for balancing authentic farmer participation with their production demands. Coordinating with producers whose livelihoods depend on time-sensitive work remains a fieldwide challenge and an opportunity for continued experimentation within future eeBLUE cohorts.

Sustained Effects and Lessons

Many projects evolved into recurring events, new proposals, or expanded educational offerings based on collaboration results. Grantees are sustaining their momentum in several ways:

- **New or Expanded Partnerships**. Partners who first collaborated under the mini-grants are developing new proposals together, forming regional networks, or have already committed to future joint programming.
- **Institutional Integration**. Aquaculture curriculum modules, media, exhibits, or workshops resulting from partner contributions were incorporated into existing programs, ensuring continued visibility and use.
- **Resource Sharing and Replication**. Digital media, educator guides, and curriculum resources will be shared with additional partners and regions for adaptation and reuse.
- **Public and Community Events**. Annual tastings, festivals, and talks established under the grant will continue as recurring community traditions.
- **Capacity and Workforce Development**. Partners gained transferable skills in communication, interpretation, and evaluation that strengthened their institutions' ability to engage the public in ocean literacy topics in the future.

Together, these outcomes demonstrate that collaboration does more than expand audience reach. It cultivates the relationships, skills, and shared infrastructure needed for long-term aquaculture literacy.

Cross-Cutting Insights

Across all evaluation questions, several themes illustrate how the 2024 cohort advanced aquaculture literacy as both a learning process and a community practice.

- **Reflection and Adaptation**. Grantees regularly refined activities in response to participant feedback, partner input, and logistical challenges, demonstrating a culture of iterative improvement. Teams adjusted timelines, redesigned events, and shifted strategies when faced with construction or weather impacts and partner availability. This responsiveness strengthened relationships with partners and participants alike by showing flexibility and humility are as valuable as planning.

- **Continuity and Scaling**. Many projects evolved beyond one-time events into ongoing collaborations, annual programs, or regional networks. Exhibits, curricula, and digital resources continue to circulate through partner institutions, while some teams have developed new proposals to extend their work. Together, these examples signal a growing foundation for sustained aquaculture literacy infrastructure.

- **Storytelling as Social Infrastructure**: Narratives of farmers, chefs, and communities became enduring channels for knowledge exchange, continuing to circulate across regions through shared media and partnerships.

- **Bridging Knowledge Systems**. Projects blended scientific, cultural, and local expertise to make aquaculture both credible and relatable. By pairing research-based information with community storytelling, traditional foodways, and local environmental knowledge, grantees expanded public understanding of what counts as expertise and positioned aquaculture within broader conversations about place and stewardship.

- **Equity and Representation**. Inclusion was embedded from design to delivery. Bilingual materials, free or low-cost admission, hybrid formats, and intentional outreach to underrepresented audiences broadened who participated and who felt seen in the story of aquaculture. These approaches fostered belonging as a core element of literacy.

- **Hybrid and Future-Focused Learning**. Digital storytelling, podcasts, webinars, and virtual tastings extended aquaculture learning far beyond coastal boundaries. These tools provided flexible, scalable avenues for engagement that connect classrooms, communities, and industries across distance and time. They also serve as models for future programs seeking to integrate experiential and media-based education.

Together, these insights reveal a field that is maturing through collaboration, creativity, and care and where science, culture, and community intersect to sustain aquaculture literacy well beyond the boundaries of a single grant cycle. The remaining challenges around equitable participation, data consistency, and partner availability are not weaknesses but signposts of a growing, reflective network still learning how to balance education, industry, and community priorities.

Individual Grantee Results

The 2024 mini-grants cohort demonstrated remarkable creativity, adaptability, and commitment in advancing aquaculture literacy in U.S. coastal regions. While projects were no longer shaped by pandemic constraints as was the 2021 cohort, many grantees continued to navigate external challenges such as staffing transitions, weather and construction events, and fluctuating partner capacity. Despite these variables, all grantees successfully completed the core intent of their projects or modified them to better meet community needs—often exceeding original goals through expanded partnerships and in-kind contributions.

In their final reports, grantees provided rich, detailed accounts of their activities, outcomes, and experiences. These narratives reveal the depth and diversity of engagement achieved—ranging from classroom curriculum pilots and professional development for educators to public festivals, podcasts, culinary demonstrations, and field-based learning experiences. A summary of grantee projects is available in *Appendix A.*

Across the cohort, the tone was one of pride, momentum, and gratitude for the opportunity to share aquaculture with new audiences. Many grantees described their projects as catalysts for ongoing collaborations, future funding proposals, and continued public interest in sustainable seafood and ocean stewardship.

> "What began as a straightforward introduction to aquaculture grew organically and gained momentum of its own."

The following summaries highlight each grantee's project activities, outcomes, and lessons learned, drawing from multiple data sources including grantee reports, symposium discussions, and deliverables.

Hawaiians view fishponds as part of an overall water management tool. Photo credit: Lisa Tagal

IBSS Corporation | Tide to Table, Farm to Food: Exploring the Merroir of Ocean-Farmed Seafood in Washington

IBSS Corp set out to pilot a traveling “merroir” program linking chefs, culinary students, and consumers to the science and flavor of ocean-farmed seafood through tastings, cooking demonstrations, and storytelling. It aimed to reframe aquaculture perceptions by exploring how environmental conditions shape seafood flavor and by promoting informed, sustainable seafood practices.

The project far exceeded expectations, expanding from six planned events to twenty-four through community invitations, in-kind seafood donations, and partner enthusiasm. Participants—from homeschool families to culinary students—learned to link flavor to environment and gained new appreciation for farmed seafood. A student team’s merroir-inspired sablefish dish won the Washington State ProStart competition and ranked in the national top twenty, while NOAA and local media amplified the story nationwide. The program’s success sparked new collaborations with culinary schools, markets, and restaurants, positioning merroir as a lasting model for ocean literacy through food.

From top left to right: The winning “Bite” of miso-glazed sablefish is served atop edamame and black rice. Photo credit: Mark Tagal; Mark Tagal gives his merroir talk at Bonney Lake High School. Photo credit: Lisa Tagal; The BLHS Culinary Team wins first place in the high school category and won a superb third place in the overall competition. Photo credit: Lisa Tagal

Maine Aquaculture Innovation Center | *Farmers MAI-KIT (Maine Aquaculture Innovation Kitchen)* in Maine

The Maine Aquaculture Innovation Center (MAIC) aimed to strengthen public understanding of local aquaculture by hosting four live, interactive cooking webinars featuring Maine chefs, farmers, and farmed seafood species. Through these events and accompanying online resources, the project sought to model inclusive, collaborative approaches to seafood education and highlight the sustainability and diversity of Maine's aquaculture sector.

The project delivered its full "Taste the Maine Rainbow" webinar series, each featuring a different aquaculture product—kelp, mussels, oysters, and salmon—and pairing farmers with chefs for live cooking demonstrations. Recipe cards with QR codes linked audiences to recorded webinars and educational resources, extending access beyond the live sessions to an unexpected amount. The team's hybrid format attracted diverse participants, including educators, students, and home cooks, while promoting the idea that Maine's seafood can be both sustainable and locally distinctive. MAIC plans to continue their series beyond the grant period.

Chef Rob Dumas (center) cracks a joke that has Matt Moretti of Bangs Island Mussels and Emily of MAIC laughing while learning to cook Mussels Gratin. Photo credit: MAIC Staff

Martha's Vineyard Shellfish Group, Inc. | *Expanding Social License for Public and Private Aquaculture on Martha's Vineyard* in Massachusetts

Martha's Vineyard Shellfish Group (MVSG) set out to build community understanding and acceptance of aquaculture through hands-on education and storytelling that connect people to the island's working waterfronts, restoration hatcheries, and shellfish traditions. Partnering with local libraries, schools, and environmental organizations, the project sought to increase public engagement and social license—that is, public understanding and support—for both public and private aquaculture operations.

Through a series of community-based programs, MVSG expanded awareness of shellfish farming as both a livelihood and an ecological service. Library workshops, youth clubs, citizen science projects, and seasonal festivals introduced residents and visitors to local growers while highlighting aquaculture's role in maintaining clean water and resilient coastal ecosystems. Collaboration with the West Tisbury Free Public Library helped bring aquaculture learning into familiar community spaces, fostering curiosity and conversation among audiences who might not otherwise encounter it.

To celebrate and document the island's aquaculture heritage, MVSG also began producing documentary shorts marking its 50th anniversary, featuring interviews with early shellfish biologists, constables, and restoration pioneers. Together, these efforts deepened public connection to Martha's Vineyard's aquaculture legacy and strengthened local appreciation for the people, science, and stewardship sustaining its coastal economy.

Left to Right: Oliver (7 yo) at Ag Fair learns about local aquaculture by holding a bay scallop in August 2024. Photo credit: Nina Ferry Montanile; Emma Green-Beach and Chris Edwards demonstrate shucking to MVSG's 4H Club, ages 5–9, on Martha's Vineyard in March 2025. Photo credit: Nina Ferry Montanile

Maryland Sea Grant | *Aquaculture in Agriculture* in a Multi-State Effort

Maryland Sea Grant set out to expand its successful “Aquaculture in Action" program through a multi-state collaboration aimed at reducing barriers to teaching aquaculture within agricultural sciences. In partnership with The National Council for Agricultural Education, Wisconsin Sea Grant, University of Maryland Extension, and Carroll County Public Schools, the project planned to offer summer workshops and updated curriculum materials that would help Agricultural Science teachers integrate aquaculture concepts and career pathways into their ag science instruction.

During their planning process, the team interviewed educators and discovered that many struggled with the logistics of starting and maintaining school-based aquaculture systems. To address this need, Maryland Sea Grant and its partners created a new resource—a step-by-step aquaculture system planning guide for teachers on system setup, maintenance, and classroom integration. This unintended but highly useful outcome complemented the planned workshops and curriculum updates, giving teachers a practical foundation to implement aquaculture learning in their own programs.

Left to right: Photo shows a cover of "Planning for an Aquaculture System in the Classroom (Teacher Guide)."; A recirculating aquaponics system in use at a high school in Carroll County, Maryland. Photo credit: Adam Frederick

North Carolina Sea Grant | *Advancing Shellfish Mariculture Literacy* in North Carolina

North Carolina Sea Grant and its partners proposed to expand mariculture literacy across the state by connecting educators, aquariums, and the public with the growing oyster industry. Building on the North Carolina Oyster Trail, the project planned to develop new lesson plans aligned with state science and CTE standards, produce a traveling photo and video exhibit, and showcase the social, economic, and environmental benefits of shellfish farming.

The project delivered two five-hour mariculture workshops that trained 17 formal and informal educators, including high school science and agriculture teachers, aquarium staff, and nonprofit educators. Participants learned from North Carolina Sea Grant specialists, adapted ten standards-aligned mariculture lesson plans for their own classrooms and programs, and gained first-hand experience through field tours at the NC Aquarium on Roanoke Island and Carteret Community College's aquaculture labs. Post-workshop evaluations showed increased knowledge and enthusiasm for teaching aquaculture and sustainable coastal practices.

To engage public audiences, the team produced a seven-panel (3×3 foot each) oyster photo exhibit depicting how oysters support clean water, healthy ecosystems, and local livelihoods. Originally planned as a single set, the exhibit was expanded to three full displays for the northern, central, and southern coasts through the NC Coastal Federation. Featured during North Carolina Oyster Month, the exhibit highlights that roughly half of the state's oyster production now comes from aquaculture, with more than 300 farms statewide. Together, the workshops and exhibits broadened public understanding of how oysters—and the people who grow them—sustain coastal ecosystems and economies.

Photo above: An outdoor aquaculture laboratory at Carteret Community College is the perfect spot for the mariculture education workshop. Photo credit: Jane Harrison; Educators learn about marine aquaculture from North Carolina Sea Grant's aquaculture specialist Eric Herbst. Photo credit: Jane Harrison

Saltwater Classroom | *Empowering Ocean Stewards: Restorative Aquaculture and Inclusive Oyster Farming Education* in Maine

Saltwater Classroom set out to build public understanding of aquaculture through creative storytelling and accessible digital media. Their project aimed to produce a short video series and companion resources that highlight aquaculture's people, practices, and benefits—introducing youth and family audiences to sustainable seafood and ocean stewardship in an engaging, relatable format.

In partnership with Nauti Sisters Sea Farm and Maine Sea Grant, the team filmed three educational videos—a virtual Field Trip to a working oyster farm, a "Day in the Life of a Maine Oyster Farmer," and a short feature on "Oyster Anatomy and Restoration Benefits." These will be showcased on Saltwater Classroom's Online Ocean Literacy Platform. Complementary classroom lessons, such as Design Your Own Farm and Filter Feeding, were co-developed with aquaculture experts to bring these real-world examples into STEM learning. Together, the videos and lesson plans connect students directly to the people and practices of modern aquaculture, blending science, creativity, and stewardship.

Stills from educational video "Day in the Life of a Maine Oyster Farmer" show a virtual field trip to Nauti Sisters Sea Farm, a working oyster farm. Photo credit: Austin Mills

South Carolina Aquarium | *Increasing Oyster Aquaculture Awareness* in South Carolina

South Carolina Aquarium and its partners set out to raise awareness about oyster aquaculture through experiential learning. Plans included farm tours, public panel discussions, and shucking demonstrations designed to help audiences distinguish between wild and farmed oysters, connect with local producers, and expand access to educational aquaculture experiences for Charleston's diverse communities.

The Aquarium hosted three major farm-based and onsite learning programs that reached more than 170 participants. A "Talks on Tap" event titled *(Aqua)culture Shock* drew a record audience of 140 people for a panel discussion featuring farmers, scientists, and chefs, followed by an oyster shucking demonstration and tasting. Additional sessions engaged LGBTQ+ audiences from We Are Family and culinary students from Trident Technical College, pairing classroom presentations with guided oyster farm tours. Across all events, participants learned directly from producers about aquaculture's role in healthy coastal ecosystems, experiencing how oysters improve water quality, support habitat restoration, and sustain local seafood economies. Through these immersive, hands-on programs, the Aquarium and its partners strengthened public understanding of aquaculture as an essential part of coastal stewardship in South Carolina.

Farmer shows a wild oyster cluster to a group of students. Photo credit: South Carolina Aquarium

Tampa Bay Watch Discovery Center | *From Hatchery to Habitat: How Conservation Aquaculture Benefits the Bay Exhibit* in Tampa Bay Region, Florida

Working with its partners, Tampa Bay Watch Discovery Center set out to design an educational exhibit illustrating how conservation aquaculture contributes to habitat restoration and sustainable seafood production in Tampa Bay. The exhibit intends to introduce visitors to real-world examples of aquaculture that support local ecosystems and advance national aquaculture literacy goals.

Despite hurricane-related setbacks and construction delays, the team completed the design of the "From Hatchery to Habitat" exhibit, which is slated for installation in late 2025. During the design phase, they previewed exhibit concepts at public events to gather community feedback, refining the visuals and bilingual messaging to make the science accessible and locally relevant. When installed, the exhibit will guide visitors through the process of growing species in hatcheries and their eventual role in restoring water quality, reef structure, and marine biodiversity, positioning aquaculture as a vital tool for coastal conservation and resilience in Tampa Bay.

"From Hatchery to Habitat" is an exhibit at the Tampa Bay Watch Discovery Center on the St. Pete Pier that features local conservation aquaculture efforts that support water quality and ecosystem health in and around Tampa Bay.
Photo credit: Tampa Bay Watch

University of New Hampshire | *Developing and Piloting an Aquaculture Podcast to Enhance Aquaculture Literacy* in the Northeast

The University of New Hampshire proposed to develop and pilot a 10 episode podcast series that would make aquaculture education more approachable for general audiences. By featuring interviews with farmers, researchers, and chefs, including a live launch event at the Seacoast Science Center, the project aimed to spark public interest and increase understanding of aquaculture's role in sustainable seafood systems.

The team developed 10 podcast episodes, ultimately releasing 8 polished episodes after refining audio quality and content. Each episode spotlights a different aspect of aquaculture in the northeast, including kelp farming, shellfish production, and ornamental species. Partnering with NOAA, regional Sea Grant programs, and local producers, the team blended science communication with human storytelling to make aquaculture approachable and relevant. The series launched with a public event at the Seacoast Science Center and serves as a creative model for sharing authentic voices in aquaculture education.

Featured in this photo are podcast guest speakers. From top left moving clockwise: Dr. Dan Benetti, Imani Black, Travis Knorr, Jen Marden, Jaclyn Robidoux, Chris Asbell, and Megan Davis. Photo credit from top left moving clockwise: D. Benedetti (U of Miami), I. Black (Minorities in Aquaculture), T. Knorr, J. Robidoux, C. Asbell, M. Davis

Teen Conservation Crew member learns about a wild oyster cluster. Photo credit: South Carolina Aquarium

Recommendations

This evaluation demonstrates that the 2024 program will continue to generate educational and community impact beyond the grant term. Future funding cycles offer an opportunity to refine how the program supports, measures, and amplifies those impacts. The following recommendations synthesize lessons from the 2024 cycle and offer practical steps for future program evolution.

1. Strengthen Evaluation Reporting Process

The current evaluation system provides an accessible structure for collecting grantee results. The next step is to help grantees effectively provide meaningful data that more directly responds to the evaluation questions and will make it easier to determine the program's collective reach and impact, or determine if quantifying audience reach should remain a reporting requirement given its limited reliability across diverse project types.

> Goal: Encourage grantees to submit concise, high-quality evidence such as participant metrics and descriptive responses that illustrate how projects influence *knowledge, attitudes, behaviors, and skills*.

Actions:

- Offer a concise evaluation toolkit to help grantees proactively and accurately capture simple metrics (participant counts, audience categories, percentages of returning audiences, pre/post confidence ratings).
- Provide short trainings or office hours on low-effort evaluation tools (post-event polls, partner reflection cards, or quick online surveys) to improve grantee qualitative data submissions.
- Consider modest increases in grant amounts or request line items in proposals that prompt grantees to cover evaluation capacity (staff time, contractors, or survey software).

Outcome: A consistent yet low-burden evaluation approach that strengthens evidence of collective impact and reinforces eeBLUE's learning-oriented culture.

Charleston Oyster Farm professional teaches crew mates about oyster aquaculture. Photo credit: South Carolina Aquarium

2. Refine the Evaluation Framework for Cross-Sector Collaboration

Grantee reports provided some useful information about partnership roles, functions, and contributions. The next opportunity is to refine how this data is used, shifting the evaluation focus from *how collaboration helps reach diverse audiences* to *what makes collaboration successful at strengthening each project's aquaculture literacy outcomes.* This refinement would allow eeBLUE to build on what naturally emerges in grantee reported data.

> Goal: Evolve the evaluation framework to examine how and why collaboration quality contributes to stronger aquaculture literacy outcomes and program sustainability.

Actions:

- Revise the partnership and collaboration evaluation question (#3) to: *"What makes cross-sector collaboration successful at strengthening aquaculture literacy outcomes?"*
- Integrate the "diverse audiences" focus into the community engagement evaluation question (#2).
- Analyze partnership data across cohorts to identify shared characteristics of successful collaboration (e.g., early co-planning, role clarity, mutual benefit, and community venue access).
- Apply these findings to refine proposal guidance, reviewer rubrics, and/or learning tools that help grantees design stronger partnerships.

Outcome: An evaluation framework that highlights how collaboration drives impact, informing stronger partnerships and sustained impact.

Leah Biery (Tampa Bay Watch), Andrew Richard (NOAA), and Harmony Dawson (Tampa Bay Watch) pose for a photo with the completed "From Hatchery to Habitat" exhibit at the Tampa Bay Watch Discovery Center in St. Petersburg, FL.
Photo credit: Tampa Bay Watch

3. Refine the Evaluation Framework for Community Engagement

Grantee data shows that aquaculture literacy grows when programs are inclusive, community-rooted, and accessible. Refocusing the community engagement question will help eeBLUE capture what works in both reaching and retaining diverse audiences.

> Goal: Use grantee data to identify which engagement strategies most effectively involve diverse audiences in aquaculture literacy learning.

Actions:

- Revise the engagement evaluation question to: *"What community engagement strategies are most effective at engaging diverse audiences in aquaculture literacy discussions?"*
- Synthesize grantee examples to define best practices for community engagement, including inclusion, accessibility, and culturally relevant outreach.
- Provide sample templates or mini-guides for planning audience-specific engagement.
- Encourage proposals that incorporate language access, flexible scheduling, and local partnerships.

Outcome: Clearer guidance for inclusive engagement that reflects how grantees successfully connect aquaculture literacy to diverse communities and/or audiences.

Tampa Bay Watch cherishes how serving delicious, locally grown aquaculture products at their events fosters a deeper connection between guests, the Tampa Bay ecosystem, and each other. Photo credit: Beth Reynolds

4. Plan for Producer Availability and Seasonal Realities

Farmer/producer availability shapes project logistics and success. Proactive planning can reduce cancellations and ensure that authentic industry voices remain an important part of the aquaculture learning experience.

> Goal: Support reliable producer participation through early scheduling and flexible representation models.

Actions:

- Ask teams to outline strategies for producer scheduling and backup participation (e.g., proxy roles like chefs or distributors).
- Encourage cross training and shared stories to help maintain program continuity if primary partners are unavailable.
- Encourage grantees to include producer time and travel stipends in their project budgets to help producers offset their project-related impacts.

Outcome: Stronger participation from aquaculture producers and smoother project implementation across seasonal demands.

Rows of floating oyster cages in an aquaculture farm. Photo credit: South Carolina Aquarium

5. Advance Inclusion Through Strategic Design

Inclusive design remains the foundation of effective public engagement. Projects that integrated inclusion and accessibility from the start reached broader and more diverse audiences.

> Goal: Make inclusion a visible, measurable element of project design.

Actions:

- Maintain inclusion as a core selection and reporting criterion.
- Encourage stipends or budget flexibility to support inclusive practices, such as language translation, accessibility, transportation, and childcare.
- Provide training or resources on audience insight and access mapping to help grantees identify and respond to participation barriers early.
- Encourage partnerships with trusted connectors such as schools, libraries, cultural centers, and faith organizations, especially to help projects meet audiences "where they are."

Outcome: Aquaculture literacy reflects and reaches the diversity of the communities it serves or needs to serve.

Teen Conservation Crew mates excitedly watch a classmate try an oyster. Photo credit: South Carolina Aquarium

6. Prioritize Continuity and Scalability

Projects with recurring components, such as traveling exhibits, festivals, tasting kits, media, or educator toolkits, generated the most sustained engagement beyond the grant term.

> Goal: Award project designs that are adaptable, replicable, reusable, and scalable.

Actions:

- Introduce continuation or expansion micro-grants for past grantees or proven models.
- Score new proposals on their potential for adaptation in new regions or audiences.
- Encourage modular resources (lesson packs, pop-up exhibits, tasting kits) and repository-ready digital files (video clips, photos, soundbites that other grantees can use).

Outcome: Local innovations become reusable assets across the eeBLUE network.

At a Tampa Bay Watch event, menu items such as fresh Florida oysters and sea purslane serve as tasty reminders of the joy and economic benefits that come from caring for our waters. Photo credit: Beth Reynolds

7. Elevate Storytelling and Humanized Communication

Authentic stories from farmers, chefs, educators, and scientists most successfully built public trust and understanding of aquaculture.

> Goal: Grantees embed storytelling as a design element, not as a by-product.

Actions:

- Ask proposals to include a brief storytelling plan specifying who will tell the story, through what format, and how it will be shared.
- Encourage short-form media or story-exchange activities that feature producers, chefs, and educators as co-narrators.

Outcome: Humanized narratives connect audiences emotionally to aquaculture and strengthen credibility.

In October 2024, Isaiah Scheffer, shellfish constable for Chilmark, MA, works with the West Tisbury propagation agent to manage a municipal oyster farm in Tisbury Great Pond on Martha's Vineyard. Onlookers were invited to learn about the farm and the town's efforts to grow oysters and seed the ponds. This program was in collaboration with the West Tisbury Free Public Library. Photo credit: Nina Ferry Montanile

Looking Ahead

This evaluation process affirmed that the mini-grants program's existing framework—its three guiding questions on outcomes, engagement, and collaboration—continues to serve the program well, with some modifications. It offers a flexible, narrative-based foundation for reflection and shared learning across a diverse cohort of grantees. Yet as the program matures, new patterns are emerging that suggest an opportunity to look ahead. A growing body of data shows there can be measurable progress in aquaculture literacy (changes in knowledge, attitudes, behaviors, and skills) and a web of partnerships that extend beyond individual projects.

As eeBLUE programs like these evolve from documenting *what happened* to understanding *what difference it made*, the next phase could focus on connecting these stories, lessons, and metrics in ways that reveal the program's collective impact. This moment invites reflection for the partnership: Where do we want to go from here? How might eeBLUE's evaluation framework for aquaculture literacy grants, communications, and support structures continue to evolve—not to replace what works, but to deepen evidence of impact, strengthen collaboration, and sustain the momentum of this growing national learning community?

Opportunity for High-Detail Case Study

A valuable next step could be developing a brief case study that illustrates how high-engagement models work in practice. The merroir project (Tagal/IBSS Corp.) offers an especially strong example. Its rapid, community-driven expansion, cross-sector partnerships, and clear shifts in participant knowledge and perception demonstrate how sensory learning, storytelling, and meeting audiences where they gather can deepen aquaculture literacy at scale. Documenting this project's strategies and lessons learned would provide actionable best practices for future grantees and strengthen eeBLUE's growing evidence base for effective community engagement.

Conclusion

By connecting farmers, chefs, scientists, educators, students, and communities, the 2024 eeBLUE Aquaculture Literacy Mini-Grants Program turned learning into relationship-building. Projects that met people where they were—or brought them to farms and virtual kitchens (physically or vicariously)—allowed participants to see, taste, and/or talk with those behind the aquaculture industry. These encounters deepened understanding, shifted attitudes, and inspired tangible action.

The program's strength lay in its adaptability. Grantees met community needs, leveraged in-kind partnerships, and transformed disruptions into opportunities for innovation. Their flexibility highlights the value of a responsive, results-driven model over one bound by rigid compliance with grant requirements.

Collectively, the 2024 cohort carried aquaculture literacy into everyday life through tastings, exhibits, podcasts, and digital storytelling that will endure well beyond the grant term. They demonstrated that aquaculture literacy is not a message but a movement, linking science and stewardship through shared experience.

eeBLUE's next program evolution depends on sustaining this momentum: scaling proven models, improving data consistency, strengthening cross-sector mentorship, and sharing what works. By continuing to invest in partnerships that connect people to the stories, science, and "flavor of the sea," eeBLUE can nurture a national culture of understanding that makes sustainable aquaculture not only known, but trusted and valued.

In a Hawaiian fishpond or loko'ia, the entire community is often a part of fishpond activities. Photo credit: Lisa Tagal

Appendix A – Final Grantee Details

Grantee	Project Name	City	State	Primary Activities	# of Partners	Grant Award
IBSS Corp	Tide to Table, Farm to Food: Exploring the Merroir of Ocean-Farmed Seafood	Poulsbo	WA	Culinary Demonstrations; Education; Public Engagement	18	$20,000
Maine Aquaculture Innovation Center	Farmer's MAI-Kit	Walpole	ME	Culinary Demonstrations; Public Engagement	11	$19,980
Martha's Vineyard Shellfish Group	Expanding Social License for Private Aquaculture on Martha's Vineyard	Oak Bluffs	MA	Education; Public Engagement	3	$19,223
Maryland Sea Grant	Aquaculture in Agriculture	College Park	MD	Education; Professional Development	7	$10,433
North Carolina Sea Grant	Advancing Shellfish Mariculture Literacy	Raleigh	NC	Education; Exhibit; Professional Development	39	$19,994
Saltwater Classroom	Empowering Ocean Stewards: Restorative Aquaculture and Inclusive Oyster Farming Education	South Portland	ME	Education	5	$18,790
South Carolina Aquarium	Increasing Oyster Aquaculture Awareness	Charleston	SC	Education; Public Engagement	2	$17,190
Tampa Bay Watch Discovery Center	From Hatchery to Habitat: How Conservation Aquaculture Benefits the Bay	St. Petersburg	FL	Exhibit	5	$20,000
University of New Hampshire	Developing and Piloting an Aquaculture Podcast to Enhance Aquaculture Literacy in the Northeast	Durham	NH	Education	2	$19,774
				TOTAL	**92**	**$165,384**

Activity Definitions

- **Education** - Structured teaching or learning experiences that build understanding of aquaculture practices through lessons, workshops, resources, or curricula.
- **Public Engagement** - Nonformal community outreach that raises awareness or sparks curiosity about aquaculture through events or media.
- **Culinary Demonstrations** - Food-based learning using cooking or tasting to connect audiences with aquaculture and sustainable seafood.
- **Professional Development** - Training for educators or professionals to strengthen aquaculture teaching or career skills.
- **Exhibit** - Physical or digital displays that interpret aquaculture concepts for self-guided audiences.

Appendix B – Mini-Grants Logic Model

Need: Gap in public aquaculture literacy: many K-12 students, educators, higher-education groups, community members, and the general public lack direct, experiential access to sustainable aquaculture education, resulting in limited knowledge, persistent skepticism, and missed opportunities to recognize aquaculture's contributions to food security, jobs, habitat restoration, and coastal/community resilience ("Blue Economy").

Inputs	Activities	Outputs	Immediate Outcomes 0-12 months	Sustained Outcomes 6-12+ months	Long-Term Impacts Untracked
Mini-Grant Funding • $10,433-$20,000 per project (9 projects funded July 1, 2024 to June 30, 2025) **Grantees** • Staff time, knowledge, expertise • Institutional partnerships and outreach networks • Institutional operational resources and infrastructure **Cross-Sector Partnerships**	**Experiential Learning Events** • Farm and hatchery tours • Live oyster shucking and seafood tasting • Chef/farmer cooking demonstrations • Festival and pop-up education booths • Classroom aquaculture lessons and experiences • Culinary competitions **Education Development**	**Audience Reach** • Direct, in person and virtual • Indirect, in person and virtual **Durable Educational Assets** • 10+ lesson plans • "Merroir" culinary curriculum • 3 mini-documentaries • 3 virtual field trip videos • 8 polished podcast episodes • 7-panel traveling	**Knowledge Gains** • Identify aquaculture as part of a sustainable food system • Learned "merroir" - how environment shapes flavor • Recognize ecological benefits (water filtration, habitat) • Identify aquaculture-related career paths and CTE links **Attitude and Perception Shifts** • From skepticism to curiosity and trust in	**Community and Industry Benefits** • Increased "social license" for aquaculture (public acceptance and support) • Strengthened visibility, market access, and reputation for producers • Local restaurants feature local aquaculture products and stories • Youth and educators viewing aquaculture as viable career	**Informed Public Support** • Aquaculture recognized as integral to sustainable, community-rooted food systems • Broader consumer confidence in aquaculture products • Greater inclusion of aquaculture in marine education and outreach efforts **Environmental and Economic Resilience**

Need: Gap in public aquaculture literacy: many K-12 students, educators, higher-education groups, community members, and the general public lack direct, experiential access to sustainable aquaculture education, resulting in limited knowledge, persistent skepticism, and missed opportunities to recognize aquaculture's contributions to food security, jobs, habitat restoration, and coastal/community resilience ("Blue Economy").

Inputs	Activities	Outputs	Immediate Outcomes 0-12 months	Sustained Outcomes 6-12+ months	Long-Term Impacts Untracked
73+ cross sector collaborators • Educators (K-12, informal, CTE teachers) • Aquaculture producers (oyster, mussel, kelp, salmon) • Seafood distributors • Chefs and culinary schools • Scientists and Policy Resources (NOAA, Sea Grant, university researchers) • Community public and private venues (libraries, aquariums, nonprofits, restaurants, businesses)	• Curricula and lesson plans • Educator resources and planning guides • Educator workshops and professional development sessions **Storytelling and Media** • Interviews and panels with farmers, chefs, and scientists • Filmed on-farm footage and cooking demonstrations • Recorded and edited podcast episodes • Designed and printed exhibits and recipe cards	education exhibit (x 3 regional sets) • 1 permanent exhibit • *Aquaculture in Agriculture* system planning guide • Tasting kits and recipe cards with QR links to resources **Partnerships** • 73 unique partners documented, including existing or emergent	aquaculture products • From "industrial" to "local, artisanal, and heritage-based" • Increased pride in regional aquaculture identity • Reduced stigma around consuming farmed species **Skill Development** • Hands-on: shucking, filleting, cooking seafood products • Pedagogical: teaching aquaculture via standards-aligned lessons • Technical: setting up and operating classroom	pathways **Program Sustainability** • 5+ projects continuing beyond grant term (recurring events, new funding) • Durable assets reused • Emerging regional aquaculture literacy networks • Growing repository of shareable aquaculture literacy resources	• Expanded adoption of sustainable aquaculture practices supports biodiversity, coastal restoration, and food security • Education-driven demand and workforce awareness bolster the United States "Blue Economy" **Systemic Influence** • Educators, partners, and agencies integrate aquaculture literacy into ongoing programs and policy frameworks • eeBLUE and partners recognized as national leaders advancing ocean

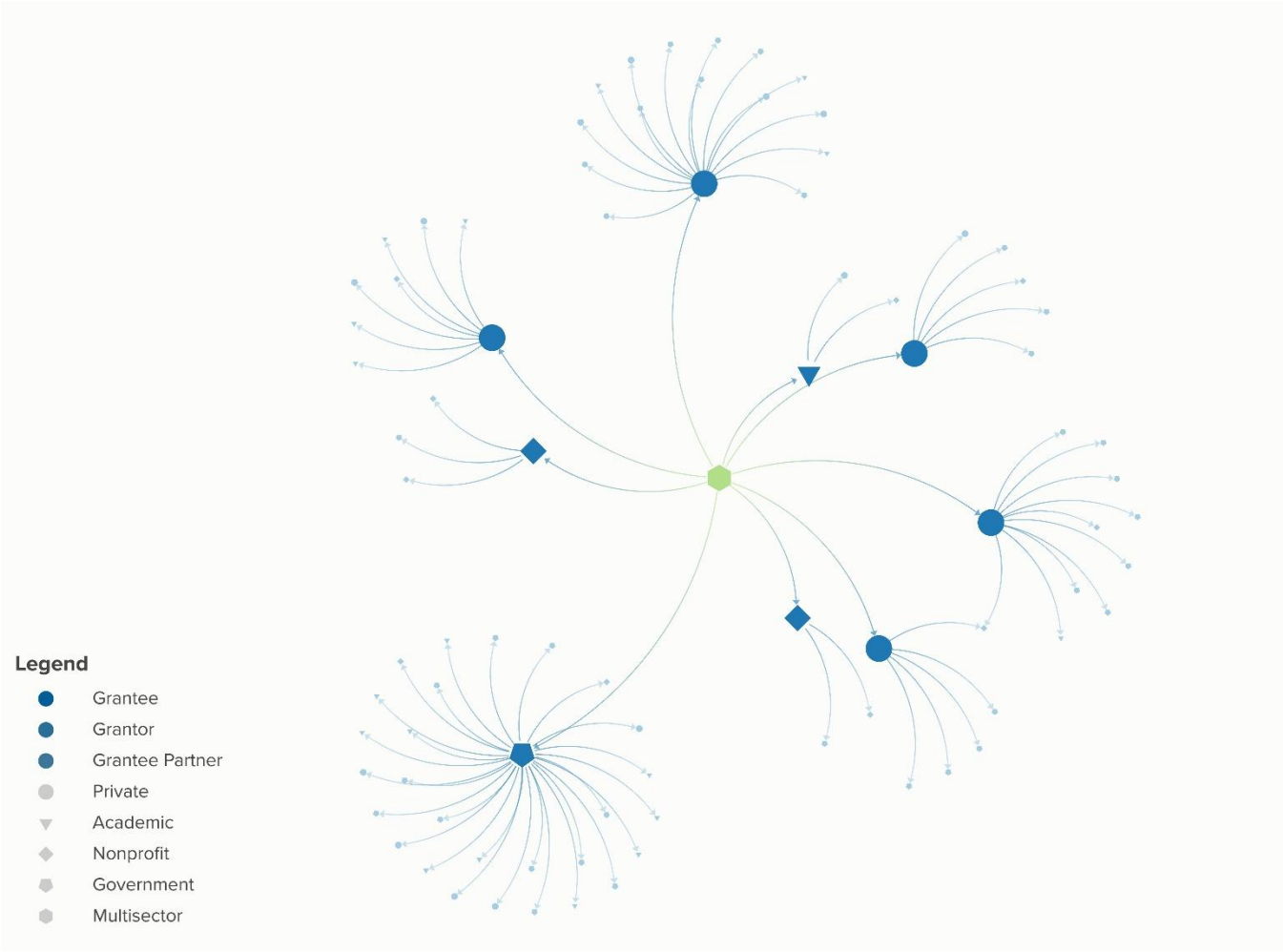
Need: Gap in public aquaculture literacy: many K-12 students, educators, higher-education groups, community members, and the general public lack direct, experiential access to sustainable aquaculture education, resulting in limited knowledge, persistent skepticism, and missed opportunities to recognize aquaculture's contributions to food security, jobs, habitat restoration, and coastal/community resilience ("Blue Economy").					
Inputs	**Activities**	**Outputs**	**Immediate Outcomes** 0-12 months	**Sustained Outcomes** 6-12+ months	**Long-Term Impacts** Untracked
contributing: • Staff time and expertise (event facilitation, curriculum design, scientific review, local knowledge) • In-kind products (seafood donations, farm access, venue use, tasting kits) • Consultation and co-creation (storytelling, recipe development, media production) • Supplemental funding or resources (event sponsorship, marketing, equipment) • Audience access and outreach (students,	• Built virtual field trips and field trip content • Social media campaigns **Educator Capacity Building** • Professional development workshops and trainings • Developed standards-aligned lesson plans • Gathered stakeholder and teacher feedback via interviews and pilots **Inclusive and Accessible Outreach** • Bilingual materials		aquaculture systems • Design: creating sensory and culturally relevant learning • Digital: producing and sharing storytelling content **Behavior Change** • Educators integrate aquaculture lessons into curricula • Chefs and culinary students select farmed species for menus or competitions • Consumers seek out sustainable local aquaculture products • Repeat attendance and word-of-mouth		literacy through cross-sector collaboration

Need: Gap in public aquaculture literacy: many K-12 students, educators, higher-education groups, community members, and the general public lack direct, experiential access to sustainable aquaculture education, resulting in limited knowledge, persistent skepticism, and missed opportunities to recognize aquaculture's contributions to food security, jobs, habitat restoration, and coastal/community resilience ("Blue Economy").					
Inputs	**Activities**	**Outputs**	**Immediate Outcomes** 0-12 months	**Sustained Outcomes** 6-12+ months	**Long-Term Impacts** Untracked
families, professional networks, public) **eeBLUE Program Infrastructure** • NOAA and NAAEE partnership and aquaculture literacy resources • Quarterly virtual support check-ins • Standardized Reporting Forms (mid-year and final) • Virtual grantee symposium with reflection session • Blueblossom Consulting	(English/Spanish) • Free or subsidized participation fees • Hybrid in-person and virtual events • Family-friendly timing and activities • Collaboration with schools, libraries, cultural centers, and nonprofits • Targeted outreach to inland, rural, and underrepresented communities		event growth		

Need: Gap in public aquaculture literacy: many K-12 students, educators, higher-education groups, community members, and the general public lack direct, experiential access to sustainable aquaculture education, resulting in limited knowledge, persistent skepticism, and missed opportunities to recognize aquaculture's contributions to food security, jobs, habitat restoration, and coastal/community resilience ("Blue Economy").					
Inputs	**Activities**	**Outputs**	**Immediate Outcomes** 0-12 months	**Sustained Outcomes** 6-12+ months	**Long-Term Impacts** Untracked
evaluation support					

Appendix C – eeBLUE Network Map

Explore the interactive eeBLUE Network Map directly in your web browser.



The screenshot above illustrates a network map outlining the core grantees and structural relationships of this program. A full-text version of this map is detailed in the table below. You can also interact with the live, dynamic map online.

Organization	Type	Partner To	Direct Connections	Sector
1-800-Bizops	Partner	Saltwater Classroom	1	Private
American Culinary Federation (ACF) Washington State	Partner	IBSS Corp.	1	Nonprofit

Chef Association (WSCA)				
Aquaculture Information Exchange (AIE)	Partner	IBSS Corp.	1	Private
Atlantic Sea Farms	Partner	Maine Aquaculture Innovation Center	1	Private
Austin Mills Films	Partner	Saltwater Classroom	1	Private
Bates Technical College	Partner	IBSS Corp.	1	Academic
Bangs Island Mussels	Partner	Maine Aquaculture Innovation Center	1	Private
Blue Ocean Mariculture	Partner	IBSS Corp.	1	Private
Bonney Lake High School Culinary Arts	Partner	IBSS Corp.	1	Academic
Calusa Oyster Company	Partner	Tampa Bay Watch	1	Private
Canton Central School	Partner	Maryland Sea Grant	1	Academic
Carolina Beach Oyster Co	Partner	NC Sea Grant	1	Private
Carroll County Public Schools	Partner	Maryland Sea Grant	1	Academic

Carteret Community College	Partner	NC Sea Grant	1	Academic
Charleston Oyster Farm	Partner	South Carolina Aquarium	1	Private
Coastal Carolina River Watch	Partner	NC Sea Grant	1	Nonprofit
Coastal Eco Adventures	Partner	NC Sea Grant	1	Private
Cooke Aquaculture	Partner	Maine Aquaculture Innovation Center	1	Private
Core Sound Waterfowl Museum	Partner	NC Sea Grant	1	Nonprofit
Cortez Restaurant	Partner	NC Sea Grant	1	Private
Croatan High School	Partner	NC Sea Grant	1	Academic
Down East Mariculture Supply	Partner	NC Sea Grant	1	Private
Durham Public Schools	Partner	NC Sea Grant	1	Academic
Earp's Seafood Market	Partner	NC Sea Grant	1	Private
Fishnet	Partner	Maryland Sea Grant	1	Nonprofit
Funky Fins	Partner	NC Sea Grant	1	Private
Ghost Fleet Oyster Co.	Partner	NC Sea Grant	1	Private
Guilford County Schools	Partner	NC Sea Grant	1	Academic

Harbor Fish	Partner	Maine Aquaculture Innovation Center	1	Private
Havelock High School	Partner	NC Sea Grant	1	Academic
Herond Pond Montessori School	Partner	NC Sea Grant	1	Academic
Hold Fast Oyster Co.	Partner	NC Sea Grant	1	Private
Honeysuckle Oyster Farm	Partner	Martha's Vineyard Shellfish Group	1	Private
IBSS Corp.	Grantee	Aquaculture Information Exchange (AIE); American Culinary Federation (ACF) Washington State Chef Association (WSCA); Bates Technical College; Blue Ocean Mariculture; Bonney Lake High School Culinary Arts; Jamestown Seafood; Johnson & Gunstone; Kona Sea Salt; MaST Center Aquarium; Ocean Era; Olympic College; Puget Sound Restoration Fund; SEA Discovery Center; Taylor Shellfish; Town & Country Markets	16	Private
Jamestown Seafood	Partner	IBSS Corp.	1	Private
Johnson & Gunstone	Partner	IBSS Corp.	1	Private
Kona Sea Salt	Partner	IBSS Corp.	1	Private
Lenoir County Public Schools	Partner	NC Sea Grant	1	Academic
Locals Seafood	Partner	NC Sea Grant	1	Private
MaST Center Aquarium	Partner	IBSS Corp.	1	Nonprofit

Mackay High School	Partner	Maryland Sea Grant	1	Academic
Maine Aquaculture Innovation Center	Grantee	Atlantic Sea Farms; Bangs Island Mussels; Cooke Aquaculture; Harbor Fish; Maine Sea Grant; NOAA Milford; Pemequid Oyster Co.; Spartan Sea Farms; University of Maine; Waldostone Farm	10	Nonprofit
Maine Sea Grant	Partner	Maine Aquaculture Innovation Center; Saltwater Classroom	2	Government
Maryland Sea Grant	Grantee	Canton Central School; Carroll County Public Schools; Fishnet; The National Council for Agricultural Education; University of Maryland Extension; Wisconsin Sea Grant; Mackay High School	7	Government
MOTE Aquaculture Research Park	Partner	Tampa Bay Watch	1	Nonprofit
Martha's Vineyard Shellfish Group	Grantee	Honeysuckle Oyster Farm; NOAA (Zach Gordon - Liaison); West Tisbury Public Library	3	Nonprofit
My Lord Honey Seafood	Partner	NC Sea Grant	1	Private
NC Aquarium at Fort Fisher	Partner	NC Sea Grant	1	Government
NC Aquarium on Roanoke Island	Partner	NC Sea Grant	1	Government
NC Coastal Federation	Partner	NC Sea Grant	1	Nonprofit

NC Sea Grant	Grantee	Carolina Beach Oyster Co; Carteret Community College; Coastal Carolina River Watch; Coastal Eco Adventures; Core Sound Waterfowl Museum; Cortez Restaurant; Croatan High School; Down East Mariculture Supply; Durham Public Schools; Earp's Seafood Market; Funky Fins; Ghost Fleet Oyster Co.; Guilford County Schools; Havelock High School; Herond Pond Montessori School; Hold Fast Oyster Co.; Lenoir County Public Schools; Locals Seafood; My Lord Honey Seafood; NC Aquarium at Fort Fisher; NC Aquarium on Roanoke Island; NC Coastal Federation; NC Shellfish Growers Association; NC Wildlife Federation; Oysters Carolina; Wake County Schools; UNC Pembroke; Winston Salem Forsth County Schools	28	Government
NC Shellfish Growers Association	Partner	NC Sea Grant	1	Nonprofit
NC Wildlife Federation	Partner	NC Sea Grant	1	Nonprofit
Nauti Sisters Sea Farm	Partner	Saltwater Classroom	1	Private
New Hampshire Sea Grant	Partner	University of New Hampshire	1	Government
NOAA Shellfish Aquaculture Liaison	Partner	Martha's Vineyard Shellfish Group	1	Government
NOAA Fisheries – Southeast Region	Partner	Tampa Bay Watch	1	Government
NOAA Milford	Partner	Maine Aquaculture Innovation Center	1	Government
Ocean Era	Partner	IBSS Corp.	1	Private
Olympic College	Partner	IBSS Corp.	1	Academic

Oysters Carolina	Partner	NC Sea Grant	1	Private
Parent Studio	Partner	Saltwater Classroom	1	Private
Pemequid Oyster Co.	Partner	Maine Aquaculture Innovation Center	1	Private
Pine Island Redfish	Partner	Tampa Bay Watch	1	Private
Puget Sound Restoration Fund	Partner	IBSS Corp.	1	Nonprofit
SEA Discovery Center	Partner	IBSS Corp.	1	Nonprofit
Saltwater Classroom	Grantee	1-800-Bizops; Austin Mills Films; Maine Sea Grant; Nauti Sisters Sea Farm; Parent Studio	5	Nonprofit
Seacoast Science Center	Partner	University of New Hampshire	1	Nonprofit
South Carolina Aquarium	Grantee	Charleston Oyster Farm; South Carolina Sea Grant Consortium	2	Nonprofit
South Carolina Sea Grant Consortium	Partner	South Carolina Aquarium	1	Government
Spartan Sea Farms	Partner	Maine Aquaculture Innovation Center	1	Private
Tampa Bay Watch	Grantee	Calusa Oyster Company; MOTE Aquaculture Research Park; NOAA Fisheries – Southeast Regional Aquaculture Coordinator; Pine Island Redfish; Two Docks Shellfish	5	Nonprofit
Taylor Shellfish	Partner	IBSS Corp.	1	Private
The National Council for	Partner	Maryland Sea Grant	1	Nonprofit

Agricultural Education				
Town & Country Markets	Partner	IBSS Corp.	1	Private
Two Docks Shellfish	Partner	Tampa Bay Watch	1	Private
UNC Pembroke	Partner	NC Sea Grant	1	Academic
University of Maine	Partner	Maine Aquaculture Innovation Center	1	Academic
University of Maryland Extension	Partner	Maryland Sea Grant	1	Academic
University of New Hampshire	Grantee	New Hampshire Sea Grant; Seacoast Science Center	2	Academic
Wake County Schools	Partner	NC Sea Grant	1	Academic
Waldostone Farm	Partner	Maine Aquaculture Innovation Center	1	Private
West Tisbury Public Library	Partner	Martha's Vineyard Shellfish Group	1	Government
Wisconsin Sea Grant	Partner	Maryland Sea Grant	1	Government
Winston Salem Forsth County Schools	Partner	NC Sea Grant	1	Academic