

Alliance for Maine's Marine Economy

2018 Highlights

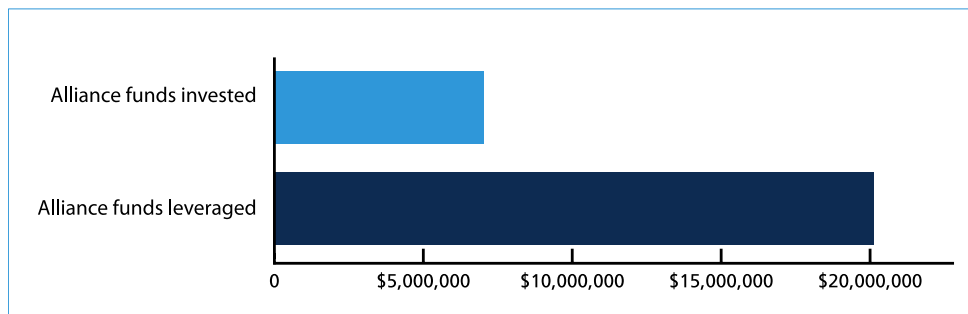
Seafood has sustained Maine's coastal communities for centuries, and today our seafood industry has several competitive advantages, including high quality products, consumer affinity for our unique Maine brand, and proximity to distribution outlets and population centers (1). Great opportunities exist in value-added products, supply chain efficiencies, and the Maine culture of ingenuity and hard work.

The Alliance for Maine's Marine Economy (Alliance) is a network of Maine-based organizations dedicated to a vibrant economy for Maine. Our mission is to ensure that the Maine seafood, fishing, and aquaculture industries, together with the natural and innovation ecosystems on which they depend, benefit Maine people and communities.

With its diversity of industry, educational institutions and nonprofit members, the Alliance is positioned to take advantage of the significant growth potential in Maine's seafood industry. With a \$14-plus million initiative (\$7 million in public funds, administered by Maine Technology Institute, plus more than \$7 million in initial private investments), the Alliance is committed to ensuring the success of Maine's seafood industry, including sustaining and growing jobs.

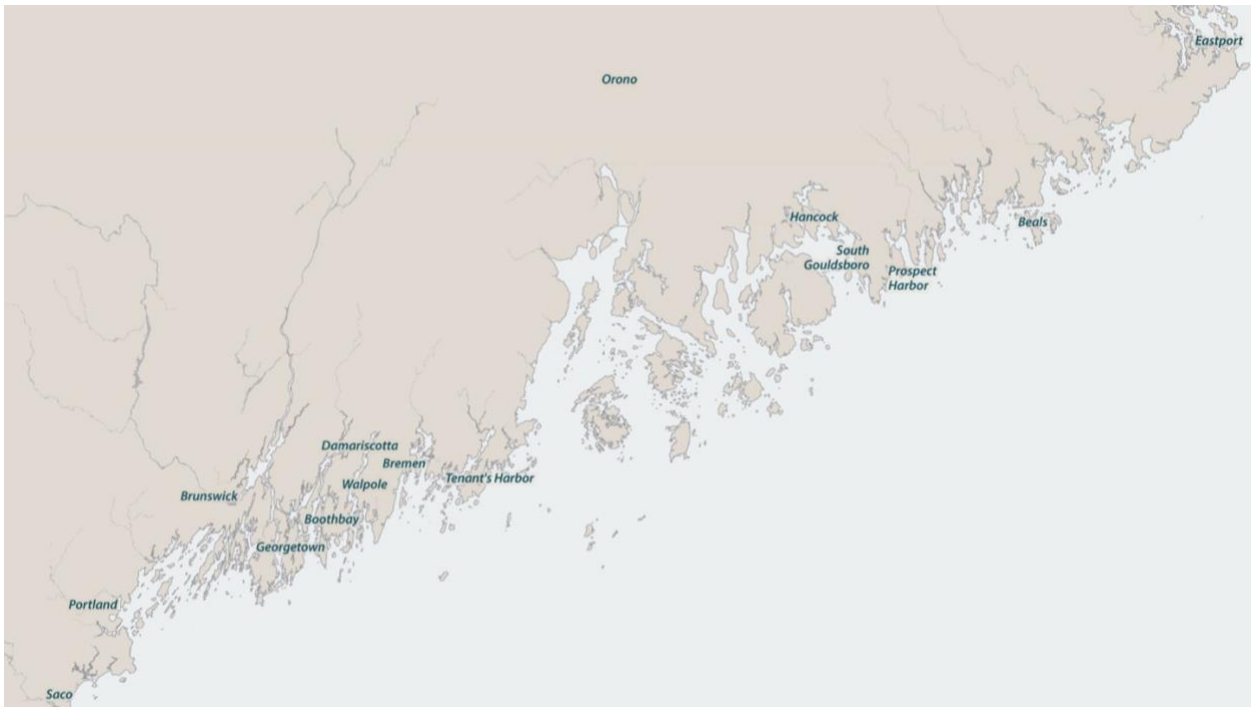


The Alliance is enabling new technologies, like submersible mussel rafts and growing scallops using Japanese ear-hanging methods, that boost Maine's aquaculture industry. First photo by Kari Paine. Second photo courtesy of Coastal Enterprises, Inc.



Since 2016, the \$7,000,000 Alliance investment has been enhanced by \$20,340,302. Leveraged funds will continue to be tracked and reported.

From Saco to Beals Island, 17 projects enable innovative technologies, essential infrastructure, and collective learning and collaboration that benefit the entire sector.



This map highlights Maine towns that 17 projects that Alliance funding benefited. Projects, locations, and descriptions follow.

Cape Seafood, LLC—Saco

\$150,000 (matched \$182,000) for lobster processing equipment and development of two new products.

Shuck's Maine Lobster, Inc.—Portland

\$400,000 (matched \$3,879,000) for expansion of a lobster processing facility to increase production & jobs.

Coastal Enterprises, Inc.—Brunswick (multiple locations)

\$66,574 (matched \$75,000) to increase the sustainable supply, quality, and diversity of aquacultured scallops.

Georgetown Aquaculture, LLC —Georgetown

\$144,000 (matched \$160,000) for oyster farm start-ups to help fishermen diversify and communities maintain their cultural fishing heritage.

Ready Seafood—Saco

\$400,000 (matched \$3,460,000). Feature story on next page.

Bigelow Laboratory—Boothbay

\$125,000 (matched \$125,000) for nutrient & heavy metal analytical services to support the seaweed industry.

UMaine Darling Marine Center—Walpole

\$650,000 (matched \$2,350,000) for infrastructure improvements enabling applied research, business incubation & new product development.

Mook Sea Farm—Walpole

\$336,000 (matched \$1,807,183) to support creation of a multi-purpose, state of the art oyster facility.

Pemaquid Mussel Farms, LLC—Damariscotta

\$250,000 (matched \$501,000) for submersible mussel raft technology to increase yields.

Breman Lobster Pound

\$100,000 (matched \$100,000). Feature story on next page.

Maine Aquaculture Cooperative—Tenants Harbor

\$33,000 (matched \$33,000) to purchase capital equipment (Japanese technology) to support scallop aquaculture.

UMaine Aquatic Animal Health Laboratory—Orono

\$1,150,000 (matched \$1,950,000) for a new high-level biosafety laboratory to study fish pathogens, a needed service for industry and researchers.

Blue Hill Bay Mussels, LLC—Hancock

\$44,328 (matched \$254,972) for commercialization of remote settlement hatchery technology for rope-grown mussels.

Springtide Seaweed, LLC—South Gouldsboro

\$180,000 (matched \$817,400) for creation of new aquaculture seaweed exchange to expand production, increase jobs, and new product development.

Maine Fair Trade Lobster—Prospect Harbor

\$500,000 (matched \$800,000) for expansion and repurposing of an old sardine plant for lobster processing.

Downeast Institue—Beal

\$2 million (matched \$2 million) Feature story on next page.

Cooke Aquaculture—Eastport

\$500,000 (matched \$1,200,000) for a salmon feed barge to maximize storage and efficient feeding.

Feature story: Blending Maritime Heritage and New Opportunities (Bremen)

\$100,000 (matched \$100,000). The historic Bremen Lobster Pound had been abandoned, and was falling into the Medomak River. Warmer waters, higher feed costs, and the need for major structural repairs had made the facility obsolete. Selectmen and entrepreneur Boe Marsh and local fishermen saw an opportunity to repurpose the pound into an aquaculture venue.

Alliance-supported improvements to the pound expand activities beyond lobster to include research, aquaculture, and seafood processing/distribution. Two refurbished piers now include research space, electricity, and flowing seawater. Marsh's business, Community Shellfish, works with UMaine to study water quality and the effects of growing shellfish inside the pounds, which Marsh describes as "a spa for oysters."

Revamped and repurposed equipment, refrigerated storage, tanks, and loading docks add to the compound's capacity and character. "What was valued at zero dollars by the assessor a few years ago could potentially increase in value by at least \$1 million," said Marsh. So far, six new or expanded jobs have been created, three new products developed, and the business anticipates a 35% annual sales increase. Community Shellfish is home to 20 employees, 24 lobster crews, six tuna fishermen, five menhaden fishermen, and three new aquaculturists.

Feature story: Ensuring a Vibrant Lobster Industry, in Maine and for Maine (Saco)

\$400,000 (matched \$3,460,000). Lobster is Maine's most valuable fishery, with nearly \$434 million in landings in 2017. This value translates to more than 10,000 jobs, and an estimated \$1 billion in economic impact (2). Today, the lobster industry is looking for new ways to add value to the state's signature product.

Ready Seafood is pursuing innovation and technology in the lobster value chain at their new processing plant in Saco. Alliance funds supported high pressure processing technology that increases meat yield, enables the production of raw lobster meat, and triples the shelf-life of fresh lobster. This technology enables Ready Seafood to pursue expanded markets for their highest value product. "This machine will be the cornerstone of our new facility, enabling us to process more lobster here in Maine, create new lobster products and create new full-time year round jobs," said co-owner Brendan Ready.

Ready Seafood is integrating research into its business model, working with UMaine to improve conditions for lobsters stored at their facility and also funding in-the-water studies of lobsters to improve population projections of Maine's most valuable marine product. This unique industry-science collaboration will enhance understanding of the distribution and abundance of lobsters into the future.

Feature story: Opportunities for Innovation in Downeast Maine

\$2 million (matched \$2 million). The Alliance investment enabled expansion and improvements to the Downeast Institute (DEI), creating a research "hub" for the region. Funds were used to purchase equipment and build capacity of the only marine research facility and business incubation space of its kind east of Bar Harbor. DEI serves as the Marine Science Field Station for the University of Maine at Machias, providing diverse *opportunities* for students, researchers, and industry members. "Scientists and entrepreneurs find that DEI has a tremendous, relatively undeveloped coastline rich with research and development opportunities. Our new facility will leverage our location to bring talent, ideas and investment to the region," said Dianne Tilton, DEI's Executive Director. So far this project has facilitated five new research projects, collaborated with seven businesses, and introduced four new candidates for shellfish aquaculture: Arctic surf clams, Atlantic surf clams, razor clams, and a gold variety of blue mussels. Trials for European oyster production sites are being conducted in cooperation with A.C. Inc. in Beals.

The Alliance is tracking the economic and social outcomes of these investments, including the number of jobs created or retained; the number of newly cultured species; new production sites; new collaborations, contracts, and research projects; and new technologies, services and products developed. Additionally, we are tracking increases in the supply and quality of existing products, and expanded seafood-related revenues. As knowledge grows in the sector, Alliance members will continue to share their experiences with new or expanded infrastructure and technologies, in order to facilitate learning and adoption by others in the industry.

An invitation to all

To learn more about the Alliance, visit umaine.edu/alliance, or contact Keri Kaczor, Alliance Coordinator, Maine Sea Grant, keri.kaczor@maine.edu 207.832.0343.



Blue Hill Bay Mussels, LLC and the Downeast Institute are collaborating on new hatchery technologies to better control settlement of mussels on ropes. Photos courtesy of DEI.



The new Maine Seaweed Exchange was created to support the state's nascent seaweed aquaculture industry. Photo courtesy of Springtide Seaweed, LLC



Automated salmon feeding via a barge increases efficiencies in feed storage and management. Photo courtesy of Cooke Aquaculture

OUR PARTNERS

The University of Maine System, including the following UMaine entities: Darling Marine Center, Maine Sea Grant, School of Marine Sciences, Aquaculture Research Institute, Cooperative Extension, School of Food and Agriculture, Lobster Institute, Center for Cooperative Aquaculture Research, Office of Innovation and Economic Development, and the University of Maine at Machias.

Bigelow Laboratory for Ocean Sciences	Luke's Lobster/Cape Seafood	Maine Lobstermen's Association
Blue Hill Bay Mussels, LLC	Maine Aquaculture Association	Maine Lobster Dealers' Association
Coastal Enterprises, Inc.	Maine Aquaculture Cooperative	Maine Technology Institute
Community Shellfish, LLC	Maine Aquaculture Innovation Center	Mook Sea Farm
Cooke Aquaculture	Maine Center for Coastal Fisheries	Pemaquid Mussel Farms, LLC
Downeast Institute	Maine Coast Fishermen's Association	Ready Seafood/Maine Seafood Ventures
Georgetown Aquaculture, LLC	Maine Department of Marine Resources	University of New England
Gulf of Maine Research Institute		
Island Institute		

NOTES:

The Hale Group and the Gulf of Maine Research Institute's 2016 Farmed Shellfish Market Analysis; Aquaculture Research Institute's 2017 Maine Aquaculture Economic Impact Report.

Donihue, Michael 2017. Lobsters to Dollars: What's lobster really worth to Maine? Department of Economics. [Colby College.colby.edu/economics/lobsters/ForumPresentation20180302.pdf](http://ColbyCollege.colby.edu/economics/lobsters/ForumPresentation20180302.pdf); Waypoints 2018. Island Institute.



The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Sarah E. Harebo, Director of Equal Opportunity, 101 North Stevens Hall, University of Maine, Orono, ME 04469-5754, 207.581.1226, TTY 711 (Maine Relay System).