



ADVANCING SUSTAINABLE AQUACULTURE THROUGH RESEARCH AND OUTREACH

Sea Grant provides funding, technical assistance and professional development to support a sustainable U.S. aquaculture industry.



From fiscal years 2018 to 2022, Sea Grant's average annual federal investment of **\$16.3 million** in aquaculture resulted in a yearly average* of:

\$69.6 MILLION
in economic impact

572 BUSINESSES

1,147 JOBS
in aquaculture

71 PEER-REVIEWED ARTICLES
in aquaculture journals

Sea Grant work is integral to aquaculture growth across the U.S.

Sea Grant invests in the development of sustainable marine and Great Lakes aquaculture to help coastal communities maintain a safe and sustainable local seafood supply. Sea Grant's investment in aquaculture focuses on research and technology transfer, often through one-on-one interactions with extension agents,

to support and expand America's aquaculture industry.



Midwest aquaculture producers learn critical on-farm fish health assessments skills

In 2022, Illinois-Indiana Sea Grant developed and hosted hands-on workshops to help Midwest aquaculture producers assess the health of their fish, potentially preventing an outbreak of disease and catastrophic fish losses. Participants reported that they were likely to use information they learned at the event in their work.

Game-changing technology developed to jump-start the U.S. offshore aquaculture industry

MIT Sea Grant-Funded researchers developed a new cutting-edge ocean environment predictive tool and hydrodynamics model that enables overcoming a sizable barrier that is currently impeding the growth of the US offshore aquaculture industry: the high costs and reliability associated with ocean-durable farming facilities and operations.

119

Sea Grant professionals working on aquaculture full- or part-time around the country

(does not include many partners)

400+

aquaculture projects supported by Sea Grant from 2018-2022

Released April 2024

*Metrics are direct results of Sea Grant work between Feb. 1, 2018, and Jan. 31, 2023, as reported by Sea Grant programs through June 2023. Businesses and jobs refers to businesses and jobs created or sustained during this time period.

More information at seagrant.noaa.gov/aquaculture





NATIONAL AQUACULTURE PORTFOLIO ACTIVITIES AND OPPORTUNITIES

Sea Grant's 5-Year Aquaculture Investment Plan

Year-over-year, Sea Grant is committed to supporting aquaculture development across the nation, as a means of enhancing economic resilience and nutritional security in American communities. Sea Grant recently developed a five-year (2024-2028) Aquaculture Investment Plan to guide its efforts in supporting aquaculture research, extension and education.

[View the Investment Plan](#) 

2024

Funding opportunities are underway for 2024

In 2024, Sea Grant will advance research to enhance the production of one or more life stages of aquaculture species, with the overall goal of improving profitability of commercial coastal, marine or Great Lakes region aquaculture businesses. Sea Grant will also support knowledge exchange through aquaculture technologies and education travel grants and expand aquaculture literacy through the creation of regional Collaboratives.



2023

Aquaculture Economics & Markets Collaborative

\$1M in federal grants over two years to Virginia Sea Grant to advance aquaculture economics and marketing research and extension services through a Collaborative

[▶ Learn more](#)

Aquaculture Technologies & Education Awards

6 one-year projects funded with \$289k in federal grants to support domestic or international travel activities of aquaculture researchers, extension personnel and industry members to facilitate knowledge exchange

[▶ See the list of projects](#)

Aquaculture Supplemental Funding

11 eligible Sea Grant programs received a total of \$1.7M in federal grants directed at aquaculture research, extension, education or communication activities

[▶ See the list of projects](#)

Aquaculture Workforce Development Projects

7 projects funded with \$2.4M in federal grants to support aquaculture workforce projects in California, Connecticut, Hawai'i, American Samoa, Guam, Massachusetts, New Jersey, South Carolina and Washington

[▶ See the list of projects](#)

The Aquaculture Information Exchange

The Aquaculture Information Exchange (AIE) is an online community for individuals with interests in all aspects of U.S. aquaculture and related topics. It serves as a communications platform for facilitated discussions and networking to solve challenges and share developments. The AIE represents a joint effort between NOAA Sea Grant, NOAA Fisheries Office of Aquaculture, USDA's Agricultural Research Service, USDA's National Institute of Food and Agriculture, and Virginia Sea Grant.

[Join the online community](#) 



A Maryland Sea Grant Extension Specialist examines an oyster from an aquaculture tank. Credit: Maryland Sea Grant

2022

Early Stage Propagation Strategies

9 projects funded with \$5.1M in federal grants to develop and refine early stage propagation strategies for aquaculture species and extend the results of work to U.S. coastal and Great Lakes aquaculture businesses

▶ See the list of projects

Aquaculture Supplemental Funding

17 eligible Sea Grant programs received a total of \$2.6M in federal grants directed at aquaculture research, extension, education or communication activities

▶ See the list of projects

Marine Finfish Juvenile Production Technologies

4 projects funded with \$3.3M in federal grants to advance marine finfish juvenile production technologies for aquaculture and transfer the results of this work to U.S. coastal and Great Lakes aquaculture businesses

▶ See the list of projects

Advanced Aquaculture Collaboratives Continued

11 projects funded for an additional two years with \$4.7M in federal grants to accelerate the development of specific aquaculture topics through integrated teams of professionals

▶ See the list of projects

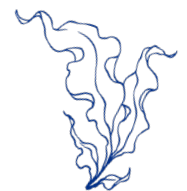
Aquaculture Information Exchange Creation

\$785k in federal grants over four years to Virginia Sea Grant to host the Aquaculture Information Exchange online community in partnership with USDA Regional Aquaculture Centers

▶ Learn more



As part of the eeBLUE Aquaculture Literacy Mini-Grants Program, science teachers from Brunswick High School in Maine explore the Canopy Farms aquaponics facility. Credit: Pamela King



2021

Addressing Economic and Marketing Needs of the U.S. Aquaculture Industry

12 projects funded with \$4.7M in federal grants to advance the understanding of the economics of aquaculture businesses and provide the industry with important market information to aid sustainable growth in the U.S.

▶ See the list of projects

eeBLUE Aquaculture Literacy Mini-Grants Program

10 projects funded collaboratively with \$150k between the North American Association for Environmental Education and NOAA (Office of Education, Fisheries and Sea Grant) that enhance aquaculture literacy

▶ See the list of projects

“Food From the Sea” Careers Program

11 projects funded collaboratively with \$900k between Sea Grant and NOAA’s Office of Sustainable Fisheries for collaborative work with members of seafood industries to identify training needs and develop resources

▶ See the list of projects

National Aquaculture Extension Coordinator

\$600k to fund four years of collaboration between Sea Grant and NOAA’s National Centers for Coastal Ocean Science (NCCOS) to conduct outreach focused on coastal science products developed by NCCOS, marine spatial planning efforts, and workshops on marine aquaculture siting

▶ Learn more

Addressing the Impacts of Multiple Stressors on Shellfish Aquaculture through Research/ Industry Partnerships

4 projects funded collaboratively with \$2.4M between Sea Grant and the NOAA Ocean Acidification Program to address the impacts of multiple stressors on and increase resilience in shellfish aquaculture through research and industry partnerships

▶ See the list of projects

Addressing COVID-19 Impacts to Seafood Resources

13 projects funded with \$2.9M in federal grants to continue/expand efforts to address COVID-19 impacts to seafood resources

▶ See the list of projects

2020

Aquaculture Supplemental Funding

27 eligible Sea Grant programs received a total of \$5.1M in federal grants directed at aquaculture research, extension, education or communication activities

➤ See the list of projects

COVID-19 Rapid Response Funding

\$3.4M in federal funds distributed evenly to all 34 Sea Grant programs to respond to the needs of seafood resource industries of coastal and Great Lakes communities affected by the pandemic

➤ See the list of projects

➤ Relief that Restores storymap



The AquaFort, a 2018 Sea Grant-funded marine aquaculture research project, engages local fishermen in the daily operations of raising steelhead trout, mussels and sugar kelp in a marine aquaculture platform located at the mouth of the Piscataqua River near New Castle, NH. Credit: New Hampshire Sea Grant

2019

Advanced Aquaculture Collaborative Programs - Hubs

11 projects funded with \$12.2M in federal grants to develop integrated teams of professionals focused on accelerating the development of specific aquaculture topics

➤ See the list of projects

Exploring New Aquaculture Opportunities

16 projects funded with \$1.5M in federal grants, focusing on the development of new, and at times higher-risk, topics for which minimal foundation currently exists to inform and focus potential future investments

➤ See the list of projects

Social, Behavioral, and Economic Research Needs in Aquaculture

16 projects funded with \$3.3M in federal grants to address critical gaps in social, behavioral, and economic knowledge as it relates to U.S. aquaculture and the communities impacted and served by it

➤ See the list of projects

2018

Sea Grant National Aquaculture Initiative

22 projects funded with \$11M in federal grants to accelerate U.S. aquaculture research

➤ See the list of projects

Online Resources and Ways to Engage with Sea Grant Aquaculture



National Aquaculture Hubs

Learn about and connect with all 11 Aquaculture Hubs with this collection of web pages.



Aquaculture Research Symposia

Two virtual symposia brought together researchers involved in projects funded through the 2019 competitions. See the presentations of their work and findings online.



Aquaculture Research, Education and Engagement Plan

This plan provides the results of a Sea Grant-supported Great Lakes and marine aquaculture research, education and engagement needs assessment, helping to identify stakeholder needs which are appropriate for Sea Grant investments.



Aquaculture/Seafood Resources Regional Chats

The National Sea Grant Office hosts monthly regional chats to discuss seafood-related topics and updates. Email oar.hq.sg.aquaculture@noaa.gov to join.