SUSTAINABLE FISHERIES & AQUACULTURE

Maryland Sea Grant receives financial support from Congress through the National Sea Grant College Program within the National Oceanic and Atmospheric Administration, as well as, support from the University System of Maryland and other external grants and contracts.

Expanding Maryland's Aquaculture and Fisheries Industries

Maryland Sea Grant has committed significant research, education, and outreach capacity toward sustaining Maryland's seafood industry. We strive to ensure that seafood fishers and farmers remain vibrant, profitable, and follow the latest food safety guidelines, and that the state continues to attract entrepreneurs to expand our seafood economy.

To achieve this, Maryland Sea Grant's core sustainable fishing and aquaculture staff include:

7 fisheries and aquaculture Extension agents who are dedicated to helping the industry in Maryland

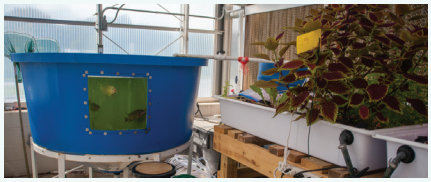
2 educators advancing aquaculture projects in high school programs

1 new National Aquaculture Extension Coordinator working with coastal ocean stakeholders in aquaculture siting and development

Our Work

MDSG's sustainable fishing and aquaculture portfolio encompasses a range of research, education, and extension projects. In collaboration with diverse stakeholders—from fishers and farmers to NGO and regulatory partners—we achieve far-reaching impacts:

MDSG's aquaculture business specialist assisted three new oyster growers in securing $270K in state-subsidized startup loans from the Maryland Agriculture & Resource-Based Industry Development Corporation (MARBIDCO).



MDSG's Aquaculture in Action program installed aquaponics systems in 40 classrooms and taught hundreds of K-12 students the science of raising native yellow perch.

As part of a new multi-institution project, USDA awarded $10 million to expand and continue our Sea Grant-funded recirculating salmon aquaculture work for another five years.

Alongside industry and NGO partners, MDSG trained 25 oyster growers to operate remote setting systems, deploying over 300 million oyster larvae and approximately 17,000 bushels of shell on aquaculture leases in Maryland. Participants praised the project, with 100% of the trainees expanding their businesses after program participation.

MDSG's seafood safety specialist led the Maryland Crabmeat Quality Assurance Program to ensure Maryland crabmeat is food safe, providing twelve companies a benefit of approximately $500K. This faculty member also provided seafood safety training to 26 individuals on seafood handling, processing, packing, storing, transportation, and distribution.

To help the industry adapt to lost sales during the COVID-19 pandemic, MDSG's Extension specialists partnered with The Nature Conservancy and The Pew Charitable Trusts to include Maryland as one of the seven Atlantic coastal states participating in the Supporting Oyster Aquaculture and Restoration (SOAR) program, which purchases oversized (non-market) oysters and distributes them for habitat restoration.

MDSG successfully hosted our first Maryland Law and Policy Fellow in conjunction with the Agriculture Law Education Initiative. The fellow published a legal journal article about the standing requirements to present a protest to a new commercial shellfish aquaculture lease in Maryland and developed a fact sheet and webinar training program on how to transfer a Maryland commercial shellfish aquaculture lease.

MDSG's fisheries economics specialist peer-reviewed models and regulations for the Mid-Atlantic Fishery Management Council and advised the Northeast Fisheries Science Center on several commercial and recreational fisheries that are key to our region.

In collaboration with oyster growers, MDSG received two pilot grants ($20K) to enhance resilience and productivity of oyster aquaculture through hands-on, participatory research that prioritizes the learned experience of farmers.

Funded Research in Aquaculture and Fisheries

In addition to our Extension and education activities, MDSG funds applied research that has the potential to impact coastal policies and management across the state. Here are some of the sustainable fisheries and aquaculture projects that we have funded recently. For more information on these and other projects please visit our website.

Interstate Blue Crab Transportation and the Risk of Introducing Novel Viruses into the Chesapeake Bay Crab Fishery
Eric Schott and Mingli Zhao (fellow), *University of Maryland Center for Environmental Science (UMCES), Institute of Marine and Environmental Technology*

Developing New Oyster Sterilization Technology to Avoid Triploid Summer Mortality
Ten-Tsao Wong, *University of Maryland, Baltimore County*

Advancing Monitoring and Management of Mid-Atlantic Alosine Fishes with eDNA Analysis
Louis Plough, *UMCES, Horn Point Laboratory*

Development of Triploid and Tetraploid Eastern Oysters for Maryland Aquaculture
Ming Liu, *Morgan State University*

Effects of Oyster Aquaculture on Submerged Aquatic Vegetation Habitat
Cassie Gurbisz, *St. Mary's College of Maryland*

Maryland Sea Grant is a federal-state partnership program that is part of the University System of Maryland. Our offices are located in College Park, Maryland, and are administered by the University of Maryland Center for Environmental Science. Our Sea Grant Extension faculty are administered by the University of Maryland, College Park and located in offices around the state. The National Sea Grant Program is a network of 34 university-based programs in coastal and Great Lakes states as well as Puerto Rico and Guam.

www.mdsg.umd.edu

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