



Maryland Sea Grant (MDSG) is a federal-state partnership program of the University System of Maryland that works to:

- Promote a sustainable coastal economy.
- Support science education, from K-12 to graduate fellows.
- Fund and apply scientific research to protect and restore the Chesapeake and Maryland Coastal Bays and enhance our state's marine resources.
- Communicate scientific research and findings to help leaders and communities solve our state's major environmental challenges.

## Looking Ahead

MDSG has dedicated significant efforts toward developing our 2024-2027 strategic plan. We are committed to addressing the threat climate change poses to Maryland's economic and environmental health, and we recognize the disproportionate impact it has on underserved communities. We work to bring the greatest breadth of ideas, cultures, experiences, and backgrounds together to build a more sustainable environment and just society.



Environmental Literacy and Workforce Development



Healthy Coastal Ecosystems



Sustainable Fisheries and Aquaculture



Resilient Communities and Economies

## Community Resilience

MDSG has a long history of providing resources and assistance to our coastal communities. During 2021, our Extension agents and staff engaged hundreds of constituents in shovel-ready projects, resilience planning, and education events to restore habitats and prepare communities for a changing climate.

**563**

Participants engaged in MDSG climate informal education programs

**8**

Extension specialists working to help our coastal communities

**15**

Communities that adopted and/or implemented sustainable economic and environmental development practices and policies as a result of MDSG activities

## Economic Impacts

MDSG's programming leverages federal dollars for larger state and regional economic impacts. We are working closely with the seafood and aquaculture industries to support businesses and advance new technologies. One growing initiative is expanding the salmon recirculating aquaculture industry and another is supporting a new experimental oyster hatchery in Maryland.

**\$3.8 M**

in economic impacts from our programmatic efforts

**\$10 M**

grant to advance the salmon recirculating aquaculture industry

**8**

aquaculture specialists and Extension agents working to help expand the industry

**1**

law and policy fellow dedicated to clarifying coastal and aquaculture legal issues

**\$200,000**

in low-interest loans and grants obtained by Maryland oyster farmers to build and grow their businesses

**\$204,225**

estimated value of K-12 teachers' time participating in MDSG-created program development

*All data from 2021 unless otherwise noted.*

## Workforce Development

MDSG's K-12, undergraduate, and graduate education programs support teacher professional development and student research programs, internships, and fellowships. Thousands of students are provided STEM educational opportunities, locally, nationally, and internationally. Diversity, equity, and inclusion are core principles for recruitment and programming.

### K-12 Education

# 1,874

students reached through our trained educators and programs in 2021

### Collegiate

# 152

undergraduate and graduate students supported by MDSG funding in 2021

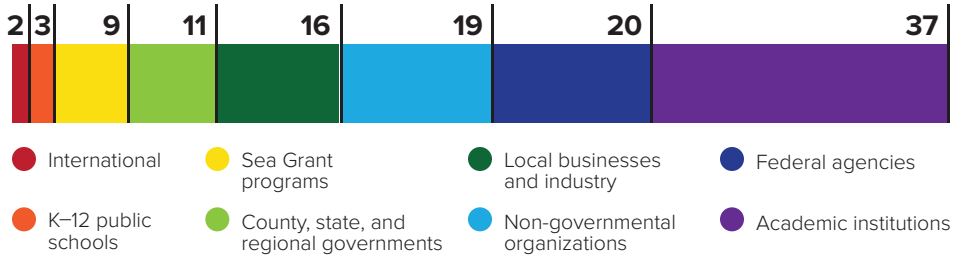
### Post-Collegiate

# 71

 MDSG-supported students became employed in jobs related to their degree within two years of graduation (2018-2021)

## Partnerships

MDSG partners with a variety of organizations to advance research, education, and outreach programming and to impact local communities and economies. We continue to develop partnerships with HBCUs, underserved communities, and other minority-serving organizations to provide more equitable access to programs, resources, and funding.



## Applied Research

MDSG funds applied research that has the potential to impact the policies and management of the Chesapeake and Maryland Coastal Bays and our coastal communities. Some recent projects explored stream monitoring, marsh restoration, water quality, and aquaculture technologies.

# 34

research projects supported in 2021

# 23

peer-reviewed publications in 2021 as a result of funding

# 89

public or professional presentations in 2021

## Program Highlight: Diversity, Equity, and Inclusion

### Research



MDSG helped support researchers from Morgan State University, a minority-serving institution, to develop a cost-effective culture method for soft-shell clams that thrive in low-salinity waters.

### Education



Working with educators in Baltimore City schools, MDSG developed a 24/7 water-monitoring system and guide to help teachers and students measure water quality in closed aquaculture systems.

### Outreach



MDSG's communication team released an issue of *Chesapeake Quarterly* on how to measure and mitigate environmental injustices in the Chesapeake Bay.

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. Maryland Sea Grant Extension faculty are administered by the University of Maryland, College Park, and located in offices around the state. The National Sea Grant College 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](http://www.mdsg.umd.edu)

Let us be your resource!

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