



Extension • Outreach • Education • Research

A smart investment in our coastal economy and environment

Maryland Sea Grant is a federal-state partnership and is part of the University System of Maryland. We work to:

- Promote a sustainable coastal economy.
- Fund and apply scientific research to protect and restore the Chesapeake and coastal bays and Maryland's coastal resources.
- Explain science to help leaders and communities solve our state's major environmental challenges.

Sea Grant is a network of **33 university-based programs** in coastal and Great Lakes states plus Puerto Rico and Guam.

95%

of federal funding to Sea Grant goes to state programs.

EXTENSION: Supporting Economic Development

Our Extension specialists provide technical assistance to Maryland's seafood and fishing industries.

The number of oysters cultivated by aquaculture in Maryland rose to over 63,000 bushels in 2016 — an increase of 11 times over the 2012 harvest.



1,649

Jobs created

\$45 million

in impacts

OUTREACH: Helping the Chesapeake Bay

Extension specialists helped create five regional Watershed Stewards Academies in Maryland.

- The academies have trained over 300 volunteers to plan and carry out projects to reduce the flow of polluted stormwater to the Chesapeake Bay.
- These Master Watershed Stewards have completed more than 100 stormwater site assessments.
- Stewards engaged with nearly 32,000 Maryland residents.



110

landscapers gained certification in green infrastructure methods, expanding job skills and strengthening local businesses.

EDUCATION: Promoting Scientific Literacy and Training

K-12 Interdisciplinary Education*



2,720

Students Reached



68

Teachers in Professional Development Programs



5

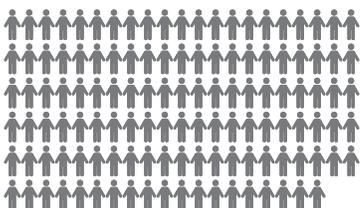
Curricula Developed

* Figures for 2015 only.

College Students Supported, 2012–2015

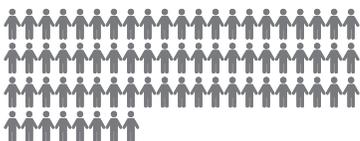
124

Under-graduate



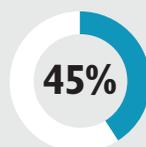
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Graduate



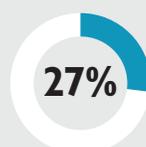
Educating the Next Generation

Each summer, Maryland Sea Grant brings talented undergraduates to the Chesapeake Bay to conduct marine research with mentors. Of the 62 students who participated in this NSF-funded program from 2012–2015:



45%

were women



27%

were from under-represented groups



35%

are working in scientific careers



45%

are in graduate school

RESEARCH: Sponsoring Science to Inform Policy

Watershed restoration: Scientists funded by Maryland Sea Grant developed a predictive model to help improve the survival of trees planted to restore and conserve riverside forests. This conservation method is being used to improve water quality in the Chesapeake Bay.

Water quality: Researchers improved understanding of excess nutrients and sediments in the Chesapeake's major tributaries, providing new information to improve watershed management and inform permitting decisions for the Susquehanna River's Conowingo Dam.

Fisheries conservation: Scientists produced new analyses that improved understanding of the Atlantic menhaden population and informed sustainable management of the commercial fishery for this species.

Commercial aquaculture: Researchers worked to commercialize findings that growing seaweed and oysters together in Chesapeake Bay can provide an economically valuable crop while improving the Chesapeake's water quality.

21

Research projects funded by Maryland Sea Grant



86

Scholarly articles



Maryland Sea Grant (MDSG) is a federal-state partnership and is part of the University System of Maryland. Our offices are located in College Park, Md., and are administered by the University of Maryland Center for Environmental Science (UMCES).

www.mdsg.umd.edu