

Building Bridges Between Science and People

For over 25 years Pennsylvania Sea Grant has focused on the statewide practical use and conservation of natural resources – for a healthy environment and resilient communities.

Pennsylvania Sea Grant Co-Hosting Lake Erie Shipboard Science Workshop

This summer, educators of 5th-12th grade learners from Pennsylvania and across the Great Lakes basin will explore Lake Erie while living and working alongside Great Lakes scientists aboard the US EPA Research Vessel (R/V) *Lake Guardian*. Participants in the *Great Lakes Shipboard Science Workshop* will conduct critical research into microplastics, phytoplankton, benthic organisms, and sediment. Through hands-on investigations, port stops for landside experiences, lab work, and interacting with scientists, educators will obtain new knowledge, skills, and teaching methods that can be adapted to work with students, as well as learn about careers that further the protection of the Great Lakes.

The week-long scientific exploration of Lake Erie will take place **July 7-13, 2024**, beginning and ending in Cleveland, OH, and with port stops in Erie, PA, and Put-In-Bay, OH. This opportunity is made possible through a partnership with the US EPA Great Lakes National Program Office, and funding from the Great Lakes Restoration Initiative through NOAA. The Shipboard Science Workshop, one per year, rotates among the five Great Lakes and is designed to promote Great Lakes sciences while forging lasting relationships between Great Lakes researchers and educators. Past participants have described the experience as a “*once-in-a-lifetime, professional learning opportunity.*”



U.S. EPA's research vessel, the Lake Guardian

SUCCESS BY THE NUMBERS

Each year Pennsylvania Sea Grant reflects on impacts and accomplishments. The number of programs, people reached, professionals trained, and other metrics are tallied and submitted to the National Sea Grant Office, NOAA, and the Department of Commerce. **The following highlights are successes from 2022- 2023.**



49

Undergraduate & Graduate
Students Supported



1307

K-12 Students Reached

Summer Undergraduate Internship Program

This summer three undergraduate students will gain experience in the areas of aquatic invasive species outreach, environmental literacy, and natural history through paid summer internships with Pennsylvania Sea Grant. The purpose of the internships is to contribute to a diverse ocean and Great Lakes workforce that understands technical and social challenges facing coastal communities and the natural environment and help prepare undergraduate students for graduate school and careers in science. Since 2021, Pennsylvania Sea Grant has funded seven CEI interns with areas of focus including science communications, climate resiliency, aquatic invasive species, economic impacts, and Great Lakes literacy.

Meaningful Watershed Educational Experiences

Meaningful Watershed Educational Experiences (MWEEs) focus on learner-centered investigations of local environmental issues that lead to informed action. From September 2022 through May 2023, Pennsylvania Sea Grant and partners, Stroud Water Research Center, and the Pennsylvania Department of Education, provided MWEE professional development opportunities for 45 Pennsylvania educators, focused on Blending Meaningful Watershed Educational Experiences and Geographic Information Systems.

Erie County Better Prepared for Climate Hazards

Erie County, Pennsylvania is better prepared for natural hazards, due to community outreach and data collected via Pennsylvania Sea Grant workshops and surveys. Community members highlighted two areas for improvement – green stormwater infrastructure and low-impact development. Those results were shared with Erie County planners. Both topics are now included in the Erie County Hazard Mitigation Plan which has since been approved by state and federal emergency management agencies, and 19 Erie municipalities who have formally adopted it, making them eligible to receive federal FEMA funding to mitigate or reduce natural hazard impacts.



Outreach staff educating others about aquatic invasive species



15

Continuing Research Projects



3,953

People Attended Public or Professional Presentations



94

Public Presentations



805

Acres of Habitat Protected

OPERATING BUDGET 2022 - 2023

\$1.4 M National Sea Grant Office funding

\$1.1 M Other funding secured by Pennsylvania Sea Grant

\$2.5 M Total Funding