CFAES

OUR IMPACT IN
THE 9TH DISTRICT

Ohio Sea Grant and Stone Laboratory

Ohio Sea Grant's work encompasses diverse issues relevant to local, regional and national priorities, including healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies and environmental literacy and workforce development. Ohio Sea Grant and its education and research facility Stone Laboratory continue to broaden their reach across the state. Some of the program's initiatives to strengthen Ohio's coastal communities are highlighted here.

Helping the Lake Erie Charter Industry Build Successful Businesses

With over 800 captains, Ohio boasts the largest charter fishing fleet on the Great Lakes, earning an estimated $14.6 million in revenue and attracting thousands of customers to local harbor communities. Keeping these businesses viable is important for Lake Erie coastal economies, so Ohio Sea Grant organizes an annual Ohio Charter Captains Conference to support the charter industry with training needs. Over 80% of attendees report the conference helps them keep their charter business going or advance professionally in their career. Due to the COVID-19 pandemic, the 2020 and 2021 conferences were transitioned to successful virtual events. Annually reaching 20-25% of licensed captains, in partnership with the Ohio Department of Natural Resources-Division of Wildlife, Lake Erie Charter Boat Association, U.S. Coast Guard, and U.S. Customs and Border Protection, the Ohio Charter Captains Conference helps Lake Erie charter businesses be more successful through training in business management, regulatory requirements, and environmental issues.

Raising Awareness with the Ohio Marine Debris Art Challenge

Ohio Sea Grant and the NOAA Marine Debris Program are partnering to raise awareness about the global problem of marine debris, especially in the Great Lakes. Original art from students in coastal Ohio, created as part of an annual marine debris art challenge, encourages others to be part of the marine debris solution. Students in grades 6-12 from the Lake Erie region of Ohio enrolled in public, private, and home schools are eligible to participate, as are organizations and clubs such as Scouts and 4-H that are not affiliated with schools. Finalists, which often include teams from Perkins High School in Sandusky, are invited to a day of recognition at Cedar Point, and can win prizes including a Stone Lab field trip.

Teaching a New Generation of Lake Erie Protectors

Knowledge about natural resources and their influence on everyday life is essential to understanding and protecting them. Students, from middle schoolers to adults, have learned about Lake Erie through field trips, workshops, college courses, outreach events and classroom activities. Along with fostering a wider appreciation for Lake Erie's importance to Ohio and the region, these students have gone on to work for state and federal agencies, started their own businesses, or attended graduate school to continue to spread a love and appreciation of nature and science to future generations.

115,000

students have learned about Lake Erie from Ohio Sea Grant and Stone Lab staff from 2014–2018.

Helping Coastal Businesses Weather the Storm of COVID-19 Pandemic

The Cities of Northwood, Perrysburg and Archbold established a partnership with Ohio Sea Grant and Reveille LTD to develop a Business Retention and Expansion program focused on supporting existing jobs and businesses across all sectors during the COVID-19 pandemic shutdown. The program surveyed businesses within each city to identify challenges and present findings to the communities so they can take informed action. This targeted business information, training tools and outreach led to resilient, proactive strategies that supported 4,797 jobs across all reported sectors valued at $229,186,269.

Proactive strategies supported

4,797 JOBS ACROSS ALL SECTORS

Improving Decision Making, Leadership, and Sustainability with the Lake Erie Chamber of Commerce

Decision making is crucial for public officials, potentially affecting the health and long-term viability of aquatic resources and communities that depend on them. Ohio Sea Grant led a partnership with OSU Extension, the Toledo Chamber of Commerce and the Leadership Fund to develop a ten-week curriculum for local government officials. This effort prepares local leaders to make sustainable decisions focused on environmental, economic, and societal health and stability. In 2020, 33 public officials representing 18 coastal communities in Lucas County and surrounding areas participated.

Studying the Health Impacts of Algal Toxins in the Context of Chronic Illnesses

Algal toxins affect the liver, gastrointestinal system and kidneys, and may have a more severe effect in the context of pre-existing conditions. Dr. David Kennedy and Dr. Steven Haller at The University of Toledo, with funding provided by the Ohio Department of Higher Education and managed by Ohio Sea Grant and The University of Toledo, are examining these effects to help provide new guidelines for safe exposure levels to algal toxins for people with chronic illnesses. They also aim to develop new tests that can measure toxin exposure at very low levels, which can suppress common liver injury markers in some patients, and to create therapies to treat the organ damage caused by algal toxins.

Talking with Tourists About Plastic Trash

Ohio Sea Grant, Stone Laboratory, and South Bass Island businesses and residents are phasing plastics out of their restaurants by implementing a highly successful skip the straw campaign, conducting weekly beach cleanups to restore their coastal habitats and beach aesthetics, and educating the one million tourists visiting annually on the issue of plastic pollution and offering them simple solutions on how to use less plastics while on vacation. Beach cleanup data show that less trash is being collected each year and pro-environmental behavior changes are increasing as a result of this island-wide partnership.

Supporting Green Infrastructure at Ohio Clean Marinas

In 2019 Ohio Sea Grant and project partners in Michigan and Wisconsin received $808,000 from the Great Lakes Protection Fund to explore the use and impact of green infrastructure (GI) to reduce stormwater runoff at coastal marinas. The team developed a decision support tool and visualization resources to inform decision-making in relation to stormwater mitigation in coastal environments. As part of the project a green infrastructure demonstration project was installed at a local marina in Huron, Ohio and is being monitored for water quantity and quality impacts.

Using Bacteria to Remove Microcystin from Drinking Water

Many Ohio communities draw their drinking water from Lake Erie, so making sure that any harmful algal bloom toxins are removed before the water reaches consumers is essential to maintaining public health. While water treatment plants currently use activated carbon, ozonation, and other methods to treat for algal toxins, Dr. Jason Huntley at The University of Toledo is developing cost-effective, efficient, and safe methods to remove algal toxins from drinking water, using bacteria that naturally break down microcystin toxin into non-toxic components. The team was issued a patent on this technology in May 2021.

Sea Grant
Ohio Sea Grant College Program

The Ohio State University
College of Food, Agricultural, and Environmental Sciences

NOAA
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

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