

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.



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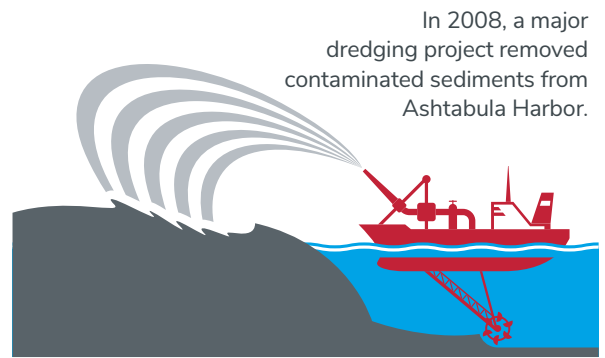


Supporting Marine Trades Industry with Education and Professional Development

In response to marina industry demand for education and professional development, the Ohio Clean Marinas Program created the annual Ohio Marina Conference, which offers relevant education and training to Ohio marinas. 83% of past event attendees reported the conference helps them maintain their business or advance professionally. The 2020 conference had 95 attendees and included presentations from experts on water levels, stormwater, wastewater, insurance, recreational boating and fishing, compliance assistance, marine debris, and tourism. An awards ceremony also recognized certified and recertified Clean Marinas.

Turning Lake Erie's Polluted Tributary into a Flourishing Riverside District

Hazardous waste polluted the lower two miles of the Ashtabula River so badly that it was designated a federal Area of Concern in 1987. As a founding member of the Ashtabula River Partnership in 1994, Ohio Sea Grant worked with partners to help secure funding for the project, which removed 635,000 cubic yards of contaminated sediment from the river and placed the dirt in a specially designed landfill. Today, this important Lake Erie tributary is a clean, delisted Area of Concern, flourishing with increased commercial shipping and new tourism business opportunities for the region.



In 2008, a major dredging project removed contaminated sediments from Ashtabula Harbor.



Teaching a New Generation of Lake Erie Citizens

Knowledge about natural resources and their influence on everyday life is essential to understanding and protecting them. From 2014–2018, 115,000 students, from middle schoolers to adults, have learned about Lake Erie from Ohio Sea Grant and Stone Lab staff 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.

Identifying and Addressing Plastic Pollution Problem

Through data collected on cleanups with students and conversations with local partners, Ohio Sea Grant identified significant preproduction plastic pellet contamination in northeast Ohio. The pollution source was reported and local regulatory agencies have enforced infrastructure improvements and altered cleaning practices. Continued monitoring shows a decline in the amount of plastic pellets being found documenting reduced pollution after only one year of best management practices by the polluting company.

Monitoring New Contaminants in Public Drinking Water Sources

Pharmaceuticals and personal care products, including antibiotics, are emerging contaminants that are not completely eliminated during water treatment. Because these compounds can affect human and wildlife health, it's important to assess their presence in drinking and wastewater. Dr. Jen Mou at Kent State University is developing new methods to detect these compounds, to help guide approaches for dealing with contaminants like them in the future. The team also wants to determine if the presence of a bacterial gene that codes for antibiotic resistance can predict levels of antibiotic contamination in water samples.

Growing into Aquaculture

Ohio has a significant aquaculture industry with over 160 licensed producers, many of which are small family farms. Growth of the industry could fill a gap in the supply of year-round, local and regional seafood. As part of the Great Lakes Aquaculture Collaborative, Ohio Sea Grant created an aquaculture advisory group of experts from around the state. Aquaculture Extension educator Nicole Wright serves on the boards of the Ohio Aquaculture Association and North Central Regional Aquaculture Center Extension Technical Committee. Upon hire, Wright also joined a team led by Virginia Tech and The Ohio State University on a nationwide quarterly survey of aquaculture producers to assess the effects of COVID-19 on businesses. Survey results are helping producers gain access to important COVID-19 relief programs.