

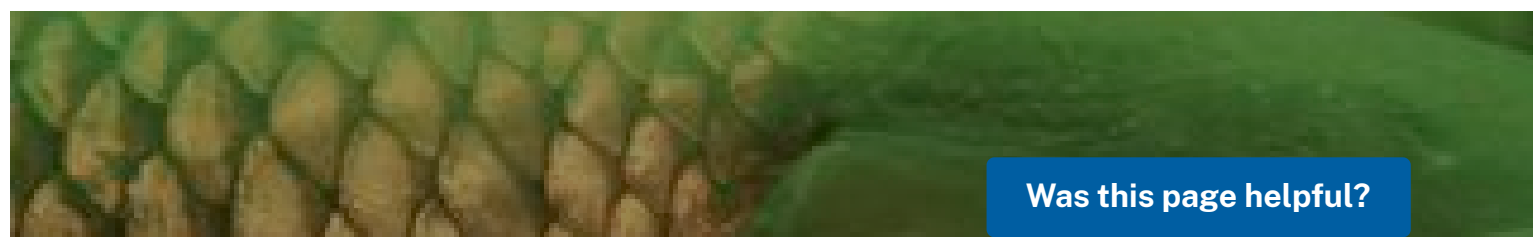
SPECIAL TOPICS



# Great Lakes Restoration Initiative

The Great Lakes Restoration Initiative (GLRI) was established in 2009 to accelerate efforts to protect and restore the Great Lakes. The USGS is collaborating with partners to provide science to meet GLRI Action Plan goals and inform resource management decisions.

## News

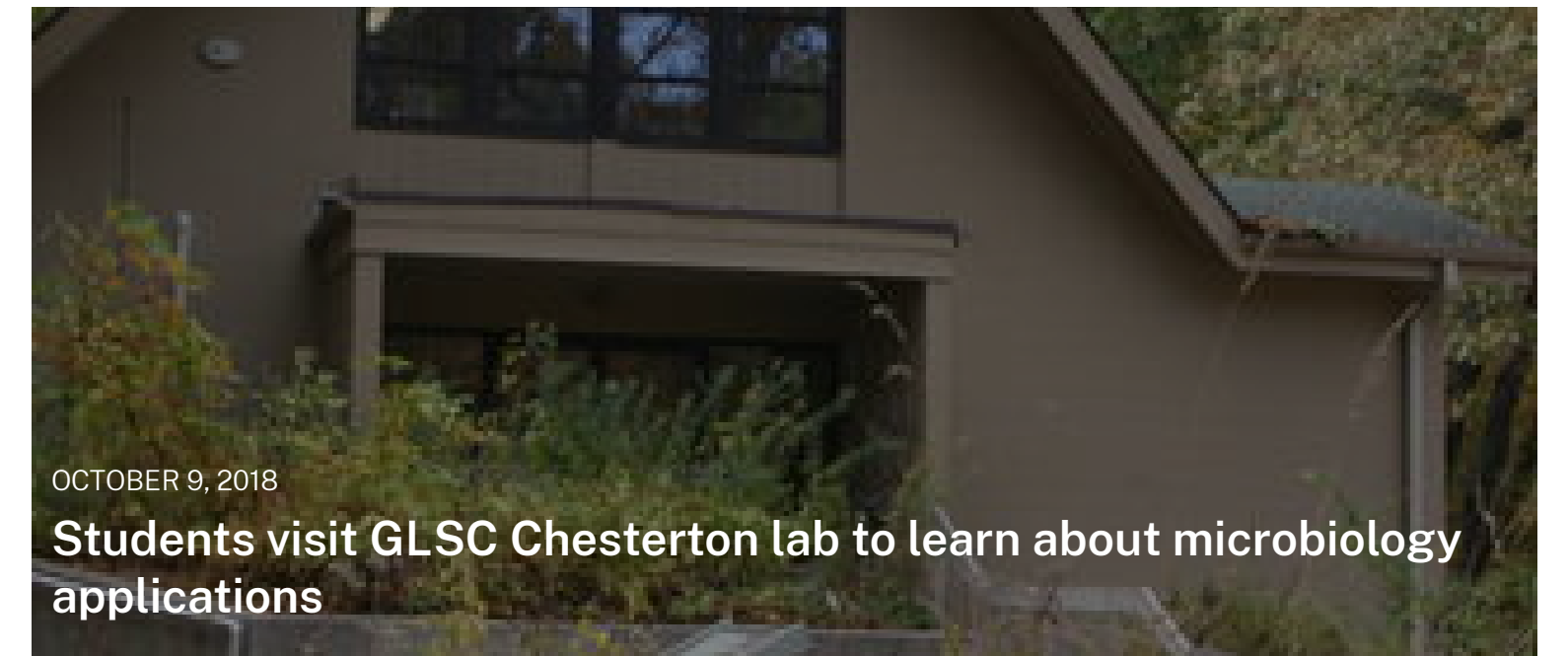


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MARCH 6, 2019

## Newly Hatched Invasive Grass Carp Found in Maumee River, Ohio



OCTOBER 9, 2018

## Students visit GLSC Chesterton lab to learn about microbiology applications



MARCH 9, 2018

## Tree Swallow GLRI Story Map

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# Publications

JANUARY 18, 2024

## Atlantic salmon (*Salmo salar*) culture manual

The primary objective of the Atlantic Salmon Research Program established at the U.S. Geological Survey Tunison Laboratory of Aquatic Science as mandated by the Great Lakes Restoration Initiative is to restore Atlantic salmon (Linnaeus, 1758; *Salmo salar*) into Lake Ontario. This objective focuses on evaluating the survival of stocked Atlantic salmon in current Lake Ontario conditions to create a g

Authors: Marc A. Chalupnicki, Rich Chiavelli, James E. McKenna

By: [Ecosystems Mission Area](#), [Great Lakes Science Center](#), [Great Lakes Restoration Initiative](#)

JANUARY 18, 2024

## Cisco (*Coregonus artedi*) and bloater (*Coregonus hoyi*) culture manual

The primary objective of the Coregonine Research Program established at the U.S. Geological Survey, Great Lakes Science Center, Tunison Laboratory of Aquatic Science as mandated by the Great Lakes Restoration Initiative is to restore native coregonines, specifically *Coregonus artedi* (Lesueur, 1818; ciscoes) and *Coregonus hoyi* (Milner, 1874; bloaters) into Lake Ontario. This objective focuses on pr

Authors: Marc A. Chalupnicki, Gregg Mackey, James E. McKenna

By: [Ecosystems Mission Area](#), [Great Lakes Science Center](#), [Great Lakes Restoration Initiative](#)

JUNE 9, 2022

## Turbidity and estimated phosphorus retention in a reconnected Lake Erie coastal wetland

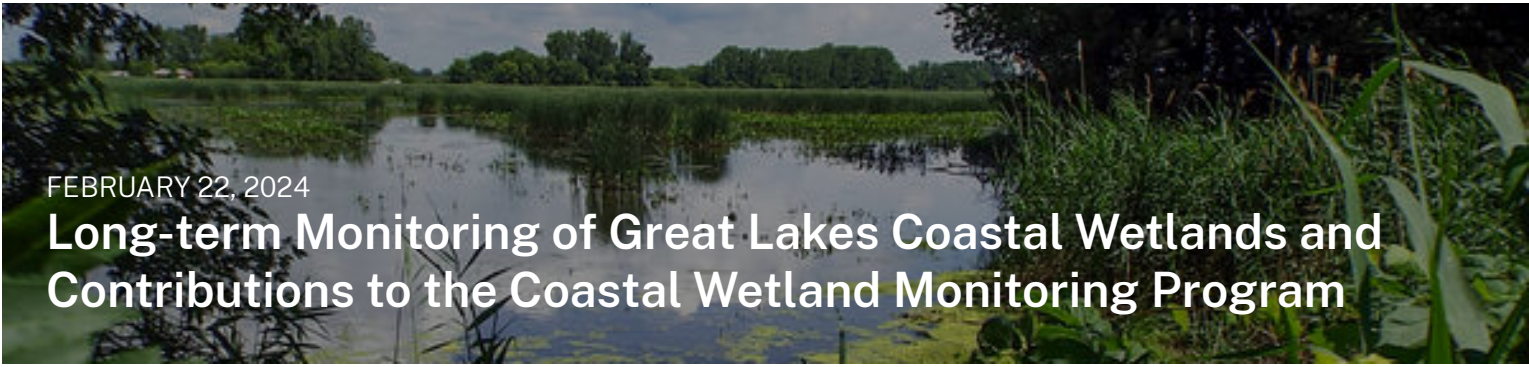
Nearly all of the wetlands in the coastal zone of Lake Erie have been degraded or destroyed since the 1860s, and most of those that remain are separated from their watersheds by earthen dikes. Hydrologic isolation of these wetlands disrupts ecosystem benefits typical to Great Lakes coastal wetlands, particularly the ability to trap sediments and retain nutrients when inundated by runoff and lake w

Authors: Glenn Carter, Kurt P. Kowalski, Michael Eggleston

By: [Ecosystems Mission Area](#), [Land Management Research Program](#), [Great Lakes Science Center](#), [Great Lakes Restoration Initiative](#)

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FEBRUARY 22, 2024

## Long-term Monitoring of Great Lakes Coastal Wetlands and Contributions to the Coastal Wetland Monitoring Program

The Coastal Wetland Monitoring Program (CWMP) is an EPA-led program to monitor the health of all Great Lakes coastal wetlands larger than four hectares. USGS scientists are working with Principal Investigators from many State and academic institutions to conduct data collection, implement standardized sampling protocols, analyze multiparameter data, and communicate results to the public.

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FEBRUARY 21, 2024


## Invasive Phragmites Science: Using Microbial Interactions to Foster the Restoration of Great Lakes Wetlands

The USGS is developing innovative Phragmites control measures to keep this rapidly spreading invasive plant from further expanding its range into new wetland habitats and to aid in the development of successful restoration strategies. Scientists are conducting studies and field tests to determine (1) if microbes (i.e., fungi and bacteria) that live within and around Phragmites are enabling the...

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SEPTEMBER 28, 2023



## Invasive Phragmites Science: Using Cutting-Edge Genetic Approaches to Develop New Management Tools for the Control of Invasive Phragmites

Was this page helpful?

Invasive plants negatively impact our water, wildlife, and way of life. Current management tools are not cutting it, so a multi-agency research team is using molecular biotechnology to develop new species-specific treatments that help land managers improve the natural resources that we depend on and have more management options during droughts, floods, and other periods of plant stress. This...

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