



Invasive Carp Regional Coordinating Committee

Working together to prevent the introduction and establishment of invasive carp in the Great Lakes

About the Invasive Carp Regional Coordinating Committee

The Invasive Carp Regional Coordinating Committee (ICRCC) was formed in 2010 to address the increasing threat to the Great Lakes from the expansion and migration of invasive carp populations. The multi-agency committee first came together to implement a rapid response plan in light of a positive invasive carp environmental DNA (eDNA) result within the Chicago Area Waterway System. Since its inception, the ICRCC has grown to a Great Lakes basin-wide collaboration of U.S. and Canadian federal, tribal, state, provincial, and local agencies.

Today, the ICRCC coordinates and supports multi-agency prevention activities through the development and implementation of an annual Invasive Carp Action Plan and complementary Monitoring and Response Plan. The work of the ICRCC is supported by partner agency resources and the Great Lakes Restoration Initiative.

Protecting the Great Lakes

As the largest freshwater system in the world, the Great Lakes are an irreplaceable resource for both the United States and Canada. The lakes provide drinking water for over 40 million people and support a way of life for the communities along its shores. The Great Lakes ecosystem supports 139 native fish species and commercial, recreational, and tribal fisheries that are valued at more than \$7 billion annually.

In carrying out its mission, the ICRCC helps protect Great Lakes ecosystems. The ICRCC's objectives are to:

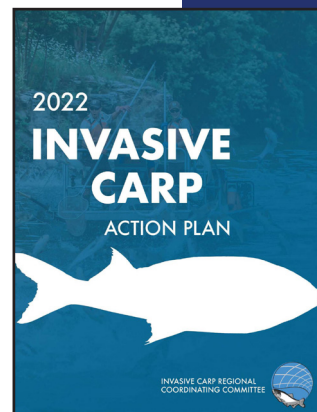
- Coordinate the implementation of collaborative invasive carp assessment, prevention and control measures, as described in the annual Action Plan, and evaluate their effectiveness.
- Promote the collection of biological information on invasive carp and their impacts.
- Identify additional research, technology, and data needed to effectively inform and support invasive carp management strategies.
- Support the development of technologies and methods to control and manage invasive carp; and other invasive species, where possible.
- Encourage the exchange of information between member agencies and stakeholders and seek opportunities to transfer control technologies to other areas of the United States and Canada.



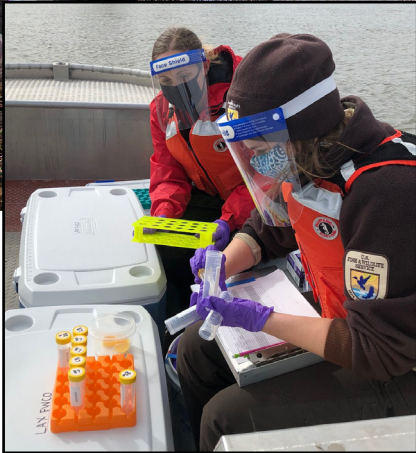
The Invasive Carp Problem

The term "invasive carp" refers to black carp, grass carp, bighead carp, and silver carp. All are fast growing and prolific feeders that out-compete native fish and pose a growing challenge to North America's aquatic resources, resource-dependent communities, and economies. The invasive carp species currently found in the United States were imported into the country for use in aquaculture ponds. Through flooding and accidental releases, these fish found their way into the Mississippi River system. After decades of swimming northward, silver and bighead carps are now in the Illinois Waterway, less than 50 miles from Lake Michigan and the Great Lakes. Black carp are encroaching on the Illinois River. Grass carp have been detected in all the Great Lakes except Lake Superior and are regularly detected in the western basin of Lake Erie.

The annually released Action Plan serves as a foundation for the work of the ICRCC partnership, containing a portfolio of high-priority prevention, detection, and control projects.



Invasive carp removal using the Modified Unified Method. Photo by Minnesota Department of Natural Resources.



Preparing eDNA sample tubes for water collection. Photo by U.S. Fish and Wildlife Service.

Accomplishments

Addressing the threat posed by invasive carp to the Great Lakes is a daunting challenge, and management of invasive carp at this large scale has required the development and refinement of many new prevention, control, and early detection and monitoring techniques. However, the efforts of ICRCC member agencies since 2010 have led to key developments and technological advancements in the fight against invasive carp in all three of these strategic areas, as highlighted below.

Prevention

Identifying and closing potential pathways for invasive carp introduction or spread.

- Closed two potential pathways for invasive carp to access the Great Lakes basin: the Eagle Marsh pathway closure in Indiana (Completed in 2016) and the Ohio-Erie Canal closure (Completed in 2020).
- Continued operation, maintenance and expansion of the electric dispersal barrier system in the Chicago Sanitary and Ship Canal.
- Conducted studies to evaluate potential dispersal of invasive carp through barge entrainment and transport.

Control

Addressing existing populations where invasive carp have become established.

- Expanded the use of commercial harvesting to reduce population numbers of invasive carp in areas of the Illinois River, where they are already established (e.g., Peoria Pool), and identified new markets for harvested invasive carp.
- Development and testing of new invasive carp deterrent technologies to prevent upstream range expansion, including acoustic deterrents, bioacoustic fish fence, and carbon dioxide.
- Supported the ongoing implementation of a multi-year adaptive response strategy to reduce the threat of grass carp to Lake Erie, including the deployment of carp removal strike teams across the basin.

Early Detection & Monitoring

Improving our understanding of invasive carp abundance and distributions and detecting new occurrences early.

- Development and use of eDNA markers and sampling strategies for early detection of invasive carp species.
- Development and use of contingency response plans to address new detections of invasive carp in high-risk locations.
- Establishment and use of telemetry and acoustic tracking systems in the Illinois Waterway and Chicago Area Waterway System to assess invasive carp movement and potential challenges to the electric dispersal barrier system.