

What is an Aquatic Nuisance Species?

The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defines an Aquatic Nuisance Species (ANS) as a non-indigenous species that:

- threatens the diversity or abundance of native species; or
- threatens the ecological stability of infested waters; or
- threatens the commercial, agricultural, aquacultural or recreational activities dependent on such waters

Asian Carp

Asian carp were originally imported to the southern United States in the 1970s to help aquaculture and wastewater treatment facilities keep retention ponds clean and to provide fresh fish for human consumption.

Bighead and silver carp are voracious eaters. They consume plankton, algae and other microscopic organisms, stripping the food web of key sources.

Asian carp are capable of eating between 20 and 120 percent of their body weight each day. Bighead carp can weigh up to 100 pounds.

Silver carp, nicknamed the "jumping fish," may land in boats, damage property and injure people.

About the U.S. Army Corps of Engineers

The Corps mission is to provide vital public engineering services in peace and war to strengthen our nation's security, energize the economy and reduce risks from disasters. The Corps offers technical and construction support to more than 100 countries and maintains 926 coastal, Great Lakes and inland Harbors.

The Chicago District is responsible for water resources development in the Chicago metropolitan area, an area of about 5,000 square miles with a population of about eight million. The district is involved in a variety of projects stemming from its primary mission areas of flood risk management, shoreline protection, navigation, ecological restoration, emergency management and support for others.

For more information on the Chicago District, please visit www.lrc.usace.army.mil or call the public affairs office at 312-846-5330.

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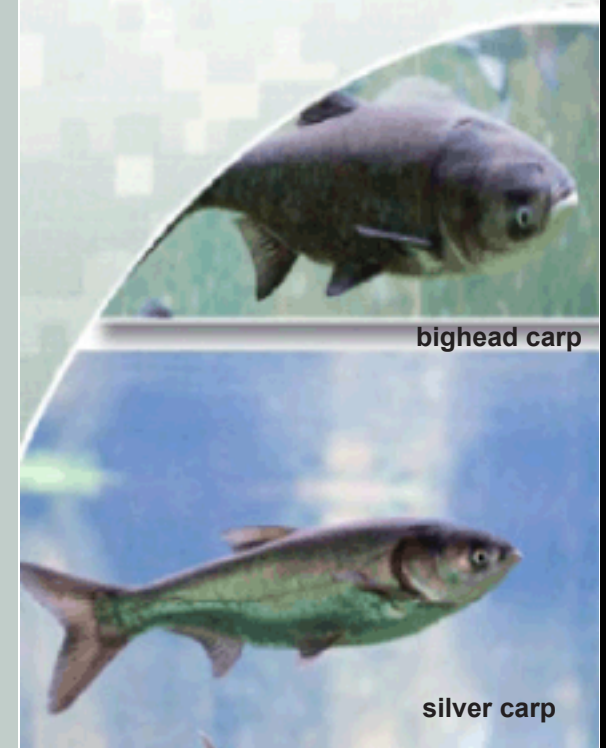


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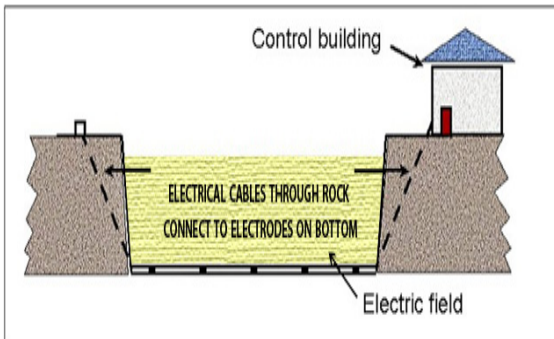
bighead carp

silver carp

The Electric Dispersal Barriers

The Electric Dispersal Barriers are designed to prevent inter-basin transfer of fish between the Mississippi River and Great Lakes basins via the Chicago Sanitary and Ship Canal (CSSC).

The barriers, located approximately 25 miles from Lake Michigan and within a 1,500-foot section of the CSSC, are formed of steel electrodes that are secured to the bottom of the CSSC. The electrodes are connected to a raceway, consisting of electrical connections to a control building. Equipment in the control building generates a DC pulse through the electrodes, creating an electric field in the water that discourages fish from crossing.



There are three electrical barriers: Barriers I, IIA and IIB. Barrier I has been operational since 2002. Barrier IIA was placed into full-time operation in 2009, and Barrier IIB was placed into full-time operation in 2011.

Barriers I and IIB are in continuous operation, while Barrier IIA is in warm standby.

Efficacy Study

The Corps is studying the effectiveness of the barriers through analyzing various technical, environmental and biological factors. The interim efficacy study reports are available at www.lrc.usace.army.mil.

GLMRIS

In the Great Lakes and Mississippi River Interbasin Study (GLMRIS), the Corps evaluates a range of options and technologies available to prevent the transfer of aquatic nuisance species between the Great Lakes and Mississippi River basins by aquatic pathways. As part of this study, the Corps will conduct a detailed analysis of various ANS controls, including hydrologic separation.



Specific Tasks of GLMRIS:

- Inventory current and forecast future conditions within the study area
- Identify aquatic pathways that may exist between the Great Lakes and Mississippi River basins
- Inventory current and future potential aquatic nuisance species
- Analyze possible ANS controls to prevent ANS transfer, to include hydrologic separation of the basins
- Analyze the impacts each ANS control may have on significant natural resources and existing and forecasted uses of the lakes and waterways within the study area
- Recommend a plan to prevent ANS transfer between the basins. If necessary, the plan will include mitigation measures for impacted waterway uses and significant natural resources



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Monitoring

The Corps works with other agencies to monitor the CSSC to determine the location and abundance of Asian carp in the area, using traditional and non-traditional methods. Traditional methods include electrofishing and netting.



Non-traditional Methods:

Environmental DNA (eDNA monitoring): Extracts genetic material from water samples to identify the presence of Asian carp DNA in an area.

Ultrasonic Telemetry: Tracks tagged fish through receivers in place underwater. In addition to tagging Asian carp below the Electric Dispersal Barriers, the Corps also tags and monitors surrogate species in the vicinity of the barrier.

Dual-Frequency Identification Sonar (DIDSON): Acoustic cameras deployed periodically at and below the barrier site to evaluate real-time fish response to the electrical field.

Asian Carp Regional Coordinating Committee

The Corps is a member of the Asian Carp Regional Coordinating Committee (ACRCC), which is an interagency task force made up of federal, state and local agencies working together to prevent Asian carp from establishing populations in the Great Lakes.

For information on the ACRCC and to view the Control Strategy Framework, visit www.asiancarp.us.

