



Protecting the Great Lakes from Asian Carp

The Great Lakes are a phenomenal natural resource, a network of five inland seas that span 94,000-square miles of surface area, contain nearly 20 percent of all surface freshwater on the planet and comprise the world's largest freshwater ecosystem.

The five lakes – Superior, Michigan, Huron, Erie and Ontario – provide drinking water for 25 million people, support a \$7 billion fishery and are an integral part of North America's cultural and economic heritage.

Unfortunately, these magnificent lakes are under siege from 186 invasive species – nonnative fish, mussels and other creatures that entered via manmade canals and ocean freighters. Asian carp is the latest threat and it could be the worst invader of all time if it establishes breeding populations in the lakes.

ON THE BRINK OF AN INVASION

Asian carp were imported initially in the 1960s and 1970s to southern states for research and algae control in aquaculture. Fish subsequently escaped during flood events and eventually worked their way up the Mississippi River, spreading into the Illinois River and most recently the Chicago Waterway System, a series of manmade canals that serves in part to carry Chicago's sewage to the Mississippi River. Those canals link the Great Lakes and Mississippi River watersheds, creating a pathway for Asian carp to reach Lake Michigan. Without swift action, the massive fish will invade Lake Michigan and spread throughout the Great Lakes basin. The recent discovery of Asian carp DNA in Lake Michigan, near Chicago, highlights the urgent need to stop Asian carp now – before they colonize the Great Lakes.

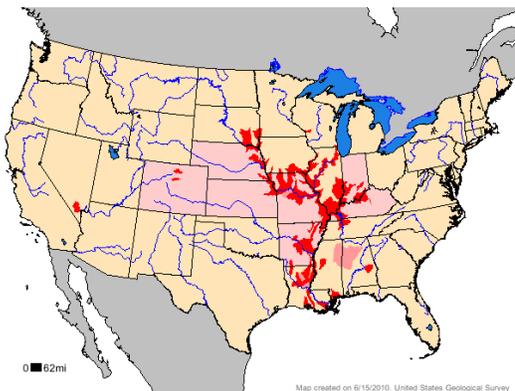
BIOLOGICAL POLLUTION A COSTLY PROBLEM

Various vectors, including manmade canals and ocean freighters have allowed 186 invasive species – a type of biological pollution – to invade the Great Lakes. Collectively, those invaders cause more than \$200 million damage annually to the lakes and the region's economy.

Two invasive species, the zebra mussel and quagga mussel, are causing the most profound ecological changes to the Great Lakes in recorded history. The Asian carp, a plankton eating machine that one expert likened to a 100-pound zebra mussel, will dramatically amplify those harmful changes.

ASIAN CARP IN THE GREAT LAKES COULD:

- Take a huge bite out of the food chain that supports the lakes' \$7 billion fishery.
- Drive out native fish species and decimate other aquatic life in the lakes and their numerous tributaries.
- Endanger boaters and anglers when they leap out of the water when disturbed by the sound of boat motors.
- Disrupt the region's \$16 billion recreational boating industry.



Locations silver carp have already established themselves as an invasive.

WORKING TO PROTECT THE GREAT LAKES

The National Wildlife Federation has been at the forefront of the battle to keep Asian carp out of the Great Lakes by obtaining federal funding from Congress for fish barriers, working with state agencies on physical and chemical measures to control carp populations, and working collaboratively to promote a permanent separation of the Great Lakes from the Mississippi River basin.

The only permanent and sustainable solution to this problem is hydrologic separation of the Great Lakes and the Mississippi River basin. If done right, hydrologic separation will involve smart, well-planned investments that will establish new infrastructure in the Chicago area that make the region more globally competitive, and upgrade treatment of wastewater and storm water. The result can be a revitalized Chicago Waterway System that not only closes the highway for invasive species, but also enhances Chicago's transportation system, creates local and regional jobs, reduces business costs across the region, and improves water quality, tourism, and recreation. Hydrologic separation means infrastructure upgrades that will benefit the entire Great Lakes and Mississippi region by enhancing our economic competitiveness and allow us to live more sustainably with our freshwater resources.



Photo: asiancarp.org

- Continue to work with the U.S. Army Corps of Engineers to take effective steps to prevent flooding in the Asian carp infested Des Plaines River from swamping the nearby Chicago Waterway System and seeding it with the invasive fish.
- Begin the process of separating the Chicago Waterway System from Lake Michigan. Creating an ecological barrier between those canals and Lake Michigan would prevent

invasive species in the Mississippi River watershed from invading the Great Lakes, and vice versa. The Corps of Engineers must complete a feasibility study on this project within one year – not in four years, as the agency has proposed.

Invasive species have already caused far too much harm to the Great Lakes, their beaches and the fish and wildlife that rely on these majestic waters for sustenance. NWF is working to stop the siege of lakes by invasive species from all sources. Keeping the Asian carp out of the Great Lakes would be a huge victory for these freshwater seas and all who treasure them.

Though Asian carp DNA was recently found in Chicago area waters, it's not too late to keep these menacing fish from establishing breeding populations in Lake Michigan and the other Great Lakes. Please join NWF in this fight for the future of the Great Lakes.

www.nwf.org/greatlakes



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NWF has a three-pronged Asian carp strategy:

- Work with state and federal officials on emergency measures, such as a canal by canal management plan, to impede the movement of Asian carp through the Chicago Waterway System, which would prevent Asian carp from establishing a breeding population in Lake Michigan.