

Asian carp DNA not widespread in the Great Lakes

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Scientists from the University of Notre Dame, The Nature Conservancy, and Central Michigan University presented their findings of Asian carp DNA throughout the Great Lakes in a study published in the *Canadian Journal of Fisheries and Aquatic Sciences*. "The good news is that we have found no evidence that Asian carp are widespread in the Great Lakes basin, despite extensive surveys in Southern Lake Michigan and parts of lakes Erie and St Clair," said Dr. Christopher Jerde, the paper's lead author and a scientist at the University of Notre Dame, "Looking at the overall patterns of detections we remain convinced that the most likely source of Asian carp DNA is live fish."

Some recent reports regarding environmental DNA have suggested that birds, boats, and other pathways, but not live fish, are spreading the bighead and silver [carp](#) DNA. Jerde points out, "It's really very telling that the only places DNA has been recovered are where [Asian carp](#) have been captured. If birds or boats were commonly spreading the DNA, then we should be detecting DNA in other places we have surveyed in the Great Lakes. "

According to the USGS, in 2010 commercial fishermen captured a 20 lb. bighead carp in Lake Calumet, 30 miles above the electric barrier meant to block the advancing carp from the [Illinois River](#). Lake Calumet is 7 miles of river away from Lake Michigan. Likewise, in 1995 and twice in 2000, USGS records indicate that bighead carp were captured in the western basin of Lake Erie. "It shouldn't be surprising that we found evidence of Asian carp in these areas where Asian carp were already

known to exist from captures, " said Lindsay Chadderton, co-author on the paper and Director of The Nature Conservancy's Great Lakes Aquatic Invasive Species program.

This study builds upon a growing area of research to find invasive species when they are at low abundance and when they can be potentially managed. Professor David Lodge, Director of the University of Notre Dame's [Environmental Change](#) Initiative and author on the paper said, "Catching these fish by net, hook, or electrofishing is ineffective when the fish are at low abundance – that's why we were asked to deploy this eDNA approach in the first place. If we wait for the tell-tale signs of Asian carp jumping out of the water, then we are likely too late to prevent the damages. Environmental DNA allows for us to detect their presence before the fish become widespread."

Dr. Andrew Mahon, co-author and Assistant Professor at Central Michigan University, said "when we first discovered DNA from Asian carp at the Calumet Harbor and Port of Chicago, we were concerned that Asian carp may already be widespread in the Great Lakes. But because of our collaborations with State and Federal partners, we now have a better picture of the Asian carp distribution, and we are optimistic that with continued vigilance, it will be possible to prevent Asian carp becoming established in the [Great Lakes](#)."

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