



The Asian Carp

AN IMMINENT THREAT TO THE GREAT LAKES?

By Margaret E. Vroman

It seems that at least once a decade we are warned of the disastrous effect a new invasive species will have on the world's largest freshwater system—the Great Lakes. There have been warnings about zebra mussels, goby fish, and spiny water fleas. So far, none of these predictions of impending doom has materialized. Now experts are warning that a new invasive species, Asian carp, could spell the end of the Great Lakes ecosystem as it currently exists. The Illinois Department of Natural Resources has reported that “Asian carp could have a devastating effect on the Great Lakes ecosystem and a significant economic impact on the \$7 billion fishery.”¹ If the Asian carp threat is real, can the American legal system protect one of the world's most precious natural resources?

Invasive Species

The Great Lakes are constantly being invaded by species that live in the ballast water discharged from foreign ships. According to MIT Sea Grant, a group that compiles and disseminates coastal information, it is estimated that as many as 3,000 exotic species are carried around the world in ships' ballast waters every day.² Often, when plants and animals residing in ballast water are released

into a new ecosystem, they find it free of the natural predators that kept their numbers in check in their countries of origin. As a result, invasive species are sometimes able to increase their populations and out-compete native species for food and space. In the past, science and money have provided solutions to stave off the devastation predicted for the Great Lakes by invasive species such as the zebra mussel and sea lamprey. When it comes to the Asian carp, however, experts fear that neither science nor money will be able to prevent them from taking over the Great Lakes.

FAST FACTS:

Asian carp can grow to more than 5 feet in length, weigh upwards of 100 pounds, and eat 40 percent of their body weight every day.

The electric barrier erected by the Army Corp of Engineers to keep Asian carp from migrating from the Mississippi River into Lake Michigan is an insufficient solution.

The Federal Court for the Northern District of Illinois has concluded that the Great Lakes do not face imminent harm from this voracious fish.

Asian Carp

Perhaps one of the saddest facts about the Asian carp's appearance in American waters is that the carp were brought here *intentionally*. Asian carp cannot be blamed on ballast water. These fish were purposefully brought into the United States by southern aquaculture facilities to control algae in their fish-breeding ponds. Asian carp eat up to 40 percent of their body weight in algae and plankton every day.³ They escaped the confines of their aquaculture ponds during the Mississippi River flooding of the late 1980s and early 1990s.⁴ Once freed, the Asian carp population exploded since they are prolific breeders that have no natural predators in the Mississippi Basin. Within a few decades, they have become the dominant fish species in the Illinois, Mississippi, and Missouri Rivers.⁵

There are actually two sub-species of Asian carp that threaten the Great Lakes—bighead carp and silver carp. Bighead carp can grow to more than five feet in length and weigh upwards of 100 pounds; the silver carp is somewhat smaller but just as voracious.⁶ The fish have an established reputation for destroying ecosystems by gorging themselves and starving out other species. They have been described as “eating machines” and the “locusts of rivers,” eating so much plankton they eliminate the food that trout, bass, whitefish, and other Great Lakes fish need to survive.⁷ Asian carp are not only voracious eaters that threaten indigenous Great Lakes fish, but they also threaten boaters by turning themselves into potentially lethal missiles. The sound of boat motors often causes silver carp to jump out of the water, and reports of 60-pound flying carp hitting boaters are not uncommon in places where these fish have taken up residence.⁸

The Chicago Sanitary and Ship Canal

In 1900, the direction of part of the Chicago River was reversed by the United States Army Corps of Engineers (Corps) when it opened the Sanitary and Ship Canal.⁹ The 28-mile-long canal was originally built to carry sewage and wastewater away from the city of Chicago. In 1910 and 1922, two more canals were added to the system. These canals, which connect the south branch of the Chicago River to the Des Plaines River and Lake Michigan, are the only shipping link between the Great Lakes and the Mississippi River system. The canals are part of the Chicago Area Waterway System (CAWS) and, by law, the Corps is tasked with maintaining navigation through its locks and waterways.¹⁰

When confronted with the threat of an Asian carp invasion, the Corps installed a series of electric barriers in the canals in an effort to prevent the carp from accessing Lake Michigan. Unfortunately, the barriers do not appear to be entirely effective.¹¹ On June 22, 2010, a commercial fisherman caught a bighead carp north of the barriers in Lake Calumet, which is only six miles from Lake Michigan.¹² This was the first live Asian carp found north of the electric barrier system and the second in the CAWS.¹³

Although it may take 20 to 30 years for Asian carp to establish themselves in the Great Lakes Basin, Michigan and several other states have initiated legal action to close off the CAWS entrance to the Great Lakes. The state of Illinois, however, has consistently argued that the threat the Asian carp pose to the economy and the Great Lakes ecosystem does not warrant closing the shipping canals that connect the Great Lakes Basin to the Mississippi River Basin.¹⁴ The dispute has now been presented to two courts for resolution.



United States Supreme Court

Because the Corps refused to close the CAWS, Michigan and five other states filed a lawsuit with the United States Supreme Court in December 2009 seeking the immediate closure of the canal. The state of Illinois and the Corps, which were codefendants, filed a countersuit. The Obama administration's solicitor general (current Supreme Court Justice Elena Kagan) sided with Illinois and urged the Supreme Court not to hear the case, claiming that the Corps and other federal agencies were already taking adequate action to stop the Asian carp.¹⁵ The Supreme Court agreed and refused to issue a writ of certiorari, thus allowing the bureaucratic process to run its course as defendants requested.¹⁶

Illinois Federal District Court

Failing in their efforts to get a hearing at the Supreme Court, the states of Michigan, Wisconsin, Ohio, Minnesota, and Pennsylvania filed a lawsuit against the Corps and the Metropolitan Water Reclamation District of Greater Chicago (Reclamation District) in the United States District Court for the Northern District of Illinois.¹⁷ The suit sought a review of the Corps' administrative decisions under the Administrative Procedures Act related to controlling the Asian carp migration.¹⁸ It also alleged that the continued operation of the CAWS was a public nuisance that threatened the Great Lakes, the natural resources within them, and the public's right to use and enjoy the waters.¹⁹ Specifically, plaintiffs sought "preliminary and permanent relief in the form of a mandatory injunction compelling defendants to take all available measures, consistent with the protection of public health and safety, to prevent the emigration of Asian carp through the CAWS into Lake Michigan."²⁰ The measures sought included requests to:

- Temporarily close certain locks, except as needed to protect the public interest
- Use poisons to block or kill Asian carp that had made it to certain locations within the CAWS
- Install and maintain block nets and other physical barriers
- Temporarily close sluice gates, except as needed to prevent flooding
- Install and maintain screens on all sluice gates to reduce the risk of fish passing through when the gates are open
- Accelerate the completion of a feasibility study for a permanent hydrological separation of the Great Lakes Basin from the Mississippi River²¹

The court heard testimony in September and October 2010. On December 2, 2010, Judge Robert Dow issued an opinion denying plaintiffs the relief they sought. He agreed with the Corps and Reclamation District that closing the CAWS would harm the region's economy and potentially result in flooding and shipping

The court agreed with defendants that even if a large population of Asian carp were found in Lake Michigan, "it is far from certain that Asian carp can survive and reproduce in the Great Lakes."

congestion.²² The economic harm the Asian carp would cause by devastating the Great Lakes' tourism and commercial fishing industry and the destruction of the Great Lakes' ecosystem were not "imminent" in a legal sense, according to Judge Dow; the court therefore ruled that plaintiffs were unsuccessful in proving the elements necessary for an injunction to issue.²³

In support of his ruling, Judge Dow reviewed the scientific evidence presented at the hearing and stated that although Asian carp DNA had been found in the Calumet Harbor on Lake Michigan,²⁴ it did not mean there were live carp in the lake.²⁵ According to the court, the fact that plaintiffs' experts concluded there were live carp in Lake Michigan and that defendants' experts concluded there were not was a difference in opinion. This difference of opinion, according to Judge Dow, did not render the Corps' refusal to close the canal an arbitrary and capricious decision.²⁶

In addressing what could be a case of first impression concerning plaintiffs' nuisance claim, Judge Dow refused to make a definitive ruling. Because plaintiffs' public-nuisance claim sought injunctive relief, defendants argued that the Federal Tort Claims Act (FTCA) should be applied to dismiss the claim. They asserted that because the FTCA only authorizes monetary damages and since the plaintiffs were seeking injunctive relief, the court had no jurisdiction to hear the case. The Corps also argued that plaintiffs' common-law nuisance claim was displaced by federal law.²⁷ Plaintiffs responded to the argument by asserting that 5 USC 702 removed the defense of sovereign immunity from all tort claims and therefore was no bar to the judicial review of this or any other federal administrative decision.²⁸ Although the court appeared to agree with plaintiffs, it did not decide the issue because plaintiffs could not meet their preliminary-injunction burden. The court did, however, pointedly disagree with defendants' contention that common-law nuisance claims have been displaced by federal law.²⁹

Imminent, Irreparable Harm

The court's decision was largely based on its belief that Asian carp do not pose an "imminent threat" to the Great Lakes in a "legal" sense.³⁰ One troubling conclusion that can be drawn from Judge Dow's opinion is that the amount and quality of scientific evidence necessary to meet the "imminent threat" prong of the preliminary-injunction test is essentially insurmountable in the

context of an invasive species. As Judge Dow frankly acknowledged: “The Court stresses its recognition that the *potential* harm in a worst case scenario is great.”³¹ However, the court agreed with defendants that even if a large population of Asian carp were found in Lake Michigan, “it is far from certain that Asian carp can survive and reproduce in the Great Lakes.”³² Thus, while “[t]he potential for damage [to the Great Lakes] is high * * * the level of certainty that any damage will occur is low.”³³ The implication from this statement and others seems to be that nothing short of an established, significant, proven breeding population would be sufficient to satisfy the imminent-harm requirement necessary for a preliminary injunction to issue—and if this is the case, then closing the locks (or the proverbial barn door) would be pointless.

Conclusion

Does the failure to convince the court to close the CAWS mean Asian carp will soon be found throughout the Great Lakes? Although legal efforts and media attention have focused on the CAWS, it is not the only avenue by which Asian carp may enter the Great Lakes. In summer 2010, Asian carp were discovered in the Wabash River in Indiana, which has a tributary that seeps into marshlands near the Maumee River. If flooding allows Asian carp to cross the marshlands into the Maumee River, they then have a straight path to Lake Erie.³⁴ Lake Erie, with its shallow waters and plankton-rich environment, would be the most hospitable of the Great Lakes for the proliferation of the Asian invaders.³⁵

Since efforts to stop the Asian carp’s migration through use of the courts have thus far failed, the future rests with other efforts such as a team of governors’ representatives, state officials, and mayors led by the Great Lakes Commission and the Great Lakes and St. Lawrence Cities Initiative, who are planning to convene stakeholders and technical experts in an effort to identify economic and environmental solutions for separating the Mississippi River Basin from the Great Lakes Basin. Engineering a system that separates the two water systems will not be the most difficult task. The real challenge will be finding the political will necessary to make it happen. ■



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FOOTNOTES

1. *Michigan v US Army Corps of Engineers*, ___ F Supp ___ (ND Ill, 2010), available at 2010 WL 5018559, p 4, n 8.
2. Smith, MIT Sea Grant Coastal Resources, *Ballast Water* <<http://massbay.mit.edu/exoticspecies/ballast/>>. All websites cited in this article were accessed March 18, 2011.
3. The Christian Science Monitor, *Asian Carp: How One Fish Could Ruin the Great Lakes* <<http://www.csmonitor.com/USA/2010/0316/Asian-carp-how-one-fish-could-ruin-the-Great-Lakes>>.
4. Smith, *supra*.
5. Egan, JSONline, *DNA Water Test for Asian Carp Endorsed* <<http://www.jsonline.com/news/wisconsin/112984379.html>>.
6. See Go Erie.Com, *Erie-area Fishermen, Conservationists See Asian Carp Director as Positive Step Toward Stopping Invader* <<http://www.goerie.com/apps/pbcs.dll/article?AID=/20100917/NEWS02/309169841/-1/etn>>.
7. See Walsh, Time, *Asian Carp in the Great Lakes? This Means War!* <<http://www.time.com/time/health/article/0,8599,1962108,00.html>>.
8. Absolute Michigan, *Michigan Invasive Species: Asian Carp* <<http://www.absolutemichigan.com/dig/michigan/michigan-invasive-species-asian-carp>>.
9. United States Army Corps of Engineers, Chicago District, *Dispersion Barrier Efficacy Study*, p 14 <http://www.lrc.usace.army.mil/pao/02June2010_InterimIll.pdf>.
10. *Id.* at 7, citing 33 CFR § 207.420(a) to (b).
11. See *id.* at 47.
12. Hood, Chicago Tribune, *Carp Creeps into Lake Calumet* <http://articles.chicagotribune.com/2010-06-23/news/ct-met-0624-asian-carp-found-20100623_1_electric-barriers-lake-michigan-carp>.
13. See *Army Corps*, 2010 WL 5018559 at 7, n 10.
14. See *id.* at 13, citing *Efficacy Study*, *supra*.
15. Memorandum for the United States in Opposition to the Motion for Preliminary Injunction Submitted by the State of Michigan at 20–21, *Wisconsin v Illinois*, ___ US ___; 130 S Ct 2397; 176 L Ed 2d 765 (2009) (No. 1, Original), available at 2010 WL 1389746.
16. *Wisconsin v Illinois*, ___ US ___; 130 S Ct 2397; 176 L Ed 2d 765 (2009).
17. *Army Corps*, 2010 WL 5018559.
18. *Id.* at 14–16.
19. *Id.* at 21.
20. *Id.* at 1.
21. *Id.* at 1–2.
22. *Id.* at 30.
23. *Id.* at 29–34.
24. *Id.* at 27. Note: The decision references Asian carp DNA found in Calumet Harbor, which is in Lake Michigan.
25. *Id.*
26. *Id.*
27. *Id.*
28. *Id.*
29. *Id.* at 32.
30. See *id.* at 27–30.
31. *Id.* at 34.
32. *Id.* at 29.
33. *Id.* at 30, quoting expert testimony.
34. Asian Carp Regional Coordinating Committee, *Preventing Establishment of Asian Carp in the Great Lakes: The Wabash/Maumee River Connection* <<http://www.asiancarp.org/documents/MaumeeWabashFactSheet-final.pdf>>.
35. See Ohio.Com, *Asian Carp Create Nagging Fear in Lake Erie Towns* <http://www.ohio.com/news/break_news/110815419.html>.

