

Upper Mississippi Carp Act (HR 709)
Hearing Testimony
Rep. Keith Ellison (MN-05)
July 25th, 2013

Introduction

The Upper Mississippi Conservation and River Protection (CARP) Act (HR 709) aims to prevent Asian carp from spreading into upper Midwest waters at no cost to the taxpayers, which would protect a multi-billion dollar recreational and fishing industry in Minnesota.

Invasive Asian carp pose an economic and environmental threat throughout the country. These non-native fish continue to spread north throughout the Mississippi and into its tributaries, and threaten the integrity of the Great Lakes fisheries. Millions of taxpayer dollars are spent every year to slow and prevent the spread of these carp into new waterways, and manage populations of these species where they have become established. Complete eradication of an invasive species once it has become established in an open aquatic system is prohibitively expensive and nearly impossible. Management plans that focus on the prevention of invasive species entering currently unaltered regions should be a priority in federal invasive species policy.

The Upper Mississippi CARP act would direct the Secretary of the Army to shut the Upper St. Anthony Falls lock and Dam in Minneapolis to prevent the spread of invasive Asian carp into Northern Minnesota waters. This legislation is a zero-cost, proactive approach to invasive carp prevention and management efforts in Minnesota, simultaneously protecting a vital industry while saving government dollars that would go to carp management programs if these fish invade northern Minnesotan waters.

Invasive Asian carp

Four species of Asian carp were introduced to the United States in the 1960s and 70s, including bighead carp (*Hypophthalmichthys nobilis*), silver carp (*H. molitrix*), grass carp (*Ctenopharyngodon idella*), and black carp (*Mylopharyngodon piceus*), together referred to as Asian carp. Of these, the bighead and silver carp are of immediate concern to Minnesota, the Great Lakes, and waterways throughout the United States, due to their exponentially increasing numbers and territorial expansion.

Asian carp were brought to the U.S. to clean aquaculture and wastewater ponds, and well as being used as food fish. After escaping ponds and hatcheries, silver carp have expanded their population northward along the Mississippi River, entering the Illinois, Ohio, and Missouri rivers. Silver carp can grow to 39 inches and 60 lbs. Easily startled by boats, silver carp can jump 10 ft out of the water, landing in boats and injuring boaters. Bighead carp, which can grow up to 60 inches in length and 110 pounds, have established populations in the Mississippi River, but have also been found in Lake Erie. Asian carp grow quickly, live for up to 20 years, and can spawn multiple times a year.

Bighead and silver carp are ravenous filter-feeding fish, consuming up to 5-20% of their bodyweight every day in plant and animal plankton. These carp outcompete native fish for plankton. As a result, native fish decrease in physical size and population numbers, which in turn affects the entire food chain, limiting food resources available to predatory fish, which are not large enough to feed on the invasive carp. Native plants, invertebrates, and mussels are all adversely affected by the establishment of carp populations. Furthermore, Asian carp can transmit diseases, alter habitats, and deteriorate gene pools. The result is a dramatically altered ecosystem; in many areas Asian carp make up the vast majority of the biomass of the river.

Eradication of these fish is nearly impossible and costly. The federal fiscal year 2012 budget for invasive species management across the country was \$2.2 billion dollars. The President's fiscal year 2012 budget earmarked \$52 million for Asian carp control measures, however this money is concentrated on the Great Lakes. Management of Asian carp is often centered on population control and preventing the species from moving into new waters by constructing electrical, bubble and sound barriers. These tactics are not 100% effective; many have not been effectively tested on invasive Asian carp, and malfunctioning of these barriers can allow Asian carp to pass through.

Minnesotan Recreational and Commercial Economy

Preventing these species from entering new waters is widely considered less expensive than eradication and control measures after the species becomes established; once an invasive species establishes a breeding population in an open system, it is nearly impossible to eradicate. As we have seen in the southern stretches of the Mississippi and other rivers, invasive Asian carp dramatically alter aquatic ecology and out-compete native fish species, radically decreasing native fish size and numbers. In response, native species numbers have decreased significantly, and many commercial fishing locations where Asian carp are established have been altered or deserted. These effects would be devastating in the waters of Minnesota.

Minnesota is famous for the 10,000 lakes across the state that are popular for boating, swimming, and fishing. An estimated \$4 billion is spent every year in the state by anglers and boaters, sustaining many local economies. The Mississippi River connects many of the most popular and economically important waters of the state. The river runs between Minneapolis and St. Paul and up through central Minnesota, before turning westward towards its headwaters near Bemidji, Minnesota. Tributaries of the Mississippi originate in some of the larger lakes in the state, such as Mille Lacs, Leech, and the Whitefish and Gull Chain of Lakes, providing a direct aquatic pathway for invasive carp to enter these lakes.

In May, 2012 the Minnesota DNR assessed the recreational fishing economy at risk from the spread of Asian carp in Minnesotan north of the Twin Cities, with a focus on these lakes. Recreational opportunities on and around these major lakes generate over \$100 million in economic activity every year, and support hundreds of jobs. The study took into account the money spent on fishing and boating, trip spending such as food, gasoline, and bait, as well as business output and earnings. The DNR notes, however, that even these numbers and the total \$4 billion spent throughout the state may be low estimates.

As sport fish decrease in numbers due to invasive carp, and boating becomes less desirable due to the hazard of large carp leaping out of the water, the appeal of these activities will diminish. This decrease in recreational activity will affect those who directly profit from the outdoor industry, such as fishing outfitters and bait shops, as well as other businesses that rely on recreational traffic. Lodging, resorts, related tourism activity, land prices and home values would also be negatively impacted by a decrease in recreational activity due to Asian carp.

Furthermore, these economic numbers do not include commercial fishing in Minnesota. The total dockside value of commercial fishing in Minnesota, excluding Lake Superior, amounts to approximately \$465,000 per year. This figure, however, does not take into account revenue generated from commercial fishing licenses, fish prices in stores and restaurants, and economic activity associated with transport and processing. Although the ultimate economic value of commercial fishing in Minnesota is difficult to quantify, it is likely upwards of millions of dollars per year.

Minnesota and Asian carp

Since 2012, bighead and silver Asian carp have steadily moved northward in Minnesota. In March 2012, a live Asian carp was caught in the Mississippi River near Winona in southern Minnesota. By April of the same year, carp had moved up to the mouth of the St. Croix River. Subsequent catches were made in Lake Pepin and Winona, as well as the most recent catch last month in Pool 2, just south of St. Paul.

Minnesotans are working on local solutions to slow the spread of invasive carp. Stakeholders such as shipping interests, environmental groups, and local government officials have met several times to discuss and develop strategies to combat Asian carp, such as increased monitoring and constructing electrical, sound, or bubble barriers at various points along the river. Experts concluded, however, that these alternative strategies will only slow the upstream movement of Asian carp, and there is no effective state-level decision that will stop the spread of Asian carp in Minnesota.

Legislative Solution

Upper Mississippi Carp Act

Experts across the state agree that the most inexpensive, efficient and effective solution to halt the spread of Asian carp into northern waters is to close the Upper St. Anthony Falls lock and dam in Minneapolis to commercial and recreational traffic. Because the Army Corps of Engineers manages the Upper St. Anthony Falls lock, closure requires an act of Congress. This approach has widespread support due to the limited commercial use of the lock and the lack of acceptable Asian carp prevention alternatives. The proposal is supported by Governor Mark Dayton, Minneapolis Mayor R.T. Rybak, MN DNR Commissioner Tom Landwehr, as well as

multiple environmental organizations, sportsman's groups, and businesses in northern Minnesota.

The Upper Mississippi CARP Act would require the Army Corps to discontinue lock operations when an adult or juvenile carp is found above specified river miles south of the lock. This mechanism allows the Army Corps to continue normal operations of the lock until closure is absolutely necessary. Additionally, the legislation requires feasibility studies for lock closure, and allows the Secretary to order lock closure at their discretion before the trigger points are met.

The bill also mandates the incorporation of the Upper Mississippi River, its tributaries, the Minnesota River, and the St. Croix River into the Council on Environmental Quality's Carp Control Strategy Framework. This section of the legislation will bring federal Asian carp monetary support and expertise to the full length of the Mississippi River, as well as its tributaries.

Commercial traffic use

Although Minnesota's ports are vital for moving economic goods to and from the state on the Mississippi, only 6.3% of these goods pass through the Minneapolis port directly above the St. Anthony Falls Lock and Dam. The port consists of three terminals, used by Northern Metal Recycling to export shredded metals; Aggregate Industries, a U.K. company that produces construction materials; and the Minneapolis Upper Harbor Terminal, owned by the city of Minneapolis and contractually run by River Services, Inc. The contract between Minneapolis and River Services, Inc. will not be renewed in 2014, in part to reduce the number of lockages that allow Asian carp to pass through into waters above Minneapolis.

In the event of lock closure, all tonnage previously passing through the Upper St. Anthony Falls lock would need to move from barge to truck. A 2012 study by the Metropolitan Council concluded that this shift would cost \$24.2 million over the 2012-2040 period, or about \$860,000 per year. This cost is significantly less than the billions in economic dollars generated every year by commercial fishing and recreational activities in the state.

The logic for closing this particular lock is clear. The Mississippi river is vital for the region's economy. The river system moves over 50% of the state's agricultural exports, and agricultural commodities make up the bulk of goods traveling on river systems in Minnesota. Few agricultural products travel through the Upper St. Anthony Falls lock, and those that do pass through the Minneapolis Upper Harbor Terminal. When this terminal is closed in 2014, the lock will no longer be used for transporting agricultural products on the river. Furthermore, the port in Minneapolis has by far the least amount of commercial traffic; 6.3% of state river tonnage passes through the Minneapolis port, compared to 52% at the St. Paul port.

Lack of Alternative Options

Southern Minnesota has an important recreational and commercial fishing economic interest that will be greatly impacted by the establishment of an Asian carp population. Unfortunately, however, the nature of the Mississippi and Minnesota Rivers in southern Minnesota precludes

creating a barrier sufficient to preventing Asian carp from moving further upstream. The size of the flood plains in southern Minnesota would allow Asian carp to bypass any barriers put in place along these stretches of the river. Flooding would further connect bodies of water otherwise unconnected, whereas flooding and tributaries are minimal in the urban area surrounding the Upper St. Anthony Falls Lock and Dam. Furthermore, the waterfall that predated the construction of the Uppers St. Anthony Falls Lock and Dam was a natural fish barrier for over 10,000 years.

Because of these natural constraints, and the vital economic river port traffic south of Minneapolis, there is no acceptable option for lock closure south of Minneapolis. Although other barriers have been proposed, such as sound, bubble, and electrical barriers, these devices are costly and not 100% effective in stopping the spread of carp. Furthermore, electrical barriers, which are the most successful of the three alternate barrier options, pose a public safety risk to boaters that use the river and the locks.

Conclusion

Congress must address the issue of Asian carp on the national, regional, and local level. Closing the Upper St. Anthony Falls Lock and Dam is the most proactive, viable, and cost-efficient measure Congress can take to prevent the spread of invasive carp into northern Minnesota and the Upper Midwest. Congress must act immediately in order to save a multi-billion dollar industry now, and save millions on carp management programs in the years to come. I encourage the committee to support the common-sense Upper Mississippi Carp Act.

SOURCES

Asian Carp Deterrence Alternatives, Deterrence and Safety Evaluation. 2013. Final Revised Executive Summary

Asian Carp Regional Coordinating Committee. 2012. FY2012 Asian Carp Control Strategy Framework. <http://www.asiancarp.us/documents/2012Framework.pdf>.

Buck, E.H., Upton, H.F., Stern, C.V., and Brown, C. 2011. HCRS Report R41082, *Asian Carp and the Great Lakes Region*.

Invasive Species Interagency Crosscut Budget. 2013. The National Invasive Species Council. U.S. Department of the Interior, Office of the Secretary.

Metropolitan Council. 2012. Assessment of Economic Impact of Potentially Discontinuing the Operation of the Upper St. Anthony Falls Lock.

Minnesota Department of Natural Resources. 2007. Preventing the introduction of Asian carp into Minnesota.

Minnesota Department of Natural Resources. 2011. Ad Hoc Asian Carp Task Force. Asian Carp Action Plan. A plan to assess the threat posed by Asian carp and actions needed to minimize their impact in Minnesota. 16 pp.

Minnesota Department of Natural Resources, 2012. Water Recreation Economy at Risk from the Potential Spread of Asian Carp in Minnesota: Selected water resources connected to the Mississippi River north of the Twin Cities. Minnesota Department of Natural Resources, Division of Operations Services

Minnesota Department of Transportation. Minnesota Ports and Waterways. 2012. <http://www.dot.state.mn.us/ofrw/waterways.html>.

U.S. Fish and Wildlife Service. 2004. Asian Carp: Aquatic Invasive Species, Issues, Program Accomplishments, and Program needs. <http://www.fws.gov/midwest/fisheries/library/fact-asiancarp.pdf>.