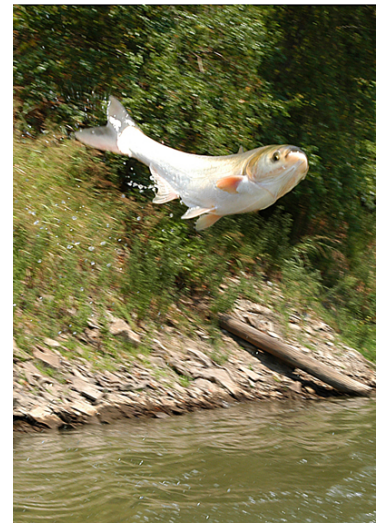




Establishing Strong Protections Against Aquatic Invasive Species

The introduction and spread of non-native aquatic invasive species (AIS) in the Great Lakes poses serious risks to the region's ecological and economic health. More than 180 non-native aquatic species have become established in the Great Lakes, causing economic losses estimated at \$5.7 billion annually. Ecological conditions will only get worse if Asian carp become established in the Great Lakes watershed. Originally imported into the southern United States for beneficial use by aquaculture and wastewater treatment facilities, the silver and bighead carp have been migrating up the Mississippi and Illinois River systems since flooding in the early 1990s and are now closing in on Lake Michigan through waterways around Chicago. Their establishment in the Great Lakes as self-sustaining populations would threaten native fish and wildlife because of their rapid reproduction and growth, voracious consumption of phytoplankton (aquatic plant life), and impact to habitat. The region's \$7 billion fishing industry is at extreme risk with the invasion of Asian carp. The door must be closed on these non-native fish and other new invaders before it's too late. Although progress has been made in establishing a multijurisdictional approach to AIS prevention and control, we still face an urgent need to build program capacity at state, regional, national and international levels and promote action on a coordinated basis. Priority vectors (i.e., pathways) of AIS introduction and spread that must be addressed include ballast water discharges from ships; canals and waterways; organisms in trade; recreational activities; and aquaculture. Once aquatic invasive species become established, it is usually impossible to eradicate them, leaving never-ending control and mitigation as the only option. For example, the cost to control sea lamprey in the Great Lakes is estimated at approximately \$20 million annually. Among the region's most critical concerns related to aquatic invasive species are the degradation of native species populations, the natural food web and biodiversity; fouling of beaches and human infrastructure; habitat destruction; and damage to the multibillion dollar tourism and fishing industries.



Asian carp, © Jason L. Jenkins.

Request: To address the threat of invasive species, the Great Lakes Commission asks Congress to maintain funding for the Great Lakes Restoration Initiative (GLRI) at the FY 2010 level of \$475 million. Additional congressional action is needed to provide funding for increased monitoring and response actions and to expedite efforts to prevent Asian carp from entering the Great Lakes; pass legislation to guard against all sources of invasive species; and fully fund the Great Lakes Fishery Commission's sea lamprey control program.

Action under the Great Lakes Restoration Initiative

The GLRI strategically targets urgent problems in the Great Lakes caused by biological and chemical pollution. Under the GLRI, five priority areas have been identified for restoration work, including invasive species. The GLRI is guided by a five-year action plan that establishes outcome-oriented performance goals and criteria for measuring progress under each priority area. In FY 2010, more than \$60 million of GLRI funding was allocated for projects directed at invasive species prevention and control. The EPA also will be spending \$13 million in GLRI funds on emergency actions to prevent the establishment of Asian carp in the Great Lakes. This money will be spent on federally managed projects, as well as distributed in grants to nonfederal entities.

Support for Critical Federal Activities

In addition to the Great Lakes Restoration Initiative, the Great Lakes Commission calls on Congress to strengthen federal laws to ensure the long-term protection of the Great Lakes – and other regions of the country – against invasions by harmful, non-native species. Other priorities for congressional action include:

- **Asian Carp Prevention:** Funding is needed to enhance monitoring efforts – including DNA, electro fishing and netting techniques – around Chicago to determine if carp are in, or near, Lake Michigan and to facilitate emergency response actions to eradicate small populations before they expand and spread. Congress should extend the U.S. Army Corps of Engineers' authority to take necessary actions to prevent further movement of carp toward Lake Michigan and provide full funding for the agency to 1) complete the electric barrier on the Chicago Sanitary and Ship Canal (CSSC) as soon as possible; 2) expedite the study of options for separating the Great Lakes and Mississippi River watersheds; 3) prevent flooding between the two watersheds; and 4) prevent any further encroachment of carp toward Lake Michigan.
- **Early Detection and Rapid Response:** Immediate federal support is needed to bolster early detection and rapid response capabilities, particularly to guard against the imminent threat from Asian carp.
- **Ballast Water Management:** Congress and the Administration should implement an effective federal regulatory program to prevent AIS introduction and spread via ballast water.
- **Addressing Other AIS Pathways:** Legislation is needed to prevent the introduction and spread of harmful species via the trade in live organisms and other sources of AIS invasions.
- **AIS Prevention and Control Programs:** Provide full funding for the Great Lakes Fishery Commission's sea lamprey control program and state and regional programs under the National Invasive Species Act.

Progress to Date

Asian Carp Prevention: In late 2009, an interagency Asian Carp Rapid Response Work Group implemented a Rapid Response Plan to address Asian carp DNA detected upstream from the barrier on the CSSC. In December the fish toxicant rotenone was applied to a 5.7 mile stretch of the CSSC in conjunction with scheduled maintenance of the electric barrier. In February, federal agencies and the Illinois DNR released the *Asian Carp Control Strategy Framework*, which provides a roadmap to unify agency actions to prevent the establishment of Asian carp in the Great Lakes.

Ballast Water Management: Since 2004, the U.S. Coast Guard (USCG) has operated a ballast water management program for vessels entering the Great Lakes. In 2009, the USCG proposed a two-phase standard for living organisms in ballast water discharged in U.S. waters. The phase-one standard is based on the International Maritime Organization (IMO) standard and the phase-two standard is 1,000 times more stringent than IMO. The USCG currently is drafting responses to comments and preparing the final rulemaking for publication.

Other AIS Pathways: To manage the trade of live organisms – critical to preventing future introductions of harmful species such as the Asian carp – H.R. 669 (Nonnative Wildlife Invasion Prevention Act) was introduced to require screening of imported species for invasiveness, including diseases they might carry, or for the risks they may pose to human or wildlife health. The Senate is working on similar legislation.

AIS Prevention and Control Programs: The Great Lakes Fishery Commission sea lamprey control program has operated since 1955 to reduce sea lamprey populations in the Great Lakes. In 1990 the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) was passed authorizing certain AIS prevention and control programs. NANPCA was reauthorized in 1996 by the National Invasive Species Act, which subsequently expired in 2002. Reauthorization and significant funding increases for these programs are needed to halt AIS invasions.

Economic and Environmental Benefits

Aquatic invasions must be stopped to protect native species, restore the Great Lakes' ecosystem and protect our economy. Preventing the introduction of new AIS is key to avoiding the staggering costs of controlling populations once they become established. The value of prevention was demonstrated in Indiana where an infestation of the invasive aquatic weed *hydrilla* in an inland lake was contained through aggressive rapid response. Approximately \$700,000 was spent to eradicate the infestation, avoiding projected long-term costs of \$1.5 million. In contrast, the cost of controlling *hydrilla* in Florida has reached \$58 million and continues to mount. Valuable assets at risk from the impacts of AIS in the Great Lakes region include recreational and commercial fishing, swimming and boating activities, and tourism, among others. The sport fishing industry's estimated worth is \$7 billion and the recreational boating industry \$10 billion. To protect these assets, authorization and funding of prevention and control efforts is critically needed to stop the introduction and spread of AIS in the Great Lakes region.

More Information

Great Lakes Restoration Initiative: www.greatlakesrestoration.us

Asian Carp Management: www.asiancarp.org

Great Lakes Aquatic Invasions booklet: www.glc.org/ans/aquatic-invasions

Great Lakes Panel on Aquatic Nuisance Species: www.glc.org/ans/panel

U.S. Coast Guard: www.uscg.mil/hq/g-m/mso/ans.htm