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WCFA

Testimony of Charles Henriksen, Baileys Harbor, Wisconsin, President of the Wisconsin Commercial Fisheries Association to the Subcommittee on Fisheries and Oceans on the growing problem of invasive Asian carp in the Great Lakes and Mississippi River system.

Thank you very much for the opportunity to testify today. I am a commercial fisherman and recreational boater who spends most of my life on and around the water. I would never be the one to cry wolf unless they were knocking at the door and these Asian carp are the biggest, boldest threat we have ever faced. Frankly they scare the hell out of me.

Our Great Lakes are the world's greatest freshwater system and they are being overrun by aquatic invasive species that are destroying and undermining decades of progress to restore the Great Lakes. The Great Lakes cannot afford even one new invader, especially one as pervasive and detrimental as Asian carp. As a potential invasion of this magnitude is irreversible, prevention is paramount.

Current status

Asian carps (bighead, silver and black carp) are free ranging in the Mississippi River drainage. The silver and bighead carps are particularly abundant in the Illinois River below the Starved Rock lock and dam. The Illinois River is connected to Lake Michigan via the Chicago Sanitary and Ship Canal, which is the most likely route for natural range expansion of these fish into the Great Lakes. Another possible avenue of introduction is by intentional or unintentional introduction by people either as ritualistic release or release when mixed with or confused with native species. It is important to stop both their natural range expansion as well as eliminating outlets for sale of live Asian carps in food markets.

Commercial Markets for these fish are currently limited to Asian grocery stores in large metropolitan areas where the fish are often displayed and even sold live to customers. Commercial fishermen on the Mississippi River system cannot catch their traditional species due to their nets being overwhelmed by bighead carp. We certainly don't want them in the Lake.

Their impacts on native species are difficult to discern. The effects will likely be related to forage base effects as these large-bodied fish, reaching 80 or 100 pounds, consume 40% of their body weight per day. The fish consume plant and animal plankton so will affect the food web at its base, much like the zebra mussel. Asian carp grow quickly, reaching 10 inches in their first year of life. At 10 inches in length these young Asian carps quickly become non-vulnerable to most predators. If they entered the system, they would likely become the dominant species.

The Great Lakes are easily perturbed by new planktivorous invaders. The bighead and silver carps will likely do well in fertile river mouths, harbors and shallow bays of the Great Lakes, which provide critical nursery habitat for native species. Black carp consume mussels and so would pose an additional threat to native mussels in the Great Lakes and their tributaries. As a group, native mussels are among the most threatened and endangered species in the Great Lakes region as a consequence of habitat loss and zebra mussel impacts.

The other consequence of the Asian carps is their impacts on recreational boating. These fish respond to the sound of boat motors and other pressure waves by leaping out of the water. The fish create an obstacle and a risk for boaters, jet and water skiers. Many boaters on the Mississippi River system are injured and boats are damaged by these "flying" fish; an Iowa man was killed this summer when he collided with one of these fish.

Control Efforts

The only effective means currently available to control the spread of these fish within the Mississippi River drainage is through the use of physical, electric or acoustic barriers. Physical barriers (dams) must be quite high as the fish are able to leap over low head dams. Dams on rivers and tributaries will help slow the spread of these fishes into new areas.

There is an electric barrier on the Chicago Sanitary and Ship Canal, at Romeoville, Illinois about 33 miles southwest of Chicago. The electric barrier currently in operation was built as a demonstration project and is nearing the end of its projected service life. The electric barrier is not species-specific, affecting all fish. Monitoring of the original electric barrier has proved that it is effective in stopping the movement of common carp. Only one of 118 radio-tagged common carp passed through the barrier in three and a half years of operation. That fish apparently moved through the barrier with a barge. A second barrier has been designed to address this shortcoming. The second, larger and more powerful barrier is

under construction and is expected to be operational by the end of the year. Construction of the second barrier has slowed somewhat of late due to contract payment problems.

Biologists with the Dispersal Barrier Advisory Panel have recommended that the original barrier continue operation with improvements after the second barrier comes online. Operation of the two barriers is necessary to form a more effective barrier in the event power is lost or as happened recently, lightning strikes and shuts down one of the barriers. Funding of barrier operation remains a critical issue. Currently no funds are allocated for operation of Barrier I; the U.S Army Corps of Engineers, Chicago District is operating the barrier out of its own budget. Without legislation directing Barrier II to be a federal project, responsibility for operation of the barrier will fall to the State of Illinois. The electrical cost alone for the operation of Barrier II is estimated to be on the order of \$250,000 annually. This barrier will benefit eight Great Lakes states by preventing Mississippi River fishes from spreading upstream and will protect the 29 downstream Mississippi River states from new Great Lakes fishes spreading out of the Great Lakes via the Sanitary and Ship Canal. Operation of the barrier should be a federal interest.

Research has also been conducted on an acoustic barrier that has the potential for some species-specific effect. Silver and bighead carps have acute hearing capabilities. Work with these fish has identified the particular frequencies to which they are sensitive. Tuning the acoustic barrier to these frequencies could deter these carps from entering an area while having a lesser effect on desirable species such as paddlefish and sturgeon. Work studying the effectiveness of the acoustic barrier has been conducted in the laboratory and in raceways but has yet to be tested in a small-scale field that Minnesota, Wisconsin and Iowa have is significant interest in developing this technology for use on the Upper Mississippi River system where the carps are not yet present or not abundant.

At this time there is no species-specific toxin for Asian carps. Any toxin used to control their spread or eliminate them from an area would kill native and other non-target species as well. Netting the fish would not eliminate them from a system; bighead carp can be successfully netted but silver carp are able to avoid nets to a large degree. Work on Asian carp fright and attraction pheromones is underway, but success is slow in coming and field application, if the substance is found, will at best take years.

Current Legislation

The effect of current legislation for control of these fish is limited. For example, Chicago has an ordinance prohibiting the sale for live Asian carps yet recently an inspector was able to purchase a live grass carp from a local market. Just last week Wisconsin passed legislation prohibiting the possession of live Asian carps and other Great Lakes state have similar laws. Yet once these fish escape confinement they do not recognize political boundaries and without significant effort and cost will spread to new areas. As demonstrated by the Chicago incident, not everyone follows the letter or at times the intent of the law. As long as a supply of live Asian carps exists for these cultural markets the risk will exist that the fish could be released into the environment bypassing the physical and behavioral barriers established to prevent their range expansion.

Work to complete the barrier system on the Chicago Waterway is moving forward, and provisions supporting this project exist in the pending NAISA legislation and in the Senate version of the Water Resources Development Act of 2005 (8. 728). New legislation is needed to study options for hydrological separation and to address issues in other canals, particularly in unused waterways. Existing canals and waterways should include dispersal barriers, flood control barriers, physical barriers, and other provisions to ensure hydrologic separations of historically disconnected watersheds. Wherever possible, canals that have fallen out of use should not be improved and in fact, should contain physical barriers to prevent free flow of organisms. Dam removal, while often an important element of habitat rehabilitation, should be done carefully, with full coordination of federal, state, and local agencies, so as not to solve one problem by creating another, an AIS pathway. The sea lamprey control program successfully carried out by the Great Lakes Fishery Commission should be fully funded so that this species, which entered the system through canal, can again be suppressed.

Federal, state, and/or local governments must enact measures that ensure the region's canals and waterways are not a vector for AIS, including full federal funding of the Chicago San-Ship Canal barrier and the sea lamprey control program. Specific recommendations are to:

- Complete and provide federal funds to operate both dispersal barriers in the Chicago Waterway system, and complete a study of options for permanent hydrological and/or biological separation of the Great Lakes and Mississippi River systems;
- Complete a study to fully examine options and their economic benefits and costs to prevent the spread of AIS via the Lake Champlain Canal and other canal systems linking the Great Lakes with other basins.
- Close or modify through the use of physical barriers of control structures, canals that have fallen into disuse or disrepair-if rebuilt fully consider preventing passage of aquatic invasive species must be takes;
- Prohibit development of new cross-drainage basin connections;
- Address intermittent flood-related connections;

- Significantly increase resources for the enforcement of laws governing the trade of live organisms; and
- Develop and implement risk models for organisms in aquaculture.

The trade of live organisms is vibrant. Hundreds of millions of fish and hundreds of thousands of invertebrates, plants, and other organisms are traded live each year. However, serious problems and many loopholes in the trade regime exist. In many cases, trade is unregulated, making importation, interstate commerce, and trade among the pathways that pose the greatest risk for introduction of invasive species into the Great Lakes ecosystem. This recommendation is designed to close the loopholes in the trade regime. It calls for an immediate listing of species and a state moratorium on trade of those species. It supports the provisions of NAISA that establish a screening process and it proposes that the screening process be based on a three-list approach. The recommendation also improves the implementation of key federal laws that restrict the interstate transportation of injurious species and calls for increased law enforcement to ensure the laws are implemented properly. Underlying the above recommendations is the requirement that the burden of proof demonstrating that an organism is not injurious be placed on person(s) who proposes to import it. When the screening process is developed pursuant to NAISA it will be important to place the burden of proof on the importer. Placing the burden on the government to demonstrate injuriousness (which occurs usually after it is too late to address the problem at all) does little to contain the spread of AIS through trade and does not protect the Great Lakes.

The State of Wisconsin recommends establishing a Great Lakes Aquatic Invasive Species Integrated management programs and assess the effectiveness of those programs. This program, which will require authorization should:

- Allocate funds for development and implementation of State and Interstate Aquatic Nuisance Species Management Plans through the Aquatic Nuisance Species Task Force, with a particular emphasis on the immediate use of techniques to control or slow the spread of AIS;
- Develop voluntary agreements and codes of best practices for industrial trade groups;
- Encourage investigation of economic requirements and incentive (e.g. bonds or insurance) to prevent new introductions;
- Establish a revolving fund for rapid response actions;
- Establish an interagency, Great Lakes Federal Rapid Response Team, that will conduct activities on federal lands, and in other locations with State, Tribal, and local cooperation; and
- Allocate funds to implement a system of enhanced monitoring and ecological surveys in Great Lakes;
- Support additional research to develop and implement new control methods for uncontrolled species of concern;
- Establish a coordinated data management system through the Smithsonian Institution the Great Lakes Environmental Research Laboratory or other suitable entity to develop an accessible integrated and centralized database that allows for the reporting and tracking of AIS infestations; and
- Ensure overall coordination and accountability through the Invasive Species Council, including developing regular and comprehensive reports summarizing the status of AIS activities (including those of the ANS Task Force and the Great Lakes Panel on ANS in implementing the National Invasive Species Management Plan), formulating a complete AIS federal budget request, overseeing progress in addressing AIS, evaluating the collective response to AIS and communicating AIS needs and problems to Congress and the public. The invasive species management plan should include specific focus on AIS in the Great Lakes.

The Lacey Act

The black carp is currently under consideration for listing under the Lacey Act. The Act might have very little impact on the sale of live Asian carps within a state, as it would only prohibit the interstate transfer of these organisms. Often, the difficulty in listing a species as injurious is complicated by the lack of demonstrated economic impacts of the organism under consideration. Those who produce the fish can easily derive economic impacts in terms of real dollars as to what listing would do to their business or sales. Generally it is more difficult to derive economic impacts for the ecosystem effects of an injurious species unless it directly affects other economic investments. For silver and bighead carp, damage to boats, injuries to boater and impacts on tourism may provide some sense of economic damages that can result as a consequence of establishment of these organisms. Yet it may take years or decades to quantify the environmental impacts of these carps if they reach the Great Lakes. It is inconceivable that the economic gain to fish farms in the southern U.S from the sale of these fish is worth the economic and environmental risk of harm to the Great Lakes and other waters as these fish spread.

One of the major barriers to a successful program remains the lack of strong national legislation (NAISA needs to be passed) that would help halt future AIS invasions. At the same time, the federal government needs to provide adequate funding to the states (through the state implementation plans) to address the problems caused by existing AIS species.

Thank you