

Invasive carp talking points

June 23, 2017

Recent discovery of a single silver carp near Lake Michigan

- The Illinois Department of Natural Resources and the Asian Carp Regional Coordinating Committee (ACRCC) announced on June 23, 2017 the preliminary finding of one silver carp in the Illinois Waterway below T.J. O'Brien Lock and Dam, approximately nine miles from Lake Michigan – the closest a silver carp has ever been found to the Great Lakes.
- The silver carp was discovered approximately 27 miles beyond an electric barrier meant to keep invasive carp out of Lake Michigan. A U.S. Fish and Wildlife Service study has shown that the electric barrier system is not 100 percent effective in keeping carp out of the lakes. Fish can become trapped (or entrained) in the spaces between barges when the barges navigate through the waterways and are unaffected when they move through the electric barriers. Also, fish can be pushed or pulled through the electric barrier by the water currents as the barges move through the electric barrier.
- The fish was captured with a gill net by a contracted commercial fisher the morning of June 22 as part of the ACRCC Monitoring Response Work Group's seasonal intensive monitoring event.
- The silver carp was 28 inches in length and weighed approximately 8 pounds. The fish has been sent to Southern Illinois University for additional analysis. Results will be available in mid-July 2017.
- The silver carp find triggers two additional weeks of intense sampling in the area, as outlined in the ACRCC's Contingency Response Plan.
- In eight consecutive years of intensive monitoring and fish sampling in the Chicago Area Waterway System, this is the second time a bighead or silver carp has been found above the electric dispersal barriers. A bighead carp was found in Lake Calumet in 2010.
- For Michigan, this worrisome finding underscores the urgent need for action to keep invasive carp out of the Great Lakes. Among the immediate actions that need to be taken:
 1. Release the feasibility study by the Army Corps of Engineers on Brandon Road Lock and Dam and take structural control measures at this important pinch point for invasive carp. The Army Corps report is an important milestone in our efforts – but not if it continues to be held back.

2. Continue funding for the monitoring, assessment and detection of invasive carp through the federal Great Lakes Restoration Initiative program. The president has proposed eliminating this program. We need Congress to continue to invest in the fight against invasive carp.
 3. Seek innovation. We need the best ideas and the brightest minds to continue working on the problem. That is why Michigan has launched an Invasive Carp Challenge. The Challenge will cast a wide net of opportunity for anyone to come to the table with an idea to help stop invasive carp from entering our waters. More information at: Michigan.gov/carpchallenge.
- Michigan continues to work with other states and the federal government to find solutions to threat of invasive carp in the Chicago Area Waterways system.
 - We need to act now to prevent these fish from entering the Great Lakes and doing potentially irreparable ecological and economic damage to Michigan's signature and defining natural resource.

Key invasive carp messages

Presently, there is no evidence that bighead, silver or black carp have colonized or are present in any numbers in the Great Lakes.

- Prior to 2002, 3-4 individual bighead carp were found in Lake Erie, but since their listing as an injurious species, no other individuals have been found. These fish were likely the product of aquaculture production and were released into the lake (Cudmore, et al., 2012).
- There have been a limited number (from thousands of samples collected by the USFWS) of positive eDNA findings reported for Lake Erie and Lake Michigan tributaries (Kalamazoo River (1 in 2015) and Fox River (1)). However, no live bighead, silver or black carp have been captured through many efforts including commercial fishing, recreational angling observations and scientific sampling in any of the Great Lakes since 2002.
- Grass carp are found incidentally throughout all of the Great Lakes and some jurisdictions still allow the stocking of triploid fish, fish that are supposed to be incapable of reproducing.
 - Grass carp are considered an invasive carp species, and while they do not pose the same risk to Michigan's waters as bighead or silver carp, they are of

concern as they eat beneficial types of aquatic plants and alter good fish habitat.

- Grass carp are known to be reproducing in at least one tributary in Lake Erie and efforts are underway to understand potential locations of spawning and other life history events for future management actions.

As bighead, silver and black carp move closer to the electric barrier system in the Chicago Area Waterway System, there is a heightened concern about the potential for silver or bighead carp reaching the Great Lakes.

- Bighead, silver and black carp are well-documented in the Illinois River and the Chicago Area Waterway System.
- Recent changes in the locations where juvenile and larval fish are found are concerning (see attached map)
 - The Asian Carp Regional Coordinating Committee's most recent map data (January 2016), indicates that the adult population front is 47 miles from Lake Michigan, immediately below Brandon Road Lock and Dam and just 10 miles from the dispersal barrier.
 - In June 2017, a black carp was captured at mile 137 of the Illinois River, 110 miles closer to the electric barrier system than previous captures.
 - In June 2015, three larval silver carp were captured just 16.8 miles downstream of the electrical barrier in the Dresden Island Pool.
 - From July through September 2015, approximately 100 small silver carp (less than 6 inches) were captured in the Starved Rock pool, approximately 88 miles downstream of the barrier.
- Bighead and silver carp pose a significant threat to the Great Lakes ecosystem, the \$7 billion fishery, and other economic interests dependent on the Great Lakes and its tributaries.
- These species are large, filter-feeding fish capable of consuming vast quantities of microscopic plants and animals daily.
- Due to their large size and high reproductive rates, bighead and silver carp pose a significant threat to disrupt the food chain that supports the native fish of the Great Lakes, such as walleye, yellow perch and lake whitefish. Such a disruption may result in diminished recreational and commercial fishing opportunities in the region.

- Silver carp pose a direct threat to human health due to their propensity to leap high out of the water when disturbed by vibrations like those commonly caused by recreational watercraft. Boaters can and have been injured when hit by leaping fish weighing up to 40 pounds. This has the potential to threaten Michigan's recreational economy because fear of injury could diminish the desire to recreate in areas inhabited by these fish.

Preventing invasive carp in the Great Lakes is a top priority in Michigan. The state is working with regional partners, including state, provincial and federal agencies on prevention and monitoring efforts around the Great Lakes.

- Michigan regularly performs its own monitoring and the state has an emergency response plan in place, with multiple agency partners, should we find silver, bighead or black carp – the most injurious forms of invasive carp -- in Michigan waters. We are actively monitoring key locations where invasive carp would congregate if they make their way into the Great Lakes, including the St. Joseph and Kalamazoo rivers.
- Michigan has developed a management plan for invasive carp and continues to collaborate in joint exercises under the Mutual Aid Agreement for Combating Aquatic Invasive Species Threats to the Great Lakes and St. Lawrence River Basin developed by the Council of Great Lakes Governors and Premiers.
- The Michigan DNR has trained with the Illinois DNR in invasive carp monitoring exercises in the Illinois River and continues to conduct field exercises and eDNA surveillance in Lake Erie and tributaries of Lake Michigan in partnership with other Great Lakes states and provinces and the federal government.
- Michigan is a part of the Asian Carp Regional Coordinating Committee, jointly chaired by the EPA and U.S. Fish and Wildlife Service, which aims to prevent bighead, silver and black carp from entering the Great Lakes and colonizing.

In mid-July, Michigan is poised to launch the Invasive Carp Challenge, a global search for solutions to prevent invasive carp from entering the Great Lakes. Find more information at: Michigan.gov/carpchallenge.

- Sometimes, a good solution is in a place we just haven't looked in before. That is why in February 2017, Governor Rick Snyder announced \$1 million for the Invasive Carp Challenge - to cast a wide net of opportunity for anyone to come to the table with an idea to help stop invasive carp from entering our waters. This is

an opportunity to enlist the power of entrepreneurship and innovation to bring still better solutions to bear on this urgent problem.

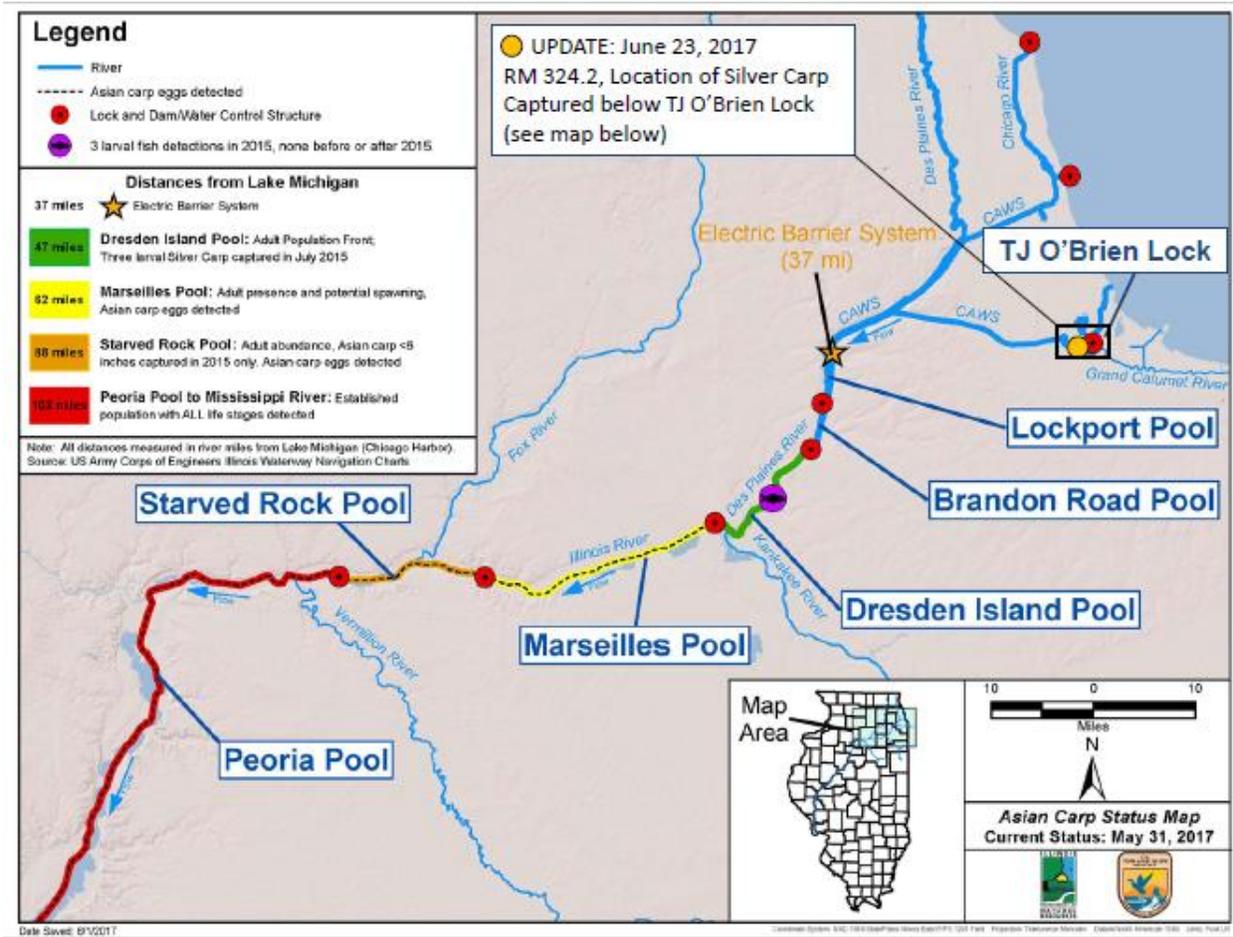
- The Invasive Carp Challenge is a global search for a viable solution to prevent invasive carp from entering the Great Lakes. It is open to any person or company/organization at any stage of the development process, excluding those directly involved with the challenge, like the DNR.
- The DNR has contracted with the firm [InnoCentive](#) to design, market, and administer the challenge.
- The \$1 million state general fund appropriation to DNR includes \$300,000 to InnoCentive to administer the challenge and \$700,000 for award funds.
- InnoCentive is a crowdsourcing company that has successfully administered challenges for agencies such as NASA, Harvard University, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, USEPA, the Defense Advanced Research Projects Agency, and many others.
- InnoCentive has:
 - Performed over 2,000 challenges representing approximately \$48 million in awards
 - Developed a built-in solver network of almost 400,000 people in about 200 countries
 - Helped identify solutions to problems such as forecasting the spread of infectious diseases for DARPA, identifying unknown science on type II diabetes for Harvard, and figuring out queuing problems at airports for TSA.
- The challenge is expected to launch in July 2017 with a winner announced no later than April 1, 2018.

Everyone can help prevent the spread of invasive carp to the Great Lakes and Michigan waters.

- Become familiar with the identification of Asian carp, including both adults and juveniles, as the spread of juvenile Asian carp through the use of live bait buckets has been identified as a potential point of entry into Great Lakes waters.
- Drain all water from boats and clean boats and gear after use. Invasive species and eDNA are known to "hitchhike" within live-wells and attach to boat trailers, anchors, waders and fishing gear.

- Report any observation or capture of fish that may be invasive carp. Any observations or captures should be reported to Seth Herbst, MDNR, at herbsts1@michigan.gov or 517-284-5841 or at www.misin.msu.edu or download the Midwest Invasive Species Information Network app to your smartphone and report it from your phone

ACRCC Map June 23, 2017



UPDATE: June 23, 2017, RM 324.2
Location of Silver Carp captured during
Seasonal Intensive Monitoring Event
See Asiancarp.us for more info

