

Asian Carp Sampling Summary

A sampling summary for the week of July 16, 2012 is included below. All data presented in this summary are preliminary and subject to revision.

Bottom Line: Monitoring occurred in the CAWS and upper Illinois Waterway upstream and downstream of the Dispersal Barrier. NO BIGHEAD OR SILVER CARP were reported captured or observed upstream of the Barrier, nor were any found in new locations downstream of the Barrier.

Random Site Sampling Upstream of the Dispersal Barrier

Area 1: Lake Calumet Connecting Channel and Calumet River above O'Brien Lock

Area 2: Calumet-Sag Channel

Area 3: Chicago Sanitary and Ship Canal, Western Ave. to Dispersal Barrier

Area 4: North Shore Channel, North Branch Chicago River and Chicago River

A crew from the IDNR completed 3 15-minute electrofishing runs at randomly selected locations in Areas 2, 3, and 4 (2.25 hours total). No bighead or silver carp were reported captured or observed.

Fixed Sites Downstream of the Dispersal Barrier

Site A: Lockport Pool – Lockport Lock and Dam to Electric Barrier

Site B: Brandon Road Pool – Brandon Road Lock and Dam to Lockport Lock and Dam

Site C: Dresden Island Pool – I-55 Bridge to Brandon Road Lock and Dam

Site D: Marseilles Pool – Rt. 47 Bridge (Morris) to Dresden Lock and Dam

Crews from the IDNR completed four 15-min electrofishing transects at each downstream fixed site (4.0 hours total). No bighead or silver carp were reported captured or seen at Sites A, B and C nor were any captured at new locations at Site D. Contracted commercial net sampling at downstream fixed sites occurred during the week of July 23 and will be included in the next weekly summary.

Remote Sensing Transects at the Barrier

A crew from SIUC with assistance from IDNR completed two remote sensing surveys between the high-field electric array of Barrier 2B and Barrier 1. Each survey consisted of three transects using a combination of side-looking split-beam hydroacoustics and side-scan sonar, which covered an estimated 97.6% of the entire water column. No fish >12 inches were detected during these surveys.

Fish Behavior Study at the Barrier

Caged fish trials at the Barrier were postponed until the week of July 23.

Distribution of Small Asian Carp Study

A crew from the USFWS Carterville Fish and Wildlife Conservation Office completed 23 net-nights of sampling with mini-fyke nets and 11 net-nights of sampling with small mesh trap nets in the Peoria Pool of the Illinois River. No Asian carp <12 inches long were captured or observed.

Monitoring Asian Carp Population Metrics and Control Efforts

A crew from SIUC completed a 24-hour hydroacoustics survey at the entrance to a private Illinois River backwater near Morris, Illinois to document fish movement in and out of the backwater. The crew also completed Doppler flow measurements in the Starved Rock Pool and redeployed a VR2W telemetry receiver downstream of Starved Rock Lock and Dam.

The SIUC crew with help from INHS continued the evaluation of hydroacoustics target strength and air bladder volumetric measurements with bighead and silver carp captured with large pound nets in an Illinois River backwater near Morris. Crews from SIUC also spent additional time in the lab aging post cleithrum bones from Asian carp obtained from Big River fish processors. Age and growth is an important component of Asian carp population dynamics that will be used to assess commercial fishing as a carp population control strategy.

Gear Evaluation Study

One INHS boat and crew sampled with multiple gears in the LaGrange Pool of the Illinois River at Matanza Backwater (River mile ~120) and the Havana area (River mile 119-122). In addition to the standard gears, crews at the Havana site evaluated 4-6' hoop nets (set for two net nights) and surface-to-bottom gill nets (4 sets). Gears and effort are shown in the table below. Results will be forthcoming after data have been entered into a database, checked for accuracy and analyzed.

Gear/Method	Effort	Gear/Method	Effort
DC electrofishing	6 x 15-min. runs	Mini-fyke net	8 net-nights
Trammel net w/ pounding	4 sets	Small mesh purse seine	4 hauls
Small mesh gill net -sinking	4 x 4-hr. sets	Large mesh purse seine	4 hauls
Small mesh gill net -floating	4 x 4-hr. sets	Beach seine	4 hauls
Large mesh gill net -sinking	4 x 4-hr. sets	Cast Net	4 throws
Small mesh hoop net	8 net-nights	Midwater trawl	4 x 5 min. tows
Large mesh hoop net	8 net-nights	Hydroacoustics	15 min. runs
Trap net	8 net-nights		

Crews from INHS also continued the summer trial for the large pound (trap) net evaluation. Two large pound nets were deployed in a private Illinois River backwater near Morris, Illinois and two were set at the entrance to Lake Calumet. The nets were checked and emptied at regular intervals and captured fish were measured and weighed. The nets will be fished for approximately two weeks (or possibly longer at Lake Calumet) before being pulled. Additional trials with the pound nets will occur this fall and again next spring.

Telemetry Monitoring Project

There were no USACE telemetry field activities this week. However, a quick analysis of telemetry data for VR2Ws and mobile tracking was completed and preliminary results from this portion of the project are included below.

- No tagged fish have crossed the barriers in either direction.
- Five lock passages have been observed this year through the Lockport Lock and Dam. All passages were by common carp. Three passes were in the upstream direction and two were downstream.
- The furthest upstream detection of a bighead carp occurred on 19 June just downstream of the Brandon Road Lock and Dam within the Dresden Island Pool. This fish was later detected leaving the study area through the Kankakee River on 9 July.
- All bighead carp detected in the Dresden Island Pool also were detected at the Kankakee River receiver indicating heavy use of the tributary. This observation will be analyzed further in the future when additional Asian carp are tagged later this fall. These movement data will be statistically analyzed in the future to examine if Asian carp prefer the Kankakee River over the Illinois River when they move upstream.