

## Asian Carp Sampling Summary

A sampling summary for the week of October 15, 2012 is included below. All data presented in this summary are preliminary and subject to revision.

**Bottom Line:** Monitoring occurred in the Chicago Area Waterway System 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.

### 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 Illinois Department of Natural Resources and U.S. Army Corps of Engineers – Chicago District completed four 15-min electrofishing transects at each downstream fixed site (4.0 hours total). No bighead or silver carp were captured at Sites A and B, nor were any captured at new locations at Sites C and D. Contracted commercial net sampling at downstream fixed sites will occur during the week of October 22.

### eDNA Calibration Project (ECALS)

A team from USACE ERDC completed the field sampling portion of an ECALS gear and boat contamination study. Boats and netting gear were sampled from USFWS, IDNR, USACE and commercial fishers for the presence of Asian carp eDNA over a variety of conditions. This ECALS experiment will examine the possibility of eDNA transfer via a boat or gear previously used in Asian carp infested waters that is then used upstream of the barriers.

### North Shore Channel/Chicago River Response Action

One contracted commercial fishing crew with an assisting IDNR biologist, a net crew from U.S. Fish and Wildlife Service – La Crosse Fish and Wildlife Conservation Office, and electrofishing crews from IDNR, USACE and U.S. Fish and Wildlife Service-Carterville and Columbia FWCOs completed a two-day Level 1 conventional gear response in the North Shore Channel this week. The response followed the 2012 Monitoring and Rapid Response Plan and occurred after three consecutive sets of eDNA samples from the site were found to have positive detections for silver carp. Two sampling teams consisting of one net crew and two electrofishing crews each began at an outer boundary of the site (one upstream and one downstream) and worked toward the site midpoint. Each team worked together to set paired nets across the entire channel at about 500-yard intervals and drive fish to nets with noise and electrofishing gear before the nets were run and checked for captured fish. The outermost nets were then pulled after each electrofishing and fish driving episode and moved toward the site midpoint so that each team gradually moved toward the midpoint of the 7.5 mile long channel, where any silver carp in the system could be trapped and captured. Total sampling effort for this location was 100 electrofishing runs (22 hours) and 46 net sets (2,741 yards). A total of 13,276 fish were caught and the most common fish were bluegill, gizzard shad, and several minnow species. Both Chinook and coho salmon were collected in these efforts. No Asian carp were captured or seen.

The same crews completed two days of intense sampling with electrofishing gear and gill nets in the Chicago River and South Branch Chicago River from Chicago Lock to Bubbly Creek. Thirty-foot deep surface -to-bottom gill nets were employed in this effort because of the greater maximum depth of these waterways. The Chicago River response was not triggered by three consecutive positive eDNA samples, but has had positive eDNA results for silver carp several times over the course of 2012 sampling. Total sampling effort for this location was 55 runs (13.2 hours) of electrofishing and 33 net sets (3,250 yards). A total of 3,251 fish were caught and the most common fish were gizzard shad, bluegill, common

carp and largemouth bass. Chinook and coho salmon, as well as brown and rainbow trout were collected in these efforts. No Asian carp were captured or seen.

**Barrier Defense Asian Carp Removal Project**

**Dresden Island Pool:** 10-24 miles downstream from Dispersal Barrier

**Marseilles Pool:** 24-51 miles downstream from Dispersal Barrier

**Starved Rock Pool:** 51-65 miles downstream from Dispersal Barrier.

Contracted commercial fishers and assisting IDNR biologists set 17.9 miles of net in the Starved Rock, Marseilles and Dresden Island pools of the upper Illinois Waterway and removed 385 bighead carp, 2075 silver carp, and 26 grass carp. A cumulative summary of the 2012 removal effort to date is shown in the table below.

<b>QUICK SUMMARY THROUGH: 19 October 2012</b>		
<b>Number of Days Fished</b>	52	days
<b>Number of Net Crews</b>	255	crew-days
<b>Miles of Nets Fished</b>	216.7	miles
<b>Number of Bighead Carp</b>	15,359	fish
<b>Number of Silver Carp</b>	18,724	fish
<b>Number of Grass Carp</b>	186	fish
<b>Number of Asian Carp (AC)</b>	34,269	fish
<b>Tons of AC Harvested</b>	227.1	tons
<b>CPUE (N/1,000 Yards of Net)</b>	90	fish

**Distribution of Small Asian Carp Study**

A crew from the USFWS-Carterville FWCO electrofished for young Asian carp in the Starved Rock and Marseilles pools of the upper Illinois Waterway. Nineteen 15-minute electrofishing runs were completed in Starved Rock Pool and three 15-minute electrofishing runs were completed in the lower reaches of the Marseilles Pool. No small Asian carp <12 inches long have been reported captured to date.

**Telemetry Monitoring Project**

A crew from USACE captured and implanted acoustic transmitters in 16 bighead carp and 15 silver carp sampled from Marseilles Pool by contracted commercial fishers and IDNR assisting biologists. An additional five smallmouth buffalo were tagged as surrogate species in the Dresden Island Pool because no Asian carp were collected by commercial fishing crews in the Dresden Pool this week.

**Monitoring Asian Carp Population Metrics and Control Efforts**

A crew from SIUC with assistance from USFWS-Carterville FWCO completed down- and side-looking hydroacoustics surveys within the main channel and associated backwaters of the LaGrange Pool of the Illinois River, and began surveys in the Alton Reach. Survey data will be used to quantify abundance, size distribution and biomass of Asian carp and other fishes in the river.

**Gear Evaluation Study**

A crew from Illinois Natural Survey checked and emptied the large pound nets located at the entrance to Lake Calumet. No Asian carp were captured, but the nets caught numerous Chinook salmon that were measured and released. The pound nets will remain in place through the month of October and will be checked and emptied weekly. The fall session for the multiple gear comparison portion of the Gear Evaluation Study has been completed for the 2012 field season.

### **Asian Carp Monitoring in Urban Fishing Ponds**

Two boats and crews from IDNR and an additional boat and crew from FPDCC sampled Tampier Lake with conventional gears (i.e. boat electrofishing and trammel nets) to search for any Asian carp that may have been unintentionally stocked as contaminants in shipments of channel catfish made during the late 1990s and early 2000s. Crews completed 6.5 hours of electrofishing and deployed 800 yards of trammel net in the lake and a connected slough. No bighead or silver carp were captured or seen.

### **Larval Fish, Zooplankton, and Productivity Monitoring**

Two crews from INHS and a crew from WIU completed sampling for fish eggs and larvae, zooplankton, and phytoplankton productivity at the stations listed in the table below. Effort included four 5-minute tows for fish eggs and larvae with a 0.5-meter diameter ichthyoplankton push net, filtering 100 L of water for zooplankton, and taking water samples with an integrated tube sampler for productivity estimates. This week represents the final sampling event for larval fish monitoring during the 2012 field season. Samples are currently being processed in the lab and results will be reported in an annual summary report that will be completed over winter.

<b>Pool and Station</b>	<b>River Mile</b>	<b>Pool and Station</b>	<b>River Mile</b>
CAWS		Peoria Pool	
Lake Calumet	327	Hennepin	~207-208
Little Calumet River	322	Henry/Lacon	189-197
Western Avenue	~320-321	Chillicothe	~178-180
Calumet-Sag Channel	~319	Upper Peoria Lake	~170-175
Worth Street	~311	LaGrange Pool	
Brandon Road Pool		Peoria Dam Tailwater	155-157.7
Lockport Tailwater	~289-291	Havana	119-122
Des Plaines River/CSSC confluence	~290	Bath Chute	107-113
Dresden Island Pool		Fredrick Main Channel	~97-98
Treats Island/I-55	277-279.5	Treadway Lake Backwater	~93.5
Marseilles Pool		Lilly Lake Backwater	83-84
Morris	262-265	Lilly Lake Main Channel	83-84
Starved Rock			
Ottawa	239.5-241.5		