



## Monitoring and Response Workgroup (MRWG) Monthly Activities

2021 January through March Summary

**Bottom Line:** A set of safety protocols developed during the COVID pandemic to ensure safe operations and were carried over into the start of the 2021 field sampling. **NO LIVE BIGHEAD CARP, BLACK CARP, GRASS CARP, or SILVER CARP were found or observed in any new locations immediately downstream or upstream of the Electric Dispersal Barrier.**

### Overall Summary

**Pool specific results through January 2021 from all effort within the Upper Illinois Waterway. The same time period in 2019 and 2020 for comparison. Additional effort may not be reported due to data processing and actual effort and catch could be higher. Check 2020 interim summary, published at the end of the year, for complete results.**

#### Lockport Pool

<b>Effort</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Yards of Net Fished	0	0	19,200
Miles of Net Fished	0.0	0.0	10.9
Hoop Net Nights	0.0	0.0	0.0
Mini Fyke Net Nights	0.0	0.0	0.0
Electrofishing Runs	0	0	19
Electrofishing Time (hrs)	0.0	0.0	4.7
Dozer Trawl Runs	0.0	0.0	29
Dozer Trawl Time (hrs)	0.0	0.0	2.4
Total Asian Carp (AC)	0	0	0
Tons of AC Harvested	0	0	0

#### Brandon Road Pool

<b>Effort</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Yards of Net Fished	0	0	24,200
Miles of Net Fished	0.0	0.0	13.7
Hoop Net Nights	0.0	0.0	0.0
Mini Fyke Net Nights	0.0	0.0	0.0
Electrofishing Runs	0	0	18
Electrofishing Time (hrs)	0.0	0.0	4.5
Dozer Trawl Runs	0.0	0.0	15
Dozer Trawl Time (hrs)	0	0	1.3
Total Asian Carp (AC)	0	0	0
Tons of AC Harvested	0	0	0

*Dresden Island Pool (Including Rock Run Rookery)*

<b>Effort</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Yards of Net Fished	0	0	23,900
Miles of Net Fished	0.0	0.0	13.6
Hoop Net Nights	0.0	0.0	0.0
Mini Fyke Net Nights	0.0	0.0	0.0
Pound net night	0	0	0
Electrofishing Runs	0	0	21
Electrofishing Time (hrs)	0.0	0.0	5.3
Dozer Trawl Runs	0	0	27
Dozer Trawl Time (hrs)	0.0	0.0	2.3
Bighead Carp	0	0	6
Grass Carp	0	0	0
Silver Carp	0	0	15
Total AC	0	0	21
Asian Carp (AC) from Rock Run Rookery	0	0	8
AC upstream I-55 (not in RR)	0	0	4
AC downstream I-55	0	0	9
Tons of AC Harvested	0.0	0.0	0.2
AC/1000 yds of gill net	0.0	0.0	0.8

*Marseilles Pool*

<b>Effort</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Yards of Net Fished	44,550	37,750	4,550
Miles of Nets Fished	25.3	21.4	2.6
Pound Net nights	0	0	0
Hoop Net nights	0.0	0.0	0.0
Mini Fyke Net Nights	0.0	0.0	0.0
Electrofishing Runs	0	0	0
Electrofishing Time (hrs)	0.0	0.0	0.0
Bighead Carp	123	301	22
Grass Carp	21	0	0
Silver Carp	17,004	15,265	476
Total Asian Carp	17,148	15,566	498
Tons of AC Harvested	90.1	75.0	4.4
AC/1000 yds of gill net	377.8	412.3	109.5

*Starved Rock Pool*

<b>Effort</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Yards of Net Fished	43,660	11,400	70,450
Miles of Nets Fished	24.8	6.5	40.0
Pound Net nights	0	0	0
Hoop Net nights	0.0	0.0	0.0
Mini Fyke Net Nights	0.0	0.0	0.0
Electrofishing Runs	0	0	0
Electrofishing Time (hrs)	0.0	0.0	0.0
Bighead Carp	22	3	222
Grass Carp	557	94	209
Silver Carp	24,657	8,882	47,055
Total Asian Carp	25,236	8,979	47,486
Tons of AC Harvested	72.7	27.6	145.4
AC/1000 yds of gill net	578.0	787.6	405.6

## Contracted Fishing Below the Electric Dispersal Barrier

- Contract fishing took place Starved Rock Pool Marseilles Pool of the Illinois River Waterway
- Contracted fishers set and pulled 300 yards of seine
- Contracted fishers set and pulled 142,300 yards of gill/trammel net
- 244 Bighead Carp, 209 Grass Carp, and 47,531 Silver Carp were removed
- 300,111 pounds of Asian Carp was removed
- 53,685 fish representing 23 species were captured during contracted commercial netting

Below is a summary of all Illinois Department of Natural Resources (IDNR) contracted fishing activities through March 2021. *For comparison purposes, data from the same time period in 2018 and 2019 are included.*

Effort	2019	2020	2021
Number of Days Fished	16	8	15
Number of Net Crew Days	91	48	82
Yards of Net Fished	88,210	49,150	142,300
Miles of Nets Fished	50.1	27.9	80.9
Number of Pound Net	0	0	0
Number of Hoop Net	0.0	0	0.0
Number of Bighead Carp	145	304	244
Number of Silver Carp	41,661	24,147	47,531
Number of Grass Carp	578	94	209
Number of Asian Carp	42,384	24,545	47,984
Tons of AC Harvested	162.8	102.0	150.0
AC/1000 yds of gill net	476.9	499.4	204.3

## Enhanced Contract Fishing

In September 2019, the Enhanced Contract Fishing Program was initiated in the Peoria Pool. The program offers Illinois-licensed commercial fishermen \$.10 per pound for Asian carp caught in the Peoria Pool and sold to fish processors or other buyers for at least \$.07 per pound. To date, 30 fishermen have entered into contracts to catch Asian carp from this pool. From inception through the remainder of calendar year 2019, 518,132 pounds of Asian carp were caught in the Peoria Pool, throughout the year 2020 a total of 2,882,725 pound were caught, and to date in 2021 an additional 737,748 pounds have been caught for a total of 4,138,605 pounds. Of these total catches, 5.30% are Bighead, 68.26% are Silver and 26.45% are Grass carp. **No Black carp have been reported.**

Figure 1. Table of Enhanced Contract Fishing – Peoria Pool from inception, September 2019 through March 2021. By Receipt date, not catch date.

YEAR	Total Lbs.	Bighead Carp	Silver Carp	Grass Carp**
2019 *	518,132	24,813	310,297	183,022
2020	2,882,725	176,195	1,978,501	728,029
2021 (Jan thru March)	737,748	18,222	536,015	183,511
<b>GRAND TOTALS</b>	<b>4,138,605</b>	<b>219,230</b>	<b>2,824,813</b>	<b>1,094,562</b>

\* September 2019 program inception.

\*\* No Black carp reported.

## Invasive Bigheaded Carp Early Detection Monitoring Surveys in the Upper Illinois Waterway: Lockport, Brandon Road, and Dresden Island Pools, and the Lower Kankakee River

U.S. Fish and Wildlife Service (USFWS) conducted invasive bigheaded carp (Bighead Carp, *Hypophthalmichthys nobilis*; Silver Carp, *H. molitrix*) early detection monitoring (EDM) surveys in Lockport Pool, Brandon Road Pool, Dresden Island Pool, and the lower Kankakee River during March 2021. These surveys were designed to monitor for the presence of invasive bigheaded carp in novel areas of the upper Illinois Waterway below the Electric Dispersal Barrier System (EDBS). The Lockport Pool survey was completed on 25 Mar 2021 and covered the area between the EDBS and Lockport Lock and Dam; a distance of about 5 river miles. The Brandon Road Pool survey was completed on 19 Mar 2021 and covered the area between Lockport Lock and Dam and Brandon Road Lock and Dam; a distance of about 4.25 river miles. The Dresden Island Pool survey was completed on 30 Mar 2021 and covered the area between Brandon Road Lock and Dam and Dresden Island Lock and Dam; a distance of about 13.5 river miles. The Kankakee River survey was completed on 30 Mar 2021 and covered the area between the Kankakee Conservation Area Boat Launch and the Kankakee's confluence with the Illinois Waterway; a distance of about 4.25 river miles. All EDM surveys consisted of traditional boat electrofishing and electrified dozer trawling in a combination of main-channel, side-channel, and backwater habitats. Electrofishing was performed in 15-minute sampling periods consisting of repeated passes perpendicular to and toward shore, with one crewmate collecting fish with a handheld dip net. Dozer trawling was conducted in 5-minute sampling periods consisting of s-shaped passes parallel to shore, and with fish collected by a net supported by a rigid frame at the boat's bow.

### Highlighted results:

- No small-bodied (< 350 mm total length; TL) bigheaded carp were captured by USFWS in March 2021.
- No large-bodied ( $\geq$  350 mm TL) bigheaded carp were captured outside their known range by USFWS in March 2021.

**Table 1. Summary of USFWS invasive bigheaded carp early detection monitoring preliminary results from March 2021.** Location is the section of river sampled. Electrofishing effort reports completed hours of two-person traditional boat electrofishing and n is the number of surveys completed. Dozer effort reports completed hours of electrified dozer trawling and n is the number of surveys completed. Small carp captured is the number of bigheaded carp with total length (TL) < 350 mm captured. Large carp captured is the number of bigheaded carp with total length  $\geq$  350 mm captured. Total fish captured is the total number (N) of fish (all species) captured. Species richness is the count of species captured. Most abundant species is the common name of the fish species that was the largest proportion of total fish captured and n is the number of individuals of that species caught.

Location	Electrofishing Effort (h; n)	Dozer Effort (h; n)	Small carp captured	Large carp captured	Total fish captured (N)	Species richness	Most abundant species
Lockport	4.72 (n = 19)	2.42 (n = 29)	0	0	223	8	Common carp (n = 100)
Brandon Road	4.5 (n = 18)	1.25 (n = 15)	0	0	256	19	Emerald shiner (n = 132)
Dresden Island	3.25 (n = 13)	1.25 (n = 15)	0	2 (780 and 810 mm, TL)	187	24	Common carp (n = 29)
Kankakee	2.0 (n = 8)	1.0 (n = 12)	0	0	147	24	Emerald shiner (n = 46)

## **Telemetry**

### USACE

In March, USACE downloaded the nine receivers that were left at strategic choke points in the Illinois Waterway (IWW) to monitor overwintering fish movements around lock and dams and the electric dispersal barrier. Additionally, USACE deployed 19 receivers (three upper Lockport, four lower Lockport, three Brandon Road, and nine Dresden Island) throughout the IWW to bring the total receiver network to 28 stations. Preliminary analysis of the overwintering telemetry data suggests two transits between navigation pools by a single common carp moving from Lockport Pool, to Brandon Road, then back to Lockport on March 16th over the course of approximately 6 hours. No Asian Carp were observed transiting between pools or approaching Brandon Road Lock. The next download of the full receiver network will be in May.

## **Barrier Operational and Maintenance Status**

In the month of the January, the Demo was off at the start of the Month for controls replacement. It was turned back on after maintenance on January 12<sup>th</sup>, 2021. In addition, a 5 hour outage at IIA occurred on January 21<sup>st</sup>, 2021 to do emergency maintenance on a fire alarm. Additionally, a fault at Demo occurred on January 31<sup>st</sup>, 2021 through February 2<sup>nd</sup>, 2021. A fault at the Demo Barrier also occurred on February 21<sup>st</sup>, 2021 and was reenergized approximately 14 hours later on February 22<sup>nd</sup>, 2021. Barrier IIB was turned off on February 25<sup>th</sup>, 2021 for IIB cooling system upgrades and was off through March, with a plan to reactivate the barrier at the end of April. During this time Barrier I North had intermittent outages as contractors were trouble shooting faults at the barrier during the 30 day endurance test. By the end of March, Barrier I North was ran for approximately 2 weeks with no issues.

When barriers were operational, they were operating at the following parameters:

IIA – Narrow (34 Hz, 2.3 ms, 1800 V = 1.7 V/in) & wide (34 Hz, 2.3 ms, 800 V= ~1.0 V/in) arrays operational

IIB – Narrow (34 Hz, 2.3 ms, 1800 V = 1.7 V/in) & wide (34 Hz, 2.3 ms, 800 V= ~1.0 V/in) arrays operational

Barrier I Demo – Full water (5 Hz, 4 ms, 400 V = 1.0 V/in) & benthic (5 Hz, 4 ms, 100V) operational

Barrier 1 North – Operational (34 Hz, 2.3 ms, 1700 V = 2.3 V/in)

## **Alternate Pathway Surveillance in Illinois - Law Enforcement**

ISU assisted a commercial wholesale aquatic life dealer, pet store owner, fish importer and an Illinois aquaculture facility with license renewals, importation permits, and questions related to regulatory compliance. Two of the businesses had previously been cited for non-compliance. ISU received a report of an illegal shipment of aquatic life being shipped from Texas to Chicago that was intercepted by Texas Game Wardens. ISU determined the species being shipped, pranas and vampire tetras, were not listed as injurious species and allowed within the Illinois pet and aquarium industry. ISU assisted the Indiana Department of Environmental Management with an investigation that expanded into the Chicagoland area. ISU mailed informational letters to 19 identified marbled and yabby crayfish dealers as part of an ongoing effort of the Great Lakes Fishery Commission Law Enforcement Committee to prevent the spread of aquatic invasive species within the Great Lakes and St. Lawrence river region. ISU participated as an advisory committee member in the development of a project to identify, contact, and track interactions with distributors of live aquatic invasive species. ISU responded to public inquiries regarding the legalities of carp fishing and transporting fish filets from a charter fishing trip on Lake Michigan back to the home of the non-resident fishermen. ISU inspected and obtained evidence from

dozens of Illinois pet stores after receiving notification that Marimo moss balls they were selling were infested with zebra mussels. ISU inspected two fish trucks delivering live fish to the Chicagoland area. The trucks were delivering tilapia, barramundi, catfish, and largemouth bass. No illegal species were in the shipments. ISU assisted another agency by securing evidence from an Illinois resident suspected of selling live invasive species in their state. ISU participated in the Great Lakes Law Enforcement Committee meeting.