



## Monitoring and Response Workgroup (MRWG) Monthly Activities 2020 October Summary

**Bottom Line:** The international COVID-19 pandemic created a unique set of challenges for members of the Monitoring and Response Workgroup during the 2020 field season. Guidance from the Centers for Disease Control and public health authorities resulted in much of planned effort in March and April to be cancelled. Sampling was able to occur prior to the stay at home order issued in March by the governor of Illinois. Additionally, the United States Army Corporation of Engineers (USACE) continued to operate the electric dispersal barrier in Romeoville, Illinois throughout that time. Sampling began again in May following strict COVID safety protocols including limiting the number of people on a boat, maintaining social distancing, masking wearing, and daily equipment disinfecting. **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 October 2020 from all effort within the Upper Illinois**

**Waterway. The same time period in 2018 and 2019 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>2018</b>	<b>2019</b>	<b>2020</b>
Yards of Net Fished	72,300	50,200	42,800
Miles of Net Fished	41.1	28.5	24.3
Hoop Net Nights	48.8	163.8	157.1
Mini Fyke Net Nights	24.9	22.2	17.3
Electrofishing Runs	157	64	34
Electrofishing Time (hrs)	39.3	16.0	8.5
Total Asian Carp (AC)	0	0	0
Tons of AC Harvested	0	0	0

#### *Brandon Road Pool*

<b>Effort</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Yards of Net Fished	70,400	44,600	47,400
Miles of Net Fished	40.0	25.3	26.9
Hoop Net Nights	47.1	158.9	156.6
Mini Fyke Net Nights	22.7	33.1	19.9
Electrofishing Runs	144	63	28
Electrofishing Time (hrs)	36.0	15.8	0.0
Total Asian Carp (AC)	1*	0	0
Tons of AC Harvested	0	0	0

\*indicates Grass Carp

*Dresden Island Pool (Including Rock Run Rookery)*

<b>Effort</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Yards of Net Fished	216,500	146,850	101,200
Miles of Net Fished	123.0	83.4	57.5
Hoop Net Nights	44.3	76.3	160.5
Mini Fyke Net Nights	23.7	66.2	57.7
Pound net night	8	2	0
Electrofishing Runs	189	73	54
Electrofishing Time (hrs)	47.3	18.3	13.5
Bighead Carp	396	42	22
Grass Carp	51	8	3
Silver Carp	1178	263	139
Total AC	1625	313	164
Asian Carp (AC) from Rock Run Rookery	119	46	21
AC upstream I-55 (not in RR)	9*	8*	2*
AC downstream I-55	1497	259	141
Tons of AC Harvested	15.8	2.6	1.2
AC/1000 yds of gill net	7.1	2.1	1.6

\*indicates Grass Carp are included

*Marseilles Pool*

<b>Effort</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Yards of Net Fished	144,800	189,810	185,470
Miles of Nets Fished	82.3	107.8	105.4
Pound Net nights	22	26	0
Hoop Net nights	270.8	144.9	105.3
Mini Fyke Net Nights	23.7	68.9	51.3
Electrofishing Runs	144	93	62
Electrofishing Time (hrs)	36.0	23.3	15.5
Bighead Carp	1,372	973	1,400
Grass Carp	43	43	29
Silver Carp	31,610	35,338	31,300
Total Asian Carp	33,025	36,354	32,729
Tons of AC Harvested	158.6	201.9	174.7
AC/1000 yds of gill net	217.7	189.1	176.3

*Starved Rock Pool*

<b>Effort</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Yards of Net Fished	200,700	332,495	218,380
Miles of Nets Fished	114.0	188.9	124.1
Pound Net nights	0	0	0
Hoop Net nights	994.5	162.1	0.0
Mini Fyke Net Nights	0.0	67.9	0.0
Electrofishing Runs	0	107	70
Electrofishing Time (hrs)	0.0	26.8	17.5
Bighead Carp	1,611	2,077	2,147
Grass Carp	998	2596	771
Silver Carp	76,478	138,601	87,507
Total Asian Carp	79,087	143,274	90,425
Tons of AC Harvested	260.2	494.6	266.8
AC/1000 yds of gill net	372.1	428.4	414.1

### **Contracted Fishing Below the Electric Dispersal Barrier**

- Contract fishing took place in Dresden Island Pool, Marseilles Pool, and Starved Rock Pool of the Illinois River Waterway during October
- Contracted fisher set and pulled 107,600 yards of gill/trammel net in October (Figure A)
- 102 Bighead Carp, 333 Grass Carp, and 23,774 Silver Carp were removed in October
- 145,511 pounds of Asian Carp was removed in October (Figure B)
- 26,085 fish representing 18 species and 1 hybrid group were captured during contracted commercial netting effort in October

Below is a summary of all Illinois Department of Natural Resources (IDNR) contracted fishing activities through October 2020. For comparison purposes, data from the same time period in 2018 and 2019 are included.

<b>Effort</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Number of Days Fished	124	125	90
Number of Net Crew Days	544	608	508
Yards of Net Fished	704,700	763,955	595,250
Miles of Nets Fished	400.4	434.1	338.2
Number of Pound Net Nights	22	26	0
Number of Hoop Net Nights	1218.9	0	0.0
Number of Bighead Carp	3,379	3,087	3,569
Number of Silver Carp	109,266	173,325	118,924
Number of Grass Carp	1,093	2,623	803
Number of Asian Carp (AC)	113,738	179,035	123,296
Tons of AC Harvested	434.6	699.1	442.7
AC/1000 yds of gill net	153.0	233.8	207.1



Figure A. Illinois Natural History Survey biologist observing contracted fishing effort within the Starved Rock Pool of the Illinois River while adhering to COVID safety protocols.



Figure B. Roughly 5 yards of commercial gill net full of entangled Silver Carp.

### **Unified Fishing Method (UFM) – Dresden Island Pool**

During the week of October 19<sup>th</sup>, 2020, a Unified Fishing Method event was completed in Dresden Island Pool while adhering to COVID safety protocols. Multiple agencies and contracted fishing crews fished the entire navigation pool from Brandon Road Lock and Dam tail waters to the approach channel downstream of the Dresden Island Lock and Dam. Sampling area also included Rock Run Rookery Lake and the downstream end of the Kankakee River. Crews used fish driving methods (e.g., banging, revving motors), in conjunction with commercial netting to capture and remove Asian Carp (Figure C). Below is a summary of effort and catch during the UFM.

#### *Commercial Netting:*

- Contracted commercial fishers set 17.1 miles of gill/trammel net
- Crews collected 407 individual fish representing 11 species
- **No Bighead Carp, Grass Carp, or Silver Carp were collected upstream of I-55** (excluding Rock Run Rookery)
- **13 Bighead Carp, 2 Grass Carp, and 17 Silver Carp were collected below I-55**
- **2 Bighead Carp, 0 Grass Carp, and 9 Silver Carp were collected in Rock Run Rookery**





Figure C. Contracted fisher driving gill net (A). Boat full of Bighead Carp, Silver Carp and Grass Carp captured during the third day of the UFM method in Dresden Island Pool.

### **Multiple Agency Monitoring of the Illinois River Waterway**

- All assigned samples were collaboratively collected during the three sampling periods
- Large Bighead Carp and Silver Carp (>120 mm) were detected as far up river as RM 263
- Small Silver Carp (<120 mm) were captured as far up river as RM 183
- Many samples are still being processed
- More detailed results will be provided in the annual interim summary report

### **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, 26 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, and to date in 2020 an additional 2,085,166 pounds have been caught for a total of 2,603,298 pounds. Of these total catches, 6.91% are Bighead, 32.87% are Silver and 30.21% are Grass carp. No Black carp have been reported.

Figure D. Table of Enhanced Contract Fishing by receipt date, not catch date – Peoria Pool from inception, September 2019 through October 2020.

Year	Total Lbs.	Bighead carp	Silver carp	Grass carp
2019*	518,132	24,813	310,297	183,022
October 2020	317,700	15,726	241,311	60,664
2020 (Jan thru Oct)	2,085,166	155,155	1,326,465	603,546
<b>GRAND TOTALS**</b>	<b>2,603,298</b>	<b>179,968</b>	<b>1,636,762</b>	<b>786,568</b>

\* September 2019 program inception

\*\* No Black carp reported.

## **Monitoring Bigheaded Carp Movement and Density in the Illinois River**

Hydroacoustic sampling occurred in Alton, La Grange, and Peoria pools as part of fall standardized sampling to monitor long-term trends in Asian carp densities. Hydroacoustic sampling was also conducted before and after the Unified Event in Dresden Island Pool to assess potential change in density following removal. Acoustic telemetry transmitters were implanted into bigheaded carp in Alton (50 tags), La Grange (98 tags), and Starved Rock (40 tags) pools to maintain sufficient numbers of at-large tagged Asian carp in each pool. Additionally, 31 acoustic tags were implanted into Common Carp in Starved Rock Pool to provide sufficient numbers of Common Carp for active tracking during the conclusion of the surrogate fish project. Acoustic telemetry stationary receivers were also retrieved and downloaded from Dresden Island, Marseilles, and Starved Rock pools.

## **Electrofishing - USACE**

During the month of October USACE conducted 40 15-minute electrofishing runs in the Lockport (16), Brandon Road (16), and Dresden Island (8) pools. No Asian Carp were captured or observed during any of the runs. In the Lockport Pool 272 individual fish in 14 species were collected. Gizzard shad under 6 inches, Bluntnose minnow, emerald shiner, gizzard shad over 6 inches, and goldfish comprised the top five species at 35.7%, 18.8%, 15.8%, 12.9%, and 4% respectively. In the Brandon Road Pool 481 fish from 21 species were captured. Banded killifish (29.9%), gizzard shad under 6 inches (20.4%), gizzard shad over 6 inches (12.3%), smallmouth bass (8.7%), and emerald shiner (8.5%) comprised the top five species collected. A total of 280 individual fish from 28 species were collected in the Dresden Island Pool. The top five fish species that were collected were gizzard shad under 6 inches (31.8%), threadfin shad (15.4%), gizzard shad over 6 inches (12.5%), largemouth bass (8.5%), and common carp (5%).

## **Barrier Operational and Maintenance Status**

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

IIA - Narrow (34 Hz, 2.3 ms, 2000 V = 2.3 V/in) & wide (34 Hz, 2.3 ms, 800 V = ~1.0 V/in) arrays operational

IIB - Narrow (34 Hz, 2.3 ms, 2000 V = 2.3 V/in) & wide (34 Hz, 2.3 ms, 800 V = ~1.0 V/in) arrays operational

Permanent Barrier 1 - Energized sporadically throughout portions of October for safety testing.

## **The U.S. Fish and Wildlife Service – Columbia Fish and Wildlife Conservation Office**

Conducted standardized sampling during October 2020 to collect Asian Carp demographic data. A total of 50 dozer trawl samples were collected in each of the Alton, La Grange, and Peoria pools. Data collections include Silver Carp length, age, and sex structure, and relative abundance. Data entry is ongoing.

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

ISU inspected a Lake Zurich bait shop and its business records. The inspection did not locate any illegal bait or record deficiencies, but the owner was issued a warning for operating with an expired license.

ISU participated in the Great Lakes Law Enforcement Committee virtual meeting to discuss and plan future law enforcement projects. The meeting included a training session on US interstate commerce laws and how they affect cases involving the transfer and transportation of commercial fish and invasive species between different jurisdictions.

ISU assisted another agency with a surveillance detail of a suspected Illinois business owner illegally trafficking aquatic life products.

ISU answered anglers' questions related to catching, possessing and transporting Asian carp while recreationally fishing.