MONITORING AND RESPONSE WORK GROUP
MONTHLY ACTIVITY UPDATES

APRIL 2025

MULTIPLE AGENCY MONITORING OF THE ILLINOIS RIVER

IL DNR/USFWS

April 2025 Highlights

The agencies did not submit an update.

CONTRACTED COMMERCIAL FISHING BELOW THE ELECTRIC DISPERSAL BARRIER

IDNR

Introduction

Contracted Commercial Fishing Below the EDBS uses contracted commercial fishers to reduce invasive carp abundance and monitor for changes in range in the Des Plaines River and upper Illinois River downstream of the EDBS. By decreasing invasive carp abundance, we anticipate reduced migration pressure towards the barrier, lessening the chances of invasive carp gaining access to upstream waters in the CAWS and Lake Michigan. Monitoring for upstream expansion of invasive carp should help identify changes in the leading edge, distribution, and relative abundance of invasive carp in the IWW. The "leading edge" is the furthest upstream location where multiple Bighead Carp or Silver Carp have been captured with conventional sampling gears during a single trip or where individuals of either species have been caught in repeated sampling trips to a specific site. Trends in catch data over time may also contribute to understanding invasive carp population abundance and movement between and among pools of the IWW.

Dresden Island	**April 2025**
Yards of Net	15,300
Bighead Carp	0
Grass Carp	0
Silver Carp	12
Invasive Carp Caught	12
Invasive Carp Dresden Above I55	0
Invasive Carp Dresden Below I55	7
Invasive Carp Rock Run	5
IC/1000 yards	0.8

Marseilles	**April 2025**
Yards of Net	15,600
Bighead Carp	60
Grass Carp	1
Silver Carp	1,661

Invasive Carp Caught	1,772
IC/1000 yards	110.4
Invasive Carp Pounds	19,411

Starved Rock	**April 2025**
Yards of net	50,700
Bighead Carp	38
Grass Carp	59
Silver Carp	13,913
Invasive Carp Caught	14,010
IC/1000 yards	276.3
Invasive Carp Pounds	87,003

BARRIER MAINTENANCE AND FISH SUPPRESSION

IL DNR, USACE

April 2025 Highlights

The agencies did not submit an update.

SUMMARY EVALUATION OF BIO-ACOUSTIC FISH FENCE DETERRENT

USFWS, USGS

April 2025 Highlights

The agencies did not submit an update.

ENHANCED DETECTION OF BLACK CARP IN THE LOWER ILLINOIS RIVER

IL DNR/INHS-IRBS

Introduction

Exotic black carp *Mylopharyngodon piceus* have invaded the Illinois River system and have been recently captured in the Alton, La Grange, and Peoria reaches of the lower Illinois River. Currently, the invasion of black carp is represented by only a few reported individuals and little is known about the size of the population or potential scope of ecosystem changes that may result from the invasion. The Illinois Department of Natural Resources (IDNR) has been closely monitoring the range expansion of black carp up the Illinois River, despite limited catches reported to date.

Critical to any inferences made about the range expansion of black carp is better knowledge of their population levels in invaded reaches. The limited number of black carp reported have been from incidental commercial fishermen catches while targeting other species (e.g., bighead carp, silver carp, common carp, grass carp, buffalo spp., catfish spp.). These captures and associated data (e.g., length, weight, age, diet, otolith microchemistry.) are valuable, but the limited number of reported individuals makes it difficult to assess their prevalence/establishment in the lower Illinois River. More robust estimates of the current population level are essential to management and potential control of black carp in the Illinois River.

April 2025 Highlights

We are currently working to get site data uploaded into Fishapp in preparation for this upcoming field season. Additionally, we are getting several items prepared for sampling (i.e. boat maintenance performed, site and map creation, net tarring, etc.) as we are within a month of our first sampling day (June 15).

USFWS ILLINOIS WATERWAY HYDROACOUSTICS

USFWS

Introduction

The purpose of USFWS hydroacoustic monitoring in the upper Illinois Waterway (IWW) is to enhance invasive carp management by reporting spatial and temporal patterns of fish abundance. Hydroacoustic data aids operation, maintenance, and response at the electric dispersal barrier system (EDBS). Density and distribution data enhance targeted harvesting efforts throughout navigational pools. Consistent hydroacoustic data collection allows managers to annually assess the risk of further upstream spread of invasive carp. Hydroacoustic estimates of length and depth of targets, along with corresponding telemetric data, allow managers to make inferences about possible fish species identified as targets. Targets detected across replicate surveys may identify the same target. USFWS hydroacoustic barrier surveys are conducted monthly, and pool scans are conducted annually in the fall. Additional barrier and pool scans can be conducted upon request. Further details regarding the methods of data collection and use of hydroacoustic data can be provided upon request.

April 2025 Highlights

The results of the mobile hydroacoustic fish surveys are presented below:

- Hydroacoustic barrier scan on April 1st, 2025, identified a total of 6 targets (1 target within the EDBS and 5 targets immediately downstream of the barrier). An average of 2 ± 2 targets were detected during the three replicate surveys. The mean target length was 15.4 inches ± 1.3 inches.
- Figure 1 shows the average targets detected across all three replicate surveys.
- No hydroacoustic pool scans were completed in the month of April.

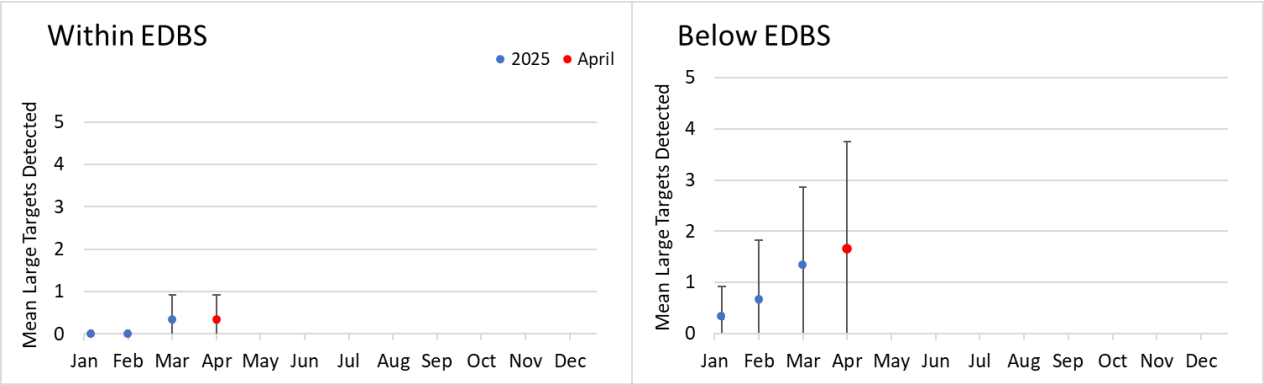

Figure 1. Comparison of the mean and standard deviation for three replicate surveys from the current mobile surveys with previous surveys from 2025.

SUPPORT FOR EARLY DETECTION OF INVASIVE CARP IN THE UPPER ILLINOIS WATERWAY

USFWS Wilmington

Introduction

The purpose of U.S. Fish and Wildlife Service (USFWS) Wilmington Substation's early detection monitoring (EDM) is to detect juvenile and adult invasive carp (Bighead, Silver, Black, and Grass Carp) at the invasion front. A combination of traditional boat electrofishing, electrified dozer trawling, mini-fyke netting, and gill netting are used in main-channel border, side-channel, and backwater habitats in the Marseilles, Dresden Island, Brandon Road, and Lockport Pools of the upper Illinois Waterway (IWW), and lower Kankakee River. Rarefaction analysis is performed annually to ensure an extremely high probability that sampling efforts are detecting any changes in invasive carp population status. The application of fishing gears across pools and habitats, utilizing fixed and random sites, is assessed annually based on the results of this analysis. The USFWS Great Lakes EDM Program is an adaptive management tool focused on invasive species detection.

April 2025 Highlights

- No invasive carp were captured during April 2025.
- No small-bodied (< 153 mm TL) invasive carp were captured by EDM in April 2025.
- No large-bodied (≥ 153 mm TL) invasive carp were captured outside their known range by EDM in April 2025.

Table one summarizes the USFWS invasive carp EDM from April 2025 for each pool monitored under the project.

Table 1. Summary of USFWS EDM effort during April 2025.

	Marseilles	Dresden Island	Kankakee	Brandon Road	Lockport
Electrofishing Effort (hours)	0	3.75	3.75	2.5	2.25
Electrofishing Sites	0	15	15	10	9
Dozer Trawl Effort (hours)	0	0.92	1.25	0	0
Dozer Trawl Sites	0	11	15	0	0
Mini-fyke Effort (net nights)	0	0	0	0	0
Gill Net Effort (yards)	0	0	0	2000	1600
Gill Net Sites	0	0	0	10	8
Small Carp Captured	0	0	0	0	0
Large Carp Captured	0	0	0	0	0
Species Richness	0	28	39	12	8
Total Catch	0	602	409	117	43
Most Abundant Species	N/A	Gizzard Shad	Emerald Shiner	Emerald Shiner	Bluntnose Minnow

MONITORING INVASIVE CARP REPRODUCTION IN THE ILLINOIS WATERWAY

INHS

Introduction

This project monitors for invasive carp reproduction in the IWW and major tributaries (Kankakee, Fox, Vermilion, Mackinaw, Spoon, and Sangamon rivers). Ichthyoplankton sampling will be conducted to assess the extent, timing, and magnitude of invasive carp reproduction in the IWW, monitor for Black Carp reproduction, and quantify relationships between invasive carp adult abundance, reproductive output, and recruitment. Samples will be collected from late April through October, with more frequent sampling effort during periods when temperature and flow conditions are considered optimal for invasive carp spawning.

April 2025 Highlights

Water temperatures surpassed 18°C on April 25 in the lower Illinois River and on April 29 in the upper river. River flows were steadily declining during this time. INHS began monitoring for invasive carp reproduction on April 28-29. Ichthyoplankton samples were collected at sites from the Brandon Road to Alton pools. Additional sampling was conducted in major tributaries of the Illinois River (Kankakee, Fox, Mackinaw, Spoon, Sangamon rivers). Sample processing and identification of fish eggs and larvae is ongoing. Monitoring for invasive carp reproduction will occur weekly until mid-July and bi-weekly thereafter, except when river conditions warrant more frequent sampling. Occurrences of invasive carp eggs or larvae, particularly upstream of the Starved Rock Lock and Dam, will be reported as soon as this information is available.

DES PLAINES RIVER AND OVERFLOW MONITORING

USFWS

April 2025 Highlights

The agencies did not submit an update.

APRIL SUMMARY OF THE TELEMETRY SUPPORT FOR THE SEICARP MODEL

USFWS

Introduction

This project provides support for the inter-agency telemetry array deployed in the Illinois River basin. The 2025 plan of work for USFWS includes placing 150 acoustic transmitters in Silver Carp and Bighead Carp across the Peoria, Starved Rock, and Marseilles Pools. Fifty of these tags will be deployed in bigheaded carps in Marseilles Pool to support detection efforts by agency partners outside USFWS. USFWS maintained 18 receivers across the Peoria and Starved Rock Pools in 2024. In 2025, two additional receivers will be added to Starved Rock Pool. The data gained from the additional tagged fish and additional receivers will improve the accuracy of MRWG modeling work, allowing improved estimates of current levels of exploitation and bolstering estimates of large-scale pool-to-pool movement.

April 2025 Highlights

- From April 7th-11th, 152 invasive carp were tagged with acoustic transmitters from Peoria(n=55), Starved Rock(n=50), and Marseilles(n=45) Pools of the IWW
- Fifty of the invasive carp from Peoria Pool had fin clips taken for a population genetics study for a student at Southern Illinois University. One tag was reused from both Peoria and Starved Rock pools that were from previously harvested fish from those pools. The tags were still viable.
- From April 14th-17th, the remaining nine Peoria Pool telemetry receivers were deployed (table 1).
- All remaining receiver logs and tagging data were submitted to the Riverine Acoustic Fish Tracking (RAFT) database on May 1, 2025.

Table 1. Receiver deployments during March 2025. "US" denotes "upstream" and "MC" denotes "main channel". River Mile is not denoted for the Fox River; it is a tributary to the Illinois River.

Receiver Number	Receiver ID	River Mile	Station Name
1	VR2Tx-489204	164.8	RM164.8 Lower Peoria_Lake_Point_River Left
2	VR2Tx-489205	166	RM166.6 Peoria Lake Narrows
3	VR2W-137065	173	RM173 Upper Peoria Lake_River Right
4	VR2Tx-489207	173	RM173 Upper Peoria Lake_River Left
5	VR2Tx-489206	182.4	RM182.4 US Chilli Bridge_Peninsula
6	VR2W-137064	188.1	RM188.1 DS Lacon_MC Sawyer Slough
7	VR2Tx-489208	194.8	RM194.8 US Upper Henry Island
8	VR2Tx-489209	199.1	RM199.1 Senachwine Lake Peninsula
9	VR2Tx-489211	202.7	RM202.7 Lower Twin Sisters Island
10	VR2W-137066	211	RM211 MC Near Depue Lake Channel
11	VR2Tx-489039	216	RM216 US of Clark Island
12	VR2W-129785	219.8	RM219.8 US Spring Valley River Left
13	VR2Tx-489037	223	RM223 Peru US Route 251 Bridge
14	VR2Tx-489212	233.9	RM233.9 Lone Point Delbridge Side Channel
15	VR2Tx-490949	235.1	RM235.1 MC Sheehan Island
16	VR2Tx-490940	238.5	RM238.5 Hitt-Mayo Straight
17	VR2Tx-490950	241	RM241 Bulls Island MC Abandoned Harbor
18	VR2Tx-491939	243	RM243 US of Heritage Harbor River Left
19	VR2W-129787		Fox River-US Illinois River Confluence
20	VR2Tx-491940		Fox River-US Rt.6 Bridge

TELEMETRY MONITORING PLAN

USACE

April 2025 Highlights

The agencies did not submit an update.

ALTERNATE PATHWAY SURVEILLANCE IN ILLINOIS – LAW ENFORCEMENT

IL DNR

Introduction

This project provides enforcement of laws enacted to prevent the expansion and/or introduction of AIS within the waters of the State of Illinois and jurisdictions throughout the Great Lakes basin. The IL DNR Invasive Species Unit (ISU) specializes in more closely regulating water-related industries that are likely to be a source of future introductions or expansion of AIS into state waters. Industries include sport and commercial fishing, aquaculture, fish transportation, bait, pet, aquarium, fish stocking, and live food markets.

April 2025 Highlights

Agency said there were no updates for April 2025.

INVASIVE CARP POPULATION MODELING TO SUPPORT AN ADAPTIVE MANAGEMENT FRAMEWORK

USGS, USFWS

Introduction

This project will develop objective, data-driven models to inform decisions concerning invasive carp control efforts in the Illinois River. This project supports ongoing modeling efforts to provide recommendations about the magnitude and spatial allocation of fishing effort and deterrent barriers to reduce the risk of Silver Carp and Bighead Carp introduction and establishment in the Great Lakes.

April 2025 Highlights

The modeling work group completed a review of a manuscript focusing on simulating food web effects, reproductive dynamics, and control of silver and bighead carps in the Illinois River with a multi-species individual-based model. Comments for this manuscript have been returned to the lead author. The modeling work group also completed a review of the first year of demographic data collection completed to support the development of a statistical catch-at-age model and developed recommendations for adjusting those data collection protocols primarily focused on shifting effort to areas with the highest proportional catches. In addition, the modeling work group completed modeling efforts exploring a spatially and temporally varying Von Bertalanffy Growth model to help inform both the statistical catch-at-age (SCAA) and length-based Bayesian (LBB) models. The output from these modeling efforts will be used to inform the SCAA and LBB modeling efforts. Lastly, the modeling work group is working through contingency planning for the potential reduction in force of USGS's Ecological Mission Area.

INVASIVE CARP STOCK ASSESSMENT IN THE ILLINOIS RIVER

IL DNR

April 2025 Highlights

The agencies did not submit an update.

BLACK CARP BOUNTY PROGRAM

ILDNR

Introduction

In 2015, the Black Carp Bounty Program was created to increase the number of black carp specimens made available for research to provide improved information on the status and characteristics of these carp in the Mississippi River and its tributaries. Knowledge of black carp geographic distribution, population characteristics, and diet are needed to inform development of management strategies to control black carp abundance, impacts, and further range expansion.

Nearly all black carp detected in the Mississippi River and tributaries are caught and reported by commercial fishers, largely due to the difficulty in sampling black carp in large rivers and limited agency and university sampling efforts focused on this species. The Black Carp Bounty Program was created to provide a reward of $100 per fish to provide incentive for commercial fishers to target black carp in the wild, report any black carp that they catch to agency biologists, and donate the fish for black carp research.

January through April 2025 Highlights

The table below summarizes the total number of Black carps caught since transition of the program from Southern Illinois University to IDNR to Tetra Tech.

Month	# of Fish
2023 *	11
2024	113
2025 Part Year	
January	6
February	8
March	5
April	3
2025 Subtotal	22
GRAND TOTALS	146

* Records start July 1, 2023.