

Project Title: Control and Containment of Invasive carp in the Ohio River**Lead Author, Agency, and Contact Information:**

Participating Agencies: Kentucky Department of Fish and Wildlife Resources (KDFWR), Illinois Department of Natural Resources (ILDNR), Indiana Department of Natural Resources (INDNR), and West Virginia Department of Natural Resources (WVDNR).

Location of Activities: Ohio River basin, extending from the Racine Lock and Dam (RM 237.5) to the Mississippi River (RM 0), including the Wabash River.

Project Objectives: (add more lines as needed)

1. Target and remove Asian carp to suppress populations and reduce propagule pressure in the Ohio River basin.
2. Implement a removal program using contracted fishers at intensive management zones to reduce invasive carp numbers across the Ohio River basin.

Project Highlights:

1. Indiana's Invasive Carp Harvest Permit received final adoption and became permanent rule in December 2025. This allows for the use of seines and gill nets in Indiana waters for harvesting invasive carp.
2. Despite a five-month window of no fishing between interim rule expiration and permanent rule initiation, 790,513 lbs. of invasive carp were removed by Indiana Invasive Carp Harvest Permit holders in 2025.
3. A total of 106.7 hours of electrofishing effort was used to remove approximately 5,105 kg (~11,255 lbs) of invasive carp from three different pools of the Ohio River in 2025. A total of ~2.90 million pounds (1.31M kg) of invasive carp have been harvested by contract fishing efforts conducted between July 2019 and February 2026.
4. Contract fishing efforts continued to remove high numbers of invasive carps from the Cannelton Pool of the Ohio River without negatively impacting native fish populations.
5. Incentivized commercial harvest resulted in the removal of 3,645,500 pounds of invasive carp in 2025.
6. Contract facilitation reimbursements to processors for waterside pickup supported the removal of 10,227,656 pounds of invasive carp in 2025.

Methods: *Clarification of Terminology Referenced in This Document*

With the current rate of invasive carp expansion and the massive effort to study and adaptively manage carp impacts across a broad range of Mississippi River sub-basins, it is important to clarify terminology used in technical documentation and annual reports. Therefore, a list of terms and their respective definitions have been provided below.

Bigheaded Carps – Silver (*Hypophthalmichthys molitrix*), Bighead (*Hypophthalmichthys nobilis*), and their hybrids.

Establishment Front – The furthest upriver range of invasive carp populations that demonstrates natural recruitment.

Invasion Front – The furthest upriver extent where reproduction has been observed (eggs, embryos, or larvae), but recruitment to young-of-year (YOY) fish has not been observed.

invasive carp – One of four species (i.e. Silver Carp, Bighead Carp, diploid Grass Carp, and Black Carp) that originated from the continent of Asia.

Presence Front – The furthest upstream extent where invasive carp occur, but reproduction is not evident.

Targeted Removal of Invasive Carp

In 2025, INDNR conducted one dedicated agency removal event on the White River. In addition, INDNR conducted spring targeted sampling, otolith collections, and fish community sampling, in which all invasive carp collected were removed after recording length, weight, and sex data.

In 2025, KDFWR and INDNR combined for a total of over 106 hours of Invasive Carp removal efforts in the Cannelton, McAlpine and Markland pools of the Ohio River, which was a slight drop from the 111.4 hours completed in 2024. During these targeted removal efforts, agency crews utilized pulsed DC electrofishing via a MLES control box (25 - 40% duty-cycle) that was typically set at a rate of 80 pulses per second (pps). In previous years, KDFWR used gill nets near the downstream end of the sampling area to target any Invasive Carp that tried to evade the electrofishing boat. However, a reduction in available field staff throughout 2025 required KDFWR to continue using an electrofishing-only approach to complete its targeted removal efforts.

The 2025 removal efforts were conducted entirely within tributaries and embayments of the Markland, McAlpine and Cannelton pools. Upon capture, all bycatch species were immediately identified and released. All Invasive Carp were inspected for tags, and if present, the id numbers were used to determine the status of the transmitter. A healthy tagged fish with an active transmitter presented the only conditions when an Invasive Carp would have been intentionally released back into the river. Hence, any recaptured fish that contained an expired transmitter was also removed for population control. Prior to being euthanized, the total length, weight, sex, and presence/absence of a spawning patch were recorded for each fish. In contrast to previous years, weights were obtained from over 98% of the Invasive Carp that were captured during the 2025 removal efforts. Thus, biologists were much less reliant on using pool-specific length-weight regressions to derive weights for any captured fish. The weights of Invasive Carp collected during the fall (Sept – Dec) removal efforts were also used to calculate relative weights for the Early Detection and Evaluation Project (ED&D).

In 2025, agency removal efforts also continued to be the primary means for collecting aging structures from invasive carp that were captured from the Cannelton, McAlpine and Markland pools. During these efforts, field crews identified Silver Carp from specific size classes and harvested otoliths to be processed and examined for the ongoing length-at-age analyses being conducted for the ED&D project.

WVDNR staff conducted four independent removal surveys during the reporting period (1,200 of net deployed); one in Mill Creek (Racine Pool) two in Thirteen Mile Creek (R.C. Byrd Pool) and one in Raccoon Creek (R.C. Byrd Pool). Gill nets (150ft, 5" mesh, 14ft-10ft) were set on opposite shores or at the mouth of the creek and allowed to soak for 2 hours or overnight. Agency crews also coordinated with USFWS-LGL FWCO on four removal events in Mill Creek, Raccoon Creek and the disused lock chambers of the R.C. Byrd L & D complex. Five adult Bighead Carp and one adult Silver Carp were removed from these efforts.

Invasive Carp Contract Fishing Program

The KDFWR contract fishing program is constantly evolving and has undergone a few minor changes since it officially began in July 2019. Some of these include the time of year that fishing occurred, the number of participants out on the river each week and the amount of access that contract fishers had to water outside of Kentucky (i.e. Indiana tributaries). All these changes appeared to have some influence over the number of Invasive Carp being harvested from the Ohio River Basin. In 2025, KDFWR maintained contracts with eight fishers that allowed them to target invasive carp in the mainstem river, tributaries and embayments of the Newburgh, Cannelton and McAlpine pools.

KDFWR also employed observers that accompanied program participants to record details about fishing efforts (i.e., location, gear, etc.) and the subsequent harvest of invasive carp. Throughout 2025, agency observers continued to record total length (mm), weight (kg) and sex data from daily subsamples (n = 20) of each species of Invasive Carp (Silver, Bighead and Grass carp). Prior to fall 2024, individual fish were

rarely weighed in the field, thus the weights of subsampled fish were often estimated using predictive regression equations (pool-specific), which KDFWR biologists compile from historical length-weight data for each species. Agency observers were also responsible for identifying all bycatch picked up by the contract fishing gear and ultimately documenting any morbidity of these non-target species.

From late 2019 to early 2021, contract fishing efforts were spread throughout the year and any scheduling restrictions occurred only when required by program funding. In late 2021, KDFWR started altering the program's fishing schedule to shift more efforts to cooler months that consistently produced higher harvest totals. After even more changes in 2022, KDFWR essentially created a contract fishing season by scheduling most of the program's efforts to occur within a 6-month period that began in October and then continued through March of the following year. This season primarily consists of peak harvest months that were identified during the first few years of the program (i.e., December thru June).

Most changes to the contract fishing program were implemented to increase harvest without needing to request additional funding. The initial adjustments in 2021 involved a 2-month suspension of contract fishing efforts in August and September when high temperatures tend to reduce Invasive Carp harvest while increasing the mortality rates of non-target species. For 2022, the agency initially planned to include an additional summer month to the program's suspension period (Jul – Sep). However, soon after the start of 2022, KDFWR had to deviate from this plan to accommodate the larger number of observers ($n = 5$) on their staff, which required the agency to schedule up to 2 additional fishermen each week. As a result, most dates on the schedule in Jan – Mar 2022 produced an average effort of ~5 “fishing days”, which is equivalent to 1 program participant actively fishing for five full days. This unplanned surge in effort also increased the program's spending rate to the point that FY2021 funds were gone by May 2022, which meant that contract fishing efforts had to be suspended much sooner than expected.

Like 2021, the 2022 fishing efforts were to resume by early October when river conditions improved (i.e. lower water temperatures) and the next funding cycle was underway. However, delays in contract renewals and the hiring of new observers postponed the restart of the program until the very last day of October 2022. Once fishing efforts resumed, the invasive carp harvest numbers quickly returned to normal. Since then, key scheduling changes and further usage of group fishing techniques greatly increased harvest success.

In late November 2021, some program participants had the opportunity to fish for invasive carp within the McAlpine Pool, which is located directly upstream of Cannelton. These efforts were used to determine if McAlpine could benefit from contract fishing if there is ever a decision to expand the program beyond the Cannelton Pool. After just two days of fishing tributaries in McAlpine, the catch rates and numbers of harvested invasive carp were much lower than expected and contract fishers appeared to have difficulty finding areas that produced results comparable to those in Cannelton. Further expansion of the program's efforts also occurred in late 2023 when contract fishers began to target invasive carp in specific areas of the upper Newburgh Pool. Unlike the McAlpine Pool, the contract fishers' methods were successful at capturing invasive carp in these new areas, and the sites within the Newburgh Pool are likely to be targeted again during future years of the program.

In early 2024, there were administrative delays in the renewal of an exemption that allowed commercial fishing gear to be used within the borders of Indiana. This issue prevented program participants from being able to access Indiana tributaries and it essentially reduced the available contract fishing areas by more than 50%. By fall 2024, the contract fishers' access to all Indiana tributaries had been restored, but the program's schedule was adjusted once again to postpone contract fishing until mid-November. This decision was based on previous years of data that showed lower catch rates of Invasive Carp from October to December (i.e. 0 to only a few fish per day). The 2024 data ultimately supported this decision as lower numbers of carp continued to be harvested until after January. Subsequently, during fall 2025, contract fishing was delayed even further and did not begin until December 1, which was intentionally done to provide participants with more time to target invasive carp during the late winter and spring of 2026.

The Indiana Invasive Carp Harvest Permit authorizing the use of gill and seine nets for invasive carp harvest finally became permanent rule in December 2025. There were numerous challenges throughout

2025 that led to a five-month regulatory lapse between the expiration of an interim invasive carp harvest permit rule and the implementation of the permanent rule in early December. This gap prevented issuance of harvest permits, halting harvest efforts by Kentucky contract fishers in Indiana waters. Now that the harvest permit is in permanent rule, there will no longer be an issue of accessibility for KDFWR contract fishers in Indiana waters.

Enhanced Contract Removal

Enhanced Contract Fishing was initiated in early 2022, offering contracts to licensed commercial fishers for compensation of \$0.10 per pound for invasive carp removed from designated commercial waters and sold to a fish processor(s) or other buyer(s) for at least \$0.07 per pound. The program used the same terms and maintains the designated waters of the previous program initiated in 2022. Designated waters includes the commercial waters of the following:

- (1) the portion of the Wabash River from the Ohio River to the southernmost city limits of Lafayette, Indiana
- (2) Skillet Fork River
- (3) Little Wabash River
- (4) Embarras River, except from Route 130 in Coles County upstream to the Harrison Street Bridge
- (5) Lake Charleston
- (6) Ohio River from McAlpine Dam to its confluence with the Mississippi River
- (7) the tailwaters of Kentucky and Barkley Lakes
- (8) Green River from the highway 259 bridge at Brownsville, Kentucky, downstream to the confluence with the Ohio River.

Contracted Facilitation

The Contracted Facilitation program also was initiated in early 2022 and offered contracts to fish processors and other buyers purchasing invasive carp from commercial fishers. Purchases must be made from either a facility or pick locations within 10 miles of designated waters. Compensation is \$0.05 per pound for invasive carp removed from designated commercial waters and purchased for at least \$0.07 per pound. This program facilitates practicable mechanisms for use of the harvested fish by private industry for a variety of purposes, including human consumption. The designated waters from which fishers may remove invasive carp and where processors may pick up were expanded. New water bodies included LaGrange Pool on the Illinois River; Designated Waters – Designated waters include the commercial waters of the following:

- (1) Peoria and LaGrange Pools of the Illinois River
- (2) the portion of the Wabash River from the Ohio River to the southernmost city limits of Lafayette, Indiana
- (3) Ohio River from McAlpine Dam to its confluence with the Mississippi River
- (4) the tailwaters of Kentucky and Barkley Lakes
- (5) Kentucky and Barkley Lakes in Kentucky
- (6) Green River from the highway 259 bridge at Brownsville, Kentucky, downstream to the confluence with the Ohio River.

Additional Fishing Areas - Invasive carp caught in the following waters may also be picked up at one of the above designated water pick up locations: (1) Little Wabash River; (2) Skillet Fork River; (3) Embarras River, except from Route 130 in Coles County upstream to the Harrison Street Bridge; and (4) Lake Charleston.

Wabash River Basin Fisher and Processor Incentive Program

INDNR continued an incentive program throughout 2025 in the Wabash River basin in an effort to increase harvest from the basin, a known source population of invasive carp. The program initially launched with rates of \$0.12 per pound for fishers harvesting carp from designated waters and \$0.15 per pound for processors who pick up fish within 10 miles of designated waters. Fishers and processors

enrolled in this program were *not* eligible to receive the Enhanced Contract Removal or Contracted Facilitation funding in addition to this incentive for the same fish. Due to the operational challenges, the program was restructured part of the way through the year to utilize remaining contract funds by increasing the incentive rate to a flat \$0.25 per pound for both fishers and processors.

Results and Discussion: *Targeted Removal of Invasive Carp*

The INDNR agency removal included 1.8 hours of boat electrofishing on the White River, producing 142 Silver Carp with an estimated total weight of 978 pounds. In addition, INDNR removed 1,270 adult invasive carps weighing 5,180 kg throughout other sampling efforts in 2025. This included 10.5 hours of electrofishing during spring targeted sampling in Cannelton Pool producing 131 invasive carp (765 kg), 27.4 hours of electrofishing during otolith collections producing 840 invasive carp (3,386 kg), and 38.4 hours of electrofishing for fish community sampling which produced 299 invasive carp (1,029 kg). In total, 68% of INDNR invasive carp removed came from the Wabash River basin.

Approximately 106.7 hours of boat electrofishing was conducted in numerous tributaries and mainstem sites located across three different pools (Cannelton, McAlpine and Markland) of the Ohio River. (Table 1). In 2025, KDFWR and INDNR used the combined efforts from all three pools to capture and remove 812 Invasive Carp, weighing a total of 5,105 kg (11,255 lbs.). As in previous years, over half of the 2025 electrofishing efforts (55.5%) were conducted in the McAlpine Pool, which succeeded in removing 403 Invasive Carp weighing a total of 2,734 kg (~6,030 lbs.). Bycatch of non-target species rarely occurred due to the highly selective nature of the electrofishing efforts, but there continued to be instances where shad and alewife species were purposely collected to verify, they were not juvenile carp (age-0 to age-1). WVDNR staff conducted four independent removal surveys during the reporting period (. 1,200 of net deployed); one in Mill Creek (Racine Pool) two in Thirteen Mile Creek (R.C. Byrd Pool) and one in Raccoon Creek (R.C. Byrd Pool). Gill nets (150ft, 5" mesh, 14ft-10ft) were set on opposite shores or at the mouth of the creek and allowed to soak for 2 hours or overnight. Agency crews also coordinated with USFWS-LGL FWCO on four removal events in Mill Creek, Raccoon Creek and the disused lock chambers of the R.C. Byrd L & D complex. Five adult Bighead Carp and one adult Silver Carp were removed from these efforts.

Contract Fishing Program

At the beginning of 2025, there were enough agency observers to regularly schedule up to 5 fishers a week. Program participants conducted a monthly average of 59 fishing days during the first few months of 2025 (Jan – Mar) and completed an overall total of 176 fishing days, which was comparable to the 167 days fished during this same period in 2024 (Table 2). During efforts in Jan – Mar 2025, contract fishers used 545 net sets (~ 254,000 net ft) to harvest a total of 23,920 carp with an estimated weight of 133,460 kg (~294,230 lb.). Contract fishing efforts in Jan-Mar 2025 yielded a slightly lower number of harvested Invasive Carp compared to the same time period in 2024 (n = 24,747). However, results from both years were still substantially lower than the 54,700 carp captured in Jan-Mar 2023, which continues to be program's highest harvest total for any 3-month period. After the typical start to 2025, contract fishers continued to harvest similar numbers of Invasive Carp in April – June (n = 14,895 fish). By the time that contract fishing efforts were suspended for the summer months, a total of nearly 38,815 invasive carp weighing an estimated 206,885 kg (~456,105 lb.) had been harvested during the first 6 months of 2025. By the end of 2025, program participants had set a total of ~1100 gill nets (>530,000 net ft) within the Cannelton, Newburgh and McAlpine pools.

During each year from 2019 to 2025, contract fishers have routinely harvested three different species of Invasive Carp, which include Silver, Bighead and Grass carps. The most common by far, in terms of both numbers and weight, have been Silver Carp. In 2025, Silver Carp (n = 40,510) represented more than 97.2% of the harvested fish, while both Bighead (n = 322) and Grass (n = 815) carps contributed the remaining ~2.8% (Table 3). The species composition of all invasive carp caught in 2025 continued to echo an overall trend in the program's results where Silver Carp have made up 98.1% of all carp (n = 262,320) caught by contract fishers in the past 6+ years (Jul 2019 – Feb 2026).

Upon comparing the mean daily catch of Invasive Carp during peak months (Oct-Jun) of the last seven fishing seasons (2019-2025), there continues to be evidence that the most productive period for contract fishing includes the first few months of each calendar year (Figure 1). This trend was a driving force behind the initial decision in late 2021 to concentrate contract fishing efforts to the late fall through early spring (Oct-Mar). Fishing effort during the six-month season initially increased from 134 total fishing days in the 2020-2021 season to 254 days during the same period in 2021-2022. Since then, the efforts conducted during this "peak" season have remained relatively stable with 252, 281 and 255 fishing days completed during the 2022-2023, 2023-2024, 2024-2025 seasons, respectively. A combination of factors, including extended periods of favorable river conditions, regular access to all fishing areas and a full staffing complement, allowed program participants to harvest Invasive Carp at a very high rate (200-350 fish/day) during the first three months of 2023. Since then, the contract fishing program has encountered some issues (i.e. extreme river levels, access restrictions), but fishers have often managed to continue harvesting Invasive Carp at rates of 100+ fish/day. Except for January and April, contract fishers maintained average harvest rates of 150+ carp/day during the first half of 2025. However, extreme winter conditions have led to a slower start to the 2025-2026 season, which has resulted in harvest rates staying well below 100 fish/day.

In 2025, monthly comparisons of mean daily harvest indicated that contract fishers had their highest catch rates of Invasive Carp during the months of February (206 carp/day) and June (210 carp/day) (Figure 2). As in previous years, the 2025 catch rates appear to increase with higher river levels. But when river levels get too high (i.e. April 2025), restricted access points and unsafe conditions can lead to a general drop in the contract fishers' productivity. This tends to only impact harvest rates when participants are forced to concentrate their efforts in areas with lower densities of Invasive Carp (i.e. mainstem sites). And finally, standard errors continue to stand out during months (i.e. June 2025) where contract fishers experience a higher variability in their catch rates.

Gill nets continued to be the primary gear used during the seven months that program participants were actively fishing in 2025. Netting effort does vary and can often depend on the current catch rates, but throughout 2025, contract fishers typically set out 500-600 meters (1650-1950 ft) of webbing per day. The Silver Carp catch ranged in total length from 500 mm to 1030 mm with most of the fish (96.9%) measuring between 650 – 850 mm (Figure 3). Bighead and Grass carp were caught less frequently, but when harvested, most Bighead Carp (~94%) had total lengths of 800 to 1200 mm and over 96% of all Grass Carp measured between 800 - 1100 mm.

The bycatch from contract fishing efforts in 2025 was highest in January (53%) and December (45%) with other months showing that non-target species contributed between 5% and 28% of the total catch (Figure 4). All bycatch species were released immediately, and KDFWR observers specifically documented any non-target fish that were either dead-on-arrival (DOA) or appeared to be moribund. Ictiobid species (i.e. Smallmouth, Bigmouth and Black buffalo) were the most common bycatch and contributed just over 69% of all non-target fish ($n = 8,737$) (Table 4). Freshwater Drum (*Aplodinotus grunniens*), Catfish (*Ictaluridae* species) and Longnose Gar (*Lepisosteus osseus*) were the next three most common types of bycatch. Even with the highest bycatch rates, the combined morbidity of the three Ictiobid species continued to be quite low at just over 3.9%. The only bycatch species in 2025 exhibiting morbidity rates of 10% or more were Freshwater Drum (10.7%), Gizzard Shad (10.4%) and Skipjack Herring (35.4%). Each of these species are known to be especially sensitive to net gear, but only Freshwater Drum also contributed to a substantial proportion (10.5%) of the overall bycatch. KDFWR observers continued to closely monitor the status of the Paddlefish (*Polyodon* spp), which is an economically important species that appears to be quite vulnerable to contract fishing gear. In 2025, Paddlefish were the seventh most caught bycatch (1.2%), and their morbidity rates have remained quite low (2.7%), especially when compared to the previously mentioned species.

The USACE locks and dam projects throughout the Ohio River are thought to provide some level of containment for the invasive carp species found within the mainstem river. Data acquired from several years of monitoring have demonstrated that average size and condition of Silver Carp increase as you

move upstream, which is often accompanied by a transition to populations that consist of fewer, older fish. With it being a location where <400 mm carp are encountered each year, Cannelton continues to be one of the most upstream pools within the establishment zone. Because of this, its size and regular evidence of successful reproduction, Cannelton Pool continues to be a high-priority location for any future efforts to control the invasive carp population.

In 2025, KDFWR contracted with eight program participants to provide the necessary fishing effort and hired as many as four observers to record harvest success and any impacts of non-target species. Overall, fishers were typically more successful when focusing their efforts within tributaries, where decreased water depths allow the gill nets to catch Invasive Carp at higher rates. However, fishers have also become increasingly more effective at capturing Silver Carp as they congregate in the tailwaters of both Cannelton and McAlpine locks and dams during the spring. Because of past difficulties in capturing carp during warmer months, all fishing efforts in 2025 were postponed from July through November, which is also expected to reduce impacts on bycatch species. Any effect this has on bycatch morbidity rates continues to be examined closely as additional data is collected. Unlike 2024, when fishing resumed in November, the restart of the program in 2025 was delayed even further until December to continue concentrating fishing efforts to the most productive months of the year. When efforts resumed on December 1, 2025, program participants immediately continued to utilize the same group fishing methods that have historically produced higher harvest rates. These techniques are considered to be an optimization of the program's fishing efforts as they direct all participants to concentrate their nets in the same area.

Agency staff do provide regular recommendations based on previous experience and monitoring efforts, including information on where to target Invasive Carp and what gear specifications could produce greater success. However, contract fishers are also allowed to utilize their own expertise in deciding what gears would work best during each fishing event. Participants continued to use gill nets with webbing constructed of 3.5 to 4.5 in bar-mesh throughout 2025, which appeared to provide the best results when Silver Carp was the primary target. Early in the program, fishers began setting nets in specific locations with the purpose of closing off any escape routes that invasive carp could use if/when they were able to avoid initial capture efforts. This practice was intended to allow the contract fishers to repeatedly target an area until all invasive carp had been captured and removed. However, this would only produce the intended result if/when an appropriate amount of fishing pressure was applied directly upstream of these "block nets". This was an important factor in KDFWR's decision to have contract fishers focus their efforts in the same tributary/embayment. These "group fishing" techniques were initially implemented during the second half of 2021 and resulted in immediate improvements. Higher harvest totals through the spring of 2025 continue to support the use of group fishing, especially in areas with higher densities of invasive carp (i.e. Cannelton & Newburgh pools).

As in previous years, agency observers in 2025 continued to report that most bycatch was healthy upon release. After having the highest morbidity rates in 2023, Paddlefish captured and released in 2025 continued to fair quite better, as there were as many as nine bycatch species with higher morbidity during this reporting period (Table 4). Ictiobids (i.e. Smallmouth Buffalo) were once again by far the most common bycatch in 2025, which was followed by Freshwater Drum and Catfish. Like in previous years, an overall morbidity rate of <5.0% during 2025 indicates that most bycatch appeared to be unharmed, or only minimally injured, following their release. In addition to the shift to cooler water temperatures, the instances of low bycatch mortality have also been aided by the current practice of rapidly setting and pulling gill nets.

For agency removal efforts, electrofishing methods used in 2025 continued to produce the most success for the crews that were targeting lower density populations of invasive carp. When available, these efforts can be even more effective if side-scan technology is used to locate schools of Silver Carp. However, capture success appears to remain dependent on the experience of both the driver and the dipper. Targeting tributary waters gives removal crews an advantage because current sampling gears are often more effective in shallower water and the tributary banks help keep the invasive carp from scattering too far away from the electrofishing boats.

The Indiana Invasive Carp Harvest program had 14 permit holders in 2025. Despite there being five months of no harvest between the expiration of the interim rule and beginning of the permanent rule, fishers were able to harvest a total of 790,513 lbs. of invasive carp. Silver Carp accounted for 98.8% (N = 82,144) of the harvest. KDFWR contract fishers contributed 171,374 lbs. to this total. The remaining 619,139 lbs. was harvested from the Wabash River by fishers enrolled in the Indiana Wabash River Basin incentive program. Fishers self-reported data indicated that bycatch consisted of 4,586 buffalo spp., 703 catfish spp., 414 paddlefish, 437 gar spp., 471 Freshwater Drum, and 24 'other' fish. It is worth noting that the majority of the invasive carp harvest that occurred under the Indiana Invasive Carp Harvest Permit will also be captured in either the Kentucky Contract Fishing program (as contract fishers were required to have the permit to legally fish in Indiana waters) or an incentive program, as most permit holders were enrolled in an incentive program. Therefore, caution should be used when describing the total annual harvest to ensure that what is reported via incentive programs is not simply combined with other harvest totals from the IN harvest permit or KY contract fishing programs.

Enhanced Contract Removal

During 2025, ILDNR Enhanced Contract Removal Program had a total of 34 fishers under contract. With those 34 fishers, a total of 3,645,500 lbs of invasive carp were removed. Since the program's inception of March 2022, a total of 13,786,096 lbs have been removed from the designated waters of the Ohio River and its tributaries. Of that total amount, 98% of the invasive carp removed were Silver carp. June, July, and May were the months with the highest catch totals for 2025. Fall, particularly November, saw a dramatic decrease in the pounds of invasive carp reported harvested (Figure 5). The bulk of the harvest in 2025 occurred in the main-stem Ohio River and the Tailwaters of Kentucky and Barkley Lakes. (Table 5)

Contracted Facilitation

The Contracted Facilitation Program had 7 processors under contract in 2025. Throughout 2025 a total of 10,227,656 lbs. were processed. Since the Program's inception of March 2022, a total of 44,031,342 lbs. have been processed. Silver carp make up 91% of the total number of invasive carp processed, with Bighead, Grass and undisclosed invasive carp combining to make the remaining 9%. Contracted facilitation had its highest months from February to June. (Figure 6.)

Wabash River Basin Fisher and Processor Incentive Program

A total of 12 fishers and 3 processors were enrolled in the Indiana Wabash River basin incentive programs. Despite several setbacks in 2025, the Indiana Wabash River basin incentive program incentivized 744,214 pounds of invasive carp harvest along with 545,156 pounds compensated for processors. Most harvest occurred in January and March when river conditions were ideal and nearly all harvest was Silver Carp. Due to tough fishing conditions the first half of the year, followed by a five-month lapse in the Indiana carp harvest permit, harvest was not as high as expected. Despite the lapse in fishers' ability to use gill nets or seines in Indiana waters under the carp harvest permit, some removal efforts persisted through incentivized fishers operating under Illinois commercial fishing licenses.

Tables and Figures:

Table 1. Results of electrofishing conducted by KDFWR and INDNR in 2025 with the primary objective of removing Invasive Carp from the Ohio River.

OHR Pool	Agency	Effort (hr.)	Total Count (N)				Total Weight (kg)			
			Bighead Carp	Silver Carp	Grass Carp	Total	Bighead Carp	Silver Carp	Grass Carp	Total
Cannelton	KDFWR	5.0	0	101	1	102	0.0	506.7	7.9	514.6
	INDNR	18.4	0	274	0	274	0.0	1452.2	0.0	1452.2
McAlpine	KDFWR	59.2	0	402	1	403	0.0	2721.4	12.7	2734.1
Markland	KDFWR	17.6	1	23	3	27	6.2	275.5	36.9	318.6
	INDNR	6.5	0	6	0	6	0.0	85.2	0.0	85.2
	ALL	106.7	1	806	5	812	6.2	5041.0	57.5	5104.7

Table 2. Summary of results obtained by contract fishers between 2019 to 2024. A “fishing day” equals 1 crew fishing ~8 hr.

Year	Period (3-mon)	Contract Fishing Effort			Total IC Harvest	# Carp per Day	Total Harvest (KG)	Total Harvest (LB)	Mean Length & Weight			
		Days	Nets	Net Feet					TL (mm)	Wgt (g)	TL (in)	Wgt (lb)
2019	Jul-Sep	26	191	88,215	2,698	103.8	14994.2	33056.6	808.8	5557.5	31.8	12.3
	Oct-Dec	65	640	289,690	4,209	64.8	23534.2	51884.0	817.7	5591.4	32.2	12.3
		91	831	377,905	6,907	75.9	38528.5	84940.8	814.2	5578.2	32.1	12.3
2020	Jan-Mar	52	357	199,866	7,433	142.9	42028.0	92655.9	818.0	5654.2	32.2	12.5
	Apr-Jun	37	345	161,120	3,247	87.8	17894.2	39450.0	769.7	5511.0	30.3	12.2
	Jul-Sep	28	318	118,775	1,371	49.0	6832.2	15062.4	756.8	4983.4	29.8	11.0
	Oct-Dec	67	529	308,450	3,765	56.2	22111.4	48747.3	828.3	5872.9	32.6	13.0
		184	1549	788,211	15,816	86.0	88865.7	195915.3	805.2	5618.7	31.7	12.4
2021	Jan-Mar	67	474	251,400	8,692	129.7	53452.0	117841.5	824.3	6149.6	32.5	13.6
	Apr-Jun	40	243	189,520	3,115	77.9	17946.4	39565.0	803.0	5761.3	31.6	12.7
	Jul-Sep	2	14	6,000	66	33.0	328.2	723.6	768.4	4972.1	30.3	11.0
	Oct-Dec	98	562	289,875	8,060	82.2	38197.5	84211.1	770.9	4739.1	30.4	10.5
		207	1293	736,795	19,933	96.3	109924.0	242340.9	799.2	5514.7	31.5	12.2
2022*	Jan-Mar	156	744	369,350	21,993	141.0	111923.8	246749.7	790.4	5089.1	31.1	11.2
	Apr-Jun	22	101	53,350	4,976	226.2	24112.3	53158.5	775.7	4845.7	30.5	10.7
	Oct-Dec	84	446	246,710	13,431	159.9	60657.2	133726.2	780.0	4516.2	30.7	10.0
		262	1291	669,410	40,400	154.2	196693.3	433634.5	785.1	4868.6	30.9	10.7
2023*	Jan-Mar	168	711	325,700	54,701	325.6	263929.6	581865.2	780.6	4825.0	30.7	10.6
	Apr-Jun	112	403	183,200	19,455	173.7	93336.8	205772.4	776.8	4797.6	30.6	10.6
	Oct-Dec	114	429	287,213	8,196	71.9	36855.0	81251.4	741.9	4496.7	29.2	9.9
		394	1543	796,113	82,352	209.0	394121.4	868889.0	775.9	4785.8	30.5	10.6
2024*	Jan-Mar	167	575	275,600	24,747	148.2	112980.6	249079.6	744.0	4565.4	29.3	10.1
	Apr-Jun	124	416	200,530	15,634	126.1	68468.6	150947.4	736.4	4379.5	29.0	9.7
	Oct-Dec	79	211	98,700	6,483	82.1	31096.4	68555.8	766.4	4796.6	30.2	10.6
		370	1202	574,830	46,864	126.7	212545.6	468582.8	744.6	4535.4	29.3	10.0

* Contract fishing was not conducted during summer months (Jul-Sep).

Table 2 cont. Summary of results obtained by contract fishers between 2025 to February 2026. A “fishing day” equals 1 crew fishing ~8 hr.

Year	Period (3-mon)	Contract Fishing Effort			Total IC Harvest	# Carp per Day	Total Harvest (KG)	Total Harvest (LB)	Mean Length & Weight			
		Days	Nets	Net Feet					TL (mm)	Wgt (g)	TL (in)	Wgt (lb)
2025*	Jan-Mar	176	545	253,699	23,920	135.9	133460.9	294230.9	794.5	5579.5	31.3	12.3
	Apr-Jun	100	372	160,227	14,895	149.0	73424.8	161874.0	771.8	4929.5	30.4	10.9
	Oct-Dec	81	182	119,450	2,834	35.0	16002.0	35278.4	794.1	5646.4	31.3	12.5
		357	1099	533,376	41,649	116.7	222887.7	491383.3	786.4	5351.6	31.0	11.8
2026	Jan-Feb	105	188	110,600	8,399	80.0	49801.5	109793.5	800.8	5931.6	31.5	13.1
		105	188	110,600	8,399	80.0	49801.5	109793.5	800.8	5931.6	31.5	13.1
All	Jan-Mar	891	3594	1,786,215	149,885	168.2	767576.3	1692216.1	783.7	5121.2	30.9	11.3
	Apr-Jun	435	1880	947,947	61,322	141.0	295183.1	650767.3	766.2	4813.7	30.2	10.6
	Jul-Sep	56	523	212,990	4,135	73.8	22154.6	48842.5	790.9	5357.8	31.1	11.8
	Oct-Dec	588	2999	1,640,088	46,978	79.9	228453.6	503654.0	778.0	4863.0	30.6	10.7
		1970	8996	4,587,240	262,320	133.2	1313367.6	2895480.1	778.6	5006.8	30.7	11.0

* Contract fishing was not conducted during summer months (Jul-Sep).

Table 3. Total counts and harvest weights of Invasive Carp species harvested by contract fishers from 2019 to Feb 2026. All data was recorded by agency observers.

Cannelton Pool (2019 – early 2026)					Newburgh Pool (2023 - early 2026)					McAlpine Pool (2020-2021 & 2025-2026)				
Year	Spp.	Total IC Caught	Harvest Weight (kg)	Harvest Weight (lb.)	Year	Spp.	Total IC Caught	Harvest Weight (kg)	Harvest Weight (lb.)	Year	Spp	Total IC Caught	Harvest Weight (kg)	Harvest Weight (lb.)
2019 - 2020	BHC	544	6,274.0	13,831.8	2023	BHC	4	55.7	122.8	2020	BHC	0	0.0	0.0
	GRC	364	3,276.8	7,224.1		GRC	25	187.0	412.3		GRC	2	16.9	37.3
	SVC	21,811	117,817.4	259,742.9		SVC	4,604	17,599.8	38,800.9		SVC	2	9.0	19.8
		22,719	127,368.3	280,799.0			4,633	17,842.4	39,335.8			4	25.9	57.1
2021	BHC	190	2,574.9	5,676.7	2024	BHC	22	293.5	647.1	2021	BHC	0	0.0	0.0
	GRC	208	1,616.4	3,563.6		GRC	249	1,936.1	4,268.4		GRC	6	63.2	139.3
	SVC	19,420	105,160.3	231,838.8		SVC	25,515	99,350.8	219,031.0		SVC	109	509.2	1,122.6
		19,818	109,351.6	241,079.0			25,786	101,580.4	223,946.5			115	572.4	1,261.9
2022	BHC	428	5,574.1	12,288.8	2025	BHC	93	1,151.3	2,538.2	2025	BHC	0	0.0	0.0
	GRC	298	2,337.8	5,154.0		GRC	536	4,350.0	9,590.1		GRC	0	0.0	0.0
	SVC	39,674	188,781.3	416,191.5		SVC	15,888	70,507.7	155,442.9		SVC	1,492	11,569.6	25,506.6
		40,400	196,693.2	433,634.3			16,519	76,037.2	167,633.3			1,492	11,569.6	25,506.6
2023	BHC	499	6,710.5	14,794.1	2026	BHC	16	169.7	374.1	2026	BHC	3	36.1	79.6
	GRC	508	4,245.9	9,360.6		GRC	223	1,601.3	3,530.3		GRC	1	7.9	17.4
	SVC	76,712	365,322.5	805,398.3		SVC	2,802	12,977.8	28,611.2		SVC	1,413	11,433.2	25,205.9
		77,719	376,279.0	829,553.2			3,041	14,748.8	32,515.5			1,417	11,477.2	25,302.9
2024	BHC	92	1,291.3	2,846.8	All Years	BHC	135	1,670	3,682.2	All Years	BHC	3	36.1	79.6
	GRC	155	1,442.1	3,179.3		GRC	1,033	8,074	17,801.0		GRC	9	88.0	194.0
	SVC	20,831	108,231.9	238,610.5		SVC	48,809	200,436.1	441,886.0		SVC	3,016	23,521.0	51,854.9
		21,078	110,965.3	244,636.6			49,979	210,208.8	463,431.1			3,028	23,645.1	52,128.5
2025	BHC	229	3,042.9	6,708.5										
	GRC	279	2,690.7	5,932.0										
	SVC	23,130	129,547.2	285,602.7										
		23,638	135,280.8	298,243.1										
2026	BHC	27	92.9	204.8										
	GRC	26	200.9	442.9										
	SVC	3,887	23,281.7	51,327.4										
		3,940	23,575.5	51,975.1										
All Years	BHC	2,009	25,560.6	56,351.5										
	GRC	1,838	15,810.6	34,856.4										
	SVC	205,465	1,038,142.3	2,288,712.0										
		209,312	1,079,513.5	2,379,919.9										

All Pools & Years Combined				
Years	Species	Total Catch	Harvest Weight (kg)	Harvest Weight (lb)
2019 - 2026	BHC	2,147	27,266.8	60,113.0
	GRC	2,880	23,973.1	52,851.6
	SVC	257,290	1,262,099.5	2,782,453.1
		262,320	1,313,367.7	2,895,480.1

All Pools & Years Combined				
Years	Species	Total Catch	Harvest Weight (kg)	Harvest Weight (lb)
2019 - 2026	BHC	2,147	27,266.8	60,113.0
	GRC	2,880	23,973.1	52,851.6
	SVC	257,290	1,262,099.5	2,782,453.1
		262,320	1,313,367.7	2,895,480.1

Table 4. Detailed summary of the bycatch species recorded during contract fishing efforts in January - December 2025. Healthy, or resilient, fish are those that recovered quickly and swam away under their own power, while moribund fish suffered significant damage and could not swim off after being released.

Bycatch Fish Spp. (Common Name)	Genus/Species	Resilient Count	Morbid Count	% Morbidity	Total Count	% of All ByCatch
Bigmouth Buffalo	<i>Ictiobus cyprinellus</i>	288	13	4.3	301	2.4
Black Buffalo	<i>Ictiobus niger</i>	11	1	8.3	12	0.1
Blue Catfish	<i>Ictalurus furcatus</i>	993	13	1.3	1006	8.0
Bluegill/Redear	<i>Lepomis</i> spp	1	0	0.0	1	<0.1
Bowfin	<i>Amia calva</i>	2	0	0.0	2	<0.1
Channel Catfish	<i>Ictalurus punctatus</i>	122	2	1.6	124	1.0
Common Carp	<i>Cyprinus carpio</i>	294	4	1.3	298	2.4
Crappie species	<i>Pomoxis</i> spp	21	0	0.0	21	0.2
Flathead Catfish	<i>Pylodictis olivaris</i>	66	0	0.0	66	0.5
Freshwater Drum	<i>Aplodinotus grunniens</i>	1191	143	10.7	1334	10.6
Gizzard Shad	<i>Dorosoma cepedianum</i>	43	5	10.4	48	0.4
Largemouth Bass	<i>Micropterus salmoides</i>	5	0	0.0	5	<0.1
Logperch	<i>Percina caprodes</i>	5	1	16.7	6	<0.1
Longnose Gar	<i>Lepisosteus osseus</i>	408	5	1.2	413	3.3
Paddlefish	<i>Polyodon spathula</i>	145	4	2.7	149	1.2
Quillback	<i>Carpoides cyprinus</i>	7	0	0.0	7	0.1
River Carpsucker	<i>Carpoides carpio</i>	26	1	3.7	27	0.2
Sauger/Saugeye	<i>Sander</i> spp	3	0	0.0	3	<0.1
Shortnose Gar	<i>Lepisosteus platostomus</i>	39	0	0.0	39	0.3
Skipjack Herring	<i>Alosa chrysochloris</i>	62	34	35.4	96	0.8
Smallmouth Bass	<i>Micropterus dolomieu</i>	1	0	0.0	1	<0.1
Smallmouth Buffalo	<i>Ictiobus bubalus</i>	8091	333	4.0	8424	66.7
Spotted Gar	<i>Lepisosteus oculatus</i>	100	2	2.0	102	0.8
Striped Bass	<i>Morone saxatilis</i>	132	5	3.6	137	1.1
Sturgeon Family	<i>Acipenseridae</i>	2	0	0.0	2	<0.1

TOTALS BY LOCATION						
Month	Total Lbs.	Catch Location *				
		Ohio River	Wabash River	Tailwaters (KY and Barkley Lakes)	MS River	Kaskaskia
2022 Totals	1,425,591	114,594	1,310,997			
2023 Totals	3,534,342	2,048,845	793,977	691,520	0	0
Jan-24	349,222	231,269	117,953	0	0	
Feb-24	513,709	479,228	7,922	0	26,558	
Mar-24	588,277	571,063	10,279	0	6,935	
Apr-24	471,518	357,815	32,052	62,158	19,493	
May-24	519,997	314,359	42,363	118,576	44,699	
Jun-24	649,331	140,065	0	485,109	24,157	
Jul-24	550,236	29,502	0	516,823	3,911	
Aug-24	148,027	68,097	0	78,140	1,790	
Sep-24	461,775	29,219	0	432,556	0	
Oct-24	577,824	35,225	0	542,599	0	
Nov-24	204,039	34,620	0	167,233	0	2,186
Dec-24	146,708	96,394	0	50,314	0	0
2024 Totals	5,180,663	2,386,856	210,569	2,453,508	127,543	2,186
Jan-25	95,818	95,818	0	0	0	0
Feb-25	165,976	165,976	0	0	0	0
Mar-25	189,390	182,091	0	7,299	0	0
** Apr-25	171,274	125,078	0	0	46,196	0
** May-25	435,582	200,916	0	45,746	188,920	0
** Jun-25	1,033,097	71,001	0	571,506	390,590	0
** Jul-25	555,984	25,237	0	333,230	197,517	0
Aug-25	327,340	22,886	0	304,454	0	0
Sep-25	235,026	53,093	0	181,933	0	0
Oct-25	298,604	32,473	0	264,890	0	1,241
Nov-25	61,564	8,851	0	52,713	0	0
Dec-25	75,846	75,846	0	0	0	0
2025 Totals **	3,645,500	1,059,265	0	1,761,771	823,223	1,241
Jan-26	86,500	86,500	0	0	0	0
2026 Totals to Date	86,500	86,500	0	0	0	0
GRAND TOTALS	13,872,596	5,696,060	2,315,543	4,906,799	950,766	3,427

Table 5. Enhanced contract fishing harvest totals by river reach.

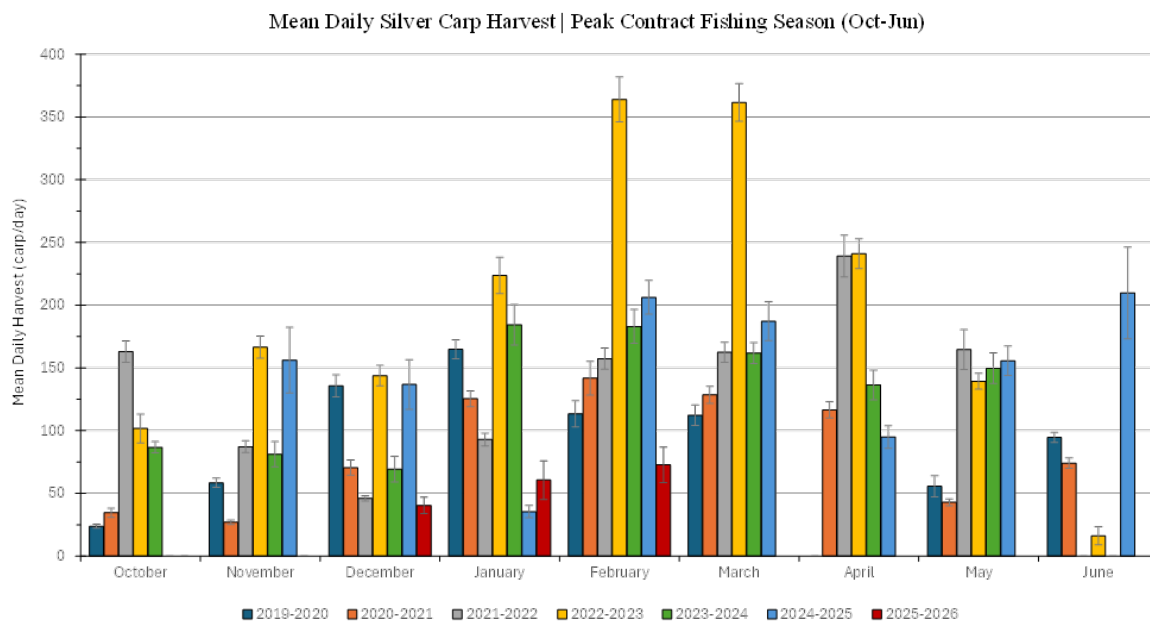


Figure 1. An illustration of the differences in mean Silver Carp harvest (total fish/day) for peak months over the past seven fishing seasons. Error bars represent the standard error of the daily catch totals obtained from the contract fishers.

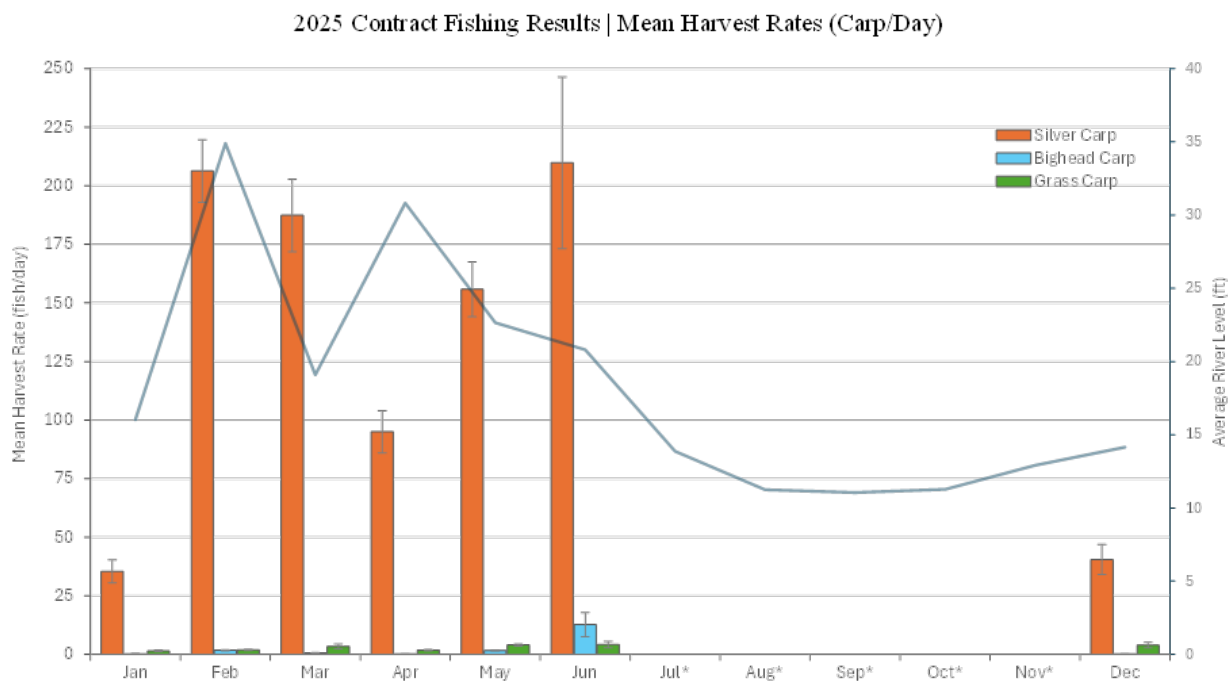


Figure 2. The average harvest rates (fish/day) in months between January and December 2025 that KDFWR employed contract fishermen to remove Invasive Carp. Error bars represented the standard error for daily catches. In addition, mean river level was calculated from data recorded by a USGS gage located at Cannelton Locks & Dam (blue line). Average daily landings in 2025 continued to be influenced by both temperature and river levels.

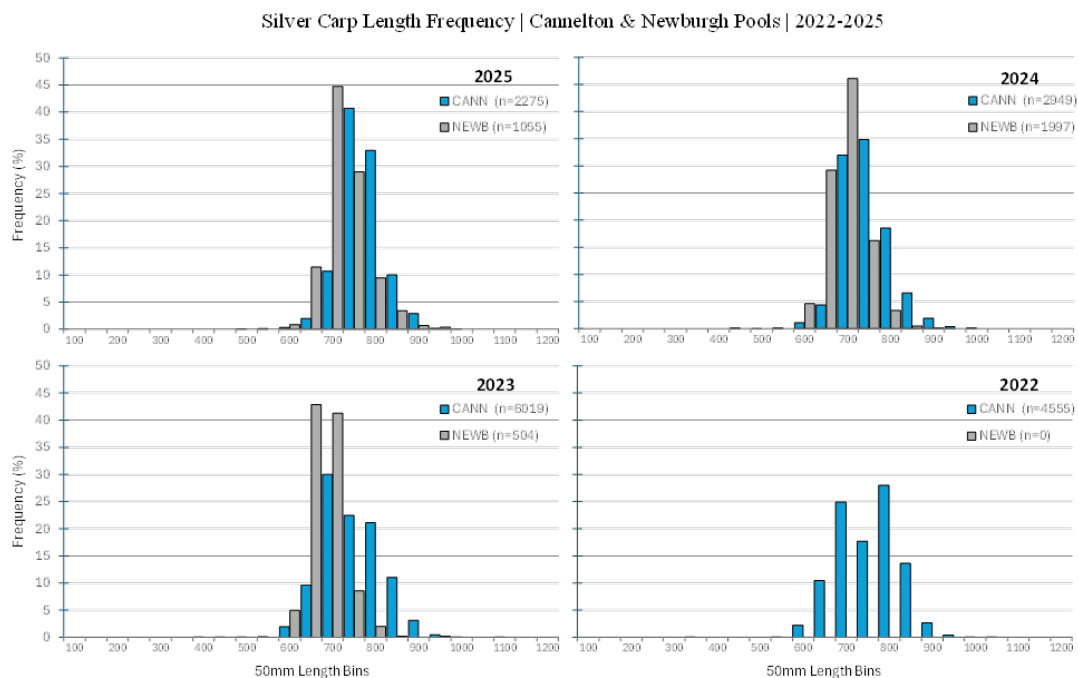


Figure 3. Length frequency distributions for the Silver Carp subsamples that contract fishers harvested from the Cannelton & Newburgh pools in 2022-2025.

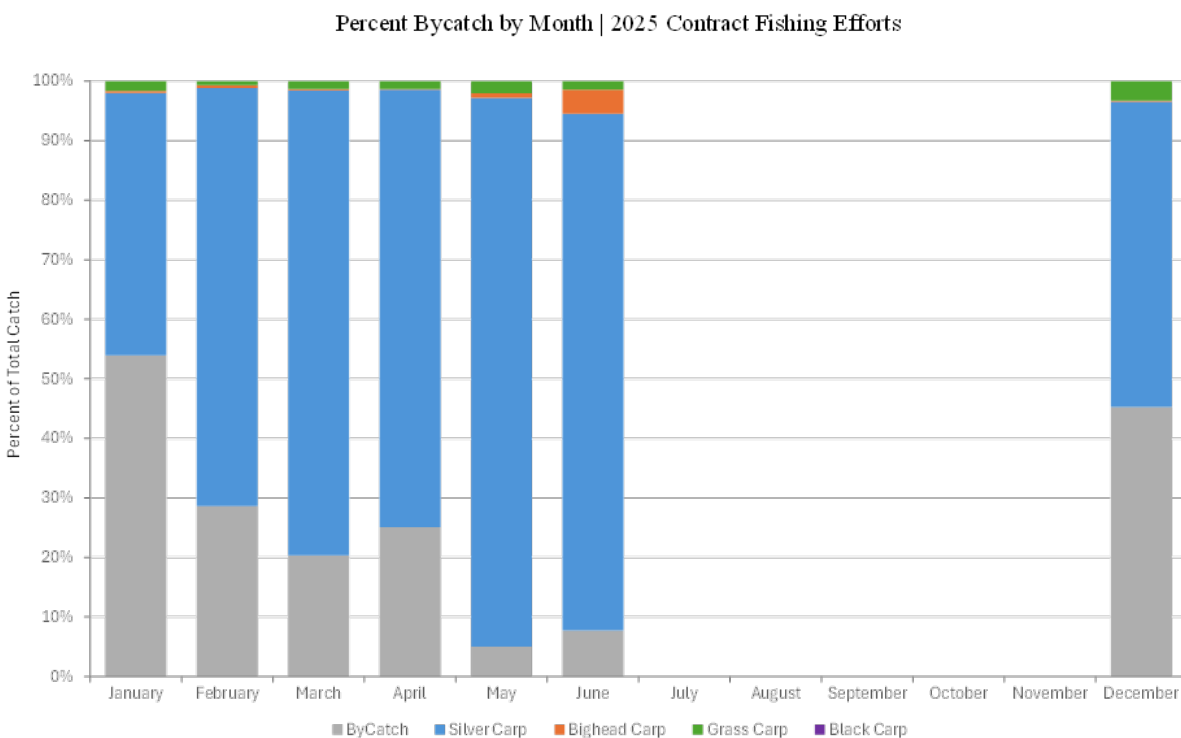


Figure 4. The monthly percent contribution of bycatch and four Invasive Carp species targeted by contract fishers from January to December 2025.

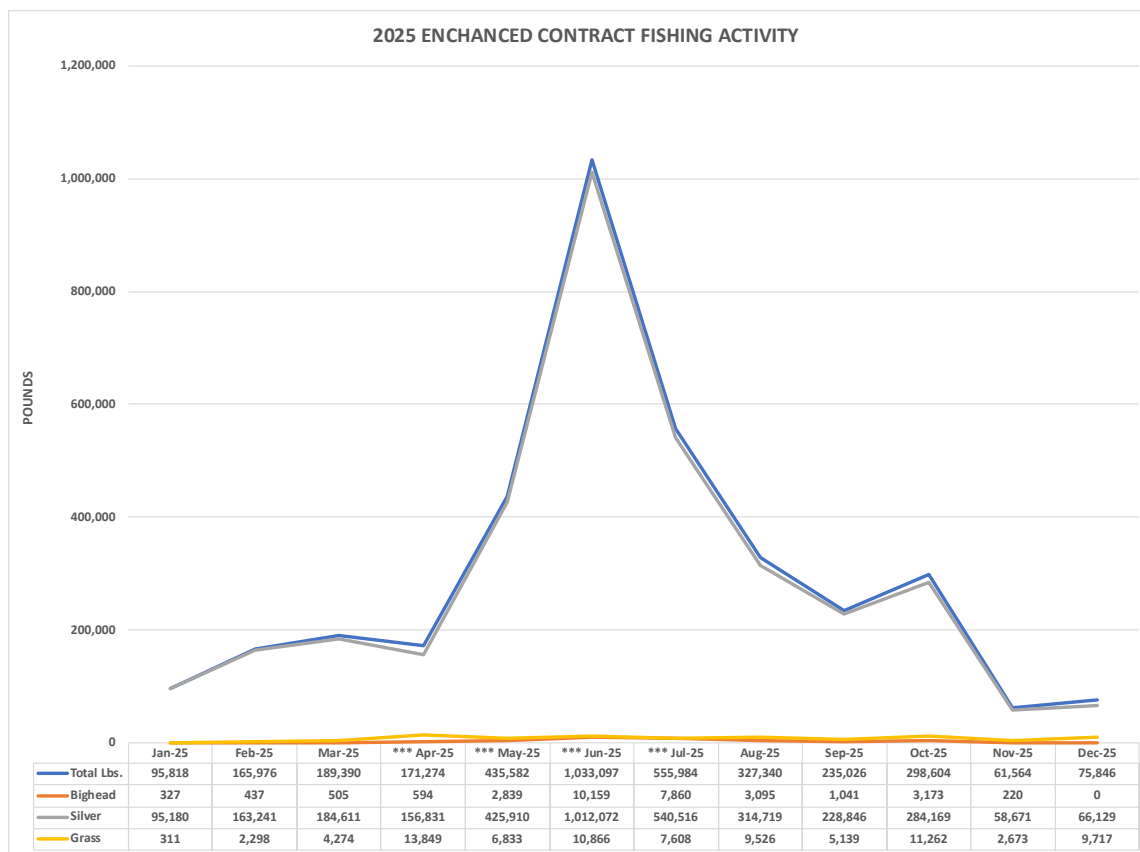


Figure 5. 2025 Enhanced Contract Removal per month.

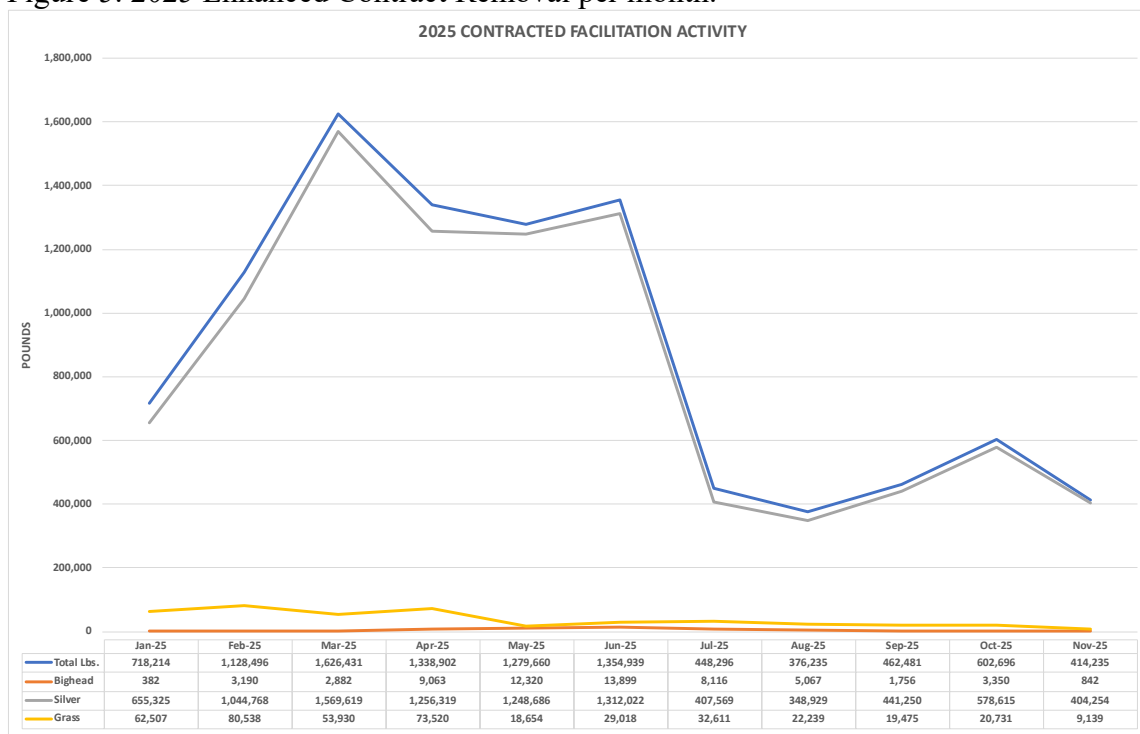


Figure 6. 2025 monthly processed totals for the Contracted Facilitation project.