

Johnson Reservoir

Fisheries Update - Spring 2025

Brad Eifert, South-Central District Manager

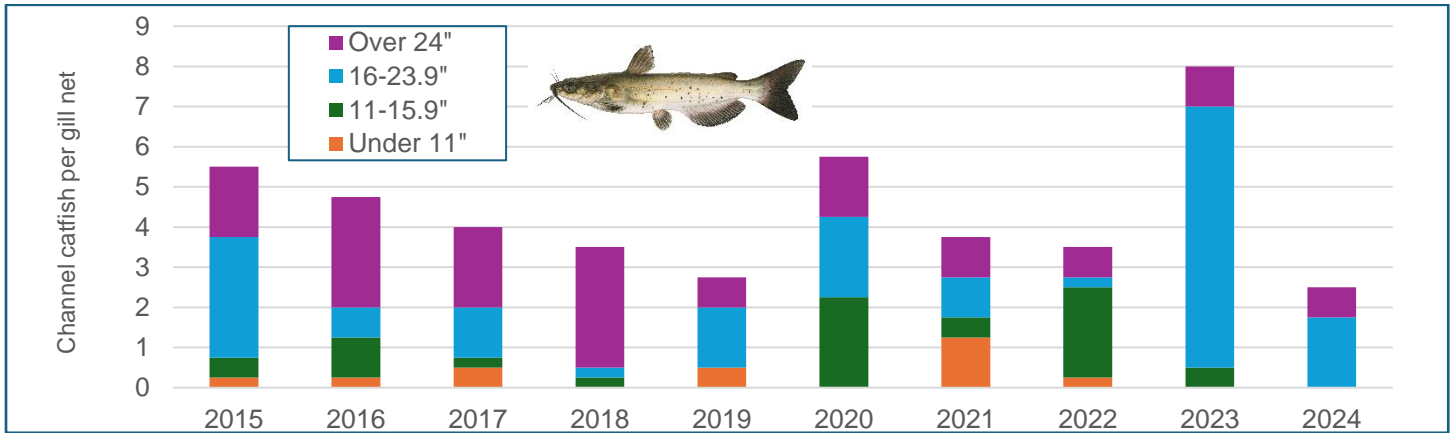


Johnson Reservoir is a 2,200-surface acre reservoir that is owned and operated by Central Nebraska Public Power & Irrigation District (CNPPID). It is one of the lowermost reservoirs on the Central system and its primary purpose is to serve as a regulating reservoir for two downstream hydropower plants and to regulate flows into the Phelps and E67 irrigation canals. Water for the reservoir is supplied by a large canal system and inflows and outflows vary throughout the year based on irrigation and power demand. The reservoir serves as an important recreational resource and it has an average of 500,000 visitor-days per year. While most of the shoreline is surrounded by over 900 lake homes, two State Recreation Areas (SRA) are located on the lake that are operated by the Nebraska Game and Parks Commission (NGPC). The reservoir is a popular destination for anglers and fisheries resources are also managed by NGPC. Additional information regarding the operation of Johnson Reservoir can be found on CNPPID's [website](#). Information regarding the SRA or fishing resources can be found on NGPC's [website](#).

Nebraska Game and Parks Commission uses standard sampling methods to monitor the status of fish populations in Nebraska waters. At Johnson Reservoir, gill nets are used to sample open-water fish species such as walleye and white bass, while trap nets are used for shoreline-oriented fish such as crappie. Annual netting surveys are completed at approximately the same dates and locations to reduce variability and allow for trend comparisons of species abundance and size distribution.

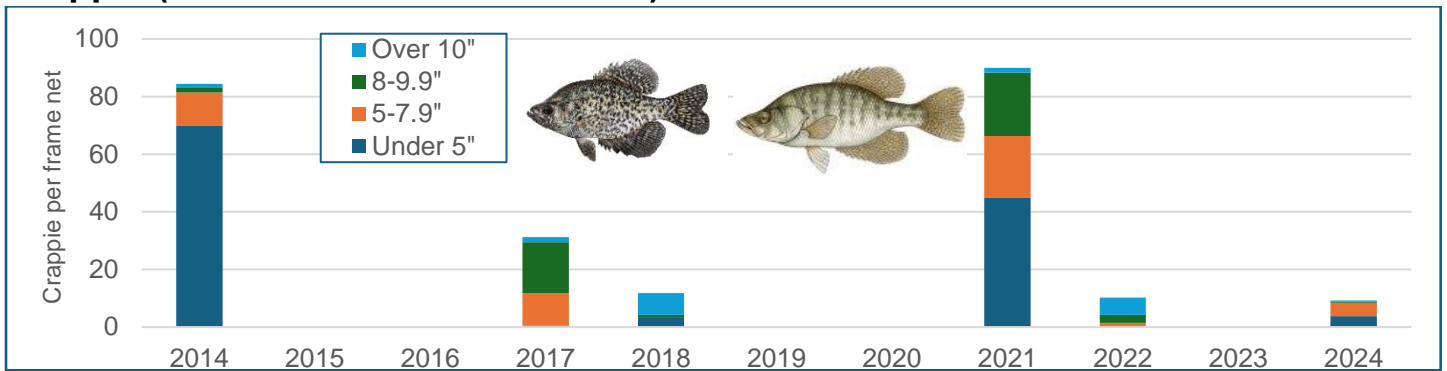
The following pages contain graphs and text that summarize fish surveys completed at Johnson Reservoir. Graphs show the total number of fish caught per net and the relative abundance of fish within several length categories. The text provides brief explanations of the information contained in the graphs. In most cases, results are included from the last 10 years.

Channel Catfish



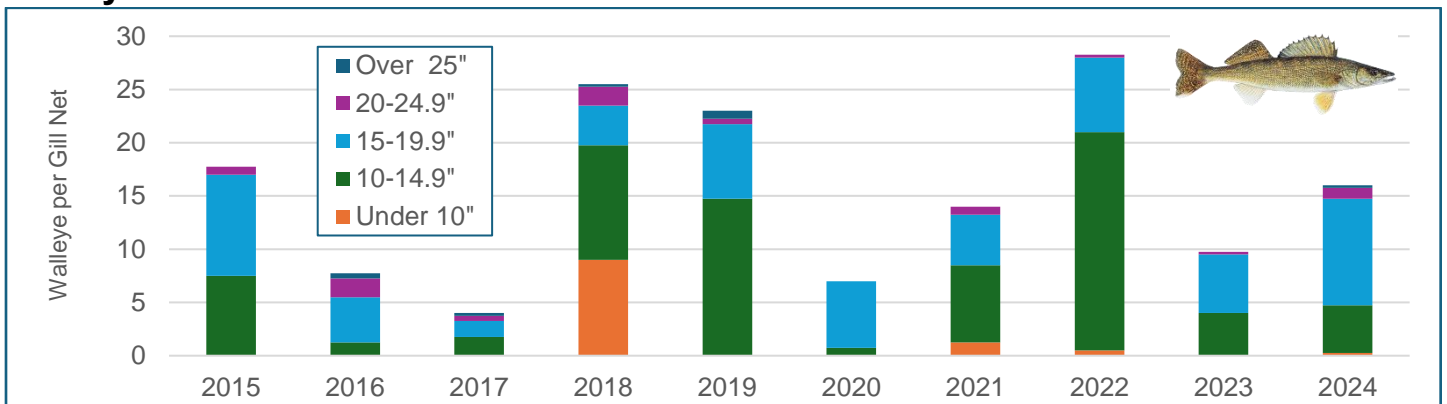
Channel catfish abundance at Johnson is typically lower than what is observed in most Nebraska reservoirs, but average size and quality of the catfish is excellent. Netting results from 2024 show a slight decline in abundance from previous years and the catch of 2.5 fish/net is below the ten-year average catch of 4.4 fish/net. Size structure remains excellent as all catfish in the survey ranged from 20 to 30 inches and the average length was 23.7 inches. Regulations allow the harvest of ten channel catfish per day at Johnson with only one fish greater than 30 inches in the daily bag limit.

Crappie (Black and White Combined)

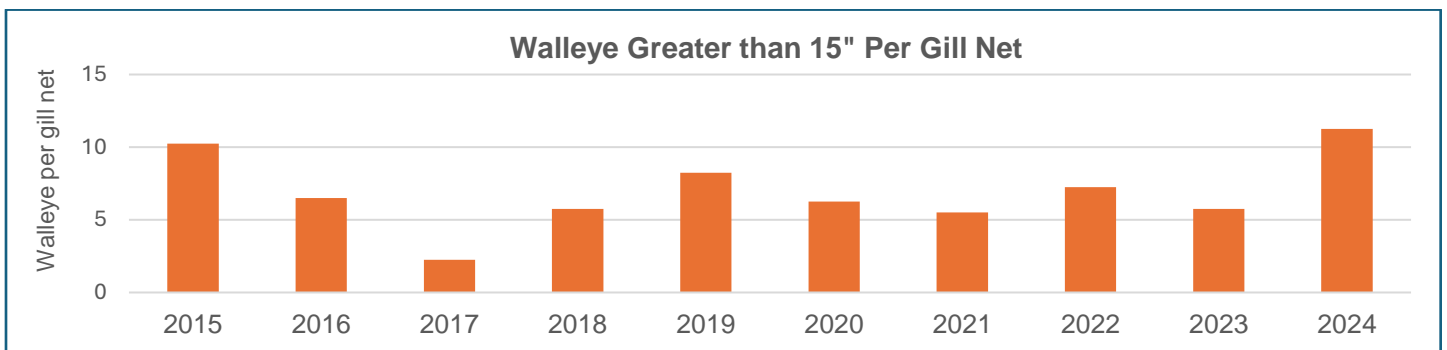


Crappie are sampled in the fall utilizing frame nets. Sampling is not completed in all years due to low water levels making the standard sampling stations unusable. Sampling in the fall of 2024 revealed lower than average crappie abundance. Both black and white crappie can be caught in Johnson, but blacks are generally more abundant. All crappie sampled in during 2024 were blacks that ranged from 3 to 11 inches. Good numbers of age-0 and age-1 crappie were collected which should provide improved fishing opportunities in the future.

Walleye

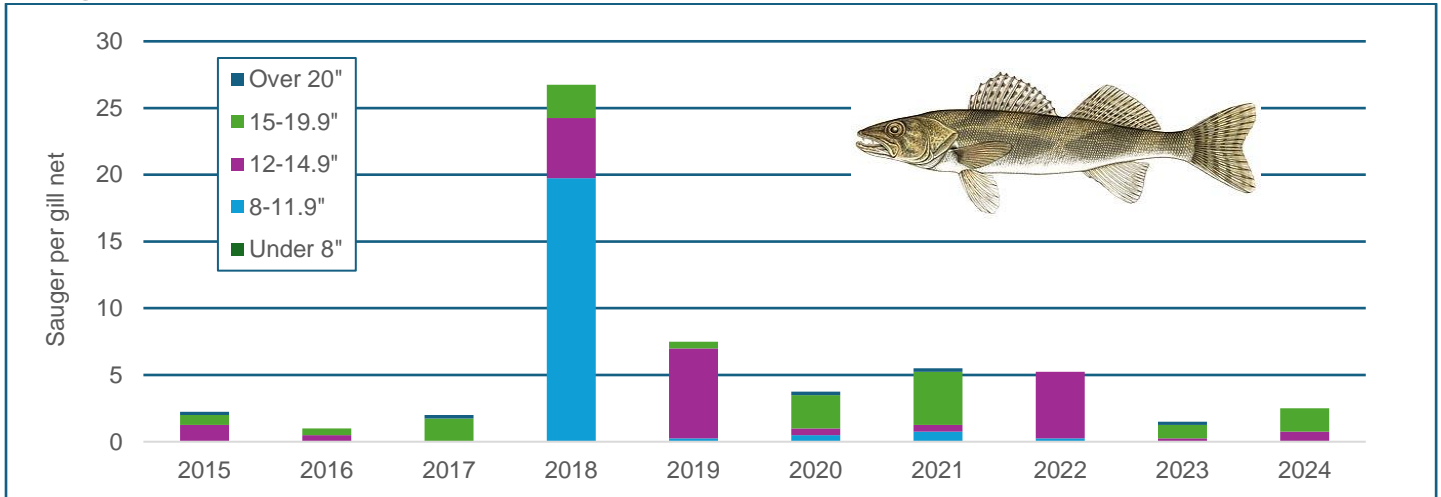


The walleye catch was 16 fish/net, which was an improvement from 2023 and is slightly higher than the ten-year average catch of 15.3 fish/net. Lengths of walleye sampled in the survey ranged from 8 to 28 inches and the average length was 16.7 inches. Most of the fish in the sample were 1 to 3 years of age, but a total of nine age-classes were collected.



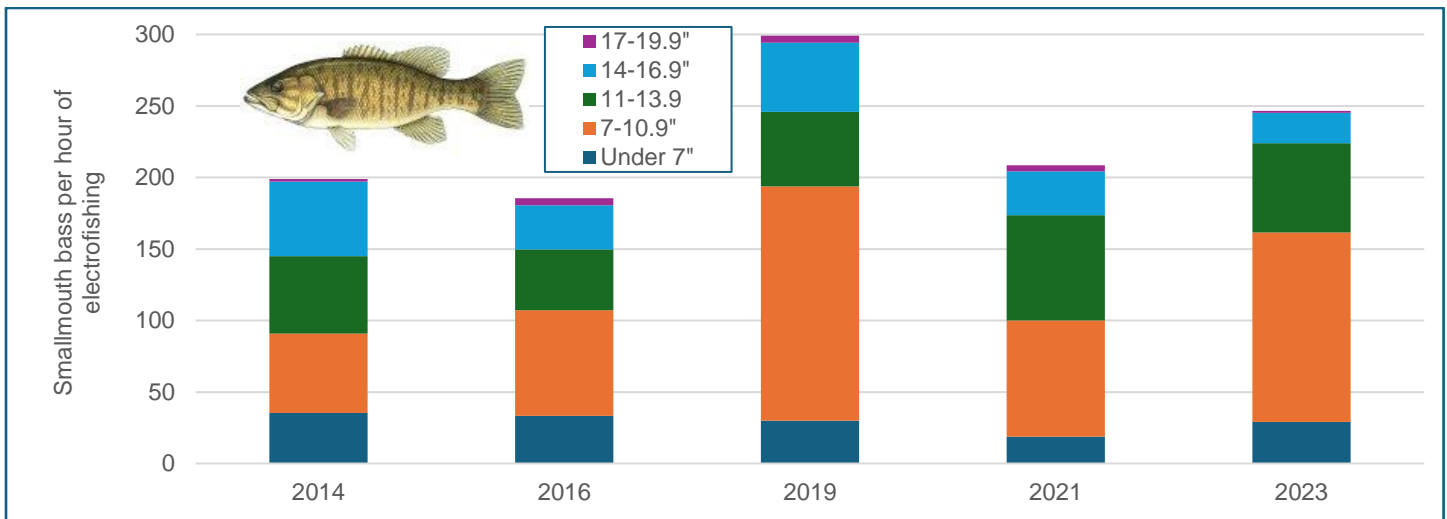
The catch of walleye larger than 15 inches was greatly improved and was the most sampled in the past ten years. Approximately 70% of the walleye collected in the fall survey were large enough for legal harvest and should provide good opportunity for anglers in 2025. The walleye regulation for Johnson allows the harvest of four fish greater than 15 inches with no more than one greater than 22 inches in the daily bag limit.

Sauger



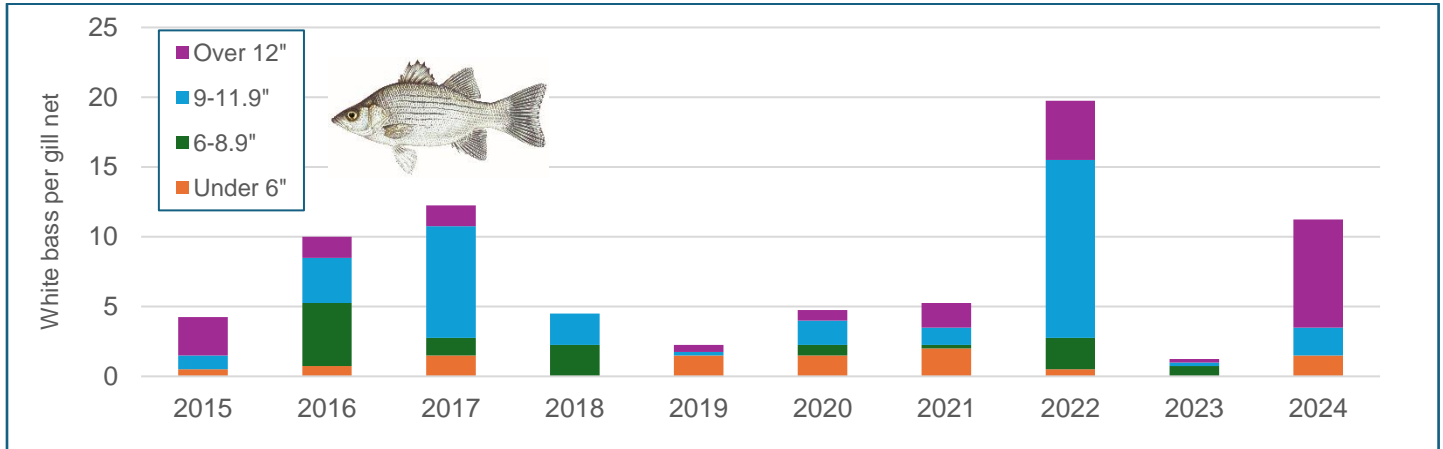
Sauger are not stocked in Johnson but are annually stocked into the four canyon reservoirs (Jeffrey, Midway, Gallagher, Plum Creek) upstream of Johnson. They were first introduced to the CNPPID system in 1998 and have since created a very good fishery in the reservoirs and supply canal. Sauger actively move down the canal and enter Johnson providing a viable fishery and a good opportunity for catch by anglers. Typically, we see a relatively low catch of sauger in the Johnson fall survey and 2024 was no exception as 2.5 fish/net were collected. Size structure of the sauger in Johnson is normally very good with most fish ranging from 12 to 17 inches. Sauger are regulated under the same regulations as walleye and are included with walleye in the daily bag limit.

Smallmouth Bass



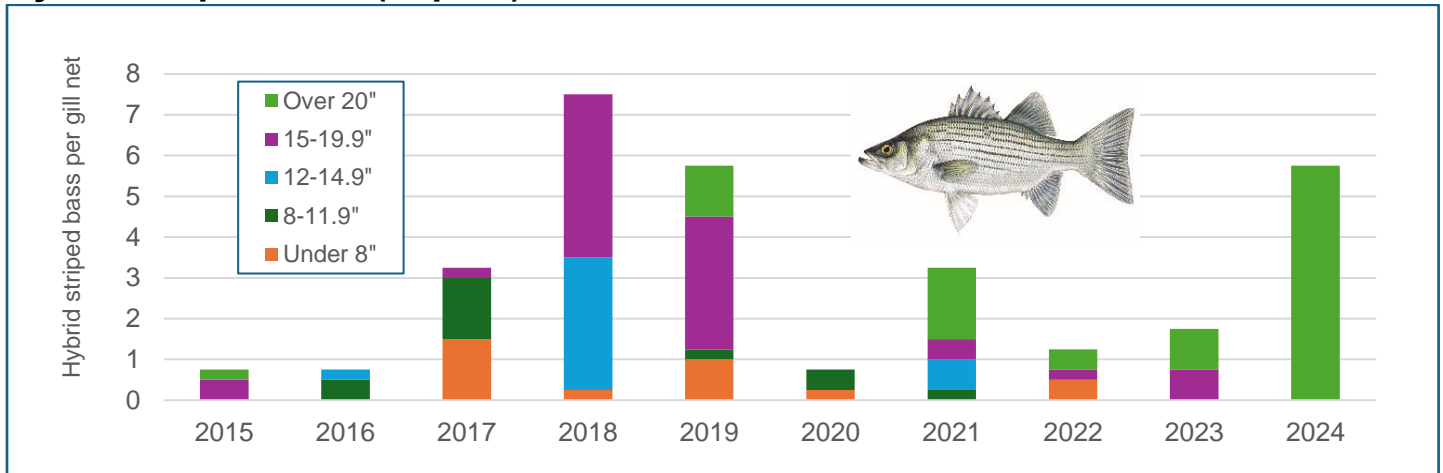
Smallmouth bass are sampled on alternate years at Johnson utilizing night electrofishing. The last survey was completed in the fall of 2023 and the next survey is scheduled for the fall of 2025. The smallmouth fishery at Johnson is typically very good and the population contains a high density of fish of all size categories. It is not uncommon to catch smallmouth bass ranging from 15 to 18 inches. There is a 15" minimum length limit and a five fish daily bag limit in effect for smallmouth and largemouth bass at Johnson.

White Bass



The white bass catch of 11.25 fish/net was much improved and was double the ten-year average catch of 5.2 fish/net. Fish of several size classes were caught, including good representation of age-0 fish as well as good abundance of fish larger than 12 inches. Average size of white bass in the sample was 12.7 inches and the largest fish were 16.1 inches. The daily bag limit for white bass is 15 fish with no more than one larger than 18 inches.

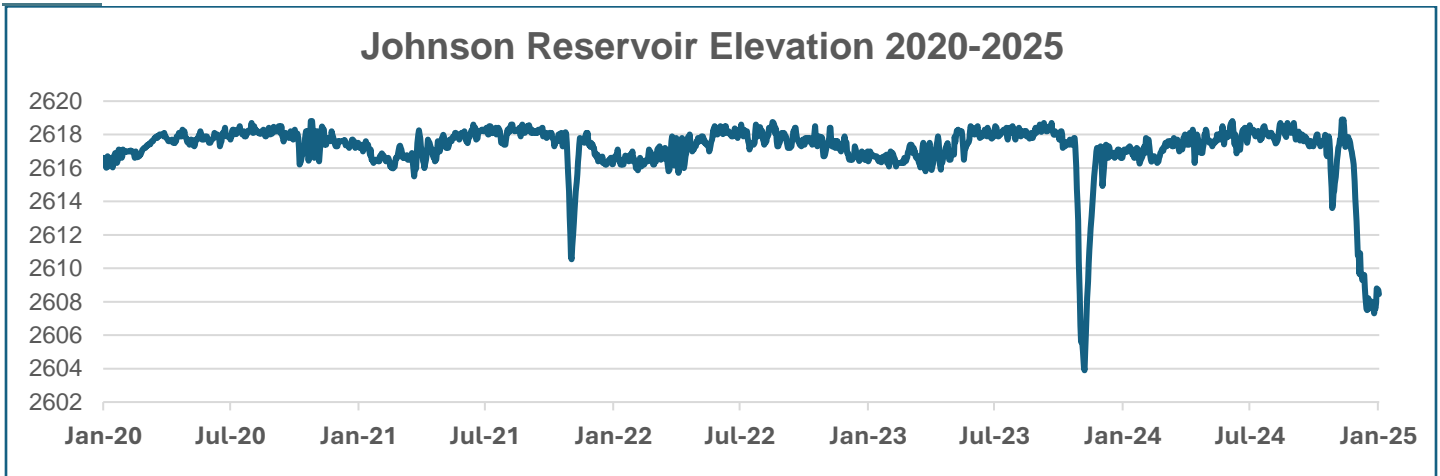
Hybrid Striped Bass (Wipers)



Hybrid striped bass catch at Johnson is highly variable from year to year as these fish can be difficult to sample due to their schooling nature. The catch of 5.75 fish/net in 2024 was the highest observed since 2019 and was above the ten-year average catch of 3.1 fish/net. All the hybrids sampled in 2024 ranged from 20 to 23 inches. Ages of these fish ranged from four to six years of age. Hybrids are routinely stocked in Johnson and in many of the reservoirs above Johnson. Due to high inflow and outflow from Johnson, hybrids seem to routinely entrain and it has been difficult to maintain a high abundance of these fish in the reservoir. Current regulations at Johnson allow the harvest of 15 wipers per day, but only one fish may be larger than 18 inches in the daily bag limit.

Water Levels

Johnson is used primarily as a regulatory reservoir and it does not typically experience large drawdowns like most Nebraska irrigation reservoirs. Instead, it will experience daily fluctuations of one to two feet due to power generation and irrigation demand. During the summer months, Johnson is typically held between elevation 2,616 and 2,618. Water levels drop slightly during winter months to avoid ice damage to shorelines. Routine inspections and maintenance of the supply canal and hydro plant infrastructure occasionally requires larger drawdowns during the fall and winter months. A twelve-foot drawdown was implemented in the fall of 2023 to conduct inspections and repairs to the J1 powerplant. A ten-foot draw down was implemented in the fall/winter of 2024-25 so maintenance could be performed on the outlet canal and to facilitate a new boat ramp and breakwater project near the outlet canal. Normal reservoir levels are expected to return during February. The graph below represents water levels during the past five years. Daily water level information can be found on CNPPID's [website](#).



Fish Stocking

The table below shows fish that have been stocked into Johnson during the past five years. Walleye are currently the only species that are annually stocked, while the other species are stocked on an as needed basis based on survey results and population status. Walleye fingerlings are the only species scheduled to be stocked in Johnson during 2025.

Year	Walleye	Hybrid Striped Bass	Yellow Perch	Channel Catfish
2020	218,888 fingerlings	11,000 fingerlings		
2021	3,277,000 fry 135,293 fingerlings		64,812 fingerlings	13,135 fingerlings
2022	2,063,457 fry 219,904 fingerlings			
2023	2,189,000 fry 120,342 fingerlings			
2024	2,219,000 fry 110,098 fingerlings		65,690 fingerlings	
2025 (requested)	219,000 fingerlings			

Aquatic Invasive Species – Zebra Mussels

Anglers and recreational boaters should be aware of the threat of zebra and quagga mussels while using Nebraska waters. Boaters using Nebraska waters need to be aware of current regulations dealing with aquatic invasive species. The following regulations are in effect to help prevent the spread or introduction of unwanted species in Nebraska waters.

- It is unlawful to arrive at or leave any waterbody in Nebraska with water other than from a domestic source (such as a water supply system, well, or bottled), except for fire-fighting purposes. This applies especially to boats, their compartments, equipment or containers that may hold water.
- Any watercraft that has been on a Nebraska waterbody must drain the lake water from their compartments, equipment or containers before leaving the launch area. It is illegal to dump baitfish into a Nebraska waterbody.
- Livewells need to be drained prior to leaving a launch area: plan ahead and bring a cooler for harvested fish.
- All aquatic vegetation from that waterbody attached to the watercraft and/or trailer must be removed before leaving the launch area.

A good source of information about invasive species can be found on the Nebraska Game and Parks Commission website: [Aquatic Invasive Species Information](#)

Johnson Reservoir remains a priority location for AIS work and efforts will continue during 2025 to inspect boats, educate boaters, and to conduct sampling for veliger's, adult mussels, and other types of aquatic invasive species.



For additional information about fisheries management at Johnson Reservoir, please contact the Nebraska Game and Parks Commission office in Kearney at 308-865-5310, or by email at the addresses listed below.

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