

Johnson Reservoir 2021 Fall Survey Summary



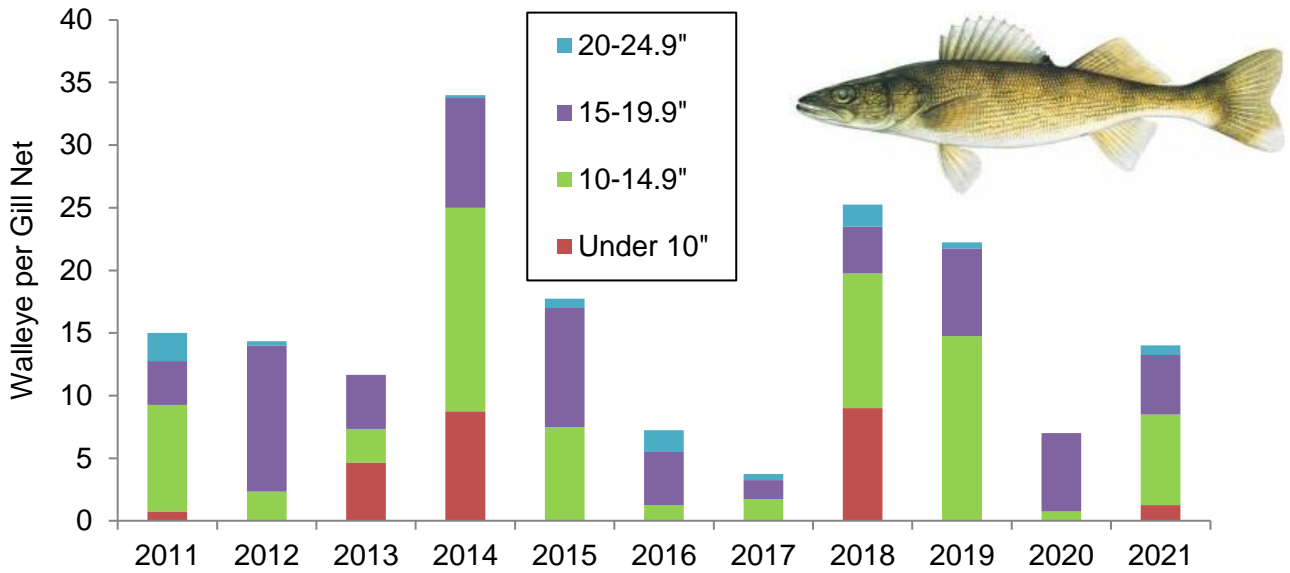
Jared Lorensen, Fisheries Biologist

Johnson Reservoir is a major reservoir on Central Nebraska Public Power & Irrigation District's (CNPPID) Supply Canal System downstream of the Canyon Reservoirs. Notice its fluvial behavior at [CNPPID's Reservoir/River Data page](#). CNPPID manages Johnson Reservoir for hydroelectric power generation and irrigation purposes. There are unique fishing opportunities as a result of this functionality. Notice these characteristics utilizing [NGPC's Lake Map Page](#). Information collected from standard surveys allows biologists to evaluate the population density, size structure, and growth rates for several species. This data provides valuable information to guide decision making scenarios that include fish species stocked, stocking rates and fishing regulations. This information also assists Game and Parks staff in guiding anglers to waterbodies that have the desired populations for fishing. For more explanation of what constitutes a fisheries survey read the [Survey Says](#) article.

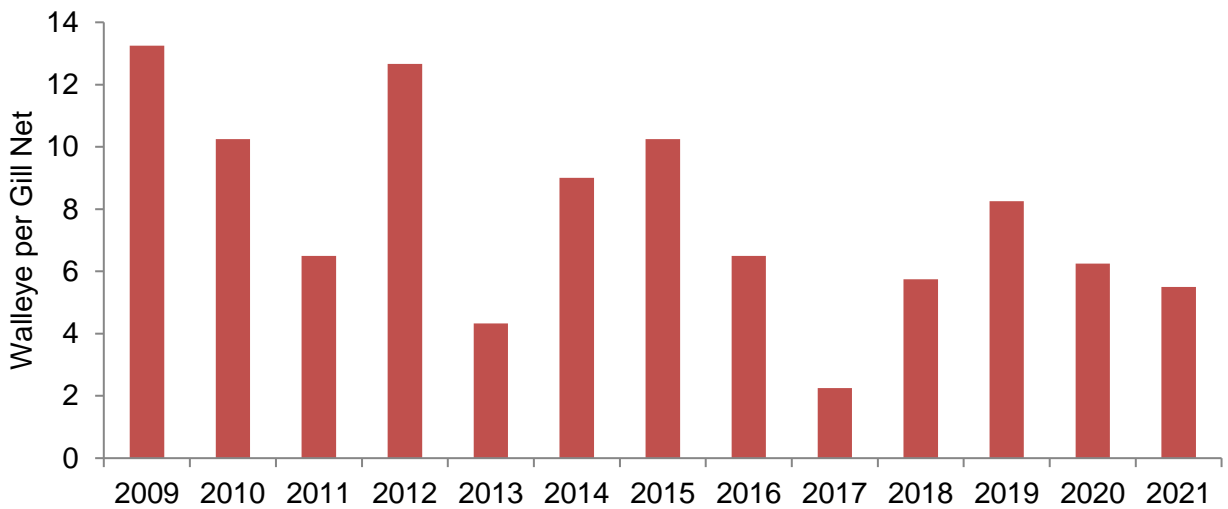


Every fall the fishery of Johnson Reservoir is surveyed with standard sampling methods. The following text and graphs are the result of the 2021 gill net survey. Graphs represent the number of each species captured per gill net by length group. For comparative purposes it shows results from previous years.

Walleye

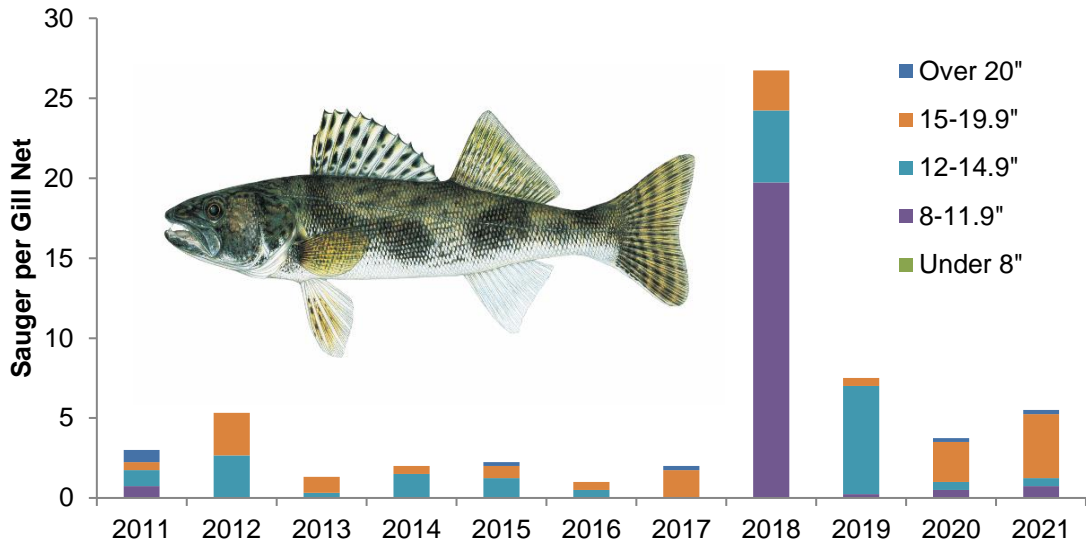


>15"



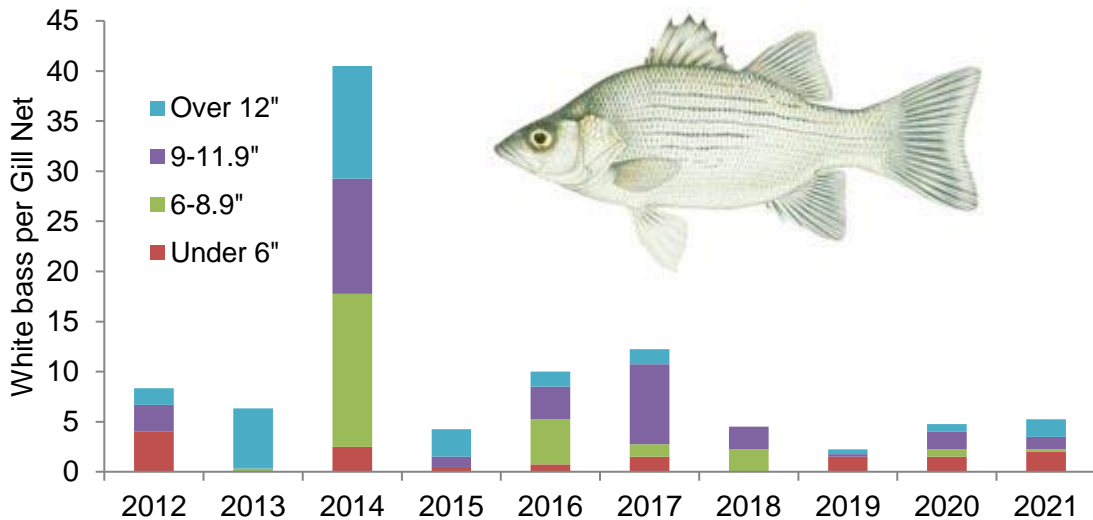
The 2021 survey was improved with 14 walleye sampled per gill net. Of these, 9% were <10", 52% were 10-14.9", 34% were 15-19.9" and 5% were 20-24.9". The overall average length was 14.6". Walleye reach 15" in length after approximately two and a half years of growth in Johnson Reservoir. Although low in abundance, 2021's survey indicates good recruitment of age classes.

Sauger



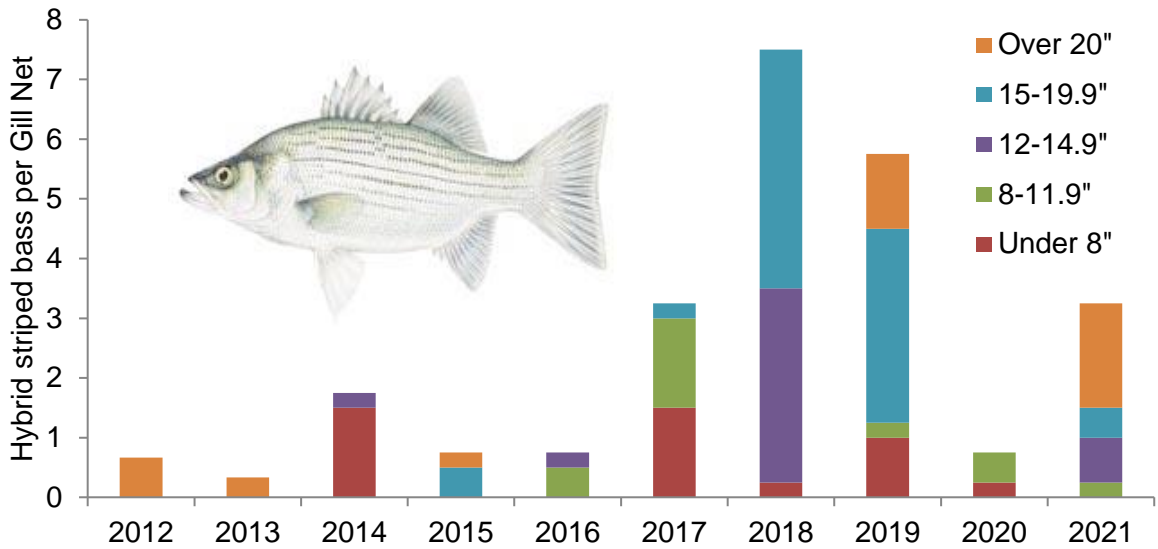
The 2021 sauger survey is favorable as prior to 2018 this catch (5.5) would've been above average. Average length of these fish in 2021 was 16.2". Current data suggests that sauger in Johnson have the potential to reach 15" after approximately two and a half years of age. This species is not stocked in Johnson, but are stocked annually upstream. Sauger appear quite similar to walleye and harvest is regulated in conjunction for these two species. Access [NGPC's Fish Identification Tool](#) and the [2022 Fishing Guide](#) for details.

White bass



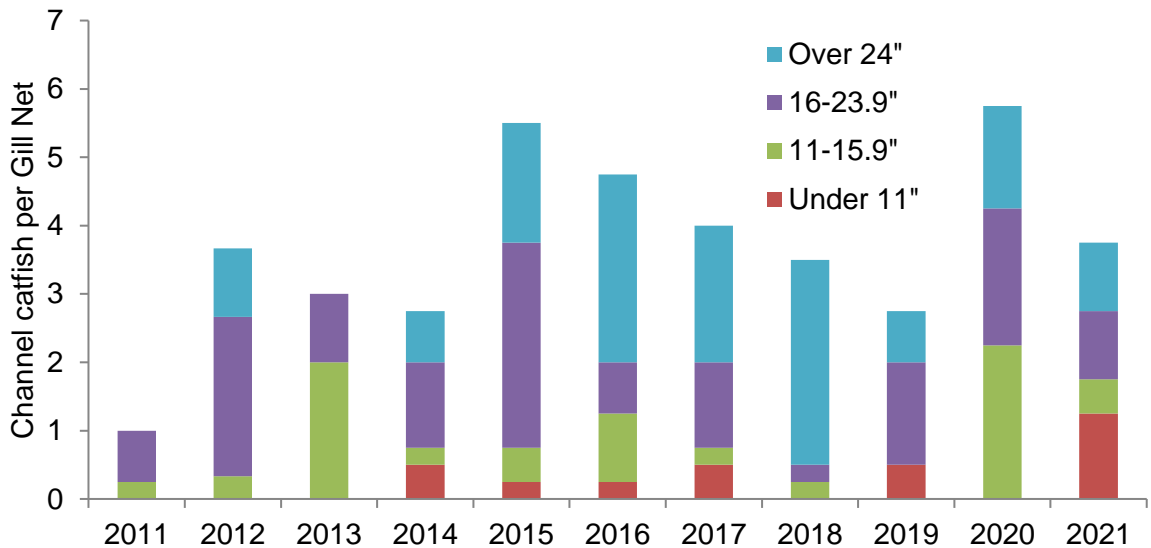
White bass reproduction and recruitment is sporadic. This is a species trait not solely relegated to Johnson. The 2021 survey agreed with an upward population trend with 5.25 per net. These consisted of all four length groups, which may indicate a bright future for white bass angling.

Hybrid Striped Bass



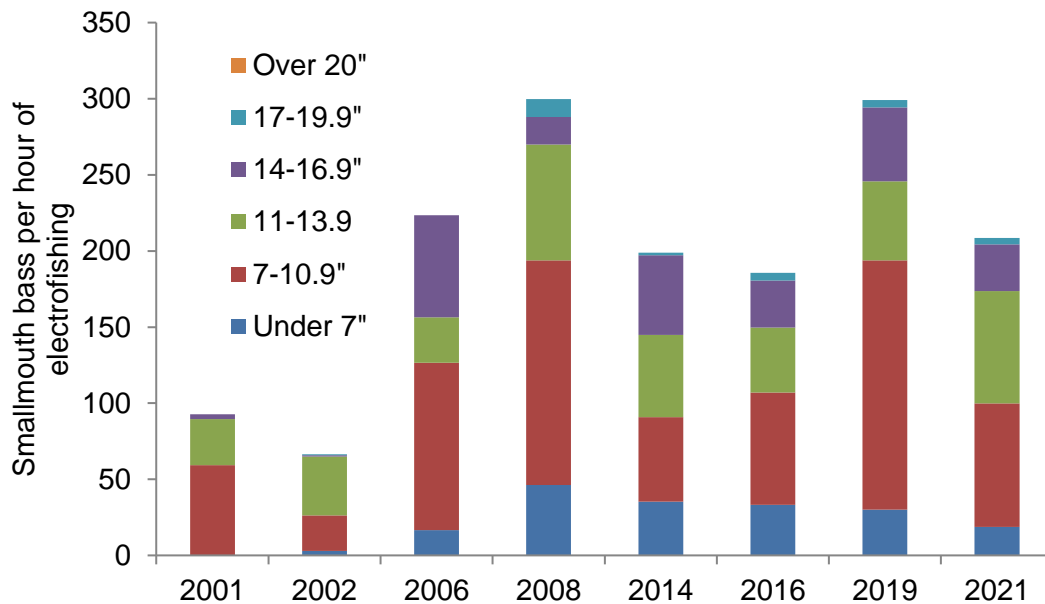
The 2021 hybrid striped bass (wiper) survey data indicates a desirable population with 3.25 per gill net. These fish averaged 18.5" in length. Access [NGPC's Fish Identification](#) tool for hybrid striped bass and white bass differentiation and the [2022 Fishing Guide](#) as only one white bass or wiper over 16" is allowed in daily creels.

Channel catfish



Channel catfish survey data from 2021 is encouraging for the future of angling as a large portion were Under 11". The largest sampled was 36.6". This recent survey data may indicate increased harvest as 2020's survey indicated the largest population on record.

Smallmouth bass



On September 16th, a survey to collect smallmouth bass data was conducted using nighttime boat electrofishing. Of the 209 collected per hour of electrofishing 9% were under 7", 39% 7-10.9", 35% 11-13.9", 15% 14-16.9", and 2% 17-19.9".

Fish Cleaning Station

During 2021, Johnson received a new fish cleaning grinder and station at the Inlet SRA. This technologically advanced [Barracuda](#) brand grinder is an upgrade that will be more reliable for anglers to utilize when harvest is chosen. This grinder was funded through Fisheries and Parks Division's programs.



If you have questions or concerns about Johnson's fishery please contact Jared Lorenson, Biologist 308-535-8025, jared.lorensen@nebraska.gov

OR

Brad Eifert, District Mgr. 308-865-5331, brad.eifert@nebraska.gov

Stockings

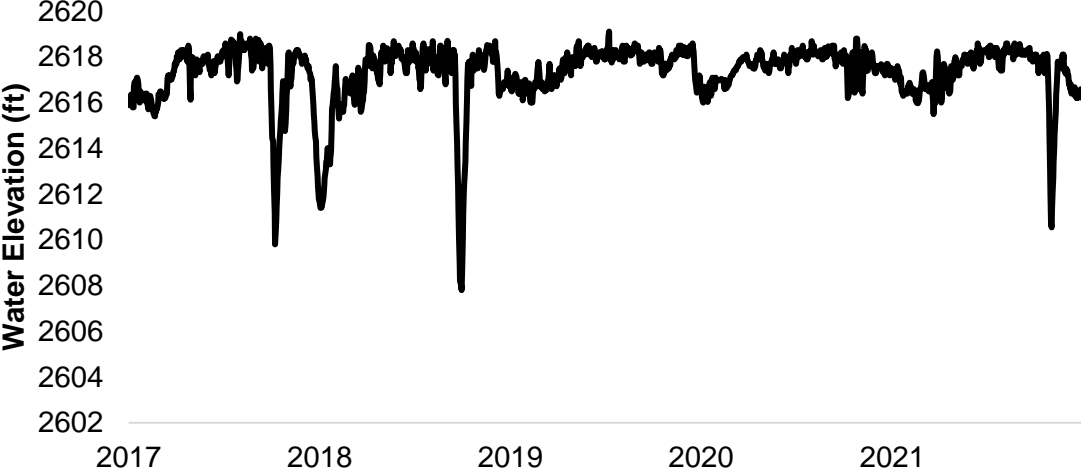


Johnson Reservoir receives stockings from NGPC's Hatchery System every year. Many factors are at play when stocking selections are made. Below you will find Johnson's stocking history for the past eleven years. For more stocking details access [NGPC's Fish Stocking Reports](#).

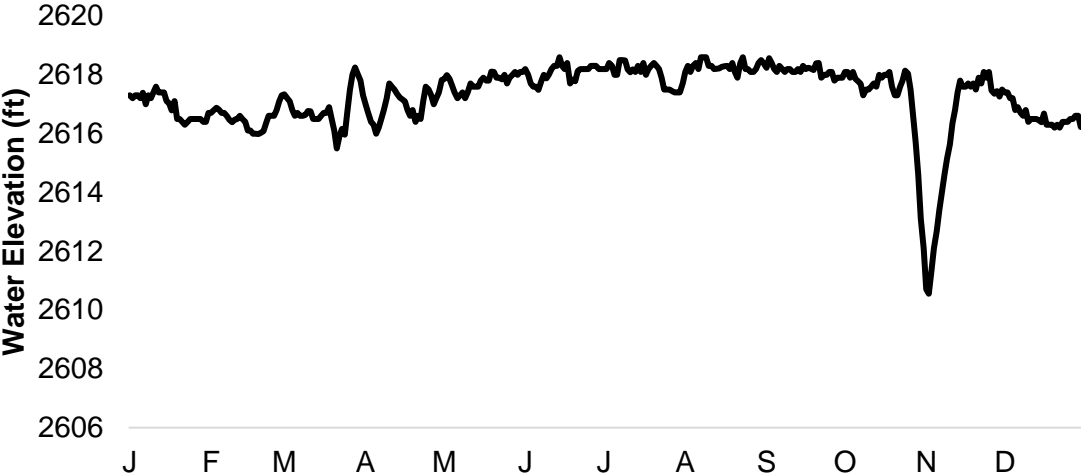
<u>Year</u>	<u>Walleye</u>	<u>Hybrid Striped Bass</u>	<u>Yellow Perch</u>	<u>Channel catfish</u>
2012	219,375-1.3-1.4:"			37,470-5"
2013	239,082-1.2"	10,963-1.2"	60,048-3"	
2014	168,295-1.5"	21,890-1.3"		
2015	219,317-1.5"	10,945-1.3"	85,078-2.6-2.8"	
2016	218,872-1.5"			
2017	219,143-2"		73,4489-3"	
2018	218,820-1.5"			
2019	237,497-1.75"		85,528-2.75	
2020	218.888-1.25"	11,000-1.25"		
2021	3,277,000-fry 135,293-1.5"		64,812-1.5"	13,135-5.5"

Water Elevation

2017-2021

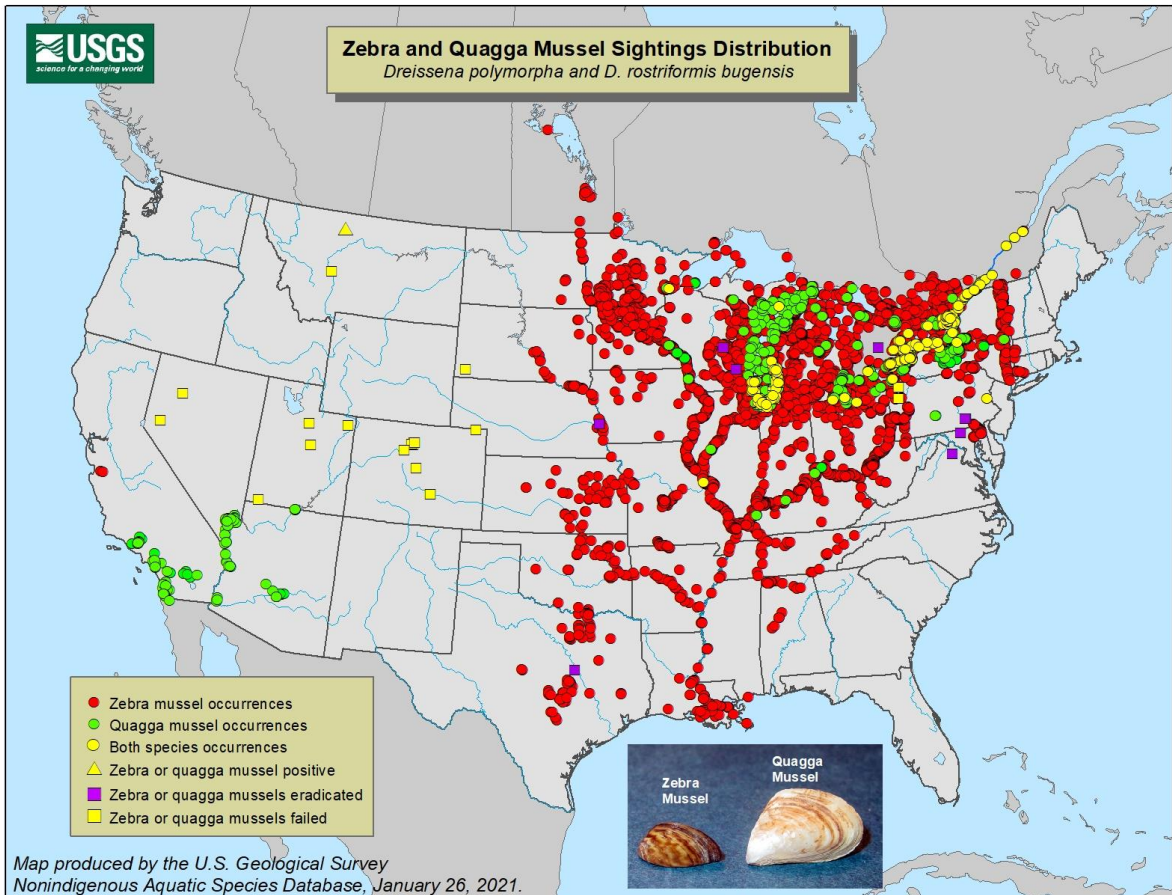


2021



Johnson Lake's water level plays a vital role in the fishery. Follow water level fluctuations at [CNPPID's Reservoir Data](#) page.

Aquatic Invasive Species (AIS)



- Distribution of [zebra mussels](#) surrounding Nebraska is expanding, especially in Kansas and South Dakota. Currently the only waterbodies in Nebraska with confirmed zebra mussel infestations are the Missouri River, Lewis and Clark Lake, and Offutt Base Lake.
- NGPC employs technicians every year to inspect watercraft for AIS with the goal of preventing infestations into Nebraska waterbodies. In 2021 over 2,000 watercraft were inspected and four were infested with live zebra mussels.
- Eurasian watermilfoil is an invasive aquatic plant is now found in 18 waterbodies across Nebraska including East Hershey I-80 Lake and Ironhorse City Park Lake (North Platte I-80). This plant spreads through tiny fragments of leaves and can grow up to 20 feet deep. New infestations are often caused by boaters not following the **Clean, Drain, and Dry** protocol and introducing fragments into new lakes. Make sure you clean all aquatic vegetation from your boat to prevent this invasive aquatic plant from spreading to new waterbodies.
- To report AIS utilize 402-471-7602\ngpc.ais@nebraska.gov

Aquatic Invasive Species (AIS)



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Aquatic Invasive Species (AIS)

Silver & Bighead carp have found their way into every tributary of the Missouri River in Nebraska, including the Platte, Elkhorn, Loup and Nemaha rivers. Obstacles to their continued spread are vital as these species cause substantial damage. These obstacles include physical structures and angler awareness. Silver carp have invaded the Platte to Lexington, NE as the below known distribution map indicates.

Bighead & Silver Carp Estimated Species Distribution

(As of Fall 2021)

Rapid City

Invasive Carp Range

- Rivers and Streams
- Salt Creek Basin

Survey Sites 2020-2021

Occurrence

- None Observed
- Silver or Bighead Carp Present



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Aquatic Invasive Species (AIS)



**STOP AQUATIC
HITCHHIKERS!™**

According to Nebraska State Law, **it is illegal for watercraft to enter a Nebraska waterbody or leave a launch area while containing water.** This includes all containers, compartments, and equipment that are permanently attached to the watercraft.

AND

All aquatic vegetation must be removed from watercraft and trailers before leaving a launch area.

Protect Your Waters—Remember to **CLEAN, DRAIN, and DRY!**

