Elwood Reservoir 2021 Fall Survey Summary

Jared Lorensen, Fisheries Biologist



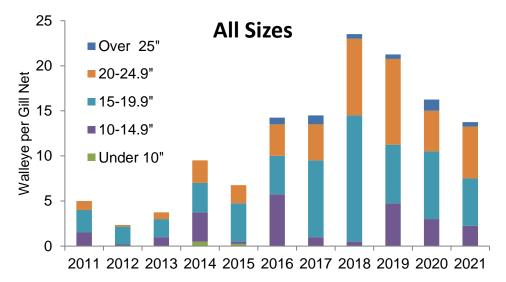
Elwood Reservoir was constructed during the late 1970s and is utilized by Central Nebraska Irrigation & Public Power District (CNPPID) for regulation of irrigation water. This reservoir is located approximately five miles south of Johnson Reservoir. A public access Wildlife Management Area (WMA) is located along the east shoreline and provides a boat launching facility with lighting and a pit toilet.

Coves are abundant but they are remote, steep and heavily vegetated making them accessible only by boat. Limited shoreline access for bank angling is available near the "bubble" and along the dam. The boating regulation allows internal combustion engines but limits speed to 5 mph and/or non wake producing speeds. As of January 28, 2022 this reservoir was at elevation 2580.7' inundating approximately 648 surface acres.

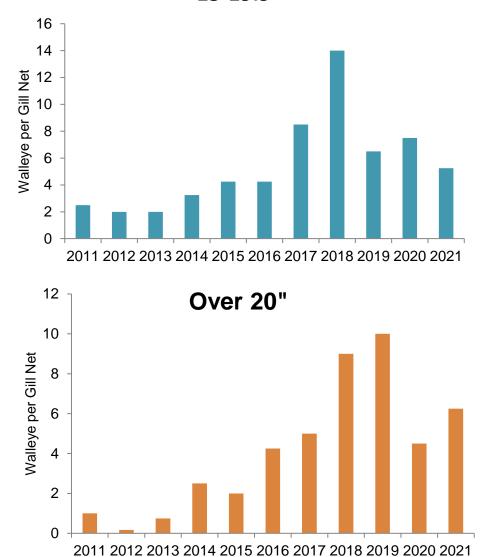


The fishery of Elwood Reservoir is sampled every fall using experimental gill nets, a method commonly used to sample species found primarily in open water. Data collected from these surveys allows biologists to evaluate the population density, size structure, and growth rates for several species. For explanation of what constitutes a fisheries survey read this <u>article</u>. On the following pages, 2021's survey data is presented.

Walleye

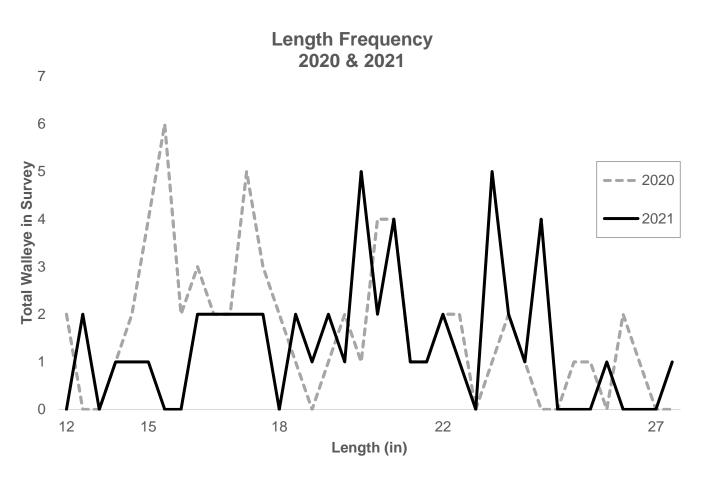


15-19.9"



2

Walleye

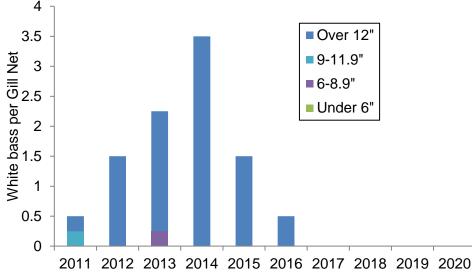


The 2021 survey revealed 13.75 walleye per gill net. This sample included 0% under 10", 16% in the 10-14.9" length group, 38% in the 15-19.9" length group, 42% in the 20-24.9" group and 4% over 25". 2021's survey data indicates a smaller population but the quantity growing past 22" may have increased.

On June 15,2021, 200,114 -1.5" walleye fingerlings were stocked. These walleye were not present in the 2021 standard gill netting effort as they were likely too small but they are expected to be doing well. Requests for large fingerling stockings will continue. Check <u>NGPC's Fish Stocking</u> website for updates.

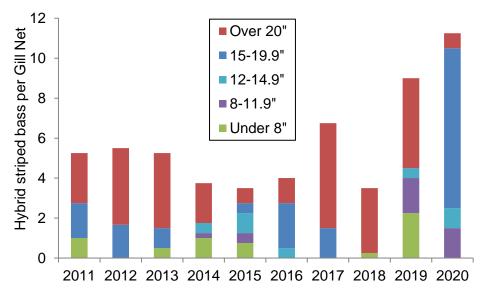
Elwood has a special walleye harvest regulation to encourage growth. A daily bag limit of four walleye may include one walleye from 15 to 18", and three or four longer than 18" and only one 22" or longer in the daily bag. The primary objective is to protect walleye through age three, thereby increasing abundance of larger fish. For more information concerning regulations consult the <u>2022 Fishing Guide</u>.

White bass



The 2021 survey collected no white bass. This lack of abundance is due to abundance of alewife and the contents of their diets. A stocking of white bass occurred during 2019. If these individuals survived they were too few to be captured.

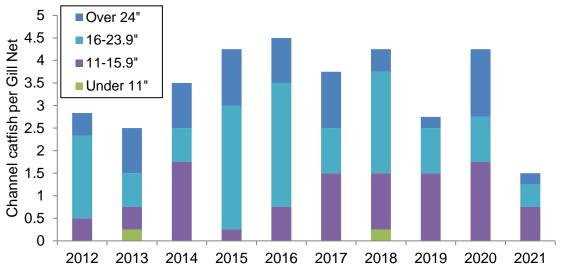
Hybrid striped bass (aka wiper)



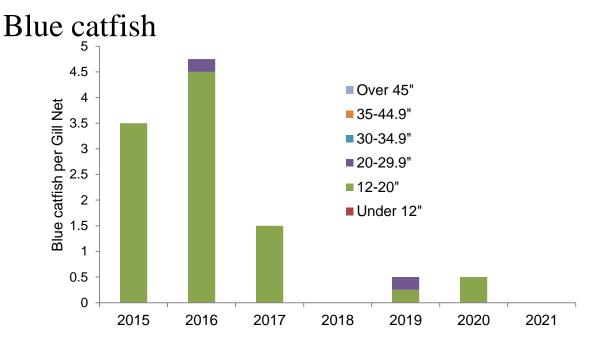
The 2021 data reveals a large hybrid striped bass population. Although the abundance of wipers larger than 20" was lower, 2021's average length was 17.2". The largest observed during 2021 was 21" and was 7 years old at time of capture. Recruitment of smaller length groups strongly contributed to 2021's data. This population is maintained by annual stocking.

There is a special restrictive regulation pertaining to hybrid striped bass and white bass harvest at Elwood in addition to the statewide 1 over 16" regulation. To investigate Elwood's harvest regulations visit the <u>2022 Fishing Guide</u>.

Channel catfish

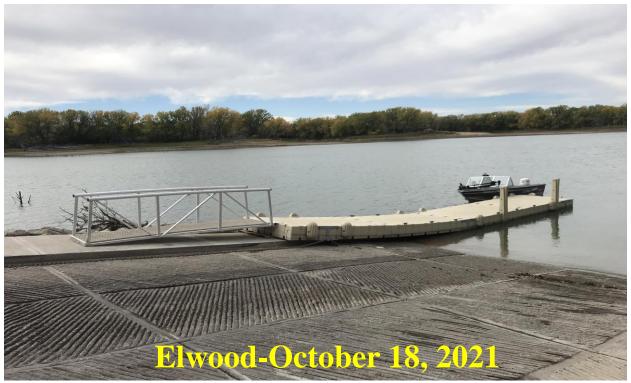


Fewer channel catfish were caught during 2021 than normal. The longest channel catfish sampled in 2021 was 38". Of those sampled during 2021, 0% were less than 11", 50% 11-15.9", 33% 16-23.9" and 17% over 24". Chances remain good to catch a nice sized channel catfish during 2022.



Blue catfish were first introduced into Elwood in 2014. Another stocking occurred in 2017. Although zero were observed in 2021's standard gill net survey, there was indication of desired growth in past surveys. The abundant alewife and gizzard shad populations should support these catfish and they should provide another unique angling opportunity. Stocking requests will continue in the future. The daily bag limit for blue catfish is one (1). Check the <u>2022 Fishing Guide</u> for details and the <u>NGPC Fish Identification Guide</u> for help differentiating between blue and channel catfish.

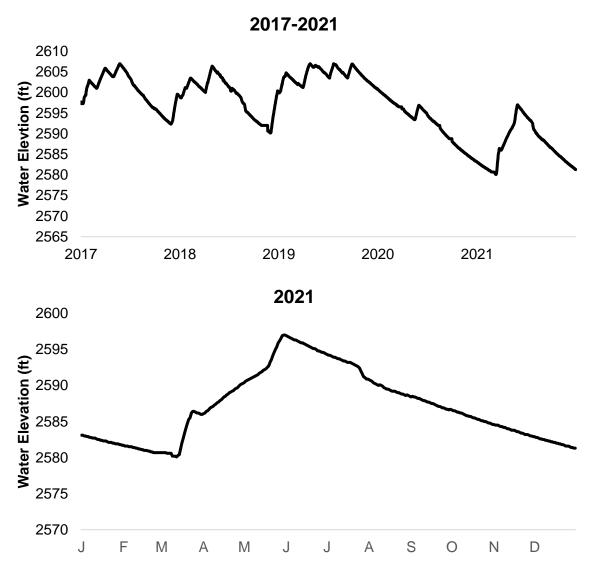
Stockings



Elwood Reservoir receives stockings from NGPC's Hatchery System every year. The species, rates and sizes of stocking vary annually. Below you will find Elwood's stocking history for the past ten years. For more stocking details access <u>NGPC's Fish</u> Stocking Reports.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Walleye	Х	Х	Х	Χ	Х	Х	Х	Х	Х	Х
Hybrid striped	d bass	Χ	Χ	Х		Χ	Χ	Χ	Χ	Х
Channel										
catfish		Х		Х		Х		Х		
Muskellunge		Х		Х		Х				
Gizzard										
shad		Х								
Rock bass	Χ									
Spotted										
bass	Х	Х	Х	Х	Χ	X				
Blue catfish			Х			Х				
White bass								Χ		
Crappie Hybri	d									
Triploid									Χ	
Yellow perch									Х	Х
										6

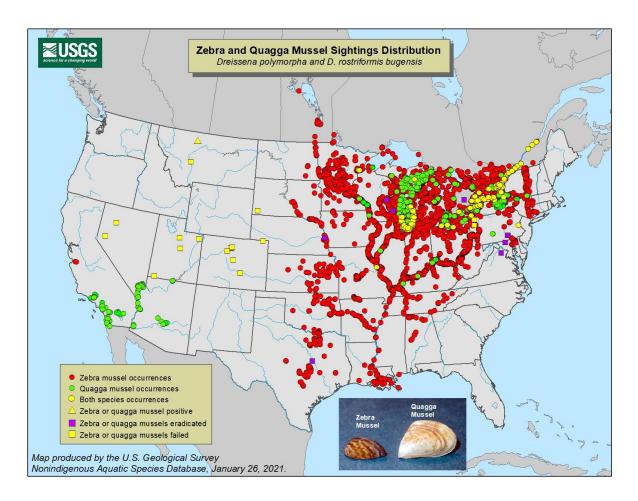
Water Level



Elwood's water level changes frequently and plays a vital role in this fishery. In the past, water elevation has benefitted from an agreement between CNPPID and Tri-Basin Natural Resources District (TBNRD) involving groundwater recharge during non-irrigation season. Follow water level fluctuations at <u>CNPPID's Lake &</u> Reservoir Elevation Site.

In the near future, construction is planned at Elwood that will alter how water elevations are managed. During 2022, the reservoir's fill will possibly be impacted due to these projects. Please follow <u>CNNPID's News Releases</u> for details.

For additional information about the fishery of Elwood Reservoir please contact Brad Eifert, District Mgr. 308-865-5331, <u>brad.eifert@nebraska.gov</u> Jared Lorensen, Biologist 308-535-8025, <u>jared.lorensen@nebraska.gov</u>



• Distribution of <u>zebra mussels</u> 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.

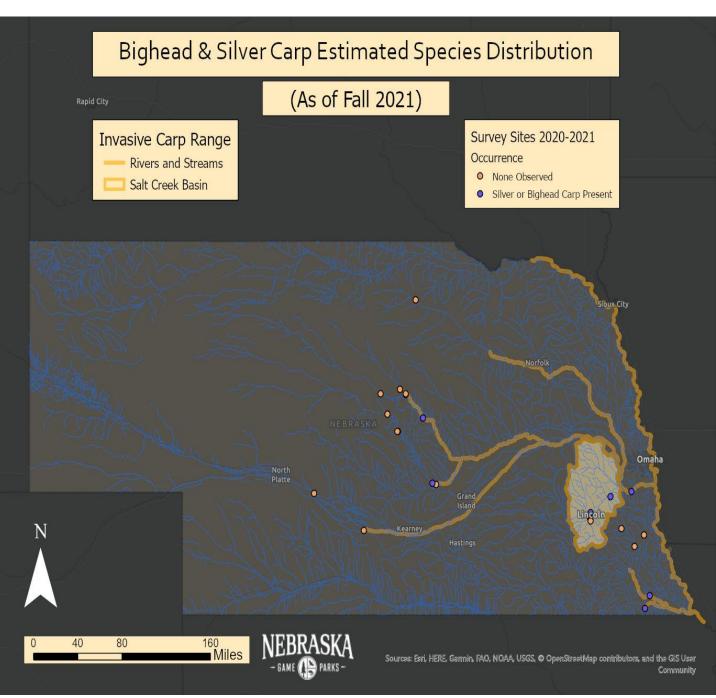
• Eurasian watermilfoil is an invasive aquatic plant is now found in 18 waterbodies across Nebraska including East Hershey I-80 Lake and Ironhorse City Park Lake (North Platte I-80). This plant spreads through tiny fragments of leaves and can grow up to 20 feet deep. New infestations are often caused 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



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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.





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!

