#### Elwood Reservoir 2020 Fall Survey Summary

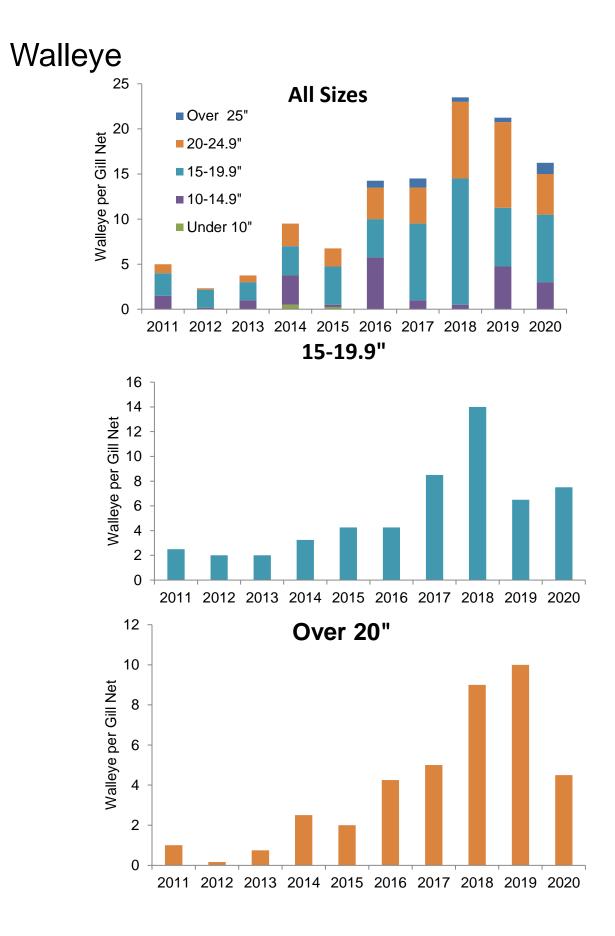
Jared Lorensen, Fisheries Biologist



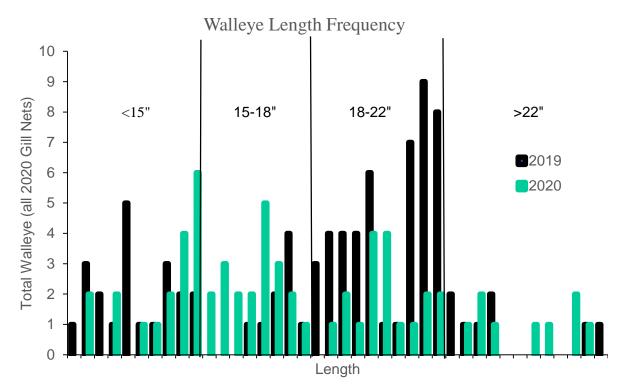
Elwood Reservoir was constructed during the late 1970s and is utilized by Central Nebraska Irrigation & Public Power District (CNPPID) for regulation of irrigation water. This reservoir is located approximately five miles south of Johnson Reservoir. A public access Wildlife Management Area (WMA) is located along the east shoreline and provides a boat launching facility with lighting and a pit toilet. Coves and fingers of this reservoir 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 19, 2020 this reservoir was at elevation 2582.3' inundating approximately 675 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, 2020's survey data is presented.



# Walleye

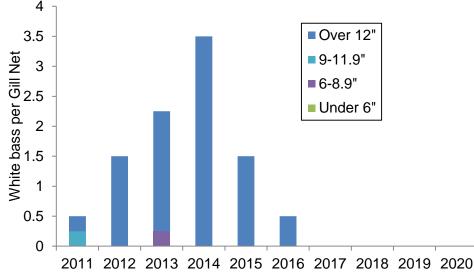


The walleye population declined during the low water years preceding 2010 due to poor habitat availability, reduced prey populations and angling mortality. Since the return of better habitat, a much improved walleye fishery has been enjoyed. During 2020, survey revealed 16.25 walleye per gill net. This sample included 0% under 10", 18% in the 10-14.9" length group, 46% in the 15-19.9" length group, 28% in the 20-24.9" group and 8% over 25". 2020's survey data indicates that the large quantity just under 22" seen in 2019's survey have likely experienced mortality.

On June 22<sup>nd</sup>, 2" walleye fingerlings were stocked. These walleye were not present in the 2020 standard gill netting effort as they were likely too small but they are expected to be doing well. Larger fingerlings have been stocked on alternate years and seem to be doing well. Requests for large fingerling stockings will continue. Check <u>NGPC's Fish Stocking</u> website for updates.

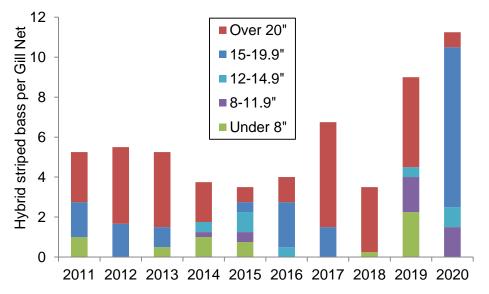
Elwood has a special walleye harvest regulation to encourage growth. A daily bag limit of four walleye may include one walleye from 15 to 18", and three or four longer than 18" and only one 22" or longer in the daily bag. The primary objective is to protect walleye through age three, thereby increasing abundance of larger fish. For more information concerning regulations consult the <u>2021 Fishing Guide</u>.

#### White bass



The 2020 survey collected zero. Although density of white bass is quite low, a few large specimens may exist. A stocking of white bass occurred during 2019. If these individuals survived they were too few to be captured. A special regulation includes white bass and wiper in conjunction. This regulation is a daily bag limit of three with no more than one 16" or greater.

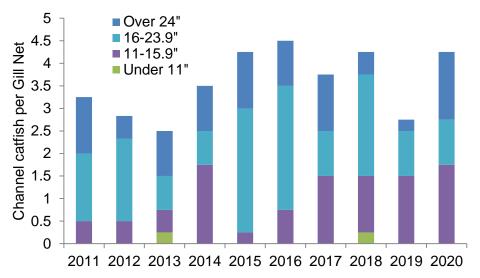
Hybrid striped bass (aka wiper)



The 2020 data reveals a large hybrid striped bass population. The large portion greater than 20" observed in 2019 wasn't present. Recruitment of smaller length groups strongly contributed to 2020's data. A mean length of 15.9" and a maximum length of 25" was observed. This population is maintained by annual stocking.

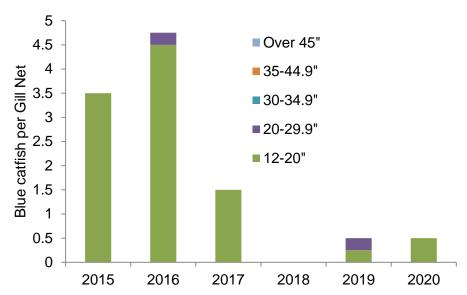
There is a special restrictive regulation pertaining to hybrid striped bass and white bass harvest at Elwood in addition to the statewide 1 over 16" regulation. To investigate Elwood's harvest regulations visit the <u>2021 Fishing Guide</u>. Differentiation of these species is critical. Visit <u>NGPC's Temperate Bass ID Site</u> for aide in discerning the species. In addition to what this website states, hybrid striped bass have more than one stripe that extends to the tail.

### Channel catfish



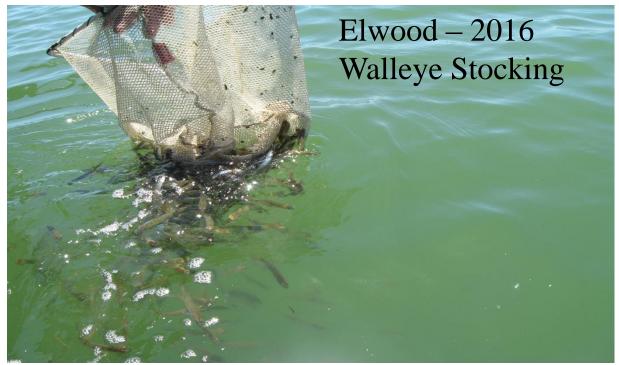
The 2020 survey data indicates a large channel catfish population. The longest channel catfish sampled in 2020 was 28". Of those sampled during 2020, 0% were less than 11", 41% 11-15.9", 24% 16-23.9" and 35% over 24". Chances remain very good to catch a nice sized channel catfish during 2021.

## Blue catfish



Blue catfish were first introduced into Elwood in 2014. Another stocking occurred in 2017. Although few were observed in 2020'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>2021 Fishing Guide</u> for details and the <u>NGPC Fish Identification Guide</u> for help differentiating between blue and channel catfish.

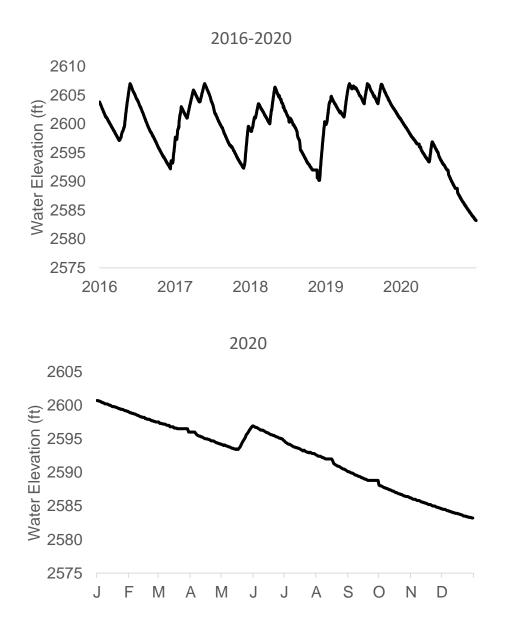
#### Stockings



Elwood Reservoir receives stockings from NGPC's Hatchery System every year. Below you will find Elwood's stocking history for the past nine years. For more stocking details access <u>NGPC's Fish Stocking Reports</u>.

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Walleye	Х	X	Х	X	X	Х	Х	Х	Х
Hybrid striped bass		X	Х	X		Х	Х	Х	х
Channel catfish		X		X		X		X	
Muskellunge		X		X		X			
Gizzard shad		X							
Rock bass	Х								
Spotted bass	Х	X	Х	X	X	Х			
Blue catfish			Х			Х			
White bass								Х	
Crappie Hybrid									Х
Yellow perch									Х

Water Level



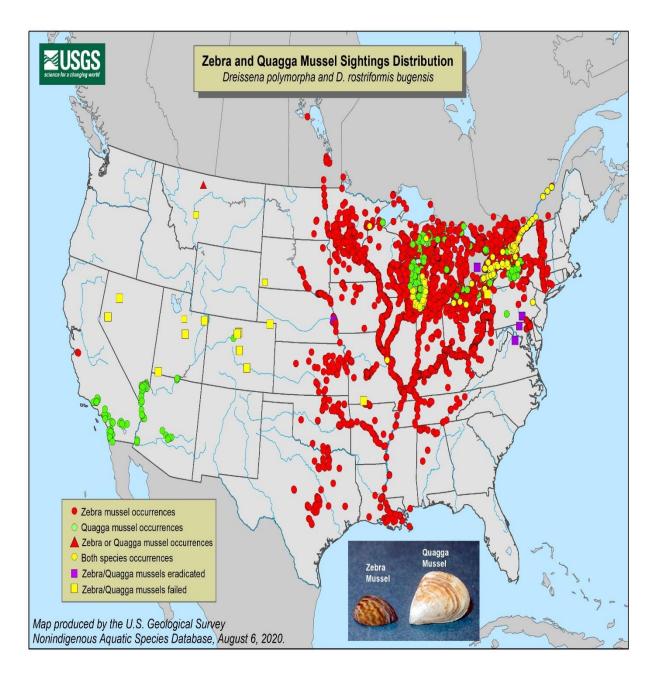
Elwood's water level changes frequently and plays a vital role in this fishery. Water elevation has benefitted from an agreement between CNPPID and Tri-Basin Natural Resources District (TBNRD) involving groundwater recharge during non-irrigation season. Follow water level fluctuations at <u>CNPPID's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

For additional information about the fishery of Elwood Reservoir please contact Brad Newcomb, District Mgr. 308-865-5310, <u>brad.newcomb@nebraska.gov</u> Jared Lorensen, Biologist 308-535-8025, jared.lorensen@nebraska.gov

## Aquatic Invasive Species (AIS)

Distribution of invasive zebra and quagga mussels is growing. The most recent finding in Nebraska was Glen Cunningham Lake in Omaha during 2018. The below map portrays the spread of these invasive mussels. Access <u>U.S. Geological</u> <u>Society's Site</u> for more information.

In 2016, Nebraska boaters became required to possess a <u>Aquatic Invasive Species</u> (<u>AIS</u>) <u>Stamp</u>. Residents acquire the stamp when registering their watercraft. Nonresidents have to purchase a physical sticker that must be displayed on their watercraft.



## Aquatic Invasive Species (AIS)

**Silver 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.





## Aquatic Invasive Species (AIS)



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!

