Elwood Reservoir 2018 Fall Survey Summary



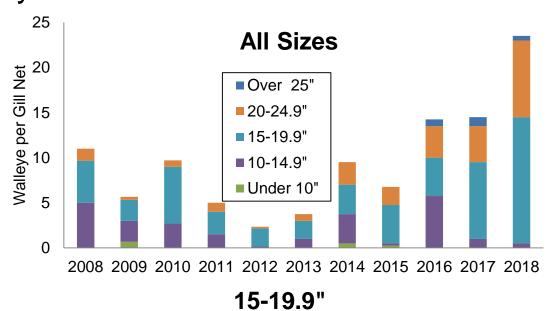
Jared Lorensen, Fisheries Biologist

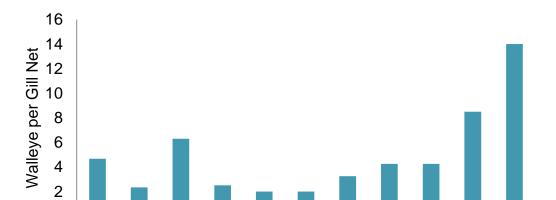
Elwood Reservoir was constructed during the late 1970s and is utilized by Central Nebraska Irrigation & Public Power District (CNPPID) for regulation of irrigation water. This reservoir is located approximately five miles south of Johnson Reservoir. A public access Wildlife Management Area (WMA) is located along the east shoreline and provides a concrete boat ramp, dock, nighttime lighting, parking and a pit toilet. Most of the abundant coves and fingers of this reservoir 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 10, 2019 this reservoir was at elevation 2601.0' inundating approximately 1,022 surface acres.

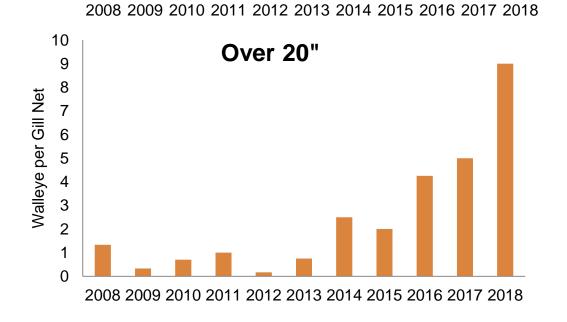


The fishery of Elwood Reservoir is sampled every fall using experimental gill nets, a method commonly used to sample species found primarily in open water. Data collected from these surveys allow biologists to evaluate the population density, size structure, and growth rates for several species. This 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 this article.

Walleye







Walleye

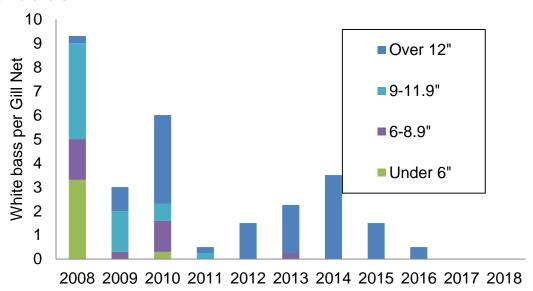
The walleye population declined during the low water years preceding 2010 due to poor habitat availability, reduced prey populations and angling mortality. Since the return of better habitat, survey data did not immediately indicate the desired population response but 2018's survey was the best observed in over a decade. 2018's survey revealed 23.5 walleye per gill net. This sample included approximately 2% in the 10-14.9" length group, 60% in the 15-19.9" length group, 36% in the 20-24.9" group and 2% in the over 25" group.

On June 29, 2018 walleye fingerlings were stocked. These walleye were not present in the 2018 standard gill netting effort as they likely were too small but they are expected to be doing well. Larger fingerlings have been stocked on alternate years and seem to be doing well. This strategy is likely to continue. The 2019 stocking request will include a larger number of smaller fingerlings than 2018's. Check NGPC's Fish Stocking 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 2019 Fishing Guide.

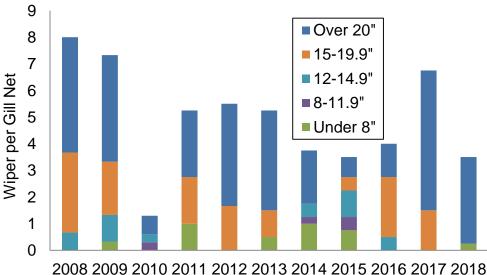


White bass



The 2018 survey collected zero. Although density of white bass is quite low, a few large specimens likely exist. There is a special restrictive regulation on white bass and hybrid striped bass harvest at Elwood. To investigate Elwood's harvest regulations visit the 2019 Fishing Guide.

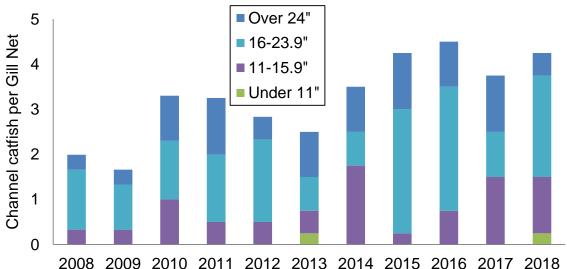
Hybrid striped bass (aka wiper)



The 2018 data reveals a reduced hybrid striped bass population. A large proportion (93%) were greater than 20". A mean length of 21.25" and a maximum length of 24" was observed. Heavy angling pressure during 2018 had an impact. This population is maintained by annual stocking.

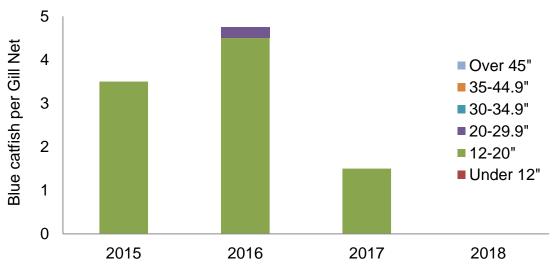
There is a special restrictive regulation concerning hybrid striped bass and white bass harvest. To investigate Elwood's harvest regulations visit the 2019 Fishing Guide. To aide in differentiating these species visit NGPC's Temperate Bass ID Site. In addition to what this website states, hybrid striped bass have more than one stripe that extends to the 4 tail.

Channel catfish



The 2018 survey data indicates a growing channel catfish population with an increase in 16-23.9" catfish. The largest channel catfish sampled in 2018 was 27". Of those sampled during 2018, 6% were less than 11", 29% 11-15.9", 53% 16-23.9" and 12% over 24". Chances remain very good to catch a nice sized channel catfish during 2019.

Blue catfish



Blue catfish were first introduced into Elwood on September 15, 2014 with a stocking of 3,976 – 12 ½" fish. Average length of those sampled in 2017 was 15". Although zero blue catfish were observed in 2018's standard gill net survey they were observed in ancillary sampling efforts. The abundant alewife and gizzard shad populations should support these catfish and they should provide another unique angling opportunity. The daily bag limit for blue catfish is one (1). Check the 2019 Fishing Guide for details and the NGPC Fish Identification Guide for help differentiating between blue and channel catfish.

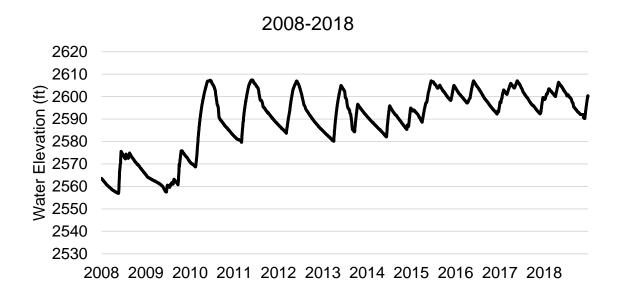
Stockings

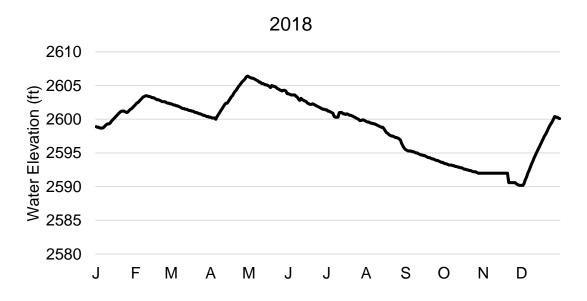


Elwood Reservoir receives stockings from NGPC's Hatchery System every year. Below you will find Elwood's stocking history for the past ten years. For more stocking details access NGPC's Fish Stocking Reports.

	2012	2013	2014	2015	2016	2017	2018
Walleye	X	Х	Χ	Χ	Χ	Χ	Х
Hybrid striped bass	S	Х	Χ	Χ		Χ	X
Channel catfish		Χ		Χ		Χ	
Muskellunge		Х		Χ		Χ	
Gizzard shad		Х					
Rock bass	Х						
Spotted bass	Х	Х	Χ	Χ	Χ	Χ	
Blue catfish			X			X	

Water Level





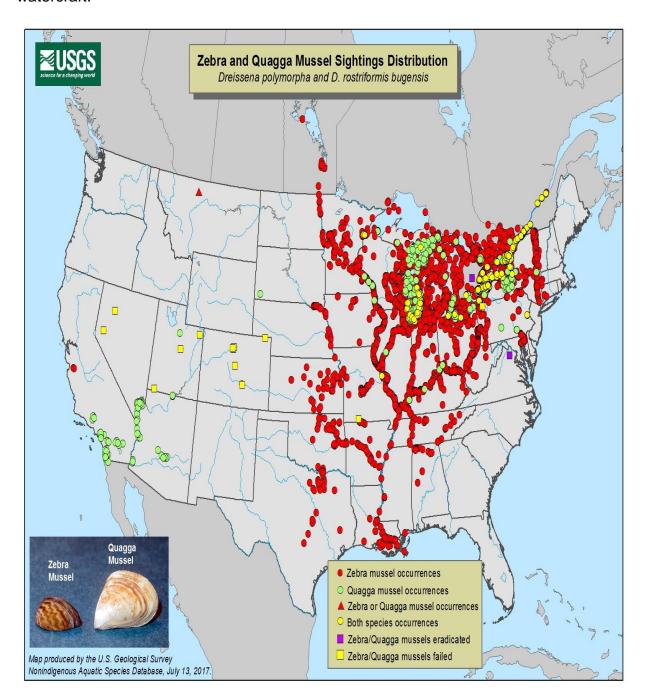
Elwood's water level changes frequently and plays a vital role in this fishery. Water elevation has benefitted from an agreement between CNPPID and Tri-Basin Natural Resources District (TBNRD) involving groundwater recharge during non-irrigation season. Follow water level fluctuations at CNPPID's Lake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

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

Invasive Species

Distribution of invasive zebra and quagga mussels is getting closer and closer to SW Nebraska. The most recent finding in Nebraska was Glen Cunningham Lake in Omaha during 2018. This <u>map</u> portrays the spread of these invasive mussels and is updated often.

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



Invasive Species



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 <u>CLEAN</u>, <u>DRAIN</u>, and <u>DRY!</u>

