Enders Reservoir 2020 Survey Summary

NEBRASKA

- GAME PARKS -

Sean Farrier, Fisheries Biologist

Fish populations are sampled each fall at Enders Reservoir using gill nets, a method commonly used to sample fish such as walleye, white bass, channel catfish and wipers. Gill nets are set on approximately the same dates and locations each year to reduce variability.

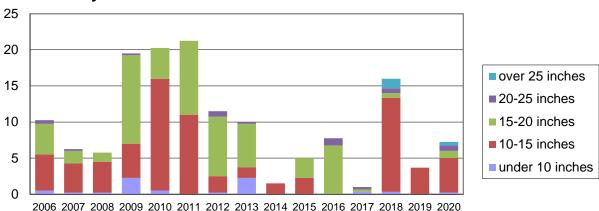
The elevation at Enders has continued to hover around the top of the inactive pool level. After Enders fell almost 6 feet in 2014, the lake levels have struggled to return to previously observed elevations. Due to continued, consistent lake elevation levels, discussions and planning have began for a boat ramp improvement project at Enders. At this time boat access is still limited to a primitive gravel boat ramp located in No Name Bay. Four-wheel drive is recommended to launch and load especially following a rain event. Be mindful not to power load onto trailers when exiting on this ramp due to a highly erodible gravel substrate.

Walleye catch rates rebounded in 2020 after the dip in 2019. In 2019, advanced walleye fingerlings with an average length of 7.75 inches were stocked for the first time as a part of a new stocking strategy at Enders. The initial advanced walleye fingerling stocking in 2019 made up just under 50% of the walleye catch in 2020! This early return is similar to what we have observed at Swanson with the same stocking strategy. We will continue to evaluate the success of this program in the coming years. There are 3,500 advanced walleye fingerlings requested for 2021. White bass catch rates improved in 2020. Catch was dominated by 12 to 15 inch fish, which will provide anglers with a quality fishery in 2021. There are 10,000 white bass fingerlings requested for late spring 2021.

Channel catfish numbers dipped in 2020 after remaining consistent for the previous 4 years. At this time, lower catch rates are not a concern but will continue to be monitored moving forward. There are 3,350 channel catfish requested for spring 2021. Overall, anglers should encountered a good number of keeper white bass and walleye in 2021. Crappie, bluegill, northern pike, largemouth bass, muskellunge and smallmouth bass are also available in limited numbers for anglers seeking other species.

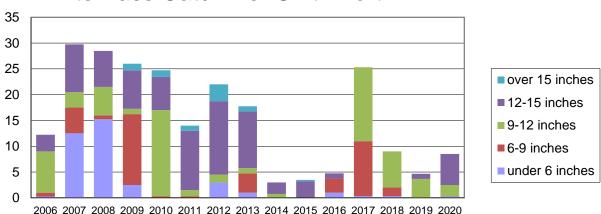
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs.

Walleye Catch Per Unit Effort



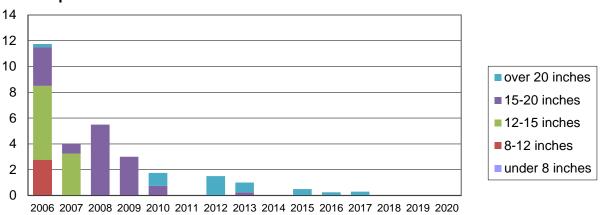
To help boost our walleye numbers, our stocking strategy has been altered to include advanced fingerlings that are approximately 7.75 inches in length. After the first stocking of advanced fish in 2019, we saw an immediate contribution to the walleye catch in 2020. That initial stocking accounted for just under 50% of the fish sampled in 2020. This strong year class helped improve our total catch compared to 2019. We will continue to move forward with an alternating stocking plan between advanced fingerlings and fry. There are 3,500 advanced fingerlings requested for 2021.

White Bass Catch Per Unit Effort



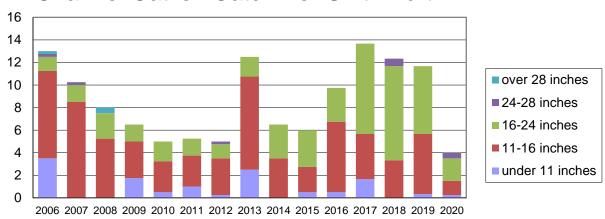
White bass survey numbers rebounded slightly in 2020. A large portion of white bass sampled were between 12 to 15 inches. This will provide anglers with a quality fishery in 2021, with plenty of opportunity to catch adult fish. To help supplement naturally recruiting white bass in Enders we have been requesting white bass annually. There are 10,000 white bass fingerlings requested for spring 2021.

Wiper Catch Per Unit Effort



Wipers have not been stocked in Enders since 2005 due to an increased emphasis on white bass production and low water levels. Wipers have not been sampled since one fish was caught in 2017. This suggests the last of the 2005 stocking has either been caught or died from old age. Currently, there are no plans to reintroduce wipers into Enders.

Channel Catfish Catch Per Unit Effort



In 2020, we observed our lowest channel catfish sample in 15 years. At this time, biologists are not concerned about the long term outlook for the fishery. It will be a situation we pay close attention to in 2021. Due to the stability of the population, Enders has not received regular channel catfish stockings. However, if we need to reevaluate that strategy in the future we will. There are 3,350 channel catfish requested for spring 2021.

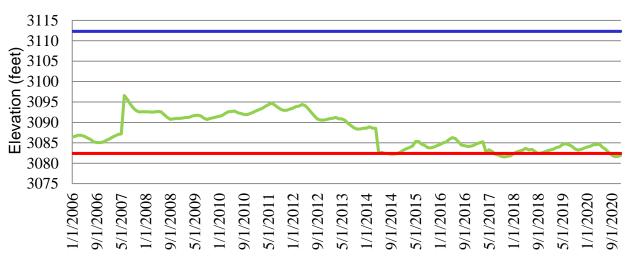
Enders Reservoir Fish Stocking Summary

| Year | Walleye | Channel Catfish | White Bass | Muskellunge |
|------|--------------------|--------------------|-----------------|-------------|
| 2020 | 33,931 (1") | | | |
| 2019 | 3,486 (7.75") | | 10,380 (1") | |
| 2018 | 750,000 (fry) | | 9,291 (1.5") | |
| 2017 | 70,000 (1.5") | 3,500 (5") | 10,000 (1") | |
| 2016 | 1,140,000 (fry) | | 29,500 (1") | |

Above is a table of fish stockings for the last 5 years at Enders Reservoir. The species stocked, number stocked, and fish size are presented in the table. Multiple species are stocked annually and a comprehensive database of fish stockings can be found at the Nebraska Game and Parks website or by following the link below.

Stocking Database

End of Month Elevation, Enders Reservoir 2006-2020



Approximately 6 feet of elevation was released in 2014 which left all permanent ramps out of service due to low water levels. A primitive ramp was installed and has served as the only launch location. In 2020, discussions began for a more permanent solution that will provide better access to boaters at Enders. Plans to hire an engineering firm in 2021 are underway and should result in a permanent solution to access issues observed since 2014. The dark blue line indicates the top of the active conservation pool, the green line indicates the end of month elevation and the red line indicates the top of the inactive pool. Current elevation data can be found at this link: Current Elevation



STOP AQUATIC HITCHHIKERS!

Prevent the transport of nuisance species. Clean <u>all</u> recreational equipment.

www.ProtectYourWaters.net

Aquatic invasive species (AIS) have reached Nebraska! Zebra mussels are currently established in Lewis and Clark Reservoir, Offutt AFB pond, and the Missouri River. Anglers and boaters should be on the look out for personnel performing boat inspections and decontaminations statewide. Follow the link: Nebraska. Invasive Species Program or call 402-472-3133 to report any possible AIS sightings or for more information about AIS in Nebraska.

Preventative Steps and Regulations

- It is unlawful for a boat to arrive at or leave any body of water in Nebraska with water other than from a domestic source except for fire-fighting purposes. Drain water before leaving an area
- It is unlawful for a boat or trailer to arrive or leave a launch area with any aquatic vegetation from that waterbody still attached. Boat blinds cannot use plants listed as invasive species or noxious weeds
- Wash mud off waders. Felt-sole waders are not allowed

Nonresident Aquatic Invasive Species Stamp

Motorized watercraft registered outside Nebraska are required to purchase and display the Aquatic Invasive Species Stamp before launching from any Nebraska boat ramp. Stamps must be affixed on the starboard side toward the rear of the boat above the waterline. The fee for each stamp is \$18 dollars and includes the \$3 issuing fee. Stamps can be purchased online or at Nebraska Game and Parks Commission Offices.



Left: Zebra Mussel Right: Quagga Mussel