Enders Reservoir 2016 Survey Summary

NEBRASKA - GAME PARKS -

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Fish populations are sampled each fall at Enders Reservoir using gill nets, a method commonly used to sample fish found in open water, such as walleye, white bass, channel catfish and hybrid striped bass. Gill nets are set on approximately the same dates and locations each year to reduce variability. However, environmental factors can play a strong role in catch data. Due to this variability biologists look at trends over time when making most management decisions rather than kneejerk decisions based on one data point.

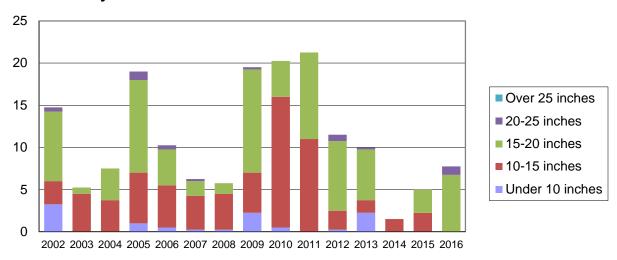
The elevation at Enders was lowered almost 6 feet in 2014 and lake levels have improved modestly leading up to 2016. However, it is likely that any elevation gained since 2014 will be released in 2017 and lake levels will once again be lowered to the inactive pool elevation due to compact compliance requirements. The most noticeable effect of the drawdown has been that all the permanent boat launch facilities are suffering from decreased service. A temporary boat ramp is located across the dam at Catfish Cove. This facility consists of a gravel ramps, a floating dock, restroom, and a limited parking area. Four-wheel drive is recommended to launch and load especially following a rain event. It is likely that water will be released again in 2017 which probably translates to low lake levels at Enders into the future.

Catch data at Enders for walleye and white bass fell sharply in response to the drop in lake elevation and loss of habitat and lake production in 2014. Biologists sampled 7 walleye per net and 5 white bass per net in 2016. Both samples indicate a modest increase from the 2015 previous surveys but are nowhere near the catch rates experienced around 2010. Walleye are stocked annually at Enders due to a lack of natural recruitment. Biologists are alternating between fry and fingerling stockings to determine which strategy is best suited for the conditions at Enders. White bass fingerlings were stocked in 2016 in response to low catch rates and what appears to be a lack of natural reproduction and are requested again for 2017.

Channel catfish catch rates have been more resilient to the lake level challenges at Enders. This is most likely due to the fact that catfish don't reproduce in the system and have to be maintained through fish stockings. Crappie, bluegill, northern pike, largemouth bass and smallmouth bass are also available in limited numbers for angler seeking other species.

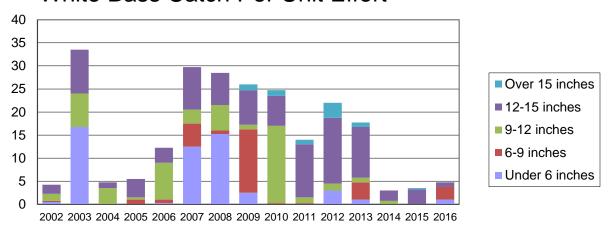
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2016 summary graphs of some local waterbodies for comparison.

Walleye Catch Per Unit Effort



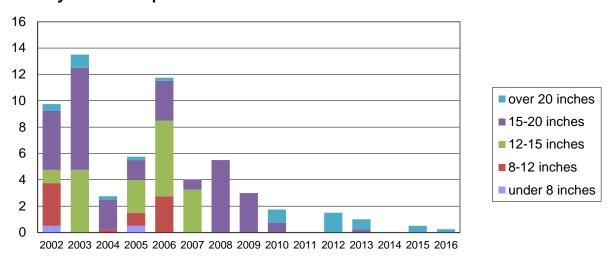
Walleye numbers peaked at Enders in 2011 and have declined to a low of one fish per net in 2014. In an effort to address this issue biologists have implemented a stocking strategy that alternates between fry and fingerling stocking annually in order to determine the best tactic for Enders Reservoir. In 2016, walleye numbers increased to 7 walleye per net from 5 in 2015. This is good news overall, but the lack of sublegal fish is a bit troubling. Lower lake levels have certainly affected the walleye population but when compared to data previous to the 2007 high water event, the current catch rates are near the historical average.

White Bass Catch Per Unit Effort



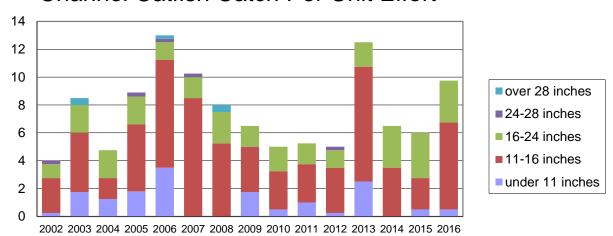
Biologists sampled 5 fish per net in 2016. Catch rates dropped sharply in 2014 and have not recovered. Numbers of age-0 fish have also been absent in surveys since 2008 possibly indicating minimum natural reproduction. 29,500 fingerling white bass where stocked in 2016 in an effort to bolster the white bass population. It will probably be necessary to continue stocking periodically until catch rates begin to show signs of improvement.

Hybrid Striped Bass Catch Per Unit Effort



Wipers have not been stocked into Enders since 2005 due to an increased emphasis on white bass production. There were no wipers sampled in 2014 and only one fish in 2016, which indicates that there are very few wipers remaining in Enders. The few remaining wipers are trophy fish over 20 inches long. There are currently no plans to reintroduce wipers at this time.

Channel Catfish Catch Per Unit Effort



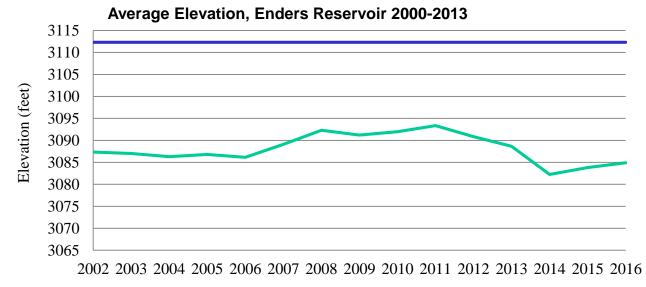
Personnel sampled 10 channel catfish per net in 2016. The majority of fish sampled are less that 16 inches long which are harvestable but not the preferred size for most anglers. There are still good numbers of 16-24 inch fish available in the system. Channel catfish are stocked regularly at Enders to supplement the lack of natural reproduction. There were 1875 fish stocked in 2015 that had an average length of 10 inches.

Enders Reservoir Fish Stocking Summary

Year	Walleye	Channel Catfish	White Bass	Muskellunge
2016	1,114,000 (fry)		29,500 (1")	
2015	31,250 (1.5")	1875 (9.9")		100 (13")
2014	1,172,488 (Fry)			
2013	1,890,400 (Fry)	4262 (10.5")		502 (13")
2012	963,263 (Fry)		1,000,000 (Fry)	

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



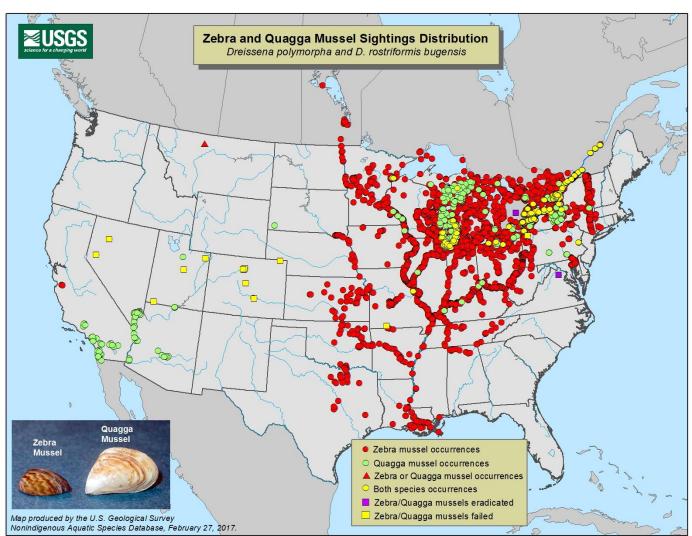
Water levels remain a management concern and contribute to reduced habitat quality, recreational opportunities, and fishing quality at Enders Reservoir. Approximately 6 feet of elevation was released in 2014 which left all permanent ramps out of service due to low water levels. A primitive ramp was installed and there is discussion about extending the current launch facilities. The dark blue line indicates the top of the active conservation pool and current elevation data can be found at this link: Current Elevation



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Aquatic invasive species (AIS) have reached Nebraska. Zebra mussels are currently established in Lewis and Clark Reservoir, Offut AFB pond, and the Missouri River. Beginning in 2016 anglers and boaters should be on the look out for personnel performing boat inspections and decontaminations statewide. The spread of AIS can be prevented using the Clean, Drain, and Dry technique. Before leaving any water body make sure to drain or dump any standing water and remove debris that might be attached to the boat or trailer. If possible allow the watercraft to completely dry before launching at another area. Follow the link:

Nebraska Invasives Species Program or call 402-472-3133 to report any possible AIS sightings or for more information about AIS in Nebraska.

Attention motorboat owners operating in Nebraska:

Starting in 2016, boaters whose motorized watercraft are registered in any state other than Nebraska must purchase and display a \$15 Aquatic Invasive Species (AIS) Stamp each year they launch their boat in Nebraska. The stamp will help fund AIS education and inspection programs.





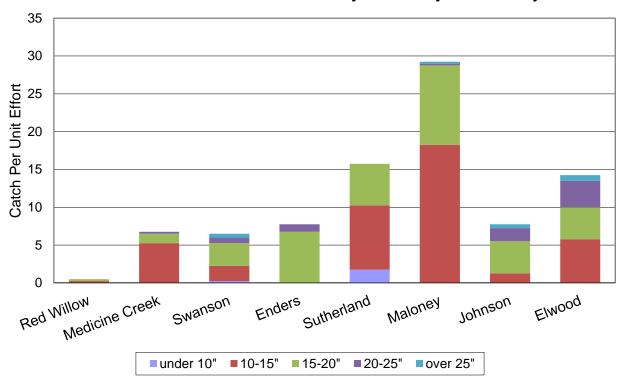
- . Boat inspections for AIS prior to launch in Nebraska are NOT mandatory at this time.
- Personal watercraft registered outside of Nebraska must have this stamp.
- · Non-motorized craft registered in any state are exempt from the stamp.
- Stamps are not required for boats registered in Nebraska. A \$5 AIS fee is included on the residents' three-year boat registrations.
- Residents who register their boats in other states must have this stamp before launching in Nebraska.

This stamp is available online at OutdoorNebraska.org or at Nebraska Game and Parks permitting offices.

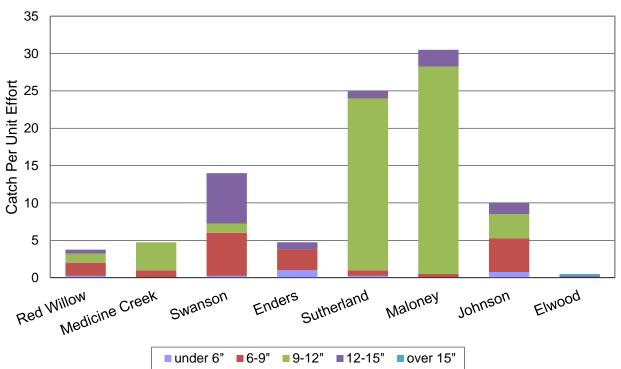
Learn more about invasive species at neinvasives.com.



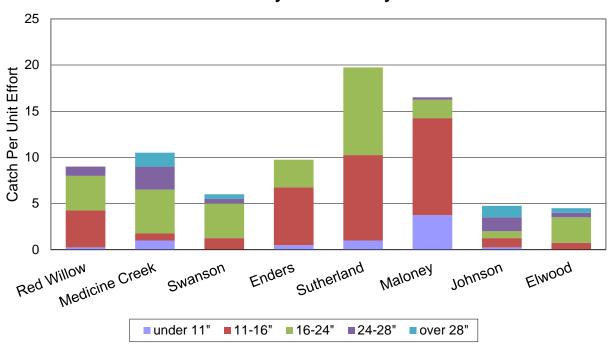
2016 North Platte Area Walleye Survey Summary



2016 North Platte Area White Bass Survey Summary



2016 North Platte Area Channel Catfish Survey Summary



2016 North Platte Area Wiper Survey Summary

