

Red Willow Reservoir 2017 Survey Summary



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Fish populations are sampled each fall at Red Willow Reservoir using gill nets, a method commonly used to sample fish 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 when making most management decisions rather than kneejerk decisions based on one data point.

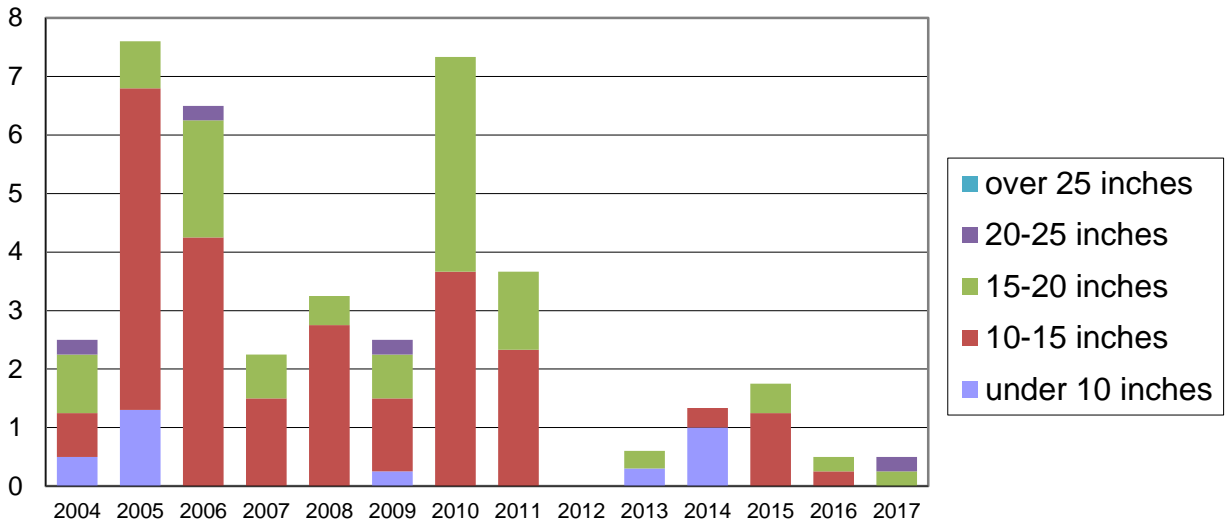
Repair work on the Hugh Butler Dam was completed in 2013 and as of January 2018 the reservoir elevation is 2566 which is 8 feet above the inactive pool. This is an improvement compared to January 2017. It is likely that water will be released during the 2018 irrigation season so the future of water levels is uncertain. Currently there are two boat ramps available on the area that are located on the north and south side of the reservoir.

Overall, walleye and white bass populations have been slow to recover at Red Willow in the years since repairs were finished. This is probably due to a slow refill rate and low inflows. In an attempt to provide alternative for anglers, staff introduced saugeye to the reservoir in 2017. Kansas has been stocking saugeye for several years and have experienced good results in irrigation reservoirs that are similar to Red Willow. Walleye are also being stocked to hedge our bets against missing year classes if the saugeye do not recruit to the population. White bass numbers are down and there is a lack of young fish. However staff saw numerous young of year white bass while fall electrofishing that may have been too small to be sampled effectively with gill nets. Wiper are being stocked regularly to rebuild the population with the goal of restoring the reservoir to a wiper fishery.

Staff also performed a spring survey focused on panfish in 2017. Several trap nets were set during the spring and catch rates were quite encouraging. A total of 89 crappie per net were sampled. The size structure was strongly dominated by fish in the 5-8 inch size class. Personnel also sampled 57 bluegill per trap net in 2017. Most of the bluegill surveyed were less than 6 inches but there were a number of fish in the 6-8 inch size group. All of this is good news for the future of Red Willow. Given a few more growing seasons the panfish opportunities should be excellent.

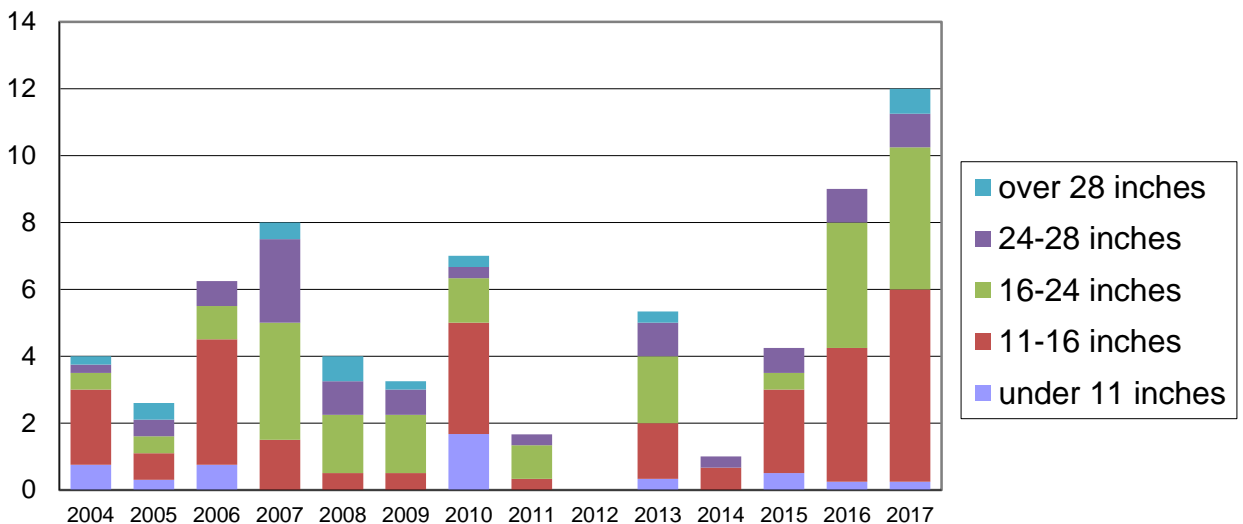
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2017 summary graphs of some local waterbodies for comparison.

Walleye Per Gill Net By Length Group



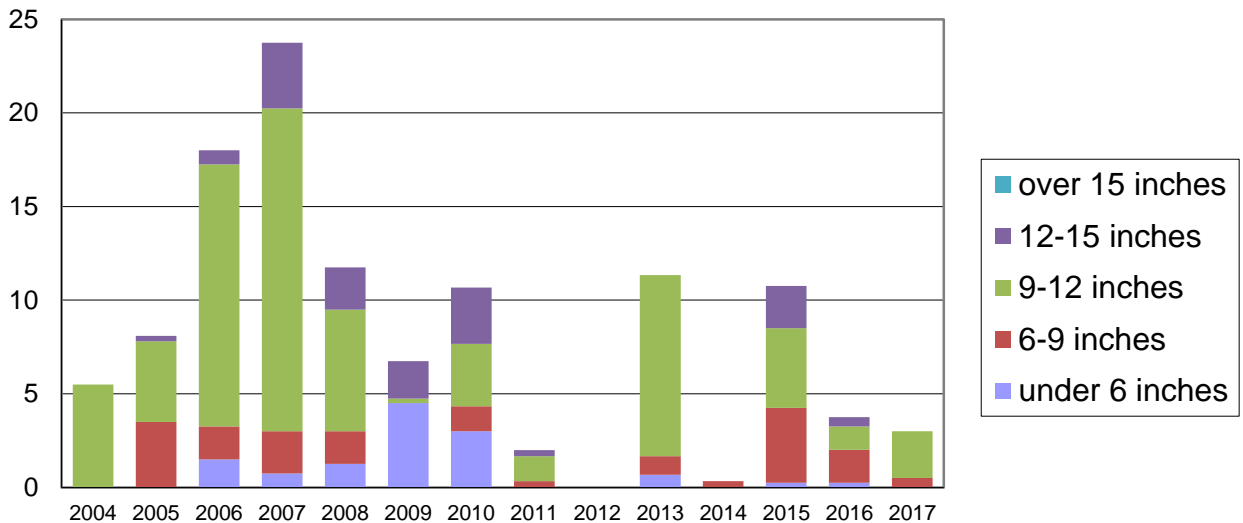
Biologists sampled less than 1 walleye per net in 2017. Walleye populations numbers have been down at Red Willow for several seasons now. In an effort to improve angling opportunities for walleye anglers, biologists have introduced saugeye fingerlings to Red Willow. Both walleye and saugeye fingerlings were stocked in 2017 and are requested in 2018

Channel Catfish Per Gill Net by Length Group



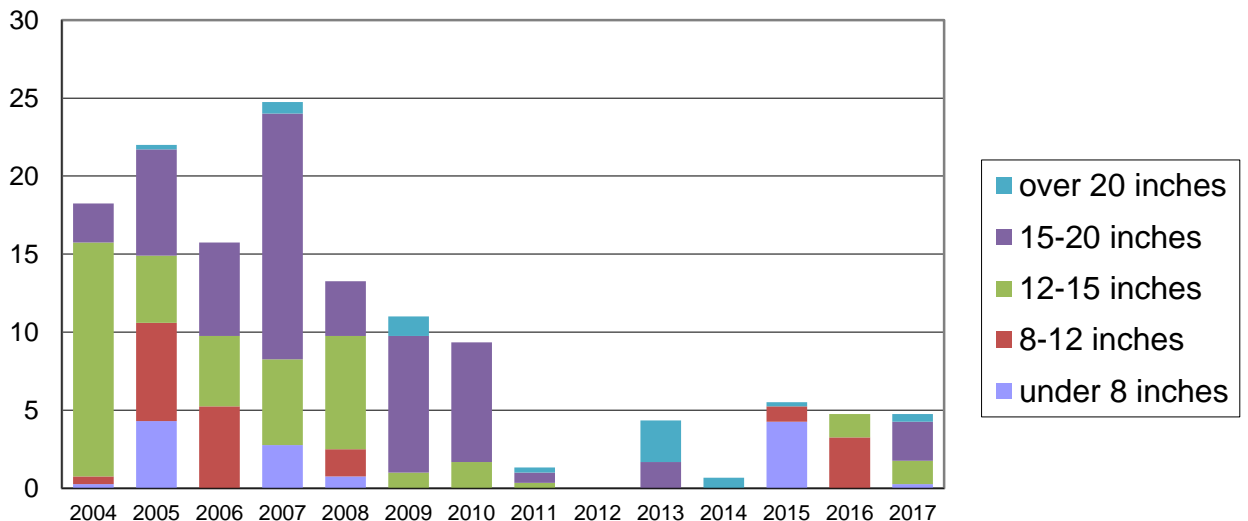
Biologists surveyed 12 channel catfish per net in 2017 that include a broad range of size classes including a few trophy size catfish. Catfish survey data has been steadily improving since 2014. Catfish anglers should continue to be successful in 2018. Catfish are stocked semiannually to supplement low natural recruitment. Channel catfish were stocked in 2017 and are requested for 2019.

White Bass per Gill Net by Length Group



There was a large jump in the 2015 white bass survey but those numbers fell in the 2016 and 2017 surveys. Biologists surveyed 3 white bass per net in 2017. The bulk of the fish surveyed were from the 9-12 inch size class. The lack of smaller size groups indicate that there may be a lack of natural reproduction. It is not uncommon for white bass to exhibit a boom and bust pattern. Staff will continue to monitor the population and stock fish if it becomes necessary.

Wiper per Gill Net by Length Group



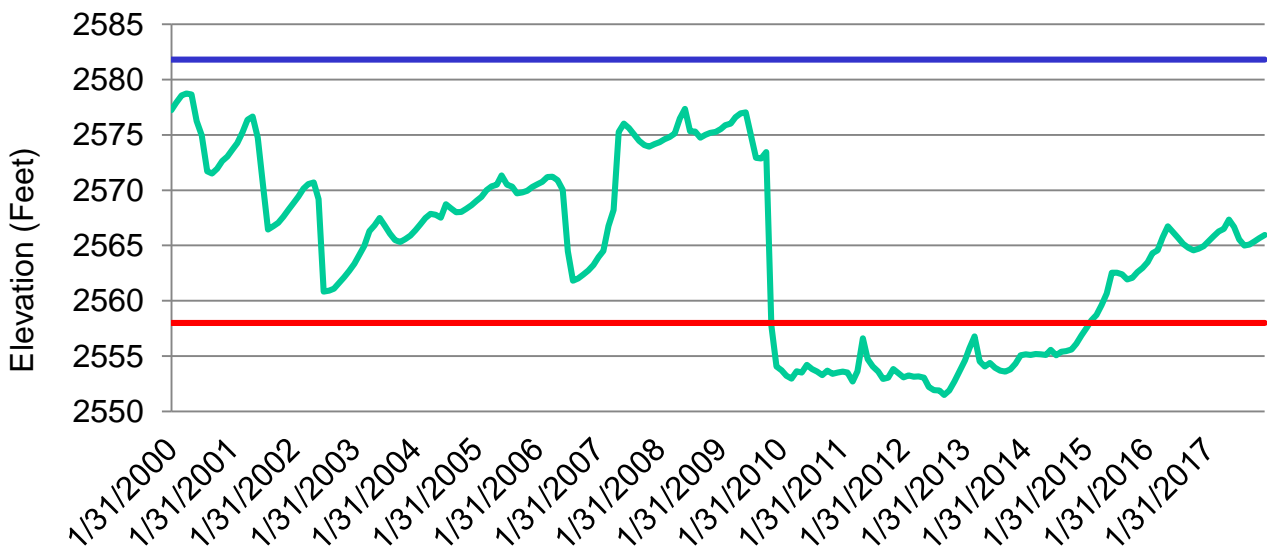
Biologists surveyed 5 wipers per net in the 2017 fish survey. Wipers were stocked in 2015 and 2017 and those fish seem to be growing nicely. There were several fish sampled in the 15-20 inch length group and even a few individuals greater than 20 inches. Wipers were historically prominent in Red Willow and wiper numbers and size structure should continue to improve with time and future stockings. Currently, there are 5,500 wiper fingerlings requested for 2018.

Red Willow Reservoir Fish Stocking Summary

Year	Walleye	Channel Catfish	Saugeye	Wiper	Black Crappie	White Crappie
2017	49,998 (1.5")	5,000 (5")	67,200 (1.25")	6,369 (1")		
2016	42,840 (1.5")					
2015	32,500 (1.5")	7012 (5")		6500 (1.5")		
2014	45,600 (1.3")					5,875 (2.5")
2013	42,822 (1.25")	5,000 (10")			14,631 (1")	19,386 (1")

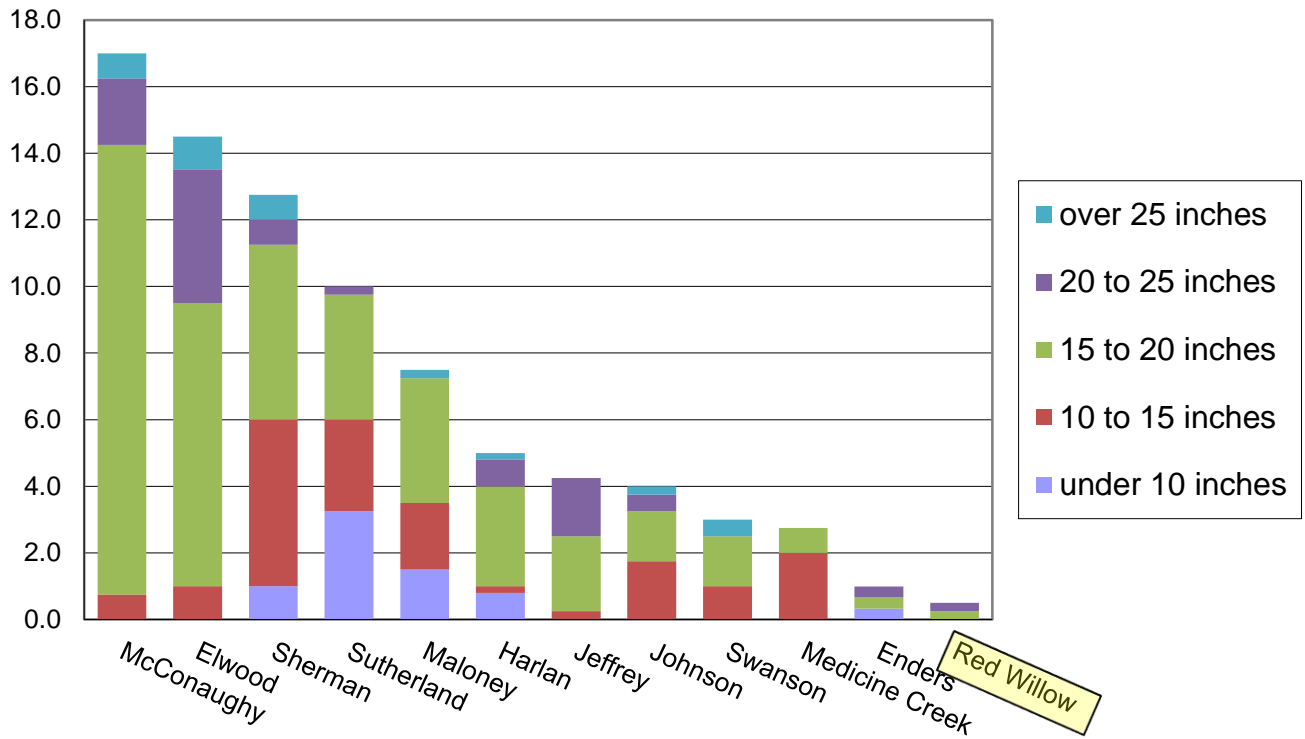
Above is a partial table of fish stockings for the last 5 years at Red Willow Reservoir. The species stocked, number stocked, and fish size are presented in the table. Multiple species are stocked annually at Red Willow and a comprehensive database of fish stockings can be found at the Nebraska Game and Parks website or by following this link: [Fish Stocking Database](#)

Average Elevation, Red Willow Reservoir 2001-2017

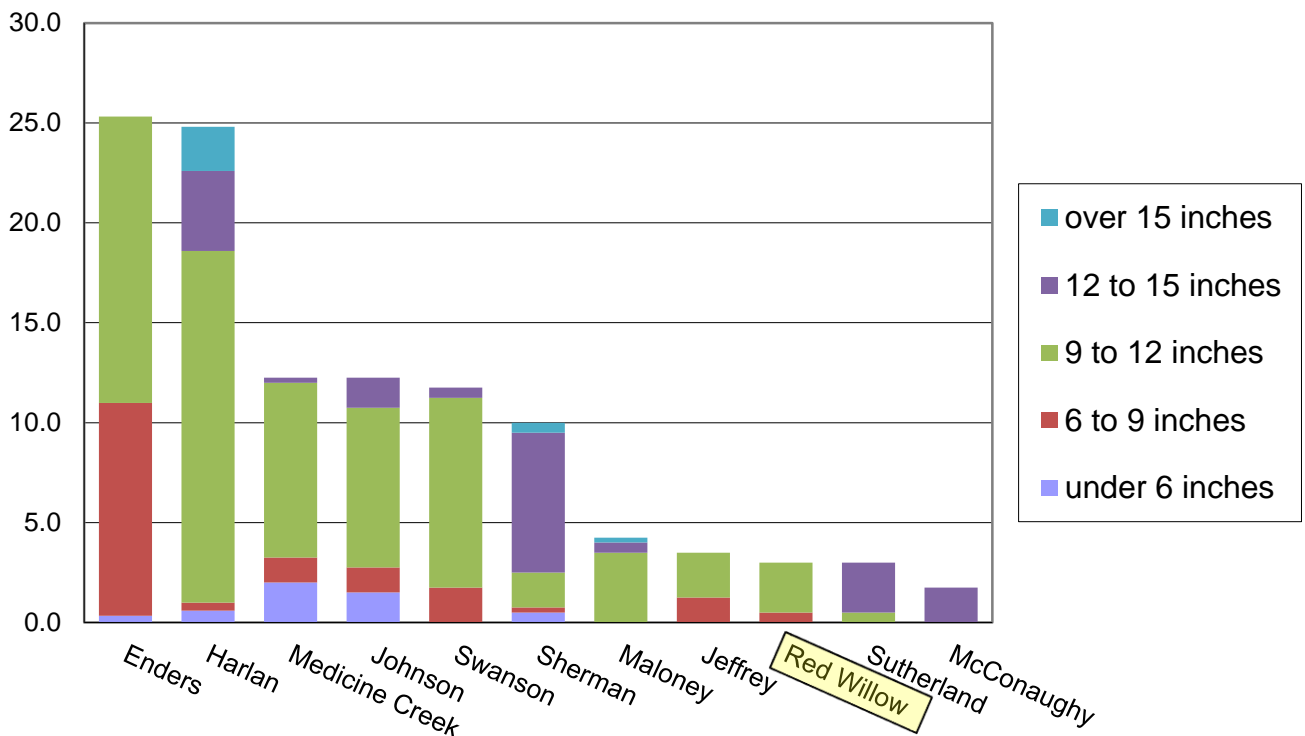


Water levels have been extremely low at Red Willow due to structural repairs of the dam that began in 2009. Construction was finished in 2013 and lake elevations have started the road to recovery. The green line indicates annual mean elevation, the blue line indicate the top of the conservation pool elevation, and the red line indicates the top of the inactive pool elevation. Current elevation data can be found by following this hyperlink: [Current Elevation](#)

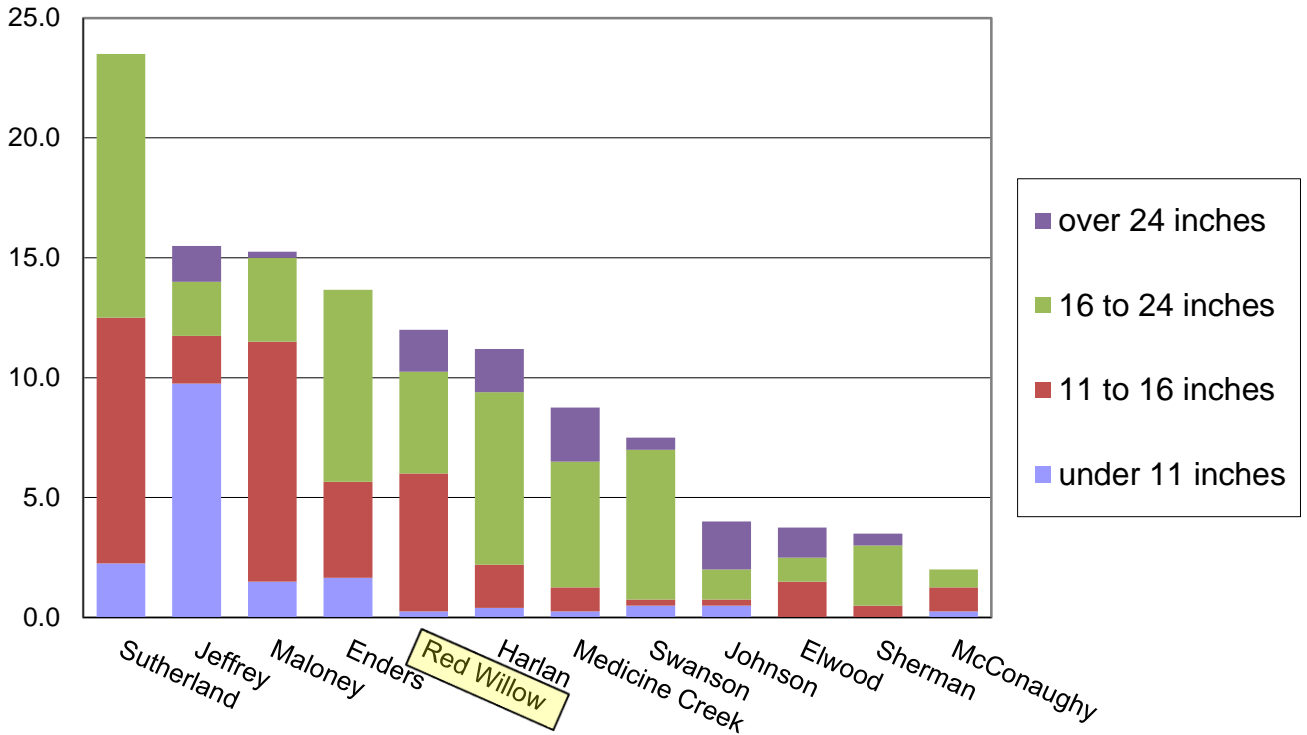
Southwest District Walleye 2017



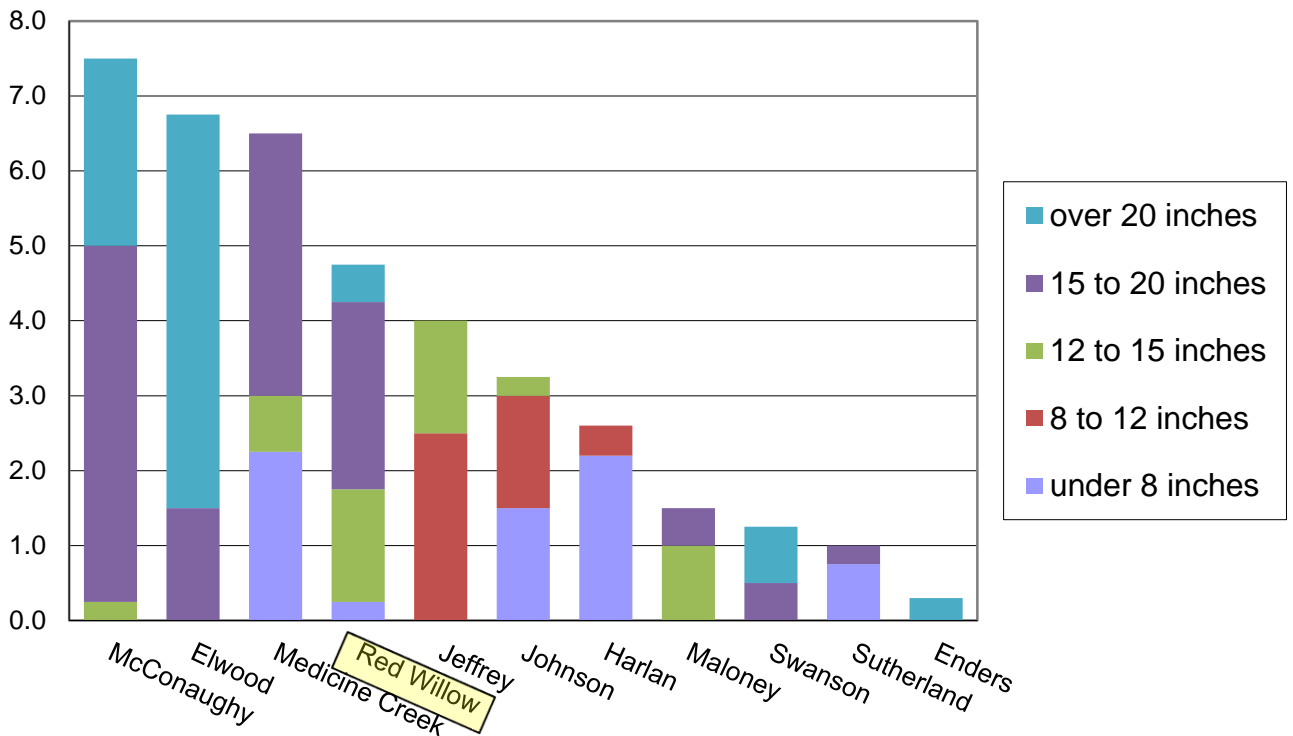
Southwest District White Bass 2017



Southwest District Channel Catfish 2017



Southwest District Wiper 2017





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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. Anglers and boaters should be on the look out for personnel performing boat inspections and decontaminations statewide. 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.

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 from a boat or trailer to arrive or leave a launch area with any aquatic vegetation for 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 \$15 dollars and includes the \$2 issuing fee. Stamps can be purchased online or at Nebraska Game and Parks Commission Offices.



Left: Zebra Mussel
Right: Quagga Mussel