

Red Willow Reservoir

2014 Survey Summary

Caleb Huber, Fisheries Biologist



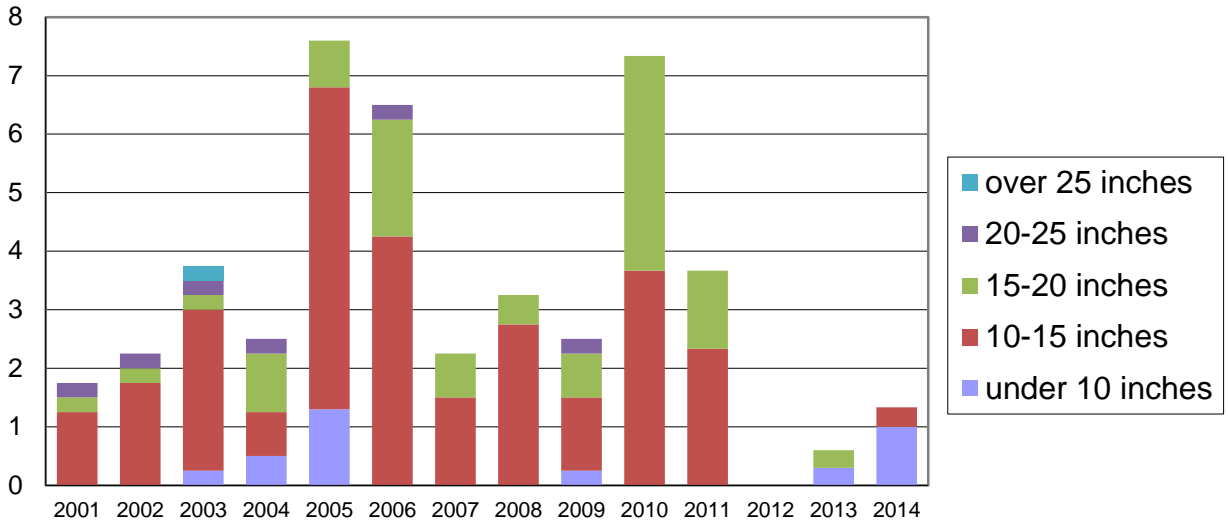
Fish populations are sampled each fall at Red Willow Reservoir using gill nets, a method commonly used to sample fish found in open water, such as walleye, white bass, channel catfish and hybrid striped bass. Gill nets are set on approximately the same dates and locations each year to reduce variability. However, environmental factors can play a strong role in catch rate and composition 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.

Red Willow began experiencing an extended low water event in November of 2009 due to structural issues with the dam which initiated an emergency water release. The dam has been repaired and the reservoir can be filled as inflows are available. Unfortunately Southwest Nebraska has been suffering from recent drought conditions and it appears unlikely that the reservoir will refill quickly. Currently, inflows are being released in order to maintain compliance under the Republican River Compact and it is unlikely that there will be much improvement in lake elevation until the drought breaks and the call for water is lifted. Fish management under these conditions is difficult primarily due to loss or degradation of habitat and water quality. There has been limited nursery habitat available for juvenile fish. Water clarity has also been poor due to bank erosion and this negatively effect the plankton community which is a key component to any fishery. Fish stockings are requested for 2015 and we remain hopeful that water levels improve rapidly.

A fall survey was not conducted in 2012 due to low water and lack of boat access during the survey season, thus no data is presented for 2012. Biologists were able to survey the lake in 2014 and the results were mixed. Walleye numbers improved slightly compared to 2013 data but are still down overall. Catch rates were just over 1 fish per net. Channel catfish numbers were down and are low compared to historic data. Fish were stocked in 2012, 2013, and are requested for 2015. White bass and wiper numbers are also showing the effects of the long-term draw down. The white bass catch in 2013 was promising but those fish were not present in the 2014 survey data. Wipers have not been stocked in several years which accounts for the lack of fish sampled. Fish are requested for the 2015 season in anticipation of increased water levels.

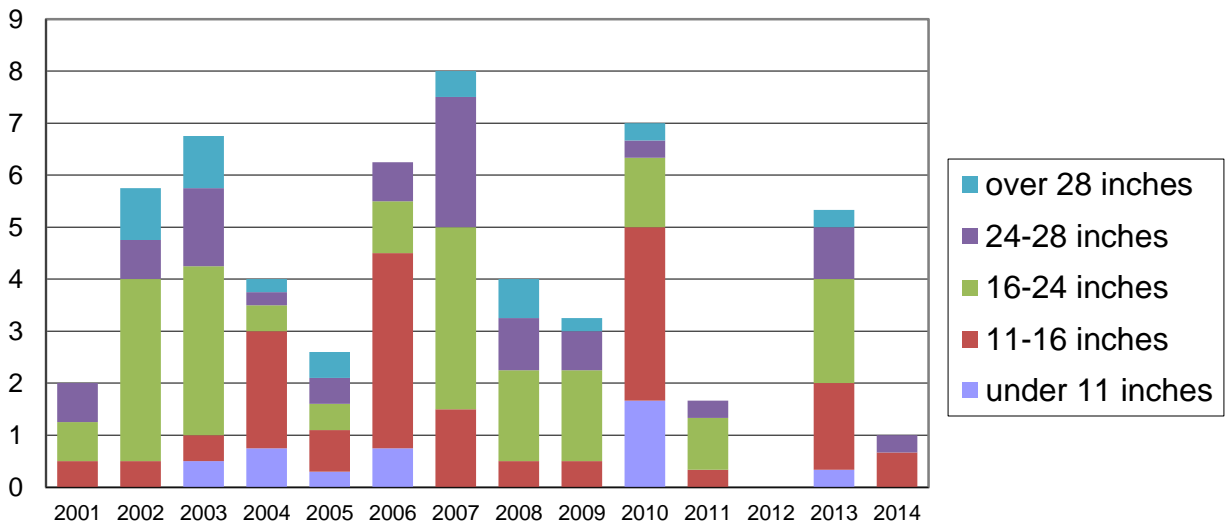
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2013 summary graphs of some local waterbodies for comparison.

Walleye Per Gill Net By Length Group



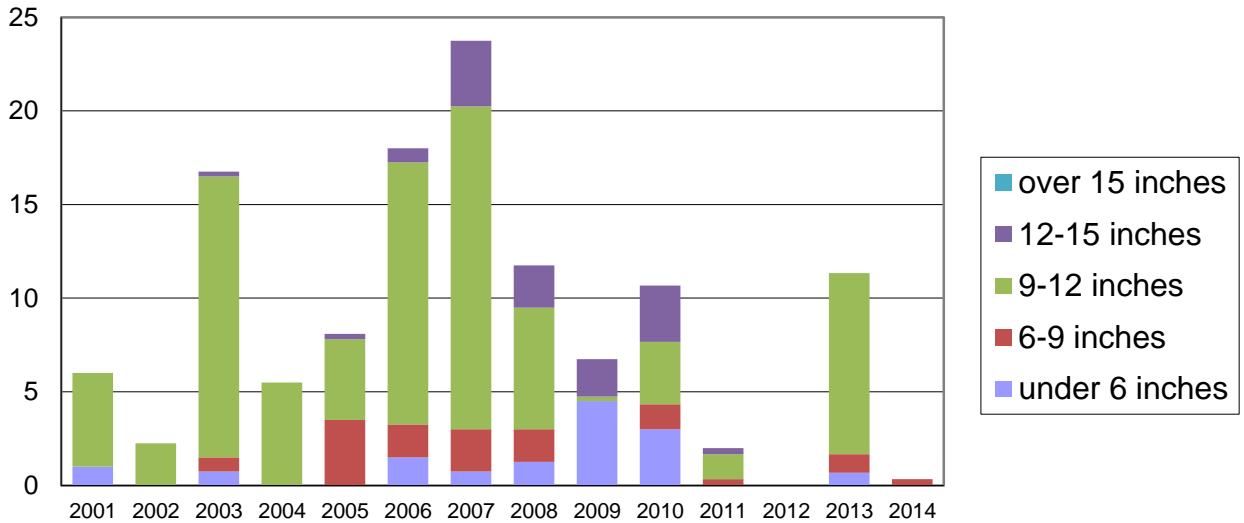
Walleye catch rates have been poor at Red Willow due to low water conditions and reduced stockings. Now that dam repairs are complete, water levels should begin to increase and stockings will become more regular. Biologists sampled 1 fish per net in 2014 and all fish were less than 15 inches. Walleye fingerlings were stocked in 2012, 2013, and 2014 and walleye are requested for 2015.

Channel Catfish Per Gill Net by Length Group



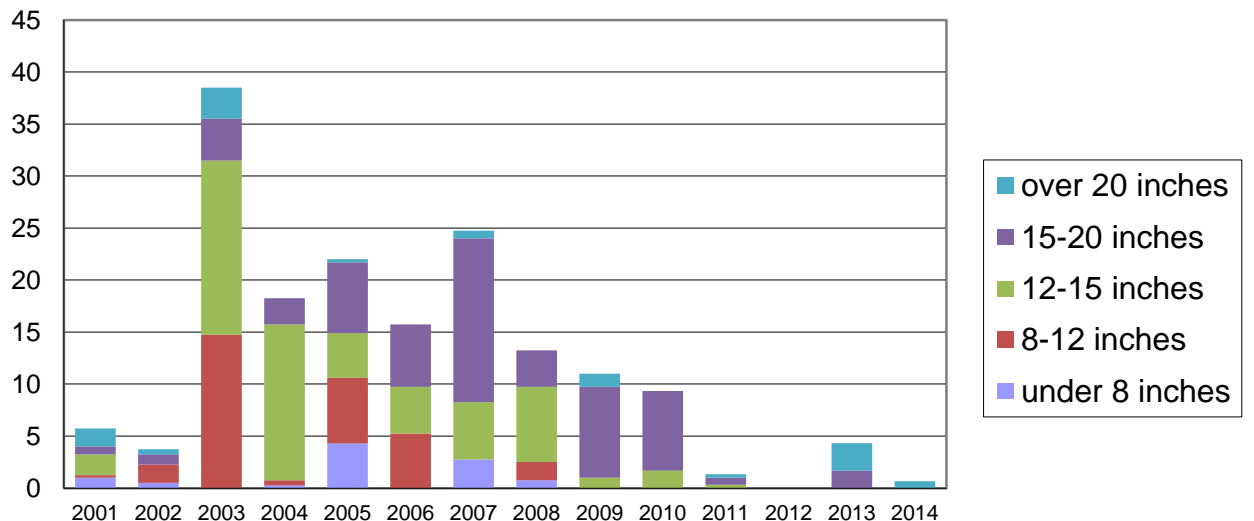
Channel catfish data is somewhat variable at Red Willow, and was above average in 2013. Unfortunately numbers were down in 2014 at only 1 fish per net but based on previous variability this is not cause for concern. Catfish are stocked semi-annually to supplement natural reproduction. Despite low numbers, catfish anglers should still be successful in 2015.

White Bass per Gill Net by Length Group



White bass survey numbers are down in 2014 to less than 1 fish per net. White bass reproduction and recruitment has been poor during the low conditions at Red Willow. A handful of white bass were stocked in 2013 and it will probably be necessary to stock more fish into the future.

Wiper per Gill Net by Length Group



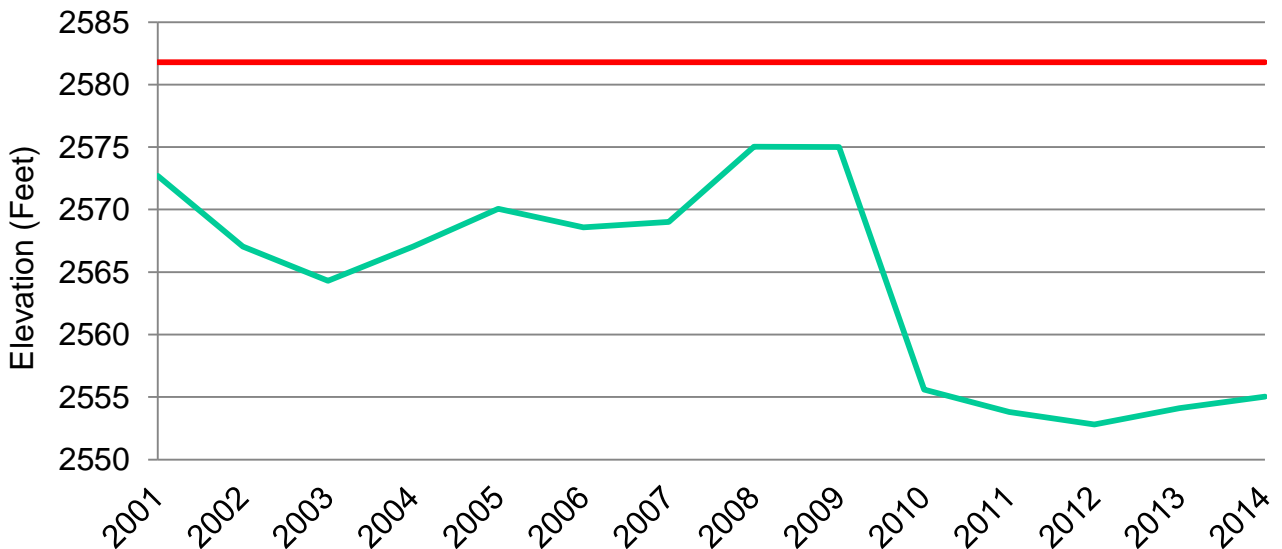
Wipers have not been stocked at Red Willow since 2008, mainly due to low elevation conditions. Wipers tend to suffer during extreme low water events that result in the lack of a cool water refuge during the summer months. Wiper stockings are requested in 2015 in anticipation of increased reservoir elevations. Biologists surveyed 1 fish per net in the 2014 survey. Look for wiper angling to return with increased water in the future.

Red Willow Reservoir Fish Stocking Summary

Year	Walleye	Channel Catfish	Northern Pike	Black Crappie	White Crappie
2014	45,600 (1.3")		502,535 (Fry)		5,875 (2.5")
2013	42,822 (1.25")	5,000 (10")		14,631 (1")	19,386 (1")
2012	28,854 (1.1")	5,714 (10.5")	1,876 (6")		
2011					
2010	42,777 (1.2")				

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 2001-2013



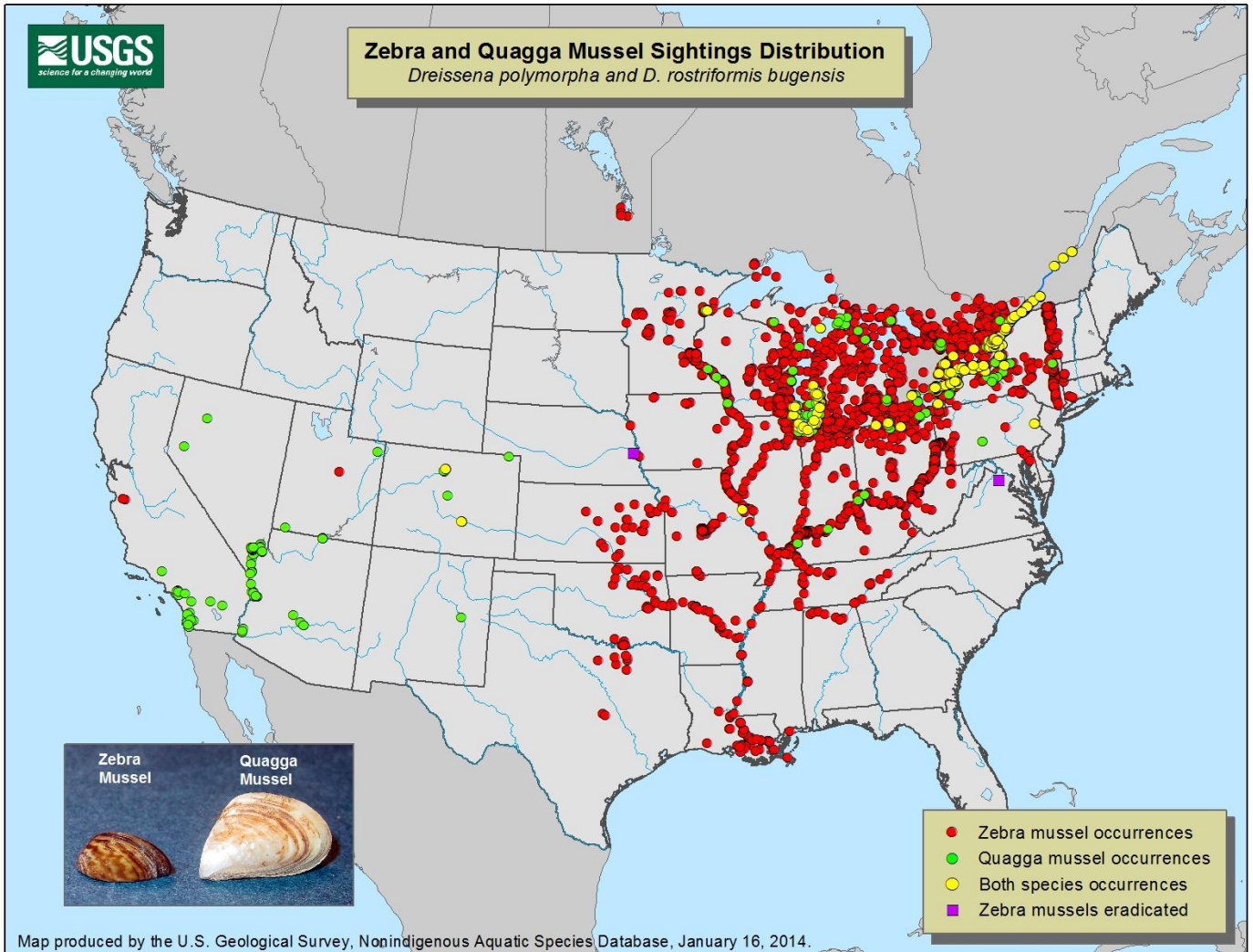
Water levels have been extremely low at Red Willow due to structural repairs of the dam that began in 2009. Construction was finished in 2013 so watch for water elevation to rise in the future. The green line indicates annual mean elevation and the red line indicates the conservation pool elevation. Current elevation data can be found by following this hyperlink: [Current Elevation](#)



STOP AQUATIC HITCHHIKERS!™

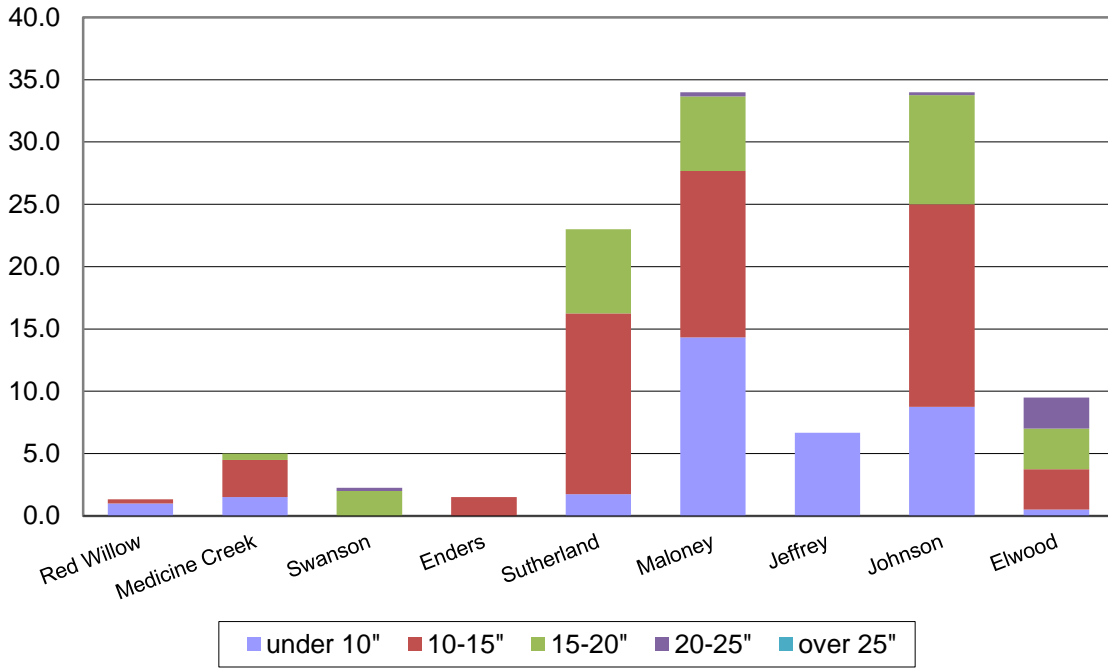
Prevent the transport of nuisance species.
Clean all recreational equipment.

www.ProtectYourWaters.net

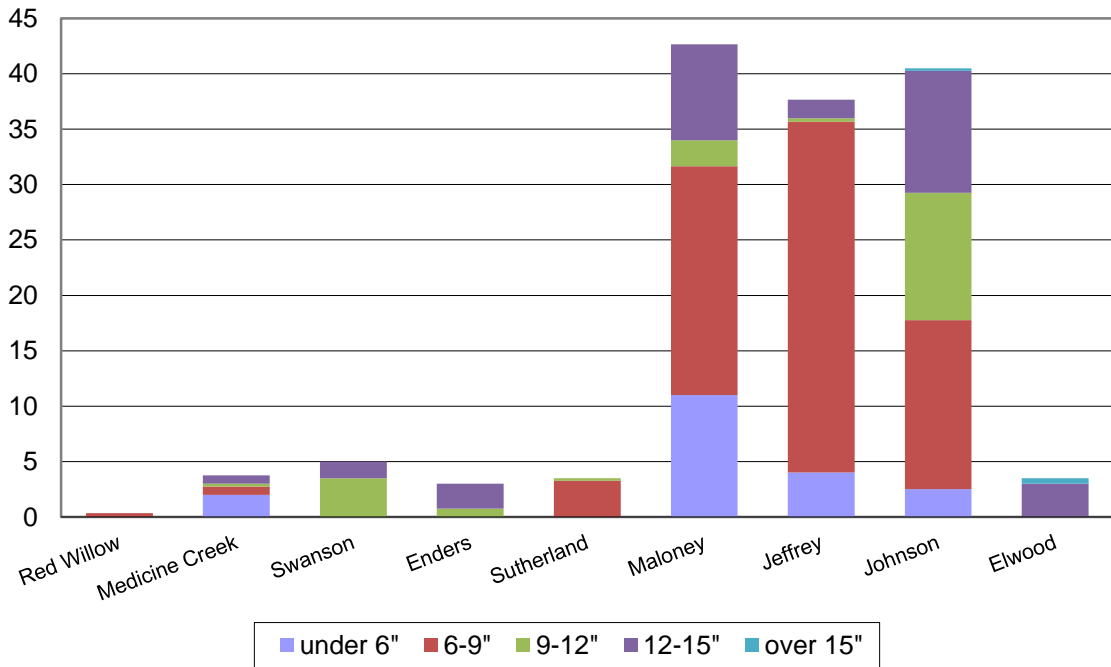


Aquatic invasive species (AIS) are getting closer to Nebraska waters all the time and have the potential for strong negative impacts on the State's aquatic resources. The spread of AIS can be prevented using the Clean, Drain, and Dry technique. Before leaving any water body make sure to drain or dump 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

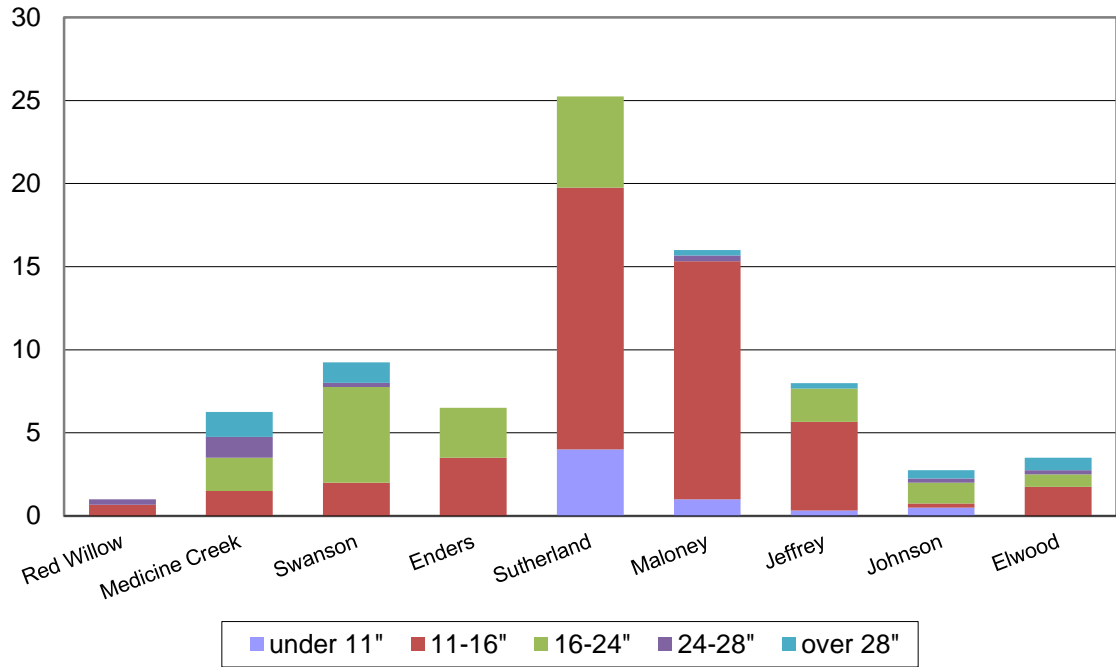
2014 Southwest District Walleye Catch



2014 Southwest District White Bass Catch



2014 Southwest District Channel Catfish Catch



2014 Southwest District Wiper Catch

