Red Willow Reservoir
2013 Survey Summary

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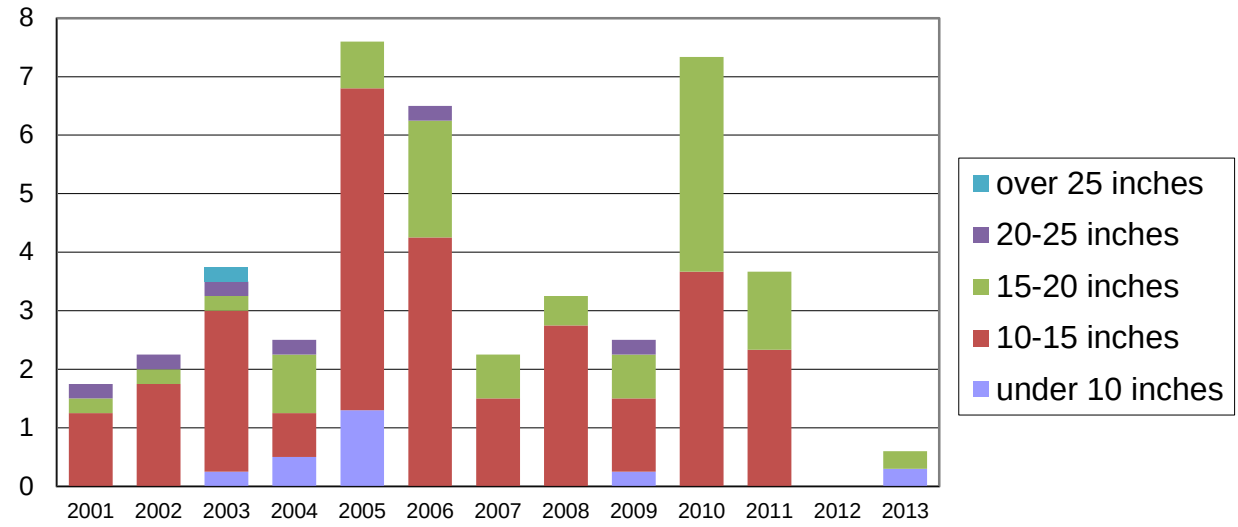
Fish populations are sampled each fall at Red Willow Reservoir using gill nets, a method commonly used to sample fish found in open water, such as walleye, white bass, channel catfish and hybrid striped bass. Gill nets are set on approximately the same dates and locations each year to reduce variability. 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. After almost 4 years the dam is repaired and the reservoir can be refilled 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 stockings are requested for 2014 and we are 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. For this reason, there is no 2012 data included in this survey summary. Biologists were able to survey the lake in 2013 and the results were mixed. Walleye numbers were down sharply to less that 1 fish per net. This is disappointing but not surprising because the current environmental conditions don't adequately meet the needs of a cool water fish like walleye. White bass and channel catfish (warm water species) seem to be doing fair to good. Biologist surveyed 11 white bass per net in 2013. Most of the fish surveyed were mature adults that will provide a good broodstock as the lake level increases. Biologist surveyed 6 channel catfish per net in 2013 which is a pretty average catfish sample for this system at any water level. Survey results indicate that there are only a few large wipers left in Red Willow. Wiper stockings have been sporadic in the past but fish will be stocked regularly as the lake recovers. In addition to the species discussed above, an effort is being made to provide a panfish fishery as the lake refills to take advantage of the expected "new lake" effect. Crappie, yellow perch, and largemouth bass stockings are planned in the coming years.

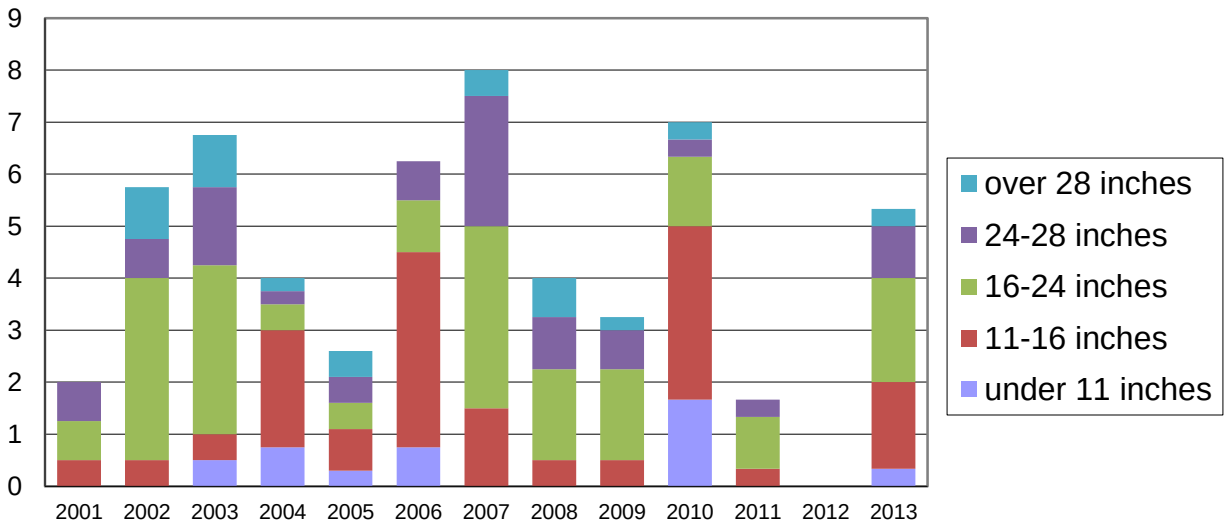
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2013 summary graphs of some local waterbodies for comparison.

Walleye Per Gill Net By Length Group



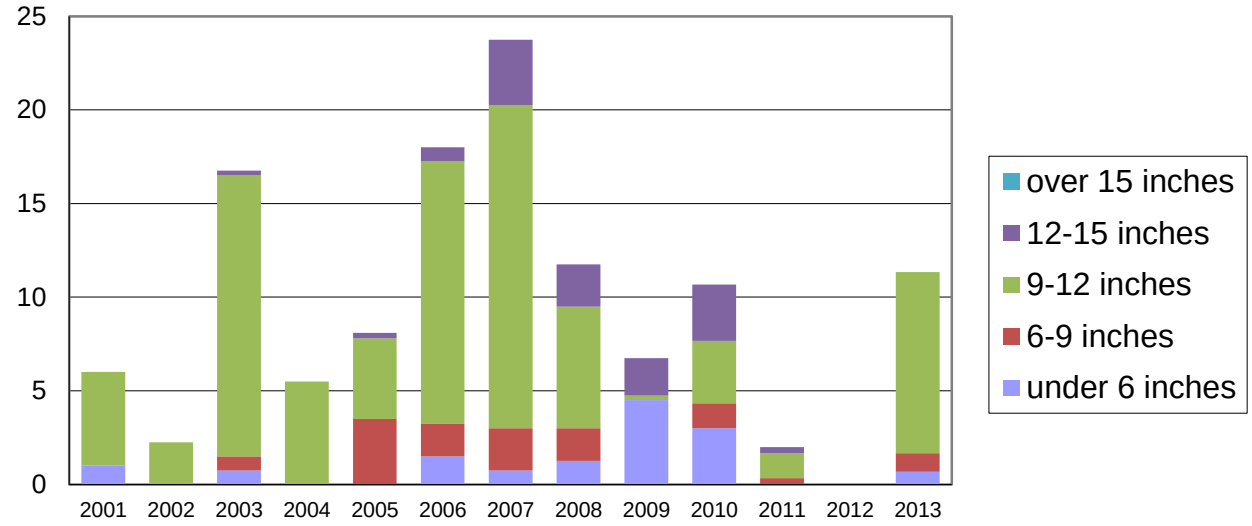
Catch rates for walleye were down substantially in 2013 to less than 1 fish per net. This is due to the extreme low water and reduced stocking during repair construction. Severe low water conditions negatively impact recruitment of young fish through predation and poor survival of the remaining fingerlings. Walleye numbers should improve markedly as the lake level recovers.

Channel Catfish Per Gill Net by Length Group



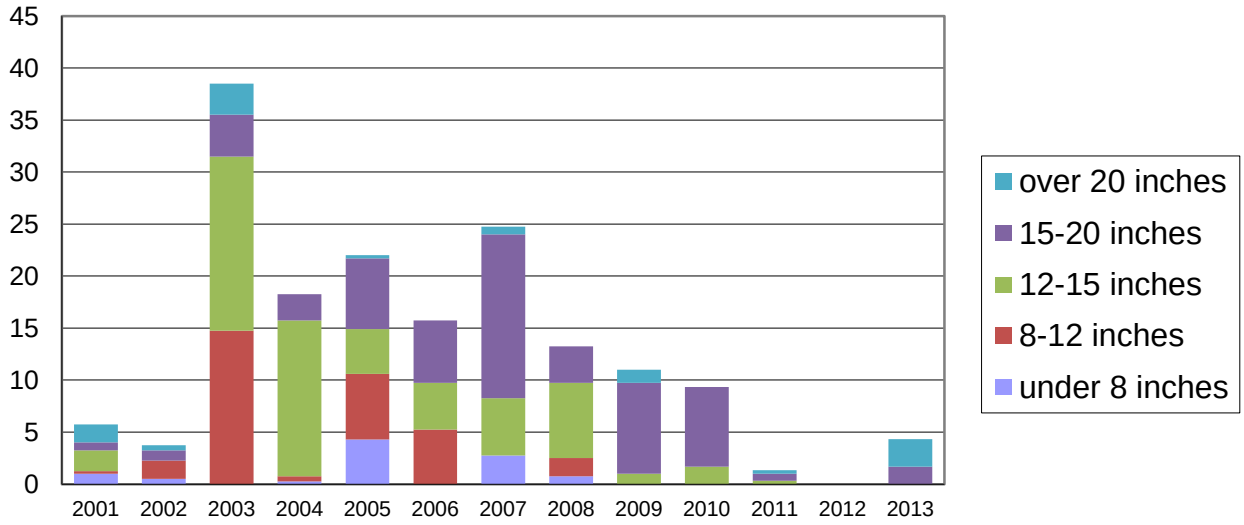
Channel catfish numbers have been somewhat stable during the drawdown event because catfish are more suited for the turbidity and warm water environments. Biologist sampled 5 fish per net in 2013, which is on par with the survey historic survey data. In addition to good numbers there were several large individual sampled over the 24 inch mark. Catfish anglers should continue to experience success at Red Willow and expect to see some large fish in the coming years as the productivity of the lake increases during refill.

White Bass per Gill Net by Length Group



White bass numbers were somewhat variable at Red Willow due to increased harvest immediately following the drawdown event. The current white bass population seems to be in pretty good shape based on the 2013 survey data. Biologist sampled 11 fish per net in 2013 which is comparable to the pre-drawdown data. There are lots of 9-12 inch adults which should pull off a great spawn as the lake refills.

Wiper per Gill Net by Length Group



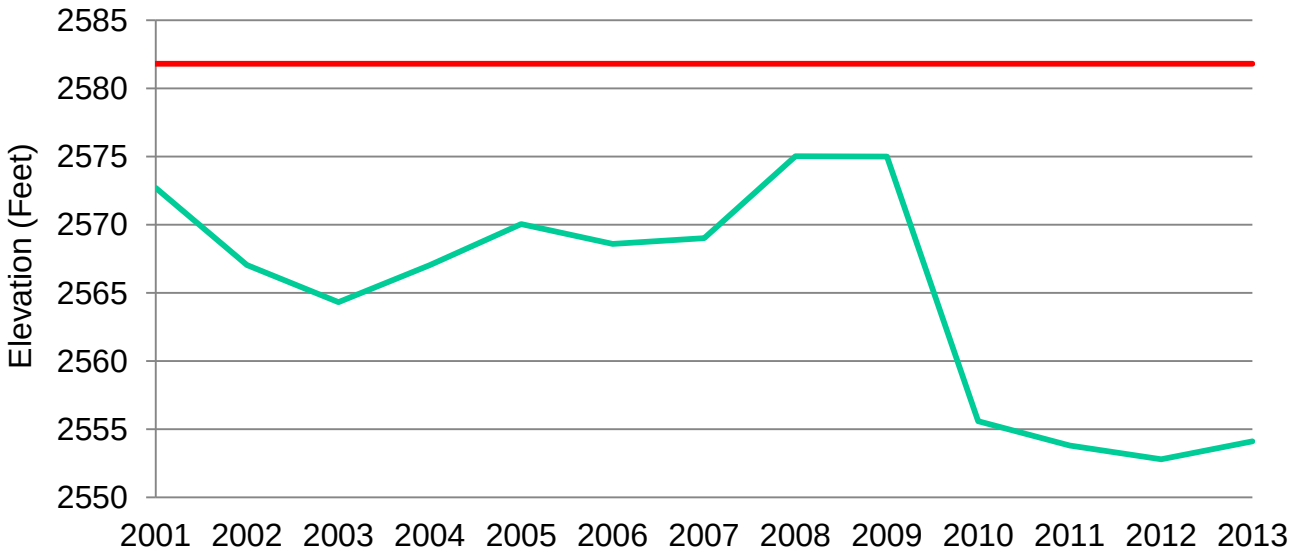
Wipers have not been stocked at Red Willow since 2008 due to lack of availability or low water conditions. Wipers tend to suffer during extreme low water events that result in the lack of a cool water refuge during the summer months. After water levels increase wipers will be stocked regularly in order to rebuild the fishery. Biologists surveyed 4 fish per net in the 2013 survey. All of those fish were large individuals that have survived the extreme environmental conditions. Look for wiper angling to return in the future.

Red Willow Reservoir Fish Stocking Summary

Year	Walleye	Channel Catfish	Northern Pike	Black Crappie	White Crappie
2013	42,822 (1.25”)			14,631 (1”)	19,386 (1”)
2012	28,854 (1.1”)	5,714 (10.5”)	1,876 (6”)		
2011					
2010	42,777 (1.2”)				
2009	1,240,000 (fry)		8560 (12”)		

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 this year 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

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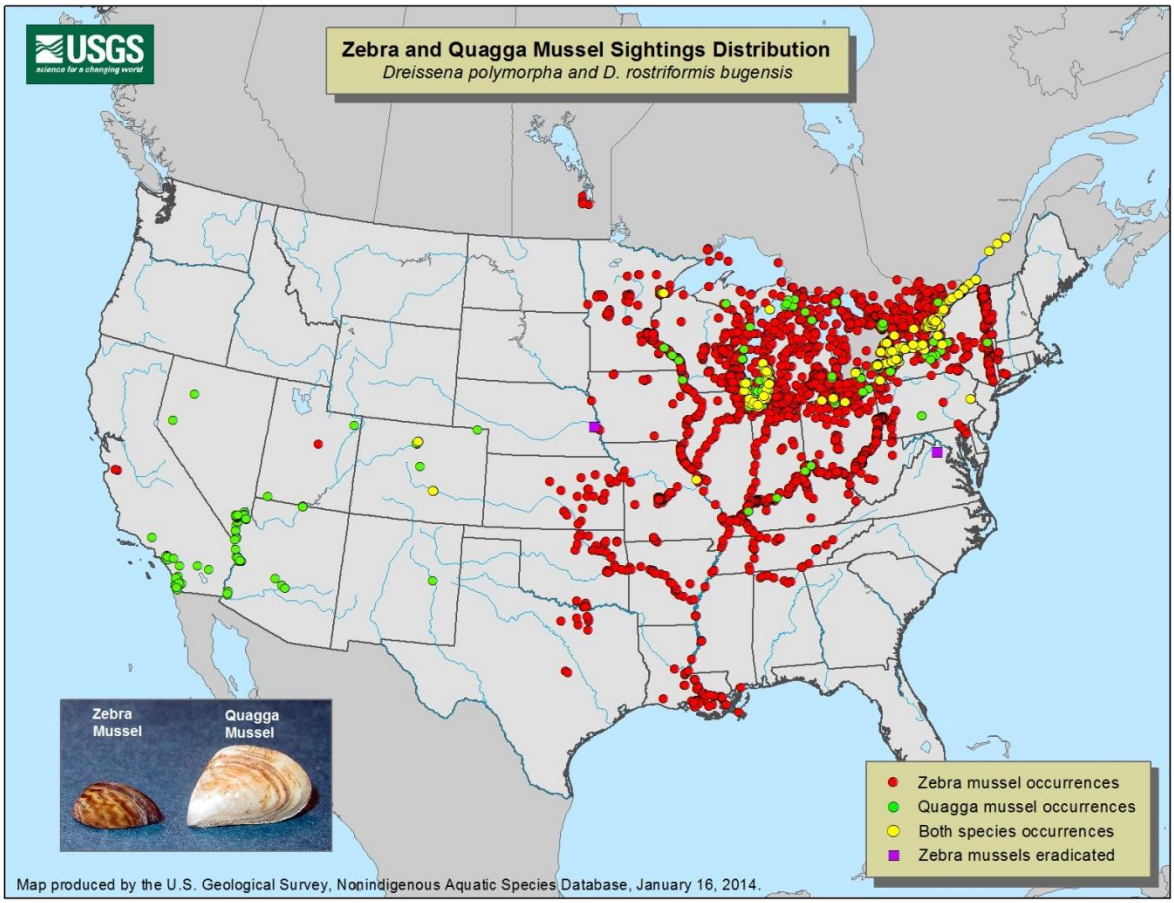
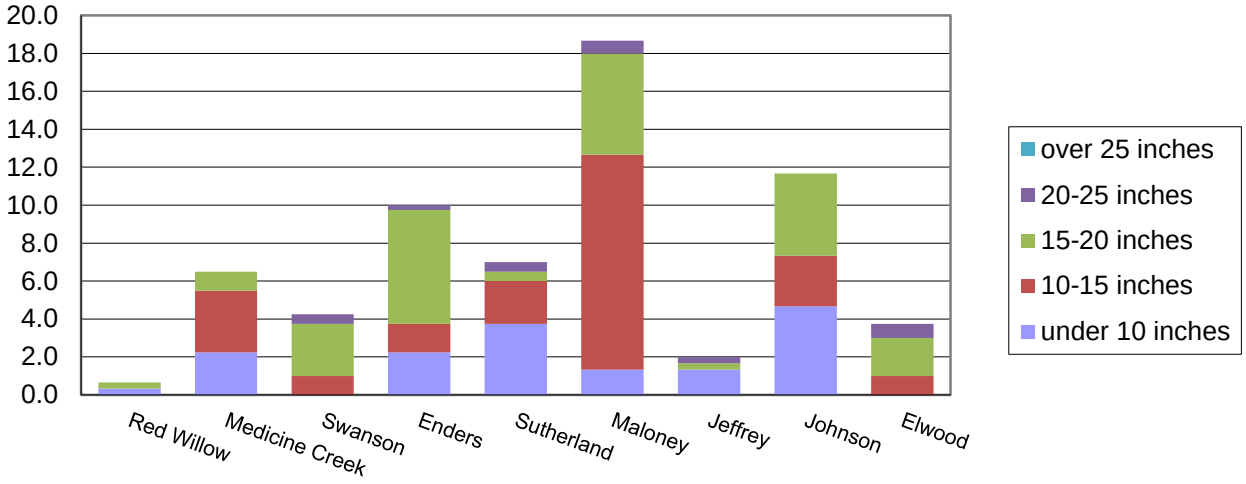
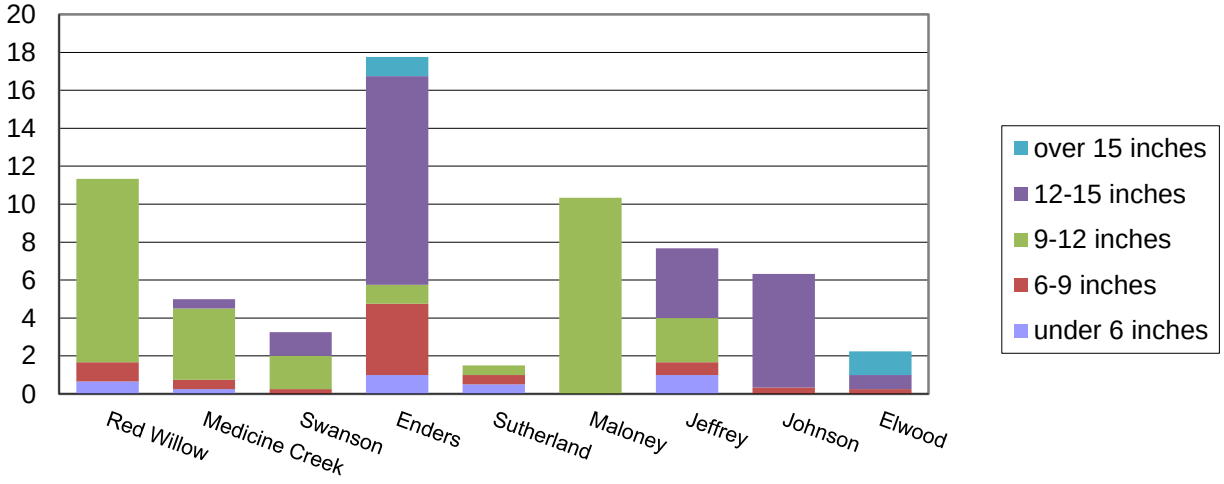


Aquatic invasive species (AIS) are getting closer to Nebraska waters all the time and have the potential for strong negative impacts on the State's aquatic resources. The spread of AIS can be prevented using the Clean, Drain, and Dry technique. Before leaving any water body make sure to drain or dump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

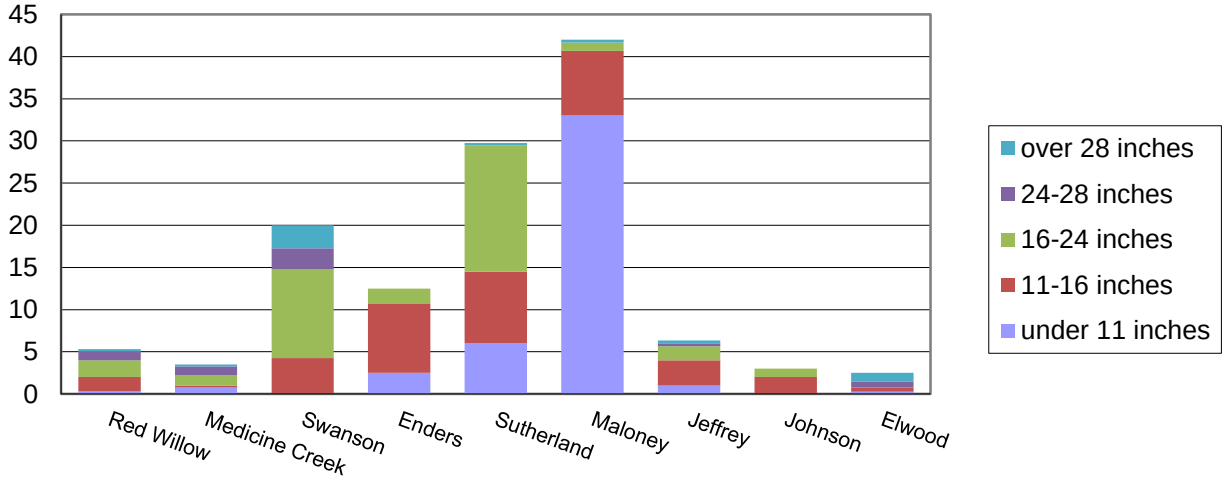
2013 Southwest District Walleye Catch



2013 Southwest District White Bass Catch



2013 Southwest District Channel Catfish Catch



2013 Southwest District Wiper Catch