Red Willow Reservoir
2015 Survey Summary

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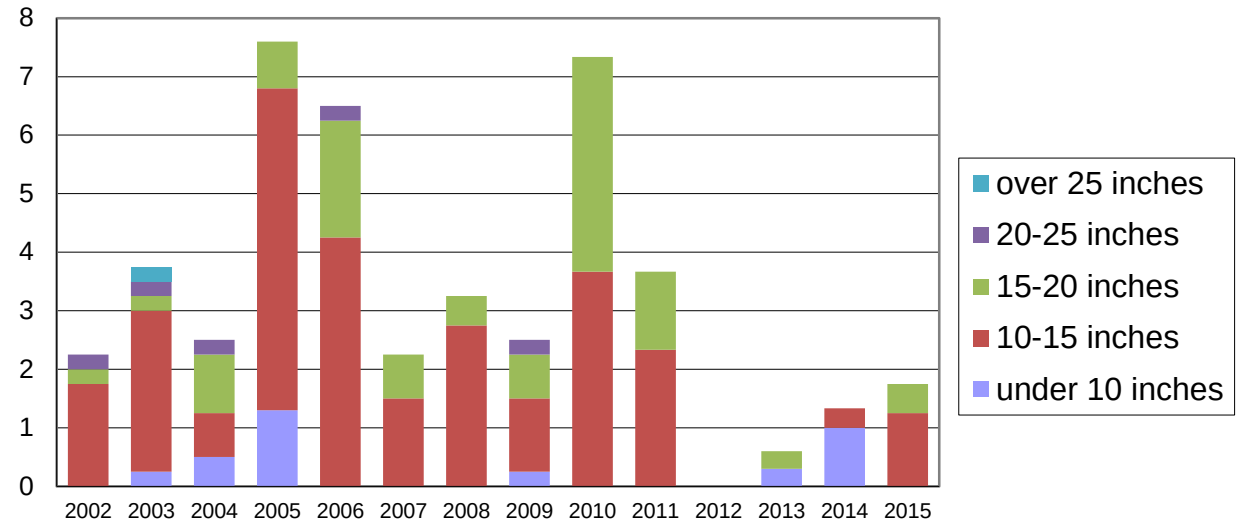
Fish populations are sampled each fall at Red Willow Reservoir using gill nets, a method commonly used to sample fish found in open water, such as walleye, white bass, channel catfish and hybrid striped bass. Gill nets are set on approximately the same dates and locations each year to reduce variability. 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. Note: A survey was not performed in 2012 due to low water and difficult boat access.

Repair work on the Hugh Butler Dam was completed in 2013 and as of January 2016 the reservoir elevation has recovered approximately 9 feet, and is 5 feet into the conservation pool. The increase in water level is great news, and should result in increased angling and recreation opportunities at the area if the water remains in the reservoir. Fish communities tend to respond strongly to newly flooded vegetation resulting in a “new lake” phenomenon. Typically there is brief resurgence in sunfish species including largemouth bass, crappie and other panfish. The stocking of pelagic species such as walleye and wipers were completed to reestablish sportfish populations and fill the biomass void created by higher lake elevations.

Overall, fish populations are still down at Red Willow but we are seeing improvements in all major species. Biologists sampled slightly less than 2 walleye per net in 2015 which is still low but there has been a steady increase in catch rates over the last three years. Most fish are still less than the 15 inch minimum but things are improving. Channel catfish numbers are about average at 4 fish per net with a good range of sizes represented in the population. White bass surveys have seen sporadic results in recent years but were fair in 2015 at 10 white bass per net. There are even a few fish in the 12-15 inch size category which serve as brood fish and harvestable fish for anglers. Lastly, wiper numbers are responding well to recent fish stockings. Wiper stockings were suspended while the reservoir was at its lowest elevation but have been reintroduced with rising lake levels. Biologist sampled 5 wipers per net in 2015 and the vast majority of those fish were stocked earlier in the year. Red Willow has a history of excellent wiper fishing and hopefully history will repeat itself. In addition to the species discussed previously, anglers may also catch crappie, northern pike, flathead catfish, and common carp. Carp anglers using archery equipment have been very successful during the spring spawning run.

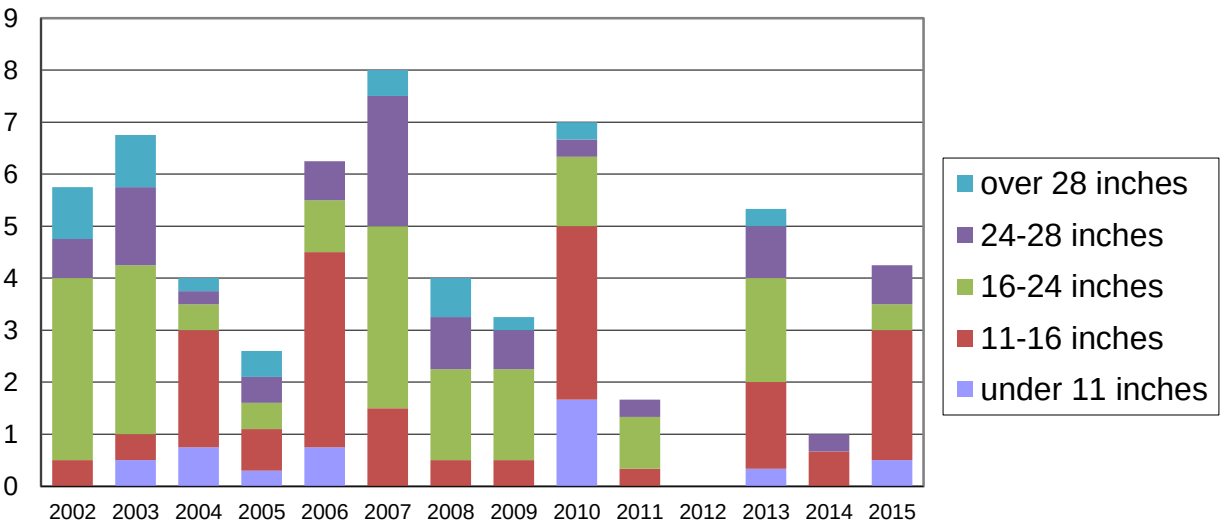
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2015 summary graphs of some local waterbodies for comparison.

Walleye Per Gill Net By Length Group



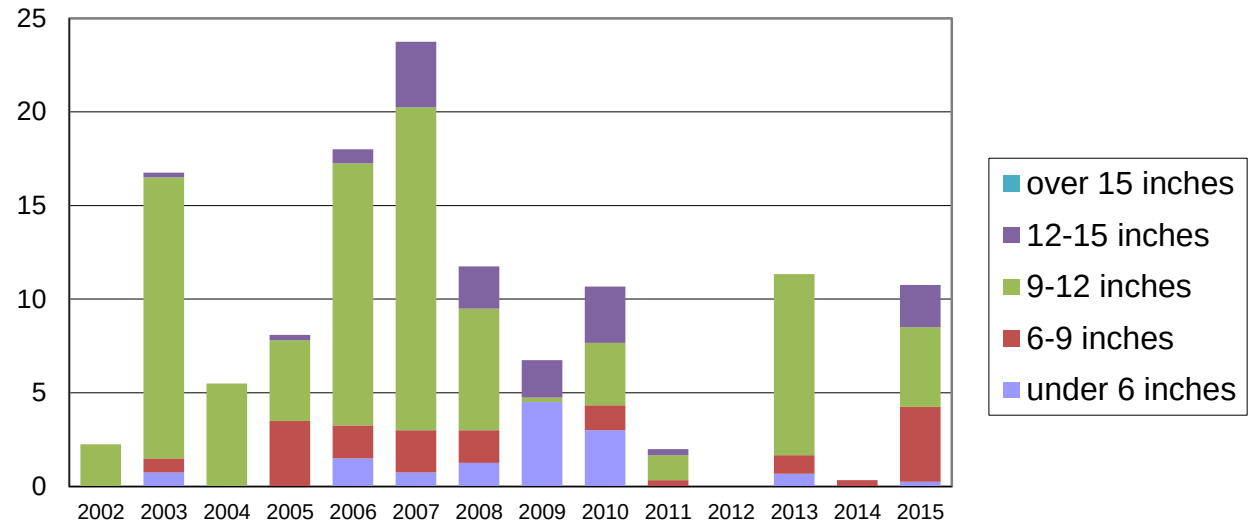
Walleye catch rates have been poor at Red Willow due to low water conditions and the corresponding loss of habitat and water quality. Biologists surveyed approximately 2 walleye per net in 2015 which is an increase from previous surveys but still poor when compared to historic data. Walleye fingerlings are stocked annually at Red Willow and are requested for 2016. We are hopeful that recovering water levels will result in a strong walleye recruitment and growth rates in the coming years.

Channel Catfish Per Gill Net by Length Group



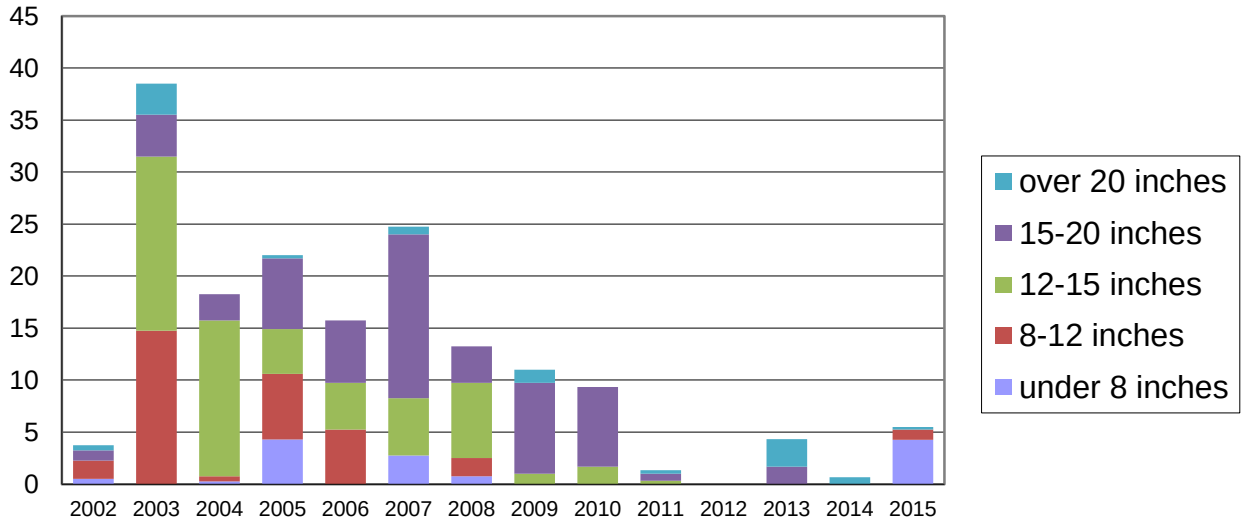
Channel catfish data is somewhat variable at Red Willow which makes it difficult to say much about trends in the population. Biologists surveyed 4 channel catfish per net in 2015 which is about average compared to past surveys. There were several size classes represented in the survey ranging from less that 11 inches to fish in the 24-28 inch size group. Natural reproduction is supplemented with catfish stockings on a regular basis. Catfish were stocked in 2015 and are requested for 2017.

White Bass per Gill Net by Length Group



There was a large jump in the 2015 white bass survey. Personnel sampled 10 white bass per net in 2015. The fish were all adults and it is unclear why they were absent in the 2014 survey data. The lack of juvenile fish is somewhat troubling when considering the coming years, but there should be ample brood fish and newly flooded habitat to provide a strong year class.

Wiper per Gill Net by Length Group



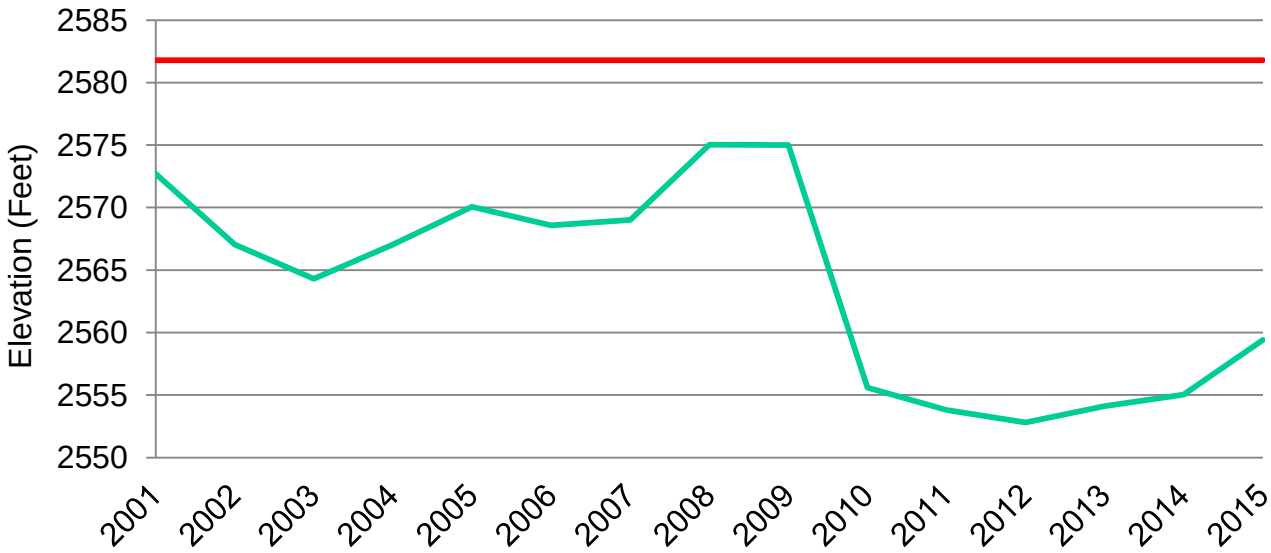
Wipers were not stocked at Medicine Creek from 2008 to 2014, mainly due to low elevation conditions. Wipers tend to suffer during extreme low water events that result in the lack of a cool water refuge during the summer months. Wipers were stocked in 2015 and the fall survey results indicate that there was decent survival of those fish. Biologists sampled 5 wipers per net in 2015 and most of those fish were juveniles that were stocked in the spring. Wipers are requested for 2016.

Red Willow Reservoir Fish Stocking Summary

Year	Walleye	Channel Catfish	Northern Pike	Wiper	Black Crappie	White Crappie
2015	32,500 (1.5”)	7012 (5”)		6500 (1.5”)		
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						

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 and lake elevations have started the road to recovery. The green line indicates annual mean elevation and the red line indicates the top of the conservation pool elevation. Current elevation data can be found by following this hyperlink: Current Elevation

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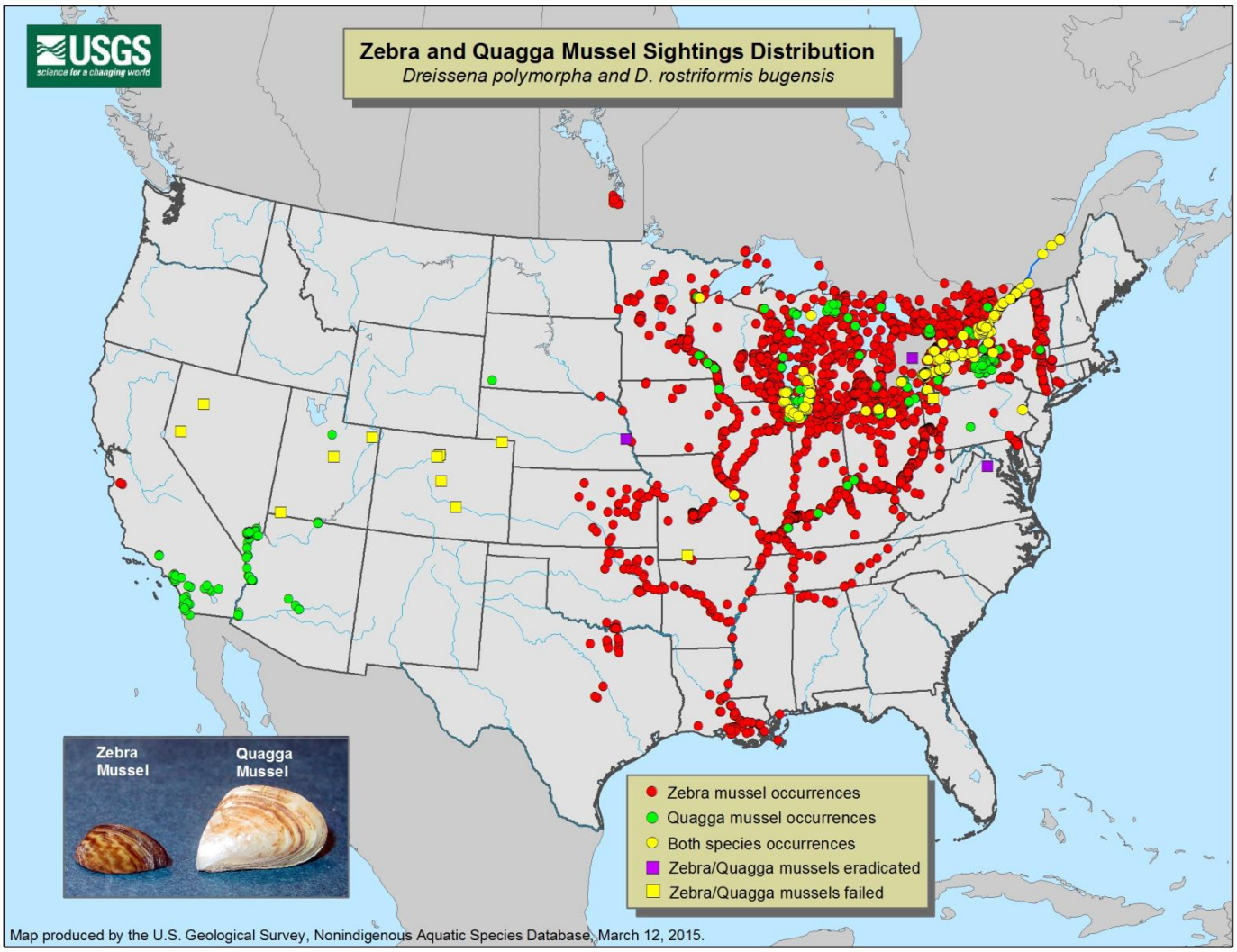

Aquatic invasive species (AIS) have reached Nebraska. Zebra mussels are currently established in Lewis and Clark Reservoir, Offut AFB pond, and the Missouri River. Beginning in 2016 anglers and boaters should be on the look out for personnel performing boat inspections and decontaminations statewide. 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.**

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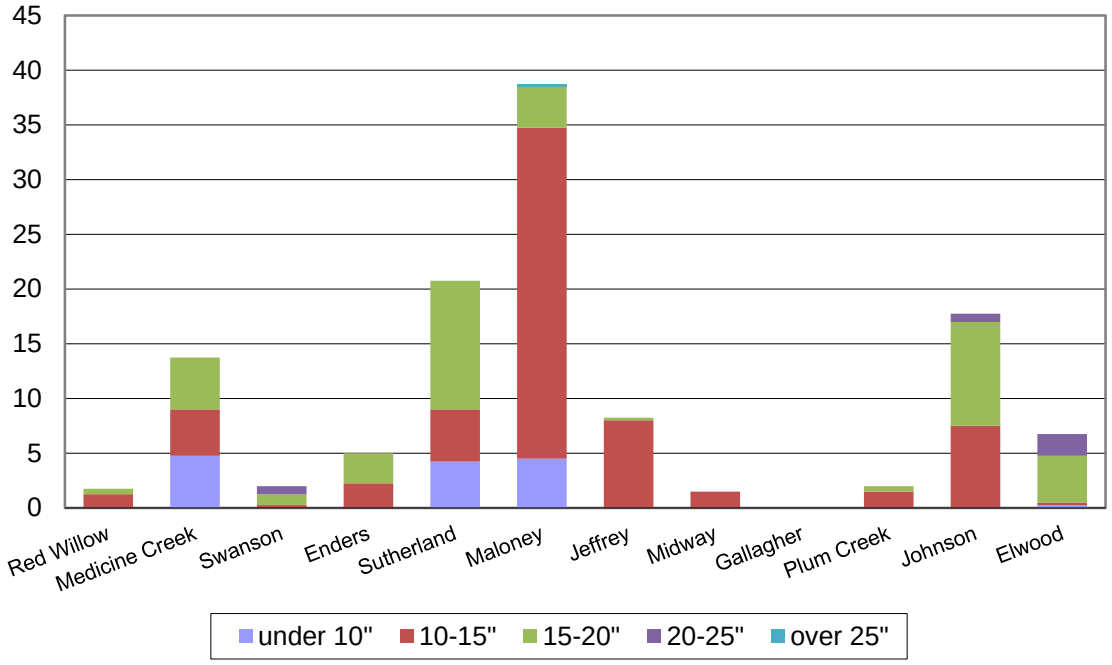
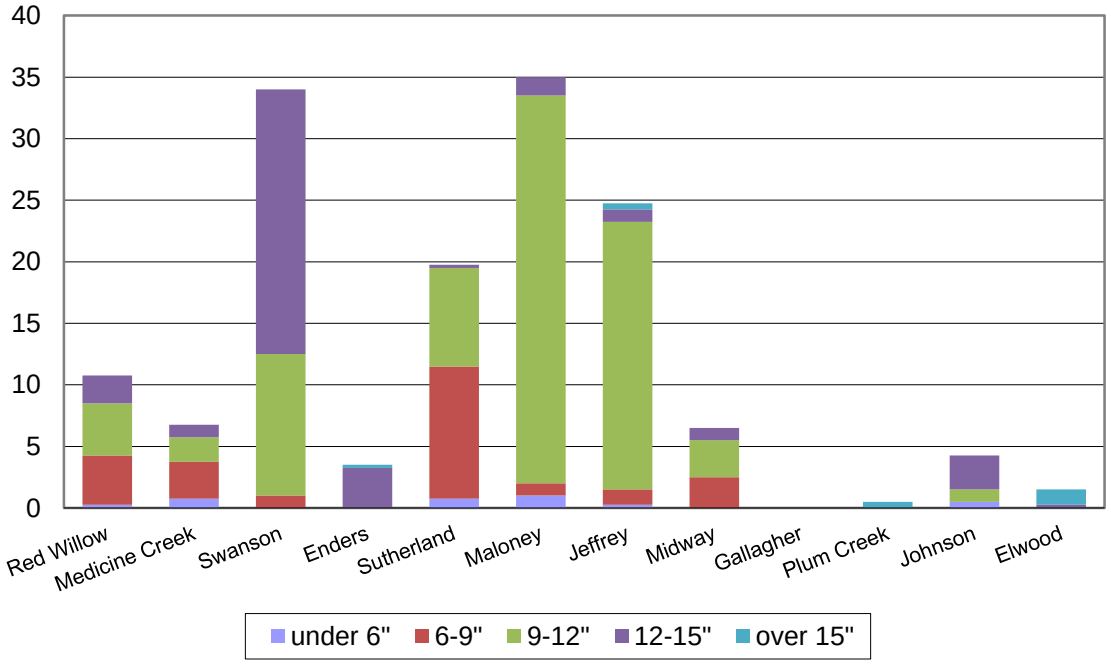
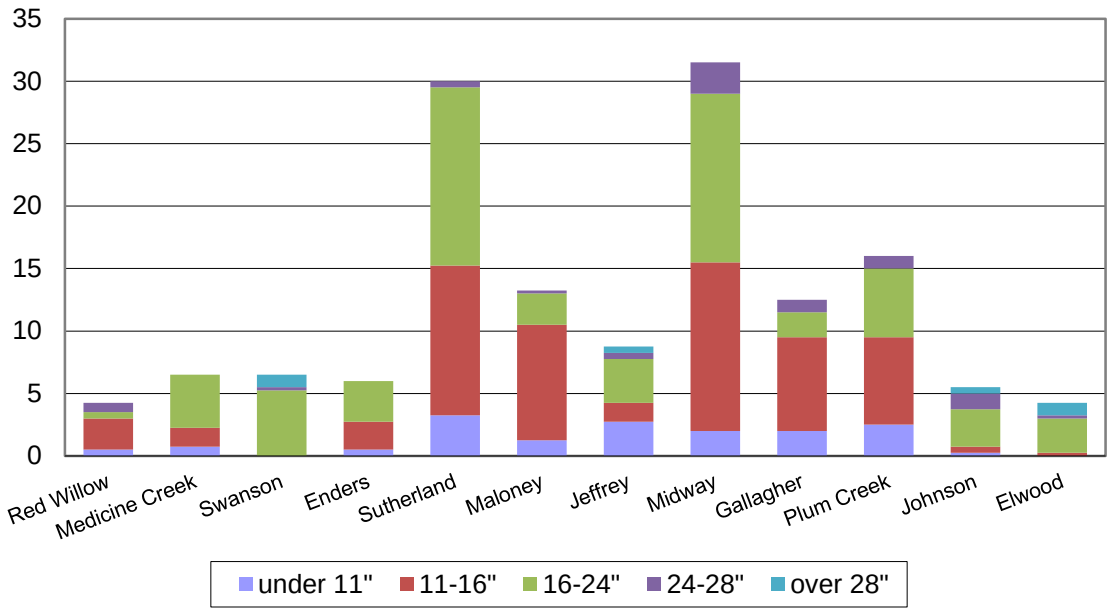
2015 Southwest District Walleye Catch



2015 Southwest District White Bass Catch



2015 Southwest District Channel Catfish Catch



2015 Southwest District Wiper Catch