

Red Willow Reservoir 2016 Survey Summary



Caleb Huber, Fisheries Biologist

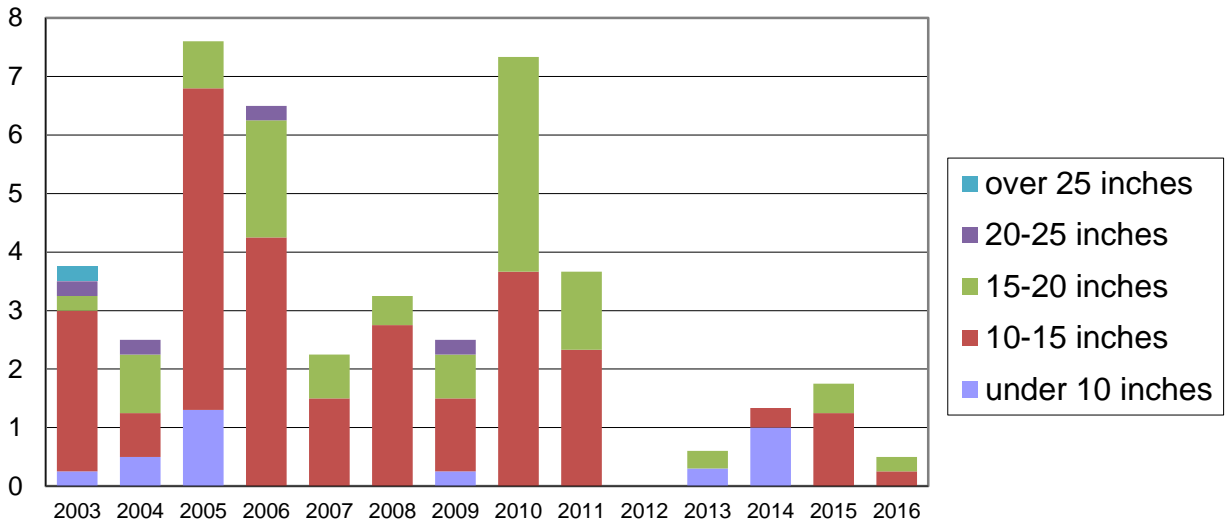
Fish populations are sampled each fall at Red Willow Reservoir using gill nets, a method commonly used to sample fish found in open water, such as walleye, white bass, channel catfish and hybrid striped bass. Gill nets are set on approximately the same dates and locations each year to reduce variability. However, environmental factors can play a strong role in catch data. Due to this variability, biologists look at trends 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 2017 the reservoir elevation has recovered approximately 11 feet, and is 7 feet above the inactive pool elevation. At this time it is unlikely that irrigation water will be released in 2017. Annual inflow appear to be declining annually so lake level recovery might be a slow process without help from strong spring inflows. Currently there are multiple boat ramps available and several areas of newly inundated habitat. The increase in lake elevation is great news, and will provide increased angling and recreation opportunities at the area if water levels remain favorable.

Overall, fish populations have been slow to recover at Red Willow in the years since repairs were finished. This is most likely due to the slow rate of refill and the lack of newly flooded woody vegetation. Walleye, wiper and catfish were stocked in 2015 and walleye were stocked in 2016. Walleye, saugeye, wiper, and channel catfish are requested for 2017. Biologists surveyed less than one walleye per net in 2016 which is down from 2015, but survey results have been poor since 2011. Channel catfish numbers were up in 2016 to 9 fish per net. The size structure is composed of a mix of all sizes including smaller fish for those wanting catfish for the freezer and some individuals that are near trophy quality. White bass and wiper numbers have been variable in recent years. White bass seemed to be recovering nicely in 2015 but net catches dropped in 2016. However the size structure is good with fish ranging from less than 6 inches to more than 12 inches. Wiper numbers should continue to improve with each wiper stocking. Wiper stockings were infrequent during the drawdown but now that the lake level has improved wipers will be requested regularly.

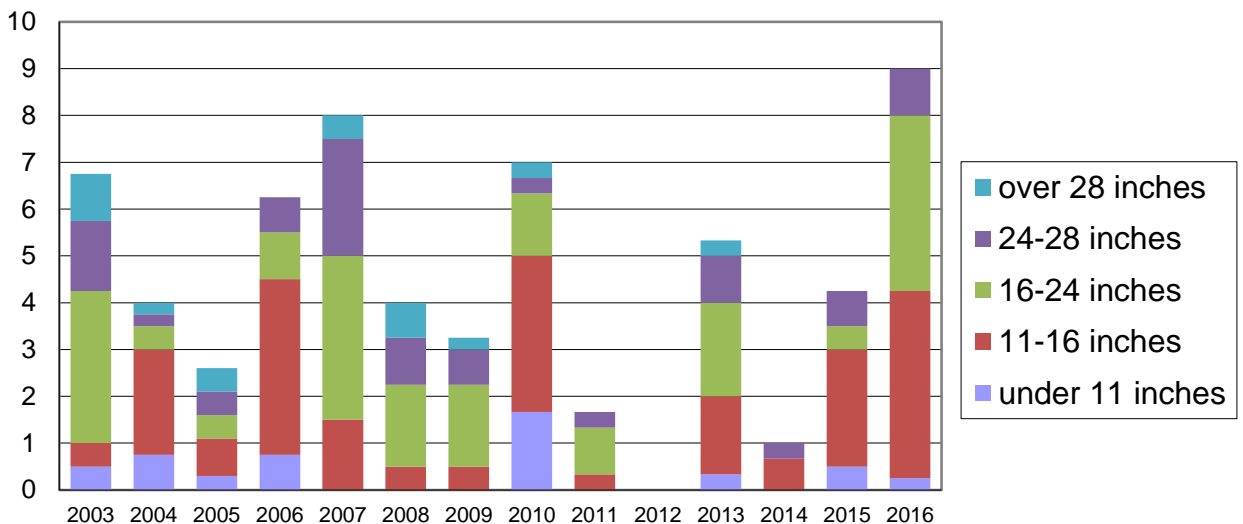
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2016 summary graphs of some local waterbodies for comparison.

Walleye Per Gill Net By Length Group



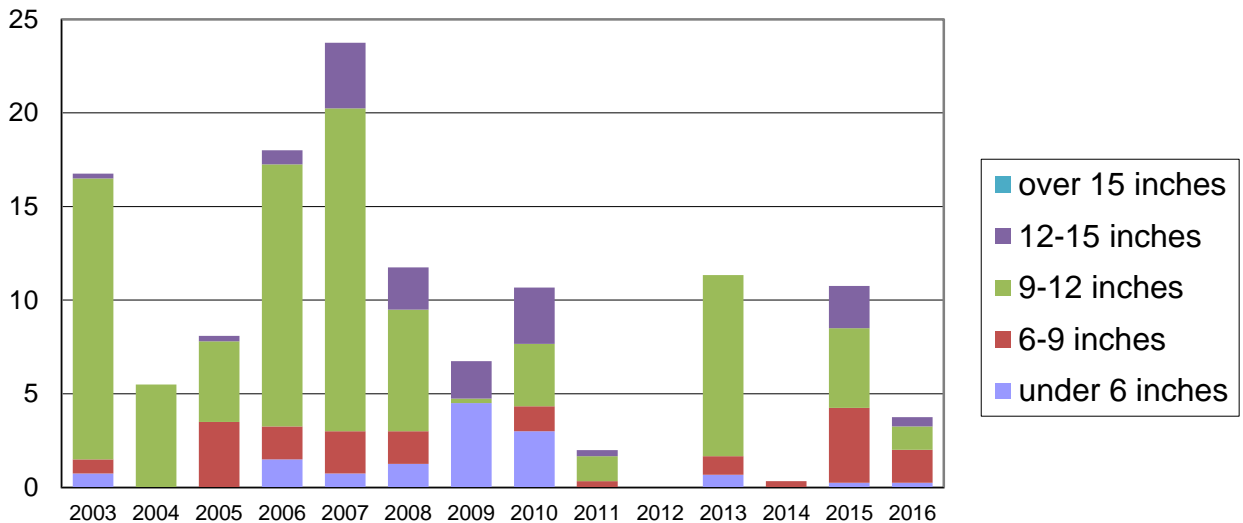
Walleye catch rates have been poor at Red Willow due to low water conditions and the corresponding loss of habitat and water quality. Biologists surveyed approximately 2 walleye per net in 2015 which is an increase from previous surveys, but walleye catch rates dropped below 1 fish per net in 2016. Walleye fingerlings are stocked annually however it has been difficult to reestablish a population of walleye after the severe drawdown event. Biologists are looking at new options for future management including the introduction of saugeye.

Channel Catfish Per Gill Net by Length Group



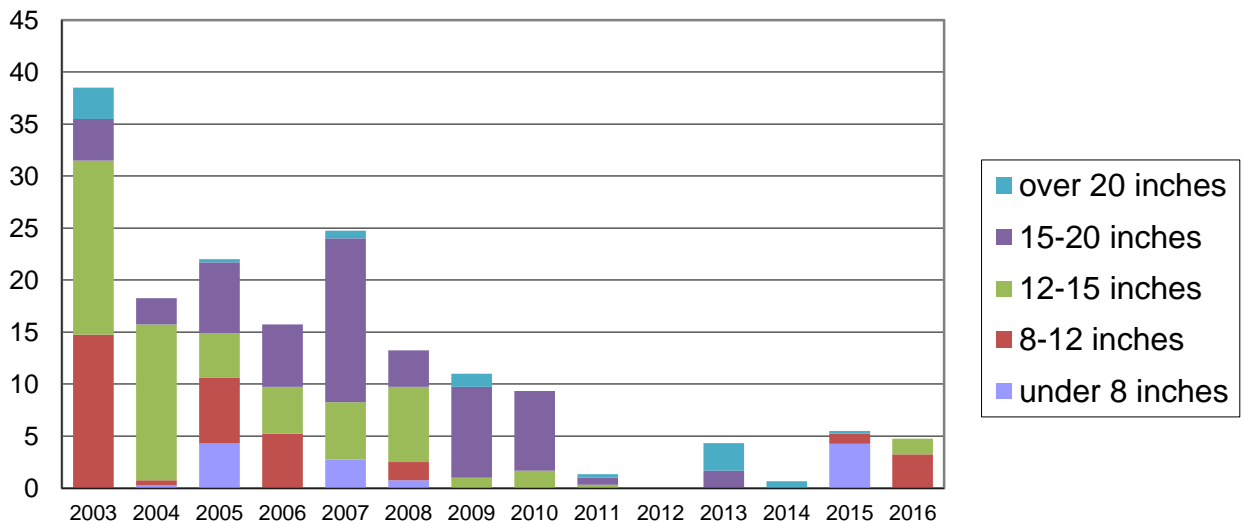
Channel catfish data has been variable at Red Willow which makes it difficult to say much about trends in the population. Biologists surveyed 9 channel catfish per net in 2016 that included a broad range of size classes. There were fish ranging from less than 11 inches to a few fish in the 24-28 inch size class. Even though data is variable, this is the best catfish survey since 2003 and anglers should have good success. Natural reproduction is supplemented with regular catfish stockings. Channel catfish stockings are scheduled for 2017.

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 survey. Biologists surveyed 4 white bass per net in 2016. The size structure appears to be balanced across several size classes ranging from 6-15 inches. Poor catch rates of age zero fish (<6 inches) may indicate weak recruitment and reproduction. If numbers do not rebound quickly it may become necessary to consider a stocking plan to bolster white bass numbers. Anglers should have some success in 2017 but the lake is still recovering from several years of extremely low water.

Wiper per Gill Net by Length Group



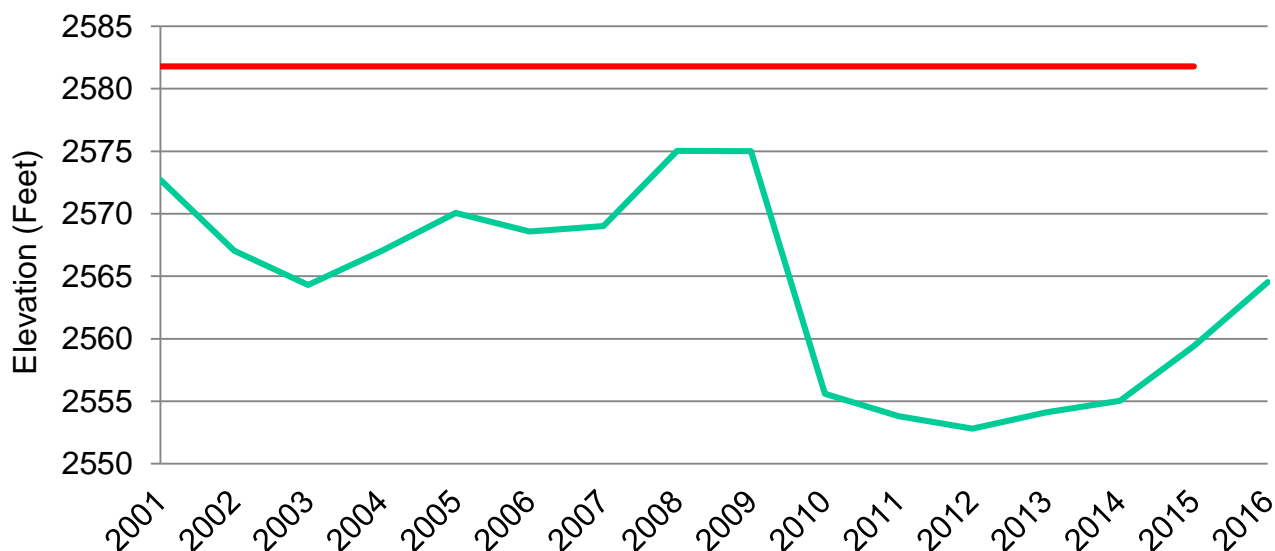
Biologists surveyed 5 wipers per net in the 2016 fish survey. Wipers were stocked in 2015 and those fish seem to be growing nicely. In addition there are a handful of older fish remaining from previous stockings. Wipers were not available in 2016 but are requested again in 2017 with the goal of rebuilding the wiper population. Wipers were historically prominent in Red Willow and should be again after several future stockings.

Red Willow Reservoir Fish Stocking Summary

Year	Walleye	Channel Catfish	Northern Pike	Wiper	Black Crappie	White Crappie
2016	42,840 (1.5")					
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")			

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



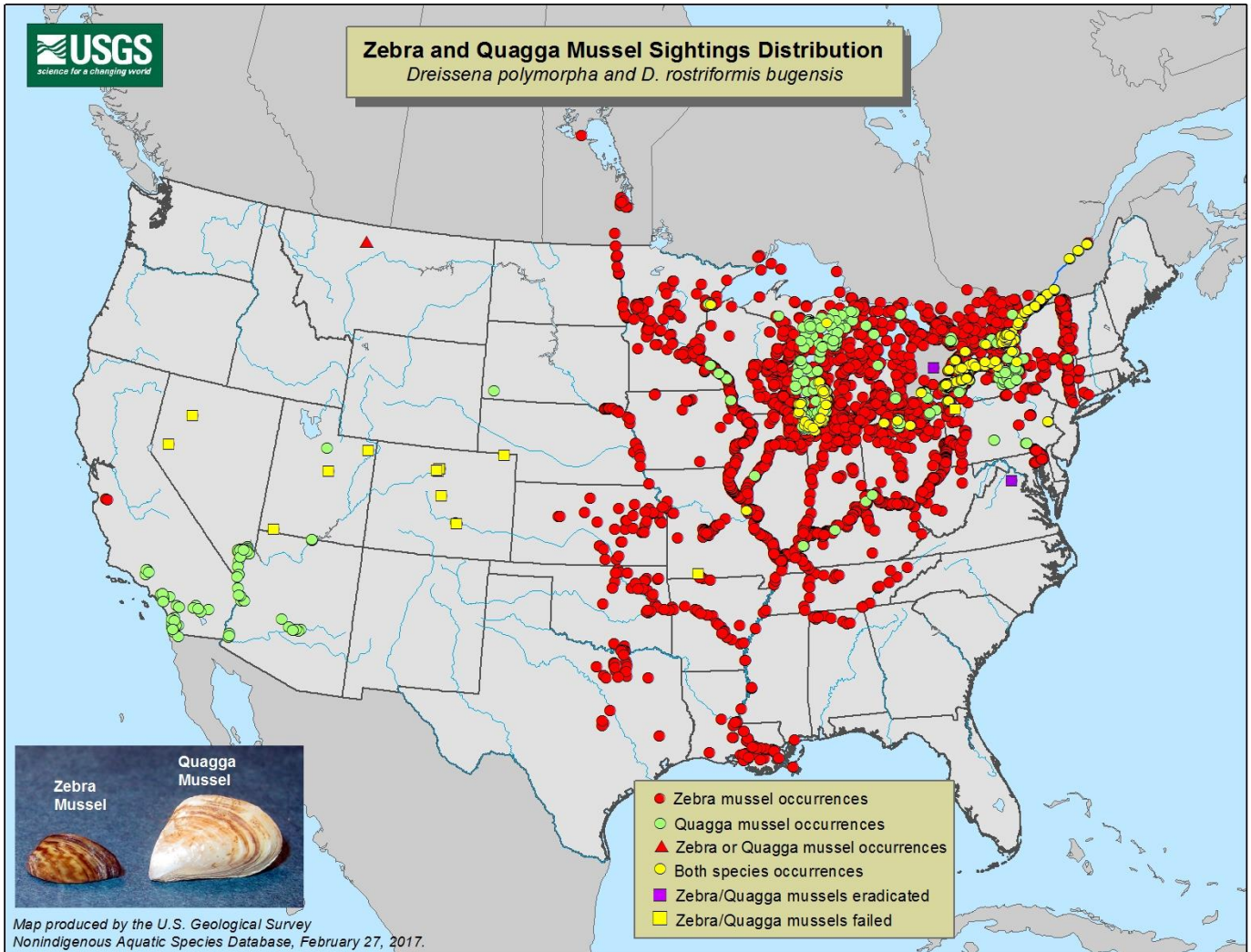
Water levels have been extremely low at Red Willow due to structural repairs of the dam that began in 2009. Construction was finished in 2013 and lake elevations have started the road to recovery. The green line indicates annual mean elevation and the red line indicates the top of the conservation pool 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.



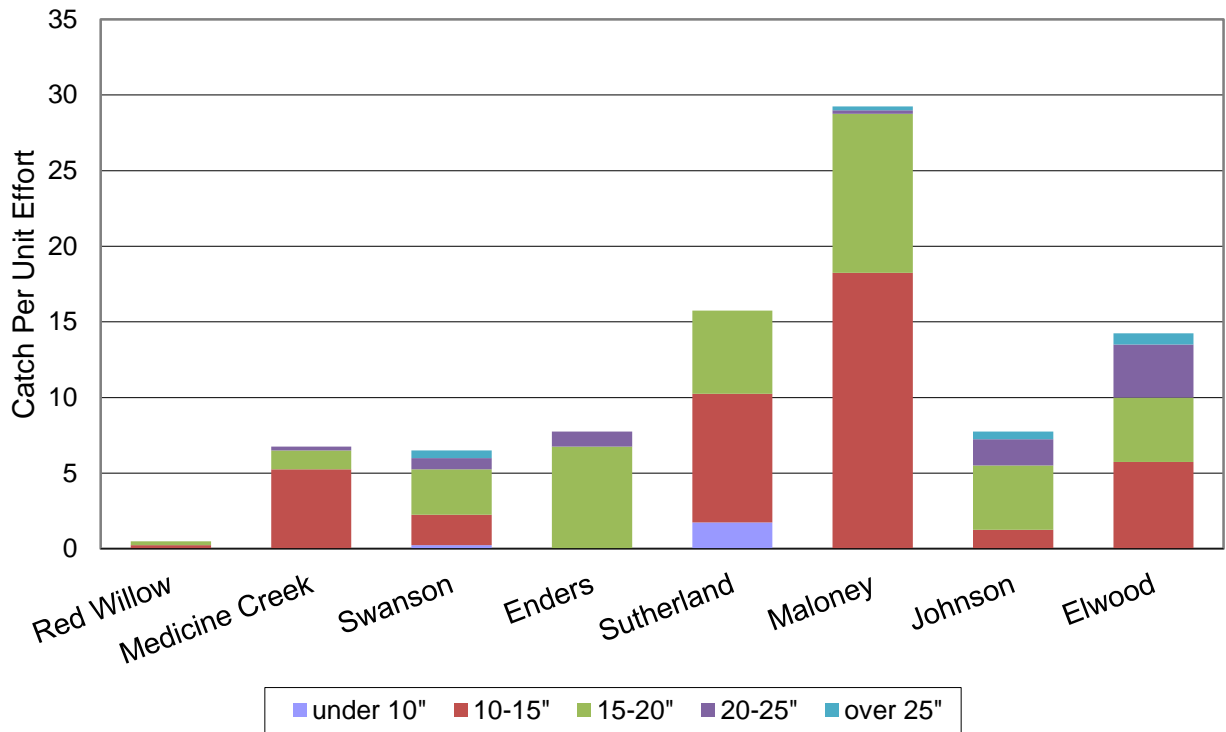
- Boat inspections for AIS prior to launch in Nebraska are NOT mandatory at this time.
- Personal watercraft registered outside of Nebraska must have this stamp.
- Non-motorized craft registered in any state are exempt from the stamp.
- Stamps are not required for boats registered in Nebraska. A \$5 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.

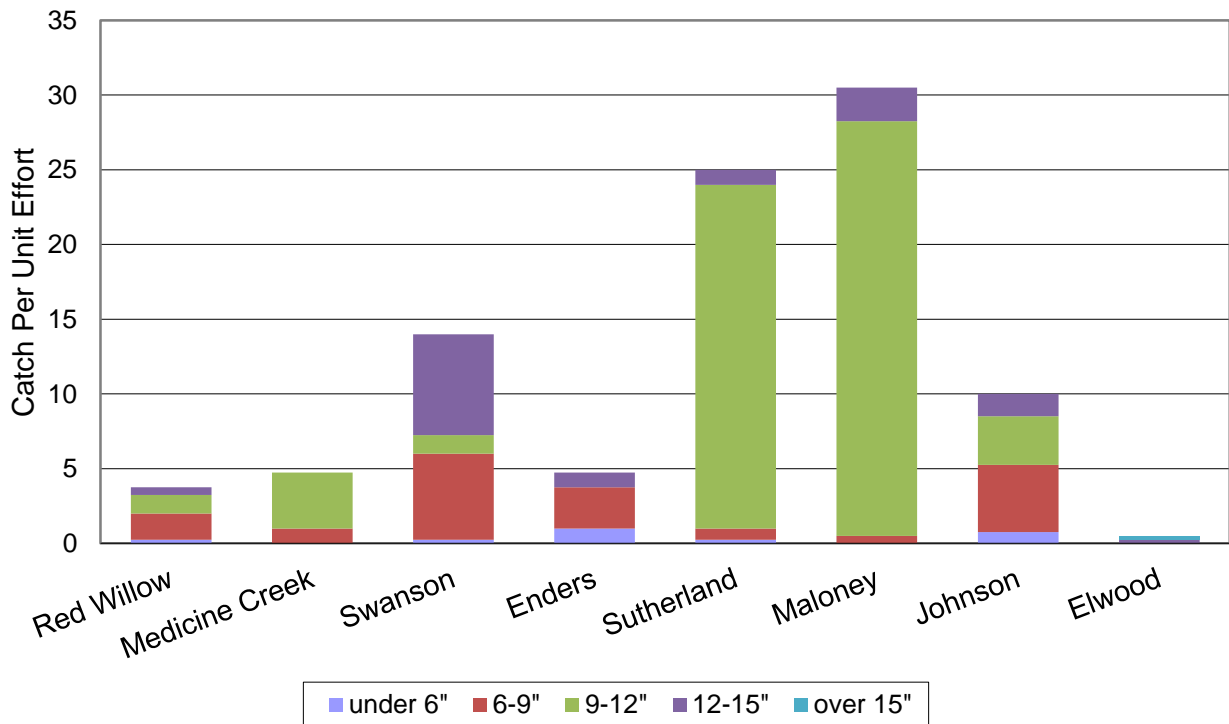
Learn more about invasive species at neinvasives.com.



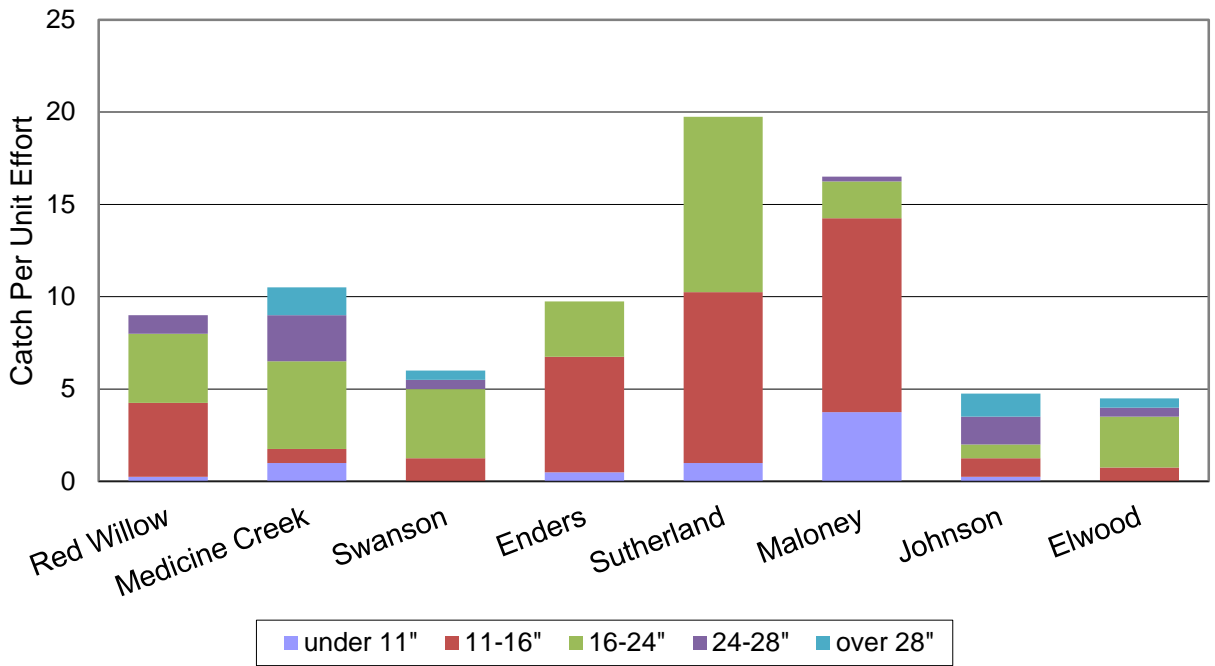
2016 North Platte Area Walleye Survey Summary



2016 North Platte Area White Bass Survey Summary



2016 North Platte Area Channel Catfish Survey Summary



2016 North Platte Area Wiper Survey Summary

