Swanson Reservoir NEBRASKA 2016 Survey Summary – GAME PARKS – Caleb Huber, Fisheries Biologist

Fish populations are completed such to

Fish populations are sampled each fall at Swanson 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. Environmental factors can play a strong role in catch data. Due to this variability biologists look at trends over time when making management decisions.

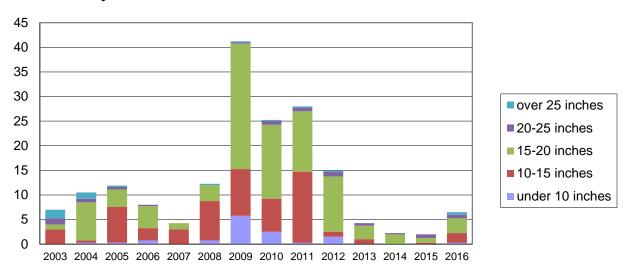
Biologist sampled 6 walleye per net in 2016 which is up slightly from the 2015 catch. Walleye numbers spiked sharply in 2009 as a result of newly flooded vegetation that was inundated in 2007. Populations remained strong for several years but have declined with the water levels and have not recovered. Previous to the high water event, the mean catch rate for walleye during fall surveys was 6 walleye per net. It is unlikely that the system will be able to duplicate the walleye numbers seen from 2009-12 without a similar flood event. As it stands, we will probably continue to see lower catch rates for walleye that will be similar to catch rates previous to 2007.

White bass and wipers are also a priority management species at Swanson reservoir. Personnel sampled 14 white bass in 2016 which is down from the 2015 but still an improvement over some of the recent survey results. In addition to the improved numbers in 2015 and 2016 there are strong number of 12-15 inch fish available. Wipers are managed as a trophy fish and stocked sparingly in an effort to promote growth rates. Biologists sampled 2 fish per net in 2016. All fish surveyed were greater than 15 inches long and a few fish were over the 20 inch mark.

Swanson Reservoir is also a favorite of local catfish anglers. Swanson supports both a large population of channel catfish and a modest number of blue catfish. It is important to point out that these species are managed differently. Channel catfish are managed more liberally with a daily bag limit of 5 fish and a 10 fish possession limit. Blue catfish are managed as a trophy fish with a reduced bag limit of 1 fish daily bag and 2 fish in possession. If the blue catfish are going to reach their true trophy potential it is imperative that anglers allow them to mature for several years by practicing catch and release and proper fish identification. Growth rates are good on the blue catfish and some of the oldest fish which were stocked in 2008 are nearing 30 inches long. Identification should not be based on spots or coloration but rather on the shape of the anal fin. Channel catfish have a rounded anal fin and blue catfish have a straight anal fin. This is illustrated in the latter pages of this survey summary.

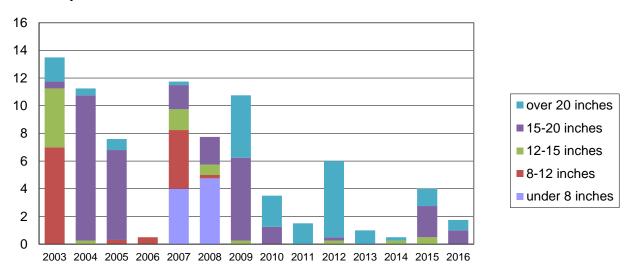
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included are 2016 summary graphs of some local waterbodies for comparison.

Walleye Catch Per Unit Effort



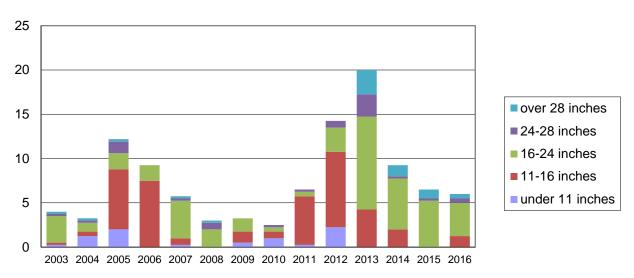
Walleye numbers were up slightly in 2016. Biologists sampled 6 fish per net with good numbers of harvestable fish. The catch rates in 2016 are the best seen since 2013 but still well below the extremely high numbers from 2009-11. A realistic expectation for Swanson, based on historic data, is 7-10 fish per net and we are approaching that number again. Fish are stocked annually at Swanson. 3.5 million walleye fry were stocked in 2016 and walleye fingerling are requested for 2017.

Wiper Catch Per Unit Effort



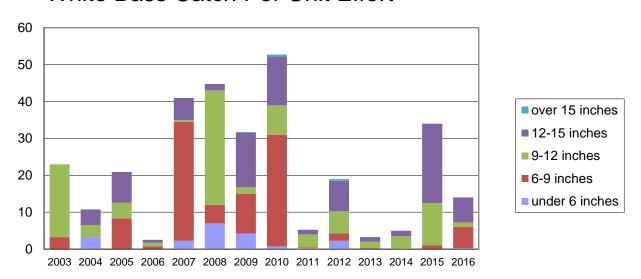
Wiper numbers have been variable at Swanson for several years due to changes in stocking plans. Biologists sampled approximately two fish per net in 2016 which is down from the 2015 catch rates. Despite lower catch rates the size structure of the fish sampled remains good with several fish greater than 20 inches. Wipers are stocked every third year and were requested for 2016 but were unavailable. Fish will be requested again in 2017 to make up for the gap in stocking.

Channel Catfish Catch Per Unit Effort



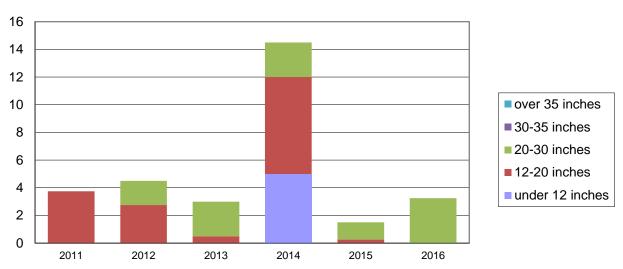
Channel catfish are a popular sport fish during the summer months at Swanson Reservoir and the area is known to produce a few trophy sized fish each year. Biologists sampled 6 fish per net in 2016 and most of the fish surveyed were greater than 16 inches long. Channel catfish are stocked regularly at Swanson to supplement poor natural reproduction and were stocked in 2016. It is important for catfish anglers to remember that blue catfish are also present in Swanson but are not managed under the same regulations. The daily bag limit for channel catfish is 5 fish per day.

White Bass Catch Per Unit Effort

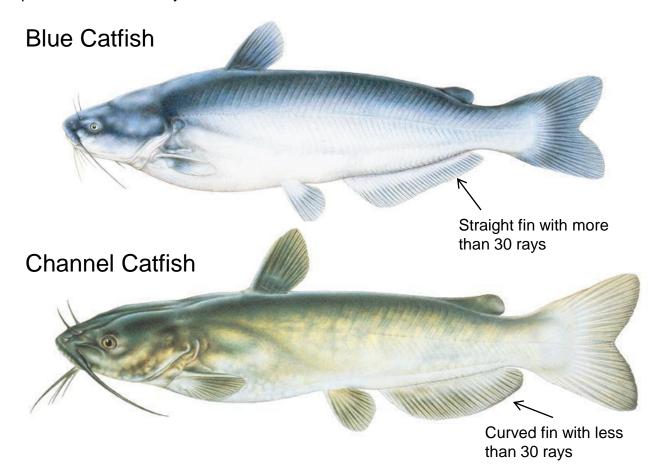


Biologists sampled 34 white bass per net in 2015 but that number dropped to 14 fish per net in 2016. White bass numbers have been variable in the last few years but It is promising to see a good number of 6-9 inch in the surveys that should continue to provide angling opportunity in the coming years. In addition to smaller fish there are enough fish in the 12-15 inch class to act as brood stock and provide harvestable fish for anglers. White bass anglers should have fair success in 2017

Blue Catfish Catch Per Unit Effort



Blue Catfish were introduced to Swanson in 2008, in an effort to provide a unique trophy fishing opportunity for catfish anglers in Southwest Nebraska. Blue cats are stocked regularly and seem to be growing at a good rate. There were several fish that have already surpassed the 25 inch mark in 2016. Biologists sampled 3 fish per net in 2016 which is on par with previous catch rates. It is possible that anglers are mistakenly harvesting them as channel catfish. It is important to note that the bag limit for blue cats is 1 fish per day and 2 fish in possession. Due to natural variation in color, catfish species are more easily identified based on the anal fin rather than coloration.

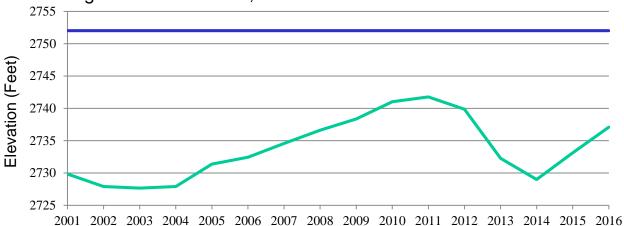


Swanson Reservoir Fish Stocking Summary

| Year | Walleye | Wiper | Channel Catfish | Blue Catfish | Yellow Perch |
|------|--------------------|------------------|--------------------|------------------|-------------------|
| 2016 | 3,547,800 (fry) | | | 4,900 (7.5") | |
| 2015 | 106,925 (1.5") | | 12,537 (5") | 3,019 (10") | |
| 2014 | 4,863,000 (fry) | | | 4,158 (12.5") | 81,195 (.5-1") |
| 2013 | 2,800,000 (fry) | 13,513 (1.2") | | | 13,441 (2.25") |
| 2012 | 7,570,000 (fry) | | 20,175 (10.5 ") | | |

Above is a table of fish stockings for the last 5 years at Swanson Reservoir. The species stocked, number stocked, and fish size are presented in the table. Multiple species are stocked annually at Swanson and a comprehensive database of fish stockings can be found at the Nebraska Game and Parks website or by following the link below. Stocking Database

Average Annual Elevation, Swanson Reservoir 2001-2014



Water levels at Swanson recovered nicely beginning in 2009 but appear to be on the way back down. The dark blue line indicates the top of the active conservation elevation and the green line indicates the mean reservoir elevation. More detailed information and current reservoir elevation data can be obtained by following this link:

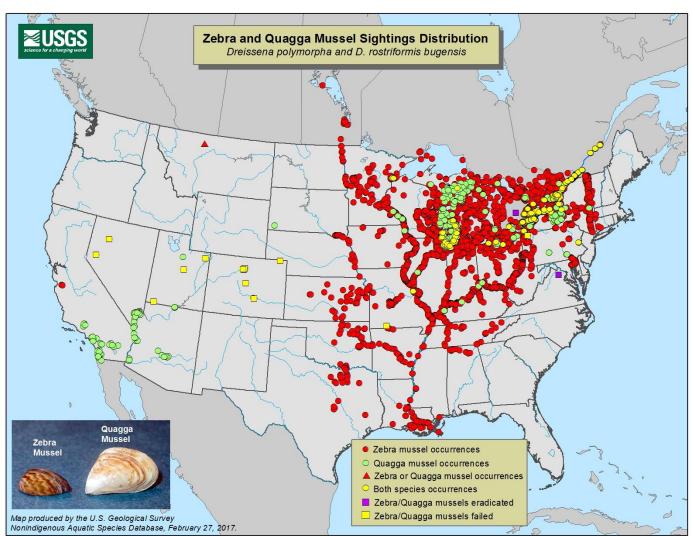
Current Elevation



STOP AQUATIC HITCHHIKERS!

Prevent the transport of nuisance species. Clean <u>all</u> recreational equipment.

www.ProtectYourWaters.net



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.





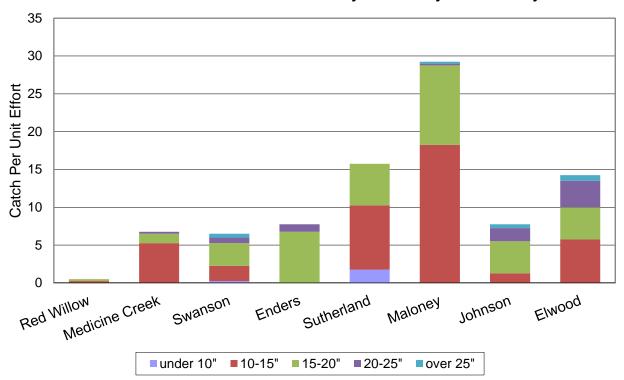
- · Boat inspections for AIS prior to launch in Nebraska are NOT mandatory at this time.
- Personal watercraft registered outside of Nebraska must have this stamp.
- · Non-motorized craft registered in any state are exempt from the stamp.
- Stamps are not required for boats registered in Nebraska. A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

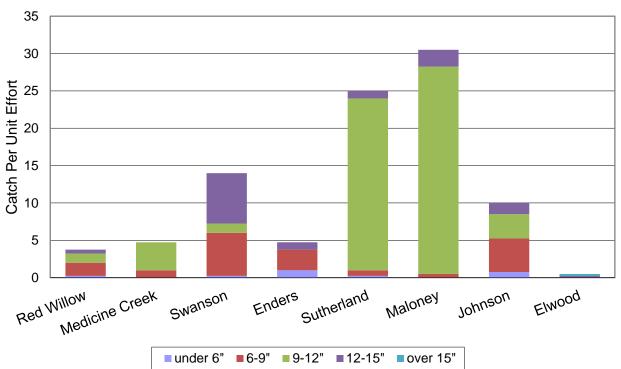
Learn more about invasive species at neinvasives.com.



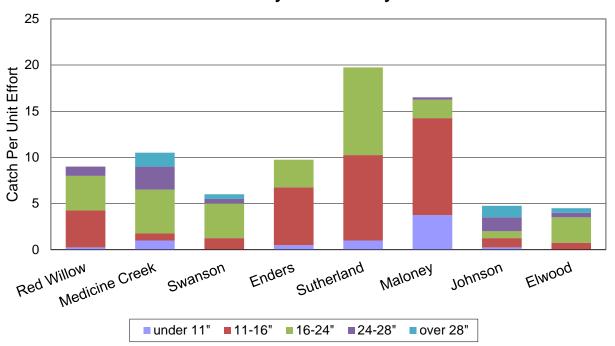
2016 North Platte Area Walleye Survey Summary



2016 North Platte Area White Bass Survey Summary



2016 North Platte Area Channel Catfish Survey Summary



2016 North Platte Area Wiper Survey Summary

