Swanson Reservoir
2012 Survey Summary

Nebraska Game and Parks Commission Caleb Huber, Fisheries Biologist

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 and allow for trend comparisons of species abundance and size distributions. However, environmental factors can play a strong role in catch rate and composition.

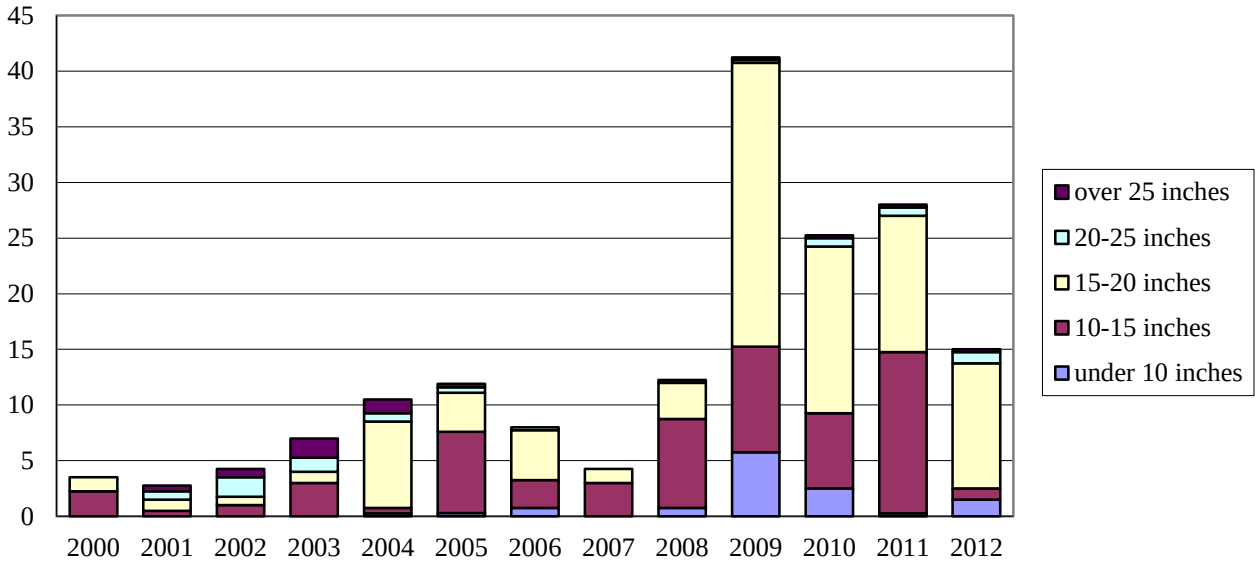
Beginning in 2009 the walleye population at Swanson improved substantially compared to historic data. This improvement is due to an increase in water levels and the resulting flooded vegetation which boosts the productivity and the availability of habitat in the system. Walleye fry have been stocked annually at Swanson and seem to be responding well. Numbers are down a bit in 2012 but based on survey data this may be due to a missing year class of walleye from 2011. There are still good numbers of harvestable walleye at this time but we seem to be missing fish less than 15 inches.

White bass populations also responded favorably to the increased water level, with a strong increase beginning in 2007. White bass populations have fluctuated in recent years but the survey numbers from 2012 are fair with 20 fish per net. Most of the fish sampled were large adults greater than nine inches in length. Angling opportunities should be good with large number of adults in the population, biologists hope to see a strong year class in 2013. Wiper numbers have been on the decline due to decreased stocking frequency. Biologists have requested wipers for 2013 in order to maintain a limited population of wipers for those anglers that specifically target large wipers.

The catfish angling opportunities at Swanson should be good in 2013. Biologists surveyed 14 fish per net in 2012 which is the strongest sample in quite a few years. In addition to channel catfish, the Nebraska Game and Parks has introduced blue catfish to this system and we are starting to see some fish that are close to 18 inches. Bear in mind, that the daily bag limit for blue catfish is only 1 fish per day rather than the five fish daily bag that is allowed on channel catfish. Blue cats are different from channel catfish in several ways. Blue catfish have a pronounced hump on their backs and a straight anal fin and lack spots like channel catfish. Channel catfish have a rounded anal fin and may or may not have spots, and lack a pronounced hump.

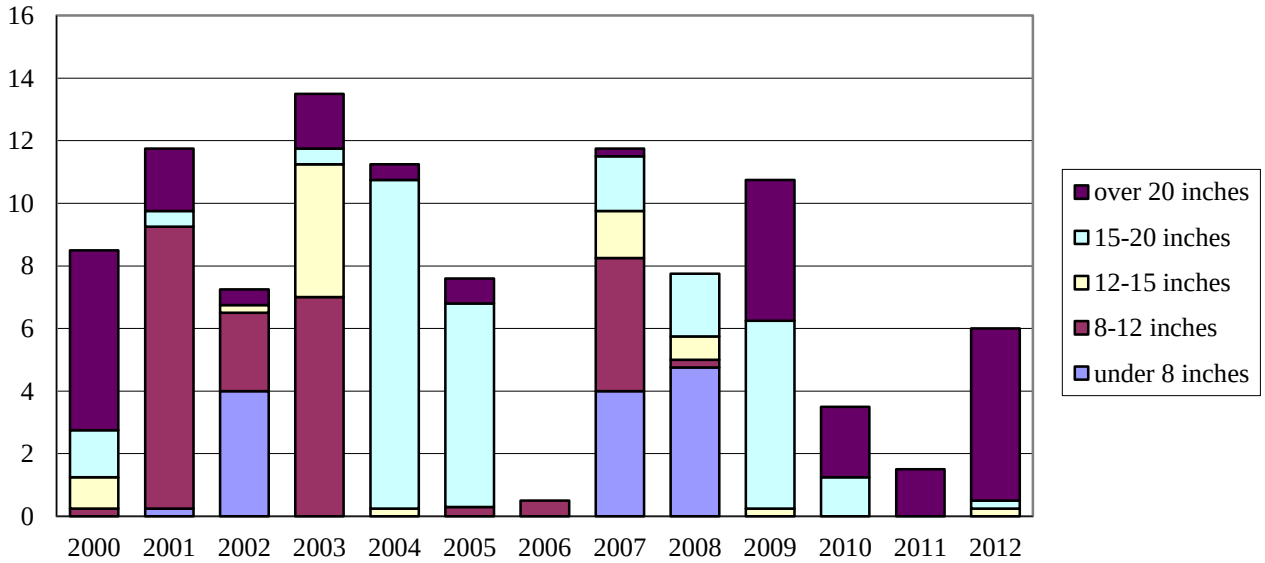
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included is a table of recent angler use survey data from 2011 and 2012. This data is the result of angler interviews taken by creel clerks during their interviews with local anglers

Walleye Catch Per Unit Effort



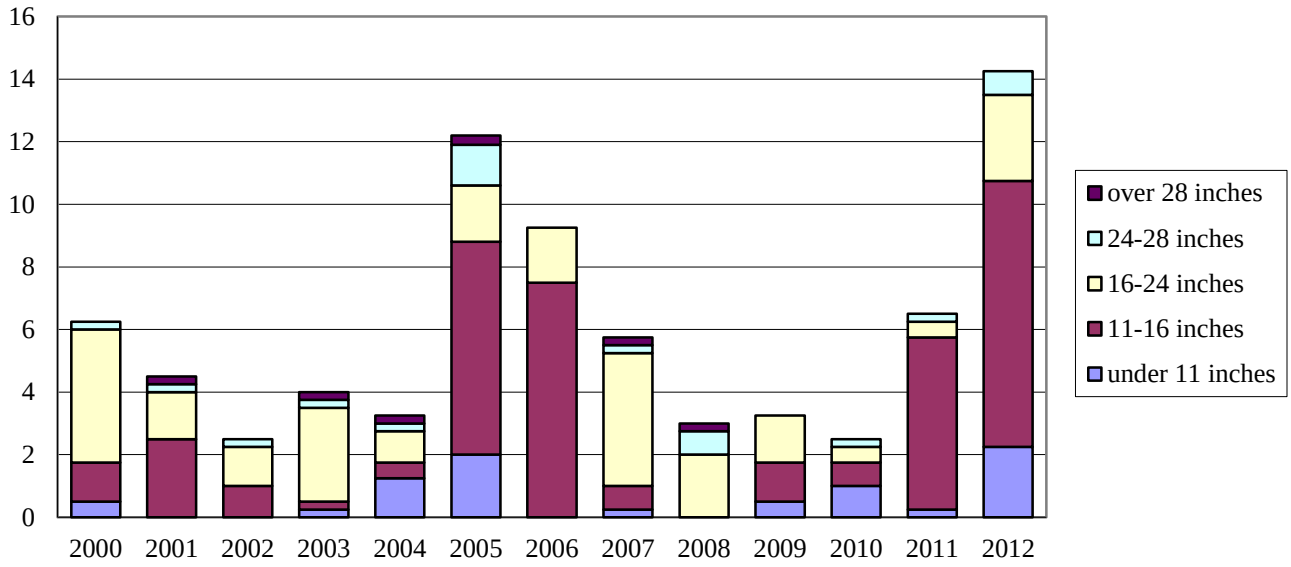
Walleye numbers have been very good at Swanson for the past few years. This increase is due to increased water levels and a change in stocking strategy. Numbers appear to be down a bit in 2012 compared to 2011 data. There were still good numbers of harvestable walleyes but we seem to be missing the fish in the 10-15 inch range. There were approximately 7.5 million fry stocked in 2012 and there are 2.7 million requested in 2013. Fishing should still be good at Swanson in 2013

Wiper Catch Per Unit Effort



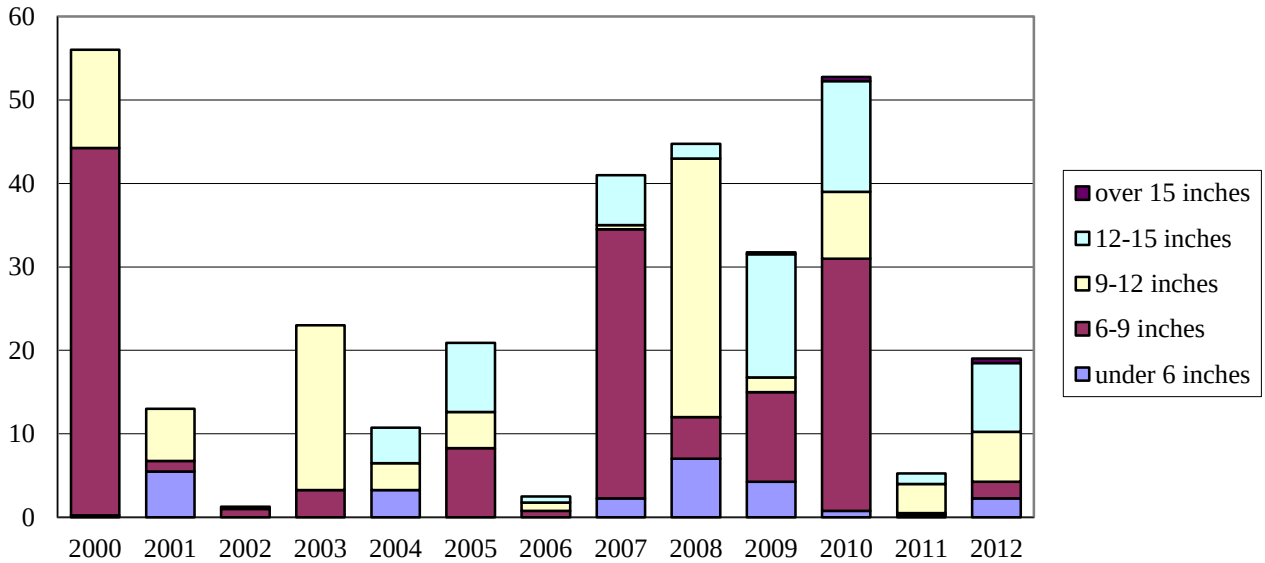
Wiper numbers have been variable at Swanson for several years. Wiper stockings have been reduced at Swanson due to increased walleye and white bass catches and minimal angler effort as indicated by creel data. Currently personnel have requested 13520 wipers to be stocked during 2013 in order to maintain a population for those targeting wipers. Wipers will be requested every third year into the future.

Channel Catfish Catch Per Unit Effort



Catfish numbers have been increasing at Swanson due to an aggressive stocking policy. Fisheries Division stocked 20,000 channel catfish in 2012 and will stocked on alternating years into the future. Blue catfish are also being stocked in order to create a unique fishery for catfish anglers. Biologists sampled 14 channel catfish per net in 2012 which is up compared to the 2011 survey data. The majority of these fish are less than 16 inches but those fish should continue to grow and provide good angling opportunities in the future.

White Bass Catch Per Unit Effort

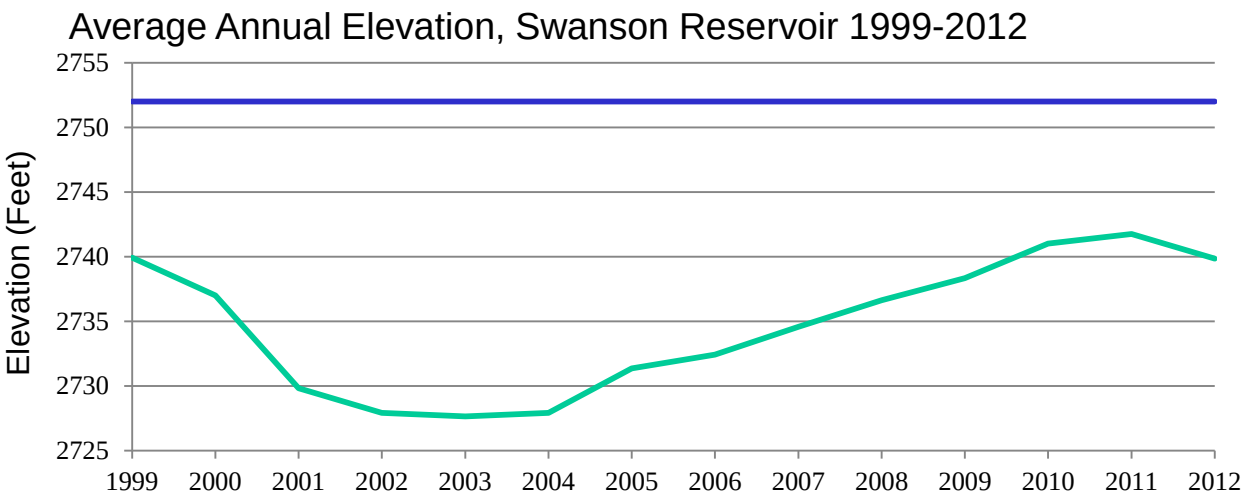


White bass numbers are still down in 2012 when compared to recent survey results. Biologists surveyed 20 fish per net in 2012 which is a marked increase compared to the 2011 survey data. The current numbers are fair but the size structure is outstanding, with most fish over 9 inches. It would be nice to see a few more small fish moving into the population. Biologists will continue to monitor the population and stock fish if necessary.

2012 Angler Use Summary

Species	Year	Total Catch	Harvest Number	Total Catch/hr	Harvest/ hr	Release/ hr
Channel catfish	2012	1868	588	0.4441	0.0665	0.3775
	2011	12047	10701	0.8149	0.7935	0.0215
Wiper	2012	1073	156	0.0798	0.0195	0.0604
	2011	1586	585	0.0795	0	0.0795
Walleye	2012	5923	1557	0.3278	0.1144	0.2134
	2011	6661	3915	0.1643	0.1319	0.0324
White Bass	2012	12069	4442	0.7080	0.3221	0.3859
	2011	18083	6462	0.9658	0.5553	0.4105

An angler survey was conducted at Swanson in 2012. The survey is conducted from April through October and estimates that there was a total of 43,053 angling hours and 8,704 anglers during this period. Of those surveyed, 4% sought channel catfish, 32% sought walleye, 10% sought white bass, and 3% sought wipers.



Water levels at Swanson recovered nicely beginning in 2009 but appear to be on the way back down. The elevation in December 2012 was 2732 feet and it looks like the elevation will continue to drop due to drought conditions. Right now the future of water levels on all reservoirs in Southwest Nebraska are unsure. The dark blue line indicates the top of the active conservation elevation.