

# Medicine Creek

## 2012 Survey Summary



Nebraska Game and Parks Commission

Caleb Huber, Fisheries Biologist

Fish populations are sampled each fall at Medicine Creek 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.

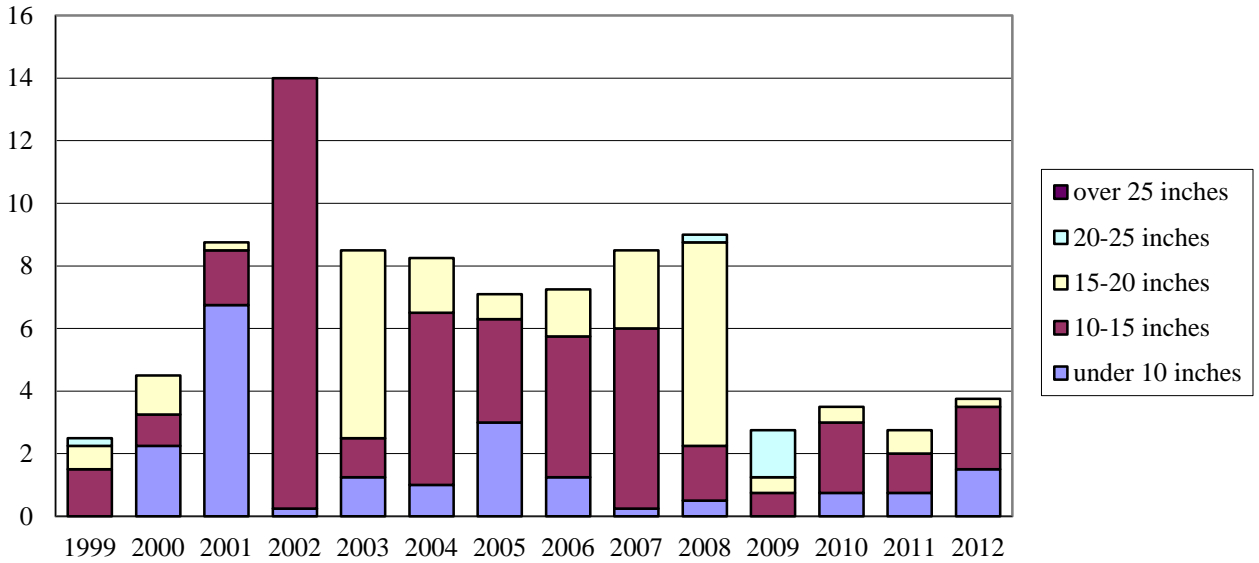
Walleye numbers took a sharp decline in 2009 due to a lack of recruitment. This lack of recruitment may have been due to a change in stocking strategy, using walleye fry rather than walleye fingerling. Walleye fry have been very successful at other Southwest reservoirs but never performed well at Medicine Creek which could be due to lack of water clarity, increased flow, or high shad abundance compared to other reservoirs. In any case, biologists returned to fingerling stockings in 2010 and things seem to be improving. There has not been a strong increase in numbers, but catch rates are the highest they have been since 2009 even though the reservoir was dropped to a record low in 2012 due to extreme drought conditions. There are also a few small walleye showing up in annual surveys which indicate that they are recruiting to the population.

The channel catfish survey was outstanding in 2012. Biologists surveyed 10 fish per net and half of those fish were greater than 24 inches in length. There were also a few trophy fish greater than 28 inches long. Medicine Creek is always a good place for catfish anglers but the 2012 survey is one of the best samples in over 10 years. White bass numbers are also increasing at Medicine creek. Biologists sampled 20 fish per net which is twice the number of fish sampled in 2010. The downside to the white bass survey is the lack of trophy sized fish. Three fourths of the fish sampled were 9-12 inches long which are great for the frying pan but definitely not a trophy white bass to most anglers. Overall, there is a lot of improvement at Medicine Creek compared to recent survey data.

In addition to survey data, angler use data is included in this year's survey summary. Overall, angler use and harvest is up across the board in 2012. There were a total of 6,795 anglers that fished an estimated 31,512 hours which is up from 5,658 anglers and 23,680 hours in 2011.

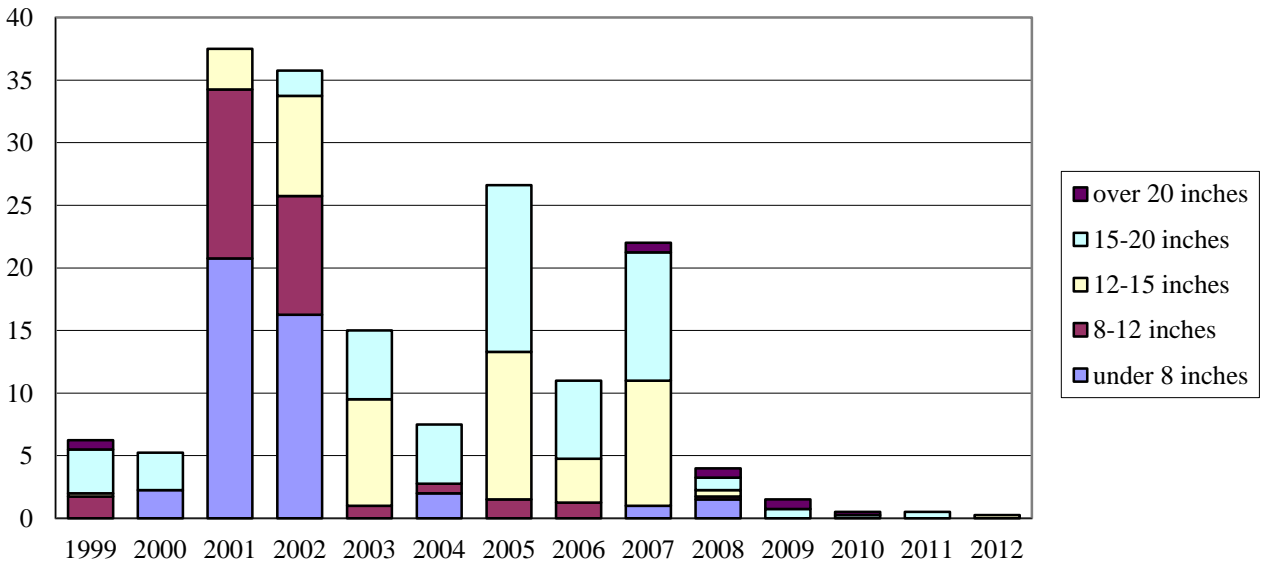
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs. Also included is a table of recent angler use survey data from 2011 and 2012. This data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

## Walleye Catch Per Unit Effort



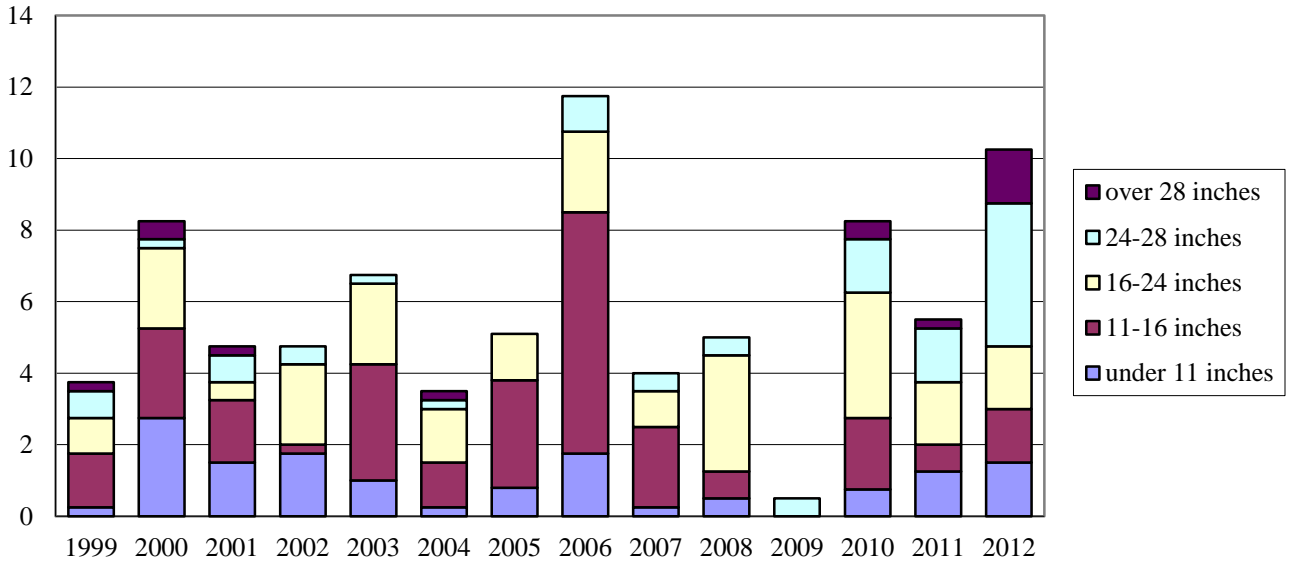
Walleye numbers have been down at Medicine Creek since 2009 and that overall trend continues with the 2012 survey data. Biologists have changed the stocking strategy in an attempt to increase walleye numbers. 131,081 fingerling walleye were stocked in 2012 and the number has been increased to 138,000 requested for 2013. Populations are beginning to increase and should continue to improve as more fish are introduced to the system.

## Wiper Catch Per Unit Effort



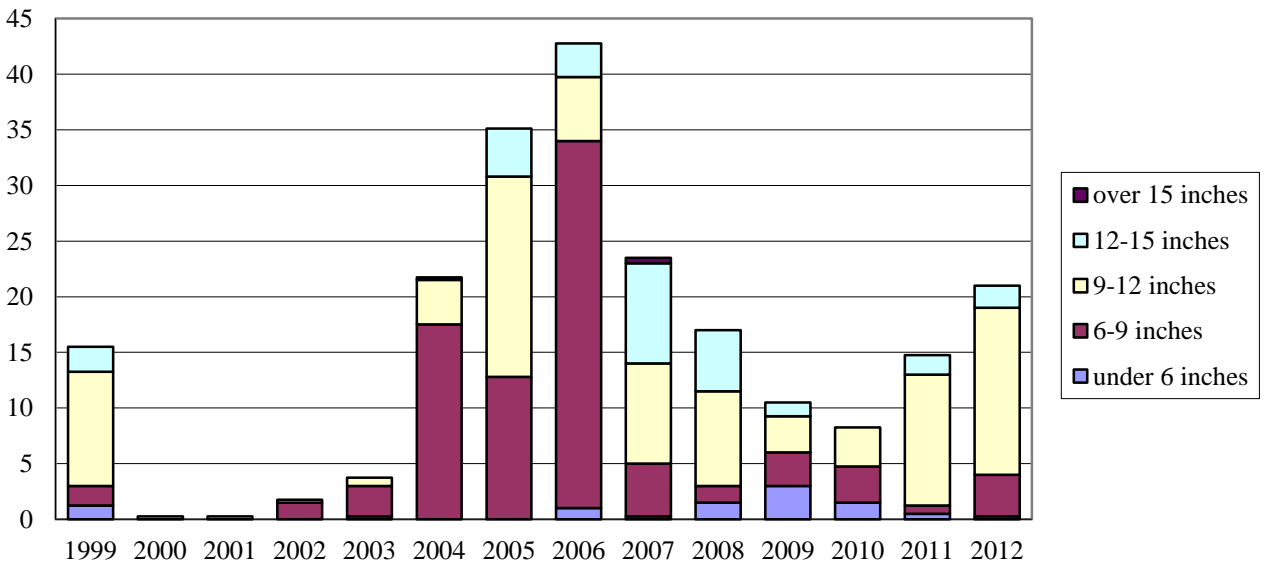
Wiper numbers are down again at Medicine Creek with approximately 1 fish per net. Wiper stockings were suspended in the past in an effort to increase the number of white bass and based on the lack of interest by anglers. However, 13,800 fingerling wipers have been requested for 2013 and will be requested annually until angling opportunities improve.

## Channel Catfish Catch Per Unit Effort



Channel Catfish numbers are pretty consistent at Medicine Creek with the exception of the 2009 sample year. During the 2012 survey biologist caught 10 fish per net, and half of those fish sampled were greater than 24 inches in length. This was an outstanding catfish sample especially considering the number of trophy fish surveyed

## White Bass Catch Per Unit Effort



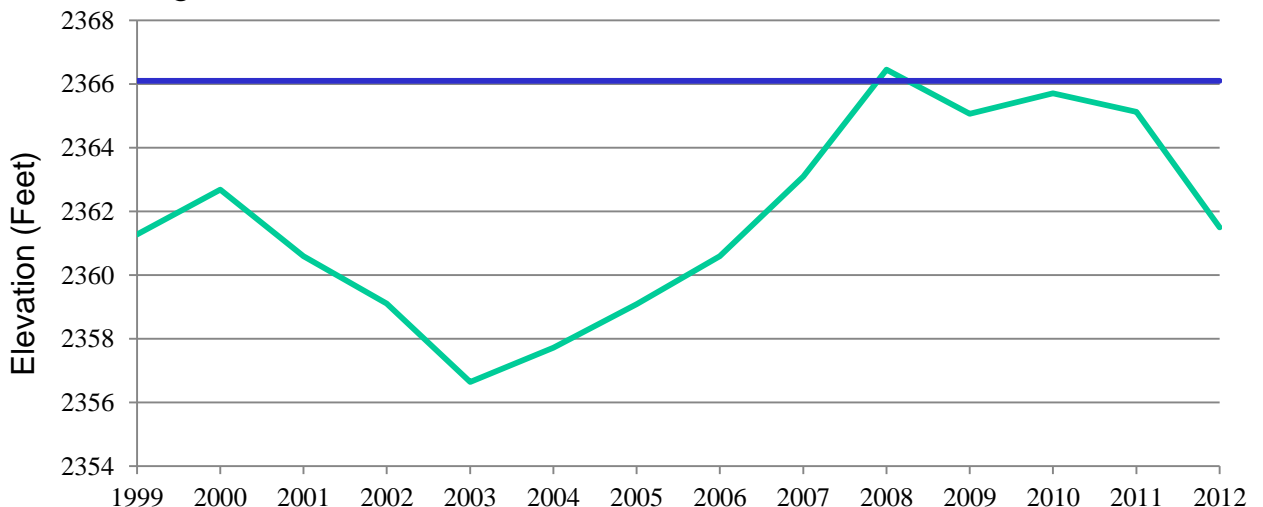
White bass numbers have been steadily increasing since 2010. Biologists surveyed 21 fish per net in 2012. However, most of those fish were under 12 inches. There should be plenty of fish available in 2012 but there won't be huge number of large fish for those seeking a trophy white bass.

## 2012 Angler Use Summary

Species	Year	Total Catch	Harvest Number	Total Catch/hr	Harvest/hr	Release/hr
Channel catfish	2012	5419	3810	0.4923	0.3778	0.1145
	2011	1683	818	0.2226	0.1183	0.1043
Wiper	2012	28	20	0.0000	0.0000	0.0000
	2011	35	34	0.0010	0.0010	0
Walleye	2012	1607	501	0.0675	0.0214	0.0462
	2011	196	41	0.0083	0.0026	0.0057
White Bass	2012	12307	7199	0.7855	0.4859	0.2996
	2011	7106	2,403	0.9354	0.4873	0.4481

An angler survey was conducted at Medicine Creek in 2012. The survey was conducted from April through October and estimated a total of 31512 angling hours and 6795 anglers during that period. Of those surveyed, 19% sought channel catfish, 54% sought walleye, 12% white bass, and 0% sought wipers. The data from 2012 showed a substantial increase in the number of channel catfish, walleye and white bass caught compared to 2011 survey data.

Average Annual Elevation, Medicine Creek Reservoir 1999-2011



Medicine Creek is the only Southwest reservoir that irrigates annually but also refills due to higher inflows. Medicine Creek fills each year and the shape of the curve above is related to the amount of irrigation water delivered and the rate of refill. The dark blue line indicates the top of the active conservation elevation.