# Sherman Reservoir 2018 Fish Population Survey Summary

### **Brad Eifert, Fisheries Biologist**

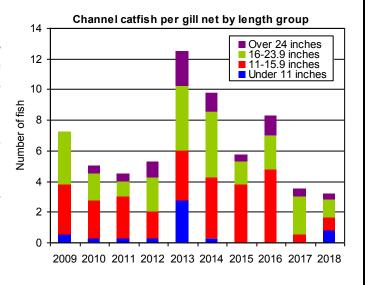
The following text and graphs are the result of netting surveys completed during 2018 at Sherman Reservoir. For comparative purposes it also shows results from previous years. Major sportfish populations are sampled each year at Sherman using gill and frame nets. Gill nets are used to sample fish species found primarily in open water, such as walleye, while frame nets are used to sample shoreline oriented species, such as crappie. The nets are set each year at approximately the same locations and dates as previous years. This reduces variability and allows for trend comparisons of species abundance and size distribution. The following graphs show the total 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.

#### **Channel Catfish**

While the catch of channel has been on a downward trend the past five years, the catch the last two years has remained stable at about 3.5 fish/net. The ten year average gill net catch is 6.5 fish/net. There was an improvement in the catch of catfish under 11 inches, indicating possible improvement in natural recruitment. There were slight declines in abundance of intermediate and larger channel catfish. Catfish collected in the netting survey ranged in length from 9.5 to 27.5 inches, with an average length of 16.7 inches.

Catfish anglers should continue to see fair to good catfish angling opportunities at Sherman Reservoir.

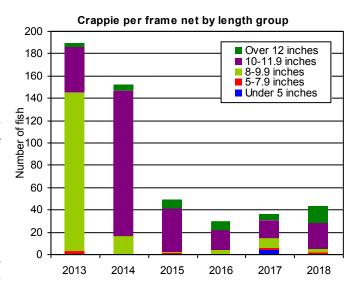
The daily bag limit for channel catfish on Sherman Reservoir is five fish per day.



#### Crappie

Spring sampling for crappie was initiated in 2013 to obtain a better representation of the adult population. After experiencing very high catch rates the first two years, the catch has ranged from 30 to 50 fish per net the past four surveys. There was a slight improvement in the 2018 net catch; with increases observed in the 10 to 11.9 inch and greater than 12 inch length categories. Approximately 90% of the crappie sampled were larger than 10 inches. Crappie ranged from 6 to 13.7 inches and the average length was 11.1 inches.

Anglers have experienced excellent crappie catch the past five years at Sherman and this trend should continue. There were a lot of sub-legal crappie caught during late summer and fall of 2018 and many of these fish will become legally harvestable during 2019.



Crappie regulations for Sherman Reservoir include a 10-inch minimum length limit and a daily bag limit of 15 fish.

#### Walleye

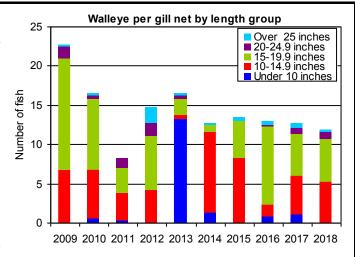
The walleye gill net catch has remained relatively stable at Sherman over the past seven years. The 2018 catch was 11.8 fish per net, which is slightly lower than the ten year average of 14.25 walleye per net.

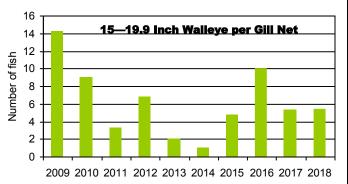
Walleye captured in the 2018 netting survey ranged from 10 to 26 inches, with most fish in the sample (90%) measuring less than 20 inches. The average length of walleye collected was 15.5 inches. Age-1 walleye were the most abundant age class, comprising 37% of the sample. Age-2 comprised 25% of the sample, followed by age-4 (12%), and age-3 (8%). Age-5 and older fish comprised 17% of the total catch. There were no age-0 walleye sampled, but most of the fish in this age class are generally too small to be efficiently captured in the gill nets.

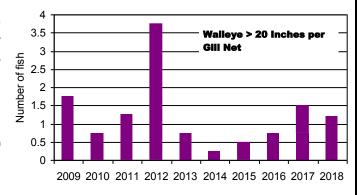
Current regulations only allow the harvest of 15 to 19.9 inch walleye. Since this regulation was implemented in 2009, the yearly net catch of 15 to 19.9 inch walleye has averaged 6.2 fish. The 2018 catch was slightly below the average and was 5.4 fish/net. Walleye in this size group consisted primarily of fish from the 2014, 2015, and 2016 year-classes. Fish in this size group are subjected to high angler mortality as the angler harvest in 2018 was estimated to be nearly 4,000 fish.

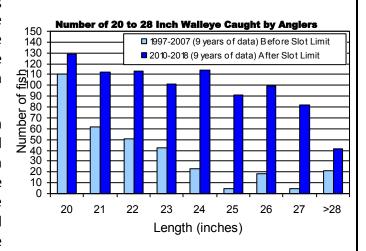
The abundance of fish greater than 20 inches was relatively unchanged this year, as 1.2 fish per net were sampled. The average catch of walleye larger than 20 inches from 1990 to 2008 was 1.9 fish per net, while the average catch since the size limit was enacted in 2009 has been 1.25 fish per net. Although fall netting results have not indicated an increase in the abundance of walleye greater than 20 inches, the angler survey has documented that anglers are catching more of these large fish since 2009 regulation change.

The abundance of 15 to 19.9 inch walleye has been relatively stable the past couple years and should provide anglers with a good supply of harvestable fish for 2019. Anglers caught a lot of sub-legal walleye during 2018 and many of these fish will be in the harvest slot when walleye action picks up in May and June. Good opportunities will continue to exist for the catch and release of walleye over 20 inches.









The walleye regulation for Sherman includes a daily bag limit that can include two walleye between 15 inches and not greater than 20 inches and one walleye longer than 28 inches. There is a slot limit protecting walleye 20 through 28 inches.

#### White Bass

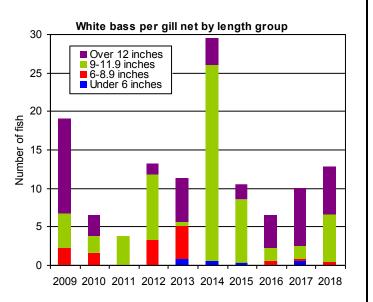
White bass catch was slightly improved, as 12.8 fish per net were sampled. The ten year average catch is 12.3 fish per net. The catch of fish less than nine inches remained low and unchanged from previous surveys. The abundance of fish in the 9 to 11.9 length category was the highest observed in several years. The catch of bass greater than 12 inches was slightly lower, but remained above average. Approximately 38% of the total net catch was larger than 12 inches.

The average length of white bass sampled in the survey nets was 11.5 inches, while the largest fish were just shy of 15 inches.

White bass anglers should once again find good

success at Sherman during 2019. Increased abundance of 9 to 12 inch fish, coupled with good numbers of fish greater than 12 inches should provide anglers great opportunities for the harvest of large white bass.

The statewide daily bag limit for white bass is 15 fish per day, with only one fish greater than 16 inches.



#### Sherman Reservoir — Additional Information

Fisheries Division will be conducting walleye spawn collection at Sherman during 2019. Depending on weather conditions, spawn collection begins the last week of March or the first week of April and normally lasts for one to two weeks. Walleye are collected along the dam at night and disturbance to anglers is minimal. During 2018, fisheries staff collected approximately 100 female and 400 male walleye for spawning purposes during the four day operation. Eggs and milt were collected from the brood fish and the fish were then returned to the lake. In all, crews collected approximately 115 quarts of eggs from Sherman. Walleye eggs were also collected at Merritt Reservoir and Lake McConaughy. Anglers should also be aware that the water within 150 feet of the dam and the walleye spawning reefs near the west end of the dam are closed to all fishing from sunset to sunrise beginning April 1 and ending April 20.







Scheduled fish stockings for 2019 include 284,000 walleye fingerlings during June and 950 advanced northern pike in September.

A detailed bathymetric map of Sherman Reservoir can be found on Nebraska Game and Parks Commission website: http://maps.outdoornebraska.gov/lakemaps/

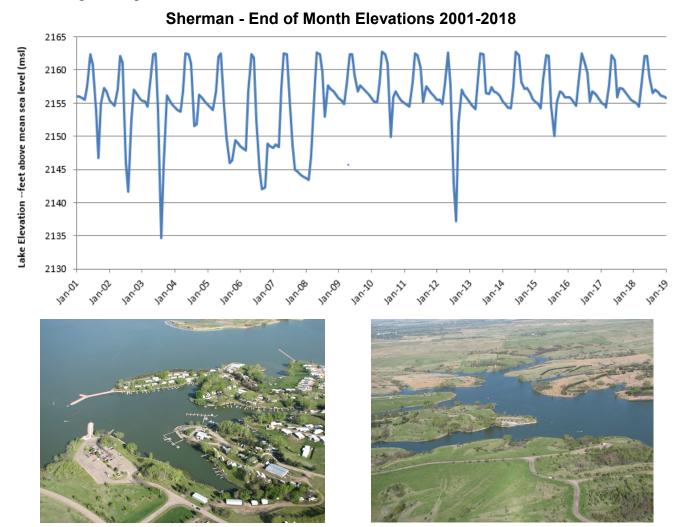
An angler survey was completed at Sherman Reservoir from April through October 2018. This survey was done in cooperation with the University of Nebraska-Lincoln. This long-term survey has been on-going since 1996 and has provided valuable information on angling pressure, catch rates, harvest rates, and numbers and types of fish caught. No angler survey is currently scheduled for 2019. Results from the 2018 angler survey indicated that there were 20,505 angler trips made to Sherman Reservoir, resulting in over 109,260 hours of fishing pressure during the seven month survey period. Catch of various game fish species can be seen in the table below.

Species	Harvested		Released	
Channel catfish	1,079	(1,538)	1,808	(969)
Northern Pike	56	(13)	82	(73)
White bass	8,532	(9,090)	4,734	(4,095)
Crappie	15,170	(19,318)	32,031	(17,916)
Walleye	3,850	(7,199)	17,218	(10,799)





Current lake elevations can be found on Farwell Irrigation District's website: <a href="http://www.farwellid.org/index.html">http://www.farwellid.org/index.html</a>. Wet conditions during the summer of 2018 resulted in the lake only dropping approximately six feet during the irrigation season.



#### Aquatic Invasive Species – Zebra Mussels

Anglers and recreational boaters should be aware of the threat of zebra and quagga mussels while using Nebraska waters. Currently in Nebraska, zebra mussels have been documented at Offutt Air Force Base, the Missouri River, and Lewis and Clark Lake. Invasive mussels have been documented in most of Nebraska's neighboring states, including over 20 locations in Kansas. Most recently, zebra mussels were found in Cunningham Reservoir in Omaha in 2018. Efforts are currently underway to reduce lake levels in an attempt to freeze the mussels during the winter months.

Anglers and boaters using Nebraska waters need to be aware of **current regulations** dealing with aquatic invasive species. The following regulations are in effect to help prevent the spread or introduction of unwanted species in Nebraska waters.

- Any watercraft that has been on a Nebraska waterbody must drain the lake water from their compartments, equipment or containers before leaving the launch area. It is illegal to dump baitfish into a Nebraska waterbody.
- Live wells need to be drained prior to leaving a launch area: plan ahead and bring a cooler for harvested fish.
- All aquatic vegetation from that waterbody attached to the watercraft and/or trailer must be removed before leaving the launch area.
- It is unlawful to <u>arrive at or leave</u> any waterbody in Nebraska with water other than from a domestic source (such as a water supply system, well, or bottled), except for fire-fighting purposes. This applies especially to boats, their compartments, equipment or containers that may hold water.

A good source of information about invasive species can be found on the University of Nebraska's Invasive Species Project website: <a href="http://neinvasives.com/home">http://neinvasives.com/home</a>

Technicians have been hired the past few years to conduct interviews of boaters and help provide more information about aquatic invasive species.







## Attention motorboat owners operating in Nebraska



Boaters whose motorized watercraft are registered in any state other than Nebraska will be required to display a \$15 Aquatic Invasive Species Stamp each year they boat in Nebraska.

This stamp will help fund Aquatic Invasive Species education and inspection programs.

- Note that boat inspections to launch in Nebraska are NOT mandatory at this time.
- This applies to all *motorized* watercraft. Non-motorized craft are exempt.
- Personal watercraft (Jet Ski, Waverunner, Sea Doo, etc.) are required to have this stamp.
- Boats registered in Nebraska pay the fee via their registrations and are exempt from displaying the sticker.

This stamp is available online at www.outdoornebraska.org

From the "Buy A Permit" page, look for this link: -



For additional information about fisheries management at Sherman Reservoir please contact the NGPC Kearney office at 308-865-5310 or by email at the addresses listed below.

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