Sherman Reservoir 2017 Fish Population Survey Summary

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The following text and graphs are the result of netting surveys completed during 2017 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

The catch of channel catfish has been on a downward trend and the 2017 catch of 3.5 fish/net was the lowest recorded in many years. The lack of catfish less than 11 inches the past several years indicates poor natural recruitment. Supplemental stocking may be needed to improve catfish abundance in the reservoir. Catfish collected in the netting survey ranged in length from 14 to 34 inches, with an average length of 20.2 inches.

Catfish anglers may see a decline in angling success this season. While overall abundance is lower, fair numbers of larger catfish are present in the Reservoir and chances of catching a trophy sized fish is good.

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 sample 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 three surveys. The 2017 sample saw a slight decline in the abundance of crappie greater than 10 inches and an increase in abundance of fish less than 10 inches. Approximately 60% of the crappie sampled were larger than 10 inches. Crappie ranged from 3 to 13 inches and the average length was 9.4 inches.

Anglers have experienced excellent crappie catch the past four years and while good angling opportunities still exist, anglers will probably notice a decline in the average size of fish caught during 2018.





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 five years. The 2017 catch was 12.75 fish per net, slightly lower than the ten year average of 14.0 walleye per net.

Walleye from the 2017 netting survey ranged from 7.5 to 26.4 inches, but most fish in the sample (88%) were less than 20 inches. The average length of walleye collected was 15.3 inches. Age-1 walleve were the most abundant age class, comprising 37% of the sample. Age-4 comprised 18% of the sample, followed closely by age-2 and age-3, each at 14%. Age-5 and older fish made up only 10% of the total catch. A few age-0 walleye were sampled, but most of the fish in this age class are too small to be efficiently captured in the gill nets. Current regulations allow only the harvest of 15 to 19.9 inch walleye. Since the regulation was implemented in 2009, the yearly net catch of 15 to 19.9 inch walleye has averaged 6.25 fish. The 2017 catch was slightly below the average and was 50% lower than 2016 results. Walleye in this size group consist primarily of 2.5 to 4 year old fish, and the 2013 and 2014 year-classes currently make up the majority of the fish. High angler harvest mortality the past two years has played a significant role in the decline of fish in this size group, as the angler creel survey shows that anglers have removed an estimated 15,000 of these fish from the population. In addition, some fish from the 2013 year-class have surpassed 20 inches and have entered the protected slot. There was a slight increase in abundance of fish larger than 20 inches, as 1.5 fish per net were sampled. The average catch of walleye larger than 20 inches since 1990 is 1.7 fish per net, while the average catch since the size limit change is 1.25 fish per net. Fall netting results have not indicated a significant increase in the abundance of walleye greater than 20 inches, although the angler survey has shown that anglers are encountering more of these larger fish since 2009 regulation change.

Although the abundance of 15 to 19.9 inch walleye is slightly lower this year, there should still be plenty of fish to provide very good angling opportunities. In addition, a portion of the 2015 year-class should be harvestable by late summer. Good opportunities 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 improved, as 10 fish per net were sampled. The long-term average catch is 9.5 fish per net. Catch of bass less than 12 inches remained unchanged from previous year results, while the catch of bass greater than 12 inches was improved. These larger fish are the results of relatively strong 2013 and 2014 year-classes. Fair numbers of age-0 and age-1 bass were also sampled, which should bode well for future angling opportunities.

The average length of white bass sampled in the survey nets was 12.0 inches, while the largest fish were just over 15 inches.

White bass anglers should find improved success at

Sherman during 2018. Improved densities of fish greater than 12 inches will provide excellent opportunities for harvest, with good chances of catching a white bass over 15 inches.

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 2018. 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 2017, fisheries staff collected approximately 150 female and 600 male walleye for spawning purposes during the five 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 108 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 2018 include 284,000 walleye fingerlings during June and 950 Advanced (10-inch) 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 will once again be completed at Sherman Reservoir from April through October 2018. This survey is done in cooperation with the University of Nebraska-Lincoln. The long-term survey has been ongoing since 1996 and has provided valuable information on angling pressure, catch rates, harvest rates, and numbers and types of fish caught. Anglers are encouraged to take the time to answer the questions from the creel clerk. Preliminary results from the 2017 angler survey indicated that there were 17,262 angler trips made to Sherman Reservoir, resulting in over 92,000 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 | 1,538 | (2,312) | 969 | (1,870) |
| Northern Pike | 13 | (20) | 73 | (76) |
| White bass | 9,090 | (5,774) | 4,095 | (5,414) |
| Crappie | 19,318 | (11,030) | 17,916 | (11,577) |
| Walleye | 7,199 | (8,071) | 10,799 | (25,409) |



() number in parenthesis represent fish caught in 2016

Current lake elevations can be found on Farwell Irrigation District's website: http://www.farwellid.org/ index.html. Wet conditions during the summer of 2017 resulted in the lake only dropping approximately 7.8 feet during the irrigation season.



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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. Monthly monitoring completed at many Nebraska reservoirs during the last five years have not shown any new evidence of zebra mussels.

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: http://neinvasives.com/resources/stop-aquatic-hitchhikers/

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 in 2018:



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 <u>www.outdoornebraska.org</u>

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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