

# Sherman Reservoir

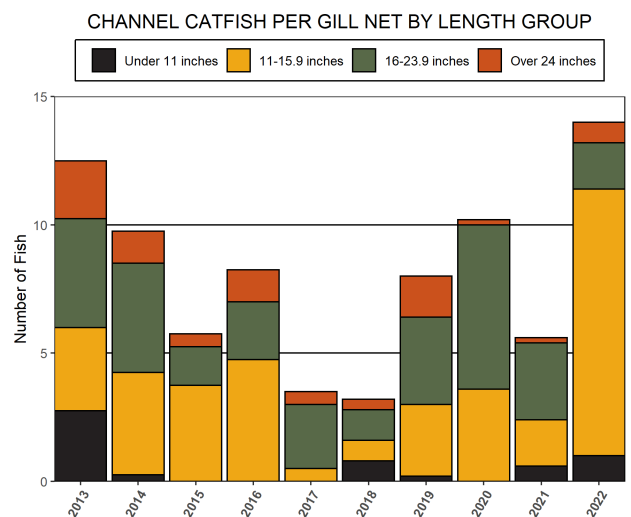
## Fisheries Update — Spring 2023

Alex Engel, Fisheries Biologist

The following text and graphs are the result of netting surveys completed during 2022 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 and white bass, 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

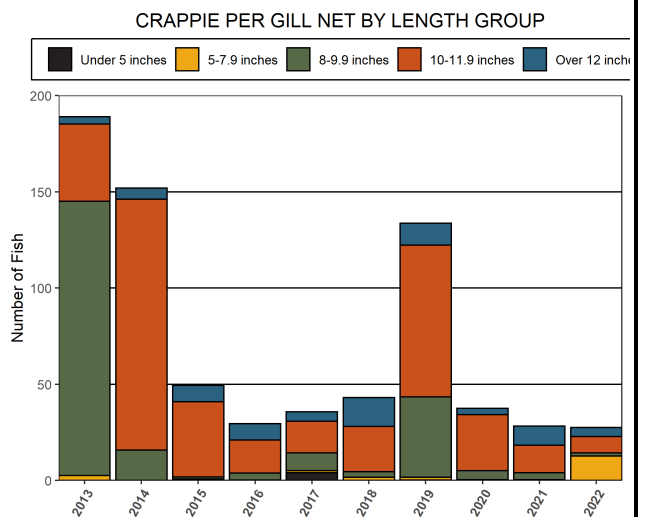
Channel catfish abundance was higher last fall at Sherman, as the catch of 14 catfish/net was slightly above the ten year average of 8.1 fish/net. There was an increase in abundance of catfish under 16 inches and over 24 inches, but we saw a decline in catfish from 16 to 24 inches. The number of large catfish increased compared to 2020 and 2021. Overall catch was up compared to previous years. Catfish collected in the netting survey ranged in length from 9.8 to 30.3 inches and had an average length of 13.6 inches. No channel catfish were stocked at Sherman during 2022, however catfish stocked in 2021 appear to have had good survival. Catfish anglers should continue to experience good angling opportunities at Sherman during 2023.



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

### Crappie

The spring frame net catch of crappie has varied greatly the past ten years, ranging from a high of 189 to a low of 27.5 fish/net. However, the 2022 catch was almost identical to the 2021 catch. Crappie populations are normally volatile, with boom and bust years. Sherman is one of the few Nebraska reservoirs with consistent crappie recruitment, most likely due to stable spring water levels. Eighty-five percent of the crappie caught were white crappie. Forty-eight percent of the crappie sampled were larger than 10 inches and 17% were greater than 12 inches. The average length of crappie was 8.9 inches. Forty-six percent of the crappie were 5 to 7 inches. These fish won't contribute to the harvest in 2023, but should provide good angling opportunities in future years. Ten year classes were sampled, ranging from 2 to 13. Average age was 4 years old. Anglers should expect to have catch rates similar to 2022 and overall catch should remain high due to more small fish in the population.



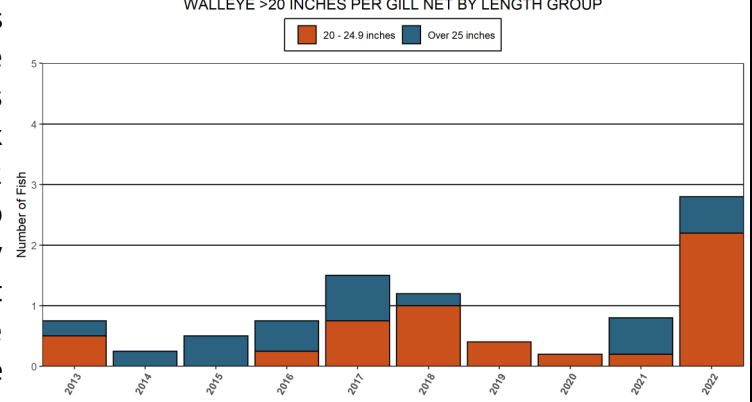
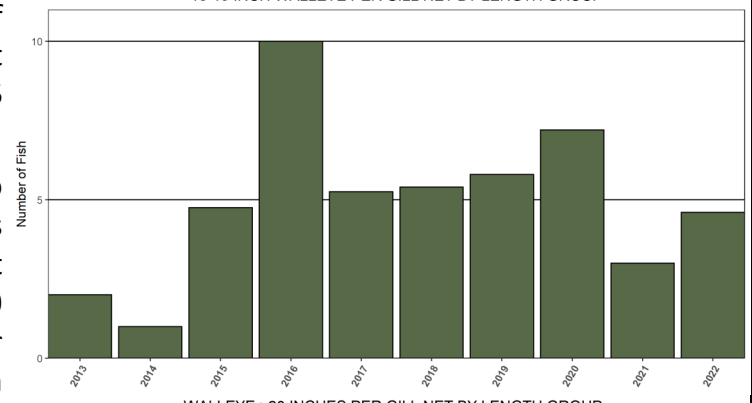
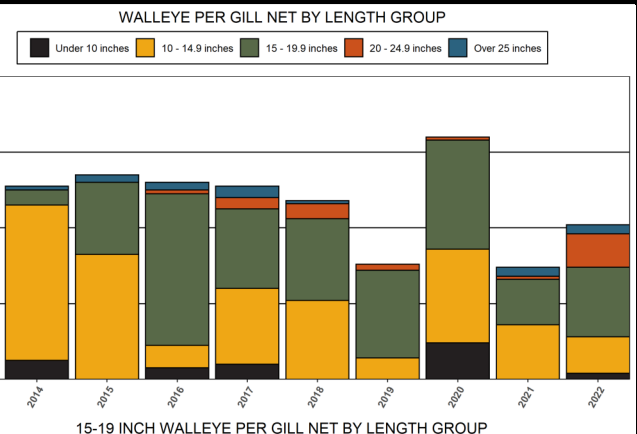
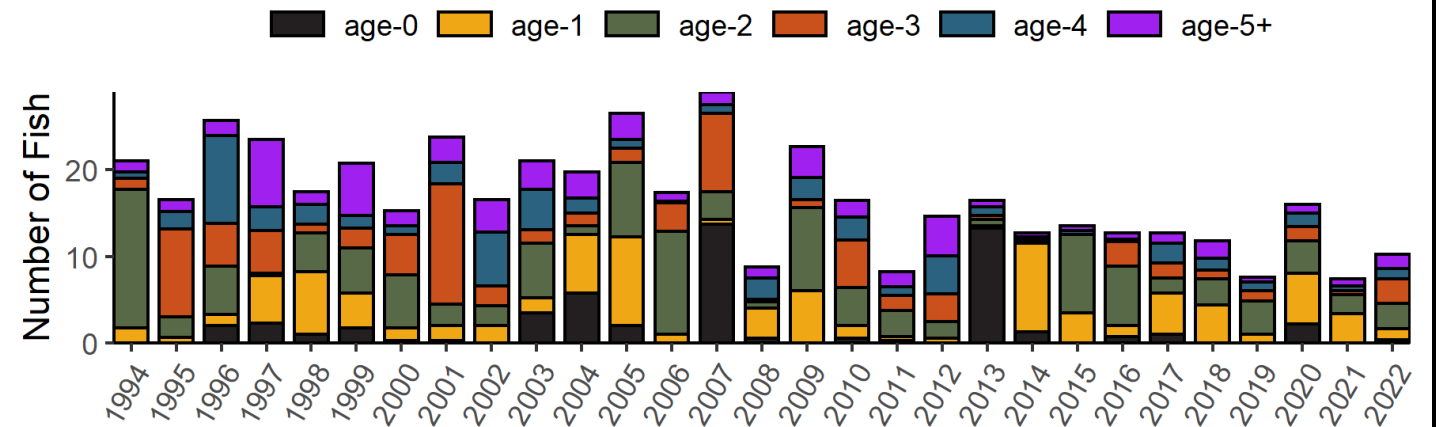
Crappie regulations for Sherman Reservoir include a 10-inch minimum length limit and a daily bag limit of 15 fish.

## Walleye

Walleye catch increased in 2022, with 10.2 fish per net sampled. In comparison, the ten year average gill net catch at Sherman is 12.2 walleye/net and the long term (33 years) average catch is 16.4 walleye/net.

Walleye captured in the 2022 gill netting survey ranged from 7.1 to 31.5 inches with the average length equaling 17.4 inches. There were eight age-classes of walleye sampled; age-0 made up 4%, age-1 comprised 12%, and age-2 fish made up 29% of the sample. Age-3 and age-4 fish made up about 39% of the sampled fish. Fish older than age-5 comprised 15% of the catch.

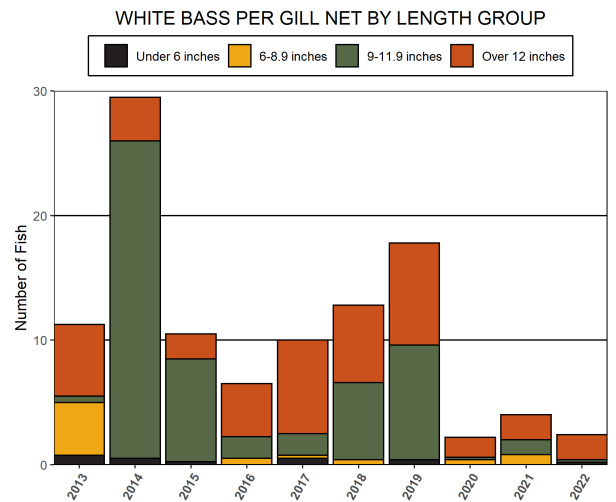
Current regulations only allow the harvest of 15 to 19.9 inch walleye at Sherman Reservoir. Since this regulation was implemented in 2009, the yearly net catch of 15 to 19.9 inch walleye has averaged 6.0 fish/net. The 2022 catch of 4.6 fish/net was higher than 2021's catch of 3 fish/net but still lower than the average. The long-term decline in year-class strength is concerning and to combat this we stocked both fry and fingerlings in 2022. This stocking strategy will continue in 2023 and stock contribution will continue to be assessed. In 2022 walleye fingerlings were marked allowing us to identify fish that were stocked as fingerlings. Fry stocked and naturally spawned fish were not marked. Young of year walleye were sampled in the canal below Sherman and 95% of age-0 walleye caught were determined to be stocked fry or naturally spawned fish. Unfortunately we could not differentiate between those groups and we are planning on marking both fry and fingerlings stocked in 2023. The gillnet catch of fish greater than 20 inches was improved from last fall, as 1.6 fish/net were sampled. High angling mortality of 15-20 inch walleye is a large factor in determining how many fish successfully make it into the protected slot each year. The abundance of fish in the 15-20 inch harvest slot is slightly improved from 2021 and large fish abundance was the best it's been since 2012. Anglers should expect to have catch rates similar to 2022.



## White Bass

After observing the white bass population trend upwards from 2016 to 2019, the catch of 2.4 fish/net in 2022 was significantly lower than the ten year average of 10.7 fish/net. Fish sampled during the 2022 fall survey ranged from 5.1 to 15.0 inches and had an average length of 12.7 inches. 83% of the catch consisted of white bass larger than 12 inches. This year's catch does not reflect received fishing reports of good catch of white bass in the fall. We expect to see similar opportunities in 2023.

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

Walleye egg collection efforts were resumed at Sherman in 2022 and are tentatively planned for 2023. Female walleye were collected using monofilament nylon gill nets during early April. Typically, eight gill nets were set at sunset and reset twice more per night. Gill nets were fished for a combined effort of 123 hours and a total catch of 414 females, 3 spent females and 8 males. Approximately 268.7 quarts of eggs were collected from 204 females (27% of the statewide quota). Female walleye catch was up compared to previous years. One hundred sixteen male walleye were collected using boat mounted electrofishing along the north side of the dam to just past the west side of the outlet structure. Anglers should 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.**

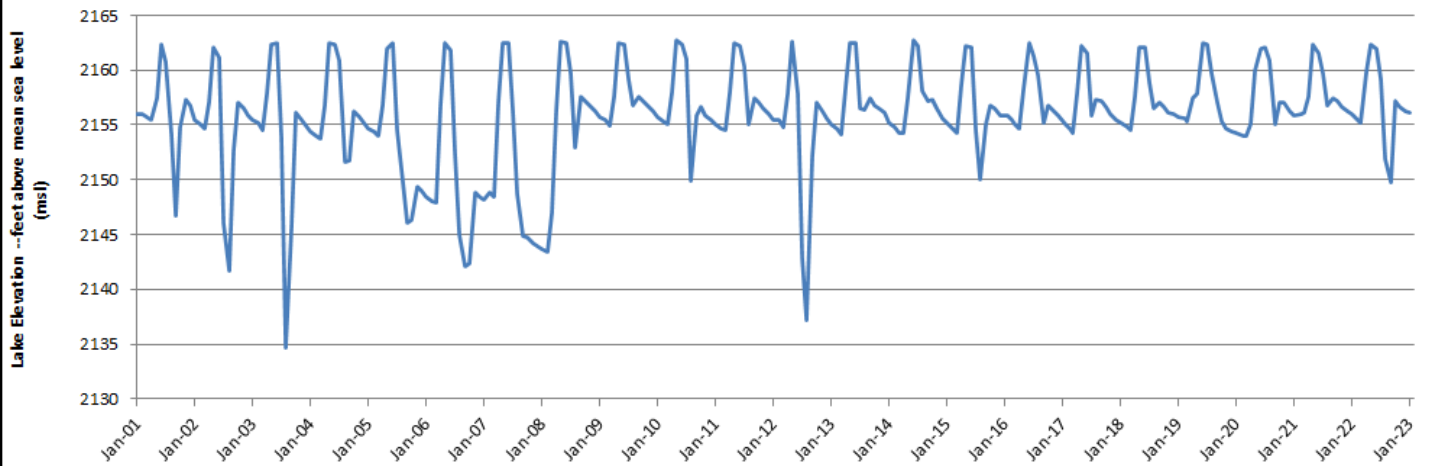
Currently, walleye are the only fish species scheduled for stocking at Sherman in 2023. The stocking strategy will be the same as 2022 with both fry and fingerlings stocked. This stocking scenario has had success at nearby Davis Creek and Calamus Reservoirs. Tentative plans call for the stocking of 2.8 million fry (1000/acre) in late April and 144,000 (50/acre) fingerlings in early June.

A detailed contour map of Sherman Reservoir can be found on Nebraska Game and Parks Commission website: <http://outdoornebraska.gov/lakecontourmaps/>

Due to low water levels in 2022, boat ramp repairs were able to be completed at Marina Bay and Trail 10. The Marina Bay repairs were done in record time (<10 days) with minimal disturbance to recreators. A new courtesy dock will be installed at Trail 10 access in 2023.



## Sherman- End of Month Elevations 2001 to 2022



Lake levels were the lowest observed since the summer of 2015 due to drought conditions. Maximum elevation for 2022 was 2,162.4 feet, which was held in the reservoir from May 18 through May 30. Irrigation drawdown began on June 1st and water dropped to a low elevation of 2,149.7 feet on September 12. Total drawdown for the 2022 irrigation season was 13 feet. The lake began filling again at the end of September and was brought up to winter elevation of 2,156 feet.

Boaters and anglers are reminded to remain vigilant when it comes to aquatic invasive species, especially zebra mussels. **Boaters are required to clean, drain, and dry their boats between lake visits.** The Game and Parks Commission conducts monthly veliger sampling at Sherman Reservoir through the summer months to look for mussels and other invasive species. Fortunately they have not been detected in the reservoir. Anglers and boaters are reminded to educate themselves on the regulations regarding invasive species and should take the necessary precautions to prevent the introduction or spread of invasive species. Information regarding aquatic invasive species and the regulations that boater and anglers must follow can be found at <http://outdoornebraska.gov/aquaticinvasivespecies/>



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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