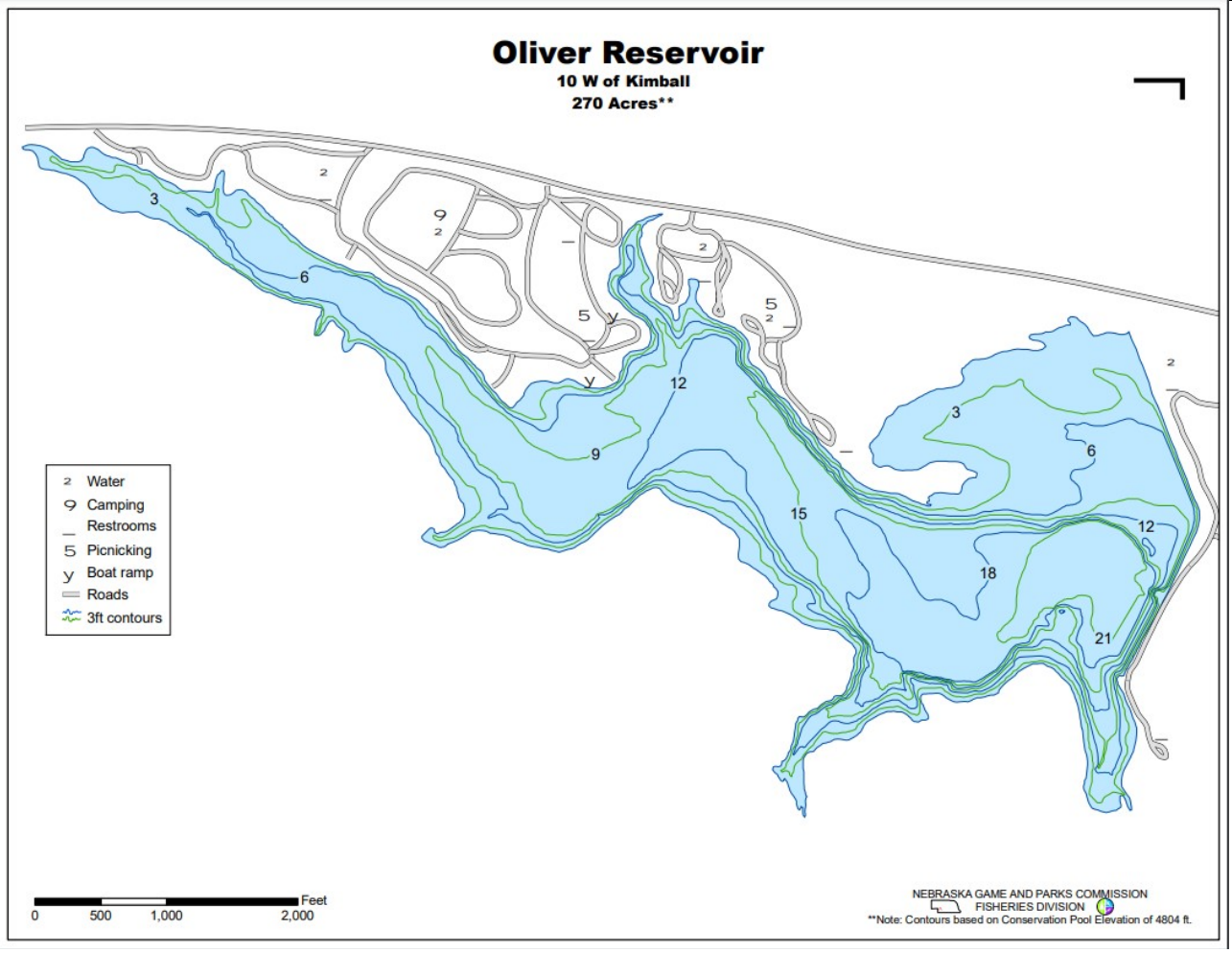
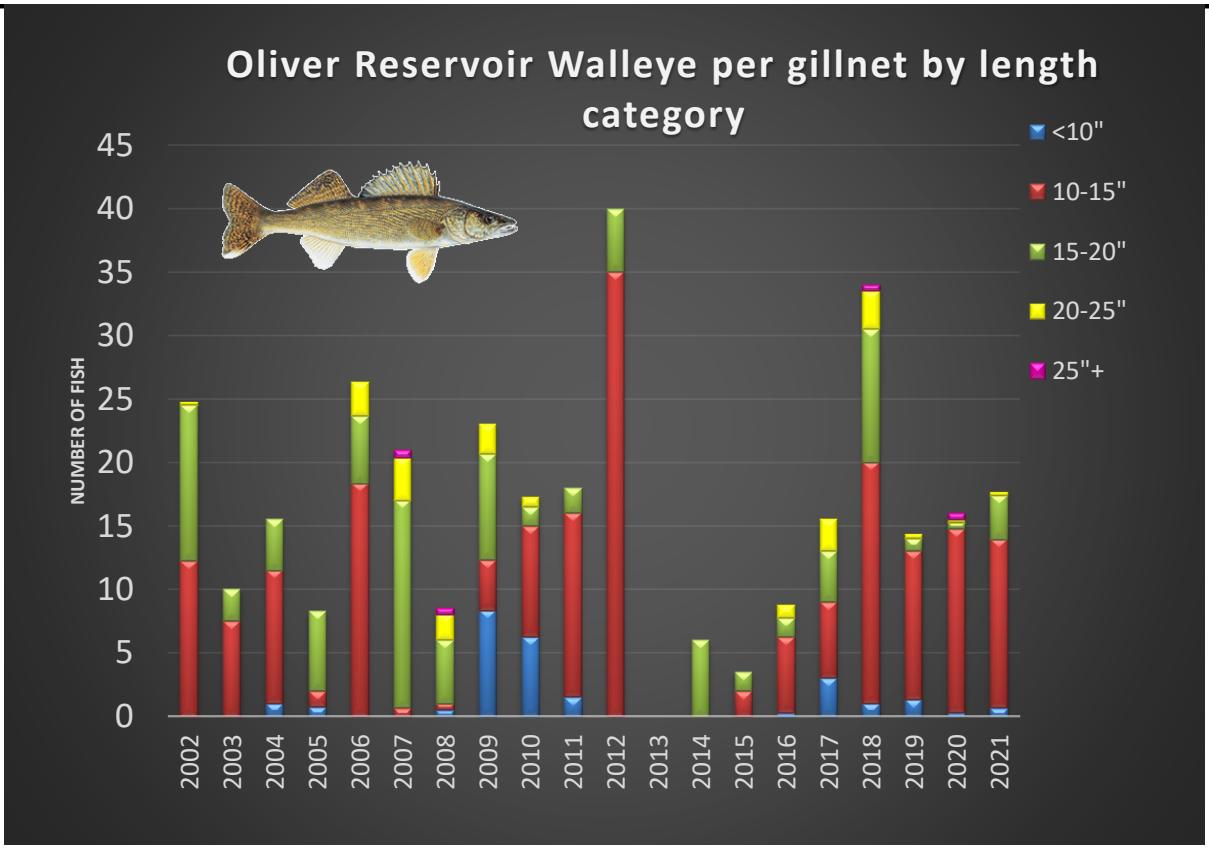
# Oliver Reservoir
# 2021 Fishery Survey Summary

**Joe Rydell Fisheries Biologist**




Oliver reservoir (Kimball Reservoir) is located 8 miles west of Kimball, Nebraska off highway 30. It is a 270-acre reservoir when full, located on a 917-acre recreation area. Lake elevations improved in 2020 and although 2021 was a severe drought for most of Nebraska, Oliver Reservoir is continuing to maintain good water levels compared to years past. South Platte NRD owns and manages the area for recreational activities such as camping, swimming, and fishing with the help from Nebraska Game and Parks to sustain a fishery.

The following text and graphs are the result of fishery surveys completed over the years using frame nets in the spring and gillnets in the fall to monitor trends in the fish populations. Gillnets are used to sample fish species that are primarily found in open water such as walleye and channel catfish. Frame nets are set in the spring to target near-shore species such as crappie, and northern pike. The nets are set each year at approximately the same locations and dates as previous years to allow for trend comparisons. Oliver Reservoir doesn't get surveyed every year for all species. In 2021, a spring survey was conducted to look at the crappie population and a fall gillnet survey was run to monitor the walleye and channel catfish population.




## Walleye

Walleye abundance at Oliver in 2021 was 17.7 fish per gillnet. This is above the 20-year average catch of 16.4 fish per net. After a surge of water in 2014 that nearly filled the reservoir, the population has rebounded back. Age and growth analysis suggests that fish from age 0 to 7 years old made up the sampled population with most of the catch less than 4 years old. Walleye in Oliver are slower growing and do not reach the minimum length limit of 15 inches until their third or fourth growing season. Body condition was still excellent with a relative weight index of 94 for walleye stock length or longer. Larger fish are skinnier than smaller fish likely due to the size of available prey. The average size of walleye collected in the 2021 survey was approximately 13.8 inches and the largest collected was 24.7 inches.

## Gizzard Shad

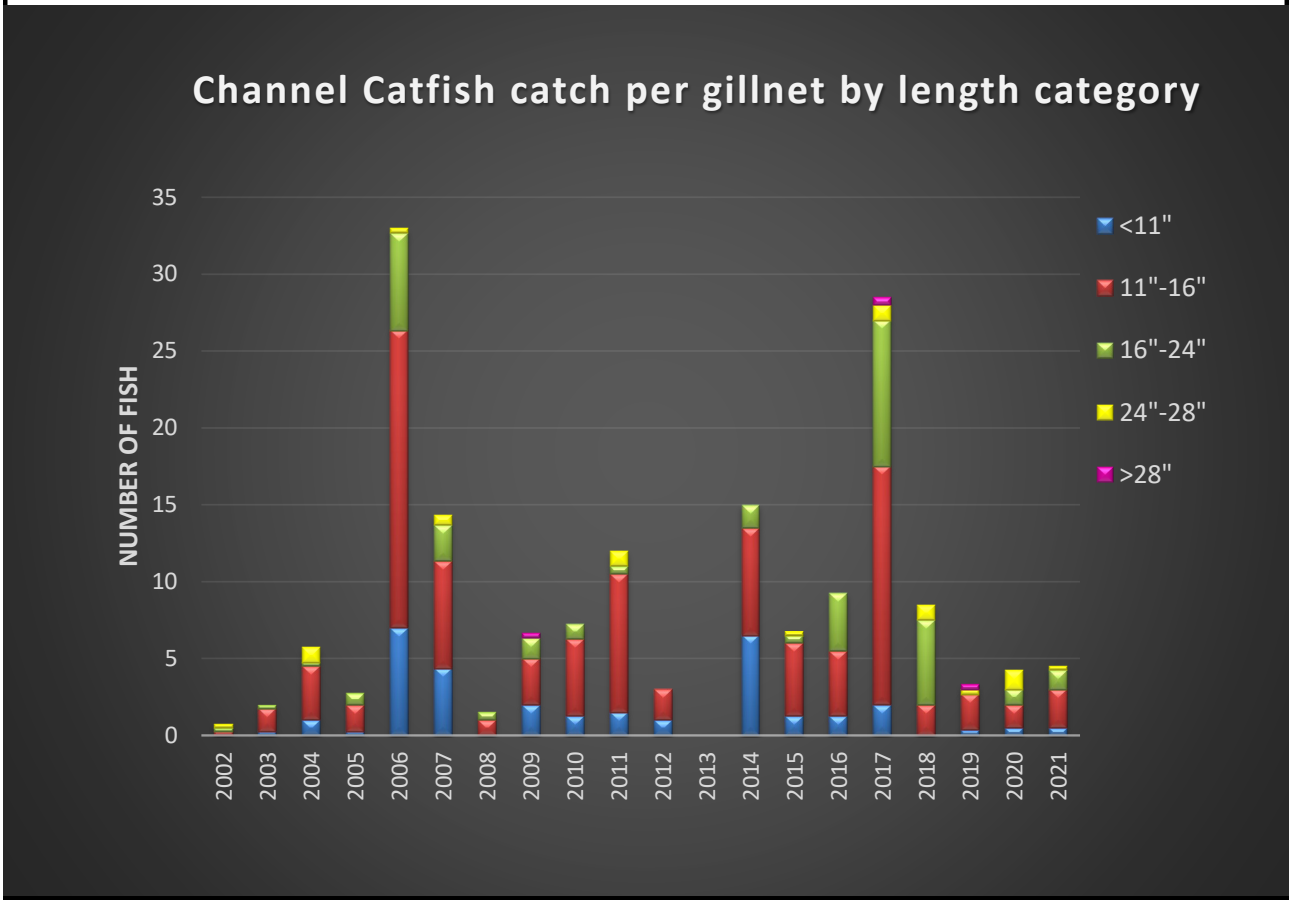
Gizzard Shad are a primary prey species in many Nebraska reservoirs and are the main food for the predator fish in Oliver Reservoir. Gizzard shad typically don't grow fast in Oliver resulting in smaller size fish available for predators such as walleye, crappie, and catfish. Being located in the southern edge of Nebraska, Oliver doesn't have much issues with winter shad die offs and maintains a consistent food base for predators.

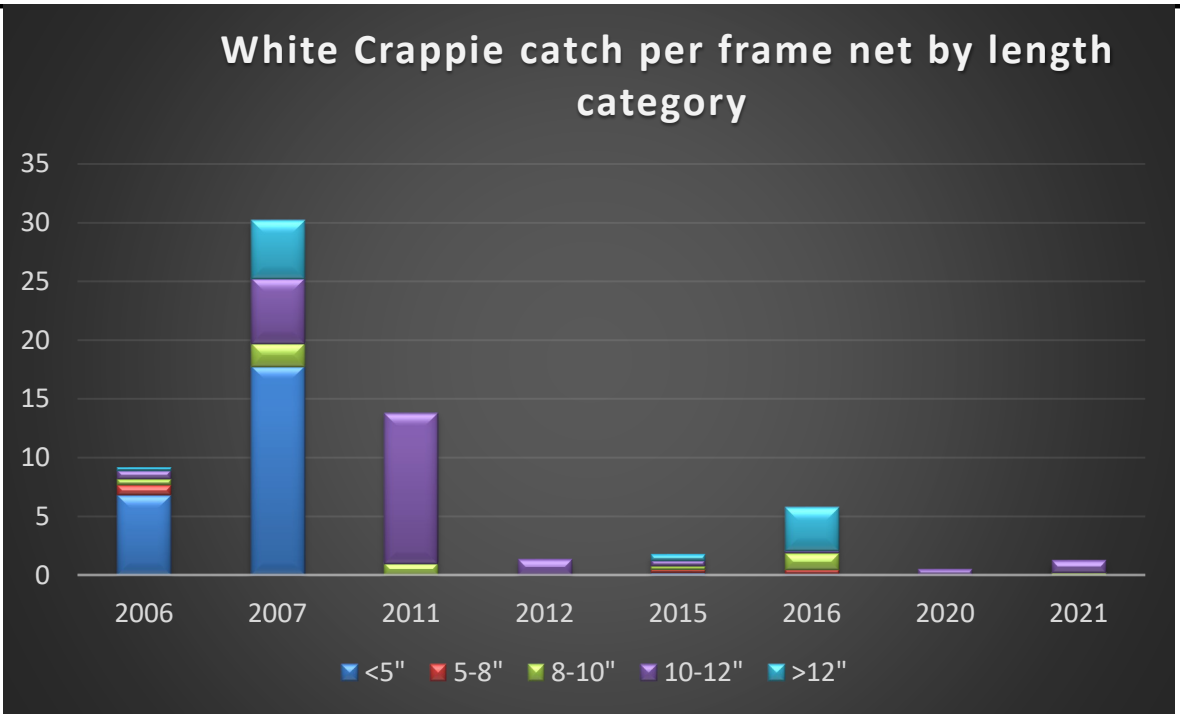
## Catfish

The channel catfish gillnet catch in 2021 remains low at 4.5 fish per net. The population has all sizes of catfish with a few over 24 inches. The average length of channel catfish sampled in 2021 was 15.4 inches total length with the largest catfish sampled at 25.6 inches. Body condition was good with an average relative weights of 91 for catfish of stock lengths and larger. Like walleye, body condition was slightly worse for larger fish.

Oliver gets stocked on an annual basis with 10 inch channel catfish at 4 fish per surface acre of water. The total number stocked fluctuates with available water levels in the reservoir.

The daily bag limit for channel catfish is 5 fish with a possession limit of 10.






## White Crappie

The Oliver crappie population declined after 2011 and hasn't bounced back. The 2021 spring survey only detected 1.25 crappie per frame net. Although the density is low, crappie grow very well in Oliver. Most of the crappie collected in the spring were over 10 inches and the few crappie collected during the fall gillnet survey were mostly over 12 inches in length.

Crappie are most vulnerable in the spring time as they move into shallow waters to spawn. Popular angling methods include jigs with plastic tails, small crank baits, and live minnows fished with a float or bobber.

For additional information about fisheries management at Oliver Reservoir please contact the following personnel by phone or email addresses listed below.

South Platte NRD office: 308-254-2377
NGPC District Supervisor: Al Hanson, (308)763-2940 al.hanson@nebraska.gov
NGPC Fisheries Biologist: Joe Rydell, (308)763-2940 joe.rydell@nebraska.gov
NGPC Fisheries Biologist: Zac Brashears, (402)376-8080 zac.brashears@nebraska.gov

**Invasive Species**

Over the past several years invasive species have become a rising concern in Nebraska. It is illegal to either arrive or leave any water body in Nebraska with water other than from a domestic source (water supply system, well or bottled) except for firefighting purposes.

Zebra mussels (pictured right) and quagga mussels are small fingernail-sized mussels and adults are usually ¼ to ½ inches long with alternating yellow and brownish colored stripes on their shell. These mussels can spread in their immature form known as veligers by being transported in bilge, ballast, or live-well water or as adults attached to boat hulls, engines, aquatic vegetation, or other surfaces. Sampling for these veligers occurs statewide from the months of May through September. Although Oliver is not on the standard sampling list, an effort in 2022 will be made to get out and sample more lakes at least once during the peak reproductive stage for zebra mussels.

Zebra mussels were first documented in Nebraska in 2006 at Offutt Air force Base Lake and have since been discovered at Zorinsky Lake (2010) (mussels eliminated via a winter drawdown that froze them out but has had a positive veliger sample since leaving it a suspect lake), Lewis and Clark Lake (2015), Lake Yankton (2017), Glen Cunningham Lake (2018) and below Gavins Point Dam in the Missouri River.

Aquatic vegetation such as Curly-leaf Pondweed and Eurasian Watermilfoil are also invasive species present in Nebraska. Both of these plant species form dense mats of vegetation near the water's surface which make recreational fishing, boating, and swimming difficult. Spread of these plants can happen through stem fragmentation. A single segment of plant material can be transferred to another water body and form a new colony therefore removing any visible plant material from boats and trailers is a must and remember to **CLEAN, DRAIN, and DRY**!

**CLEAN**- Remove plants, animals, mud and thoroughly wash equipment that came into contact with the water.

**DRAIN-** Drain all water before leaving, including wells, bilge, ballast, and any parts or equipment that can hold water. Remember to remove all boat plugs before leaving the boat launch area and don't put them back in until ready to launch again.

**DRY-**Allow all equipment to dry completely before launching into another body of water. Don't fish more than one body of water in a day without drying all equipment first.

**For more information on invasive species in Nebraska visit neinvasives.com.**


**Don't forget to lower your outboard motor to drain all the water from your lower unit before leaving a boat launch facility.**