Medicine Creek 2022 Survey Summary – GAME PARKS – Sean Farrier, Fisheries Biologist

Fish populations are sampled each fall at Medicine Creek Reservoir using gill nets, a method commonly used to sample fish such as walleye, white bass, channel catfish and wipers. Gill nets are set on approximately the same dates and locations each year to reduce variability.

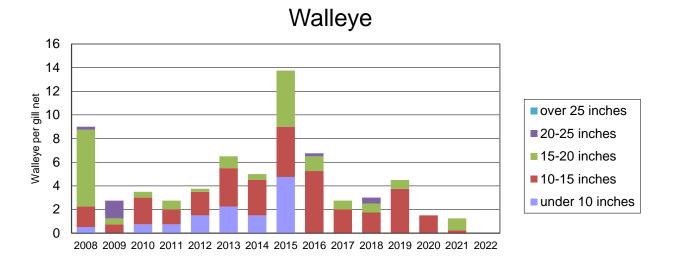
Walleye were not observed in the 2022 survey and saugeye were sampled at just over 2 per net. Low catch rates for both taxa in 2021 and 2022 is a concern. As a result, beginning in 2023, a fry stocking will be paired with the existing fingerling stockings to try to improve walleye and saugeye catch. The pattern of stocking each on alternate years will continue and there are 1,800,000 fry and 90,000 fingerling saugeye requested for spring 2023.

Wipers continue to be a part of our management plan at Medicine Creek. In 2021 and 2022, we stocked fry after seeing high success rates with this stocking method at both Harlan County and Swanson Reservoirs. Results were better than expected at Medicine Creek with catch reaching just under 50 per net in 2022. To avoid over abundance, there is no wiper stocking requested in 2023.

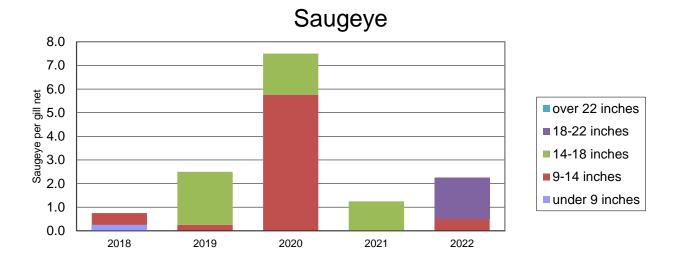
Medicine Creek continues to produce quality channel catfish for anglers. Biologists sampled 6 per net in 2022. Anglers need to be aware that blue catfish are present in Medicine Creek and are more strictly regulated than channel catfish. Proper identification is a must if anglers are going to harvest catfish. Blue catfish were sampled at over 2 per net in 2022 and will continue to grow and provide opportunities for anglers. There are 9,000 blue catfish requested for fall 2023.

In 2021, biologists began annual spring trap netting to gain a better understanding of Medicine Creek's crappie populations. In recent years, we have taken several phone calls concerning the size structure of crappie in Medicine Creek. This will be a multiyear study to evaluate the overall growth and age distribution of the population. Catch can be variable year to year due to the abundance of spring habitat available in Medicine Creek. The multiyear study will give us a more complete understanding of the population before any potential management changes occur.

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.

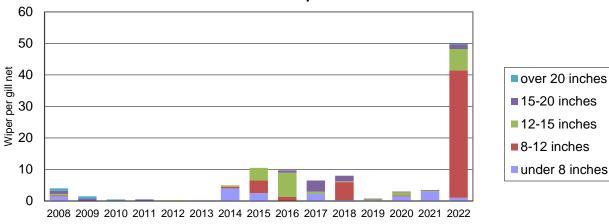


Walleye were not observed in our 2022 survey. High catch of other species may have saturated gill nets preventing walleye capture. Walleye will continue to be stocked on alternating years opposite of saugeye. The first year without a walleye stocking in Medicine Creek was 2019. There are no walleye requested for 2023.

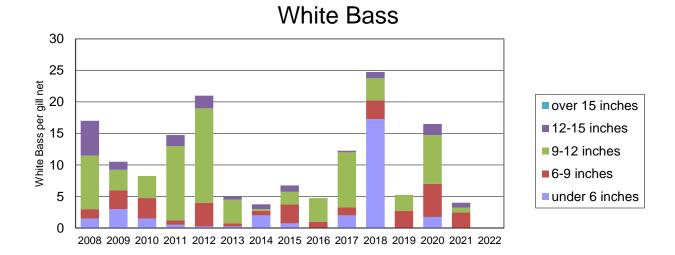


To take advantage of suitable habitat, saugeye were introduced to Medicine Creek in 2017. They are managed the same as walleye so identification shouldn't concern anglers. Saugeye will continue to be stocked on alternating years opposite of walleye. There are 1,800,000 fry and 90,000 fingerling saugeye requested for spring 2023.

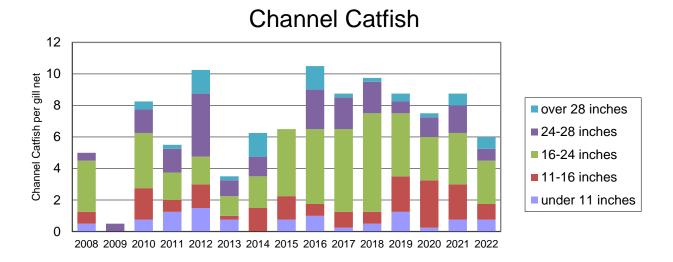
Wiper



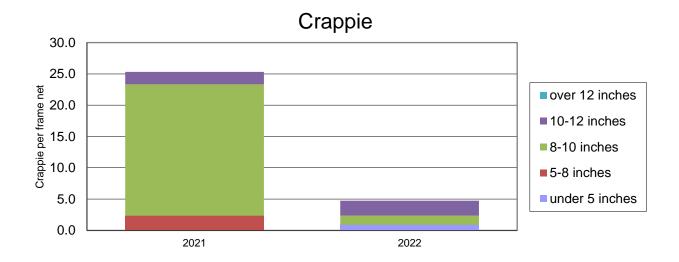
Wiper fry were stocked in 2021 and 2022 to see if we could get more consistent recruitment from our stockings. The initial fry stocking resulted in a very strong year class that pushed our 2022 catch to just under 50 per net. This is an encouraging sign for the future of this population. However, to avoid over abundance, wiper stockings will be paused in 2023.



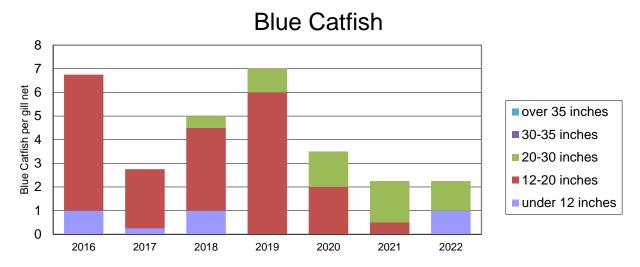
White bass were not observed in our 2022 survey. White bass catch can be variable as historical data shows. The high wiper catch observed could have impacted our ability to catch white bass in 2022. We will continue to monitor the population in 2023 and makes changes to white bass management if deemed necessary.



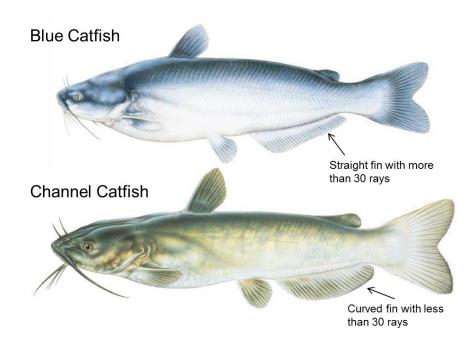
The channel catfish population remained stable with biologists sampling 6 per net in 2022. Channel catfish continue to maintain their population in Medicine Creek naturally. Size structure will provide anglers the opportunity to catch large trophy fish along side smaller ones for the frying pan. Any angler looking to harvest catfish at Medicine Creek needs to be aware that blue catfish are managed differently than channel catfish and need to be identified properly.



In 2021, a multiyear study began to gain a better understanding of crappie populations at Medicine Creek. The goal of the study is to track age and growth relationships in both black and white crappie to determine the overall health of the population. This information will be valuable in determining if we are properly managing the crappie population to provide the most opportunity for anglers.



To provide anglers a trophy opportunity, blue catfish were introduced into Medicine Creek in 2015 and have been requested regularly since then. Biologists surveyed over 2 blue catfish per net in 2022. There are 9,000 blue catfish requested for fall 2023. Any angler looking to harvest catfish at Medicine Creek needs to be aware that blue catfish are managed differently than channel catfish and need to be identified properly.



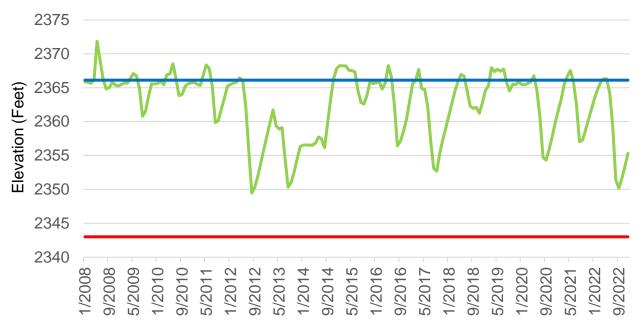
Blue catfish are known to grow in excess of 80lbs and are a very popular species for some catfish anglers. It is important to point out that there is a **1 fish daily bag limit** for blue catfish statewide. Anglers need to take care to identify their catch before harvesting any catfish species at Medicine Creek. The best method to distinguish between the species is to look at the anal fin. Blue catfish have a straight anal fin with more than 30 rays while channel catfish have a curved anal fin with fewer than 30 rays. There are other cosmetic differences such as body shape, color, and spots but those differences can be misleading depending on the environment and individual fish.

Medicine Creek Reservoir Fish	Stocking Summary
	Slocking Summary

Year	Walleye	Wiper	Yellow Perch	Saugeye	Blue Catfish
2022	180,000 (1.25")	300,000 (fry)			12,320 (5")
2021		250,000 (fry)	59,902 (1.5")	180,430 (1")	5,620 (4")
2020	137,859 (1")	9,250 (1")			
2019		9,658 (1")		252,380 (1.25")	
2018	93,210 (1.25")	9,296 (1.25")			2,711 (12")

Above is a table of fish stockings over the last 5 years at Medicine Creek Reservoir. The species stocked, number stocked, and fish size are presented in the table. Multiple species are stocked annually, and a comprehensive database of fish stockings can be found at the Nebraska Game and Parks website or by following the link below. Stocking Database

End of Month Elevation, Medicine Creek Reservoir 2008-2022



Medicine Creek is the only Southwest reservoir that provides irrigation water annually but also refills due to high inflows and the NCORPE stream augmentation flow. The graph above is a representation of monthly mean elevations. The dark blue line indicates the top of the conservation pool, the green line indicates the end of month elevation, and the red line indicates the top of the inactive pool. Current lake elevation data can be found at this link: <u>Current Elevation</u>



Aquatic invasive species (AIS) have reached Nebraska! Zebra mussels are currently established in Lewis and Clark Reservoir, Lake Yankton, Offutt AFB pond, and the Missouri River. Anglers and boaters should be on the look out for personnel performing boat inspections and decontaminations statewide. Please email: ngpc.ais@nebraska.gov or call 402-471-7602 to report any possible AIS sightings or for more information about AIS in Nebraska.

Preventative Steps and Regulations

- It is unlawful for a boat to arrive at or leave any body of water in Nebraska with water other than from a domestic source except for fire-fighting purposes. Drain water before leaving an area
- It is unlawful for a boat or trailer to arrive or leave a launch area with any aquatic vegetation from that waterbody still attached. Boat blinds cannot use plants listed as invasive species or noxious weeds
- Wash mud off waders. Felt-sole waders are not allowed

Nonresident Aquatic Invasive Species Stamp

Motorized watercraft registered outside Nebraska are required to purchase and display the Aquatic Invasive Species Stamp before launching from any Nebraska boat ramp. Stamps must be affixed on the starboard side toward the rear of the boat above the waterline. The fee for each stamp is \$18 dollars and includes the \$3 issuing fee. Stamps can be purchased online or at Nebraska Game and Parks Commission Offices.



Left: Zebra Mussel Right: Quagga Mussel