

Medicine Creek 2023 Survey Summary

Sean Farrier, Fisheries Biologist

Phone: 308-221-6149 Email: sean.farrier@nebraska.gov



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 again in 2023 and saugeye were sampled at just over 2 per net. Low catch rates for both taxa has been 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. Initial results were positive with high numbers of age-0 saugeye observed in fall electrofishing surveys. Due to the high success rate of the stocking in 2023, Medicine Creek management will focus on saugeye for the next few years to see if we can improve our population for anglers. There are 1,800,000 fry and 90,000 fingerling saugeye requested for spring 2024.

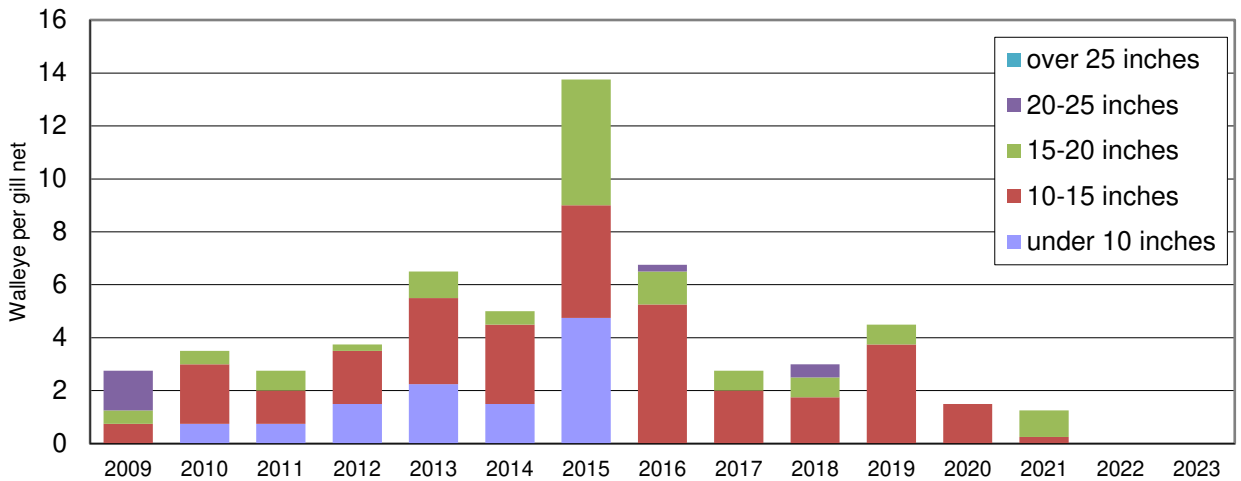
In 2021 and 2022, Medicine Creek was stocked with wiper fry after seeing high success rates with this stocking method at both Harlan and Swanson Reservoirs. Results were better than expected at Medicine Creek with catch reaching just under 50 per net in 2022. Numbers remained high in 2023 with 45 per net being surveyed. The original stocking in 2021 has already reached a mean length of 15 inches and will provide anglers with ample opportunity to harvest fish. To avoid over abundance, there are no wiper requested for 2024.

Medicine Creek continues to produce quality channel catfish for anglers. Biologists sampled just over 8 per net in 2023. 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 4 per net in 2023 and will continue to grow and provide opportunities for anglers. There are 9,000 blue catfish requested for fall 2024.

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.

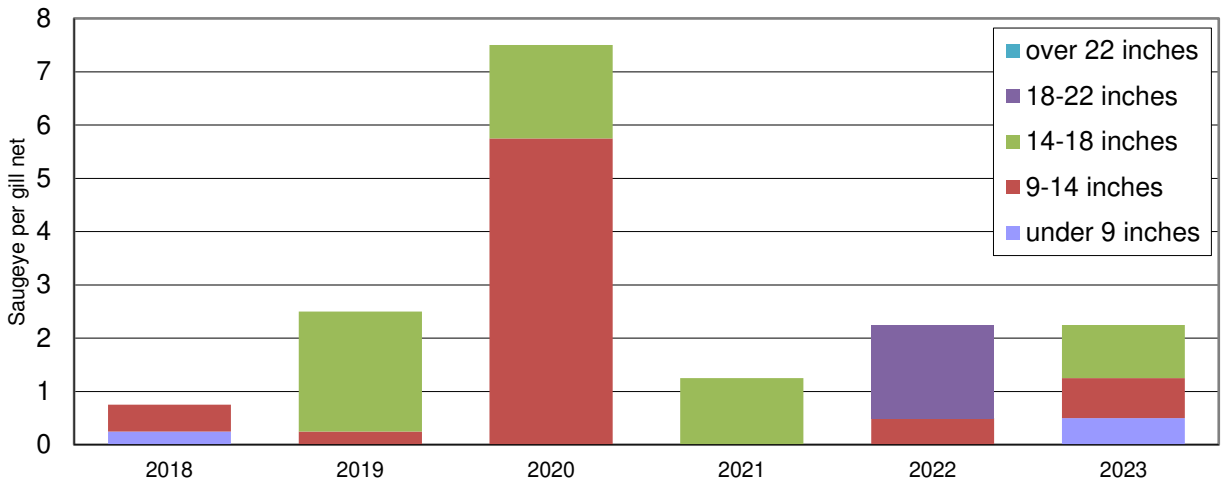
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs.

Walleye



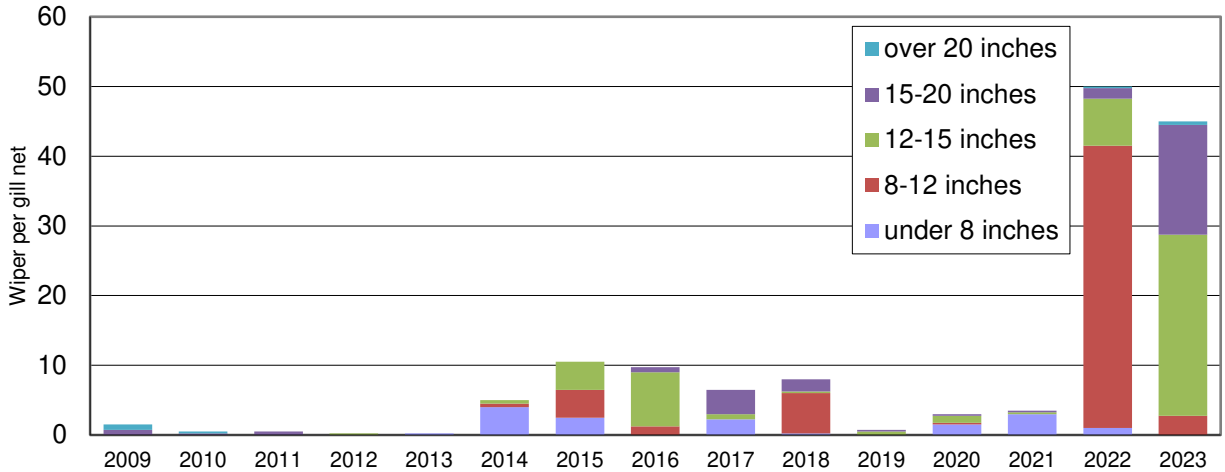
Walleye were not observed in our 2022 or 2023 survey. Due to saugeye performing better since their introduction in 2017 we are shifting stocking away from walleye for the time being. There are no walleye requested for 2024.

Saugeye



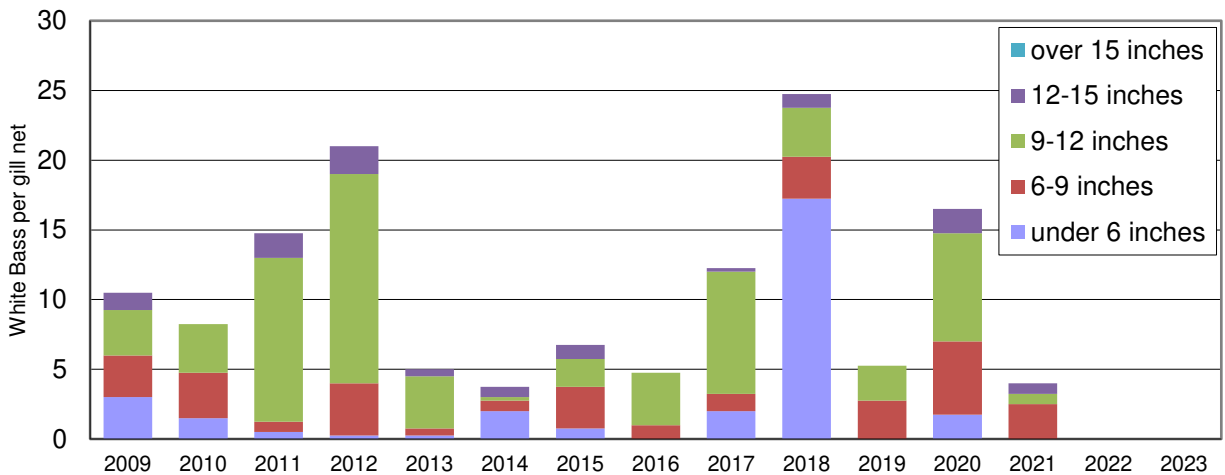
To take advantage of suitable habitat, saugeye were introduced to Medicine Creek in 2017. Since their introduction, saugeye have recruited to fall gill nets better than walleye. As a result, they will be a management focus for the next several years and will be stocked annually. There are 1,800,000 fry and 90,000 fingerling saugeye requested for spring 2024.

Wiper



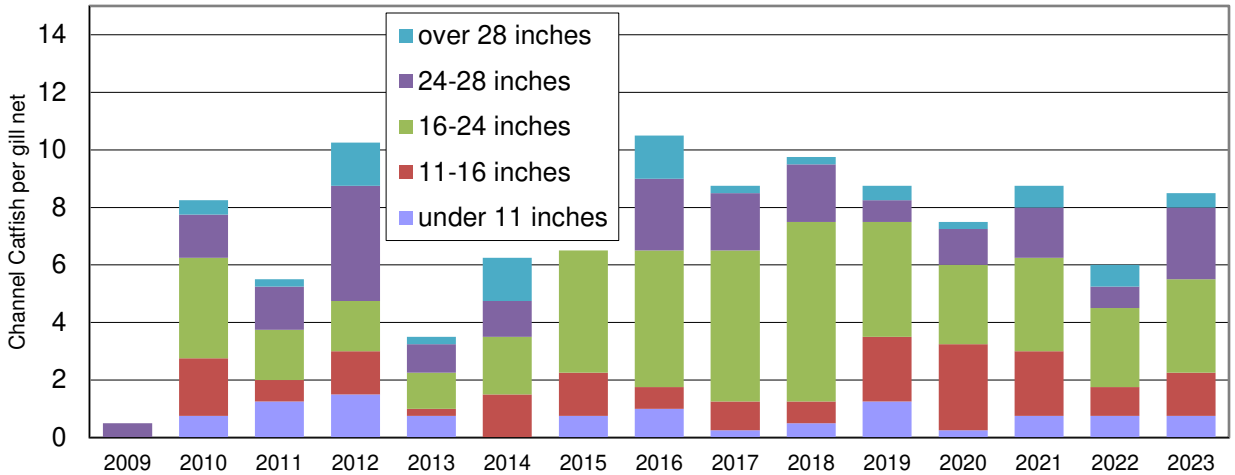
Wiper fry were stocked in 2021 and 2022 to see if we could get more consistent recruitment from our stockings. The initial fry stocking resulted in a very strong year class that pushed our 2022 catch to just under 50 per net. In 2023, we sampled 45 wiper per net and age data showed both fry stockings were successful. This is an encouraging sign for the future of this population. However, to avoid over abundance, wiper stockings will be paused again in 2024.

White Bass



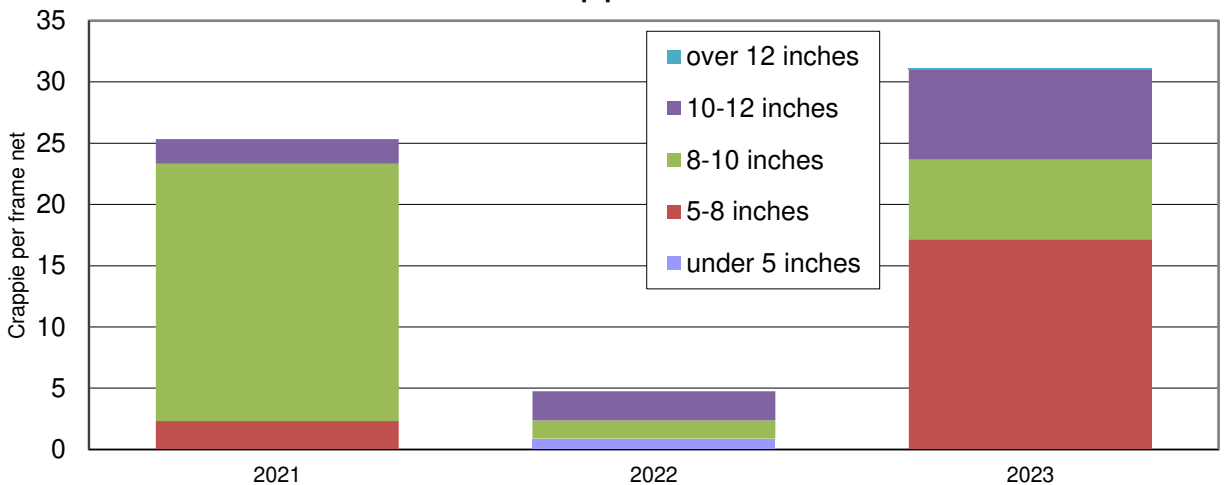
White bass were not observed in our 2022 and 2023 survey. White bass catch can be variable as historical data shows. The high wiper catch observed could have impacted our ability to catch white bass in both years. We will continue to monitor the population in 2024 and makes changes to white bass management if deemed necessary.

Channel Catfish



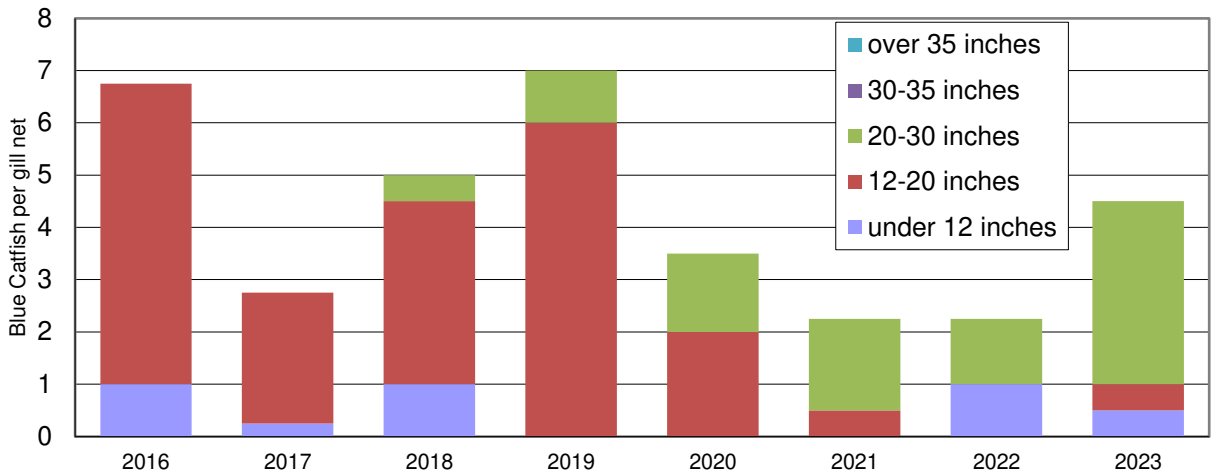
The channel catfish population remained stable with biologists sampling over 8 per net in 2023. Channel catfish continue to maintain their population in Medicine Creek naturally. Size structure will provide anglers the opportunity to catch large trophy fish along side smaller ones for the frying pan. 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. New in 2024, channel catfish are now protected with only 1 fish over 30" allowed within the daily bag limit of 5 fish.

Crappie



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.

Blue Catfish



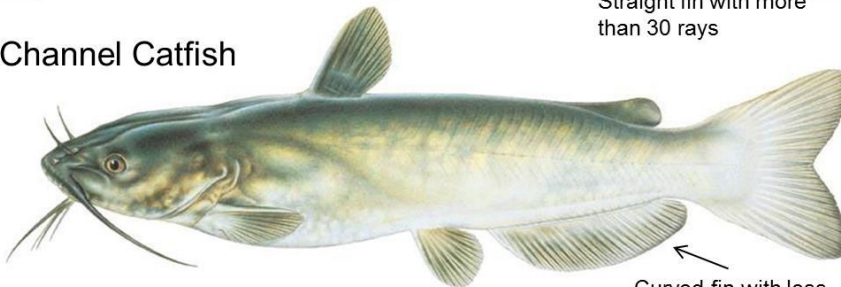
To provide anglers a trophy opportunity, blue catfish were introduced into Medicine Creek in 2015 and have been requested regularly since then. Biologists surveyed over 4 blue catfish per net in 2022. There are 9,000 blue catfish requested for fall 2024. Any angler looking to harvest catfish at Medicine Creek needs to be aware that blue catfish are managed differently than channel catfish and need to be identified properly.

Blue Catfish



Straight fin with more than 30 rays

Channel Catfish



Curved fin with less than 30 rays

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.

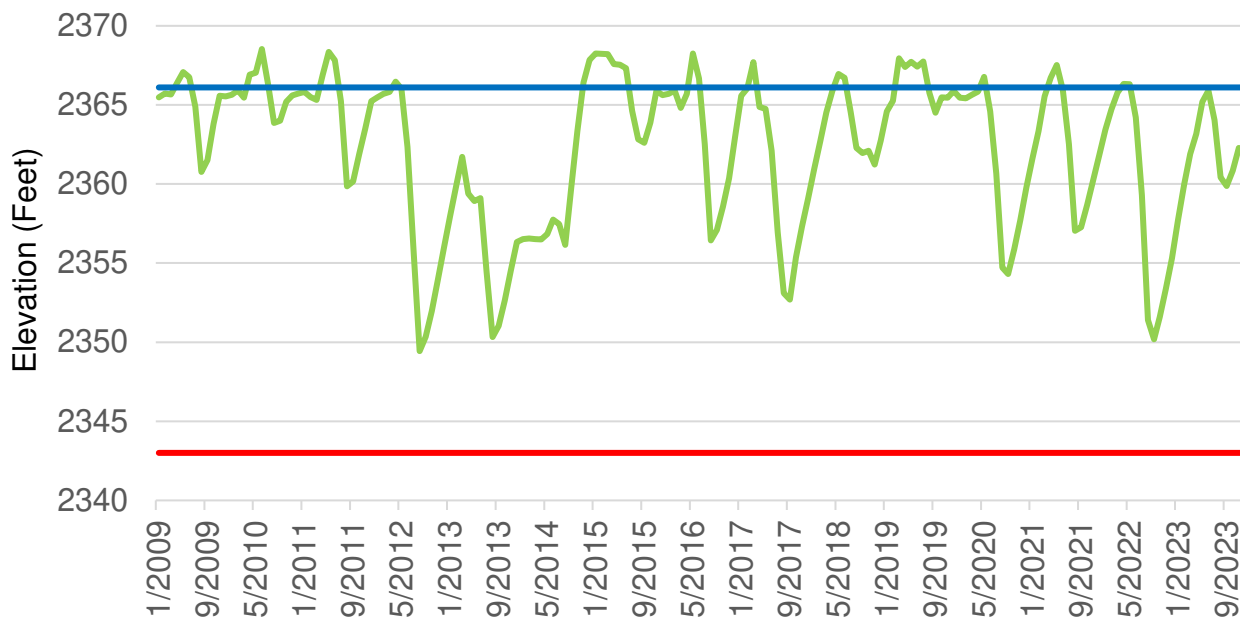
Medicine Creek Reservoir Fish Stocking Summary

Year	Walleye	Wiper	Yellow Perch	Saugeye	Blue Catfish
2023				1,812,570 (fry) 90,000(1.25")	9,000 (5")
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")	

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 2009-2023



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: [Current Elevation](#)

Southwest Reservoir Georgia Cube Project



As part of a grant awarded by the Bureau of Reclamation a fish attractor project was completed in the Southwest Reservoirs in 2023. Using this funding, a total of 100 Georgia Cubes (25 at each reservoir) were constructed with the help of the McCook Work Ethic Camp. These cubes were placed in deep water to provide structure for fish as reservoir elevations decline in dry years when habitat becomes limited. To create a larger footprint, 6 to 7 cubes were attached to one another and sunk creating four cube complexes in each reservoir that anglers can target. Below are the GPS locations of each cube complex to assist anglers in finding this new structure.

Enders		Medicine Creek		Red Willow		Swanson	
N	W	N	W	N	W	N	W
40.42028	-101.52442	40.39978	-100.23357	40.35930	-100.68447	40.16356	-101.06689
40.42202	-101.52390	40.39761	-100.23526	40.35819	-100.67515	40.16517	-101.06628
40.42833	-101.52896	40.39441	-100.23548	40.35502	-100.68016	40.16706	-101.06657
40.43204	-101.52546	40.38652	-100.22448	40.36283	-100.67201	40.16874	-101.06654



Aquatic invasive species (AIS) have reached Nebraska! Zebra mussels are currently established in Lewis and Clark Reservoir, Lake Yankton, Offutt AFB pond, Beaver Lake, 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