Swanson Reservoir NEBRASKA 2020 Survey Summary – GAME PARKS – Sean Farrier, Fisheries Biologist

Fish populations are sampled each fall at Swanson 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. Environmental factors can play a strong role in catch data. Due to this variability, biologists look at trends over time when making management decisions.

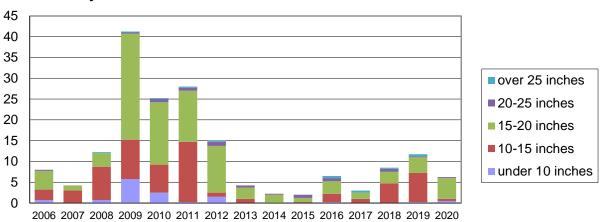
After two consecutive years of increasing catch, walleye dipped slightly in 2020 with just over 6 pet net sampled. The initial advanced walleye fingerling stocking from 2018 made up 43% of the total catch in 2020. In 2020, Swanson received another stocking of advanced walleye and they should begin to show up in the survey in 2021. Evaluations for this stocking strategy will continue in 2021. There are 2,125,000 walleye fry requested for spring 2021.

After observing 20 wiper per net in 2018, wiper stockings were suspended for 2019 to avoid an over abundance. Biologists sampled just under 14 wipers per net in 2020. The majority of the wipers sampled were from that 2018 year class. They are between 15 to 20 inches and will continue to provide anglers an opportunity to catch quality fish. There are 500,000 wiper fry requested for spring 2021. In 2020, Swanson had the second best white bass catch rate in the state with just under 19 fish per net sampled. Just under 50% of the white bass sampled were between 12 to 15 inches, providing an excellent opportunity for anglers. After sampling multiple year classes in 2020, the fishery should continue to be good in the coming years.

After a low channel catfish sample in 2019, catch returned to a more normal number with just over 6 per net in 2020. A good balance of juvenile fish and adults over 28 inches were sampled suggesting a sustainable fishery for the future. There are 5,750 channel catfish requested for fall 2021. After a high sample in 2019, blue catfish catch rates returned to normal in 2020 with 2 fish per net observed. Blue catfish are managed as a trophy species so size structure is more important than total catch. In 2020, a couple trophy blue catfish were sampled over 35 inches. There are 5,750 blue catfish requested for fall 2021.

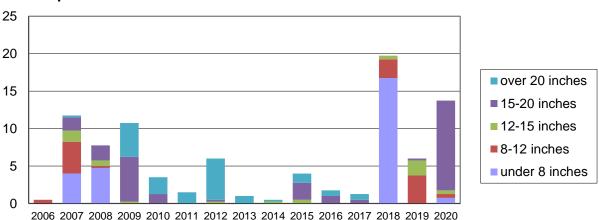
The following graphs show the average number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs.

Walleye Catch Per Unit Effort



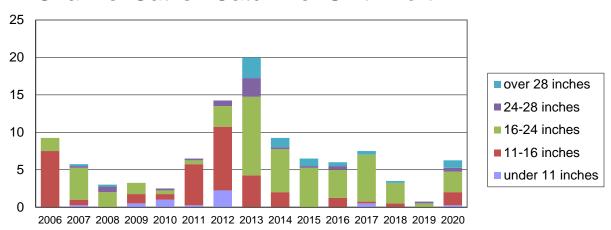
Biologists sampled just over 6 walleye per net in 2020. Overall, length frequency shows a good distribution, with keeper fish available for anglers to target in 2021. The 2018 year class continues to dominate the catch with 43% of sampled fish coming from that initial advanced walleye stocking. Swanson received 13,512 advanced walleye in 2020 and they should begin showing up in the survey as soon as 2021. Stocking strategy at Swanson will continue to consist of alternating years between advanced walleye fingerlings and fry stockings. There are 2,125,000 walleye fry requested for spring 2021.

Wiper Catch Per Unit Effort



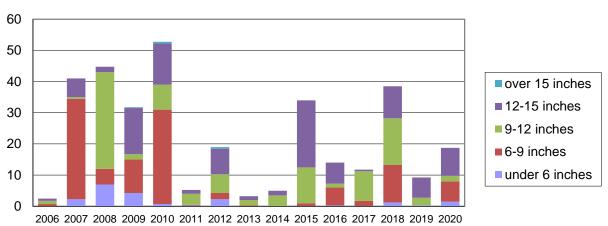
Wiper numbers have been variable at Swanson due to inconsistent stocking availability and changing stocking requests. After sampling 20 wipers per net in 2018, no stocking was requested in 2019 to avoid over abundance. The large 2018 year class continues to dominate the survey and they reached 15 to 20 inches in 2020. Future stocking strategies will continue to utilize fry stockings to maintain the population. Goals will focus on more consistent year class strength to eliminate the boom or bust population we are observing currently. Biologists will continue to monitor the population and reduce stockings if needed to prevent an overpopulation of wipers. There are 500,000 wiper fry requested for spring 2021.

Channel Catfish Catch Per Unit Effort



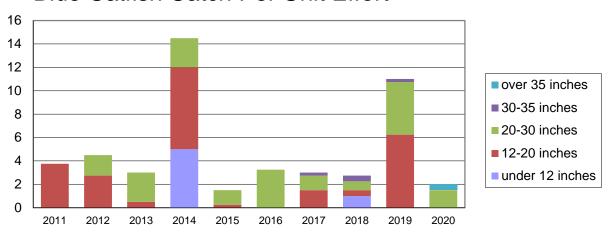
After concerns with the downward trend observed in channel catfish, stocking strategies were adjusted in 2020 to include larger fish. Biologists saw an immediate improvement in the channel catfish survey after catching over 6 per net in 2020. Included in that survey were a couple fish over 28 inches, highlighting the trophy potential Swanson channel catfish continue to have. Biologists will continue to monitor the situation in 2021 and will adjust stocking plans if deemed necessary. There are 5,750 advanced channel catfish requested for fall 2021.

White Bass Catch Per Unit Effort

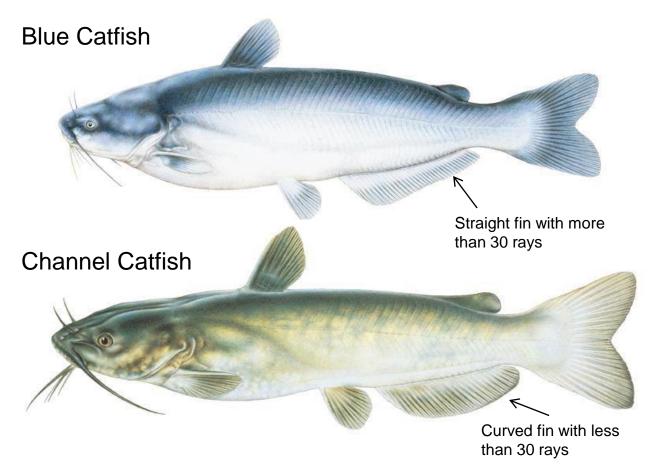


Biologists sampled just under 19 white bass per net in 2020. This was an increase from the 9 fish per net sampled in 2019. Due to the boom or bust nature of white bass recruitment, there is no concern in the variability observed in surveys over the last few years. A positive sign was the age distribution observed, with multiple year classes sampled in 2020. A good mix of keeper size fish and juveniles coming behind them should provide anglers with ample opportunity in 2021 and beyond.

Blue Catfish Catch Per Unit Effort



Blue catfish were introduced to Swanson in 2008, in an effort to provide a unique trophy fishing opportunity for catfish anglers in Southwest Nebraska. Blue catfish have been requested regularly in recent years with the hope of establishing a trophy fishery in Swanson. In 2020, 2 blue catfish were sampled per net. Included in the 2020 sample were a couple fish that reached trophy status, over 35 inches. There are 5,750 blue catfish requested for fall 2021. It is important that anglers take care to positively identify catfish that are harvested because blue catfish are managed under different regulations than channel catfish. Due to natural variation in color, catfish species are most easily identified based on the anal fin.

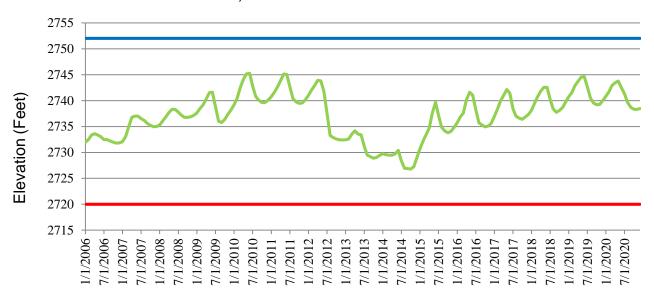


Swanson Reservoir Fish Stocking Summary

Year	Walleye	Wiper	Channel Catfish	Blue Catfish	Yellow Perch
2020	13,512 (7.5")	17,500 (1")	9,000 (10.5")		
2019	2,200,000 (fry)				
2018	13,910 (7")	500,000 (fry)		2,866 (12")	
2017	323,476 (1.5")	16,135 (1.5")	16,176 (5")	4,450 (13")	187,789 (1.5")
2016	3,547,800 (fry)			4,900 (7.5")	

Above is a table of fish stockings for the last 5 years at Swanson Reservoir. The species stocked, number stocked, and fish size are presented in the table. Multiple species are stocked annually at Swanson 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, Swanson Reservoir 2006-2020



Water elevation is a constant management concern at Swanson Reservoir. The dark blue line indicates the top of the active conservation elevation, the green line indicates the end of month reservoir elevation, and the red line indicates the top of the inactive pool. More detailed information and current reservoir elevation data can be obtained by following this link: Current Elevation



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Aquatic invasive species (AIS) have reached Nebraska! Zebra mussels are currently established in Lewis and Clark Reservoir, Offutt AFB pond, and the Missouri River. Anglers and boaters should be on the look out for personnel performing boat inspections and decontaminations statewide. Follow the link: Nebraska. 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