Sutherland Reservoir 2023 Fall Survey Summary

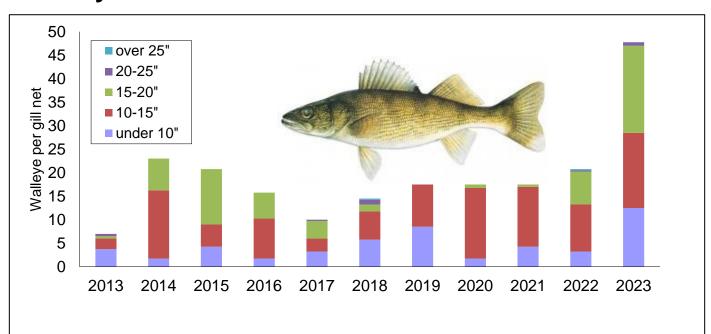


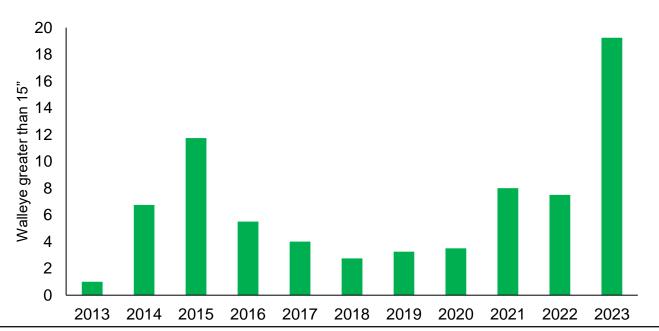
Sutherland Reservoir is the first reservoir downstream from Lake McConaughy. This 3,000-acre reservoir is utilized for cooling Nebraska Public Power District's (NPPD) Gerald Gentleman Station. Sutherland Reservoir offers additional fishing opportunities as it has characteristics such as inlet, outlet and cooling pond fisheries. Check the 2024 Fishing Guide for regulations concerning Sutherland's Fishery.



Information collected from standard surveys allows biologists to evaluate the population density, size structure, and growth rates for several species. This data provides valuable information to guide decision making scenarios that include fish species stocked, stocking rates and fishing regulations. This information also assists Game and Parks staff in guiding anglers to waterbodies that have the desired populations. For more explanation of what constitutes a fisheries survey read the <u>Survey Says</u> article.

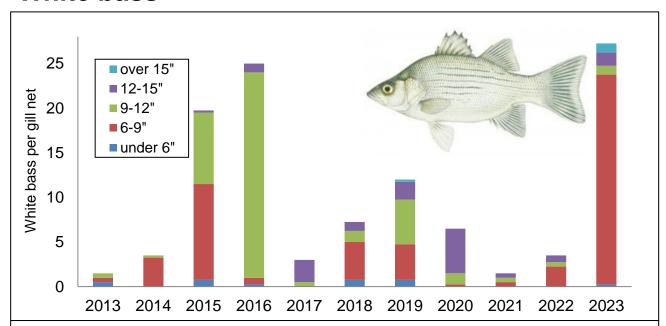
Walleye





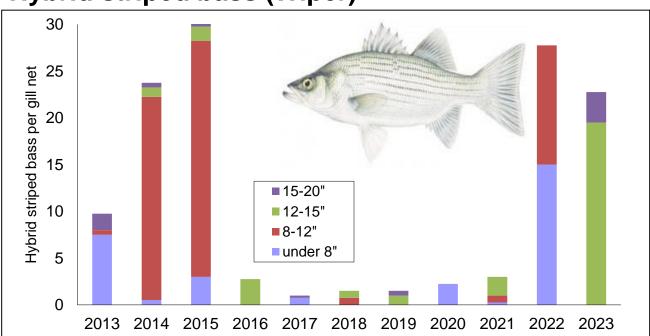
In 2023, 47.75 walleye were sampled per gill net. This historically large and likely unprecedented catch was much greater than the 10-year average of 18 walleye per net. The high catch was primarily due to a large 2023 year-class which comprised 52% of the total catch. Many of these young-of-year were longer than 10 inches. Current data analysis indicates that Sutherland's walleye are reaching 15 inches during their second growing season and 17.5 inches during their third. The 2nd graph depicts those greater than 15 inches. The percent greater than 15 inches is the largest observed since 2004.

White bass



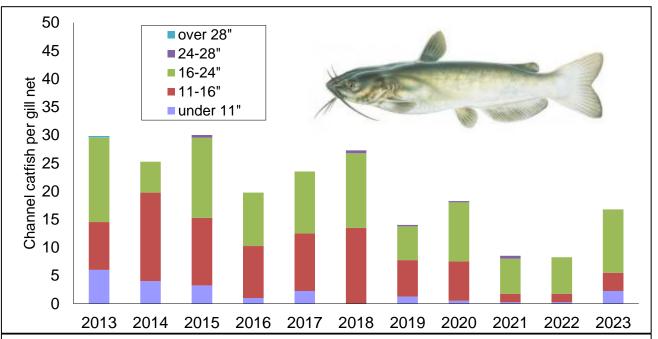
A large increase in white bass abundance was observed as 27.25 white bass were sampled per gill net. Average length in this sample was 8.67". The longest sampled was 15.6 inches and was four years old. Natural reproduction occurred due to favorable water elevations. Access the 2024 Fishing Guide as wiper & white bass harvest is regulated to only 1 greater than 16".

Hybrid striped bass (Wiper)



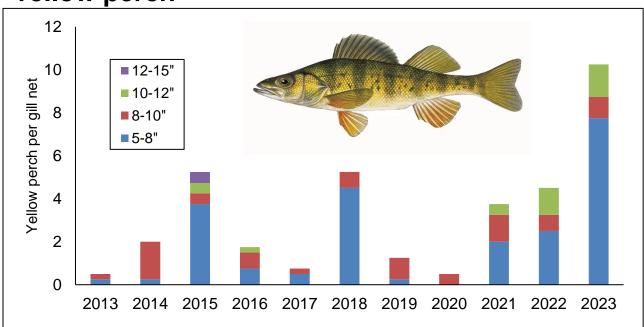
The 2023 survey captured 22.75 hybrid striped bass per net. Anglers should differentiate their catch as hybrid striped bass have much greater growth potential than white bass. The stocking of fry in 2022 was successful and those fish were between 12 and 15 inches. Access MSPC's Fish Identification tool for hybrid striped bass and white bass differentiation assistance. Access the 2024 Fishing Guide as wiper & white bass harvest is regulated to only 1 greater than 16".

Channel catfish



During 2023, 16.75 channel catfish were sampled per net. Of these, 13% were less than11 inches, 19% were 11 to 16 inches and 67% were 16 to 24 inches. Channel catfish are not stocked into Sutherland Reservoir as natural recruitment supports the fishery.

Yellow perch



The 2023 yellow perch survey revealed 10.25 per net. This was much higher than the average of 2.5. The majority of these were 6" but some were over 11". This large abundance is a rare occurrence and reflects the dynamics of Sutherland Reservoir's fishery. Abundance of previously scarce habitat in the form of vegetation is likely allowing this species to proliferate.

Additional Information



Recent abundance of spiny naiad vegetation has impacted Sutherland's fishery. Although this vegetation is seen negatively in some respects, it may be responsible for the upsurge of some game species and availability of valuable habitat for other game species.



Tentatively, during 2024 there will be a creel completed at Sutherland like past creel surveys. NPPD will likely contract with the Nebraska Cooperative Fish and Wildlife Research Unit based out of the University of Nebraska-Lincoln.

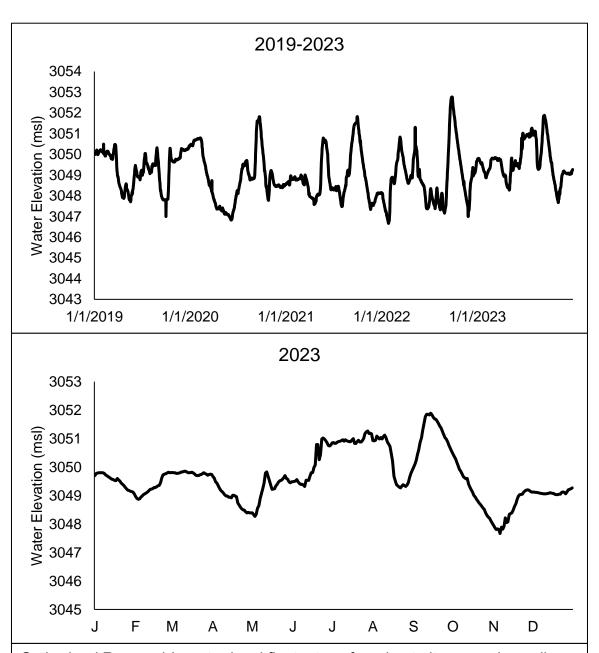
Stockings



Sutherland Reservoir receives stockings from NGPC's Hatchery System every year. In many cases, stocking requests come to fruition but many dynamics can affect the outcome and for this reason future stocking requests are tentative (*). For more stocking details access NGPC's Stocking Reports.

Stocking Year	<u>Walleye</u>	Hybrid Striped Bass
2014	75,840-1.4"	30,000-1.3"
2015	105,000-1.5"	30,300-1.5-2"
2016	75,524-1.5"	
2017	104,960-1.25"	22,500-1"
2018	75,000-1.25" & 2,800,000-fry	15,370-1.25"
2019	133,890-1.25"	15,393-1"
2020	15,772-0.75"&59,202-1"	15,000-1.25"
2021	121,156-1"	
2022	75,600-1.25"	700,000-fry
2023	109,000-1" & 3,003,500-fry	
*2024	75,000-1.5"	

Water Elevation



Sutherland Reservoir's water level fluctuates often due to its usage in cooling Gerald Gentleman Station and providing downstream flows. During 2023 the fishery benefitted due to rising water elevations in the spring. Access MPPD's Water Data to follow instantaneous water level fluctuations.

Aquatic Invasive Species (AIS)

Bigheaded carp have found their way into every major tributary of the Missouri River in Nebraska, including the Platte, Elkhorn, Loup and Nemaha rivers. Obstacles to their continued spread are vital as these species cause substantial damage. These obstacles include physical structures and angler awareness.



Zebra Mussel distribution is expanding, especially in Kansas and South Dakota. Currently the only waterbodies in Nebraska with confirmed zebra mussel infestations are the Missouri River, Lewis and Clark Lake, Lake Yankton and Offutt Base Lake.

Asian clam is commonly confused for zebra mussel and are ubiquitous in many locations. This mussel is listed as a Category II Priority Aquatic Invasive Species by NGPC. This indicates that they are highly unwanted and all efforts should be taken to prevent their expansion.



To report AIS utilize 402-471-7602 or ngpc.ais@nebraska.gov

If you have questions or concerns about Sutherland's fishery please contact North Platte Sourthwest District office at 308-535-8025 / 308-221-6242