Sutherland Reservoir 2018 Fall Survey Summary



Jared Lorensen, Fisheries Biologist

Sutherland Reservoir is the first canal reservoir downstream from Lakes McConaughy and Ogallala. This reservoir is utilized for cooling of Nebraska Public Power District's (NPPD) Gerald Gentleman Station. This results in warmer water temperatures earlier in the spring and later into the fall. Sutherland Reservoir offers unique fishing opportunities as a result of its functionality. Notice special regulations in the 2019 Fishing Guide.

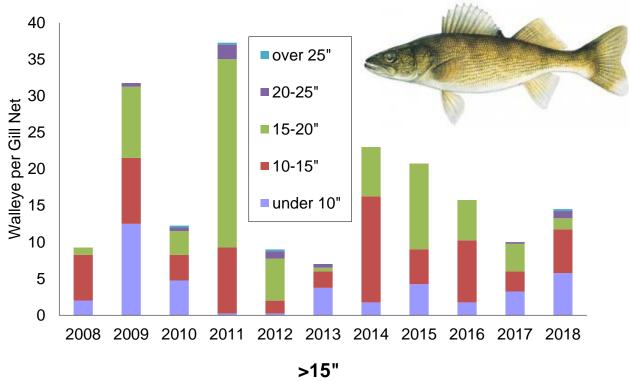


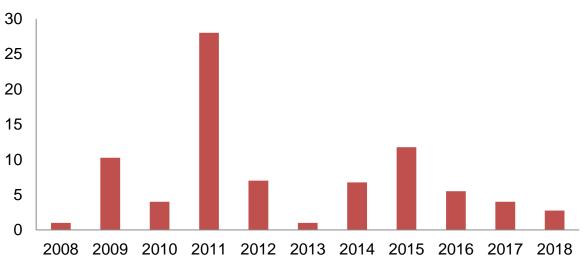
Information collected from standard surveys allows biologists to evaluate the population density, size structure, and growth rates for several species. This data provides valuable information to guide decision making scenarios that include fish species stocked, stocking rates and fishing regulations.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

The following text and graphs are the result of the 2018 gill netting survey at Sutherland Reservoir. Graphs represent number of each species captured per gill net by length group. For comparative purposes it also shows results from previous years.

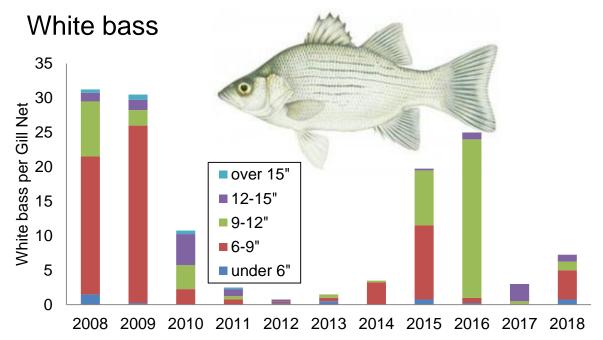
Standard Population Survey Results

Walleye



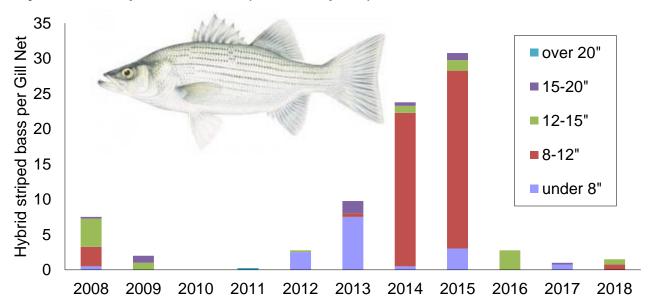


A downward trend in walleye abundance was reversed with 2018's survey data. In 2018, 14.5 walleye were sampled per gill net with 40% less than 10", 41% 10-15", 10% 15-20", 7% 20-25" and 2% over 25". Abundance of young-of-year walleye in the survey is encouraging for future angling. Current age data analysis data indicates that Sutherland's walleye reach 15" in approximately two years.



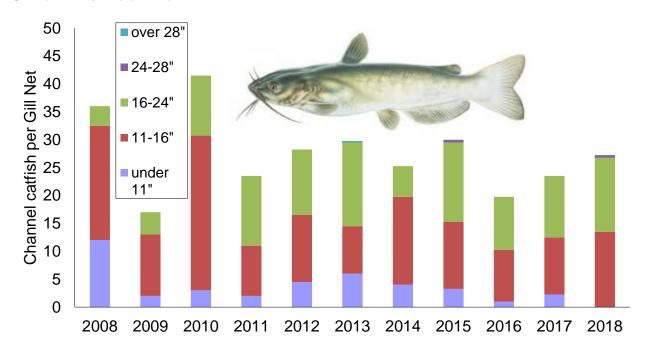
A drastic decline was observed in 2017 with only 2.75 white bass per gill net but 2018's data may indicate the beginning of a recovery. The white bass surveyed during 2018 had a mean length of 8". This sample contained 10% under 6", 59% 6-9", 17% 9-12" and 14% 12-15". Of these, 65% were young-of-year. Natural reproduction supports this cyclical white bass fishery.

Hybrid striped bass (aka wiper)



The 2018 survey captured 1.5 wiper per net with an average length of 11.7". A low density population consisting of large individuals (> 20") is desired. Anglers need to identify species of catch to differentiate between white bass and hybrid striped bass. Release of hybrid striped bass will allow these fish to reach their growth potential. Access the NGPC Fish Identification Guide for tips on identifying these species prior to harvest. In addition to what this website states, hybrid striped bass have more than one stripe that extends to the tail.

Channel catfish



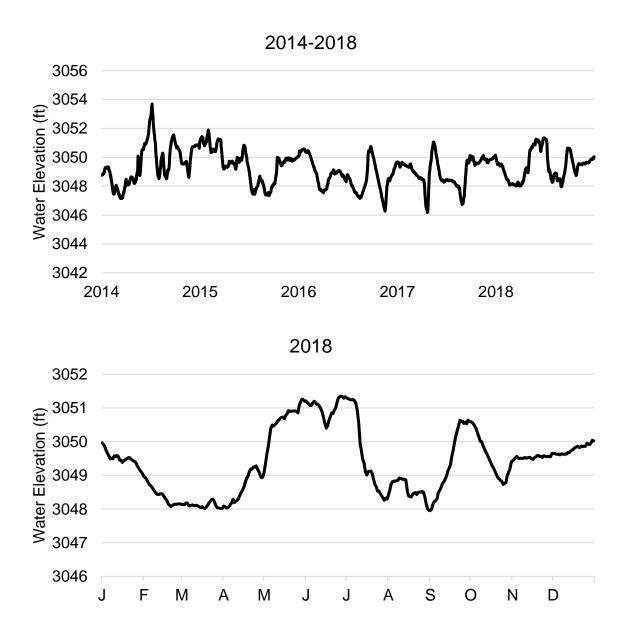
Sutherland has one of the largest channel catfish fisheries in the state. Channel catfish were sampled in average quantity in 2018 with 27.25 sampled per gill net with 0% being <11", 50% 11-16", and 49% 16-24" and 1% 24-28". Channel catfish are not stocked into Sutherland Reservoir as natural recruitment supports the fishery.

Stockings

Sutherland Reservoir receives stockings from NGPC's Hatchery System every year. For more stocking details access NGPC's Stocking Reports.

Stocking Year	<u>Walleye</u>	Hybrid Striped Bass	White bass
2008	83,300-1"	21,000-1.25"	
2009	79,299-1.5"		
2010	76,842-1.3"		
2011	79,988-1"		400,000-0.1"
2012	74,308-1.35"	9,889-2"	
2013	75,048-1.3"	29,594-1"	
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"	
	75,000-1.25" &		
2018	2,800,000-fry	15,370-1.25"	

Water Elevation



Sutherland Reservoir's water level fluctuates often and plays a vital role on the fishery. Access NPPD's Water Data to follow water level fluctuations.

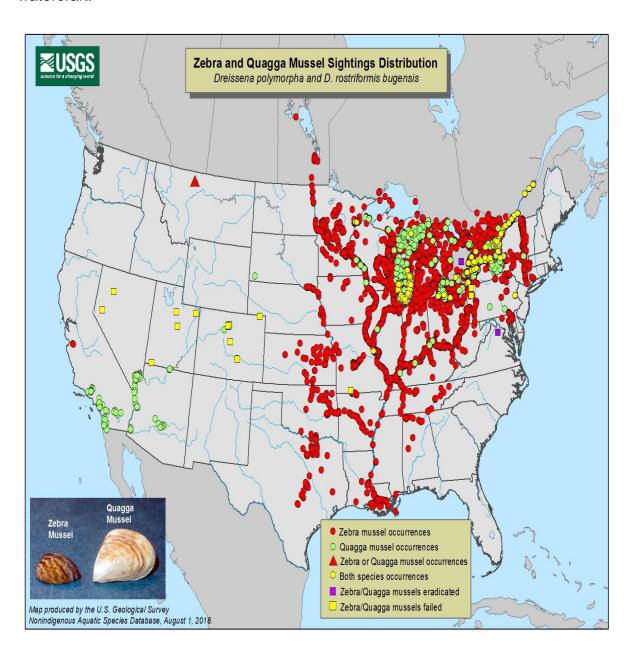
If you have questions or concerns about Sutherland Reservoir's fishery please contact Jared Lorensen, Biologist 308-535-8025, jared.lorensen@nebraska.gov

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Aquatic Invasive Species (AIS)

Distribution of zebra and quagga mussels is getting closer and closer to SW Nebraska. The most recent finding in Nebraska was at Lewis and Clark Reservoir during 2015 and downstream Lake Yankton shortly after. This map portrays the spread of these invasive mussels and is updated often.

In 2016, Nebraska boaters became required to possess a <u>Aquatic Invasive Species</u> (<u>AIS) Stamp</u>. Residents acquire the stamp when registering their watercraft. Nonresidents have to purchase a physical sticker that must be displayed on their watercraft.



Aquatic Invasive Species (AIS)



According to Nebraska State Law, it is illegal for watercraft to enter a Nebraska waterbody or leave a launch area while containing water. This includes all containers, compartments, and equipment that are permanently attached to the watercraft.

AND

All aquatic vegetation must be removed from watercraft and trailers before leaving a launch area.

Protect Your Waters—Remember to <u>CLEAN</u>, <u>DRAIN</u>, and <u>DRY!</u>

