# **Sutherland Reservoir 2016 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 than other reservoirs. Sutherland Reservoir offers unique fishing opportunities as a result of its functionality. Notice these aspects and special regulations on NPPD's Recreation document.



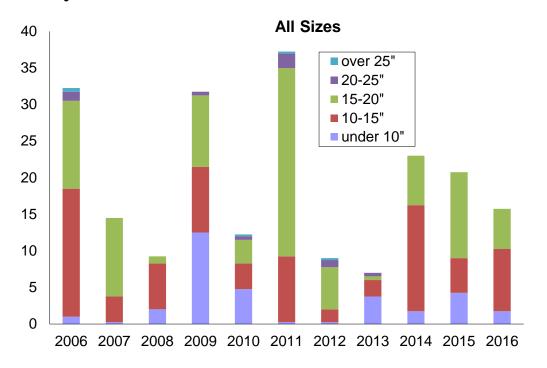
Information collected from standard surveys allows biologists to evaluate the population density, size structure, and growth rates for several species. This data provides valuable information to guide decision making scenarios that include fish species stocked, stocking rates and fishing regulations.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

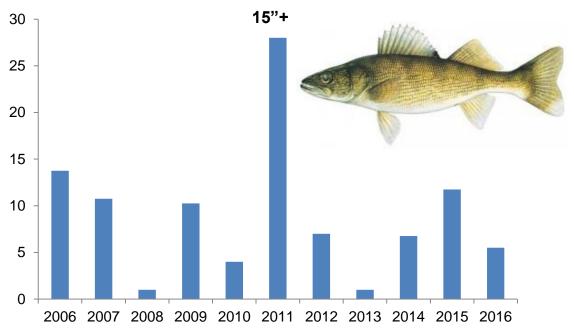
The following text and graphs are the result of the 2016 gill netting survey at Sutherland Reservoir. Graphs represent number of each species captured per gill net by length group. For comparative purposes it also shows results from previous years.

The 2017 Fishing Guide explains regulations pertaining to Sutherland's fishery.

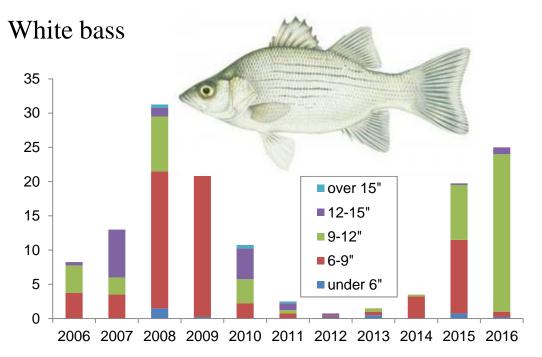
## **Standard Population Survey Results**

#### Walleye



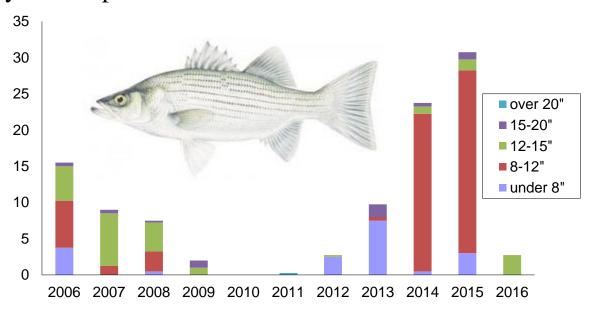


A downward trend in walleye abundance was observed. In 2016, 15.75 walleye were sampled per gill net with 11% less than 10", 54% 10-15", and 35% 15-20". The abundance of 10-15" walleye observed in this survey bodes well for walleye angling in coming years. Relative weight calculations indicate that Sutherland's walleye are in excellent body condition.



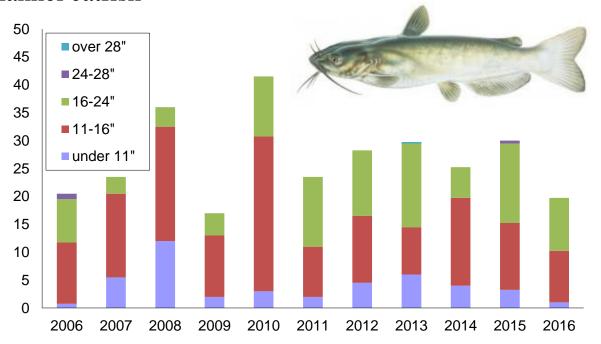
White bass catch rate increased in 2016 with 25 sampled per net with a mean length of 10.8". This sample was comprised by 1% under 6", 3% 6-9" 92% 9-12" and 4% over 15". Natural recruitment supports the white bass fishery and angling success is typically observed by anglers at the inlet and in locations prey (gizzard shad) congregate.

### Hybrid striped bass



The 2016 survey captured 2.75 wiper per net with an average length of 13  $\frac{1}{2}$ ". The sample was comprised of the 2015 year class. 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.

#### Channel catfish



Sutherland has one of the largest channel catfish fisheries in the state. Channel catfish were sampled below average quantity in 2016 with 19.75 sampled per gill net with 5% being <11", 47% 11-16", and 48% 16-24". Channel catfish are not stocked into Sutherland Reservoir as natural recruitment supports the fishery.

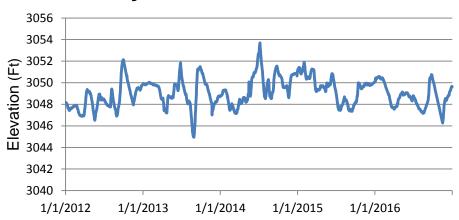




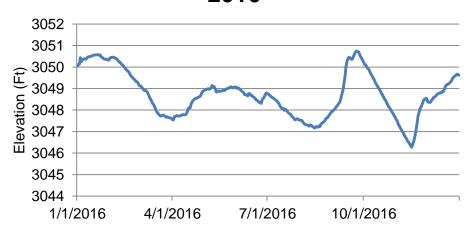
Sutherland Reservoir receives stockings from NGPC's Hatchery System every year. Many factors are at play when stocking selections are made. Below you will find Sutherland's stocking history for the past eleven years excluding some adult stockings during 2009. For this and more stocking details on Sutherland and other public waterbodies access <a href="MGPC's">MGPC's</a> Stocking Reports.

<b>Stocking Year</b>	<u>Walleye</u>	<b>Hybrid Striped Bass</b>	White bass
2006	75,950-1"	30,000-1.25"	
2007	75,225-1"	60,000-1.25"	
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"		

#### Sutherland's Water Elevation January 2012 - December 2016



# Sutherland's Water Elevation 2016



Sutherland Reservoir's water level fluctuates often. Access <u>NPPD's Water</u> <u>Data</u> to follow water level fluctuations.

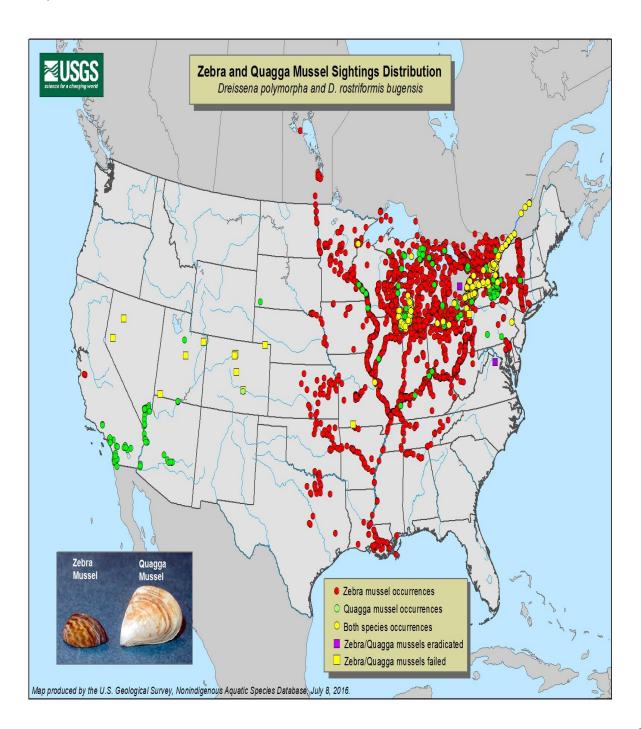
If you have questions or concerns about Sutherland Reservoir's fishery please contact

Jared Lorensen, Biologist 308-535-8025, jared.lorensen@nebraska.gov OR

Brad Newcomb, District Mgr. 308-865-5330, brad.newcomb@nebraska.gov

#### **Aquatic Invasive Species (AIS)**

Distribution of zebra and quagga mussels is getting closer and closer to SW Nebraska. The most recent finding was at Lewis and Clark Reservoir in NE Nebraska during 2015. This <u>map</u> portrays the spread of these invasive mussels and is updated often.





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>

