## Johnson Reservoir 2015 Fall Survey Summary



#### Jared Lorensen, Fisheries Biologist

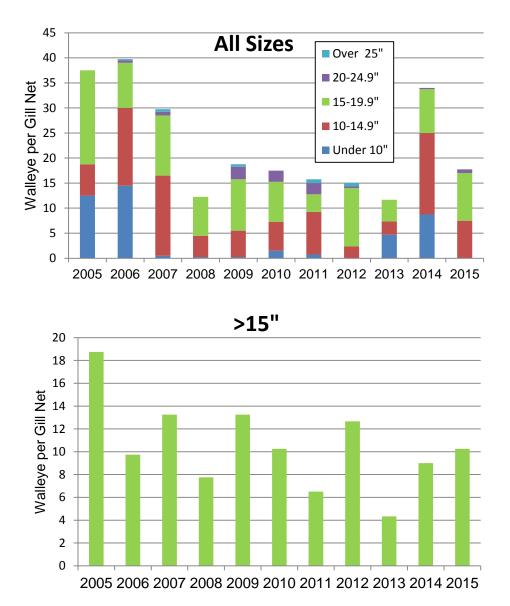
Johnson Reservoir is a major reservoir on Central Nebraska Public Power & Irrigation District's (CNPPID) Supply Canal System downstream of Plum Creek Reservoir. Notice its fluvial behavior at <u>CNPPID's Reservoir/River Data</u> page. CNPPID manages Johnson Reservoir for hydroelectric power generation and irrigation purposes. There are unique fishing opportunities as a result of this functionality. Notice these aspects on <u>NGPC's Lake Map</u>.

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.



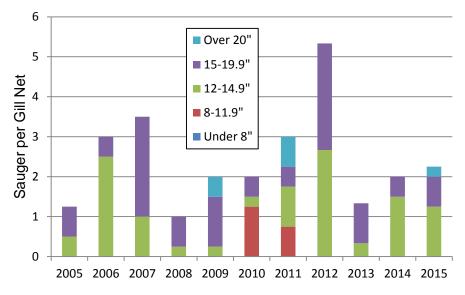
Every fall the fishery of Johnson Reservoir is surveyed with standard sampling methods. The following text and graphs are the result of the 2015 gill net survey Graphs represent the number of each species captured per gill net by length group. For comparative purposes it shows results from previous years.

### Walleye



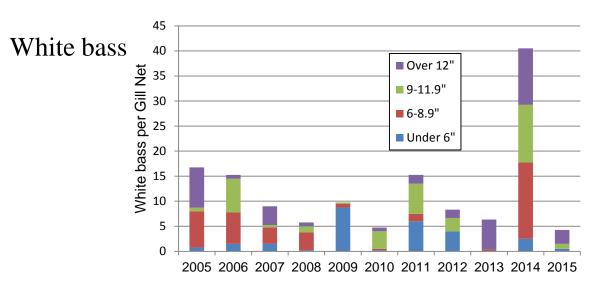
Although the 2015 survey data is lower than 2014's, the only significant difference is the absence of small walleye (under 10"). Approximately 18 walleye were sampled per gill net with an average length of 16". The 2013 and 2014 year classes recruited well contributing to the abundance of small walleye in the population observed in 2014's data. The existence of small fish is crucial to sustain harvest rates but were not observed in 2015's data. The largest sampled in 2015 was 24". Walleye reach 15" in length after approximately three years of growth in Johnson Reservoir.

#### Sauger

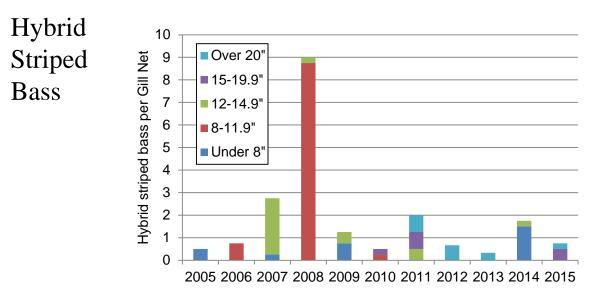


Average length of sauger sampled during 2015 was 15.25". Sauger in Johnson are reaching 15" after approximately three years of age. They are not stocked in Johnson, but are stocked annually upstream in Midway, Gallagher and Plum Creek reservoirs. Fingerling and fry stockings in these upstream reservoirs are scheduled in 2016.

Sauger are quite similar is appearance to walleye and harvest is regulated in conjunction for these two species. Access <u>NGPC's Fish Identification Tool</u> and the <u>2016 Fishing Guide</u> for details.

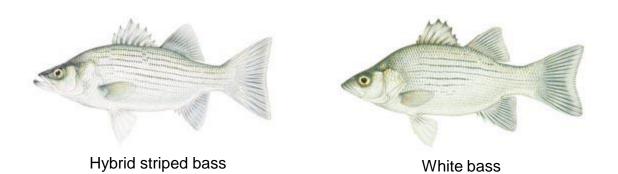


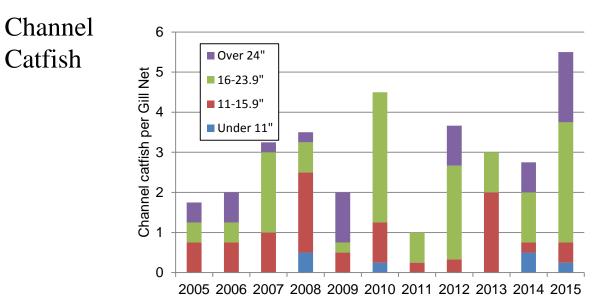
White bass reproduction and recruitment is sporadic. Only four were sampled per gill net during 2015. This survey data represents a decreased white bass population but reveals that some large (over 12") white bass exist as the average length captured in 2015 was 11.75" and the longest was just short of 14.5". These largest specimens were age six.



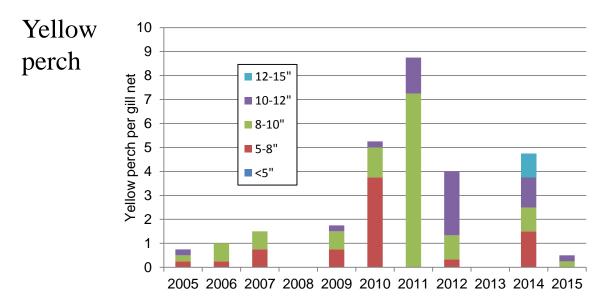
The hybrid striped bass population remains at a low level. Overall, only three were sampled in 2015 with two from the 2013 year class. The largest of those sampled was 24.5" and six years old. Hybrid striped bass are managed to provide a large (>20") temperate bass for anglers to pursue.

Access <u>NGPC's Fish Identification</u> tool for hybrid striped bass and white bass differentiation.





Abundance of channel catfish is fairly consistent in Johnson (note vertical axis). In 2015, abundance sampled was up a little from previous years and the size composition appears to be more favorable along with some recently recruited smaller fish. The largest channel catfish sampled was just shy of 30".

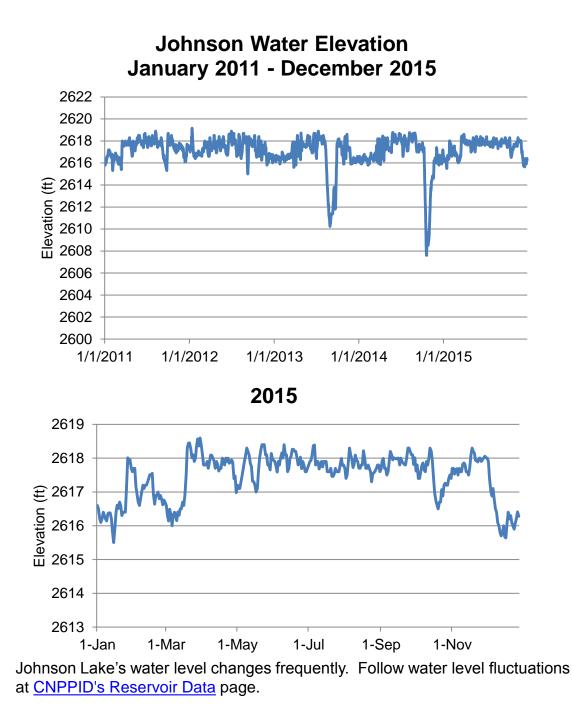


The 2014 survey indicated a growing yellow perch population. Although the overall abundance was low, the 2014 data is the first to indicate perch longer than 12". Stockings of yellow perch began in 2007 and a resurgence has been observed and limited angling success has been reported.



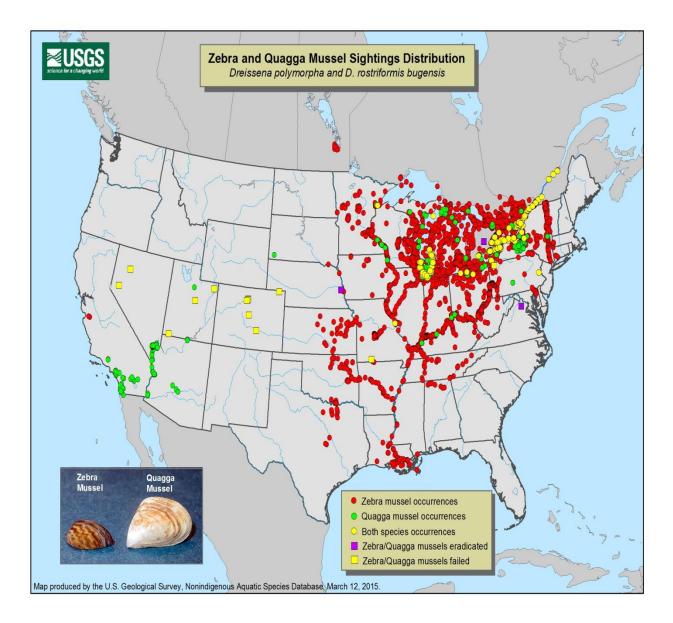
Johnson Reservoir receives stockings from NGPC's Hatchery System every year. Many factors are at play when stocking selections are made. Below you will find Johnson's stocking history for the past eleven years. For more stocking details access <u>NGPC's Fish Stocking Reports</u>.

Year	<u>Walleye</u>	Hybrid Striped Bass	Yellow Perch	Channel catfish
2005		14,000-1"		
2006	140,000-1.25"	28,000-1.25"		
2007	140,000-1.25"	40,475-1.75"	65,973-4"	
2008	100,000-1.1-1.25"	43,780-1.25"		
2009	219,525-1.4"	14,763-2"	66,610-3"	
2010	219,000-1.5"			
2011	219,473-1.25"		66,674-3"	6,070-7"
2012	219,375-1.3-1.4:"			37,470-5"
2013	239,082-1.2"	10,963-1.2"	60,048-3"	
2014	168,295-1.5"	21,890-1.3"		
2015	219,317-1.5"	10,945-1.3"	85,078-2.6- 2.8"	



If you have questions or concerns about Johnson'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 Distribution of invasive 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.



# Attention motorboat owners operating in Nebraska:

Starting in 2016, boaters whose motorized watercraft are registered in any state other than Nebraska must purchase and display a \$15 Aquatic Invasive Species (AIS) Stamp each year they launch their boat in Nebraska. The stamp will help fund AIS education and inspection programs.





- · Boat inspections for AIS prior to launch in Nebraska are NOT mandatory at this time.
- · Personal watercraft registered outside of Nebraska must have this stamp.
- · Non-motorized craft registered in any state are exempt from the stamp.
- Stamps are not required for boats registered in Nebraska. A \$5 AIS fee is included on the residents' three-year boat registrations.
- Residents who register their boats in other states must have this stamp before launching in Nebraska.

This stamp is available online at OutdoorNebraska.org or at Nebraska Game and Parks permitting offices.

Learn more about invasive species at neinvasives.com.





# STOP AQUATIC HITCHHIKERS!

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>

