

Johnson Reservoir 2016 Fall Survey Summary



Jared Lorenzen, Fisheries Biologist

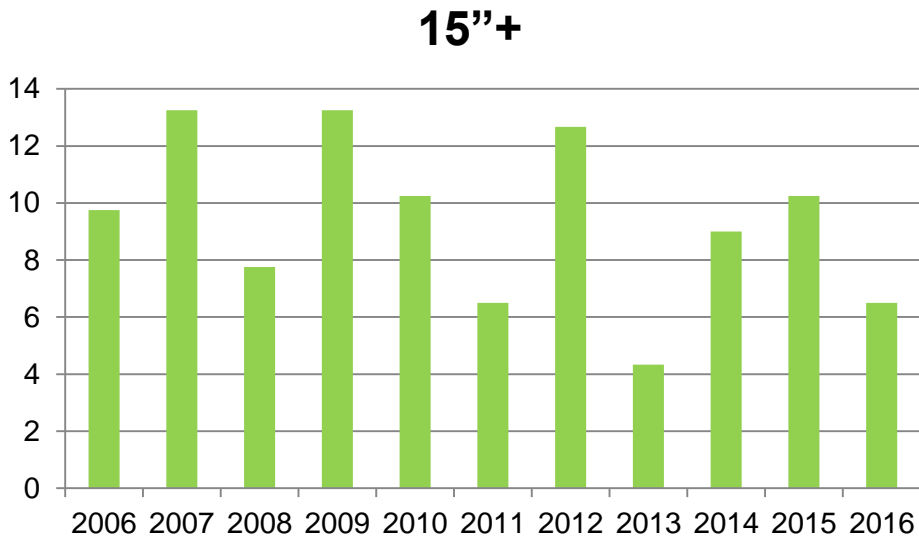
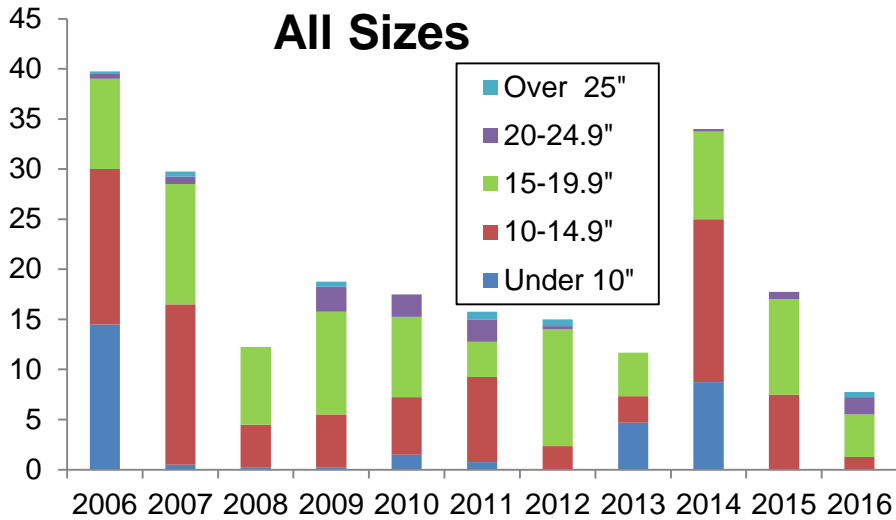
Johnson Reservoir is a major reservoir on Central Nebraska Public Power & Irrigation District's (CNPPID) Supply Canal System downstream of Plum Creek Reservoir. Notice its fluvial behavior at [CNPPID's Reservoir/River Data](#) page. CNPPID manages Johnson Reservoir for hydroelectric power generation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

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.



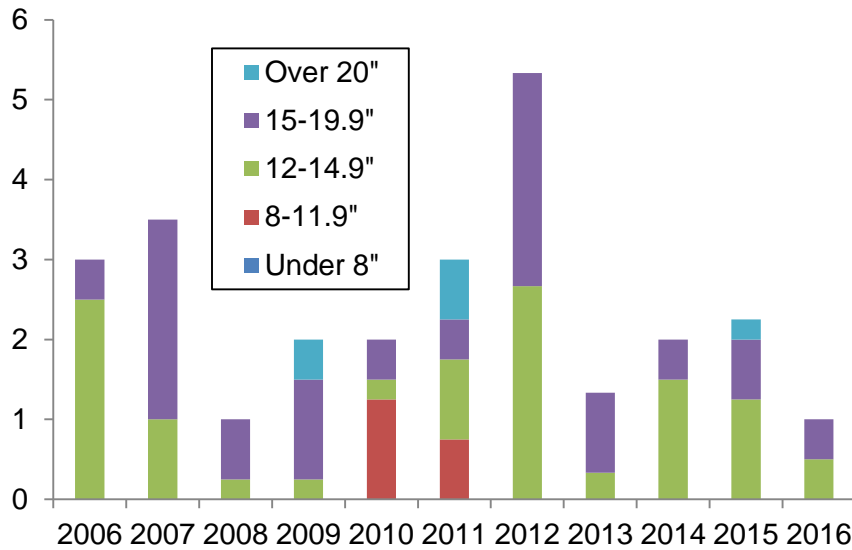
Every fall the fishery of Johnson Reservoir is surveyed with standard sampling methods. The following text and graphs are the result of the 2016 gill net and nighttime electrofishing surveys. Graphs represent the number of each species captured per gill net by length group. For comparative purposes it shows results from previous years.

Walleye



Approximately 8 walleye were sampled per gill net with an average length of 18.7". The 2013, 2014 and 2015 year classes were represented in this data. The largest sampled in 2016 was 26.5". Walleye reach 15" in length after approximately three years of growth in Johnson Reservoir. 2016's survey contributed to a three year downward trend in observed walleye population. The existence of small fish is crucial to sustain harvest rates. Although zero young-of-year (under 10") walleye were collected in the standard gill nets we did observe some during subsidiary survey efforts.

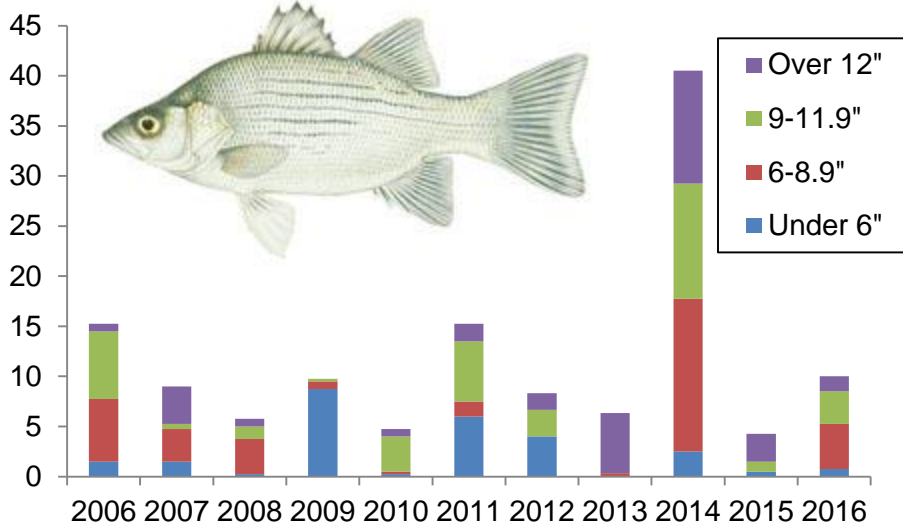
Sauger



Average length of sauger collected in 2016 was 14 ¾". 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 2017.

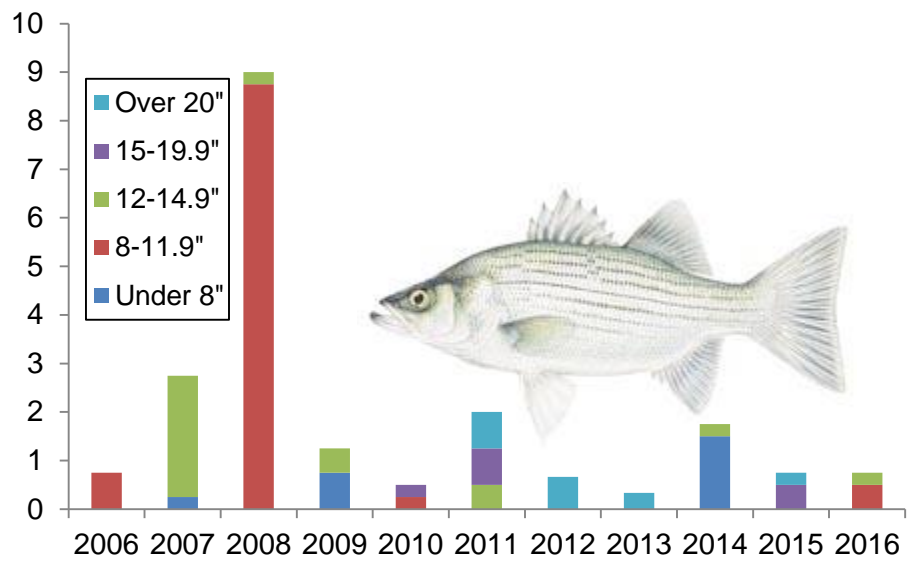
Sauger are quite similar in appearance to walleye and harvest is regulated in conjunction for these two species. Access [NGPC's Fish Identification Tool](#) and the [2017 Fishing Guide](#) for details.

White bass



White bass reproduction and recruitment is sporadic. Ten were sampled per gill net during 2016. This survey data represents an approximately "average" population. The average length captured in 2016 was 9" and the longest was 14". These largest specimens were age five and six.

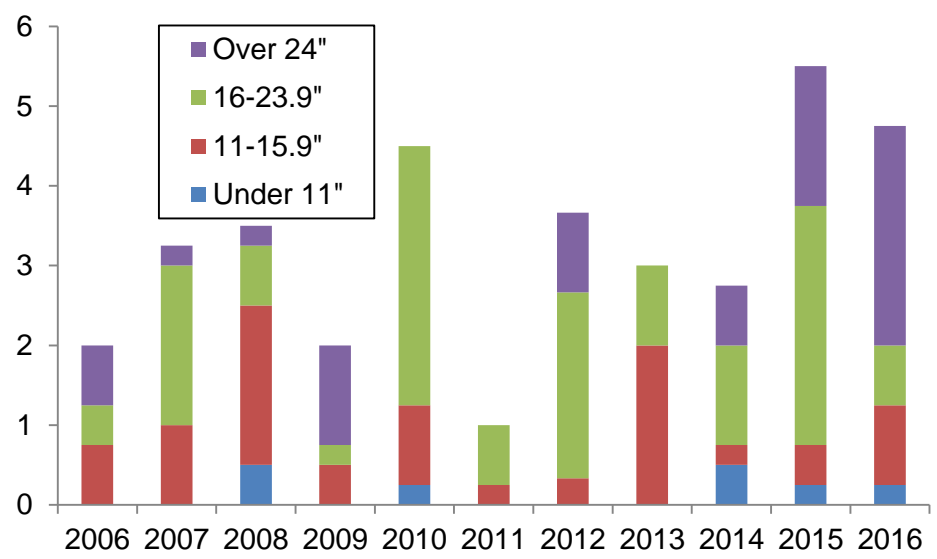
Hybrid Striped Bass



The hybrid striped bass population remains at a low level. Overall, only three were sampled in 2016 with all 3 from the 2015 year class. Hybrid striped bass are managed to provide a large (>20") temperate bass for anglers to pursue. Stocking of wiper in Johnson has been suspended for 2017 as this species does not produce a fishery in Johnson.

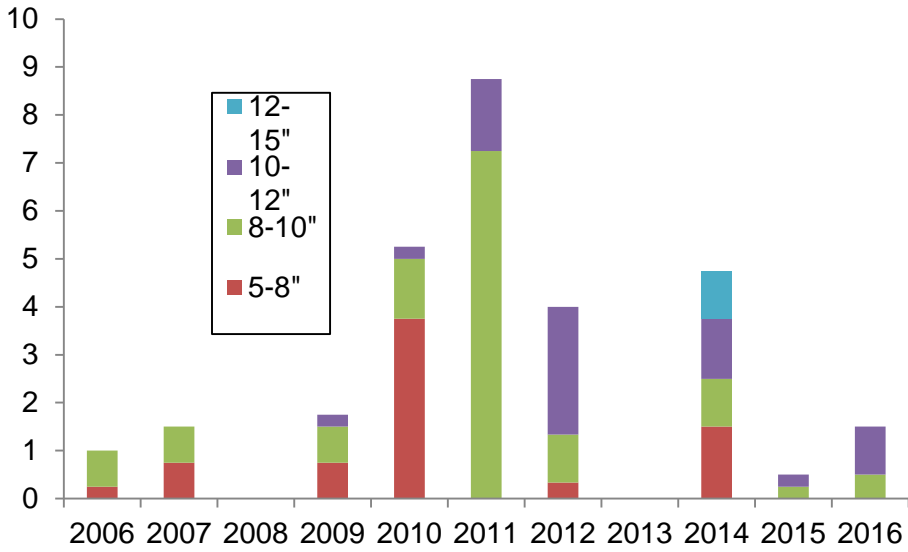
Access [NGPC's Fish Identification](#) tool for hybrid striped bass and white bass differentiation.

Channel Catfish



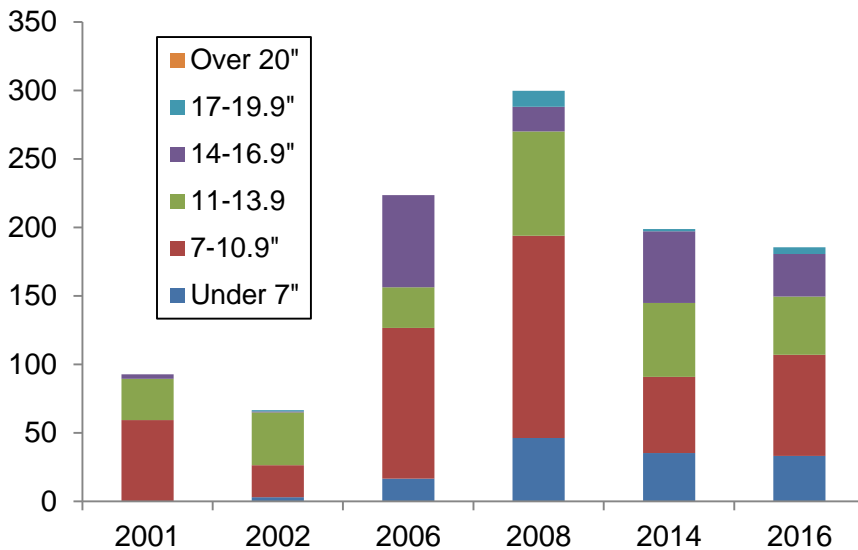
Abundance of channel catfish is fairly consistent in Johnson (note vertical axis). In 2016, abundance sampled was up a little from previous years and the size composition appears to be more favorable along with some recently recruited smaller fish. The largest channel catfish sampled was 30".

Yellow perch



The 2016 survey collected 1.5 yellow perch per net. Although the overall abundance was low, the 2016 data sampled perch out to 11". Stockings of yellow perch began in 2007 and a resurgence has been observed and limited angling success has been reported.

Smallmouth bass



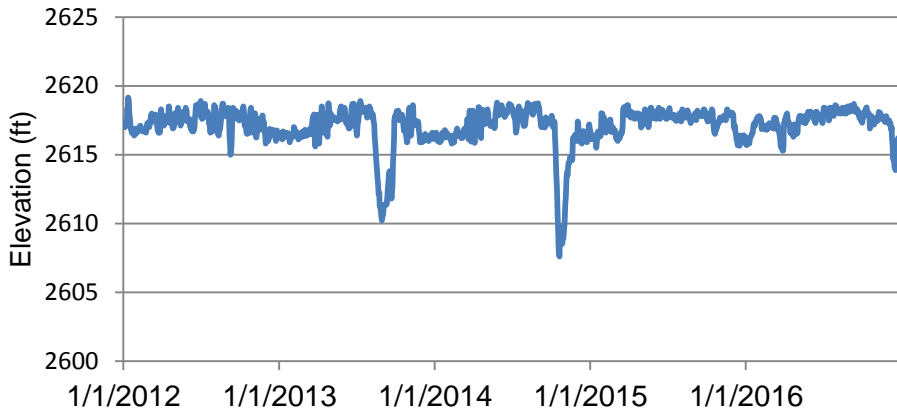
The 2016 smallmouth bass data was similar to that collected in 2014 with the addition of some large individuals measuring 17". In 2016, 186 smallmouth were collected per hour of nighttime electrofishing. This value is impressive when compared to other nearby fisheries. Smallmouth anglers have success near rocky shorelines such as the dam and outlet areas.



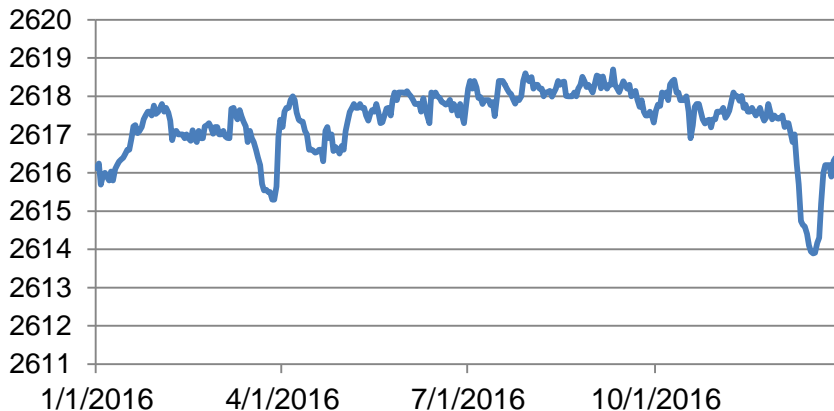
Johnson Reservoir receives stockings from NGPC's Hatchery System every year. Many factors are at play when stocking selections are made. Below you will find Johnson's stocking history for the past eleven years. For more stocking details access [NGPC's Fish Stocking Reports](#).

<u>Year</u>	<u>Walleye</u>	<u>Hybrid Striped Bass</u>	<u>Yellow Perch</u>	<u>Channel catfish</u>
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"	
2016	218,872-1.5"			

Johnson Water Elevation January 2012 - December 2016



Johnson Water Elevation 2016



Johnson Lake's water level changes frequently. Follow water level fluctuations at [CNPPID's Reservoir Data](#) page.

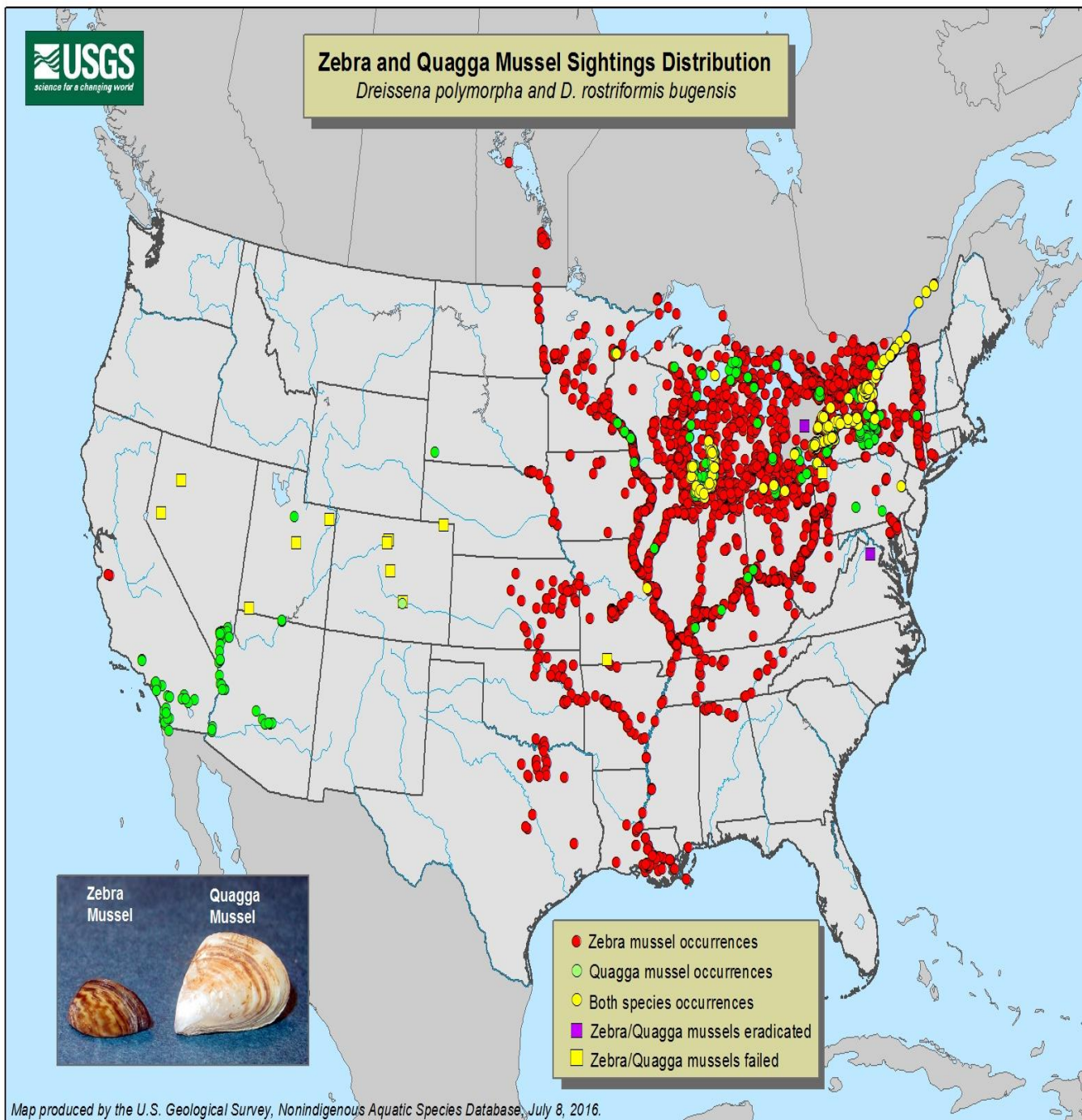
If you have questions or concerns about Johnson's fishery please contact

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OR

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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 [map](#) portrays the spread of these invasive mussels and is updated often.





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 **CLEAN, DRAIN, and DRY!**

