2015 Fall Survey Summary Canyon Reservoirs



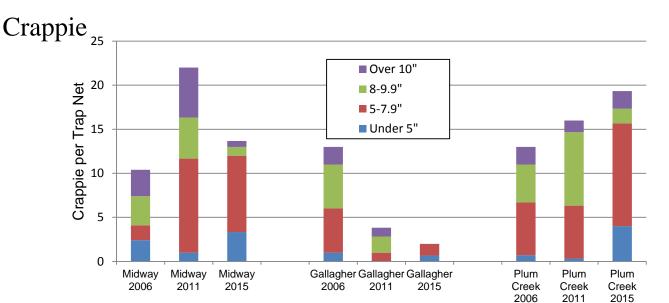
Jared Lorensen, Fisheries Biologist

Midway, Gallagher and Plum Creek Reservoirs are generally referred to as the "Canyon Reservoirs". They are located along the Central Nebraska Public Power and Irrigation District's (CNPPID) Supply Canal between Cozad and Lexington. These reservoirs experience high flow rates that allow for unimpeded downstream fish movement. This factor makes fisheries management challenging but it also makes them unique fisheries. Access Land-use Maps of these reservoirs to understand their layouts.

The Canyon Reservoirs are sampled using experimental gill nets, a method commonly used to sample species found primarily in open water, such as walleye, white bass, channel catfish and hybrid striped bass. These nets are made of clear monofilament mesh strung between a weighted line and a floating line. This mesh ranges in size from ¾ of an inch to 3 inches and the nets are typically set perpendicular to the shoreline in 6 to 12 feet of depth during late afternoon with an orange floating buoy on the ends to deter boats from being entangled and for ease of retrieval. Gill nets create an invisible wall in the water column that fish cannot sense so they are entangled by their gills as they attempt to move through this mesh.

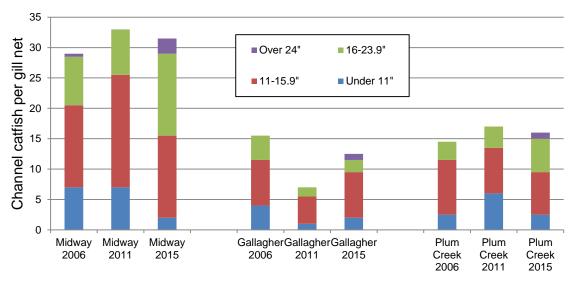
In addition to gill nets, trap nets are used to sample shoreline oriented species such as crappie. These nets are set perpendicular to the shoreline and entrap fish by funneling them through a narrowing frame covered in 5/8" braided mesh. NGPC staff tend these nets similarly to gill nets.

Data collected from these surveys allow 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.



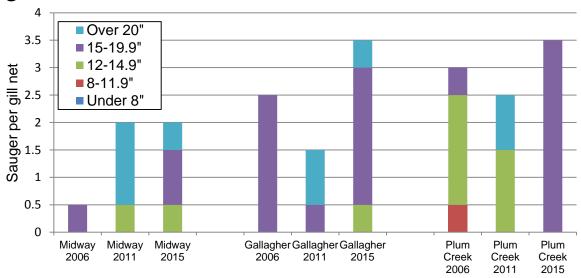
The Canyon Reservoirs have areas of flooded timber and calm water. Crappie do well in all three of these waterbodies due to this habitat. The diverse size structures observed in their populations indicate self sustaining populations. The 2015 data indicates improved crappie populations since the 2006 data at Plum Creek but decrease populations at Gallagher and Midway. Anglers have the best success during spring but the fall crappie fishing can be productive on these lakes too.

Channel catfish

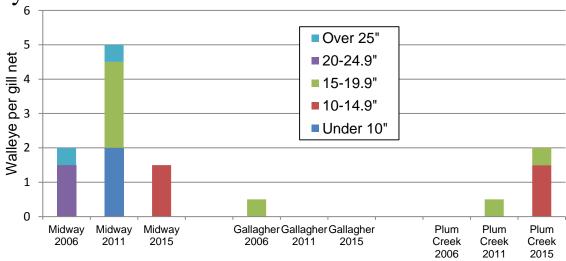


All three Canyon Reservoirs contain excellent populations of channel catfish. These populations are typically some of the strongest in Nebraska. Survey results indicate that Midway consistently has the highest net catch of the Canyon Reservoirs. Excellent spawning habitat and stable water levels allow for consistent reproduction and recruitment. The Canyon Reservoirs are known for producing large and trophy sized channel catfish.

Sauger







Sauger and walleye are present in all the Canyon Reservoirs. Attempts were made to improve the walleye fishery but stockings were discontinued as improvements were not observed. The remaining walleye populations are maintained by migration of upstream populations. Sauger may be better adapted to habitat present in the Canyon Reservoirs (high flows and turbid water). They have been stocked annually into the Canyon Reservoirs since 1998 and appear to be established in Gallagher, Plum Creek and Johnson Reservoirs. Natural recruitment of sauger has not been identified thus far.

The walleye and sauger regulation at the Canyon Reservoirs includes a daily bag of 4 (in conjunction) with no more than one over 22". Access NGPC's online Fish Identification Tool for sauger identification help.

Below is a list of recent NGPC stockings into the Canyon Reservoirs. For more detailed records visit NGPC's <u>Stocking Reports</u>.

Midway

<u>Year</u>	<u>Sauger</u>	Northern Pike	<u>Paddlefish</u>
2006	60,420-1.4"	564-10"	
2007			
2008			
2009	15,804-1.5"	4,760-2.1"	
2010	755,106-0.1"		
2011	20,342-1.75"		
2012	20,066-1.9"	36,550-1.4"	
2013	346,010-0.1-1.25"		
2014	383,435-0.1-1.9"		495-12.9"
2015	286,306-0.1-1.9"		422-12"

Gallagher

<u>Year</u>	<u>Sauger</u>	Northern Pike	<u>Paddlefish</u>
2006	16,000-1.4"	324-10"	
2007			
2008			
2009	4,610-1.5"	1,695-3"	
2010	140,000-0.1"		
2011	6,240-2"		
2012		11,000-1.4"	
2013	130,350-0.1-1.25"		
2014	242,125-0.1-1.9"		495-12.9"
2015	126500-0.1-1.8"		404-12"

Plum Creek

<u>Year</u>	<u>Sauger</u>	Northern Pike	<u>Paddlefish</u>
2006	22,000-1.4"		
2007			
2008			
2009	6,322-1.5"		
2010	128,681-0.1"		
2011	7,043-1.8"		
2012		15,120-1.4"	
2013	152,900-0.1-1.25"		
2014	144,260-0.1-1.9"		
2015	154,500-0.1-1.9"		621-11"

During 2014 and 2015 paddlefish were stocked into the Canyon Reservoir system. It is believed that their habitat requirements may be met well by that available in the Tri County Canal System and they may provide a unique fishery in the future.

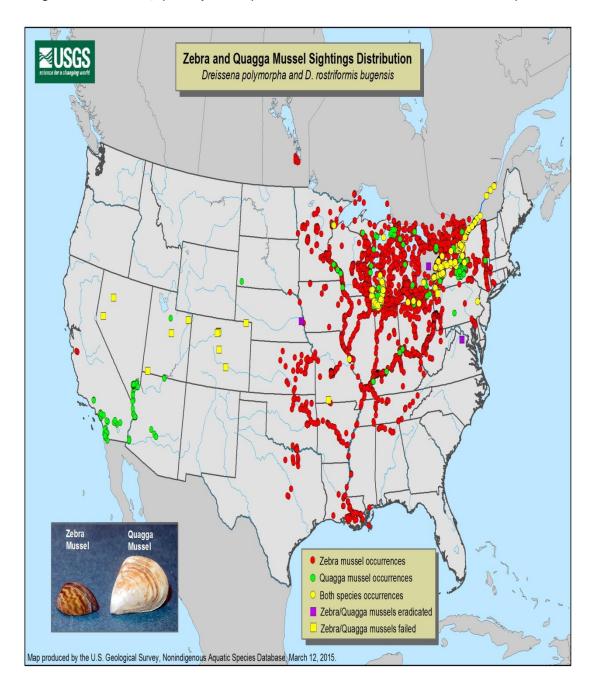
One paddlefish (pictured above) was captured at Gallagher Canyon during 2015's Standard Survey. This fish originated from the 2014 stocking and measured 21.5" from the front of the eye to the fork of the tail and weighed 6.25 lbs. These measurements indicate that this fish was in good health and that the 2013 stocking has resulted in some adult paddlefish.

Harvest of paddlefish is not allowed anywhere in the state except below Gavin's Point Dam (with permit). Analysis of the Canyon Reservoir's paddlefish population will occur over the next several years. If the Canyon Reservoir paddlefish population is deemed suitable for harvest a regulated season may be opened in the future.



Aquatic Invasive Species (AIS)

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.





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>



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.

