Jeffrey Reservoir 2014 Fall Survey Summary



Jared Lorensen, Fisheries Biologist

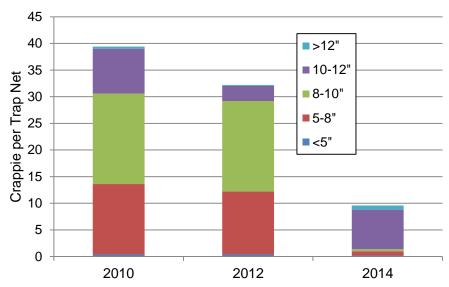
Jeffrey Reservoir is the third canal reservoir downstream from Lakes McConaughy and Ogallala. Water elevation is regulated by Central Nebraska Public Power & Irrigation District (CNPPID) for hydroelectric power generation. Jeffrey Reservoir offers unique fishing opportunities as a result of this functionality. Notice these aspects on <u>CNPPID's Lake Map</u>.



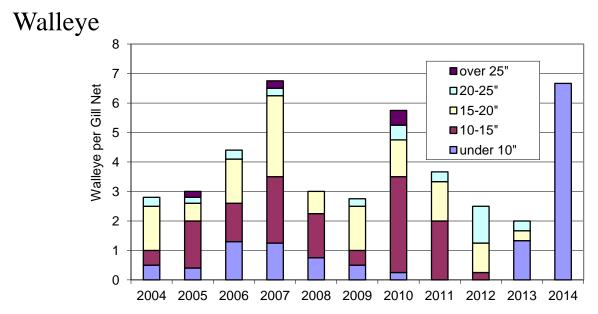
A Wildlife Management Area (WMA) exists on the east side of the lake and can be located on the map referred to above. This area is NGPC managed to maintain public access to the lake. A concrete boat ramp with floating dock is available and currently maintained by Wildlife and Fisheries personnel from North Platte's District Office. The dock is removed every fall (around November 1st) to prevent damage from ice and placed back in the water during early spring.

The following text and graphs are the result of the 2014 gill netting survey at Jeffrey Reservoir. Graphs represent number of each species captured per gill net by length group. For comparative purposes it also shows results from previous years.

Crappie

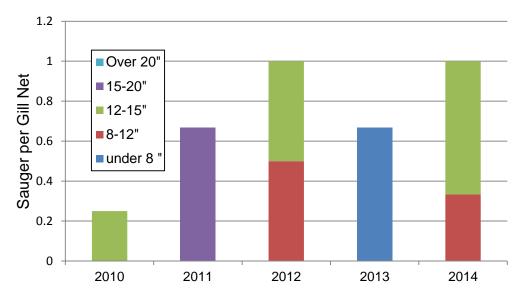


Crappie are sampled every other year at Jeffrey using modified fyke nets. These nets capture shoreline oriented species and are tended by NGPC personnel similar to gill nets. The 2014 survey was composed of black (25%) and white crappie (75%). Mean length of black crappie sampled was 9" while white crappie averaged 11". The largest crappie sampled in 2014 was 12".



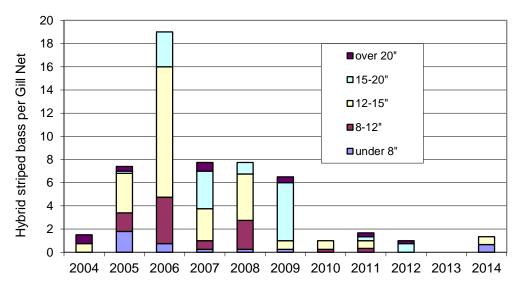
Catch rate of walleye at Jeffrey is consistently low compared to other Southwest Nebraska reservoirs. In 2014, approximately seven walleye per gill net were sampled with a mean length of 8 ^{3/4}". The majority of the sampled walleye were from the 2014 stocking year class.

Sauger



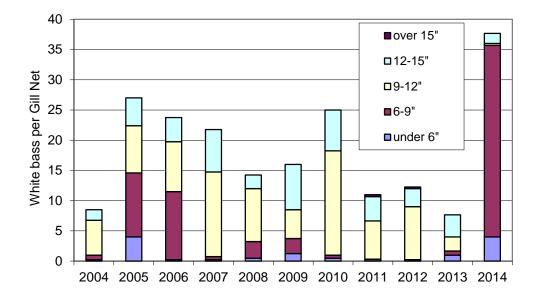
Sauger were first stocked into Jeffrey in 2009. A stocking program is in place for downstream reservoirs such as Midway, Gallagher and Plum Creek as well. Sauger are well adapted to turbid and flowing water so these canal waterbodies should provide good habitat. Angling success is typically observed below canal checks during March. Sauger can be identified by their compressed shape and the presence of spots on the spinous dorsal fin. <u>NGPC's Fish Identification Guide</u> may be accessed online or a copy may be picked up at District Offices to aide in identification of sauger.

Hybrid striped bass



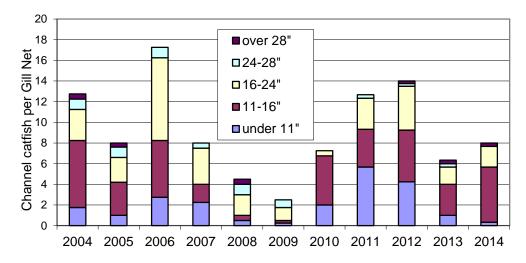
Hybrid striped bass catch rates had been consistent from 2007 through 2009 but have declined recently with zero sampled during 2013 but one specimen from the latest two stockings were captured during 2014. Jeffrey's hybrid striped bass fishery is managed to provide a low density population of large (>20") individuals.

White bass



The overall downward trend in gill net catch rate observed since 2006 was reversed with the 2014 data. The observed abundance of small white bass bodes well for anglers. Approximately 38 white bass were sampled per gill net with an average length of $7^{1/4^{n}}$. White bass are not stocked into Jeffrey as they naturally reproduce and recruit.

Channel catfish



In 2014, eight channel catfish were captured per net with 30% over 16". Catfish anglers should have success catching channel catfish during 2015. The daily bag limit for channel catfish was increased to 10 at this reservoir – check the 2015 Fishing Guide for details.



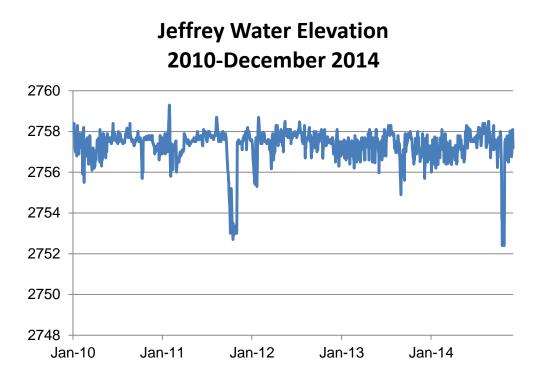
Jeffrey receives stockings from NGPC's Hatchery System nearly every year. Many factors are at play when stocking selections are made. Below you will find Jeffrey's stocking history for the past eleven years excluding some adults stocked during 2009. For more stocking details at Jeffrey and other public waterbodies access the <u>NGPC's Fish Stocking</u> database.

<u>Stocking</u> <u>Year</u>	<u>Walleye</u>	<u>Hybrid Striped</u> <u>Bass (Wiper)</u>	<u>White</u> <u>crappie</u>	<u>White bass</u>	<u>Sauger</u>
2004	25,000-1.25"	7,500-1.5"		84,850-1"	
2005		8,000-1.25"			
2006	25,132-1"	7,500-1.25"			
2007	25,000-1"	33,000-1.25"			
2008	16,750-1"	7,500-1.25"			
2009		3,035-2"			25,023-1.5"
2010			9,009-1.5"		1,080,770- 0.1"
2011					38,688-2"
2012					
2013	38,540-1.25"	7,718-1.2"			52,385-1.25"
2014	54,820-1.5	6,300-1.3"			

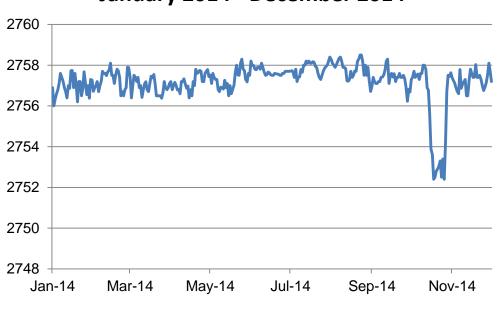
Fish Attractors

On September 11, 2014 cedar tree brush piles were sunk by NGPC personnel in Jeffrey Reservoir to provide fish attracting structure. These piles were sunk in the large west shoreline bay and are demarcated below In total these piles consist of 18 cedar trees. Their GPS waypoints are $40^{\circ}56'19.16"N / 100^{\circ}24'49.26"W$, $40^{\circ}56'15.03"N / 100^{\circ}24'53.72"W$ and $40^{\circ}56'11.87"N / 100^{\circ}24'54.27"W$.





Jeffrey Water Elevation January 2014 - December 2014



Jeffrey's water level fluctuates often. Check water fluctuations at <u>CNPPID's Reservoir/River Data</u> information page.



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

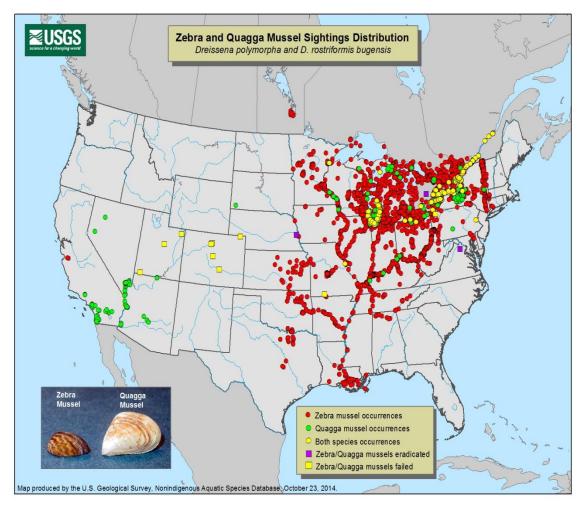
All aquatic vegetation must be removed from watercraft and trailers before leaving a launch area.

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



New in 2015 - In addition to and to clarify the above regulation concerning Aquatic Hitchhikers - it is unlawful to arrive at or leave any waterbody in Nebraska with water other than from a domestic source (such as a water supply system, well, or bottled), except for fire-fighting purposes. This applies especially to boats, their compartments, equipment or containers that may hold water **but also** applies to bank anglers if using water holding devices to transport harvested fish.

Distribution of zebra and quagga mussels is getting nearer to SW Nebraska. The most recent finding in Nebraska was at Louis and Clark Reservoir during the fall of 2014. <u>USGS's Zebra and Quagga Mussel Sightings Distribution Map</u> is updated frequently.



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

Jared Lorensen, Biologist 308-535-8025 jared.lorensen@nebraska.gov Brad Newcomb, District Mgr. 308-865-5330 brad.newcomb@nebraska.gov