

Jeffrey Reservoir 2017 Fall Survey Summary



Jared Lorensen, Fisheries Biologist

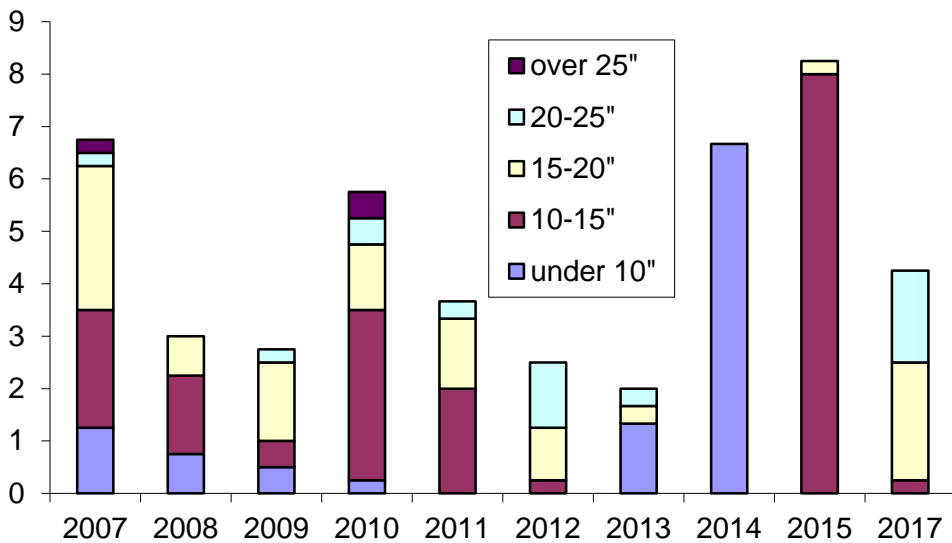
Jeffrey Reservoir is the third canal reservoir downstream from Lakes McConaughy and Ogallala. Water elevation is regulated by Central Nebraska Public Power & Irrigation District (CNPPID) for hydroelectric power generation. Jeffrey Reservoir offers unique fishing opportunities as a result of this functionality.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

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. For more explanation of what constitutes a fisheries survey read the [Survey Says](#) article.



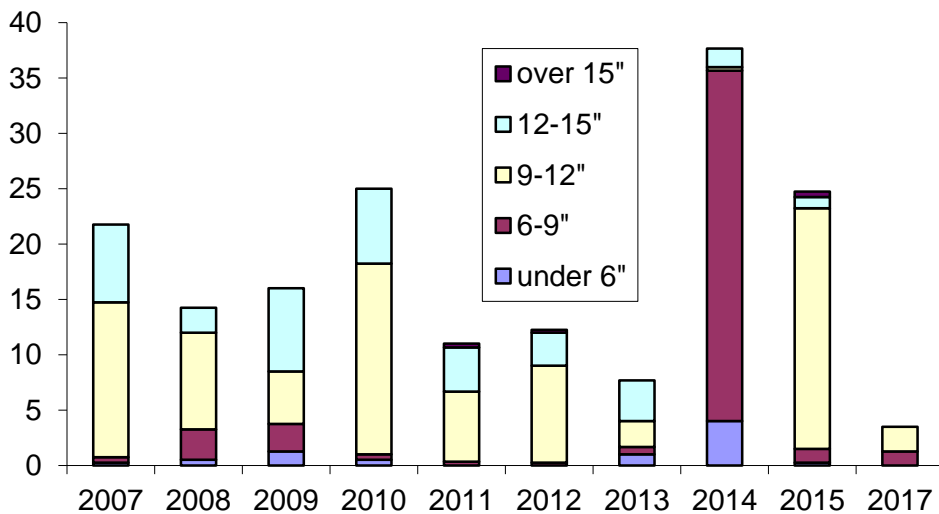
The following text and graphs are the result of the 2017 gill and modified fyke net surveys at Jeffrey Reservoir. Graphs represent number of each species captured per net by length group. For comparative purposes it also shows results from previous years.

Walleye



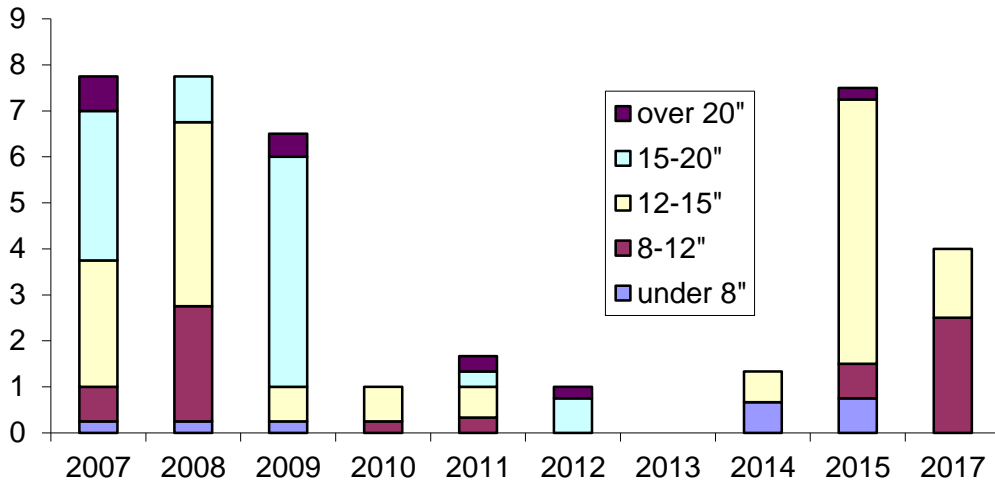
Catch rate of walleye at Jeffrey is consistently lower than other Platte Valley Reservoirs but recent stockings seem to be making an improvement in the population. In 2017, 4.25 walleye per gill net were sampled with a mean length of 18". The majority of the sampled walleye were from the 2014 and 2015 stocking year classes.

White bass



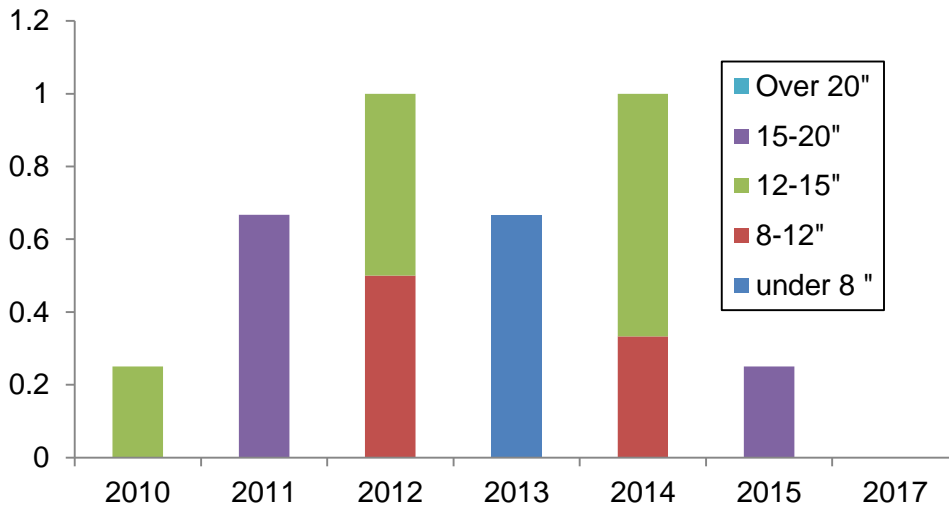
The overall downward trend in gill net catch rate was continued in the 2017 data. Only 3.5 white bass were captured per gill net with an average length of 9". White bass are not stocked into Jeffrey as they naturally reproduce and recruit.

Hybrid striped bass (aka wiper)



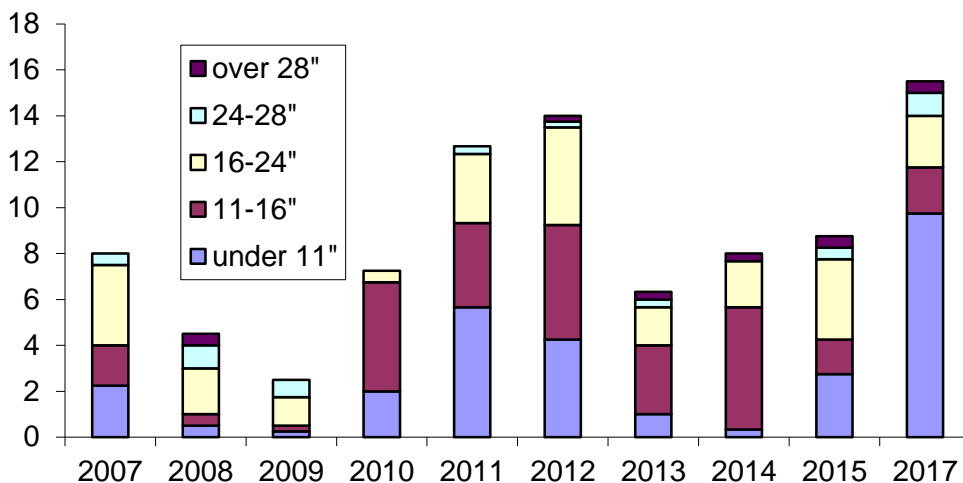
Hybrid striped bass catch rate has increased due to recent stockings in 2013,14 and 15. Gill nets ran during 2017 produced four per net. Of these, 63% were 8-12” and 37% 12-15”. Average length of all sampled was nearly 10.9”. Jeffrey’s hybrid striped bass fishery is managed to provide a low density population of large individuals as this species will grow to 20” if harvest is delayed and environment allows. To aide in differentiating white bass and wiper visit [NGPC’s Temperate Bass ID Site](#). In addition to what this website states, hybrid striped bass have more than one stripe that extends to the tail.

Sauger



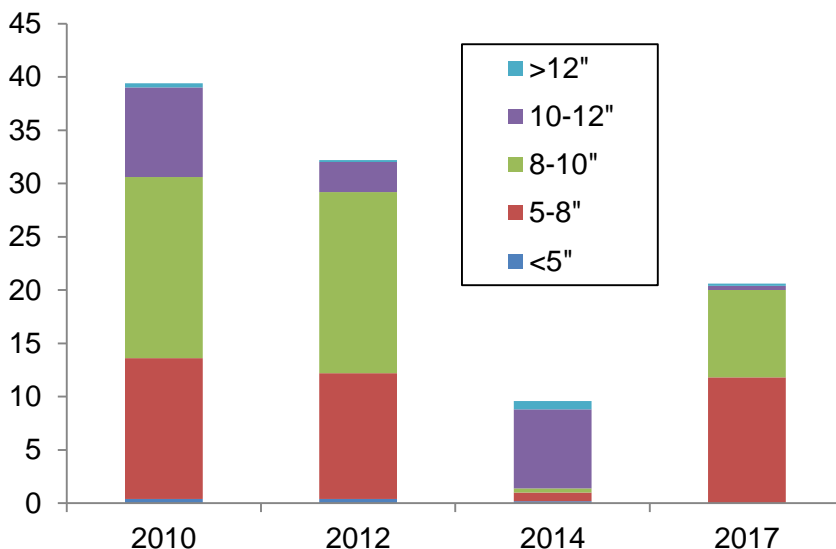
Sauger were first stocked into Jeffrey in 2009. A stocking program is currently in place for downstream reservoirs such as Midway, Gallagher and Plum Creek but sauger have not been stocked into Jeffrey since 2013 as a walleye population is being pursued. Note the low catch rates of sauger displayed by the above graph (zero captured in 2017). Sauger can be identified by their compressed shape and the presence of spots on the spinous dorsal fin. [NGPC’s Fish Identification Guide](#) may be accessed online or a copy may be picked up at District Offices to aide in identification of sauger.

Channel catfish



In 2017, 15.5 channel catfish were captured per net with 63% under 11". This large catch rate may be due to survey timing or evidence of a highly recruited year class. Of the remaining channel catfish, 13% were 11-16", 15% 16-24", 6% 24-28" and 3% over 28".

Crappie



In 2017, modified fyke nets were used to sample shoreline oriented species such as crappie. Of the sampled crappie, 82% were white crappie while the remaining 18% were black crappie. Both species combined, this survey revealed 57% 5-8", 40% 8-10", 2% 10-12" and 1% greater than 12". The apparent abundance of relatively "small" crappie is a good sign for future angling. Approximately 85% of all crappie captured were Age 2. On average, a 10" white crappie is four years old.

Stockings



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 [NGPC's Fish Stocking Reports](#) database.

Stocking

<u>Year</u>	<u>Walleye</u>	<u>Hybrid Striped Bass</u>	<u>White crappie</u>	<u>Sauger</u>
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"	12,578-1"	52,385-1.25"
2014	54,820-1.5"	6,300-1.3"		
2015	27,500-1.5"	6,300-1.3"		
2016	28,600-1.5"			
2017	27680-1.25"			

Fish Attracting Structure



On September 28, 2017 CNPPID and NGPC placed and weighted 30 cedar trees in the lake bed. These brush piles were placed on relatively steep shorelines within two bays of the north portion of the lake. These brush piles will hopefully attract fish for increased angling opportunities and are located near the below waypoints.

N 40.95157° / W 100.40128°
N 40.95315° / W 100.39827°
N 40.95348° / W 100.39865°
N 40.95332° / W 100.39853°
N 40°57'16.2" / W 100° 23'57.0"
N 40°57'15.8" / W 100°23'56.1"

Fish Attracting Structure (referenced above)



Access



During 2017, construction occurred at the WMA boat ramp area. This improvement project was done to permanently replace the floating dock, improve drainage, allow ADA access and enhance bank angling opportunity. Although this project is not 100% complete at the end of 2017, it is near. This was a joint project between NGPC and CNPPID. Access [CNPPID's News Release](#) for more details.

Access



During 2016 and 2017 CNPPID dredged Jeffrey's lake bottom. During this time a "cut across" channel was created to enhance access to the lake and decrease interference between dredging activities and boaters. This channel will allow boaters a route that will connect to the southern lobe of the lake. This will allow the Jeffrey WMA boat ramp to remain open regardless of dredging activities. The new channel is approximately 10' deep, 75" wide and 2,000' long. The above photo was taken during 2017 when Jeffrey's water elevation was at 2751.31'. Plans are being made to mark this new channel.

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

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

OR

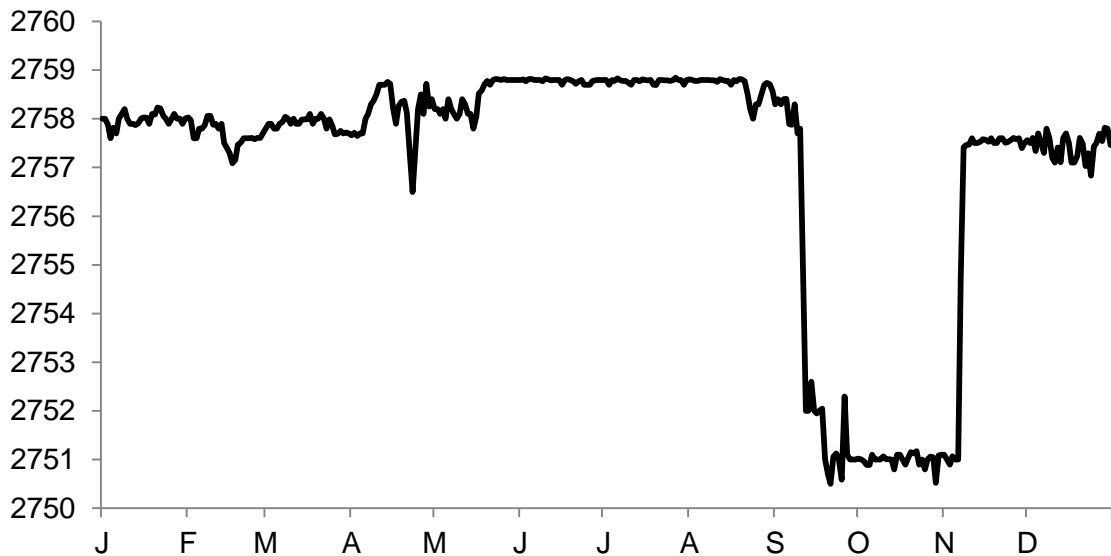
Brad Newcomb, District Mgr. 308-865-5330, brad.newcomb@nebraska.gov

Water Elevation

2013 through 2017



2017



Jeffrey's water level fluctuates often and plays a vital role in the fishery. Check water fluctuations at [CNPPID's Reservoir/River Data](#) information page.

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

In 2016, Nebraska boaters became required to possess a [Aquatic Invasive Species \(AIS\) Stamp](#). Residents acquire the stamp when registering their watercraft. Nonresidents have to purchase a physical sticker that must be displayed on their watercraft.





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!**

