2017 NE District Flood Control Reservoir Fish Sampling Summary

Nebraska Game and Parks Commission
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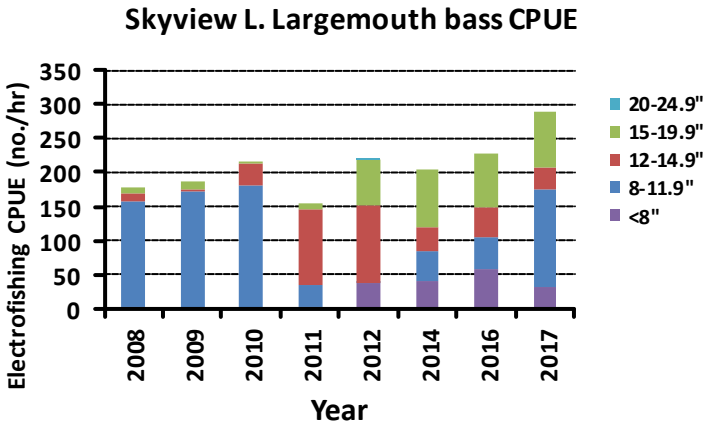
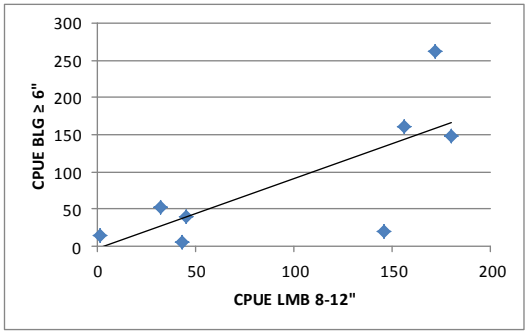
Several flood control reservoirs dot the landscape of the Northeast District ranging in size from approximately 25 to 700 surface acres. The primary species making up the fish communities in most of these lakes are largemouth bass, bluegill, black crappie, and channel catfish. However, Willow Creek Reservoir near Pierce is the largest of the flood control reservoirs in the Northeast District and management is geared toward a large reservoir fishery that includes walleye, wipers, white bass, and channel catfish. It also provides some very good opportunities for crappie anglers. Walleye are also found in some of the smaller reservoirs but in relatively low numbers. Most of the flood control reservoirs receive annual stockings of channel catfish while about half are annually stocked with walleye. Species in these lakes other than the channel catfish and walleye maintain their populations through natural reproduction and recruitment.

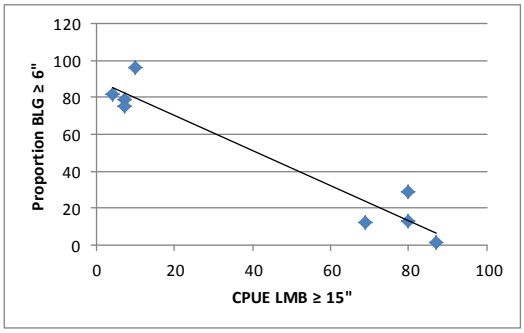
Largemouth bass

Bass are collected by night-time electrofishing efforts that are conducted in the spring of the year. A catch rate of at least 150 bass per hour of electrofishing is desirable. This minimum catch rate not only equates to good catch rates for anglers seeking bass but can also limit panfish recruitment so that desirable growth rates and size structure on those panfish can be maintained.

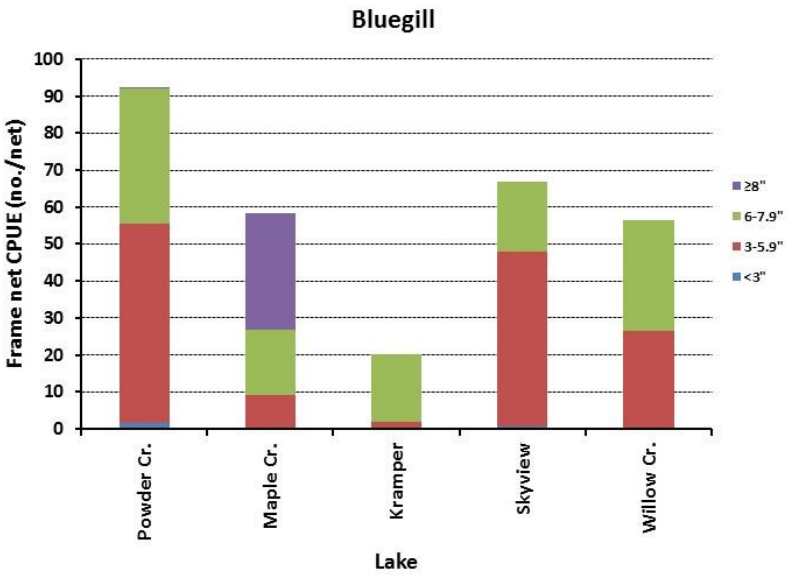
Skyview Lake in Norfolk was the only flood control reservoir in the district that was electrofished for bass in 2017. In an attempt to restructure the bass population in the lake to provide increased predation on the abundant small bluegill present, the bass regulation on Skyview was changed to a 15-inch minimum length limit in 2016 (it was previously managed with a 21-inch minimum length limit). The bass population has been "top-heavy" (dominated by large fish) over the past several years resulting in limited numbers of 8-12 inch bass, which are those that tend to be the most effective predators on bluegill. There was a substantial increase in the number of those 8-12 inch bass in 2017 and there are indications of improved bluegill size structure as the proportion of bluegill exceeding 6 inches in 2017 was more than double what it was in 2016. The lake will continue to be closely monitored to assess the regulation's effects on both fish populations. Bass populations in flood control reservoirs in the northeast tend to be fairly consistent so if anglers are interested in what the bass populations are like in other lakes in the northeast district, those results can be found in the 2016 and previous reports that can also be accessed on this web page.





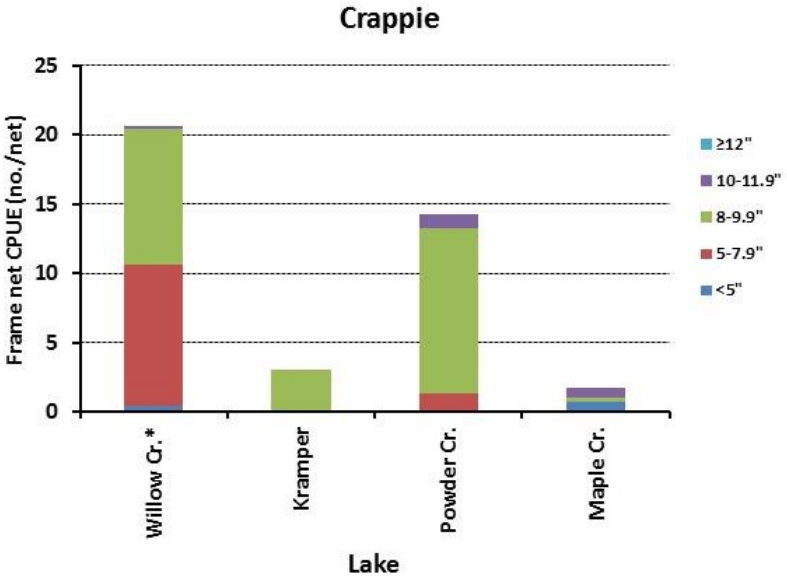


Bluegill



Frame net sampling for bluegill also takes place in the spring, from late April through June. Maple Creek was the "gold-standard" for bluegill in the Northeast District in 2017 with around 30 per net exceeding 8 inches in the fish survey. Kramper Lake is progressing satisfactorily with a fair number of fish in the 7.5-inch range, it was thought that they might be running a bit larger by this time though. Powder Creek, on the other hand, continued its slow improvement but did have a fair proportion of 7-inch fish in the population. It seems to have taken them a long time to get there but considering that the bass population has been represented by such a small number of fish, it is understandable. Similarly, as mentioned in the bass data above, Skyview Lake bluegill have improved but still have a ways to go. The proportion of the population that exceeded 6 inches more than doubled compared to the year before but there still aren't many longer than 6.5 inches. With the higher density of bass coming on in the lake, hopefully the bluegill will be thinned out more and improved growth and size structure will result. Bluegill exhibited good to excellent body condition in most of the lakes. Skyview was the primary exception, however, as indices revealed that bluegill were rather "skinny". Bluegill have become more numerous in Willow Creek but they were running fairly small in 2017, they and crappie are sampled in the fall in Willow Creek. Other lakes that weren't sampled in 2017 but should provide some good to excellent bluegill angling include Maskenthine, Summit, Pibel, and possibly Grove.

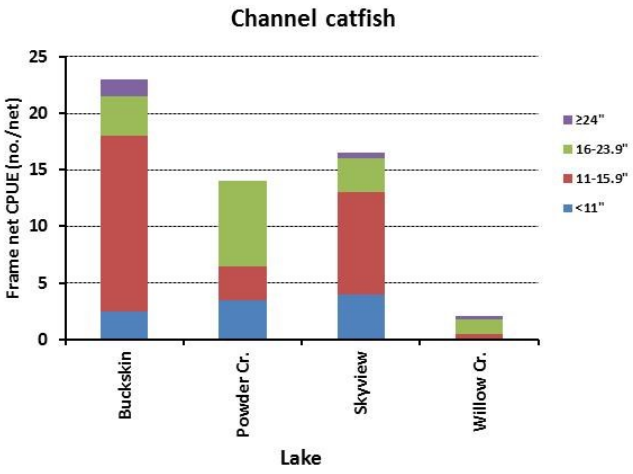
Crappie

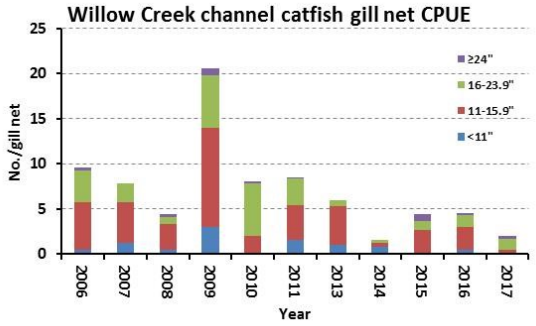


Crappie data on most of the flood control reservoirs are collected in the spring at the same time bluegill are being sampled. Willow Creek is the lone exception with crappie being sampled with frame nets in the fall. Crappie were collected in good numbers in Willow Creek but they were running a bit on the small side with nearly all of them less than 10 inches. Low numbers were observed in Kramper and Maple Creek but those catches are not necessarily representative of the populations. Timing is critical to catching crappie, a fairly small window of opportunity occurs when they are in shallow preparing for, and carrying out, spawning activities. All four of the lakes sampled in 2017 should provide good crappie angling opportunities. Additional lakes that may provide good angling for crappie include Summit and Maskenthine lakes.

Channel catfish

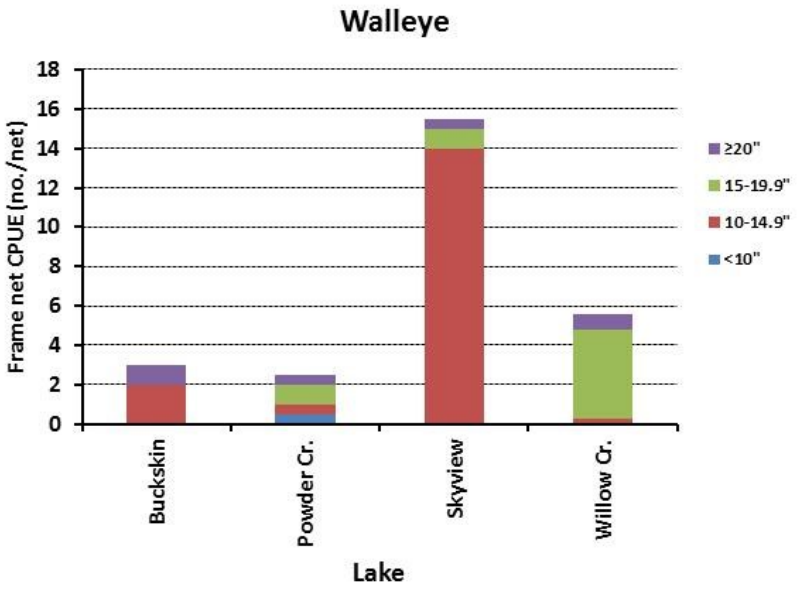
Most all of the flood control reservoirs in the district provide excellent opportunity for channel catfish anglers, for both numbers and size. Most lakes will have size distributions and numbers similar to Powder Creek and Skyview, possibly with a few larger fish in the mix (most notably Maskenthine and Summit lakes). The catfish fishery in Willow Creek, however, is struggling. Large fish are likely lacking, at least in part, due to a substantial die-off in the spring of 2014 due to a bacterial infection. Catch rates have been less than 5 per net there since 2014, well below our target range of around 10 per net. Smaller fish (5") have been stocked in the last few years which may be an issue. It is believed that water quality may be affecting recruitment of other species in the lake and thus could be negatively influencing catfish recruitment also.





Walleye

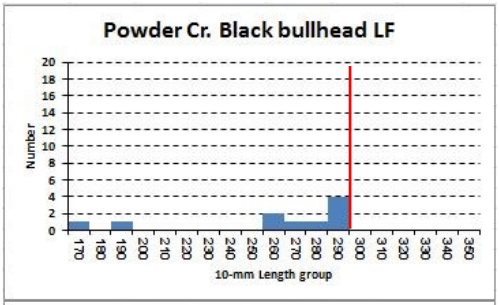
Gill nets were set in four northeast flood control reservoirs in the fall of 2017. Willow Creek is sampled annually with gill nets to assess the walleye, wiper, and channel catfish populations. Other, smaller lakes are sampled intermittently to evaluate channel catfish and walleye population attributes. Buckskin, Powder Creek, and Skyview have been stocked with advanced-size walleye fingerlings the last two years. Thus, 2017 gill net sampling efforts targeted those reservoirs to evaluate recruitment resulting from those stockings. Early on it appears as though those advanced fish are really making a difference in Skyview while not so much in the other two. Standard fingerling walleye (~1.5") were stocked in Skyview annually from 2005 through 2009 following the 2004 renovation of the lake. However, no fish from those stockings were ever observed during subsequent sampling efforts. Buckskin and Powder Creek had been stocked annually with standard fingerlings for the last ten years or more prior to switching to the advanced fish. 2017 was the first time that Powder Creek was sampled with gill nets so little comparable data exist for that lake for walleye. Buckskin, however, was sampled with gill nets 5 times prior to 2017 with an average catch of 2.8/net. The 2017 catch was 3 walleye/net so, at this point, it appears as though the advanced fish may not prove any better than 1.5" fingerlings in Buckskin. Stockings of advanced walleye, and appropriate sampling, are planned to continue for the next 2-3 years in those lakes to provide a good evaluation of whether or not they perform better than the standard fingerling stockings had been.

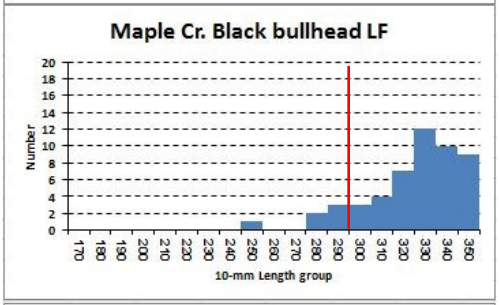


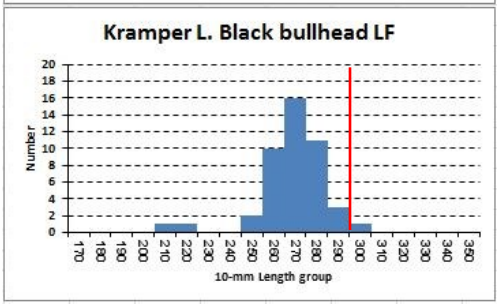
Other species

Wipers have been stocked in Willow Creek on an annual basis for some time and used to provide a great opportunity for a hard-fighting trophy type fish. However, the fingerling (~1.5-inch fish) stocked wipers haven't done well for several years now, possibly due to the poor water quality that the lake has been experiencing. The average net catch for wipers was 7/net from 1996 to 2006 but was an abysmal 0.8/net from 2007 to 2017. In response to this decline, advanced fingerling wipers (~6 inches) were stocked in 2017 and will continue to be stocked over the next several years to see if they will recruit better than the smaller fingerlings.

Bullhead catch information is included as there seem to be some old-school anglers out there who are still interested in catching them. Bullhead populations in most of the flood control reservoirs are low-density due to abundant bass populations which limit their recruitment. Newer reservoirs like Maple Creek and Kramper tend to have an early pulse of bullheads then, due to bass predation, experience limited recruitment and may remain only as an incidental species low in numbers. The red line in the associated graphs indicates 12 inches so you can see that there are some pretty nice bullheads in these lakes, even a fair number up to 14 inches in Maple Creek. Although not sampled in 2017, Summit Lake also harbors a low-density bullhead population that is made up of some large individuals.







Invasive Species

Many of the Northeast District Lakes contain dense beds of aquatic vegetation on a seasonal basis. Curly-leaf pondweed is found in this area and is classified as an Aquatic Invasive Species. Those lakes that develop especially dense stands of curly-leaf include Pibel, Grove, Summit, Buckskin, and Maskenthine. **Anglers are reminded of the regulations that went into effect in 2013 requiring any boat that has been on a waterbody to drain all water from all compartments, equipment, or containers before leaving the launch area and to remove all aquatic vegetation from the boat and trailer before leaving the launch area.** These regulations are meant to control and/or limit the spread of aquatic invasive species such as zebra mussels, Eurasian watermilfoil, and the aforementioned curly-leaf pondweed to name a few. Nonresident boaters are also reminded of the Invasive Species sticker requirement. The sticker provides funding for dealing with invasive species that are already present in addition to education and prevention activities that are meant to limit their spread. Nonresident boaters must have one of these stickers affixed to their watercraft before launching in any Nebraska water. Resident boaters automatically contribute to this fund through a surcharge on their boat registration, thus as long as their registration is up-to-date, residents are in compliance and won't have a physical sticker attached to their watercraft. The new funding and the "Clean, Drain, and Dry" regulations set forth in 2013 became all that much more important following the expansion of zebra mussels in Lewis and Clark Lake and the Missouri River. Additional information about aquatic invasive species and preventing their distribution can be found in the 2017 Nebraska Fishing Guide (pp. 28-29) and at the University of Nebraska Invasive Species website: http://www.neinvasives.com. More information for Northeast District lakes such as location, boat ramps, species present, special regulations, etc. can also be found in the Nebraska Fishing Guide.

For more information on fishing rules and regulations visit the Nebraska Game and Parks website at OutdoorNebraska.org.

For more information on the fisheries at Calamus Reservoir contact:

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