

2016 Northeast District Flood Control Reservoir Survey Results

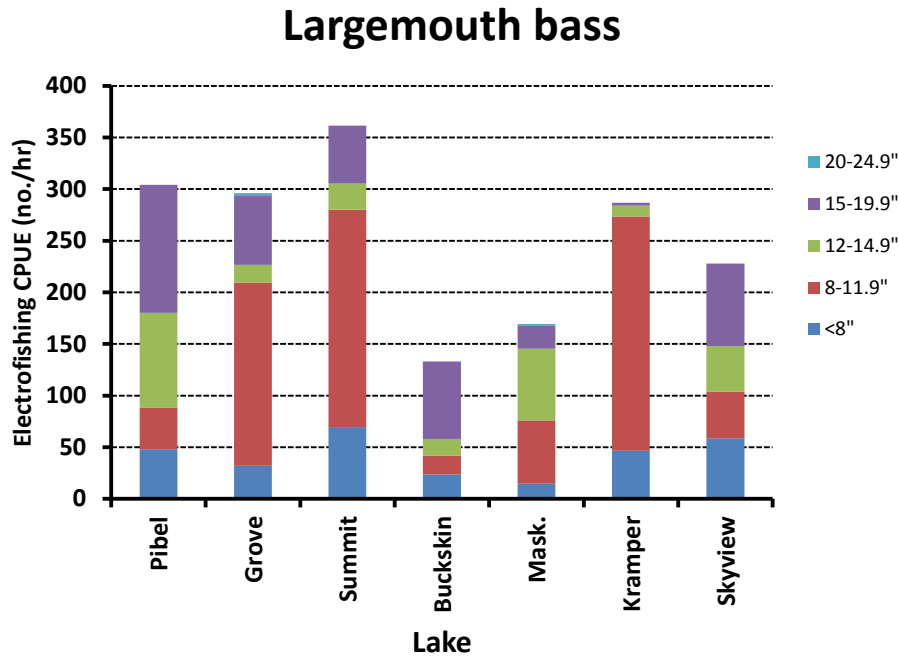
Nebraska Game and Parks Commission
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Several flood control reservoirs dot the landscape of the Northeast District ranging in size from approximately 25 to 700 surface acres. The primary species making up the fish communities in most of these lakes are 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.

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, & Maskenthine. In a typical year curly-leaf pondweed begins growing aggressively as the water temperature warms in the month of April, peaks in density in May and early to mid-June, and dies back to more tolerable levels by the first part of July. **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 discovery of zebra mussels in Lewis and Clark Lake and the Missouri River in 2014 and 2015. 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.

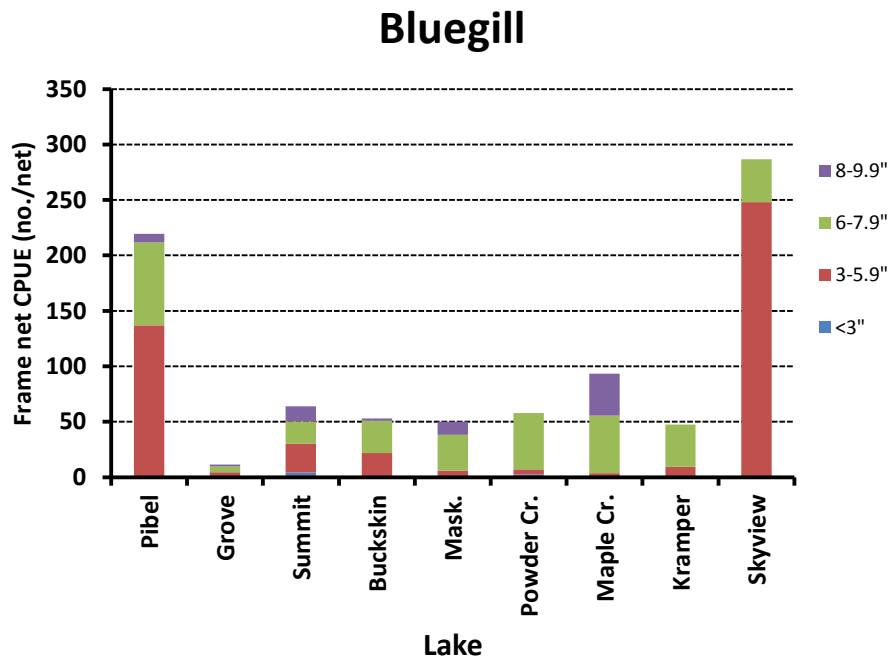
Largemouth bass



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 also limits panfish recruitment so that desirable growth rates and size structure on those panfish can be maintained.

The bass population in Kramper Lake, a fairly new reservoir near Hubbard that was just opened to the public in late summer 2015, was comprised primarily of fish less than 12 inches. Bass less than 12 inches also made up the majority of the populations in Grove and Summit Lakes but those lakes also contained a fair number of larger fish, especially those over 15 inches. The remainder of the lakes exhibited populations with good size distribution throughout including a fair to excellent number of fish exceeding 15 inches, thus these waterbodies should provide both great catch rates for anglers and a good chance of catching some nice fish. Other flood control reservoirs in the district that offer decent largemouth bass opportunities include: Cub Creek, Hull Lake, Chalkrock, and Maple Creek. Powder Creek Reservoir near Martinsburg shouldn't be overlooked either. Although it has historically supported a low-density bass population, the majority of the fish exceed 15 inches. Buckskin and Powder Creek Reservoirs are managed with a 21-inch minimum length limit on bass while the others fall under the statewide 15-inch minimum length limit.

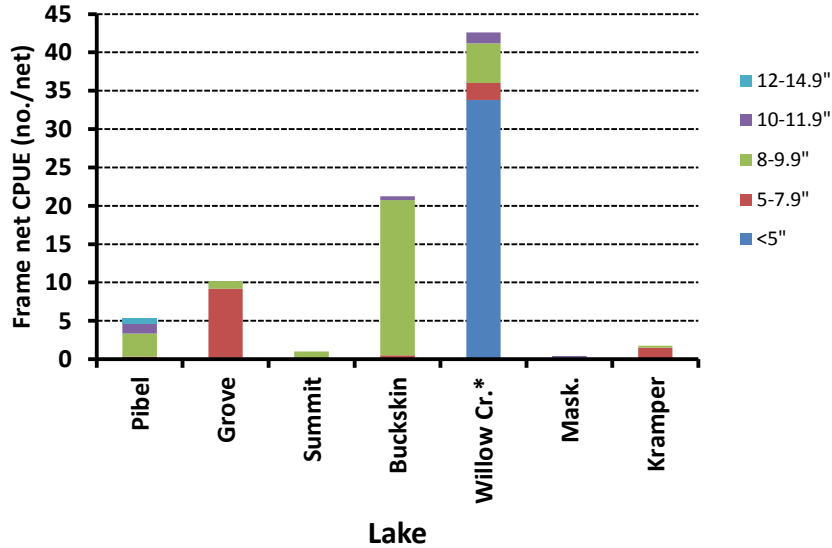
Bluegill



Frame net sampling for bluegill also takes place in the spring, from late April through June. Nine flood control reservoirs were sampled in 2016. Catching a “keeper” bluegill will be a challenge at Skyview but the remainder of the lakes listed in the graph will provide fair to excellent numbers of bluegill over 7 inches. Additionally, sampling at Maple Creek, Maskenthine, Summit, and Pibel even indicated good catch rates of bluegill exceeding 8 inches. Bluegill size structure continued its slow improvement at Powder Creek but sampling at Skyview again revealed a high abundance of bluegill less than 6 inches and essentially none over 7 inches. Bluegill angling in Grove Lake should not be overlooked based on the graph as their abundance was likely underestimated there. The presence of curly-leaf pondweed has made survey timing more critical on all of our flood control reservoirs but couple that with shorelines that drop off very quickly around most of Grove Lake makes sample timing especially so there. Bluegill harvest is managed through a 15-panfish aggregate daily bag limit.

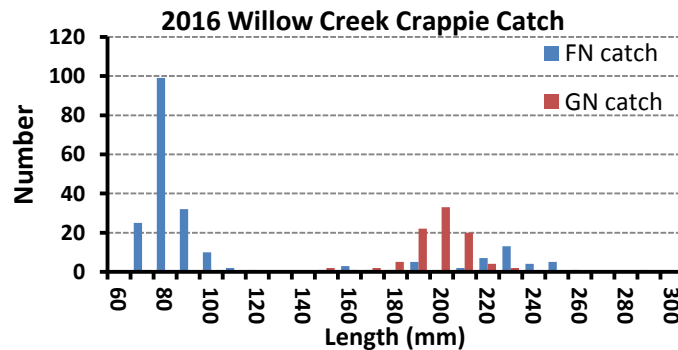
Crappie

Crappie



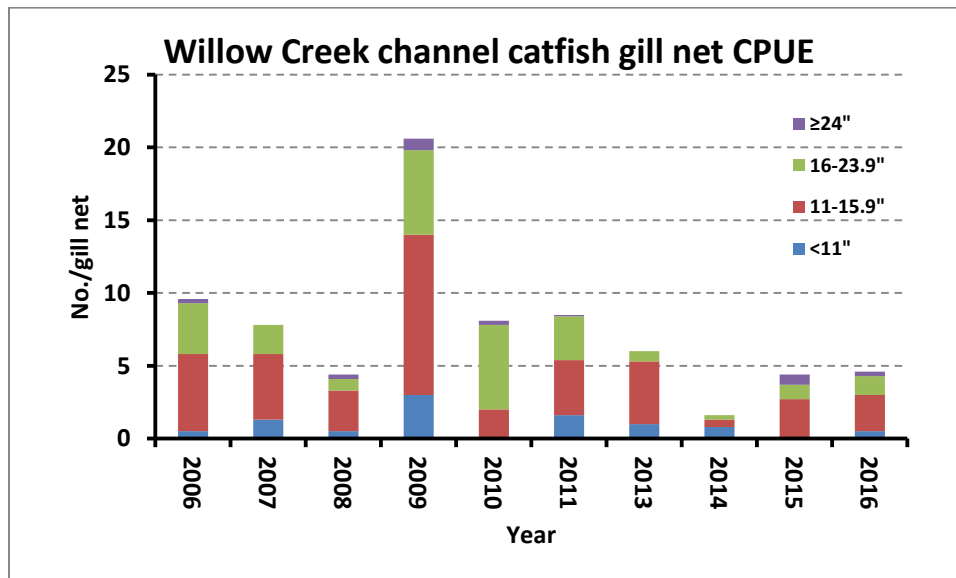
*Willow Creek Reservoir catch represents fall frame netting results (the others are spring-time frame net surveys).

Far more so than bluegill, survey timing is critical for crappie in the spring and catch can be very "hit and miss" that time of year. Thus, one shouldn't avoid Summit, Maskenthine, and Kramper lakes for crappie based on the graph. Crappie populations in most of the lakes were skewed toward smaller fish which bodes well for future crappie angling opportunities in those waterbodies. However, decent numbers of desirable crappie were sampled in Pibel, Buckskin, and Willow Creek in 2016 thus providing existing opportunities for crappie harvest. Other flood control reservoirs in the district that should provide decent angling opportunities for crappie, including potential harvest, are Maple Creek and Cub Creek lakes. As noted, Willow Creek frame netting is conducted in the fall in conjunction with our gill net survey. Representation of larger fish was limited in the frame net sample but could be a result of those fish suspending in open water at the time. A fair number of "mid-size" fish (~8 inches) were collected in the gill nets and thus could have been under-represented in the frame net sample.



Channel catfish

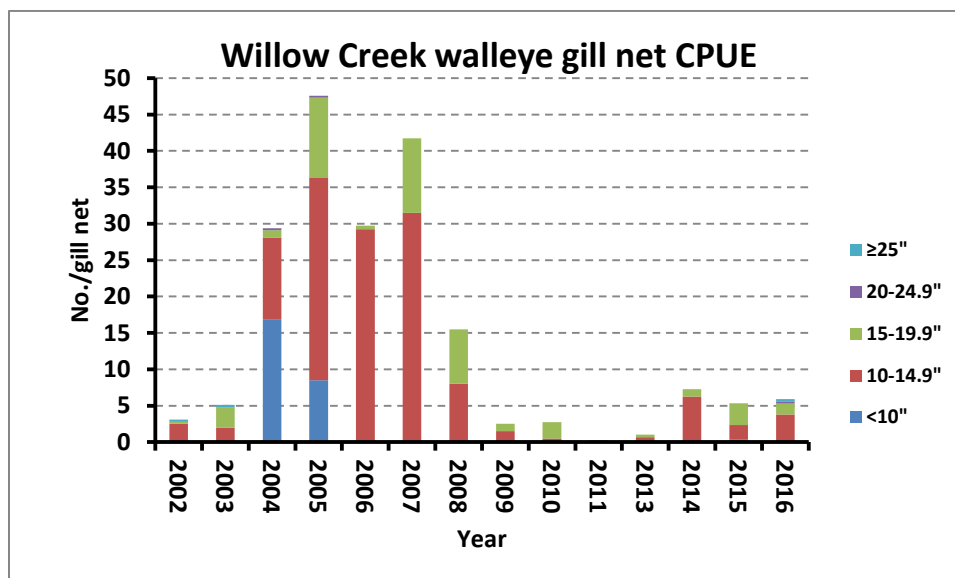
Fall gill netting is the standard method for sampling channel catfish populations. Willow Creek was the only flood control reservoir in the district that was surveyed with gill nets in 2016. The 2016 catfish catch (4.5/net) was up slightly compared to the two years previous but still below the ten year average of 7.7/net. Size structure of the sampled catfish was somewhat poor. About 1/3 of the fish in the sample exceeded 16 inches but included only one fish over 20 inches. The lack of larger fish could still be attributed to a catfish die-off that occurred in the spring of 2014. A fair number of larger catfish were lost during that event. As for other flood control reservoirs in the district, incidental catches of catfish in frame nets and past gill net sampling indicate that there are also quality opportunities for catfish (both numbers and size) in most all of these types of lakes in the district. Catfish populations in most Nebraska lakes, including any mentioned in this summary, are managed with a 5-fish daily bag limit.



Walleye

Fall gill net sampling again indicated low walleye abundance in Willow Creek. The catch rate of 5.8 walleye per net was up slightly from 2015 but still well below desired levels and below the ten year average of 11.3 per net. Walleye stocking efforts switched to fry in 2004 and greatly improved the walleye fishery for several years. However, in spite of continued fry stocking (including higher stocking rates in some years), walleye gill net catch rates from 2009 to present have declined and are again similar to those years prior to the switch to fry stocking. In 2015 and 2016 fingerling-size (~1.5") walleye were added back into the stocking protocol (in addition to the fry) to see if they might improve walleye recruitment in the reservoir. Thus far, that strategy doesn't appear to have altered walleye recruitment patterns in Willow Creek. As has been stated in previous reports, several factors could be limiting recruitment of walleye over the last several years. Potential factors limiting recruitment could be weather patterns (i.e., major cold fronts) around the time of fry stocking and the degraded water quality that has become an issue in the reservoir.

Willow Creek is the only flood control reservoir in the district that is managed as a "walleye lake" but there are a few others that do provide some opportunity. Some of the smaller reservoirs that have produced some decent walleye angling opportunities in recent years include Buckskin, Maple Creek, Maskenthine, and Summit. Walleye populations in all of these lakes are maintained through stockings which occur annually on most of these waterbodies. Walleye regulations on these lakes include a 15-inch minimum length limit and a 4-fish daily bag limit with only one walleye 22 inches or longer allowed in the bag.



Those interested in additional information on these and other lakes in the Northeast region can contact Jeff Schuckman (jeff.schuckman@nebraska.gov) or Phil Chvala (phil.chvala@nebraska.gov) at 402-370-3374.