

2014 Survey Summary Sandhill Lakes Northeast District

Andrew Glidden, Fisheries Biologist



This summary pertains to those Sandhill lakes located in the Northeast District that were surveyed in 2014. 2012-13 data has been retained for comparisons.

Panfish species and northern pike are sampled in the spring with trap nets. Largemouth bass are sampled in the spring with night-time electrofishing gear. Not all lakes are surveyed annually. Sandhill lakes can be naturally formed and they are typically shallow and spring fed. Sometimes these lakes were formed when upstream hay meadows were ditched during the early settlement days or a drainage was blocked, or both. These lakes are very productive and well suited to panfish species such as black crappie, bluegill and yellow perch as well as largemouth bass and northern pike. Growth rates for panfish in these systems are usually above statewide averages with Master Angler sized fish produced occasionally. Bass generally top out around the 6 pound range and pike rarely exceed 15 pounds. Current regulations include an aggregate 15 fish daily bag limit on panfish with a possession limit of 30. Bass and pike regulations will be discussed below.

The drought of 2012 was very devastating for many lakes in the Sandhill region. While rainfall was above average in 2013-14 for some of this region, most of the lakes discussed here continued to decline in depth due to lower ground water levels. Even though Overton lake came up this summer, it fell again to less than 3 feet maximum depth as the previous year. Nets were set by dragging them from shore as there was not enough water to maneuver a boat. Very low water levels can lead to summer fish kills in heavily vegetated lakes and fish populations may be influenced by aquatic & avian predators in those lakes with sparse vegetation. Drought years can provide an excellent opportunity to conduct renovations to remove common carp from Sandhill lakes. Clear Lake (Brown county) was renovated in 2012 by NGPC and year-round public fishing access will be provided though an agreement with the New Clear Lake Club. Willow Lake (Brown county) was renovated in September of 2013, but unfortunately a few age-1 carp were sampled there this year. Because renovations are so costly and very difficult for 100% success in large Sandhill lakes, **anglers must be diligent not to move unwanted or destructive species from one system to another by bucket or as bait when fishing a carp free lake.**



Overton Lake April 2014

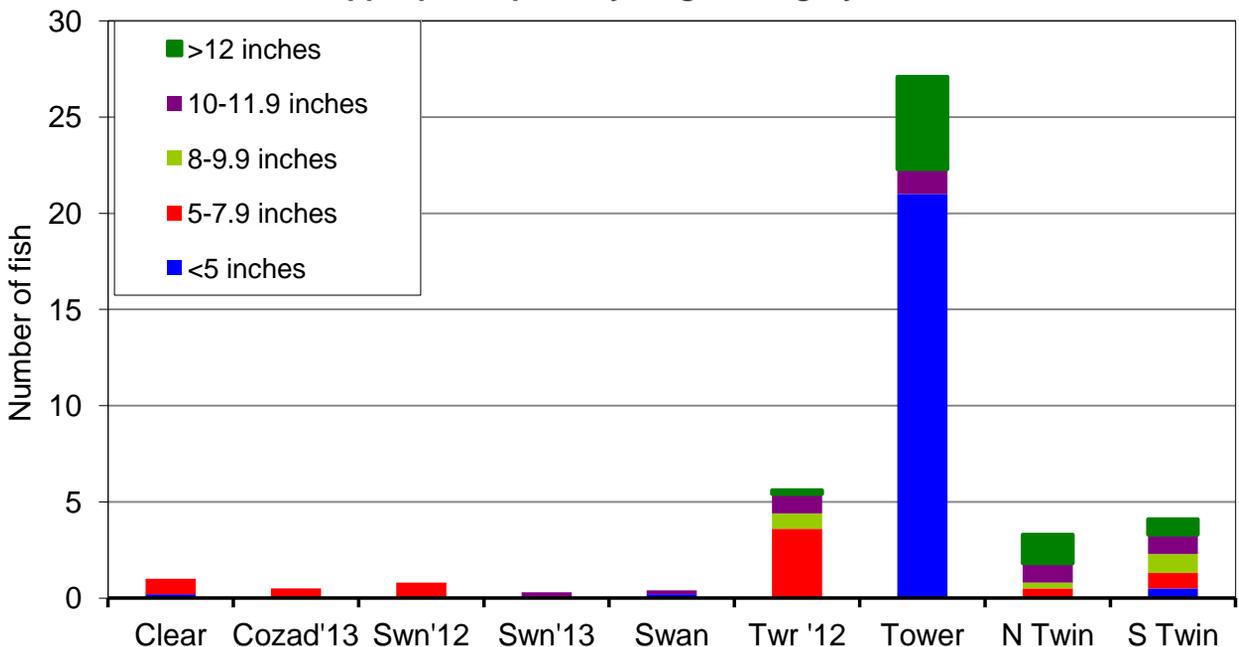


Tower Lake boat access 2014



Black Crappie in Sandhill lakes are known to grow to trophy sizes even in the presence of carp. They are a favorite for ice fishermen, but can be targeted during open water as well. Due to improvements made to the Tower Lake boat ramp access we were able to conduct our standard survey even with low water conditions. A strong year-class of young-of-the-year fish were sampled, along with a fair showing of angler desirable sizes. Peterson was not sampled in 2014. Both Twin North & South had low catches of all size classes. Crappie were collected for the first time at Cozad in 2013 (none this year) and Peterson in 2012 are most likely due to anglers moving fish. This can ruin fishing opportunities for future anglers and is also against the law. Angler crappie catch at Tower is typically low numbers of large fish, but anglers have reported limited catch since the fall of 2012. Panfish in a shallow clear Sandhill lake can be exploited by all predators whether they walk, swim or fly. Willow lake was renovated in 2013 and Goose and Overton lakes do not have crappie.

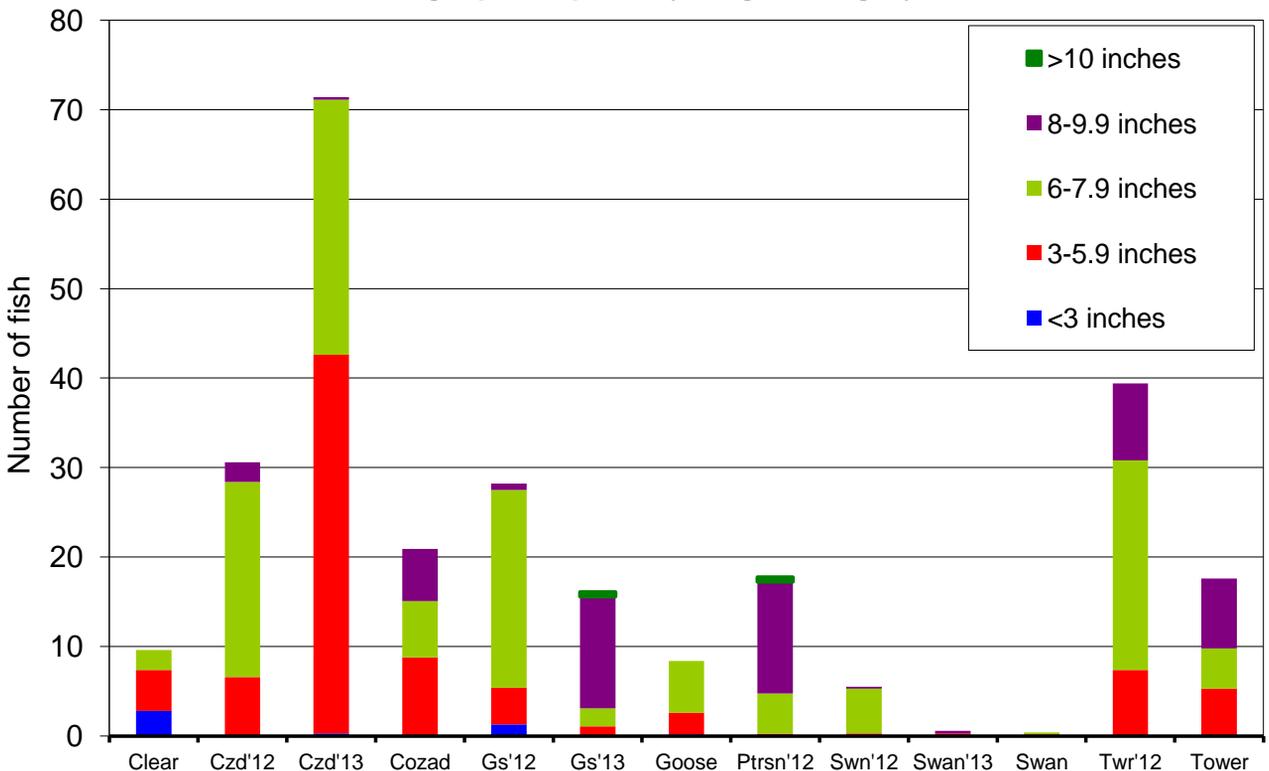
Crappie per trap net by length category





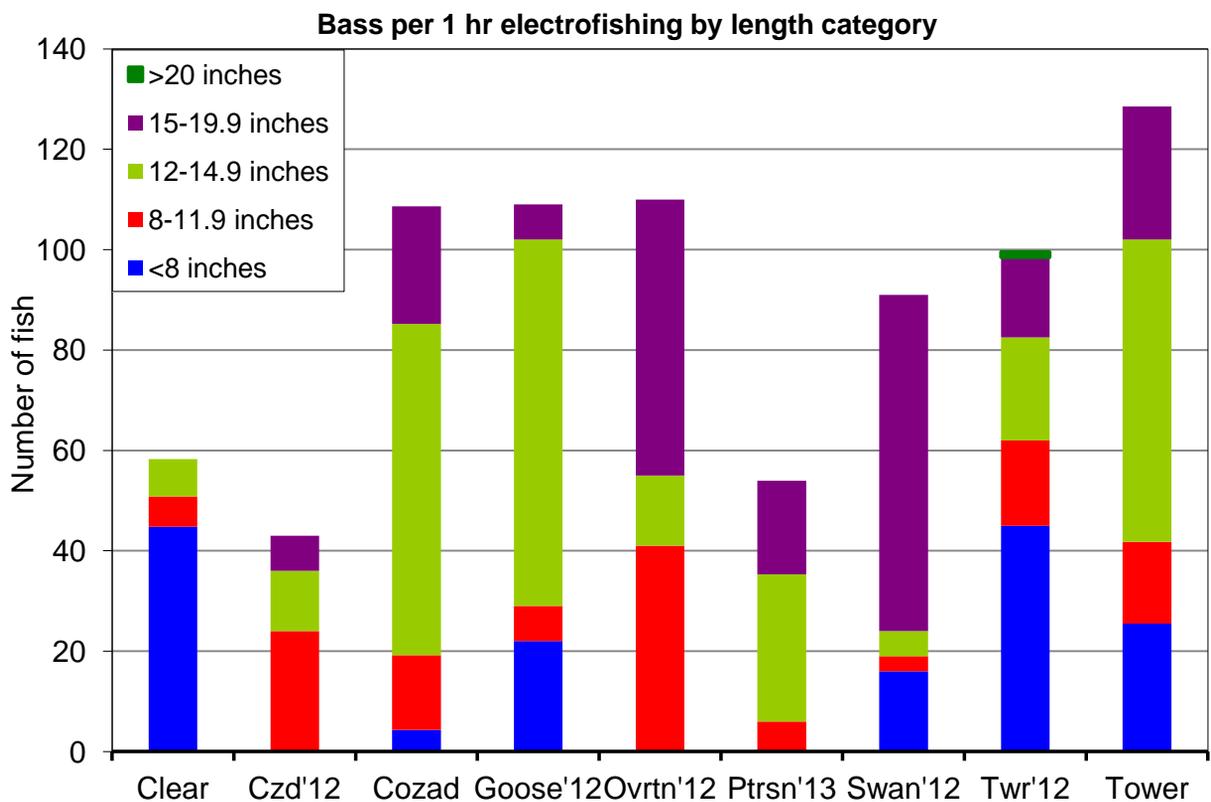
BLUEGILL are targeted year-round by anglers in these shallow lakes. They are common in Sandhill lakes across the state and most of these occasionally produce Master Angler size fish. Shallow lakes with good water clarity can experience heavy vegetation growth during the summer and anglers must use techniques to fish in and around this vegetation. In many lakes harvest is highest through the ice. Clear Lake was sampled for the first time following the renovation and had a low catch of smaller sizes. Catch rates fell at Cozad, but with a slightly better showing of angler desirable fish. Goose had lower catch and size distribution. No bluegill were collected in the Overton survey. Catch and size distribution fell at Tower again in 2014. Water levels are below “normal” in all of these lakes which is not conducive to quality panfish populations. Low water levels can make these fish more susceptible to predation as well.

Bluegill per trap net by length category



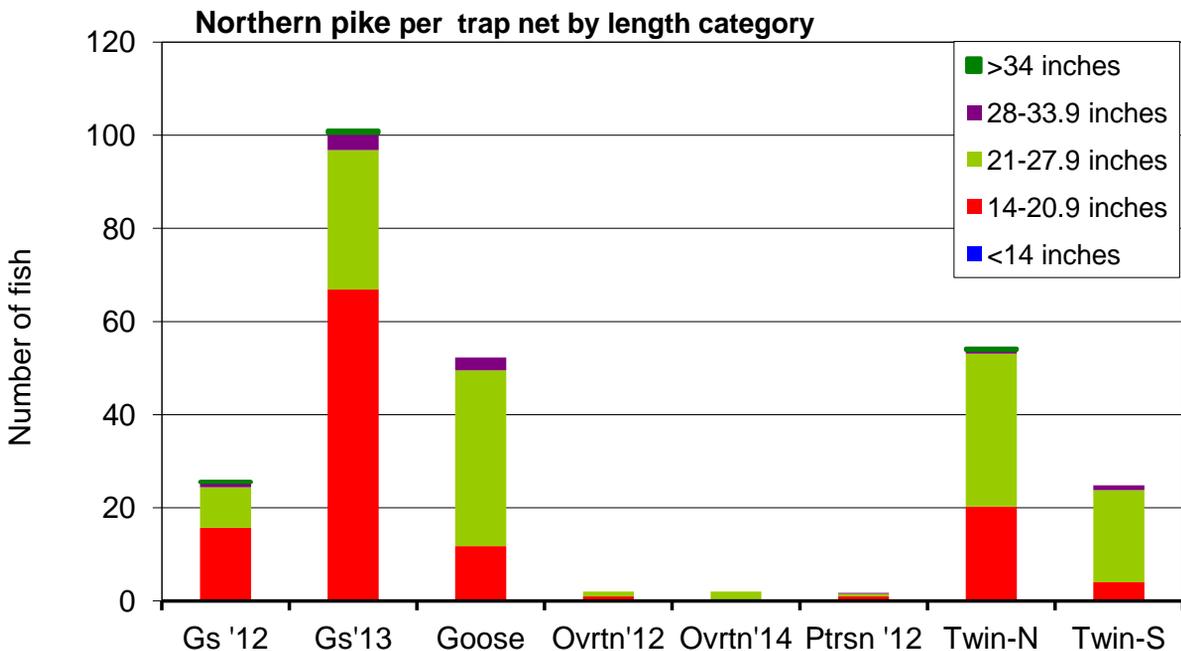


Largemouth bass are the primary predator in most Sandhill lakes. The health of the bass population is a primary factor for providing quality panfish to anglers. High bass densities of fish less than 15 inches control panfish recruitment allowing good growth for the remaining fish. Most angling pressure occurs during open water and vegetation can be a curse, or blessing for catching big bass. Healthy bass populations are present in all the lakes listed below with good numbers of larger fish at Peterson, Swan and Tower. Even through extended periods of low water levels, larger bass survive as they are too large for all but the largest of predators to remove. Low water levels in the winter of 2012-13 and 2013-14 at Overton severely reduced the largemouth bass population. No bass were collected in that lakes spring trap netting effort and the lake is too shallow for an electrofishing survey. In January of 2015 the maximum depth in Overton was 3 feet, 3 inches. State-wide regulations for bass are minimum length limit of 15" with a daily bag of 5 fish, only one can be over 21". Possession limit is 10.





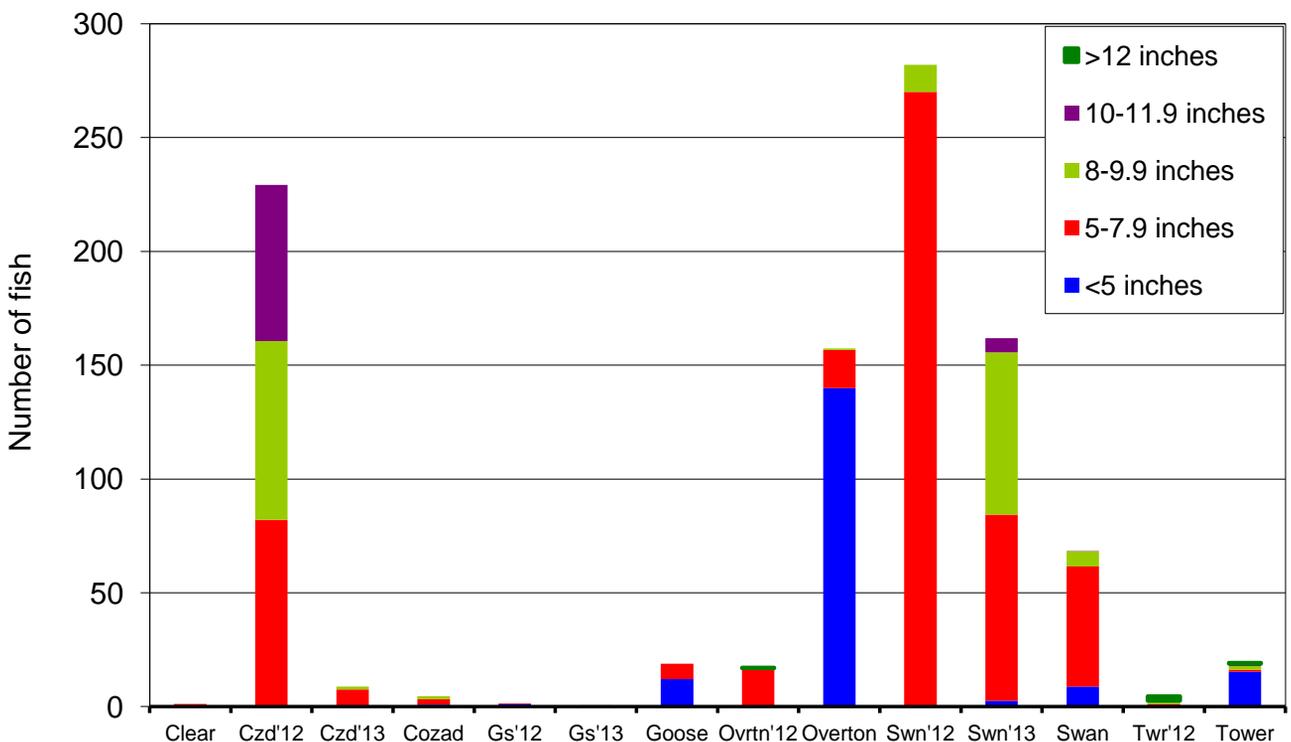
Northern pike can grow to extremely large sizes in some water-bodies, but only rarely exceed 15 lbs in most Sandhill lakes. These shallow lakes have very high summer water temperatures and this limits growth. These lakes are nearly the southern extreme for self-sustaining northern pike populations. Pike are managed in Sandhill lakes to satisfy angler demand and to help control common carp recruitment. Pike are an excellent fighting fish, open water or through the ice, and are hard to beat on the table if time is taken to remove the Y-bones. Instructions for filleting a variety of fish can be found on You-Tube. Goose is the only lake below that has a pike population managed with a 28-34 inch protected slot length limit. The slot limit allows for harvest of smaller pike while those best suited for carp predation are protected and remain in the lake. The statewide daily bag limit is 3 with a possession limit of 10. Pike were first sampled in Overton lake in 2012 and a small sample was collected in trap nets this spring. There is a good population of pike at Peterson with some fish exceeding the 36" mark. Fingerling pike were stocked in Twin North & Twin South in the spring of 2011 and some of these fish are now over 34 inches. While northern pike angling opportunities are limited in eastern Sandhill lakes, the Valentine Refuge Lakes and Merritt Reservoir offer additional opportunity.





Yellow perch are an ice angler favorite and commonly grow to jumbo sizes in these productive lakes. This species can be targeted on both open and frozen water but are difficult to find mid-summer with heavy stands of aquatic vegetation. It is this very habitat that enables some individuals to grow to 13 or more inches. Perch can be found in most Sandhill lakes. Perch numbers have decreased at Swan for the second year in a row. Perch catch fell again at Cozad and increased slightly at Goose and Tower. As stated previously all of these lakes are suffering from below normal water levels. This is a detriment for all species in Sandhill lakes. Timing can be critical for catching perch in trap nets, so some of the drastic differences between years may be a function of the perch not being in the sampled habitat at the time of the survey due to extremes in weather conditions. Most panfish populations can rebound quickly to fill a void in the fishery once water levels recover.

Yellow perch per trap net by length category



Common carp find their way into many Sandhill lakes, sometimes they are unknowingly brought in a minnow bucket, but most of the time they swim in during high water. They degrade water quality by destroying aquatic vegetation and prevent other desirable sport fish from maintaining healthy populations. A large amount of fisheries biologists time and fishermen's money is spent controlling, eliminating and preventing carp from entering Game and Parks managed lakes. In the Northeast District, carp are found in Goose Lake WMA, Long Lake SRA, and Twin Lakes WMA to name a few. Carp re-entered Goose Lake in 2008 and 2010 but remain in low numbers at this time and are not having an effect on the sport fish populations. Willow Lake in Brown county was renovated in the fall of 2013. Catch rates for carp while electrofishing at Willow were slightly higher than that at Rat & Beaver Lakes in Cherry county prior to renovations at both lakes. A study at Rat & Beaver found that over 93% of the fish population by count, and over 99% by weight were carp & black bullhead. It would have been very similar at Willow. Unfortunately an unknown number of fingerling carp avoided our rotenone treatment at Willow and were sampled this year. Management will aim to prolong the benefits of the renovation by controlling carp recruitment. Anglers should expect 10 or more years of quality fishing. Clear Lake located just to the north-east was renovated in 2012 with assistance from multiple partners. Year-round public fishing access will be provided. Twin Lakes R.C. WMA will be renovated when a structure can be designed that can keep carp from re-entering the lake during high water events. Drought years are the best time to renovate Sandhill lakes due to lowered water levels. A raised dike and outlet/carp barrier project was completed in 2013 at Swan Lake to prevent carp from gaining access back into this lake during periods of high water.



Age-1 carp at Willow Lake 2014.



Upstream Swan Lake dike with emergency overflow in foreground.



Main outlet and carp barrier at Swan Lake repaired in June of 2013.

Access for these sandhill lakes vary due to ownership. Cozad, Goose & Willow are property of the State of Nebraska and are managed under Wildlife Management Area regulations. Tower Lake is part of Yellowthroat WMA and is owned by the Fish and Wildlife Service. Clear, Overton, Peterson & Swan are privately owned lakes with public fishing agreements.

Access	Clear	Cozad	Goose	Overton	Peterson	Swan	Tower	Willow
Bank/Wading	NO	YES	YES	NO	YES	YES	YES	YES
Boat	YES	YES	YES	NO	YES	YES	YES	YES
Daytime Only	NO	NO	NO	YES	NO	NO	YES	NO
Ice Fishing Only	NO	NO	NO	YES	NO	NO	NO	NO
Modern Boat Ramp	NO	YES	YES	NO	NO	NO	NO	NO
Primitive Boat Ramp	YES	NO	NO	NO	YES	YES	YES	YES



Location of NE District public access Sandhill lakes

Check the Boating Guide for details:

<http://outdoornebraska.ne.gov/boating/pdfs/boatguide.pdf>

Stop Aquatic Hitchhikers: <http://www.ProtectYourWaters.net>

Fishing regulation & public waters information consult the 2015 fishing guide at:

<http://outdoornebraska.ne.gov/Fishing/guides/fishguide/pdf/FishGuide.pdf>

For more information contact the Game and Parks Fisheries staff:

Jeff Schuckman, Phil Chvala – Norfolk Regional Office – 402-370-3374

Andrew Glidden – Bassett Field Office – 402-684-2921

Please remember that these fishing areas have limited services and no trash pick up. If you pack it in, pack it out, and keep our wild places looking wild!