Calamus Reservoir 2014 Fall Fish Survey

Nebraska Game and Parks Commission

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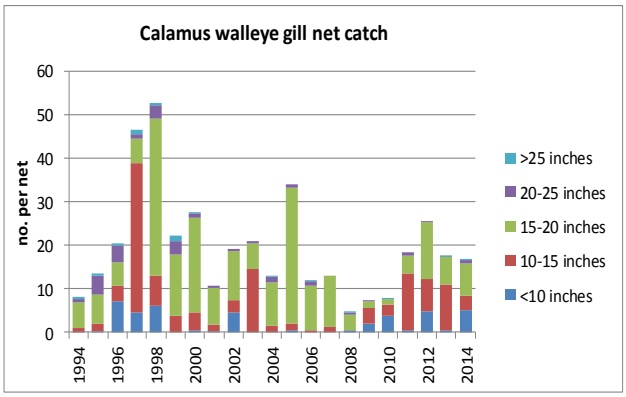
2014 Calamus Fall Fish Survey

The following text and graphs are summaries from the 2014 fall gill net sampling conducted during October. Gillnets are used to sample fish species which primarily live in open water environments such as large reservoirs. Sampling effort in 2014 was 8 nets located in the mid to lower reaches of the lake. However, two different time frames were used for the 2014 sample. Five nets were deployed in late September, but, due to lower than expected walleye catch, 3 sites were repeated in October with better results on walleye. The same general areas of the lake are utilized for sampling locations each year for standardization. Walleye, channel catfish, and wiper populations are maintained through annual fish stocking. Muskellunge are stocked in low numbers biannually to maintain their population and angling opportunity and northern pike are now stocked annually. In 2014, 7.8 million fry and 221,000 fingerling walleye, 25,000 fingerling wipers, 25,603 10-inch channel catfish , and 970 12-inch northern pike were stocked. Fish stocking in 2015 will include walleye, wipers, channel catfish, muskie and northern. No data from the 2014 creel survey is available at this time.

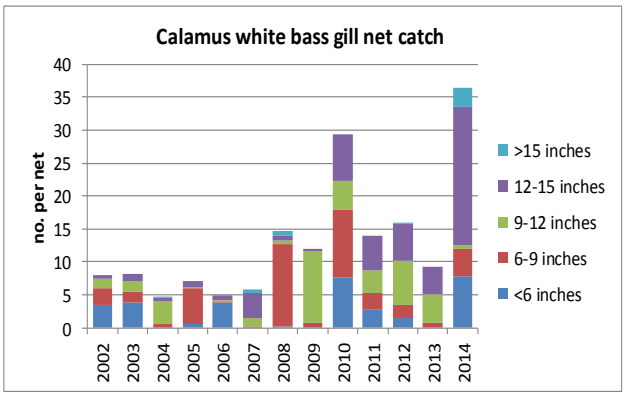
Walleye



Walleye numbers in the fall survey were similar to those found in 2011 and 2013.and nearly identical to 2011. Age 0-2 fish were abundant in the gillnet catch and age 4 fish are found in good numbers. Stocking survival in 2014 appears to be very good with abundant young-of-the-year collected not only in gill nets and also during nighttime electrofishing surveys in August. Age 4 is when walleye reach or exceed 18 inches in length. In 2014, 56% of the walleye sampled were 15 inches and longer and nearly 15% of those were over 18 inches in length. Current regulations allow for anglers to harvest one fish between 15 and 18 inches while the remainder of the 4 fish bag must be over 18 inches with only 1 over 22 inches . Walleye are reaching 15 inches in a little over 2 years (3 growing seasons) and reaching 18 inches by 4 years of age (5 growing seasons).

Angling success for walleye in 2015 should be similar to the past 3 years with more fish over 18 inches available for harvest.

White Bass



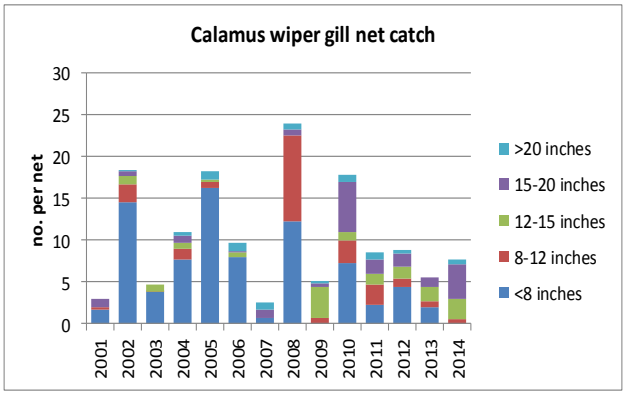
White bass numbers in 2014 were the highest recorded in any gill net survey at Calamus. Excellent numbers of larger sized fish are present due to lower angler harvest during the 2014 spawning season in May. High numbers of fish in the 12 to 15 inch range will equate to excellent angling in 2015. Reproduction was high in 2014 and an exceptionally large year class was produced and should carry forward over the next couple of years. The only negative factor seen is a relatively weak 2013 year class (the red portion of the 2014 bar on the chart) which may be seen as a reduction in white bass numbers for 2016 if a large 2015 harvest of white bass occurs. Hopefully the strong 2014 year class will make up for the weak 2013 year class. Many factors influence year class strength for white bass including weather conditions during the spawn and food availability, particularly young-of-the-year gizzard shad. In 2014, gizzard shad production was excellent which led to very good white bass growth. White bass are reaching nearly 10 inches after three growing seasons and 12 inches after three growing seasons. High numbers of fish from the 2009 year class which have survived 6 growing seasons is responsible for the large fish seen in the survey. These fish now average 14.5 inches. In 2015, anglers will see some white bass over 15 inches and an occasional fish over 16 inches.

Remember only 1 white bass/wiper greater than 16 inches is allowed in the daily bag limit.

Wipers

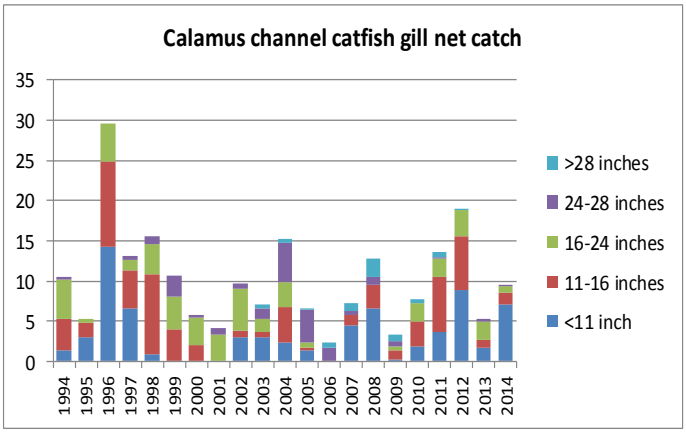
Wiper catch rates in fall gill nets can vary widely at the Calamus and the 2014 catch is about average. The numbers of smaller, young-of-the-year wipers was down in the 2014 survey but the numbers of larger wiper were among the highest seen since 2001. Wipers ranging from age 1 to age 4 were well represented in the all gill net survey. As always, wipers are a schooling fish and they can be a "hit or miss" sample. However, numbers and size structure for 2015 looks quite good. Wipers exhibit much faster growth than white bass with fish reaching 15—16 inches in three growing seasons and over 20 inches in five growing seasons. Like white bass, prey availability in the form of young gizzard shad influences year class survival and growth rates. Anglers should have some excitement in 2015 catching larger wipers.

Only 1 wiper/white bass greater than 16 inches is allowed in the daily bag.



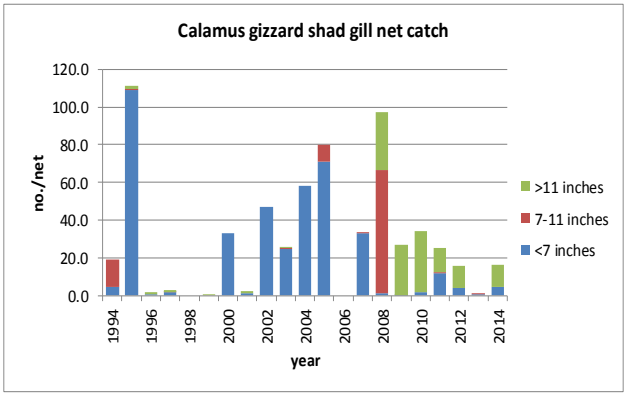
Channel Catfish

Channel catfish CPUE for all sizes of catfish was up in the 2014 survey, however, the majority of the fish collected were small and from the 2014 stocking. Numbers of medium to large sized catfish were down in the 2014 fall gillnet survey. It is unknown if this is a true indication of population density or rather a poor catch and sample due to the higher lake levels during the Fall survey in 2014. It is possible we "missed" the catfish in the net survey. We look for similar catfish angling opportunity in 2015 as was seen in 2014.



Gizzard Shad

Gizzard shad are the primary prey for managed sport fish in Calamus Reservoir and their size distribution is critical for proper growth, recruitment and maintenance of desirable sport fish species. It is desirable to have high numbers of young-of-the-year shad to provide food for the desirable sport fish such as walleye and white bass. Adult numbers in the 2014 survey were adequate for high reproduction but low enough so as not to impact other fish species by competition for food resources. In other words, just about right! Young-of-the-year production was very high in 2014 with multiple spawns and the young remained small well into October. Young-of-the-year shad remained available as excellent prey for species such as walleye, white bass, and wipers all summer long and well into the fall. The small size of the young -of- the-year shad is the reason more were not caught in the gill net survey.



2015 Activities

Planned stocking for 2015 includes nearly 7.5 million walleye fry along with 250,000 walleye fingerling. An ongoing stocking study utilizing chemically marked walleye will continue in 2015. This study is to determine which stocking strategy, fry or fingerlings, produces the highest contribution of walleye to the lake population. Other fish requested for stocking in 2015 include 25,000 ten-inch channel catfish, 1,000 12-inch muskie, 1,000 12– inch northern pike and 25,000 2-inch wipers. Availability of these fish for stocking is dependent on hatchery production.

An angler creel survey will continue in 2015 from May through August. A creel clerk will be conducting angler counts and interviews several days a week during this time frame. Please be courteous and provide accurate information. This information is important to assist with the management of the lake's fishery resources.

Zebra & Quagga Mussels

Anglers and recreational boaters should continue awareness for zebra and quagga mussels while using Nebraska Lakes. Monitoring was completed at many Nebraska reservoirs during 2013,including the Calamus, and no evidence of mussels was found. Currently in Nebraska, zebra mussels have only been documented near Omaha at Offutt Air Force Base, Zorinsky Lake, Missouri River and Lewis and Clark Lake. Zebra mussels have been eradicated from Zorinsky Lake. In the Fall of 2014, a single adult zebra mussel was found on a dock on the South Dakota side of Lewis and Clark Lake. Invasive mussels have been documented in several neighboring states, including Colorado, Iowa, Kansas, and Missouri.

Invasive mussels will attach to almost any surface and have detrimental impacts on industry (power plants, water intakes, irrigation, etc), native fish and mussels, and recreational users (fouling boat motors, impacting beaches, etc). Invasive mussels cause an estimated $5 billion per year in economic impacts in the United States for monitoring and control efforts. Inadvertent transfer by humans is the major source of new infestation for zebra and quagga mussels; primarily by boats, boat trailers, and fishing gear. Boaters and anglers are reminded that it is important to **clean, drain and dry** their equipment and boats before moving to different bodies of water. Anglers and boaters are encouraged to educate themselves on these and other aquatic invasive species. An excellent source of information regarding invasive species can be found on the University of Nebraska's Invasive Species Project website: http://www.neinvasives.com.

Regulations that took effect in 2013 mandate that all vessels and conveyance be drained of water prior to leaving a lake to prevent the spread of invasive species. This means all livewells, baitwells, and boat hulls shall be drained of water and all aquatic vegetation removed from boats and trailers prior to leaving a lake. Boats are subject to inspection by authorized personnel.

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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