Calamus Reservoir 2013 Fall Fish Survey and Creel Survey Results

Nebraska Game and Parks Commission
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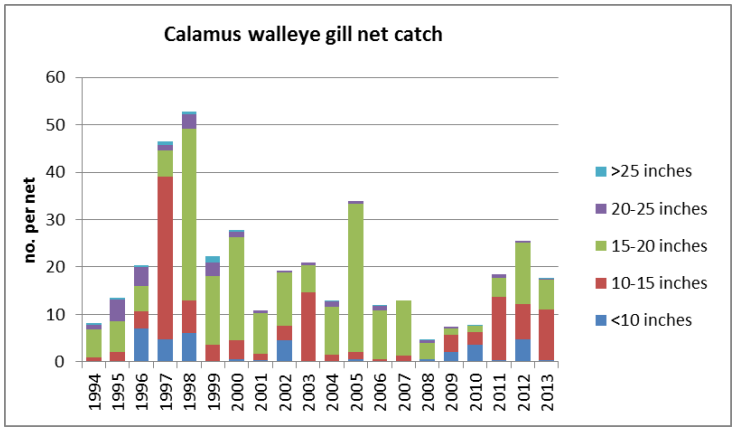
2013 Calamus Fall Fish Survey

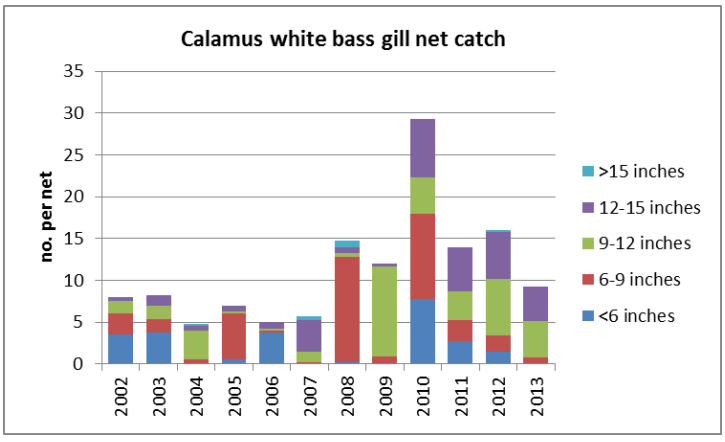
The following text and graphs are summaries from the 2013 fall gill net sampling conducted during October. Gillnets are used to sample fish species which primarily live in open water environments such as large reservoirs. Sampling effort in 2013 was 6 nets located in the mid to lower reaches of the lake. 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 stocked in alternate years opposite the muskie. In 2013, 8.2 million fry and 255,000 fingerling walleye, 30,971 fingerling wipers, 30,847 channel catfish as 10 inch advanced fish, 510 13-inch muskie and 500 12-inch northern pike were stocked. Planned stocking in 2014 includes walleye fry, OTC marked walleye fingerling, channel catfish, wipers, and northern pike. Species stocked and numbers will depend on availability.

Walleye



Walleye numbers in the fall survey were down somewhat from 2012 and nearly identical to 2011. Walleye numbers remain at a high level and provide very good fishing opportunity. Age 1-3 fish dominate the gillnet catch and walleye numbers really drop off for age 4 fish and older. Age 4 is when walleye reach 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 and reaching 18 inches at 4 years of age. Hourly angler catch rate in 2013 while seeking walleye was 0.73, which is really good and better that other large reservoirs in Nebraska in 2013. June was a banner month with an estimated angler hourly catch rate of 1.15. In all, over 32,000 walleye were estimated caught at Calamus in 2013 with 25% of those harvested.

White Bass

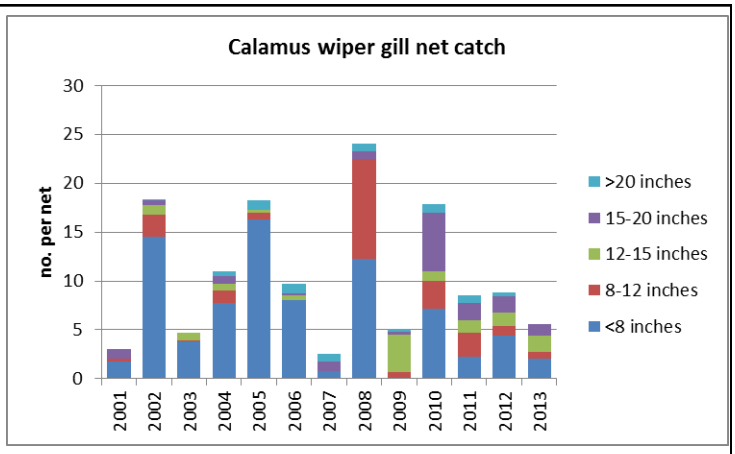


White bass numbers are down by about 1/3 from the 2012 fall survey, undoubtedly due to the extremely high harvest in 2013. The white bass sampled were skewed toward larger size classes with fewer age 0 and age 1 fish seen in 2013. While good news for anglers in 2014, a strong year class will be needed to maintain the high numbers of white bass anglers have become accustomed to at Calamus. Few fish sampled are over 15 inches and few white bass in the angler creel exceed 15 inches in length. White bass growth slows considerably between ages 2 through 4 and that combined with a high harvest contribute to the general lack of fish over 15 inches. 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. White bass are reaching nearly 10 inches after two growing seasons and nearly 12 inches after three growing seasons. 2013 was a great year for white bass anglers with over 69,000 estimated caught with 64% of those harvested.

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

Wipers

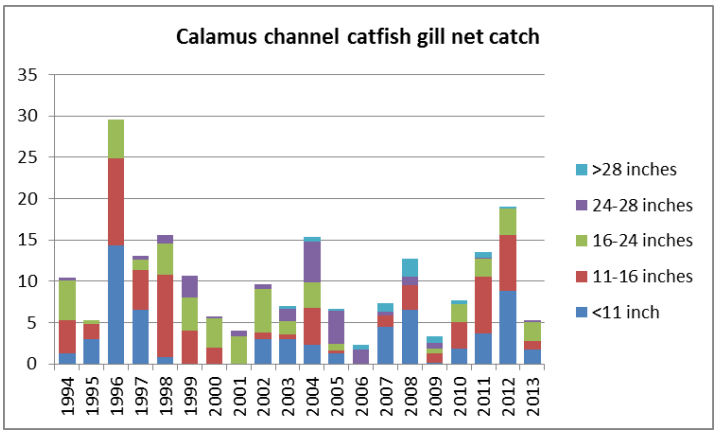
Wiper catch rates in fall gill nets can vary widely at the Calamus and the 2013 catch was on the lower end. While only slightly below the past two years, the gillnet catch was far below some of the higher years. Fish were sampled over a few size classes and five age classes were represented. Wipers are a schooling fish and they can be a "hit or miss" sample. Wipers exhibit much faster growth than white bass with fish reaching 15 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. A new regulation in effect that began in 2012 is geared to protect and produce larger wipers. **Only 1 wiper/ white bass greater than 16 inches is allowed in the daily bag.**



Channel Catfish

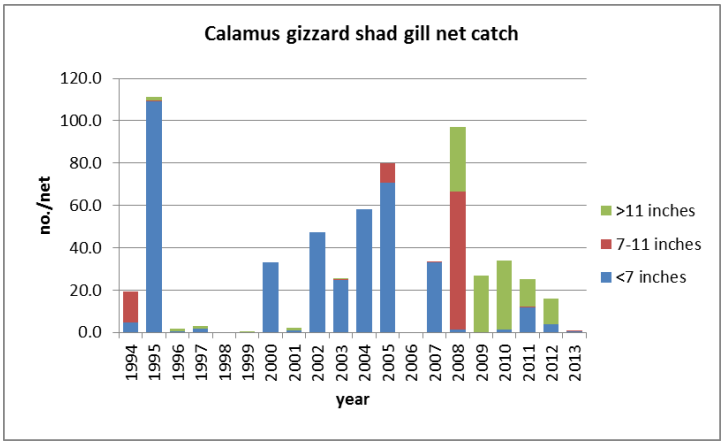
Channel catfish CPUE was considerably below the high gill net catches seen in 2011 and 2012 but more in line with the long-term average. The gill net CPUE does not seem to reflect the high quality catfish angling the Calamus has become known for. At a catfish tournament in 2013, the winning team had a 26 pound average for the fish weighed. The presence of large sized channel catfish has attracted Midwestern and national attention.

It is felt the Calamus will continue to offer good catfishing in 2014 in spite of the poor 2013 gill net catch. I look for this catch rate to hopefully rebound in 2014 sampling effort.



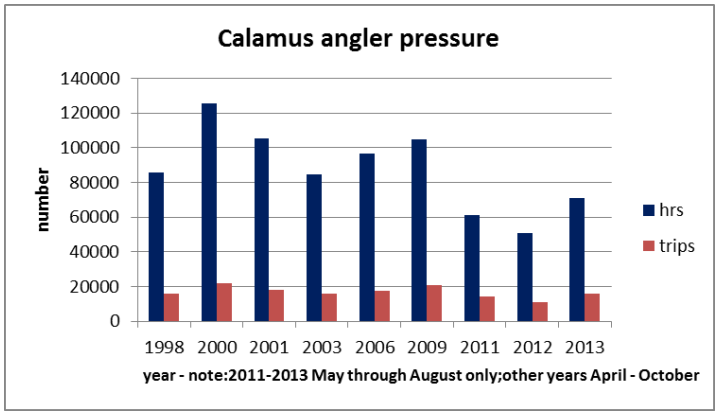
Gizzard Shad

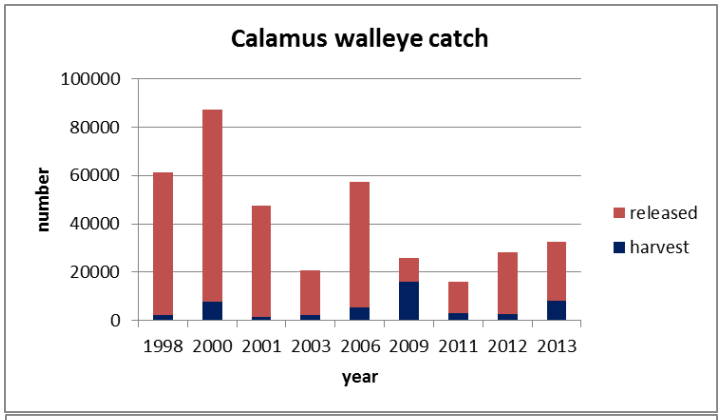
Gizzard shad are the primary prey for managed sport fish in Calamus Reservoir and their size distribution is critical for proper growth, recruitment and maintenance of desirable sport fish species. It is desirable to have high numbers of young-of-the-year shad to provide food for the desirable sport fish such as walleye and white bass. Low numbers of shad over all sized classes were seen in the 2013 gill net catch. Observation over the summer indicated shad numbers were much higher than the gill net catch shows. Anyone who fished the lake can attest to the higher number of adults and schools of young-of-the-year shad seen in the lake during the summer and fall. Shad are a schooling fish and they can be extremely hit or miss. In addition, cool water temperatures in the fall can dictate shad movement and therefore gill net catch.

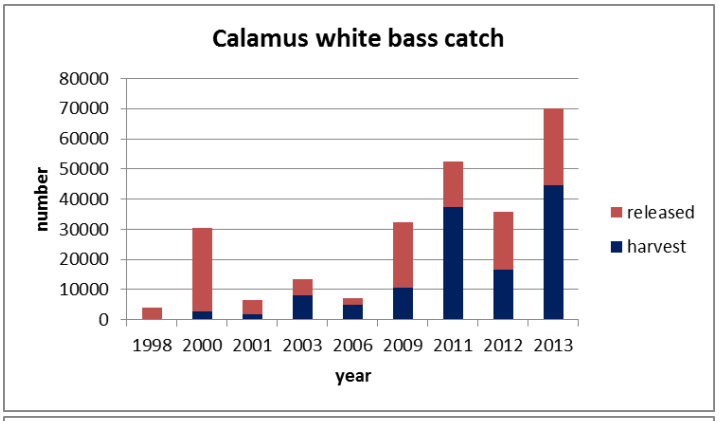


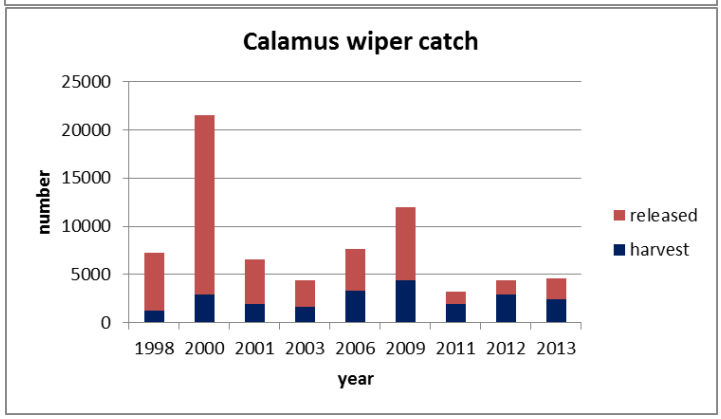
2013Calamus Angler Creel Survey Summary

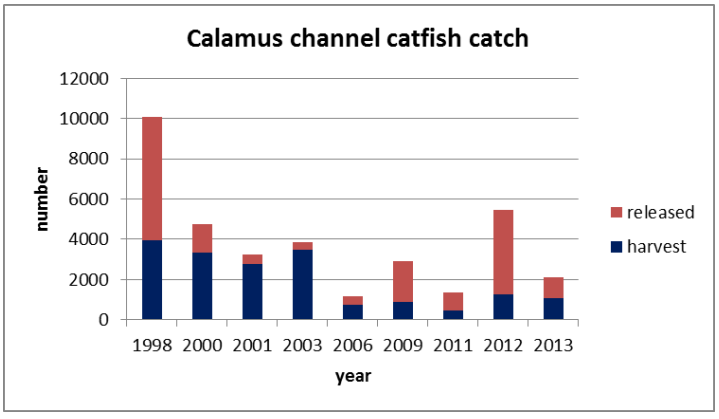
Angler counts and interviews were conducted from May through August in 2013. A total of 79 days were surveyed within this time frame, 56 week days and 23 weekend days. A total of 780 angler interviews were conducted. Total angler hours estimated from May through August was 71,054 with 16,118 angler trips, an increase in angler activity over the last two years. Eighty three percent of all angler parties contacted were successful in catching fish. The following charts depict angler use and catch between creel years at Calamus Reservoir. Be aware that 2011 through 2013 were shortened creel survey periods from May through August while most creel surveys occurred an additional two to three months from April through September or even October. The 2013 creel data resulted in a total fish catch estimate of over 124,000 with over 58,000 harvested. As for individual species, white bass led the way with an estimated 69,970 fish caught and 44,575 harvested. The white bass catch and harvest was the highest recorded in any creel survey at Calamus. The harvest of walleye was the third highest seen during any creel year and the hourly angler catch rate of 0.7 is excellent. Channel catfish catch was down in 2013 from 2012 and was the third lowest recorded.



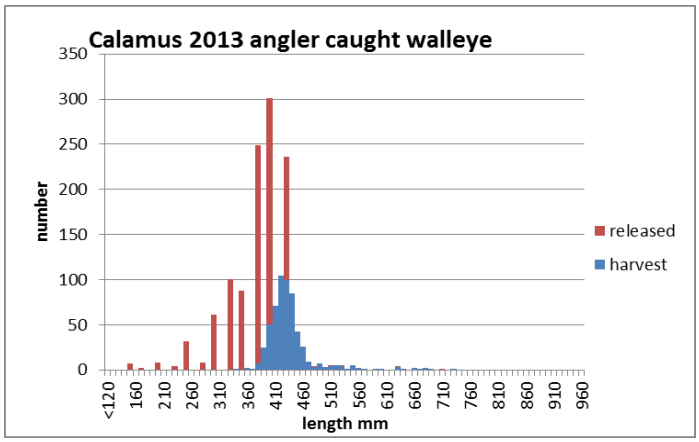


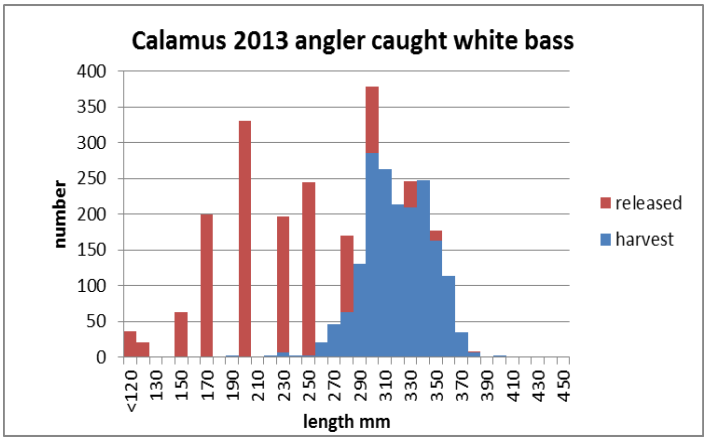


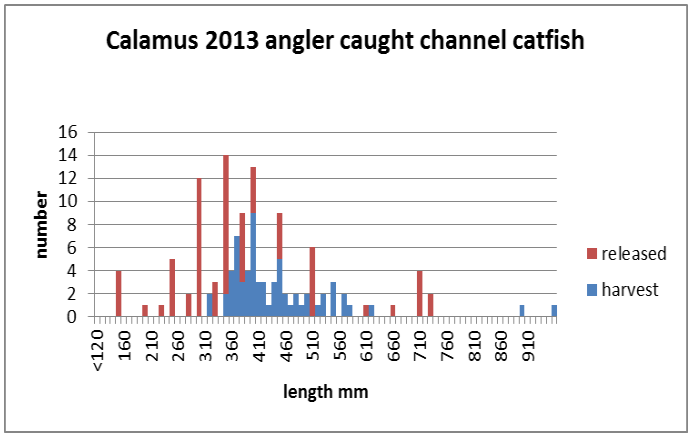


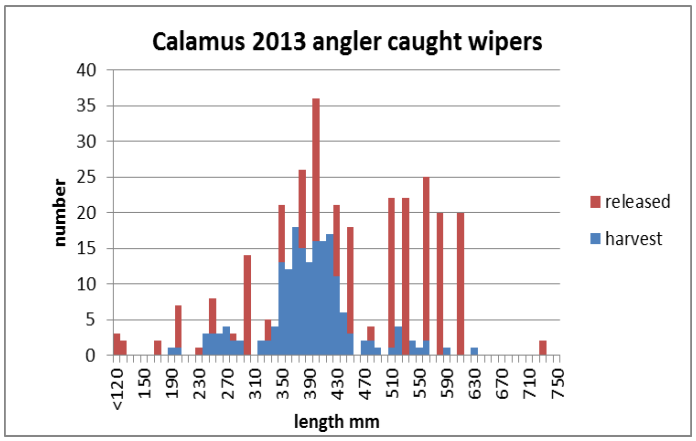


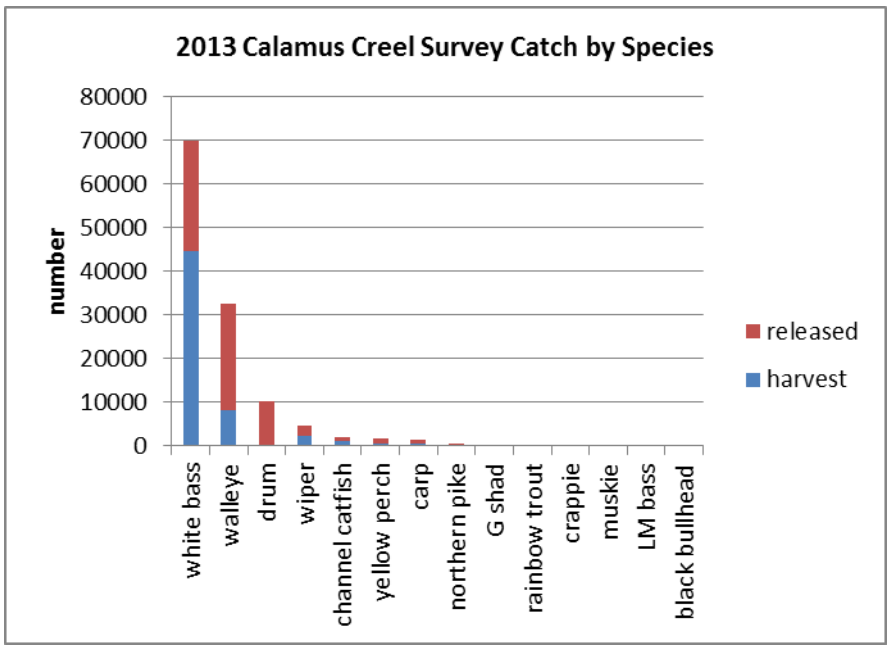
The following charts are specific to the 2013 angler creel survey and depict the length frequency of angler caught fish by species. Fish lengths are actual lengths taken from angler harvested fish and angler estimated released fish. The length data was collected during the 780 angler interviews.











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, and the Missouri River. 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.

New regulations in effect beginning 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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