

Davis Creek Reservoir 2014 Fishery Survey Summary

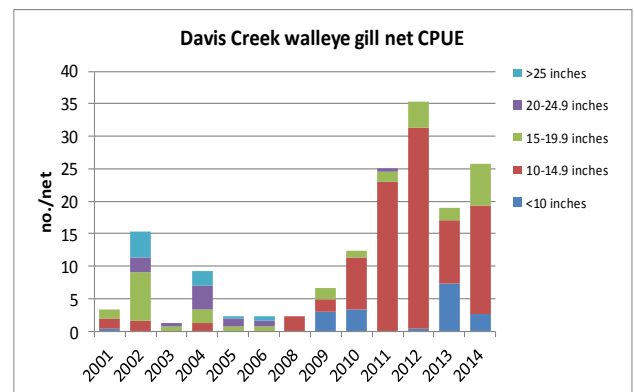
Jeff Schuckman, Northeast District Fish Manager
Phil Chvala, Fisheries Biologist
Andrew Glidden, Fisheries Biologist



The following text and graphs are the result of netting surveys completed during May 20, 21 and September 23, 24 at Davis Creek Reservoir. For comparative purposes it also shows results from previous years. Fish populations are sampled each year at Davis Creek using gill and frame nets. Gill nets are used to sample fish species found primarily in open water, such as walleye, while frame nets are used to sample shoreline oriented species, such as crappie. Gill nets only were used in the Fall 2014 and frame nets were switched from a Fall sample to a Spring sample due to high variability in catch in the Fall. The following graphs show the total number of fish caught per net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs.

Walleye

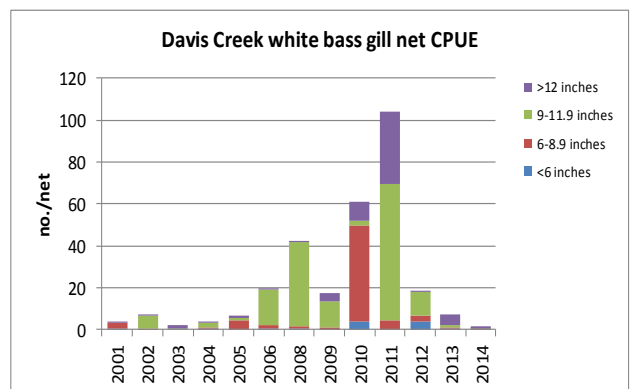
Walleye net catch continues to be high since annual fingerling stockings were initiated in 2009. The walleye net catch dropped by about 45% from the high catch seen in 2012 but rebounded in 2014 thanks to a strong 2013 year class. Recruitment from stocking remains strong as seen by the fish from the 2014 year class that are under 10 inches in length. While not as numerous as in 2013, the 2014 year class is present and will provide angling opportunity in two years. Growth rates are excellent and fish will cycle through the 15 inch size over the course of the 2015 growing season. Walleye are exceeding 15 inches in three growing seasons. Year classes age 0-3 made up 95% of the walleye sample. Angling success in 2015 will be very good. Davis Creek is managed with a 15 inch minimum length limit for walleye to maximize walleye harvest for the angler. Due to heavy fishing pressure, Davis Creek will not produce very high numbers of larger sized walleye. That fits in with the management philosophy at Davis Creek as a lake where we hope to maintain high walleye recruitment rates and cycle fish through to the angler to harvest on a sustained annual basis.



White Bass

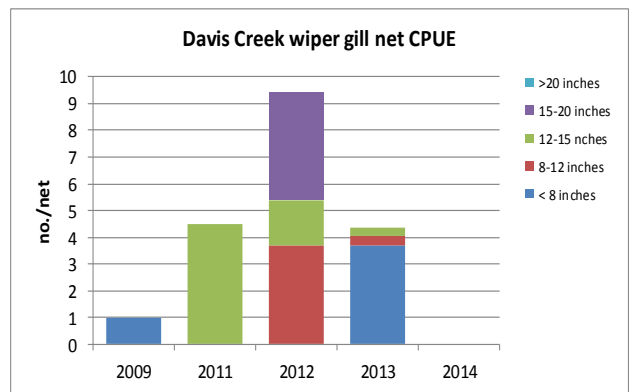
White bass numbers in the gill net survey dropped for the third consecutive year from the high in 2011. White bass are a schooling fish and can be hit or miss with nets and the white bass were obviously using a different part of the lake during our survey time. Numerous small white bass were observed and caught by anglers in the summer of 2014 and at the inlet in the Spring of 2014. White bass grow well in Davis Creek and are exceeding 12 inches in length in their third growing season. Abundant prey in the form of age 0 gizzard shad have led to good growth rates for white bass the last couple of years.

In spite of the lack of white bass in the survey data, look for good white bass angling opportunity in 2015.



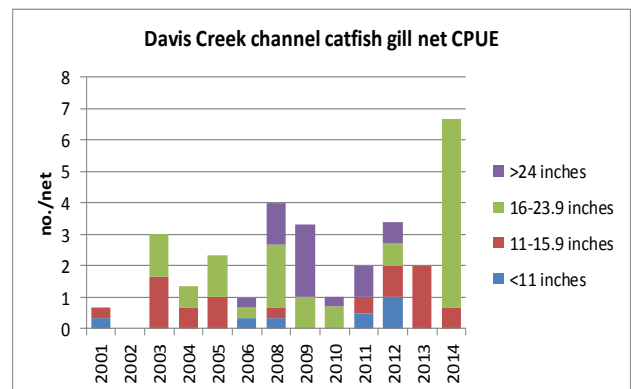
Wipers

No wipers were sampled by gill nets in the 2014 Fall survey. This is surprising since wipers were observed being caught by anglers in 2014. Apparently they must have been in the same part of the lake as white bass during the survey period. The lake was being filled at survey time and we feel the white bass and wipers were likely in the upper reaches of the reservoir feeding on abundant small shad found there. We will continue to request wipers for stocking on an annual basis to maintain a fishable population for anglers to enjoy. **Anglers are reminded that only one white bass/wiper over 16 inches is allowed in the daily bag limit.** Problems were encountered at the inlet area in the Spring when anglers were violating the "one over" part of the daily bag limit for wipers. Please report all violations to the local Conservation Officer whose name and number can be found in the fishing guide or call Nebraska Wildlife Crimestoppers at 1-800-742-7627.



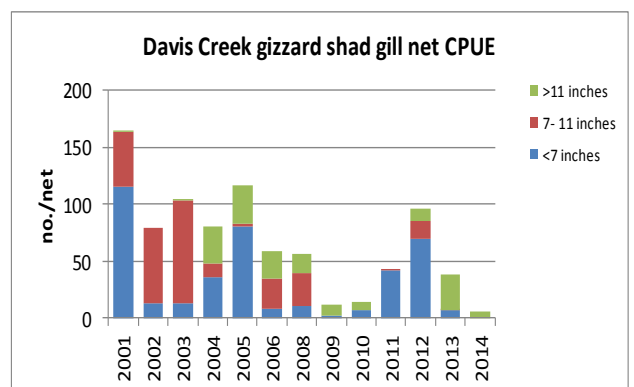
Channel Catfish

Channel catfish abundance has historically been low at Davis Creek Reservoir. Stocking that began in 2012 appears to be paying off in terms of higher catfish numbers seen in 2014. Most of the catfish sampled in 2014 were nice sized fish in the 17 to 19 inch size range. Even though not collected in the 2014 survey, opportunity will exist in 2015 to catch a trophy sized catfish at Davis Creek. Anglers are reminded that the daily bag limit for channel catfish is five fish per day.



Gizzard Shad

The gizzard shad population is monitored because they serve as the primary food source for walleye, white bass, and wipers at Davis Creek. Adult shad abundance declined in the 2014 gill net survey but adequate numbers of young-of-the-year shad were observed in the lake in the summer months. Spawning shad were visible in high numbers during the Spring trap net survey. A preferred gizzard shad population is one dominated by young-of-the-year fish that serve as excellent prey for sport fish species such as walleye, white bass, wipers and crappie. Adequate brood fish numbers of shad are present for 2015 and hopefully environmental conditions allow for good reproduction and abundant young fish. Despite the low gill net catch of shad in 2014, growth rates and body condition of monitored sport fish remain good. Adult shad numbers have remained lower since more aggressive sport fish stocking began in 2009. This likely means that the shad biomass is now channeled into sport fish biomass desirable to anglers.



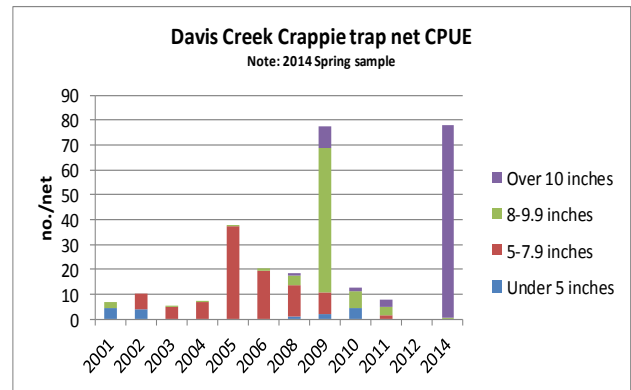
Crappie

In 2014, crappie sampling with trap nets was switched to the Spring of the year due to inconsistent and generally low net catches in the Fall. The exception being in 2009. The lake is at the lowest pool elevation in the Fall and crappie are not vulnerable to trap net gear.

As you can see, crappie catch when the reservoir is near full in the May produced a much higher catch of crappie and indicates an excellent size structure.

Most of the crappie sampled were over ten inches in length that should provide good angling opportunity in 2015.

Also keep in mind that Spring crappie net sample catch rates are generally higher due to the fact the crappie are near-shore looking for places to spawn. While this lends high net catches and data for us on the crappie population, the catch-per-unit-effort numbers are likely biased higher. At any rate, Davis Creek holds good numbers of crappie with an excellent size structure at this time.



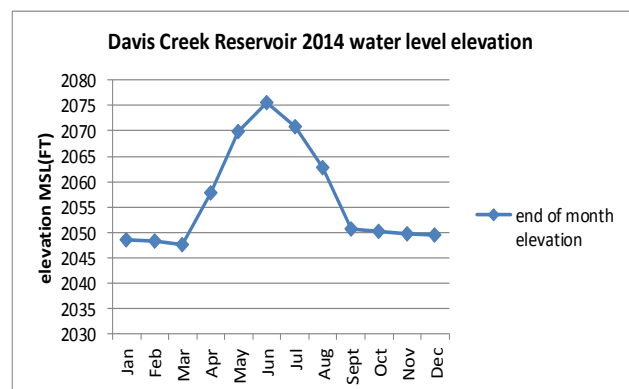
Additional Information about Davis Creek Reservoir

Fish Stocking

Walleye have been stocked annually since 2009 at a rate of 50 fingerling per acre or about 60,000 per year. Wipers have been requested annually since 2010 but were only available for stocking in 2010 and 2013. Wipers are requested for stocking at about 10 fingerling per acre or about 11,000 fish. Channel catfish supplemental stocking began in 2012 and will be conducted in even years at 6,500 ten-inch fish. Wipers, walleye, and channel catfish were stocked in 2014 at the above rates. Requested again for 2014 are walleye, wipers and 11,000 spotted bass fingerlings. It is felt spotted bass are more suitable than largemouth bass for an irrigation reservoir with extreme water fluctuations.

General Information

Typical of irrigation reservoirs in Nebraska, fluctuating water levels have a large impact on available aquatic habitat at Davis Creek Reservoir. Shoreline habitat is best when the reservoir is near conservation pool and reduced when the reservoir is low in the fall and winter. The addition of deep water habitat structures may improve winter survival of shoreline-oriented fish species such as crappie. Normal pool level (full pool) is elevation 2076.0 Current lake elevations can be found on the U.S. Bureau of Reclamation website: http://www.usbr.gov/gp-bin/arcweb_dane.pl

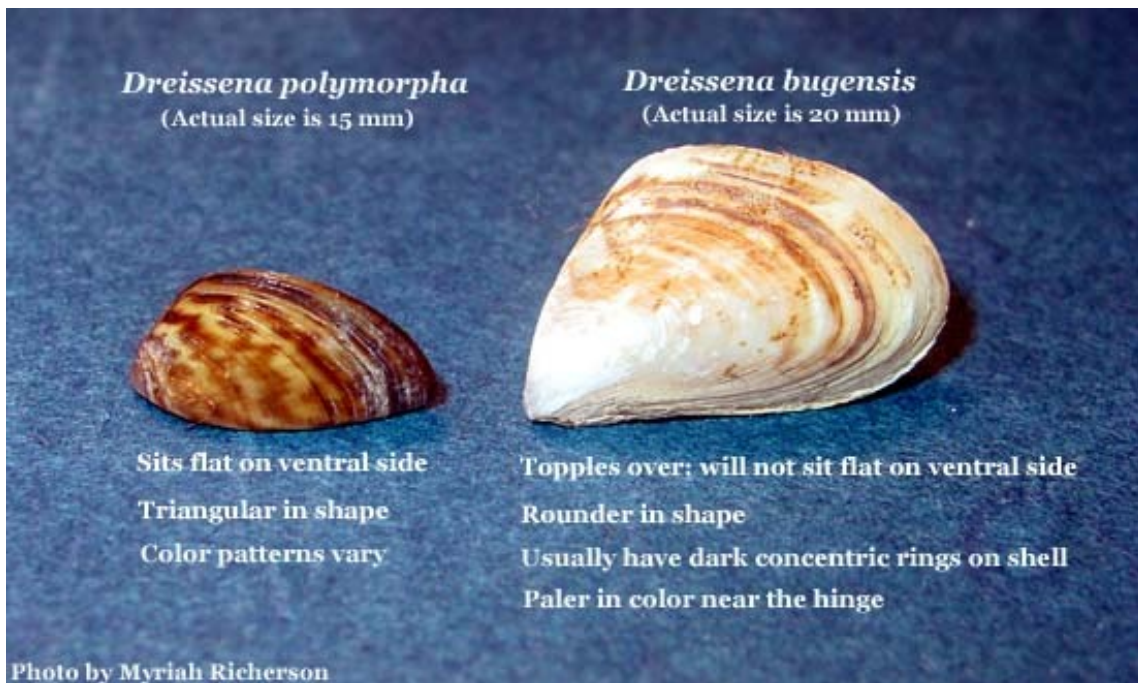


Zebra & Quagga Mussels

Anglers and boaters need to be aware of zebra and quagga mussels while using Nebraska Lakes. While no mussels have been identified at Davis Creek Reservoir, zebra mussels have been found at Zorinsky Lake in Omaha, (since eradicated), in 2014 in Lewis and Clark Lake on the Missouri River, and are present in several reservoirs in Kansas and Colorado. Monitoring was completed at several Nebraska reservoirs during 2014 and no evidence of mussels were found except for one adult on the South Dakota side of Lewis and Clark Lake.

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/>

****Special Note to Boat Anglers****—>As of January 1, 2013, new regulations require that any boat that has been on a waterbody must drain all water from all compartments, equipment, or containers before leaving the launch area and that all aquatic vegetation must be removed from the boat and trailer before leaving the launch area.



**STOP AQUATIC
HITCHHIKERS!**

Please remember:

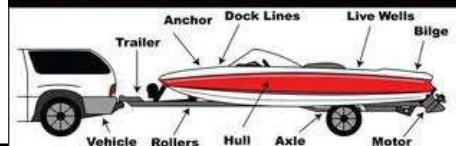
CLEAN • DRAIN • DRY

Boats and Equipment

www.kdwp.state.ks.us



LOOK FOR MUSSELS HERE



CHECK YOUR BOAT, TRAILER AND VEHICLE

For additional information about fisheries management at Davis Creek Reservoir, please contact the NGPC Norfolk office at 402-370-3374, or by email at the addresses listed below.

District Manager: Jeff Schuckman, jeff.schuckman@nebraska.gov

Biologist: Phil Chvala, phil.chvala@nebraska.gov

Biologist: Andy Glidden, andy.glidden@nebraska.gov

Information regarding camping facilities at Davis Creek Reservoir can be found at Lower Loup NRD's website: <http://www.llnrd.org/recreation.html>

