

Davis Creek Reservoir 2015 Fishery Survey Summary

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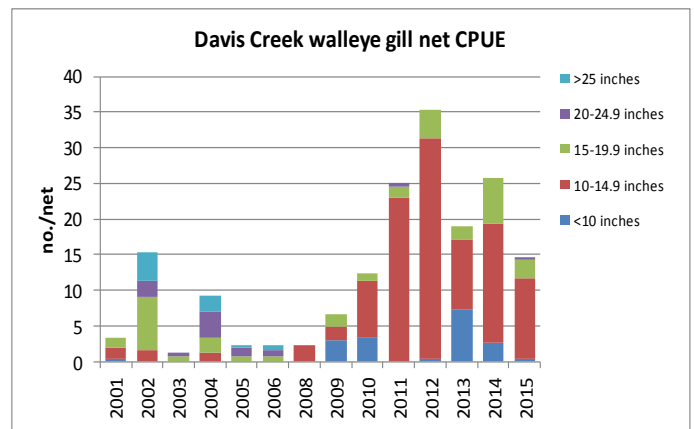


The following text and graphs are the result of netting surveys completed during May 18,19 and September 22,23 at Davis Creek Reservoir. For comparative purposes it also shows results from previous years. Fish populations are sampled each year at Davis Creek using gill and frame nets. Gill nets are used 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 are used in the Fall and frame nets were switched from a Fall sample to a Spring sample beginning in 2014 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. Fish stocked in 2015 were 57,669 walleye fingerling, 11,700 Kentucky spotted bass fingerling, and 11,450 wiper fingerling. Channel catfish are stocked on a bi-annual basis and were not stocked in 2015.

Walleye

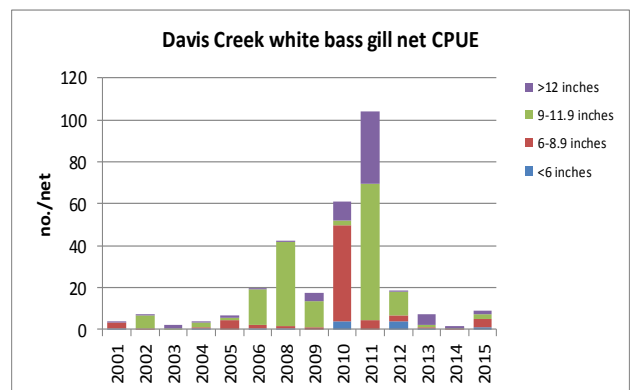
Walleye net catch decreased by 43% from the 2014 sample. A high angler harvest in 2015 coupled with a low catch of young-of-the-year walleye resulted in a decrease in the number of fish collected. Time will tell if the survival of the walleye fingerling stocked in 2015 is sufficient to maintain high walleye numbers. One of the factors influencing walleye abundance was the lack of shad production in 2015. Young-of-the-year shad in the reservoir were few and large in size by Fall. Walleye growth and body condition was sub-standard in 2015 due to the lack of prey fish. About 20% of the walleye population was harvestable size at the time of the survey. 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. In 2016 fisheries staff will transfer 200 adult shad to Davis Creek to ensure spawning fish are present and a sufficient prey base will be produced. Walleye anglers will likely notice a slight decline in fishing success in 2016 as compared to the past four years.



White Bass

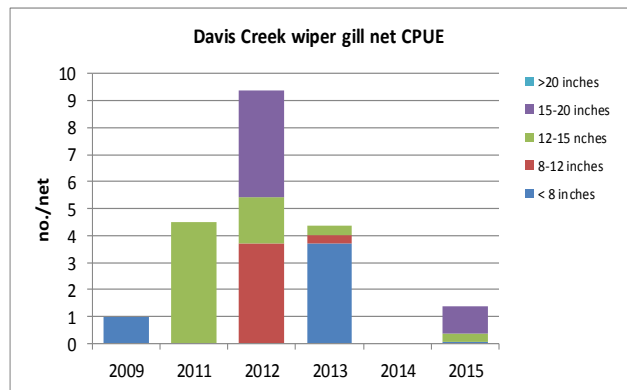
White bass numbers in the gill net survey actually increased over those found in the 2013 and 2014 surveys but are far below those numbers seen in 2010 and 2011. White bass are a schooling fish and can be hit or miss with nets. In spite of the low numbers captured in the 2013 and 2014 samples, white bass fishing in the spring of 2015 was good, particularly at the inlet. In spite of the lack of white bass in the 2015 survey data, look for some decent white bass angling opportunity in 2016, especially at the inlet in the Spring. A positive note from the 2015 sample is that all size groups of white bass are represented so there is recruitment and anglers will find some larger white bass to harvest in 2016. As with walleye, the low production on gizzard shad in 2015 likely had a negative influence on white bass abundance and growth.



Numerous schools of young shad are desirable for white bass to prey upon and maintain good growth.

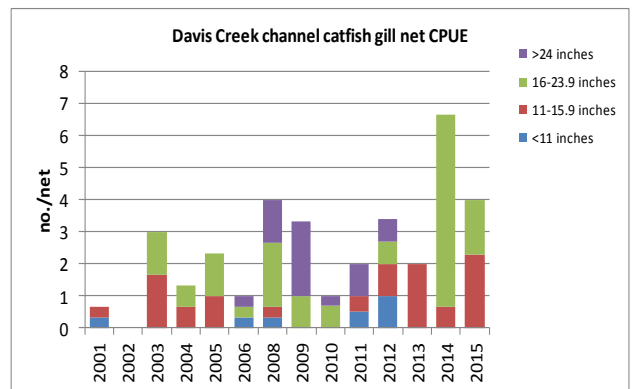
Wipers

Wiper numbers were once again low in the 2015 sample. Although a few larger individuals were collected, numbers are down considerable from 2011-2013. That doesn't mean anglers won't catch any wipers in 2016, it's just that we did not find many in our sample survey. Anglers will catch wipers in 2016, particularly near the inlet in the Spring as the lake is filling. No doubt the issue with prey numbers and availability in 2015 also hurt the wipers. 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 are 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.



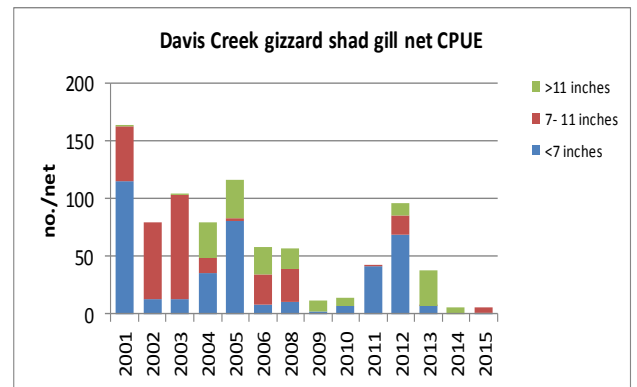
Channel Catfish

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 and 2015. Most of the catfish sampled in 2015 were nearly an even split between small sized fish (red bar) and larger fish. Even though fish over 24 inches were not collected in the 2015 survey, opportunity will exist in 2016 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.



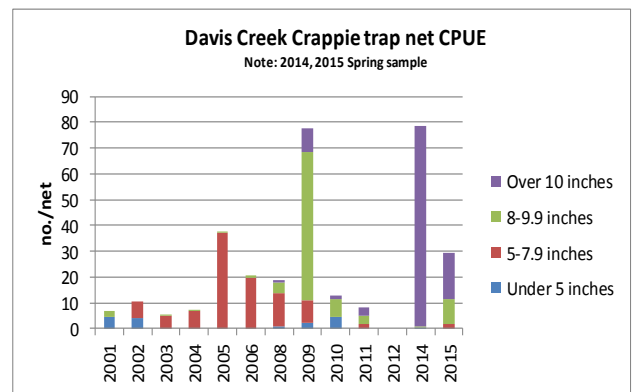
Gizzard Shad

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 2015 gill net survey and few young-of-the-year shad were collected or seen. Spawning shad were collected and seen in low numbers in the 2015 Spring trap net survey compared to 2014 when they were found in high numbers. It is likely the shad population suffered a winterkill. Central and northern Nebraska is on the northern edge of the gizzard shad range and winterkill is not uncommon. Inadequate brood fish numbers of shad are present for 2016 and we will transfer 200 adult pre-spawn shad to the lake in April or May to insure enough shad production to support the sport fish populations. 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. Sport fish survival, growth rates and body condition decrease if abundant young shad are not available.



Crappie

Due to low numbers of crappie caught in the Fall survey when the lake is at full draw-down, we began sampling crappie in the Spring with trap nets when the crappie are in shore for spawning. Crappie numbers in the survey declined by over 50% from 2014 but numbers are still quite good. Over half of the crappie sampled were over ten inches in length and those should provide good angling opportunity in 2016. White crappie made up 97% of the crappie sampled in 2015. Also keep in mind that while Spring crappie trap net catch rates are generally higher due to the fact the crappie are near-shore looking for places to spawn, timing of the sample is critical and can influence catch rates. We strive to be consistent from year to year in terms of dates sampled and water temperature. At any rate, Davis Creek holds good numbers of crappie with a good size structure at this time.



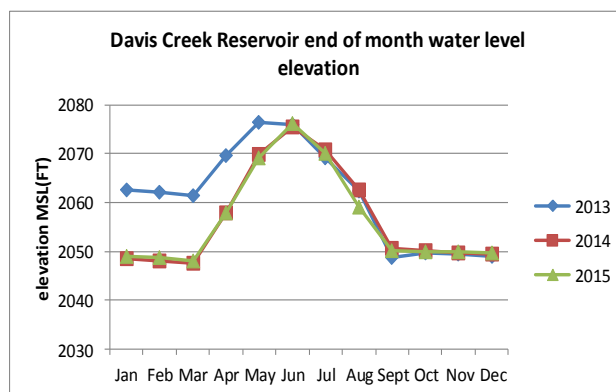
Additional Information about Davis Creek Reservoir

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, 2013 and 2015. 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 2015 at the above rates. Requested again for 2016 are walleye, wipers, spotted bass fingerlings, and channel catfish. It is felt spotted bass are more suitable than largemouth bass for an irrigation reservoir with extreme water fluctuations and we are attempting to create a reproducing population at Davis Creek.

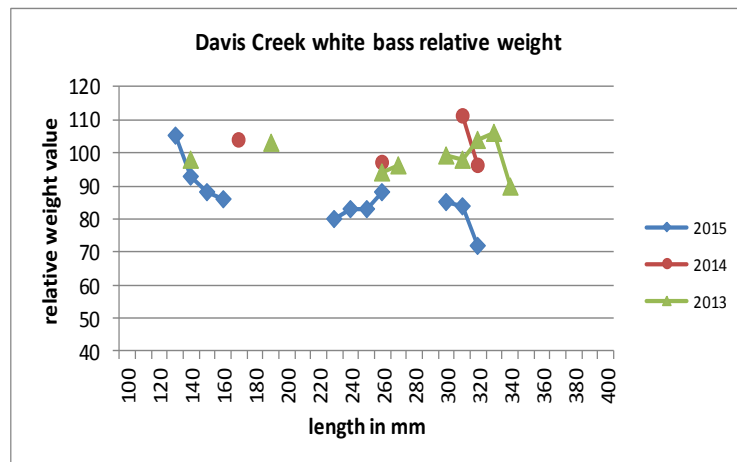
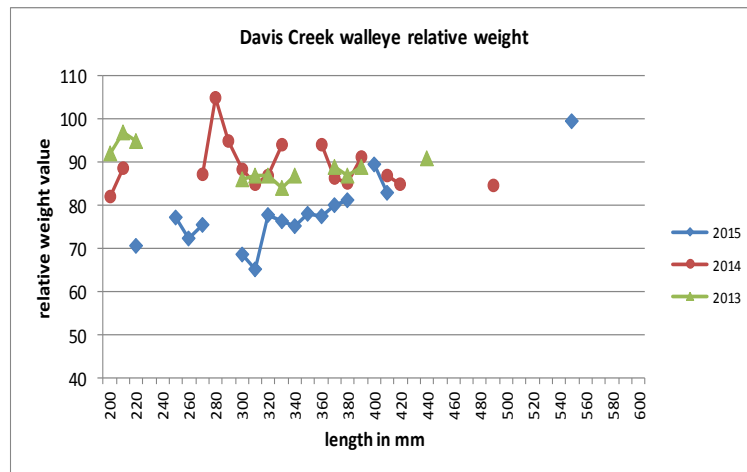
General Information

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://arcweb_dane.pl www.usbr.gov/gp-bin/



Relative Weight

The relative weight index gives managers an idea of the general body condition of fish. This index is the ratio of the actual weight of a fish to the optimum weight for a fish of that size. The 'standard' or ideal value is 100. Anything over that value indicates a very plump or "fat" fish where prey is usually readily available. Lower values indicate prey items may be insufficient or fish are too abundant. Generally, fish managers like to see a relative weight value falling between 90 and 105. The charts below show the relative weight values or body condition for walleye and white bass. As referenced in the previous text by species, this illustrates how the lack of small gizzard shad in 2015 influenced body condition versus the last two years when prey was more abundant.

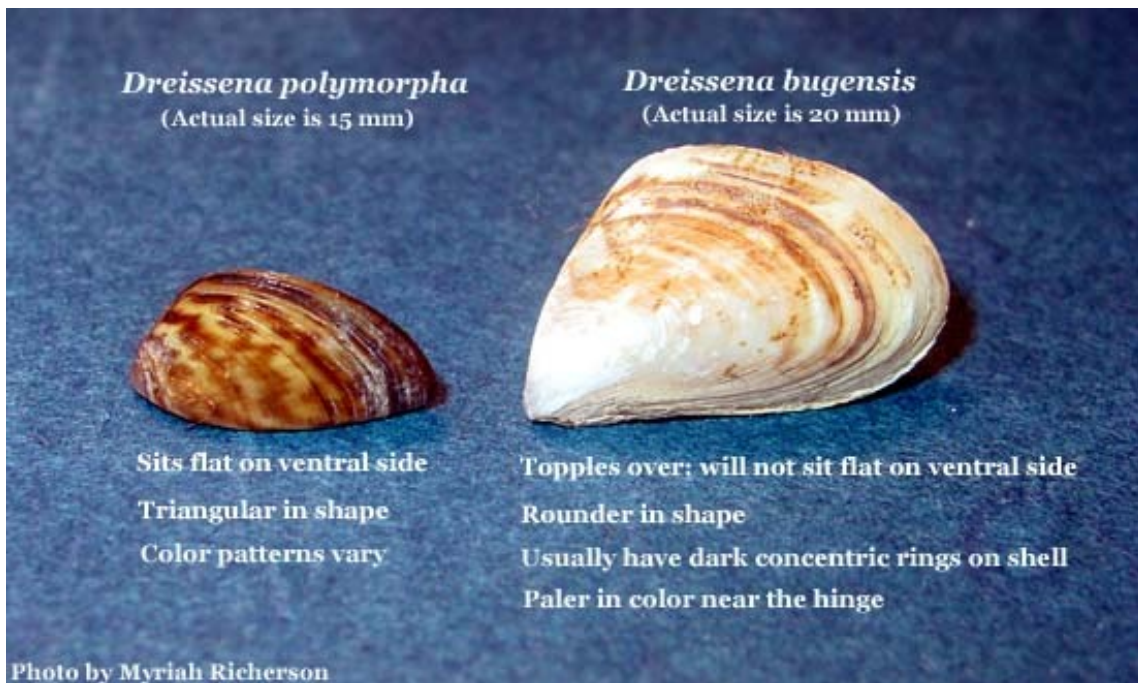


Zebra & Quagga Mussels

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 2015 in Lewis and Clark Lake on the Missouri River, and are present in several reservoirs in Kansas. Monitoring was completed at several Nebraska reservoirs during 2015 and no evidence of mussels were found except Lewis and Clark Lake and Offutt Airforce Base 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. Nebraska Game and Parks aquatic invasive species regulations can be found at the Game and Parks website at outdoornebraska.gov. Click on the Fishing tab and go to "fishing guide and reports".



**STOP AQUATIC
HITCHHIKERS!**

Please remember:

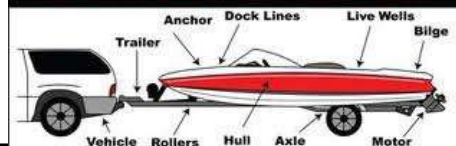
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Boats and Equipment

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>

