

# GLEN ELDER DISTRICT FISHERIES NEWSLETTER

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Kansas Department of Wildlife, Parks & Tourism

Summer 2020

## Repair Work Gives Unique Look at Glen Elder Outlet



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The Bureau of Reclamation undertook a major repair and inspection operation in the spring at the outlet works including the tubes under the dam and the outlet wing walls and baffles. This required a near complete draining of the outlet basin, a task which had not been completed in almost 30 years. Releases were discontinued on March 2<sup>nd</sup> and the basin was pumped down over the next week. Releases remained off through April 24<sup>th</sup> when the work was complete, and releases resumed.

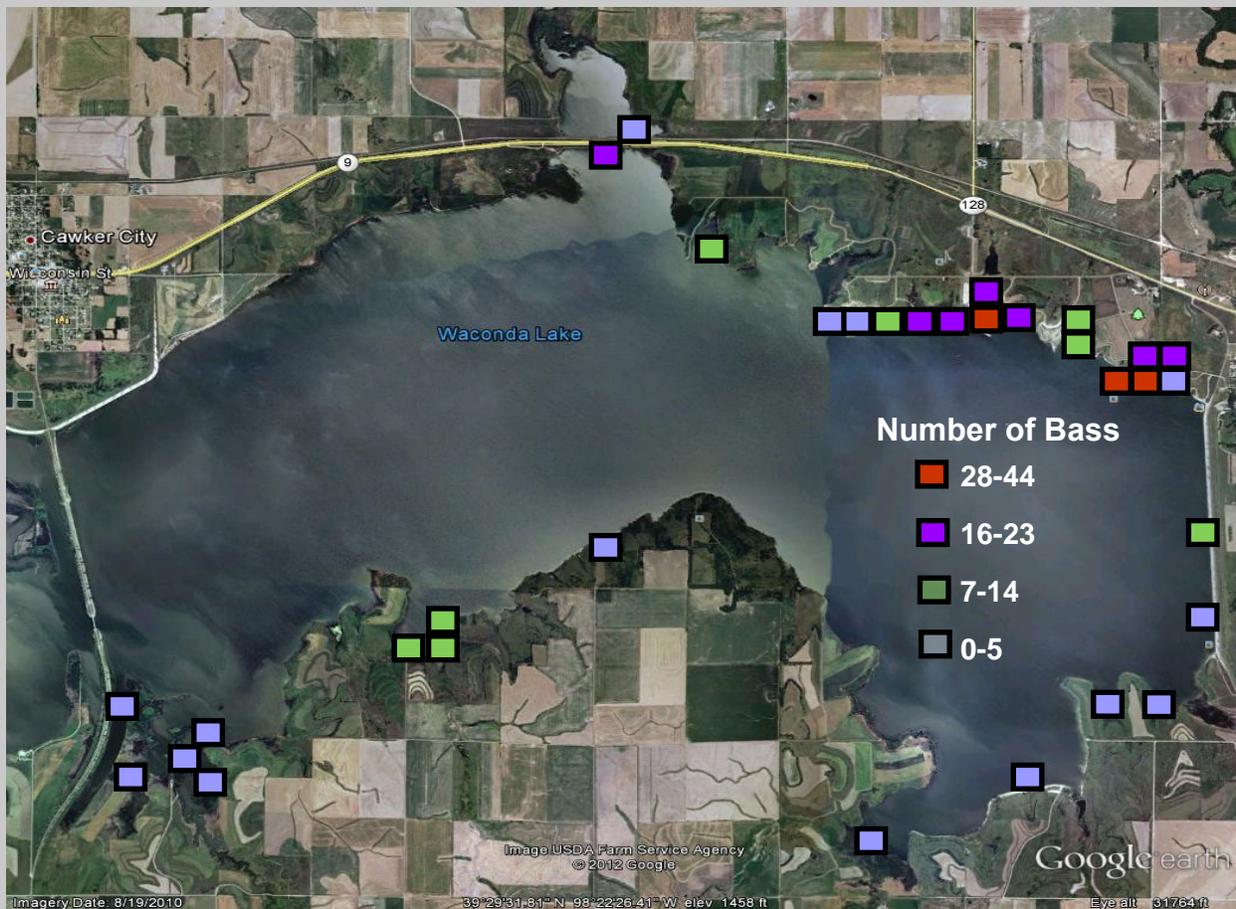
This draw down provided the general public a unique look at the basin and most were amazed at the depth and steep sided rocky banks. Zebra mussels were abundant and covered every rock and piece of concrete in the basin. There were also hundreds of lost lures, sinkers, and hooks as well as 8 to 10 boat anchors which likely made their way through the gates on the reservoir side, and half a dozen fishing poles. Perhaps the most unique item was an old newspaper stand which had been discarded off the walkway some time ago.

Personnel from KDWPT conducted a fish salvage of adult fish and moved them back to the reservoir. To prevent the possible spread of aquatic nuisance species the fish were treated with a mixture of formalin and potassium chloride before being stocked in the reservoir. While accurate counts weren't recorded, good numbers of crappie, channel catfish, walleye, and a few smallmouth bass were transported back to the reservoir. Contrary to popular belief the biggest fish collected was a 20 pound flathead catfish, not quite as big as a Volkswagen!

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## Smallmouth Highlight Bass Sample at Glen Elder

After two years of largemouth bass stealing the show in the annual bass sample at Glen Elder, the smallmouth bass population again exerts its dominance as the top black bass species in the reservoir. While largemouth bass continue to survive and reproduce well, smallmouth numbers remain high and size continues to improve due to the 21 inch minimum length limit. Thirty-four sites were sampled across the reservoir with 310 smallmouth bass collected, an average of 9.1 smallmouth per site. Fish size ranged from 4.5 to 19.5 inches with the biggest fish weighing 4.1 pounds. In addition, 30 fish or 10% of the catch were 17 to 19.5 inches, by far the best size structure seen at Glen Elder. Furthermore, 98 largemouth bass ranging from 5.7 to 22.2 inches were collected with ten fish greater than the 18 inch length limit sampled. Good numbers of young fish between 6 and 12 inches provide evidence of a bright largemouth future.



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## Blue Catfish Tagged at Glen Elder

By now most anglers have heard about the 3-year study of walleye at Glen Elder involving fish implanted with ultrasonic transmitters. While that study is ongoing and slated to continue through October 2021, another movement and behavior study has begun. In June 2020 eleven blue catfish were captured in Glen Elder and implanted with identical transmitters which will provide fish movement and location information over the next 3 years. The primary focus of the study is to determine blue catfish spawning behavior and site selection as we still have a lot to learn about this aspect of their life history in Kansas reservoirs.

Tagged fish ranged in size from 21 to 37 inches with the biggest



fish a female weighing 32 pounds. Anglers are asked to carefully weigh and measure these tagged fish if caught and gently return them to the



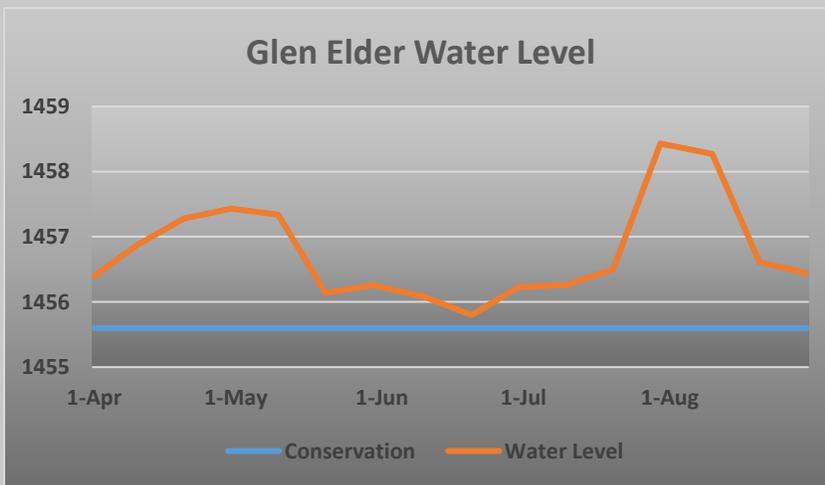
water. An external tag indicates which fish are included in the study. Fish are tracked twice each month to record their GPS location, depth, and water temperature. Movement patterns can be discerned from consecutive locations. After tagging all fish west of the causeway in June, two have migrated toward the dam and remained this summer, two have taken up residence near the center of the reservoir and the remaining seven spend most of their time west of the causeway. For the most part, these fish prefer depths of 8 to 15 feet throughout the summer but some relocations have occurred in 40 feet of water. We will continue to track these fish and gain valuable information through June 2023.

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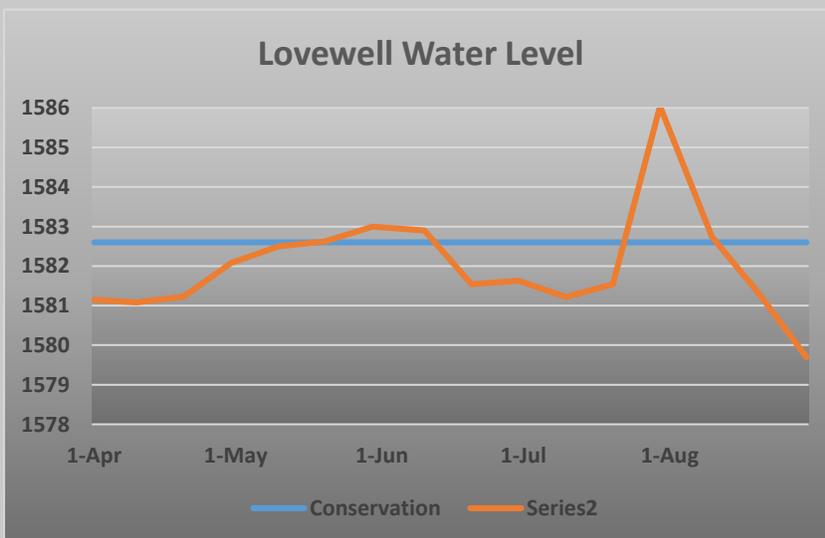
## 2020 Reservoir Water Levels

High water levels once again plagued area reservoirs during the summer of 2020 but not to the extent that we saw in 2019. Glen Elder was just under one foot high on April 1<sup>st</sup> and steadily rose to a peak of 1.8 feet high on May 5<sup>th</sup>. High releases began on May 12<sup>th</sup> at 1,100 cfs and the water level was gradually drawn down to a low of 0.8 feet below conservation on June 18<sup>th</sup>. Summer rains began and releases were reduced

through most of July as the water level gradually rose to 1.4 feet high in late July. Heavy rains in late July and early August produced high inflows and the reservoir peaked at 4.2 feet high on August 4<sup>th</sup>. Releases up to 2,500 cfs were used to drop the water level to 1 foot high where it will be maintained through the fall.



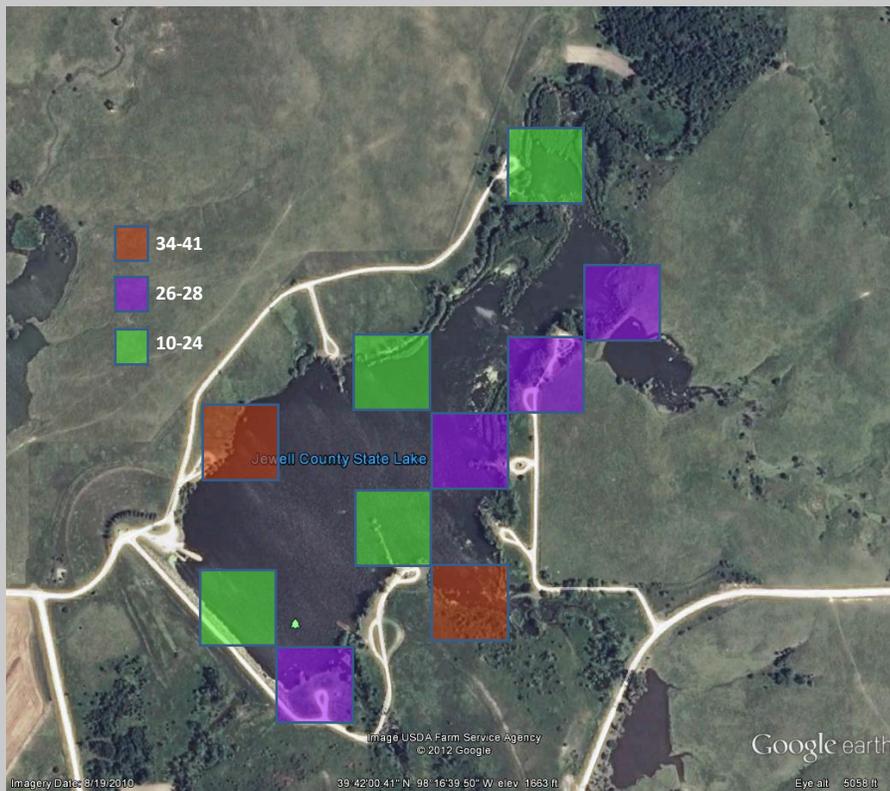
Lovewell followed a nearly identical pattern as illustrated in the figures to the left. Water level was lower than desired in the spring but slowly increased to a peak of 0.4 feet high on June 1<sup>st</sup>. Water levels slowly dropped through mid-July but rainfall west of the reservoir filled White Rock Creek and forced the elevation to rise to a level of 3.4 feet high on August 2<sup>nd</sup>. Releases increased to over 500 cfs in late July and peaked at 807 cfs on August 8<sup>th</sup> to drop the water level back to conservation on August 10<sup>th</sup> when irrigation releases began.



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## Jewell State Fishing Lake 2020 Bass Sample

Anglers should again be pleased with the largemouth bass population at Jewell SFL north of Glen Elder Reservoir. A slot length limit was utilized from 2012 to 2017 to thin numbers of young fish and improve the population. In 2018, an 18 inch minimum length limit was enacted to help protect all fish under 18



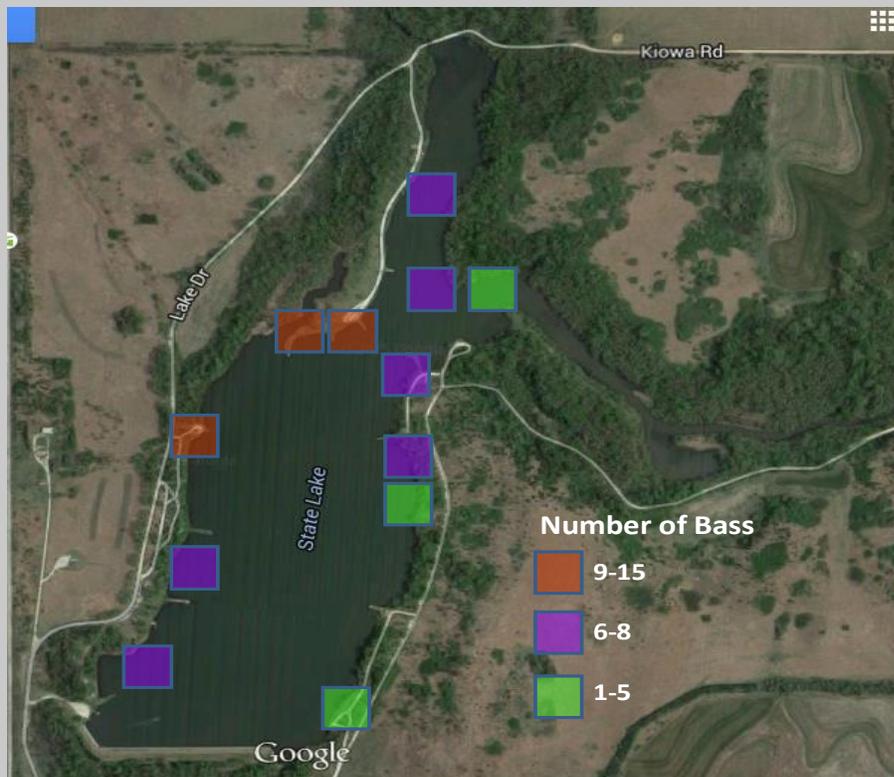
inches and increase the size structure. This has worked well as evidenced by the latest sample. Ten sites were sampled in May with 256 fish collected for a catch rate of 151 fish per hour. Mean length was 14 inches and mean weight was 1.7 pounds. Biggest fish was 21 inches and 5.4 pounds. Forty fish, or 16% of the sample were bigger than the 18 inch length limit. Half of the sample was greater than 15 inches and all fish were in excellent shape. Despite the high number of large fish there are still plenty

of young fish recruiting into the population. Nineteen percent of the catch was between 4 and 10 inches and current habitat conditions strongly favor consistent fish production over the next several years with high, stable water levels. Anglers have the best success in spring and early summer catching fish on a variety of soft plastics and half ounce spinnerbaits. Summer time catches are dominated by topwater lures while fall is also an excellent time to hammer some big largemouth. Reminder that the regulation for largemouth bass is an **18 inch minimum length limit**.

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## Ottawa State Fishing Lake 2020 Bass Sample

The 2020 spring bass sample at Ottawa State Fishing Lake was similar to the 2019 sample but much improved over other recent samples. The population appears to be rebounding nicely after reaching very low levels in 2017. Twelve 10-minute sites were sampled with 87 largemouth bass collected. The catch rate



rate dropped slightly from 46.1 bass per hour to 42.7 while the density rating (12") was similar at 27.5 compared to 29.4. The preferred rating dropped slightly from 12.2 to 10.3 with the biggest fish sampled at 4.2 pounds. Approximately 1,500 intermediate largemouth bass were stocked in September 2018 and many of them showed up in the spring sample. The fish are in excellent health with very high condition rates. While improved, these catch rates are still less than the 2015 sample with a

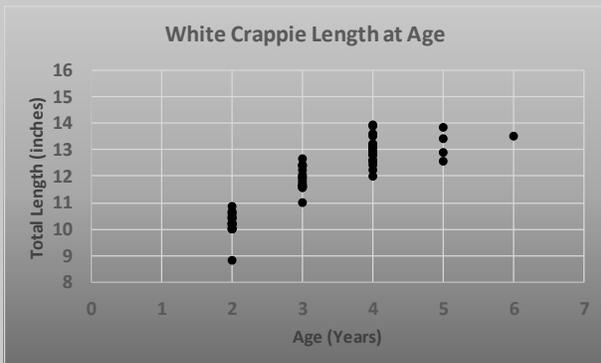
density rating of 49.0 and preferred rating of 24.8. The catch rate of young fish has improved in the last three years with the number of fish less than 8 inches only 0.5 per hour in 2017, but improved to 8.3 in 2020. Water willow plantings have begun to add critical spawning and brood rearing habitat to the lake.

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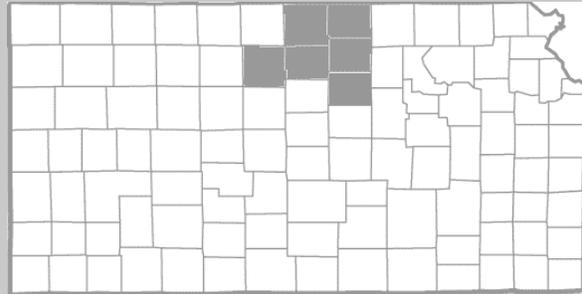
## Crappie Age and Growth

Anglers and biologists are always interested in how old the fish they catch are. Knowing the age of fish can help biologists better manage a species and determine if current regulations are achieving the desired goals or if they should be altered.

Sixty-five adult crappie were collected during the spawn in May 2020 from Glen Elder Reservoir and their otoliths were removed for aging. This is proven to be an extremely accurate method to determine fish age. The figure below illustrates fish length on the y-axis and age on the x-axis.



Crappie reach the 10-inch minimum length limit at age-2 and continue to grow rapidly through age-4 when they reach 12 to 14 inches. A handful of age-5 and one age-6 fish were also collected but their growth rates had slowed, and they were no longer than the age-4 fish. On average, females grew slightly faster than males and all age-5 and age-6 fish collected were males possibly indicating a longer lifespan. Compared to other reservoirs in the state, Glen Elder crappie exhibit some of the fastest growth rates.



I hope you enjoyed the latest edition of the Glen Elder district newsletter. I will continue to provide information for Glen Elder and Lovewell Reservoirs, Jewell State Fishing Lake, Ottawa State Fishing Lake, Rocky Pond in Belleville, and Jewell City Lake.

Don't forget to check out the many FISH properties in the area as well. They can offer some great fishing.

If you know someone who would like to subscribe to the newsletter, they can do so [HERE](#). If you would like to unsubscribe, please send your info to [Contact Us](#) with "unsubscribe to Glen Elder District Fisheries newsletter" and we'll get you taken off of the list. If you have any questions or comments, feel free to send them in.

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