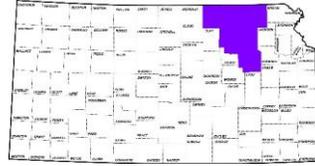


# Tuttle Creek Fisheries Newsletter Summer 2020



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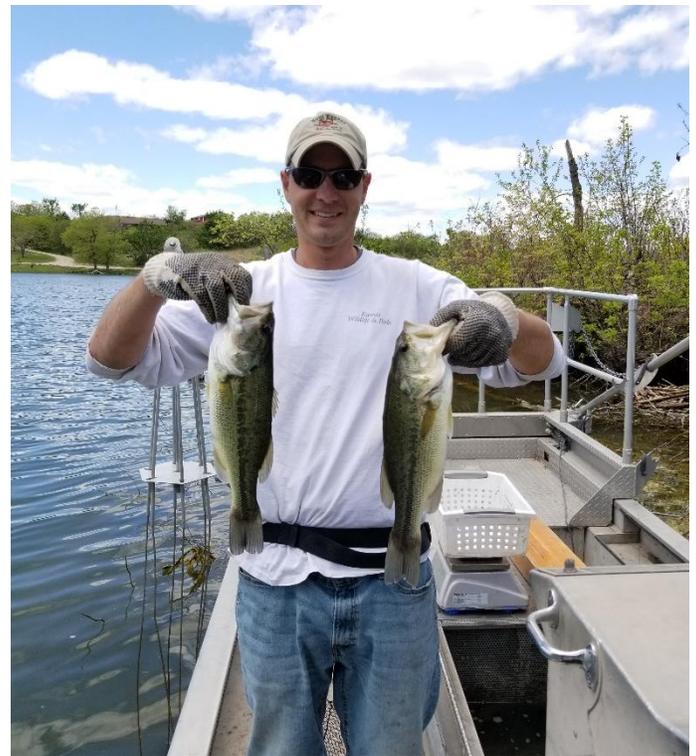
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## Black Bass Sampling Results

I was extra happy this year to get out and about this spring for my annual electrofishing effort. May is when KDWPT fisheries biologist sample black bass to evaluate the populations in the lakes of their districts. My district of responsibility includes the counties of Washington, Marshall, Nemaha, Riley, Pottawatomie and Wabaunsee. In my district, there are not any notable spotted bass populations, but there are several excellent largemouth bass fishing opportunities and some typically good smallmouth bass populations.

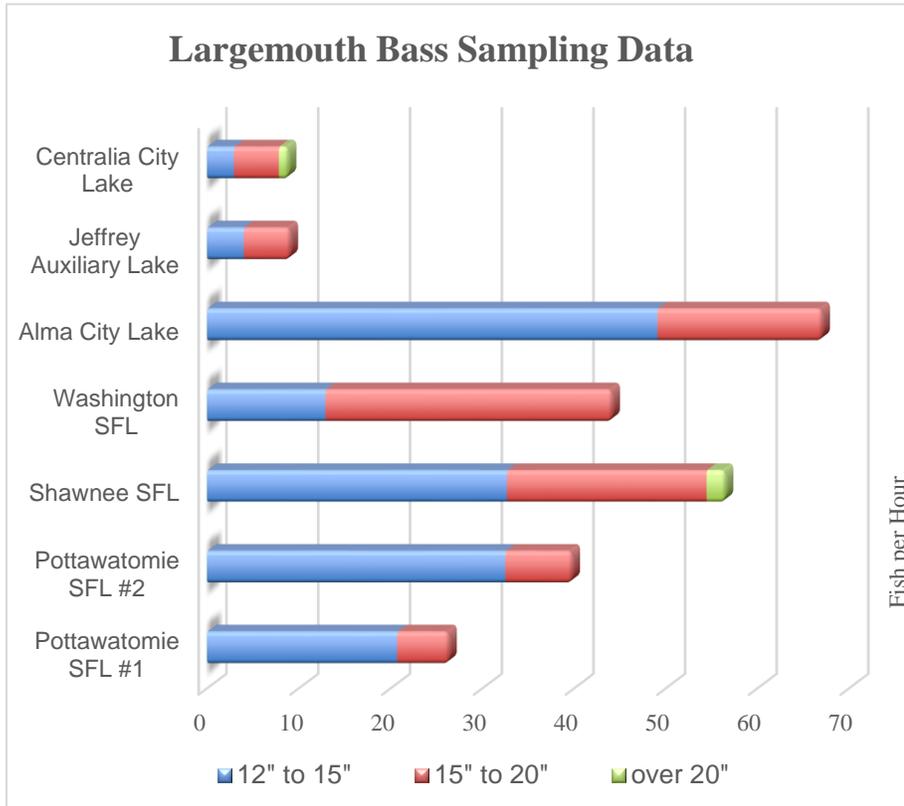
The electrofishing boat is great for collecting data on bass populations. The number of fish per hour, the sizes of the fish collected, and fish body condition are all data points that allow biologist to evaluate these populations and guide management decisions. The data can also be a handy tool for telling us where the best bass fishing can be found.

On the next page is a graph that compares the lakes in my district using the largemouth bass data collected in 2020. The horizontal bars represent how many bass were collected per hour for each length group: blue is 12 to 15



Ben in the electrofishing boat holding a couple largemouth bass that were collected at Pottawatomie State Fishing Lake #2 this spring. To his left is the livewell for holding fish and the scale used for weighing each individual fish. It was a nice day to be out.

inches, red is 15 to 20 inches and green is fish over 20 inches. Largemouth bass less than 12 inches were not included. The lakes are in no particular order.



Graphs of one year of data don't tell the whole story so I have also included a short narrative about the largemouth bass population at each lake.

Centralia City Lake and Jeffrey Auxiliary Lake both have low numbers of largemouth bass. Bass have struggled at Centralia City Lake ever since common carp invaded the lake. Largemouth bass at Auxiliary Lake have always underperformed due to unique conditions at this lake.

Largemouth bass at Alma City Lake have been doing well the last few years and are offering great angling for mid-sized fish. Largemouth bass at Washington State Fishing Lake are

finally recovered from a species crash ten years ago and the lake is now providing a very good bass fishery.

Shawnee State Fishing Lake has been the best lake for bass over 18 inches in the Manhattan District for the last decade. The 2020 sample recorded the highest abundance of largemouth bass ever documented at the lake. The high number of fish has shifted the size structure towards smaller fish, but this lake would still easily be considered a top go to spot for bigger bass in the region.

Traditionally, Pottawatomie State Fishing Lake #2 maintains a very nice bass population, but the number of fish over 15-inches was below average in the 2020 sample. Pottawatomie State Fishing Lake #1 normally has one of the highest abundances of largemouth bass in the state, however the current population is well below normal. The aeration system that improves basic productivity at the lake was down for repairs most of last year and this change was the primary reason for the regression in bass numbers. Good news is there are a bunch of young bass less than 12-inches ready to grow up and improve the fishery.

There are more fishing spots to try that I do not have recent sampling data for. Other locations include small community lakes, stretches of streams on public land or Walk-In Fishing Access ponds. Good luck finding some bass!

The final pages of this newsletter contain pictures from sampling expeditions so far this year. Like these four beauties from Alma City Lake.



## Tuttle Creek Blue Catfish update

Blue catfish are becoming a very popular sportfish in our state. The exceptional fishery at Milford Lake has motivated a lot of anglers to chase these impressive fish for the chance to land a fish over 50 pounds and also for the delicious table meat they provide. The increasing popularity of the species has inspired fisheries biologist around the state to create more blue catfish angling opportunities.

Tuttle Creek Lake was one of the first lakes stocked with blue catfish following the success at nearby Milford Lake. Tuttle Creek was initially stocked with fish from Pratt Fish Hatchery in 2002 and with fish from Farlington Fish Hatchery in 2003. These fish survived fairly well and grew quickly, yet there was no evidence that these fish were reproducing on their own to create a self-sustaining population. It was assumed that lack of natural reproduction was due to the limited numbers of blue catfish in the lake. Therefore, a new stocking plan was formed to try again at establishing a permanent population. The lake was stocked every year from 2011 to 2016 with a combined total of 130,694 blue catfish at an average length of 8 inches long.

Unfortunately, three of those stockings had poor survival, and I was never able to determine the reasons why. Two of the remaining stockings were only moderately successful. Thankfully, the 2011 stocking had excellent survival which greatly improved blue catfish numbers in the lake. These 2011 fish have been growing well and now have the opportunity to contribute via their spawning potential.



Size of the 2011 fish now

I am happy to report that in 2016 we documented the first time that blue catfish had a successful spawn in Tuttle Creek Lake. This wasn't a very

large year class of fish but they have survived well the last four years and now average 18 inches long and two pounds.

Sampling efforts this summer have revealed that the species was successful again in 2019 and produced a good crop of young fish last year. These fish are now about 8-inches long and can be found throughout the Reservoir and in the River Pond below the lake.



Blue catfish born in Tuttle Creek Lake

When KDWPT initially stocks blue catfish into a lake, the fish are usually protected with a 35-inch minimum length limit. This protects the young population so the new fish have a chance to reach sexual maturity and spawn on their own. This length limit has been in effect for several years now at Tuttle Creek. However, I am hoping to be able to remove or change this regulation by 2022 and open the lake up to more liberalized harvest regulations.

I plan to collect additional blue catfish data over the next year to confirm that the 2016 and 2019 year classes continue to perform well. If so, then I anticipate either removing the 35-inch minimum length limit or converting to a slot length limit. This will depend upon a thorough review of recent data to determine how well the species is reproducing, growing, and how many are leaving the lake during high release rates out of the dam. Therefore, at this time I cannot tell you exactly what the new regulation will be, but I am fairly confident that we will be able to encourage blue catfish harvest at Tuttle Creek Lake by 2022.

We are still tagging blue catfish for research so please report any tagged fish you catch. Thanks!

## Urban Channel Catfish Stocking Program

Most of KDWPT stocking programs involve putting small fish in a lake and allowing them to grow into sizes that anglers prefer to catch. However, this does not always satisfy angler demand, especially for popular species in high use areas. The Urban Stocking Program attempts to close that gap by stocking larger fish that are already a size that anglers can catch. I have two lakes in this program: Pottawatomie SFL#2 and Shawnee SFL. Each lake will receive about 3,500 pounds of channel catfish this year. These fish are split into five stockings from March to September. The channel catfish are usually 12 to 18 inches long and average about a pound each with a few bigger fish mixed in. These fish greatly improve the angling opportunities at these lakes as new catchable sized fish are regularly added to replace the ones harvested. This program helps our lakes near urban areas meet high angler demand for good fishing. Tight lines.



Pictures taken during the August stocking at Pottawatomie SFL#2

## Fish Food



Centralia City Lake shad above and Tuttle Creek shad below

As grandma would say, you need to eat right to grow right. For consistent growth of sportfish there needs to be suitable amounts of stuff to eat. In our smaller lakes, forage tends to be fairly stable as it is usually based around sunfish and aquatic insects. In our larger lakes the primary forage is typically gizzard shad.

Gizzard shad provides excellent forage in our bigger lakes as they tend to reproduce in high numbers. However, the species does have some shortcomings. Gizzard shad spawns can vary broadly from year to year due to water conditions and sometimes produce insufficient forage for the amount of predators waiting to fill their bellies. Additionally, gizzard shad grow quickly so many of our sportfish are only able to utilize shad during their first year of growth before they are too large to consume. If there is an exceptionally warm spring, then the shad can grow too large even before the end of their first summer. Therefore, I conduct shad specific sampling at my larger impoundments to evaluate these variables.

This year, the young shad population was rather typical and adequate at both of the Jeffrey Energy Center lakes. At Centralia City Lake, the number of shad was fine but they were larger than I like to see at this time of year with an average length of 110mm. This means the shad could out grow the gape of many of the crappie in the lake before the fall fattening season. Shad production is down at Tuttle Creek Lake with sampling collecting 80% fewer shad than average which may lead to overall slower growth this year for the sportfish species. These shad were smaller at an average length of 60mm compared to a typical length of 80mm so these shad will be consumable longer but may have higher winter mortality.



60mm shad and a little 40mm shad

I also conduct shad sampling at some of my smaller impoundments as well but for different reasons. High numbers of gizzard shad can be one of the biggest hinderances to producing good sportfish populations in smaller lakes as their populations tend to be dominated by high numbers of large shad which compete with the other fish for space and food. Gizzard shad = good & bad.

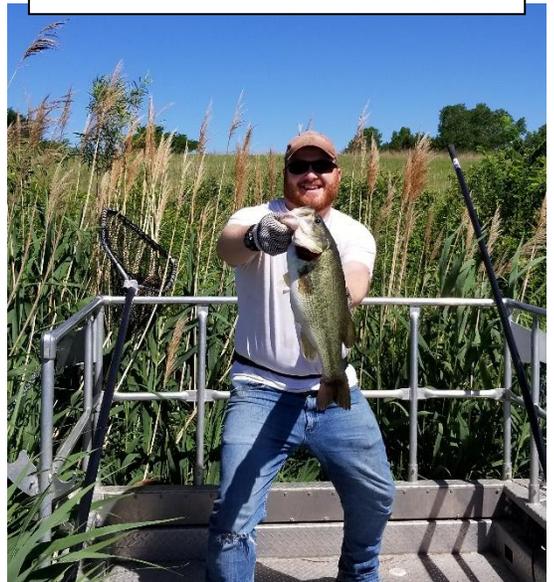
Bass fishing is good again at Washington State Fishing Lake. Few big crappie too.



Pictures from Pottawatomie SFL#2. There is at least one nice largemouth bass on every one of the rock piers. We did not see any of the big smallmouth bass this year, but above average numbers of young smallmouth. Always see a couple nice crappie up shallow.



Centralia City Lake bass sampling

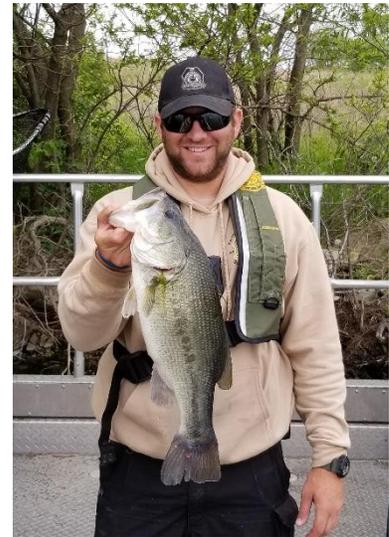


Pottawatomie SFL #1 largemouth bass are on the smaller side right now. Bluegill and black crappie looking good.

Maybe the last time Alex is in my newsletter as he has moved on to a new job. Thank You Alex for all the good years getting fish slimy with me!



Looking for big largemouth bass at Shawnee State Fishing Lake. The lake is also home to some nice sized redear sunfish.



Blue catfish sampling at Tuttle Creek. It is fun handling all those big fish, but seeing the small ones made me the happiest. On the right is a picture of a blue catfish that we tagged two years ago and was able to recapture this summer. Two year old tags get a bit covered in algae so had to scrape at it to read the tag number. Also got a blue catfish while it was finishing its gizzard shad lunch. Bottom right corner is the first 50 pounder I have collected in the Tuttle Creek drainage.



Thank you for reading. Also a big Thank You to everyone that helped me this spring and summer get my work done and smiling nice for the camera: Alex, Ben, David, Jakob, Nick and Travis. Good luck in all your adventures.