

Tuttle Creek Fisheries Newsletter Summer 2014

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Black Bass Sampling Results

Every spring fisheries biologists around the state are firing up their electrofishing boats to go out and assess local fish populations. These boats carry a generator that puts electricity into the water which creates an electrified field in front of the boat. Fish that are in this field are stunned which allows them to be netted and put into a holding tank until they can be counted and measured.

The electrofishing boat is a valuable tool for fisheries biologist as it allows us to go out and actively capture fish species that are not effectively sampled with other methods. For Kansas Lakes it is primarily used to collect black bass species, such as: largemouth bass, smallmouth bass, and spotted bass. Black bass sampling is conducted in the spring because that is when the majority of the fish in these populations are up shallow where they can be easily shocked with an electrofishing boat.

After the bass are collected they are counted, weighed, measured, and then released. Fisheries biologists use this data to assess black bass populations by looking at things like body condition, size structure, and abundance. For electrofishing, abundance is determined by how many fish we collect per hour. This can vary some, depending on habitat types, water clarity, temperature, etc. Regardless, this is still an important statistic for anglers because these numbers can be used to speculate which lakes will have the better bass fishing in a particular year.

On the next page is a table of largemouth bass data from waters in the Manhattan District that were sampled in the spring of 2014. Very small fish were not included in these tables. Lakes are in no particular order.



The electrofishing boat in action



Netting a stunned bass

Continued on page 2

Some pictures from bass sampling in 2014

Pottawatomie SFL#2



Shawnee State Fishing Lake

Pottawatomie SFL#1



Washington SFL

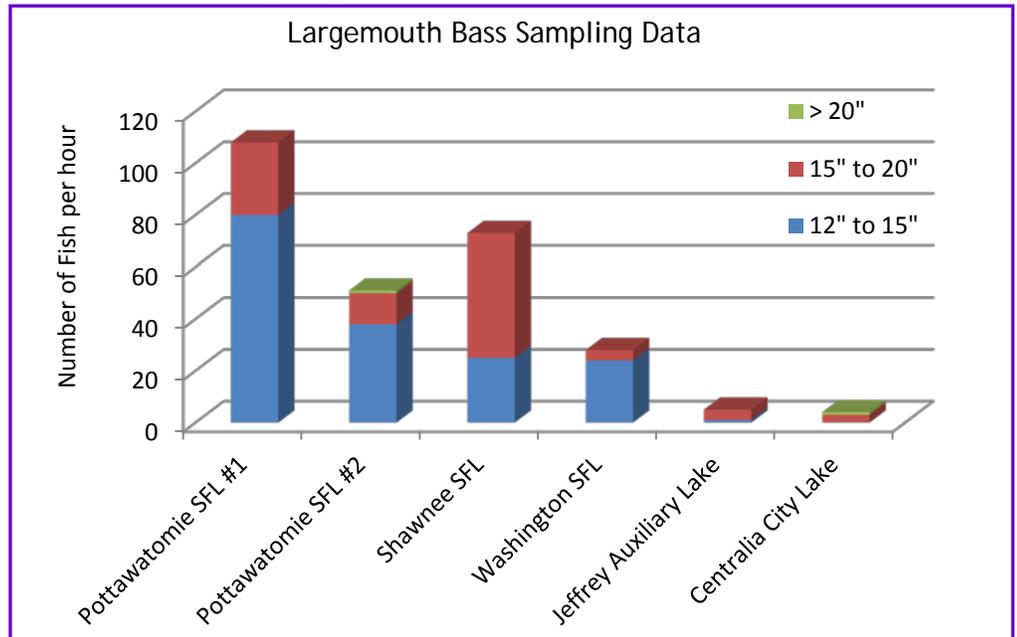


5.3 lbs at Pottawatomie SFL#2

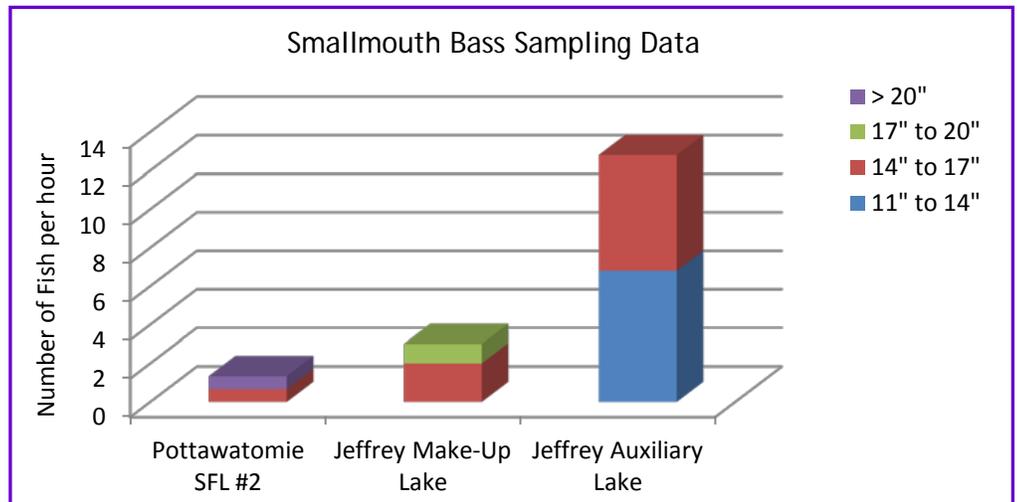


Jeffrey Make-Up Lake

Black Bass Sampling Results



The above graph shows how many bass were sampled per hour from the different length groups for the lakes sampled in the Manhattan District in 2014. I like this style of graph to quickly compare fish populations at different lakes. Looking at the graph, you can see that Pottawatomie SFL #1 had the most fish per hour, but Shawnee SFL had the highest number of fish over 15 inches. Pottawatomie SFL #2 has a well rounded population with a few really big fish. Washington SFL has a population that is expanding and is currently dominated by small fish. Recent electrofishing samples at Jeffrey Auxiliary Lake and Centralia City Lake have been quite low and indicate poor largemouth bass populations.

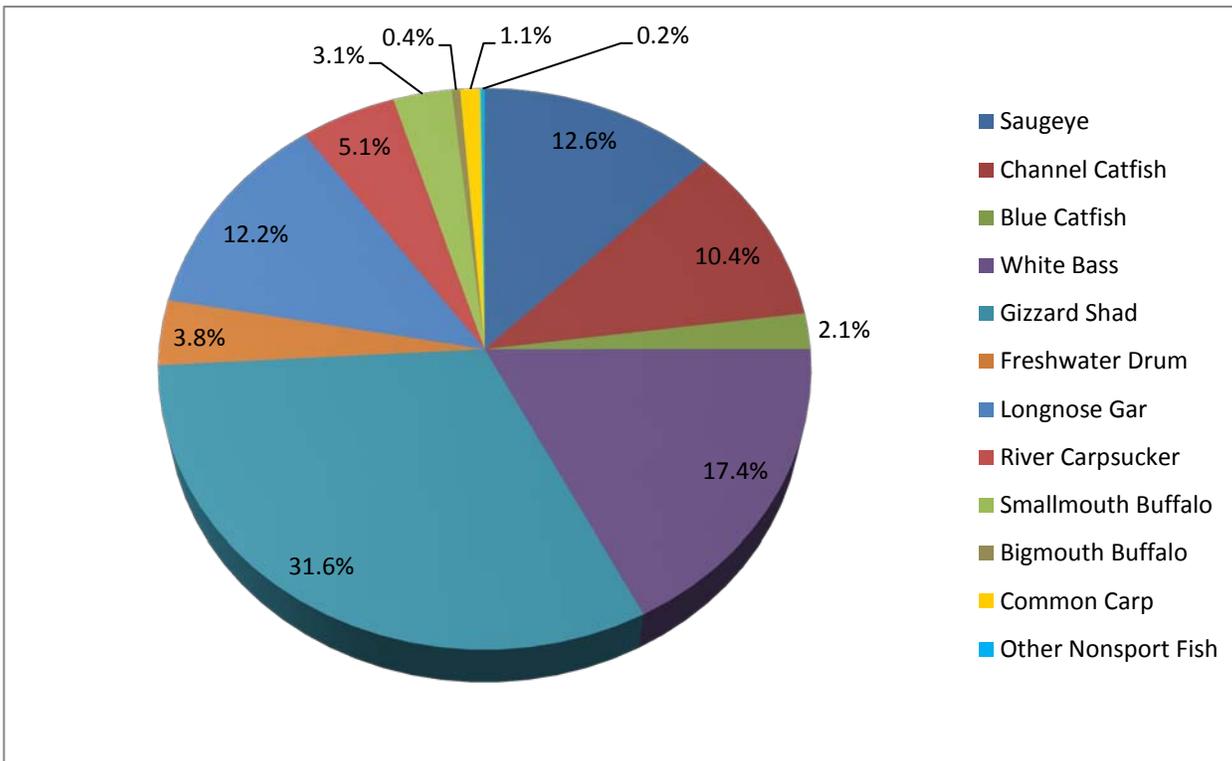


Looking at the smallmouth bass data, you can see that Jeffrey Auxiliary Lake is doing well for numbers of fish. Jeffrey Make-Up Lake has fair numbers of fish in the larger length groups and there was a big spawn so there are lots of small fish below 11 inches that do not show on this graph. Pottawatomie SFL #2 has low overall numbers, but every year I always seem to collect a really big smallmouth there.

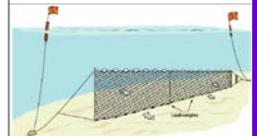
Hopefully, looking at these graphs will help you figure out where to go on your next bass fishing adventure. Good Luck!

The Tuttle Creek Fish Community

As the fisheries biologist for the Manhattan area, I commonly hear things like “Tuttle has lots of trash fish” or “Tuttle Creek is full of carp”. It is true that Tuttle Creek Reservoir has quite a few longnose gar. However, except for gizzard shad, the rest of the nonsport fish species make up a rather small percentage of the overall fish community. Below is a pie graph with a four year summary of the different fish species collected in gill nets during annual sampling efforts at Tuttle Creek Reservoir. Gill nets are used to assess the populations of most of the fish species in Kansas reservoirs. However, a few fish species are not adequately collected with gill nets, so these species have been omitted from this graph: flathead catfish, largemouth bass, crappie and other sunfish.



State Record Drum from Tuttle Creek



Gill Net

Since 2010 saugeye, channel catfish, blue catfish and white bass has accounted for 42.5% of the fish collected in gill nets. Gizzard shad is a large percentage of the fish community, but they are a valuable component as the main prey for most of the sportfish in Tuttle Creek Reservoir. The remaining nonsport fish comprise 25.9% of the fish collected in gill nets. With the differences in fish species movement, habitats, and vulnerability to be caught in gill nets; I cannot tell you what the exact percentage a particular species comprises of the fish community in Tuttle Creek. However, what I can tell you is when I am evaluating the fishery, I am looking at the numbers in the graph above and it gives me a pretty good understanding of what is going on in the lake.

Creel Survey Results

In 2013, a creel survey was conducted below Tuttle Creek Dam to assess angler catch rates and satisfaction levels. Using this survey data, we can estimate how many fish were caught and how many of those were harvested. Here is a brief list of the estimated angler catches from the River Pond and at the tubes in 2013.

	Saugeye	White Bass	White Crappie	Channel Catfish	Flathead Catfish	Blue Catfish	Largemouth Bass	Bluegill	Drum
Number Caught	5778	4972	5737	4558	1441	342	198	2613	2019
Number Harvested	2443	1470	1427	1525	453	96	8	24	107

Thanks to all of the anglers who took time to answer our questions! Good Luck Fishing!