

Tuttle Creek Fisheries Newsletter

Summer 2010

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DISTRICT UPDATE

Harveyville City Lake has been sold to a private party and is no longer open to public access.

Tuttle Creek Reservoir - High Again

Tuttle Creek is known for fluctuating water levels and at times it can get well above conservation pool. But the last few years have been particularly bad. In 2007 the reservoir reached 25 feet above conservation pool and the following year the water level got to 23 feet high. This year the reservoir reached a whopping 30 feet above conservation pool.

What does all of this mean for the fish populations at Tuttle Creek?

To get rid of all that extra water, the release rates were above 10,000 cubic feet per second (cfs) for 20 days in 2007 with a maximum rate of 20,000 cfs. For 2008, outflows were at or above 10,000 cfs for 29 days during the year with seven of these days at 20,000 cfs. During these two extensive evacuation periods there was a mass migration of fish downstream. Almost all of the fish species sampled in 2007 and 2008 had a reduction in abundance compared to 2006 numbers, with blue catfish being the only exception.

Tuttle Creek Reservoir had relatively stable water conditions in 2009. The water level reached only 8 feet above conservation pool that year (which is about normal for Tuttle). Release rates peaked at 8,000 cfs and were only at the level for four days. The 2009 sampling data indicated fish populations reacted positively to the stable water conditions and we saw an overall increase in abundance. Channel catfish numbers recovered quickly and were right at the long-term average for the lake. Saugeye, white bass, and white crappie numbers had improved over their previous low sample numbers, but were still about one-third of their historical numbers.

Now how about what is happening at Tuttle Creek this year? Well the bad news is the lake reached 30 feet high, and outflows have been at 16,000 cfs for awhile now. So most likely, fish are moving out of the reservoir again. The good news: I don't think this year is going to be nearly as bad as 2007 and 2008. Unlike '07 and '08,



Tuttle Creek at 30 feet high. Going to the Marina?



Tubes at 16,000 cubic feet per second

Tuttle Creek Reservoir – High Again

in 2010, we had fairly stable water conditions during the spring, which is important for spawning activities. The high water conditions this year were during the summer months. This can be a positive since this submerges terrestrial vegetation, which is good habitat that can be used by young of the year fish. Most of the negative impacts to the fish populations from previous high water events at Tuttle Creek Reservoir are connected with the high outflows. This year, the high release rates are happening in midsummer, and hopefully this will not facilitate as much fish migration out of the reservoir as it does in spring.

In truth, I am not sure what is going on out there. At this point, it is all speculation, since the high water conditions have prevented me from conducting any sampling at Tuttle since spring. Water levels will be back to “normal” soon and our fall netting is just around the corner. Data collected during that time will reveal what impacts this year’s high water has had on our fish populations. The data takes a little time to wade through, but after the first of the year look for an update in the next newsletter or in the 2011 fishing forecast which can be found at www.kdwp.state.ks.us

Jeffrey Energy Center Auxiliary Lake – Low Water Woes



In the last newsletter I talked about the fish populations at Jeffrey Energy Center Auxiliary Lake. I predicted that fishing would be good there this year because the 2009 fall netting sample indicated great numbers of big white bass, good numbers of 17 inch plus wipers, and a greatly improved walleye population.

Well I was wrong. Fishing has not been too great at Auxiliary Lake this year.

This is not due to some massive change in the fish populations. But is a direct result of very low water levels since late winter. The lake was 20 feet low all spring and has finally started coming up this summer. The boat ramp is still high and dry with the water level being eight feet below normal pool. With the shallow ramp at Auxiliary Lake there has been no boat fishing all year.

There have been a few dedicated anglers that have traipsed along the muddy shorelines or climbed down the rocky dam to wet a few lines. This has resulted in some pretty good success rates for white bass and channel catfish.

But in general, there has been a dramatic decrease in angler use at Auxiliary Lake in 2010. What does this mean for the fish populations there? Reduced harvest can lead to an increase in fish abundance for the following years. But on the other hand, fish densities usually suffer during extended low water periods. So...? We will have to wait and see what the fall netting effort will reveal. But to go out on a limb again, I will predict good fishing at the lake in 2011. Look for an update in the next newsletter after I have collected this



Boat ramp at Jeffrey Auxiliary Lake



New brush piles

Jeffrey Energy Center Auxiliary Lake – Low Water Woes

year's fall netting data.

I was able to use this low water period to create some new brush piles at the lake. The south cove has eight new brush piles stretched from GPS coordinates N39.234753 W096.148036 to N39.234275 W096.147387. Plus a couple of brush piles on the dam located around N39.239173 W096.151716.

Shawnee State Fishing Lake – Another Story about Water Levels

In the spring of 2009 a dam renovation project was started at Shawnee State Fishing Lake. This required the lake to be drawn down eight feet until the job was completed. The work went smoothly and finished in early September of 2009. The lake was allowed to refill naturally after that.

Having the lake low for nearly an entire growing season has had some good and bad results.

The Bad - most fish numbers are down. Most of the good fish habitat at Shawnee SFL is in the first five feet of water along shoreline and all of this was left high and dry during the low water period. This was particularly bad for bait sized fish. Imagine rabbits trying to hide from hawks in a big parking lot. Not a good end for the rabbits. The 2009 fall sample produced very few young bluegill or crappie and we did not collect a single redear sunfish or little gizzard shad. For most species at the lake there will be little to no year class for 2009. To continue the parking lot analogy, when the rabbits are all gone, so is the food for the hawks. From the adult fish we collected last fall, we saw below average abundance and poor body condition. Overall low water conditions and the temporary loss of habitat has resulted in reduced fish populations at Shawnee SFL.

The Good - the future looks bright. Having the lake low during the spring and summer has allowed weeds to grow up along the shoreline. This vegetation is now flooded and has greatly increased the habitat at the lake. This will provide valuable shelter for all sportfish during their nursery period. In addition, aquatic insects use and feed upon these submerged plants which will in turn provide a food source for small fish. This should lead to several years of above average spawns and good growth rates of sportfish at Shawnee SFL.

The 2010 spring electrofishing sample documented some of the good and the bad. There was a 34% reduction in the numbers of largemouth bass in 2010 compared to what we traditionally collect at the lake. Which is a reflection of a poor spawn in 2009 and a loss of some adult fish. However, the bass had already improved their body condition by 2-3% on average. The vast majority of the bass we saw had taken up residence in these flooded terrestrial weeds.



Shawnee SFL dam work



Low water at Shawnee

Shawnee State Fishing Lake – Another Story about Water Levels

During the low water period I was able to place some new manmade habitat in the lake and repair the structures that have been there for awhile. As you can see, there were a lot of tires placed in the lake during the last dewatering. Many of these just needed to be positioned upright or re-tied to provide long lasting habitat for fish at Shawnee SFL.

The tire reef is spread out for 200 yards along the West bank just North of the dam. New brush piles are located at GPS coordinates N39.200640 W095.805438, N39.200351 W095.801881, and N39.201161 W095.802063.

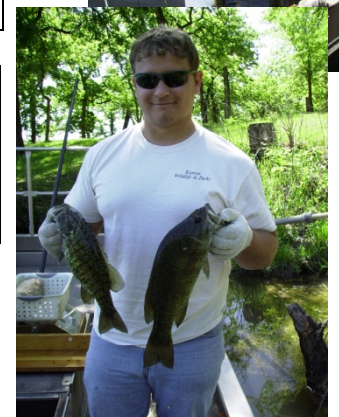
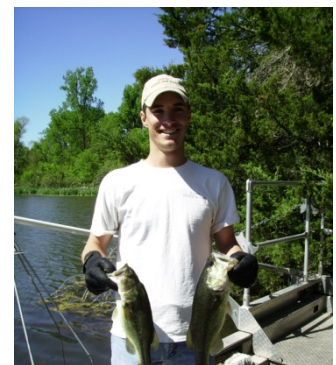


Results from the Spring Electrofishing Data

Every spring fisheries biologist around the state use generator powered electrofishing boats to sample waters in their districts for largemouth, smallmouth, and spotted bass. These fish are then weighed, measured, and released. Then biologists use this data to assess these bass populations by looking at things like body condition, size structure, and abundance. In the fisheries world, biologists rarely get to know the exact density, which is how many fish are actually there. However, we can determine abundance and this is what we use. For electrofishing, abundance is determined by how many fish we collect per hour. This can vary a lot 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. Below are two tables: one for largemouth bass and one for smallmouth bass from waters in the Manhattan District that were sampled in 2010. Very small fish were not counted here. Along with fish per hour, there are also the percentages of the fish that were collected in each length category. Lakes are in no particular order.

Largemouth Bass Waters	Fish/hour	Percentage in each length group			
		8 - 12"	12 - 15"	15 - 20"	20 - 25"
Pottawatomie SFL #1	196	24	64	11	
Pottawatomie SFL #2	67	44	41	15	
Shawnee SFL	61	51	30	18	
Jeffrey Make Up Lake	3			100	
Alma City Lake	60	12	62	24	1
Centralia City Lake	9	9	27	64	
Tuttle Creek Reservoir	5	42	25	33	

Smallmouth Bass Waters	Fish/hour	Percentage in each length group			
		7 - 11"	11 - 14"	14 - 17"	17 - 20"
Pottawatomie SFL #2	9	55	18	27	
Jeffrey Make-Up Lake	5	33	50	17	
ALCL	0				



Good Luck Fishing!!!