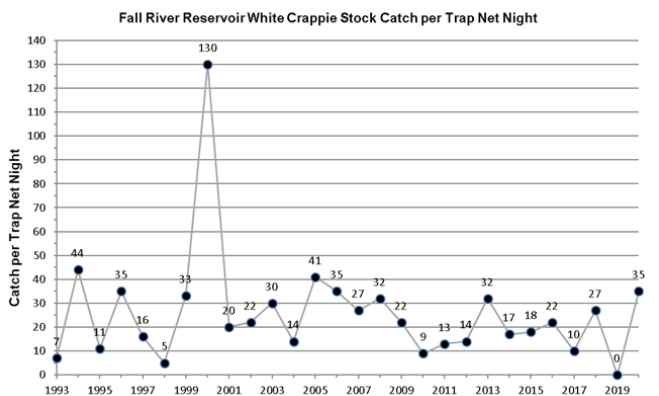
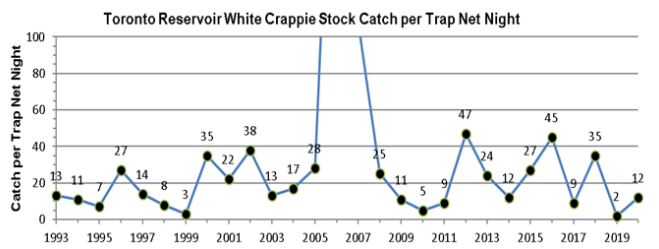


Fall River/Toronto Fisheries District Newsletter

Fall River and Toronto Reservoir Crappie Fishing Forecast for Spring 2021

The 2019 flood had a major impact on the crappie populations in Toronto and Fall River Reservoirs. The full extent of the impact was not fully realized until fall test netting in 2020. No fall trap netting occurred at Fall River Reservoir in 2019 due to the bad weather, and the sample was very low at Toronto Reservoir. I have high confidence in the 2020 sample catch rates and size structure. Weather and water levels were normal this year.

Crappie populations at Toronto and Fall River Reservoirs are cyclic. They respond to major flood events in a predictable manner of population boom expansion followed by slow decline. Notice the peaks and valleys in the white crappie catch rates in the graphs below. This phenomenon was well studied and understood and was published in the "Flood Index" article. To summarize, a high flood index (height times duration of flooding) increases fish mortality, recruitment, and growth.



Flooding brings in nutrients to the reservoir. Flooding expands the size of the reservoir and floods new habitat for spawning. This results in a large year-class of forage species (minnows) as well as crappie. The adults already in the population gorge on the feast of small fish.

They grow rapidly. Their improved body condition results in improved egg production.



The next year after the flood the forage begins to disappear as crappie feed. There are now high numbers of small crappie to feed. The overall fertility of the reservoir is still enhanced from the flooding, though beginning to decline. Growth begins to slow. That's where we are now in the cycle. Fall River had a higher flood index in 2019 than Toronto Reservoir. This resulted in a higher catch of sub-stock and crappie less than eight inches.

White Crappie Stats	Fall River	Toronto
Total Catch	5138	758
Stock Catch (>5 inches)	563	191
Units of Effort (#nets)	16	16
Stock CPUE	35	12
Sub-Stock CPUE	286	35
Percent of catch (5-8 inches)	88	47
Percent of catch (8-10 inches)	10	32
Percent of catch (10-12 inches)	0.4	14
Percent of catch (12-15 inches)	2	7
Percent of catch (>15 inches)	0	0

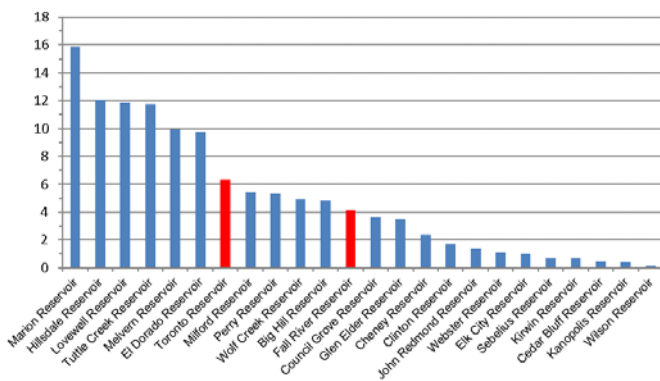
2020 fall trap net catch

The unprecedented amount of water released in 2019 flushed a large porportion of white crappie out of the reservoir. Both Fall River and Toronto Reservoirs

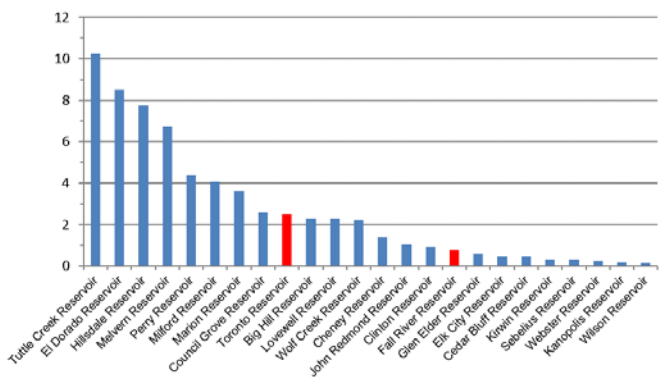
typically had excellent numbers of large crappie. There are still some large fish in the reservoirs, but don't expect as many as in past years. The population is in a rebuilding stage. There are large numbers of eight inch fish that should grow quickly if sufficient gizzard shad of the right size are produced this June.

Unfortunately, large numbers of gizzard shad were also flushed out of the reservoir. Gizzard shad are prolific spawners. Zooplankton (their primary food supply) is abundant from nutrient inflow during flooding. What needs to happen to grow a strong crappie year-class is for gizzard shad to over-reproduce and stunt. Eight inch crappie can feast on abundant small crappie. If there is ample food available for gizzard shad, they will grow too fast throughout the summer and be too big for crappie to eat. It is desirable to see large numbers of young-of-the-year gizzard shad less than four inches through this fall.

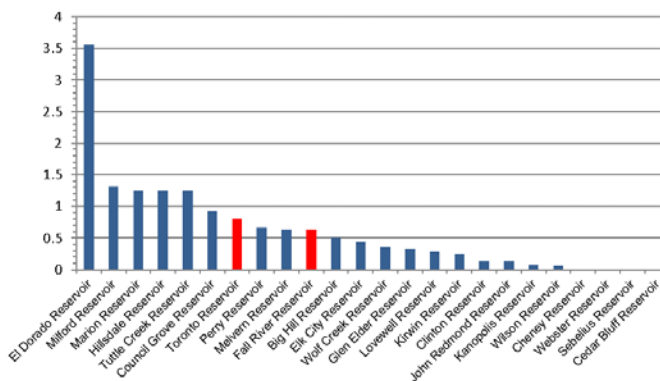
Number of White Crappie >8"/trap net



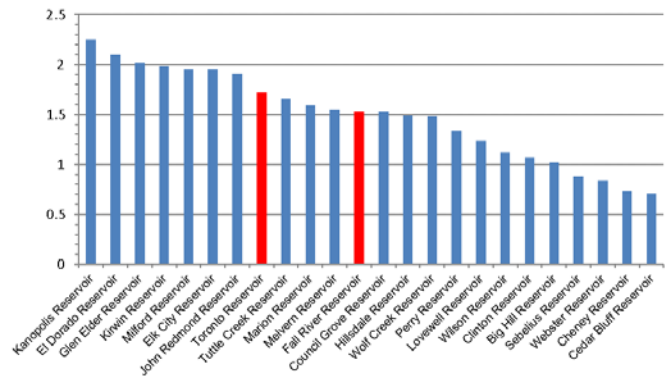
Number of White Crappie >10"/trap net



Number of White Crappie >12"/trap net

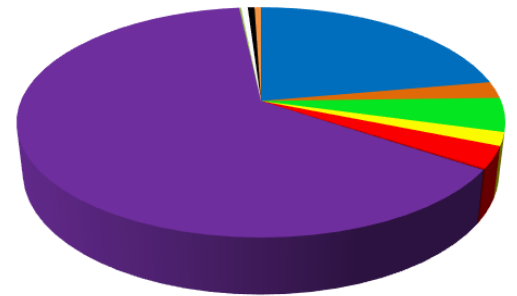


Biggest White Crappie (pounds)



You can see by the state-wide reservoir rankings above that Toronto and Fall River Reservoirs fell in the middle. They were typically in the top five for fish over 10 inches, 12 inches, and largest crappie. The low flow through reservoirs benefited the most from the 2019 flooding. The high flood waters that inundated terrestrial vegetation resulted in very clear water, increased spawning habitat, and even washed good numbers of largemouth bass out of ponds into the reservoirs. The catch composition below is dominated by crappie, but there were also an uncharacteristically large number of small bluegill and largemouth bass.

Fall River/Toronto Fisheries District Fish Sample Composition in 2020

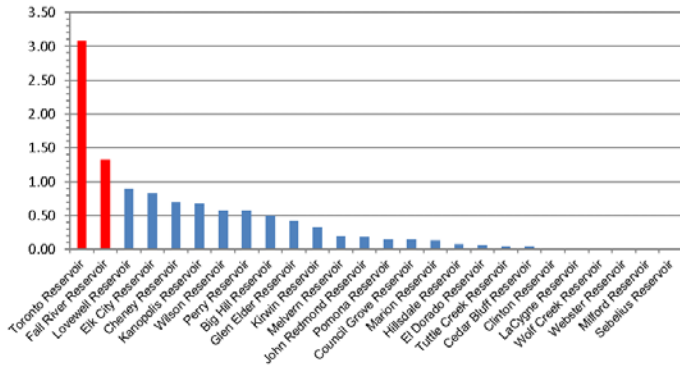


- bluegill 2415
- channel catfish 256
- largemouth bass 516
- redeer sunfish 203
- gizzard shad 325
- saugeye 23
- spotted bass 4
- white crappie 6949
- wiper 16
- white bass 58
- black crappie 58
- flathead catfish 55

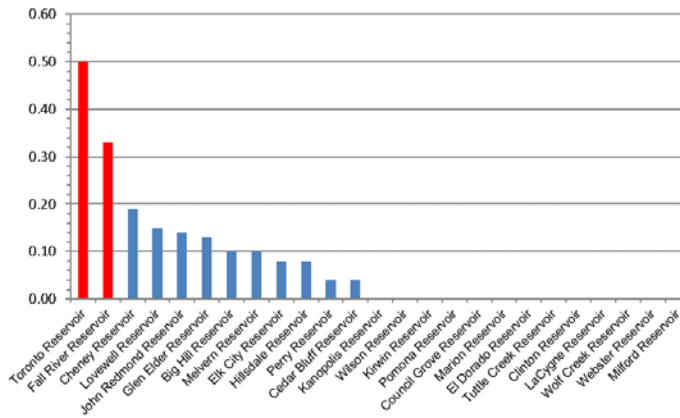
Excellent Catfish

Toronto and Fall River Reservoirs ranked number one and two respectively for number of channel catfish over 24 inches and 28 inches per gill net. Channel catfish did not flush out of the reservoir like crappie, gizzard shad, and some other species. Channel catfish benefited greatly from the increased food supply from flooding in 2019. Catch rate was double from previous years. Sub-stock catch rate was significantly higher, too, showing that channel catfish found abundant cavities in which to nest.

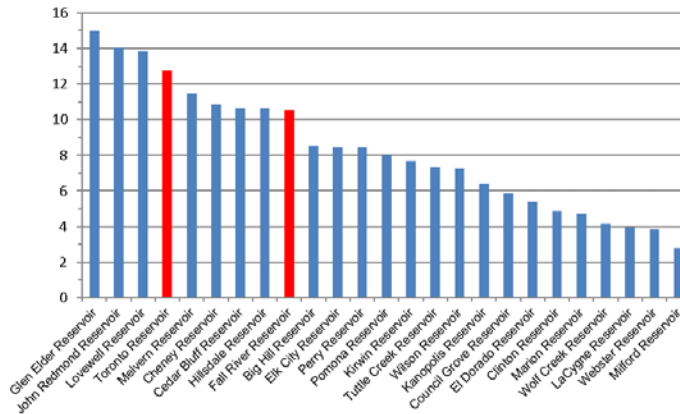
Number of Channel Catfish >24" /gill net



Number of Channel Catfish >28" /gill net



Biggest Channel Catfish (pounds)



shad and small fish congregate there to eat the high density plankton. In the fall, channel catfish congregate along the old river channel. They're widely distributed along the channel breaks. They are not as affected by cold fronts as crappie. You can catch them there very consistently and in high numbers. I know there are many more specialized patterns and honey holes that produce excellent channel catfish. For example, catfish feed on eggs below the riffles where the white bass spawn and clean up gizzard shad parts after white bass annihilate schools.



28+ inch channel catfish from Toronto Reservoir

This is definitely a year you'll not want to miss for catching big cats at Toronto and Fall River Reservoirs. Expect to see fishing guide advertising on trucks at the boat ramps. I've even seen tv crews from Missouri filming at the reservoirs. I didn't even begin to describe the fishing below the outlet where there are also bluecatfish. Don't worry. Based on netting results, there are plenty of channel catfish to go around, and now is the time to harvest them.



51 lb. flathead catfish from Fall River Reservoir

Like channel catfish, the flathead populations in Toronto and Fall River Reservoirs were stable during recent mega flood events. Flatheads stayed within the reservoir. Reproduction and recruitment remained unchanged over the past four years. The size structure, too, remained constant. In 2020, 22-percent of flatheads sampled with low pulse electrofishing were trophy size, over 36-inches long. Eleven percent were memorable size, 28-36 inches long. A recently published long term study on the effects of hand fishing on a flathead

population in lake Palestine Texas showed that hand fishing along with trot lines did not cause overharvest of the population. Even though these methods were effective at harvesting very large flatheads, the population was able to sustain the fishing pressure. The size structure and number of large fish did not change. Data from Toronto and Fall River Reservoirs showed the same result. So, continue enjoying the large catfish without fear of population exploitation.



26 lb. flathead catfish from Fall River Reservoir

If you know someone who might like to subscribe to the newsletter, they can do so at this address: <http://ksoutdoors.com/KDWPT-Info/News>. If you would like to unsubscribe, please send your info to Contact Us with "unsubscribe Fall River/Toronto District Fisheries Newsletter" and we will get you taken off the list. If you have any questions, comments, or story ideas, feel free to send them.

Carson Cox, District Fisheries Biologist
Kansas Department of Wildlife, Parks and Tourism

All articles are copyright of Kansas Department of Wildlife, Parks & Tourism and cannot be copied or distributed without permission from KDWPT.

