

Fall River/Toronto Fisheries District Newsletter

District Fishing Forecast

The 2013 sampling results are in. You can read the results of the 2014 Fishing Forecast on the KDWPT web site. Here's how the fish populations in the Fall River/Toronto Fisheries District lakes ranked among waters in the rest of the state:

Species: Largemouth bass/hr. electrofishing

Lake	# >12"	# >15"	# >20"	Biggest Fish
Madison	9 th	7 th	9 th	5.06 lbs
Lyon SFL	11 th			4.15 lbs
Sedan Old	20 th	14 th	3 rd	12 th 6.09 lbs
Howard			14 th	5.77 lbs

Small lakes with their stable water levels and weedy shorelines provide good bass habitat. The Fall River/Toronto Fisheries District had four lakes that ranked among the top lakes in Kansas. Madison City Lake, Lyon State Fishing Lake, Sedan Old City Lake, and Howard City Lake had populations of lunker bass. Although Howard City Lake didn't rank among the top ten bass lakes in the state, it did have an excellent bass population with many bass over five pounds.

One reason these lakes consistently rank high is due to their location. Not only do these lakes have good water quality due to grassland run-off, but they receive low fishing pressure due to their distance away from major metropolitan areas. Whether you are looking for a lake with high catch rates like Madison City Lake or Lyon SFL to teach a young angler the different techniques for bass fishing, or you looking to hook a lunker over five pounds, if you are lucky enough to live near one of these hidden gems or are willing to drive, these lakes show great promise this year.

Species: White crappie/trap net

Lake	# >8"	# >10"	# >12"	Biggest Fish
Howard	9 th	1 st	tie 2 nd	2 nd 1.76 lbs
Eureka	7 th	7 th	tie 6 th	8 th 1.43 lbs
Lyon SFL		9 th		0.82 lbs
Sedan Old	15 th	tie 14 th		0.67 lbs
Reservoir				
Fall River	8 th	7 th	4 th	3 rd 2.10 lbs
Toronto	12 th	tie 8 th	6 th	1 st 2.20 lbs

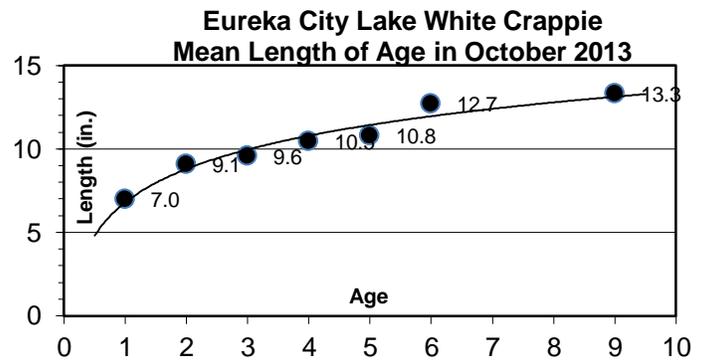
There were 91 lakes and 23 reservoirs trap netted in Kansas in 2013. Although the crappie populations in Toronto and Fall River Reservoirs were on a low cycle due to drought conditions again in 2013, they still ranked highly, especially for big fish. The largest crappie sampled by biologists this year was at Toronto. It weighed 2.20 pounds. Fall River produced a crappie nearly as big at 2.10 pounds and ranked as the third largest crappie sampled.



5.06 lb. largemouth bass from Madison City Lake

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While small lakes with their stable water levels and weedy shorelines provide ideal habitat for growing bass, crappie are another matter. Small lakes typically don't have the nutrient inflow of the large federal reservoirs; therefore, crappie growth is slower. The best crappie population in Kansas for fish over 10 inches was at Howard City Lake. Furthermore, it tied for the most crappie over 12 inches, and had the second biggest crappie sampled at 1.76 pounds. Eureka, Lyon SFL, and Sedan Old City Lake are also among the top crappie lakes this year. These are all good lakes to fish when you get blown off the better producing reservoirs. Anglers can easily fish these lakes from shore, too. Eureka Lake even has a heated fishing dock, if you get spring fever this winter and want to get outdoors, but not too much.



You would actually improve the crappie population size structure and fish condition by harvesting every fish you catch. In other words, crappie would grow bigger, faster, and weigh more if there were fewer mouths to feed in the population. In high-density populations like these, crappie die of old age (about five or six years) before reaching larger sizes. Due to the isolationism of the Fall River/Toronto Fisheries District, I have yet to document angler overharvest of crappie. So enjoy yourself and have at 'em.



2.20 lbs. white crappie from Toronto Reservoir

Many anglers mistakenly think that throwing back small crappie will allow them to grow to a larger size. At least in lakes where I've conducted age and growth analysis from scale samples, throwing them back would be counterproductive.



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Species: Channel catfish/gill net

Lake	# >16"	# >24"	# >28"	Biggest Fish
Eureka		tie 5 th	tie 2 nd	1 st 23.15 lbs
Lyon SFL		tie 8 th	tie 4 th	3 rd 17.20 lbs
Sedan New	tie 16 th	tie 8 th	tie 5 th	9.26 lbs
Madison		tie 10 th		2.78 lbs

and concentrate fish, they are placed within casting distance of bank anglers so as not to give unfair advantage to boat anglers. I switched from floating to sinking feed at Lyon SFL this year to discourage Canada geese from getting the fish food. One disadvantage of sinking feed, though, is that it could sink below the anoxic thermocline in summer, making it unavailable to fish. For this reason, feeders are anchored in six to eight feet of water.



17.20 lbs. channel catfish from Lyon SFL



23.15 lbs. channel catfish from Eureka Lake

According to statewide creel surveys, channel catfish rank as the most sought fish species. That doesn't mean they are the most popular, only that there are a lot of anglers out there fishing for them. Eureka City Lake, Lyon State Fishing Lake, Sedan New City Lake, and Madison City Lakes all had excellent channel catfish. Eureka Lake especially had an unusually large population of really monstrous cats. The largest channel catfish I ever sampled in 28 years of netting was a 17.20 pounder at Lyon SFL in September. Then I sampled an even bigger 23.15 pound channel cat at Eureka City Lake in October. Of course these records don't include the 80 pound flathead catfish I have netted.

Species: Saugeye/gill net

Lake	# >14"	# >18"	# >22"	Biggest Fish
Eureka	tie 9 th	5 th	4 th	2 nd 6.61 lbs
Sedan Old	tie 13 th	tie 11 th	tie 5 th	2.81 lbs
Madison	tie 15 th	tie 10 th	tie 3 rd	8 th 4.74 lbs
Howard		tie 11 th		3.09 lbs

These superb channel catfish populations result from highly successful artificial feeding programs. Channel catfish are fed 50 pounds per acre per year of high-protein fish food. The fish food is dispensed through solar powered automatic fish feeders set to go off every morning and evening. Since the feeders attract

There were 90 lakes gill netted in Kansas in 2013. Though not as large as last year's 8.58 pound fish, this year's second largest saugeye (6.61 lbs.) sampled by biologists during fall test netting was from Eureka City Lake. Eureka, Madison, and Sedan Old City Lakes all ranked among the best lakes for saugeye over 22 inches. All these lakes and Howard City Lake also had good densities of fish over 18 inches, as well.

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Saugeye were stocked in these city lakes to increase predation on white crappie, add creel diversity, and provide a trophy fish potential. Historically, the lakes had populations of walleye from stocking. Despite good water quality, walleye did not seem to prosper in the lakes. Statistics showed that lakes with low hydrologic residence time, like Madison City Lake's 196 days, typically had poor walleye populations. Stocking of walleye was discontinued in favor of saugeye in 2000. Recruitment of stocked saugeye was better than walleye and resulted in some of the best populations in the state.

much larger than bluegill sunfish. The largest redear sunfish I ever sampled came from Wilson SFL and was 13 inches! That would be a nice size crappie, but it was an enormous sunfish. The largest redear sunfish sampled by biologists this year was nearly eleven inches long and was netted at Moline Old City Lake. Moline Old City Lake, Lyon State Fishing Lake, and Sedan Old City Lake all have excellent populations of large redear sunfish. My favorite method of catching these massive sunfish is by using a fly rod and a popper. If you don't have a fly rod, grasshoppers, crickets, or worms work equally as well.



6.61 pound saugeye from Eureka City Lake



0.92 lb. redear sunfish from Moline Old City Lake

Species: Redear sunfish/trap net

Lake	# >7"	# >9"	# >11"	Biggest Fish
Moline Old	3 rd	2 nd		1 st 0.92 lbs
Lyon SFL	9 th	4 th		7 th 0.73 lbs
Sedan Old	12 th	tie 3 rd		11 th 0.65 lbs

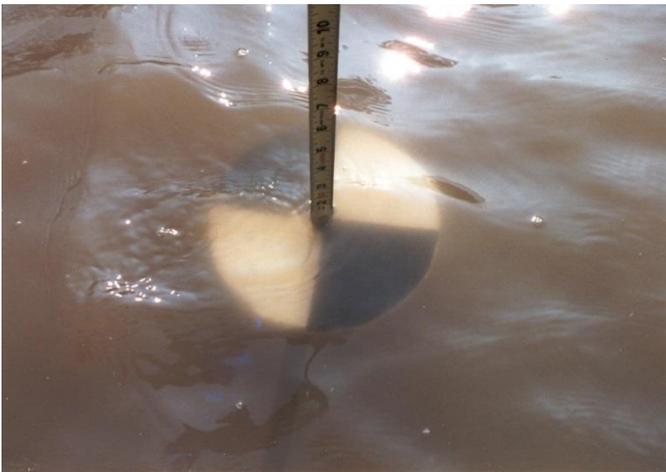
Redear sunfish are sometimes referred to as "shell crackers" because they like to eat snails, shell and all. There are two primary reasons fisheries managers stock redear sunfish. First, they can be used as a management tool to help control snail populations. Snail populations need to be controlled because they are part of the life cycle of yellow grubs which are parasitic on fish, especially largemouth bass. Second, they grow

Olpe City Lake Renovation Project

All but one of the lakes in the Fall River/Toronto Fisheries District have a balanced sport fishery. Even the fish populations in urban ponds are in balance, which is surprising, because, typically, bass in urban ponds are over harvested, resulting in stunted panfish. However, one lake consistently throughout the years has not had a desirable fish population, except for channel catfish. That lake is Olpe City Lake.

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Olpe City Lake is plagued with poor water quality. The transparency was seldom over 12 inches. Water this muddy reduced the primary productivity of the lake. Not only could fish not see to feed efficiently, but the sunlight was so limited within the water column that plankton production was severely limited. The lake's food chain begins with plankton production. Without it, little fish and insects don't have enough to eat. Even the gizzard shad, the primary prey for crappie, bass, and saugeye, couldn't thrive in the dark. The end result was a lake with very little fish reproduction and exceedingly slow growth.



Secchi disk measuring water transparency

The one fish species that was able to adapt to life in this turbid environment was the channel catfish. They were able to feed using the taste buds on their barbels instead of sight. They didn't have to reproduce. Instead, their population density was maintained through supplemental stocking. Furthermore, their limited natural food supply in the lake was supplemented by 50 pounds per acre per year of 32 percent protein fish food.

Lake History: Olpe City Lake is situated on the eastern edge of the Flint Hills region of Kansas. The lake is located one mile west and one mile south of the city of Olpe. Construction of the 90 acre lake was completed in June of 1964. The 1,280 acres of native tall grass prairie drainage basin would seem to

contribute to good water clarity; however, gradual shoreline gradient, little wind protection, and colloidal clay bottom sediments all contribute to a modest mean water transparency of 12 inches.

The lake was originally constructed to supply water for the city of Olpe. However, the water treatment plant has been abandoned due to cost, and the city currently receives more economical water from Emporia. The lake and 278 acres of City property around it are now managed for its civic recreational values including fishing, swimming, picnicking, boating, and wildlife observation. Five earthen and rip-rapped fishing piers and an island were constructed in 1996 to break-up the prevailing winds and improve water quality. Water willow was planted in 12-18 inches of water around the shoreline in 2001, 2002, 2003, 2009, and 2013 to improve littoral habitat, water quality, and reduce shoreline erosion. A solar powered automatic fish feeder was added in 2001.



Olpe City Lake Renovation Project

Lake renovation was undertaken in 2012. Since the bottom drain was concreted shut due to leakage, the water level was lowered with siphons. Six, four inch siphon lines were started on August 29, 2012. The siphons drained through the principal outlet pipe on the dam. By the second week of December, the lake level

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was lowered approximately six feet, and the siphons stopped working. The siphons failed because they were made of corrugated plastic ADS pipe which got holes rubbed in it due to wave action against the rocks.



Olpe City Lake siphon lines on principal outlet pipe

Since water remained in the lake, no fish salvage was attempted. Past netting results revealed few common carp. In 2013, nine fishing piers and an island were constructed in the lake to enhance shoreline angling access, deepen shoreline fish habitat, and improve water quality. The side slopes of the piers and island were 3:1 and will be rip-rapped with limestone in 2014. In total, 26,630 cubic yard of bottom sediment (mostly clay) was pushed up with bull dozers and a track hoe to deepen the lake and reshape the bottom. That's enough silt to fill more than eight Olympic size swimming pools.

As was discussed in the last March issue of the Fall River/Toronto Fisheries District Newsletter, Olpe City Lake did not escape the drought conditions that plagued area lakes from 2011 through 2013. Dry conditions were beneficial in keeping the lake level down during construction and drying out lake-bottom muck so it could be pushed up.

After the piers and island were built last winter the lake level stayed down through the end of July.

During that time, it rained just enough to establish a dense stand of smart weed, but not enough to refill the lake. The civil engineers designed the lake to fill every 212 days in normal rainfall years. On July 29th the drought ended with a 5.3 inch rain event. The lake nearly refilled and flooded the smartweed, which was over five feet high. Within a week, the decomposing organic matter in the lake altered the chemical makeup of the colloidal clay suspension of the water and the lake cleared. It remained clear the rest of the summer.



Olpe City Lake smart weed

The flooded vegetation and clear water caused an explosion of fish reproductive activity. Little minnows could be seen everywhere along the shoreline. Their

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newfound habitat was short lived, however. In the first week of November, the syphon lines were reinstalled and the lake level was once again lowered. This time the lake level was lowered in order to install the limestone rip-rap on the piers and island. It is estimated that over 100 semi loads of rock will be hauled and placed around the shoreline.



Resloping/deepening shoreline at Olpe City Lake

How much will all this construction cost and who is paying for it? The city of Olpe paid more than \$25,970. KDWPT paid \$74,590. The Reservoir Fisheries Habitat Partnership paid \$10,000. All totaled the project costs \$110,560.

What are the expected economic benefits of the project? Olpe City Lake would not be considered a "high-use" fishery. The nearest lake with a creel survey was Lyon County State Fishing Lake 25 miles north. According to the 2007 creel survey, an estimated 6,944 anglers fished at Lyon County State Fishing Lake from March thru October. The total estimated number of hours, anglers spent fishing at the lake was 22,588 (167 hours per acre). That was 74 hours per acre (55.5 percent) more fishing pressure per acre than the 1997 creel survey prior to renovation.

Lyon County State Fishing Lake contributes significantly to the state and local economy. A 2010

Kansas Department of Commerce report showed that tourism brought in 5.46 billion dollars to the state's economy; tourism was the third largest industry in Kansas; and it generated 27.4 percent of all state and local tax revenue. The economic impact of the 6,944 fishing trips (2007 creel census) at \$69.65 per trip (U.S. Fish & Wildlife Service 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation) was \$483,650 per year. Similar numbers are expected at Olpe City Lake after successful project implementation.

Olpe City Lake Limnological Parameters

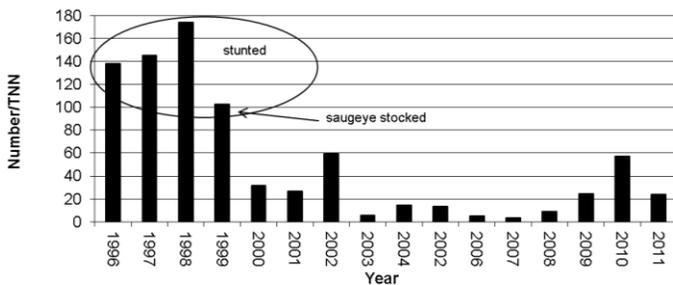
Parameter	'
Size Multipurpose Pool (acres)	90.0
Max Depth (ft)	17.0
Mean Depth (ft)	5.1
Volume at Conservation Pool (Acre Feet)	461
Mean Annual Precip (in)	35
Mean Annual Runoff (in)	7.5
Area Watershed Drainage (acres)	1,280
Hydrologic Residence Time (days)	212
Chlorophyll A (ppb)	15.0
Secchi (in)	1.0
Shoreline Development Index	1.7
Trophic State Index	50.4

Olpe City Lake Fishing Regulations

Species	Length Limit	Creel Limit
Channel Catfish	15 inch minimum	5 fish daily
Flathead Catfish		5 fish daily
Crappie		50 fish daily
Largemouth Bass	15 inch minimum	5 fish daily
Saugeye	15 inch minimum	5 fish daily
Wiper		2 fish daily

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Olpe City Lake White Crappie Catch per Trap Net Night



Prior to 1999, poor water quality limited largemouth bass from effectively feeding on small crappie at Olpe City Lake. Consequently, the crappie population was stunted. Age and growth analysis from scale samples showed that mean length's in October for crappie ages two and three were 5.6 and 6.3 inches, respectively. Most crappie died by age three and reached a maximum length of less than seven inches.

reducing their population density. Saugeye, as expected, didn't reproduce in the poor water quality, so their population was maintained through supplemental stockings. Olpe City Lake was a classic example of how saugeye were successfully used to control a stunted crappie population, even in a turbid impoundment.



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15 inch white crappie

To correct this imbalance, saugeye were introduced in 1999. Despite the turbid water, stocked saugeye successfully preyed upon small crappie, thus