



Biologist's Notes

It is springtime and outdoor activities are in full swing here in the Kansas City District. This issue of the Kansas City District Fisheries Newsletter contains the Kansas City District's 2017 Fishing Forecast. The forecast can be a valuable tool for planning upcoming fishing trips, a guide to areas in which to focus your effort, or that extra motivation to explore a new waterbody.

Springtime is a very eventful time here in the Kansas City District. Walleye egg collection was a little more challenging this year as the fish were harder to come by, but we were still able to collect approximately 16 million walleye eggs at Hillsdale Reservoir and statewide we were able to meet hatchery demand to help produce walleye and saugeye statewide. The Early-Spawmed Largemouth Bass Project is entering the fifth year of research at Hillsdale Reservoir. The Urban Channel Catfish Stocking Program is in full force with 21 area waterbodies stocked throughout the summer (March-September) with catchable size (12-18 inches; 0.75-1.5 lbs.) channel catfish (15,315 lbs. of channel catfish will be stocked in the Kansas City District in 2017). Habitat improvement projects and numerous youth fishing events are scheduled area wide. These are just a few of the numerous projects to be excited about here in the Kansas City District.



Nice female walleye caught for egg collection at Hillsdale Reservoir this spring.

"takemefishing"



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2017 Kansas City District Fishing Forecast

Hillsdale Reservoir

The outlook for Hillsdale Reservoir in 2017 is very good. The anglers at Hillsdale are reaping the benefits of water levels that were really conducive to fish production in the previous few years. Crappie fishing through the fall and winter 2016 and on into spring 2017 has been fantastic. Fall sampling indicated some good things for the crappie population. Catch rate was 34 fish/net night and size structure metrics indicated that 46% of the population was above 10 inches, which proportionally is the highest amount of harvestable crappie in Hillsdale in over 5 years (see page 4 for a more in-depth look at the Hillsdale crappie population). Fall sampling for channel catfish was also very good with a catch rate of 4 fish/net night of channel catfish \geq 16 inches, which ranks Hillsdale as the second highest reservoir in the state for channel catfish. Catch rate of largemouth bass continues to increase, which can partially be attributed to the Early-Spawn Largemouth Bass Project ongoing at Hillsdale Reservoir (see 2016 Kansas City District Newsletters for updates on the Early-Spawn Largemouth Bass Project). Although fall catch rate of stock-length walleye ($>$ 10 inches) was low to moderate (1 fish/net night), there is still opportunities to hook in to a real memorable fish as we captured many walleye $>$ 25 inches during egg collection in the spring.



Good example of the channel catfish we were sampling at Hillsdale Reservoir in fall 2016.



Very nice crappie at Hillsdale Reservoir.

Kansas City District CFAP Waterbodies Forecast

	Gardner City Lake	Lake Lenexa	Olathe Cedar Lake	Lake Olathe	Paola City Lake	Osawatomie City Lake
Bluegill	Good	Fair	Fair	Fair	Good	Fair
Crappie	Good	Poor	Fair	Poor	Fair	Fair
Channel Catfish	Fair	Fair	Good	Fair	Good	Fair
Largemouth Bass	Good	Good	Good	Good	Good	Fair
Saugeye	Fair	N/A	Poor	Poor	Poor	N/A
White Bass	Fair	N/A	N/A	N/A	Fair	N/A
Wiper	N/A	N/A	N/A	Poor	Fair	N/A

* **Bold** indicates best bets

2017 Kansas City District Fishing Forecast Continued

Miami State Fishing Lake

The numbers and size structure for the pan fish populations (bluegill, redear sunfish, white and black crappie) fell back a bit from the excellent numbers we saw in 2015/2016, but Miami SFL still provides quality pan fish opportunities. Good channel catfish and largemouth bass opportunities exist at Miami SFL as well. Miami SFL does have a dense stand of curly-leaf pondweed, which is an invasive nuisance plant species. We were able to get an early spring spot treatment with aquatic herbicide on the waterbody and coverage of the curly-leaf pondweed stand should not be as bad as in past years. Warmer water temperatures causes senescence in curly-leaf pondweed and the stand will be gone in early June.



Often overlooked, there are some really nice white bass to be found in Miami State Fishing Lake

Middle Creek State Fishing Lake

Channel catfish are the best bet for Middle Creek SFL. Catch rates from fall sampling were 9 fish/net night and the population is balanced, composed of both smaller and larger individuals. Largemouth bass numbers are lower than desired, but Middle Creek SFL was stocked with some early-spawned largemouth bass in 2016 to help address this issue. Both species of crappie (white and black) appear to be down right now. Size structure of the crappie populations could improve as the broad majority of the fish are in the 5-8 inch length range. There are some good white bass and wiper angling opportunities at Middle Creek SFL and a few very large flathead catfish can be found around timber and vegetation edges as well.

Hillsdale Reservoir Crappie Population: A Deeper Look

It is no secret that the crappie fishing has been excellent at Hillsdale Reservoir this past winter and spring. Fall sampling revealed that 46% of the crappie population exceeded 10 inches in length and many anglers have been reporting high catch rates of harvestable crappie. The question has to be asked, what is different about the population this year, and why is the population not this good every year? I will try to explain as we take a deeper look at the current Hillsdale crappie population.

I get questioned a lot by anglers about the 10 inch minimum length limit for crappie at Hillsdale Reservoir, with the general perception from anglers that the Hillsdale crappie stunt and stack up at 9 ¾ inches. I was curious about this myself, so during the 2016 fall sampling I collected some crappie otoliths (hard structures located in the heads of fish that process sound and aid in balance), to do some age and growth analysis on the crappie population.



More confirmation this spring of a really good crappie population as crappie loaded our nets during walleye egg collection in March 2017.



View of otolith under a microscope

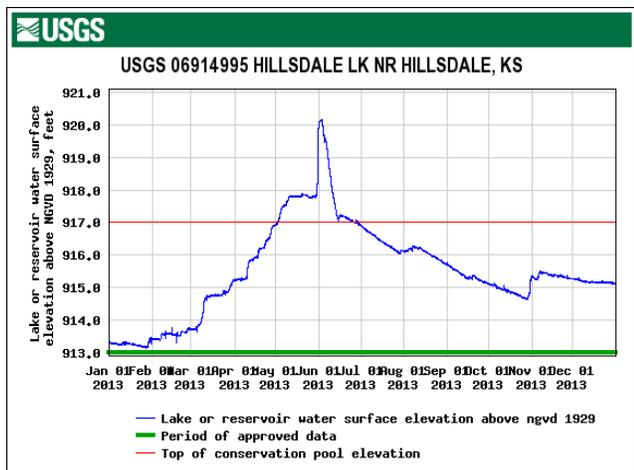
Mean length at capture for white crappie captured at Hillsdale Reservoir October 2016.

Year Class	Age	Mean Length at Capture (mm)	N
2015	1	198	39
2014	2	262	30
2013	3	289	12
2012	4	327	4
2010	6	305	1

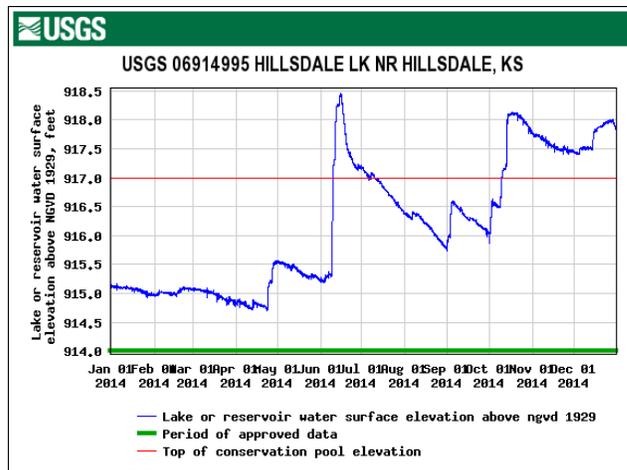
The results were interesting and indicated that Hillsdale crappie grow fast and do not have very long life spans. Eighty-six crappie were aged and only 5 were older than 3 years old, but by the start of their third year most of those fish had obtained 10 inches in length. The 10 inch minimum length limit regulation performs best when there is high exploitation on the population and fast individual growth. Both of those conditions are current at Hillsdale Reservoir.

Hillsdale Reservoir Crappie Population: A Deeper Look

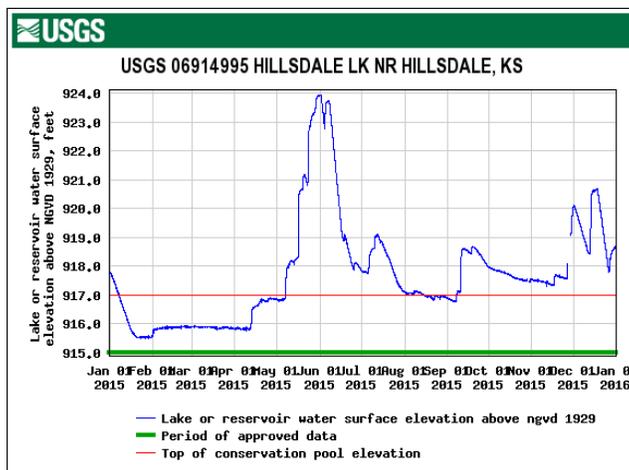
Probably the most important factor that regulates crappie population dynamics is annual young-of-year production and survival, which is greatly influenced by reservoir water levels, especially timing and duration of high water events. When high water floods new vegetation it adds nutrients, food resources, and cover for young fish. When timed right this can be very beneficial to fish populations and can be the determining factor between a good or bad year-class of fish.



Hillsdale Water Level
 2013



Hillsdale Water Level
 2014



Hillsdale Water Level
 2015

Above are graphs of water levels at Hillsdale Reservoir for 2013, 2014, and 2015. You notice in 2013 and 2015 Hillsdale received sustained high water from early-May through mid-July (in 2013) and late-August (in 2015). Both years we observed very high abundance of young-of-the-year crappie in our fall sampling. Contrary, in 2014, the high water duration was not as long and the magnitude was not as high. We observed a below-average year-class of crappie in 2014. The outstanding crappie fishing we are observing right now at Hillsdale Reservoir is largely due to a really large year-class produced in 2013, and will hopefully be sustained by another even bigger year-class in 2015 as those fish grow.

Paddlefish Snagging Opportunities In Kansas

Many here in the Kansas City District do not realize that “most” springs we have the opportunity to catch a fish of a lifetime right here in our backyard. I am referring to paddlefish snagging. Paddlefish reach very large sizes, often greater than 40 or 50 pounds and the state record here in Kansas is also a world record of 144 pounds! I said above “most” springs, because we need just the right conditions to bring paddlefish to our area. In the spring, when the right water temperatures match up with increased river flows the paddlefish begin their spawning migration upstream. Often paddlefish will migrate as far as they can until stopped by man-made structures or dams where they will then congregate trying to complete their upstream movement. One such place is a low-head dam in Osawatomie on the Marias Des Cygnes River. When the river conditions are just right these paddlefish migrate from Truman Lake in Missouri, up the Osage and Marias Des Cygnes Rivers where they are stopped by the dam. This past spring all of the right conditions fell into place and snaggers were very successful at the Osawatomie Dam, with many large fish snagged. There is a snagging season here in Kansas that runs from March 15 to May 15. You are required to have a special permit (along with regular Kansas fishing license) to snag for paddlefish. Paddlefish permit includes six harvest tags for the season and costs \$12.50 (\$7.50 youth). Full paddlefish regulations are on Page 7 of the 2017 Kansas Fishing Regulations Summary.

Equipment needed for paddlefish snagging are heavy duty rod and reel with > 30 pound test braided line. Attach large size treble hook (#8-#14) and a tear drop weight (3oz-8oz). Cast and hold on for a fight. Even smaller paddlefish put up a tremendous fight and make excellent table fare. Locations open to paddlefish snagging around the state are: Burlington City Park, Chetopa City Park, and Iola (from dam downstream to city limits) on the Neosho River, Osawatomie Dam (downstream to bridge) and Marias Des Cygnes Wildlife Area on the Marias Des Cygnes River, and the Browning Oxbow of the Missouri River.



Angler battling with a paddlefish.



Tyler Thomsen of Emporia proudly displays his catch snagged at the Burlington Dam on the Neosho River.

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