

Lawrence District Fisheries

KDWPT Fisheries Division Newsletter

Summer 2016

Black Bass Sampling Summary

Black bass (largemouth, smallmouth, and spotted) are sampled with electrofishing boats during the spring when they are close to the bank, and water temperatures vary from 65-72 degrees. This year's results are summarized below in Table 1. Columns include name of lake, total number of bass sampled per hour of electrofishing, number of bass exceeding 8 inches/hr, number of bass exceeding 12 inches/hr, number of bass exceeding 15 inches/hr, and number of bass exceeding 20 inches/hr of electrofishing. Lonestar had the highest catch rates for almost each category, indicating that it is the best bass lake in the district. Melvern Reservoir had good numbers for 2016, and it is one of the better reservoirs statewide for black bass, with smallmouth being the main draw. Carbondale City Lake had a large increase in catch rate of largemouth bass in 2016, reflecting increased natural recruitment. Hopefully, this population improvement will supply better bass fishing long-term at this lake.

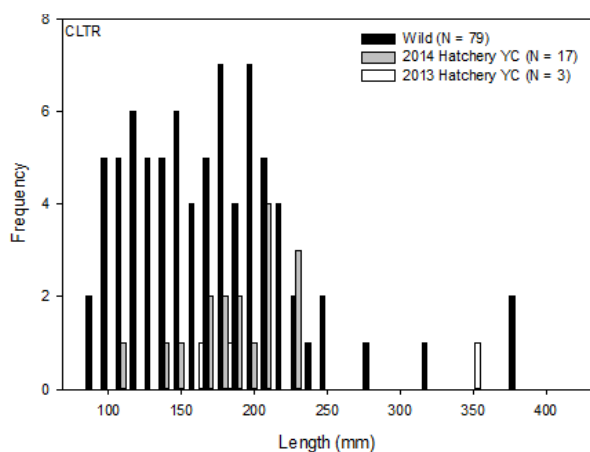


Table 1. Black bass catch rates for various sizes at selected waters.

| Lake | Total/hr | >8"/hr | >12"/hr | >15"/hr | >20"/hr |
|--------------------|----------|--------|---------|---------|---------|
| Clinton | 10 | 6 | 2 | 1 | 0 |
| Melvern | 72 | 50 | 24 | 4 | 0 |
| Carbondale | 156 | 109 | 53 | 4 | 0 |
| Douglas SFL | 155 | 139 | 73 | 6 | 0 |
| Lonestar | 328 | 252 | 87 | 14 | 1 |
| Melvern River Pond | 75 | 72 | 47 | 16 | 0 |
| Osage SFL | 115 | 93 | 29 | 1 | 0 |
| Lake Shawnee | 105 | 69 | 34 | 14 | 0 |

Clinton Early Spawn Largemouth Bass Project

Fingerling largemouth bass that were spawned early at Meade Hatchery were stocked into Clinton Reservoir over a three-year period (2013-2015) in an effort to improve the largemouth bass fishery. These bass were spawned early at Meade Fish Hatchery to give stocked fish a size advantage over naturally produced bass at the lake. Larger fish should be able to better utilize available prey and not be as limited regarding size of prey. These characteristics should allow stocked fish to exhibit higher survival and better growth rates. DNA profiles of stocked bass are slightly different than naturally produced bass at Clinton so they can be differentiated in the lab. Spring electrofishing, DNA samples collected from bass tournament fish, and angler creel surveys over the next several years should determine if this is a feasible strategy to improve the largemouth bass fishery at Clinton Reservoir. The bar chart below shows that 20 percent of the largemouth bass collected in the 2015 electrofishing sample were stocked in 2013 and 2014. Good quality largemouth bass habitat expanded with increasing water levels in 2015. Therefore stocking success in 2015 might be higher than that observed to date. The 2016 spring electrofishing sample should determine this, when the DNA analysis is completed.



Melvern Reservoir Receives Early Spawn Largemouth Bass Fingerlings

Melvern Reservoir has low largemouth bass recruitment, meaning few young bass transition into adulthood. Low largemouth bass recruitment in Kansas reservoirs is common. Factors causing this are many, but certainly lack of nursery habitat, juvenile escape cover, and food chain deficiencies may be three big ones. Largemouth bass have been reared over the past three years in the Melvern Rearing Pond below the dam. Each year approximately 6,000 fingerlings bass are stocked into the pond, along with fathead minnows and bluegill and redear sunfish. In September the pond is harvested and bass typically range from 7-9 inches in length. These fish, about 3,000-4,000, of them are stocked into Melvern annually. This year, the opportunity was available to try fingerling early spawn largemouth and approximately 31,000 were equally distributed among five sites in May. Evaluation of this stocking will be possible in 2017 when DNA results are available. Hopefully, by stocking largemouth bass utilizing two different sizes (i.e. fingerlings and intermediates) and two different times of year (i.e. spring and late summer); relative utility of both techniques can be evaluated.



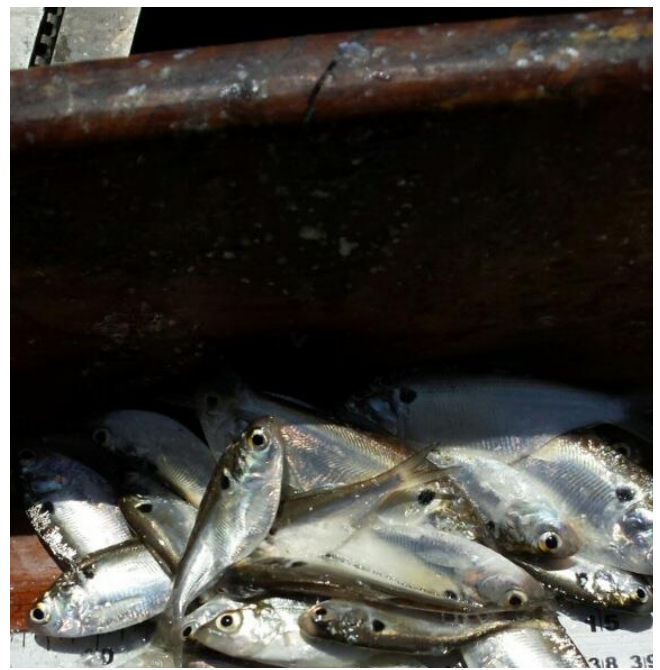
Blue Catfish Sampling at Clinton and Melvern Reservoir

Twenty sampling locations yielded 17 blue catfish this summer at Clinton. They ranged from 14 to 28 inches in length. Most (i.e. 88 percent) were large enough to be considered sexually mature. To date no natural reproduction has been documented at Clinton. A 35-inch minimum length limit and reduced creel limit of five per day went into effect January 1, 2016 to protect broodfish. Only five blue catfish were sampled at 10 locations at Melvern. Melvern has an older population than does Clinton, but natural production appears very limited. In an effort to increase the density of blue catfish at Melvern, a 35-inch minimum length limit and reduced creel limit of five per day went into effect January 1, 2016. The hope is that increased protection will result in increased numbers of breeding adults to improve the production of blue catfish.



Clinton and Melvern Reservoir Gizzard Shad Production

Reservoir sportfish are highly dependent upon shad for food. Generally, if suitable sized gizzard shad are abundant, sportfish populations flourish. If young of the year (YOY) shad are in low abundance, sportfish experience slow growth and exhibit poor condition. Last year was a record year at Clinton, as over 2400 YOY were sampled, in 2016 that number dropped to 904 which could be considered a more normal catch total. A fairly high number of young adult shad (i.e. those spawned last year) were sampled. Most of these fish measured about 7 inches in length and should provide high quality forage for larger predaceous fish. The good news was that many of the YOY shad were still small enough to be utilized for food by a wide variety of gamefish, as the average length was about 3 inches long. Melvern showed higher abundance (n= 516) of YOY than in 2015 but they were larger (i.e. average length = 3.7 inches) than normal and some smaller sportfish may struggle getting them down. Since 2011, this is the highest number of YOY shad sampled at Melvern. Hopefully this will translate in some improvement in the fishery.





Blue-Green Algae Bloom



Young Anglers Fishing a Pond



Kid Learning Patience!

Blue-Green Algae Blooms

Blue-green algae has been getting a lot of press lately, and for good reason, it can be a health hazard. Normally waters of the state have green single celled algae called phytoplankton that causes the water to have a slight green tint to it. This alga is very beneficial and necessary to have a dynamic food chain, which can produce a vibrant fishery. When temperatures become very hot in the summer, sunny weather predominates, and nutrient levels favor blue-green algae they can produce high cell densities called a "bloom". When a blue-green bloom occurs, frequently there appears to be green paint on the water's surface or rocks along the shoreline may be stained with a bluish-green color. Fish kills can be associated with blooms. Mammals can have health problems as well, if cell densities of certain blue-green algae species are high enough. There are some simple tests to help determine if a blue-green algae bloom is present, one is called the stick test and the other is the jar test. Go to Kansas Department of Health and Environment website (www.kdheks.gov) for test procedures and for more information.

Don't Forget Ponds!

Ponds supply some of the best summertime angling in the state for channel catfish, bluegill, and largemouth bass. They are the go to spot to take young kids fishing, because usually something can be caught. To find out where public fishing ponds are in your area, pick up a 2016 Fishing Atlas. The atlas lists all public waters in the state, including FISH (Fishing Impoundments and Stream Habitats) ponds. Good Luck!

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