

Buckhorn Lake Bass Assessment 2016

Buckhorn Lake, located in Leslie and Perry Counties, is a 1,230 acre multipurpose reservoir on the Middle Fork of the Kentucky River. Buckhorn is one of four lakes in Kentucky that provide the opportunity to catch muskellunge. Buckhorn Lake is also popular for largemouth bass, white crappie, bluegill, channel catfish, and flathead catfish. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. The lake was not sampled in the spring of 2011, 2013 and 2016 due to heavy rainfall and flooding.

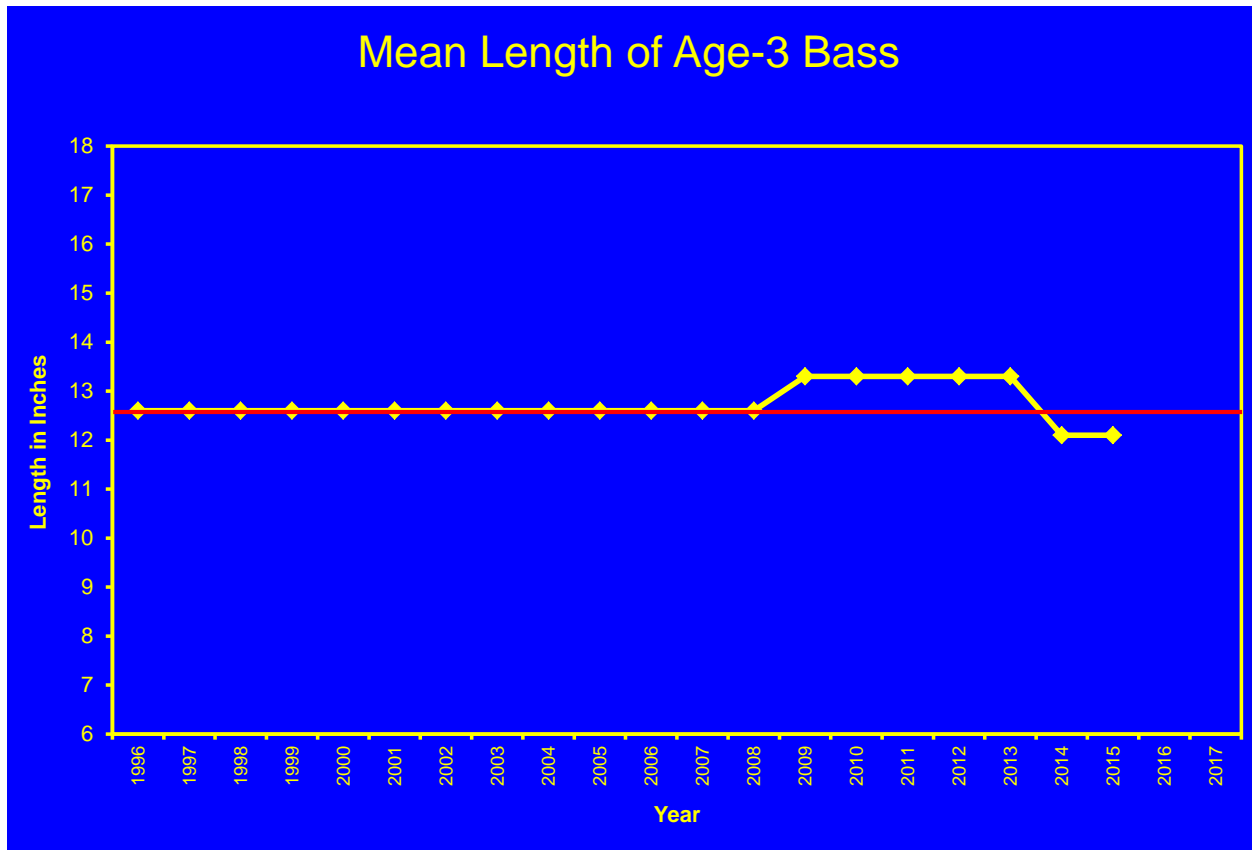
Please see the [Sportfish Assessments](#) page for an explanation of how the assessment works and for a list of other lakes with largemouth bass assessments.

Please note that the minimum size limit for largemouth bass on this lake is 15.0 inches.



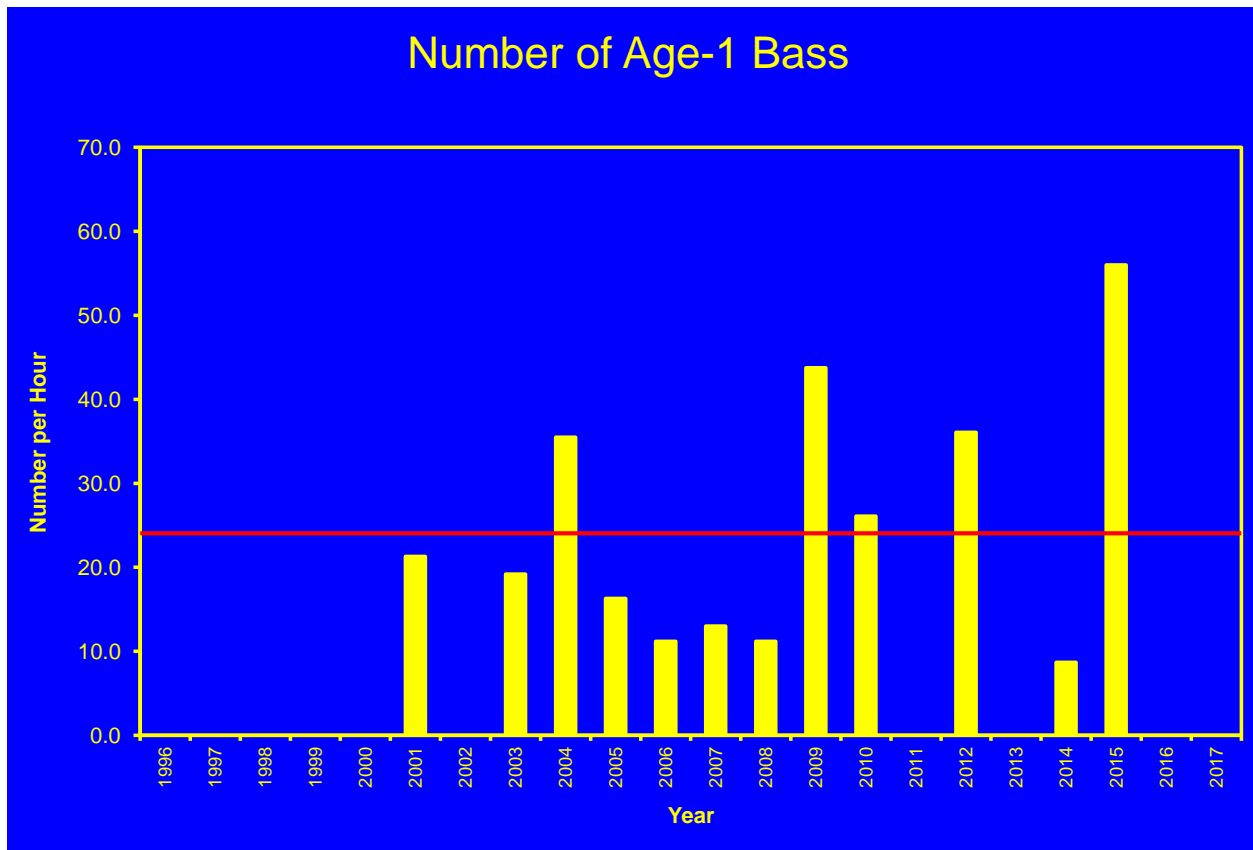
Parameter 1 – Length at age-3 (growth rate)

At Buckhorn Lake, the length of an age-3 largemouth bass has averaged 12.7 inches (see red line). Compared to other reservoirs of similar size, largemouth bass generally exhibit good to excellent growth at Buckhorn Lake. Growth rates can be variable and are generally related to factors such as population density, food resources, and weather patterns. The most recent aging of largemouth bass at Buckhorn Lake was in 2014 and found that 3 year old largemouth experienced fair growth, averaging 12.1 inches. The recent decrease in growth will be monitored.



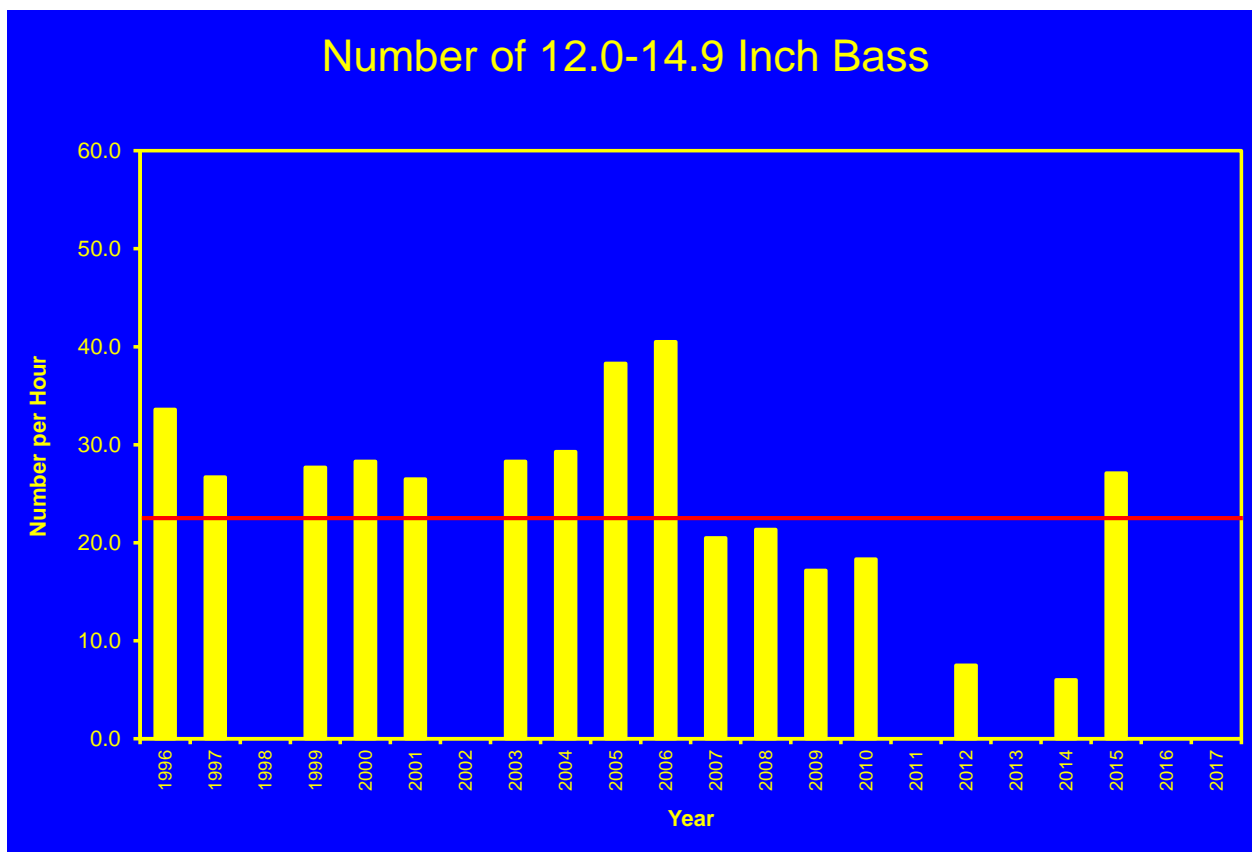
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the spring catch rates of age-1 largemouth bass to assess the success of the spawn which occurred in the prior year. This is an important parameter because the number of age-1 bass produced represents how good the fishing will be once these fish grow large enough for anglers to catch. At Buckhorn Lake, the combined catch rate of wild and stocked age-1 largemouth bass averaged 24.9 fish per hour (red line) of electrofishing since 2001 which is considered “good” compared to similar sized lakes. Significant rainfall in the spring of 2014 made for poor sampling conditions and below average, age-1 catch rates. Conditions for the 2015 sample were good and the results produced a rating of “excellent” for this year class, keeping the overall average fairly consistent. There was no sample in the spring of 2016 due heavy rainfall and elevated lake levels.



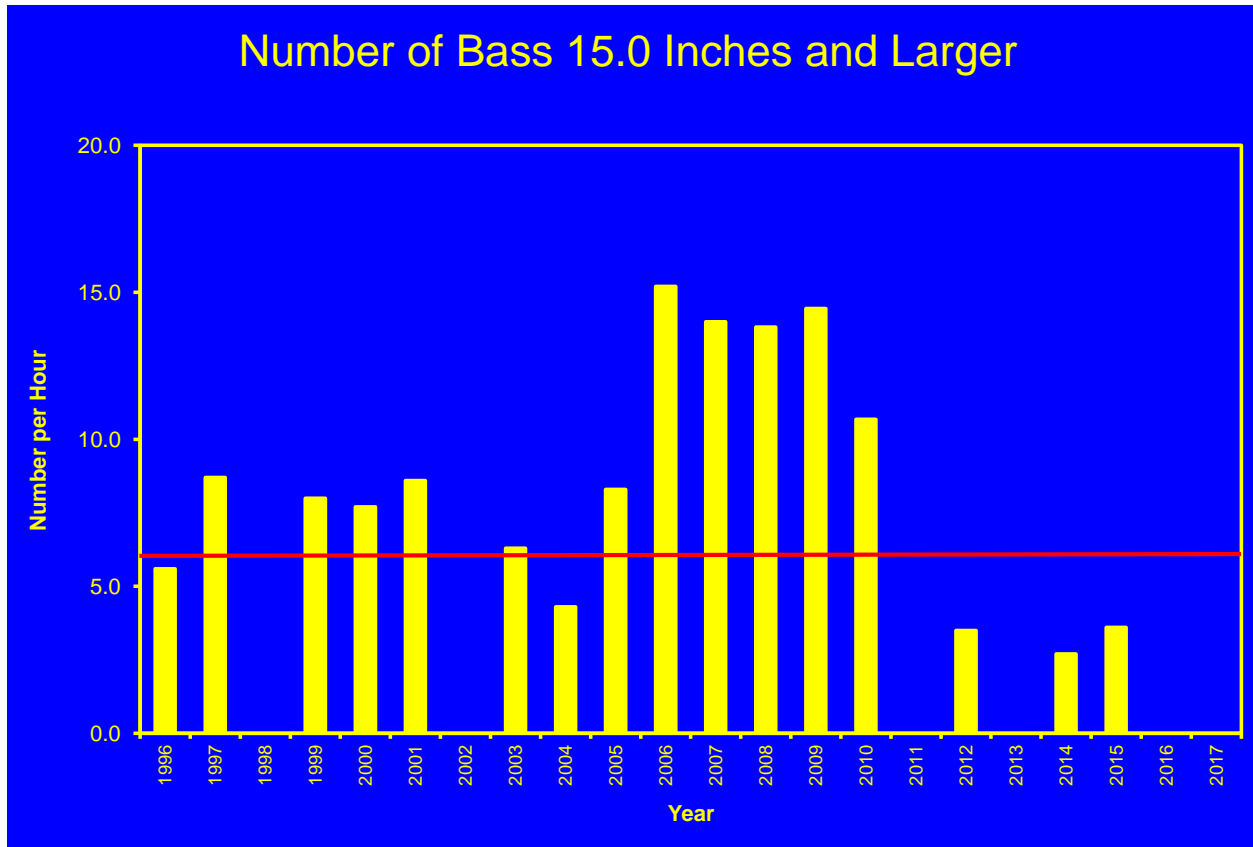
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged 22.4 fish per hour as indicated by the red line. As compared to other lakes, this is a “fair” catch rate for this size group of bass. Since 2007, catch rates for this size group of bass have been below average. High water events during this time period are likely leading to loss of this fish from the fishery. This number is important because these fish will soon grow to exceed the 15.0 inch legal size limit at the lake, and is a good predictor how bass fishing will be in years to come. Good conditions during the spring of 2015 yielded a better than average sample. The upcoming year classes are showing signs of good recruitment and size structure.



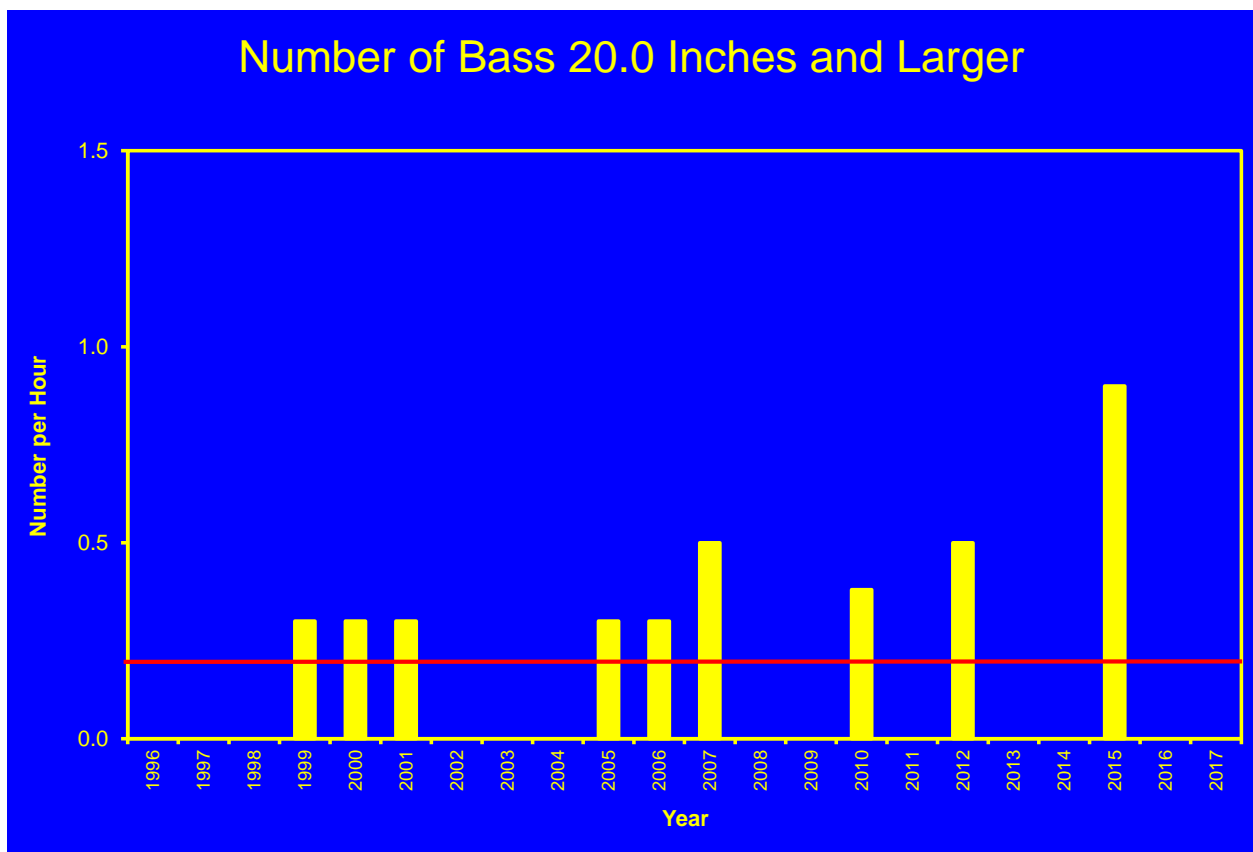
Parameter 4 – Numbers of 15 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Buckhorn Lake has averaged 6.2 fish per hour of electrofishing (red line). As compared to other lakes, this is a “poor” catch rate for this size group. Poor weather and lake conditions for the last few springs have made accurate sampling more difficult. Numbers of 12.0-14.9 inch fish are increasing therefore, stronger year classes from 2014 and 2015 should eventually increase the numbers of these harvestable fish within the population.



Parameter 5 – Numbers of 20-inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged about 0.2 fish per hour (red line) at Buckhorn Lake since 1999. This catch rate is considered “fair” when compared to other lakes in this size range, showing notable improvement in recent years. While age and growth data indicates a slower growth rate since 2013, catch rates of these larger fish have gone up. What this means for anglers is that the next couple of years will likely show some reductions in the catch rates for fish in this size range. This is mostly due to some week year classes and reduced catch rates of 15 inch and greater fish in the last few years. None the less, quality fish do exist but may require a little more time and effort on the water to produce results.



Overall – Total Assessment Score (All five parameters added together)

Overall, the largemouth bass fishery at Buckhorn Lake has averaged a “fair” rating assessment score of 11.5 since 2001 (red line). The overall assessment score for the largemouth bass population at Buckhorn Lake has bounced back and forth between fair and good in the past and appears to be holding this trend. With recent increases in the strength of upcoming year classes, this assessment is expected to rise slightly and hold into the “good” category. Extensive rainfall in the spring and fluctuating water levels often hinder electrofishing efforts. As such, the sampling data is somewhat inconclusive with a few springs having no representative data. Good sampling conditions in 2015 revealed better than average scores in most categories and may be an indicator of good things to come at Buckhorn Lake.

