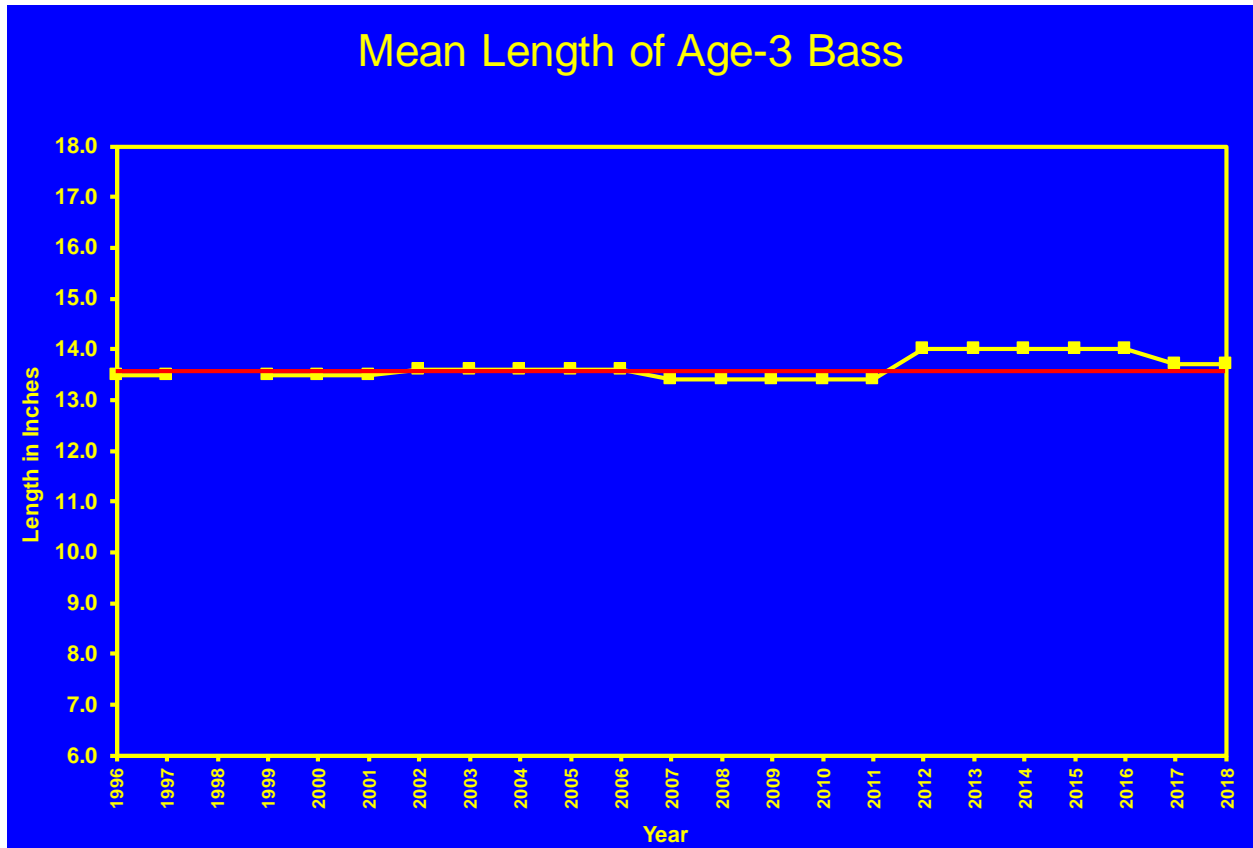


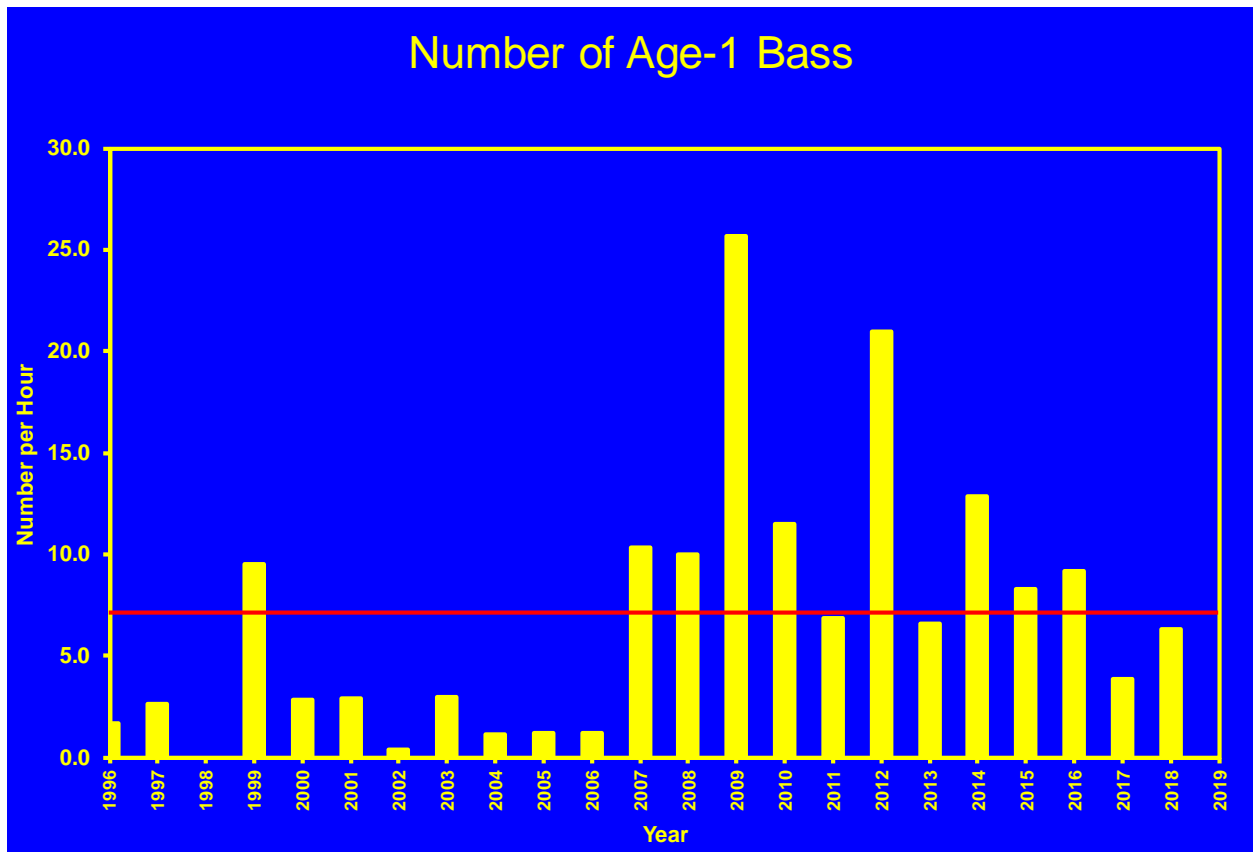
Parameter 1 – Length at age-3 (growth rate)

At Lake Cumberland, the length of an age-3 largemouth bass has averaged 13.6 inches since 1999, which is shown by the red line. This is considered to be an excellent growth rate for largemouth bass in Kentucky. Although growth rates declined slightly to 13.7 inches during the 2017 sampling, the growth rate has remained remarkably consistent since 1999, indicating that the largemouth bass have sufficient food resources in the lake.



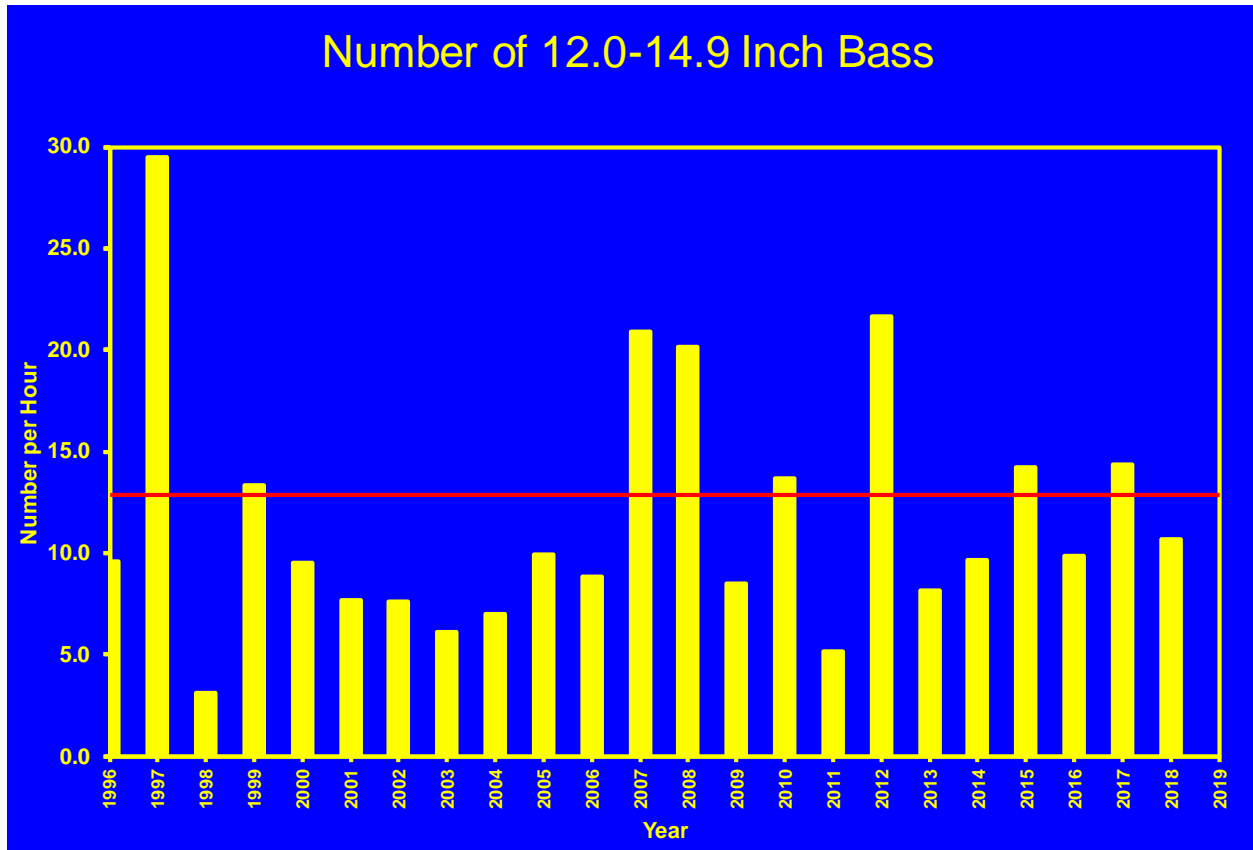
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the electrofishing catch rates of age-1 largemouth bass in the spring to assess the success of the spawn which occurred in the prior year. This is an important parameter because the number of bass produced represents how good the fishing will be once these fish grow large enough for anglers to catch. At Lake Cumberland, age-1 largemouth bass catch rates have averaged 7.1 fish per hour of electrofishing (red line). This catch rate is considered low when compared to other lakes in the state; however, the spawn at Lake Cumberland has been sufficient to maintain adequate numbers of largemouth bass in the lake. Based on the 2016 creel survey, anglers at Lake Cumberland harvest approximately 17% of the legal-sized largemouth bass. Because this is a fairly low overall harvest rate for largemouth, lower numbers of fish are required to replenish the population. Higher catch rates of age-1 bass after the drawdown may be the result of improved survival rates due to the increased cover along the shoreline.



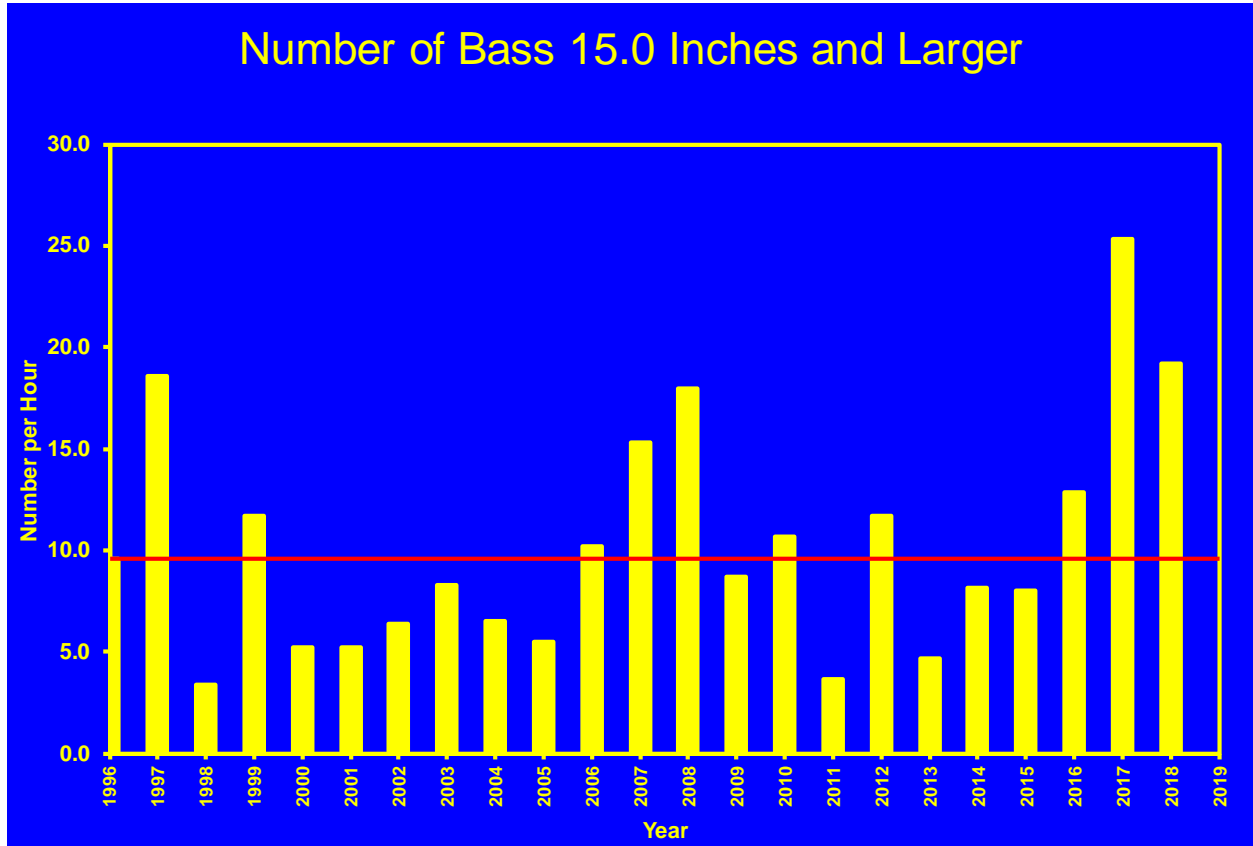
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has fluctuated widely over the years and averaged 12.9 fish/hour (red line). This number is low when compared to other lakes across the state of the same size. Catch rate values between 2007-2012 should be interpreted with caution as the low water levels may have increased electrofishing efficiency.



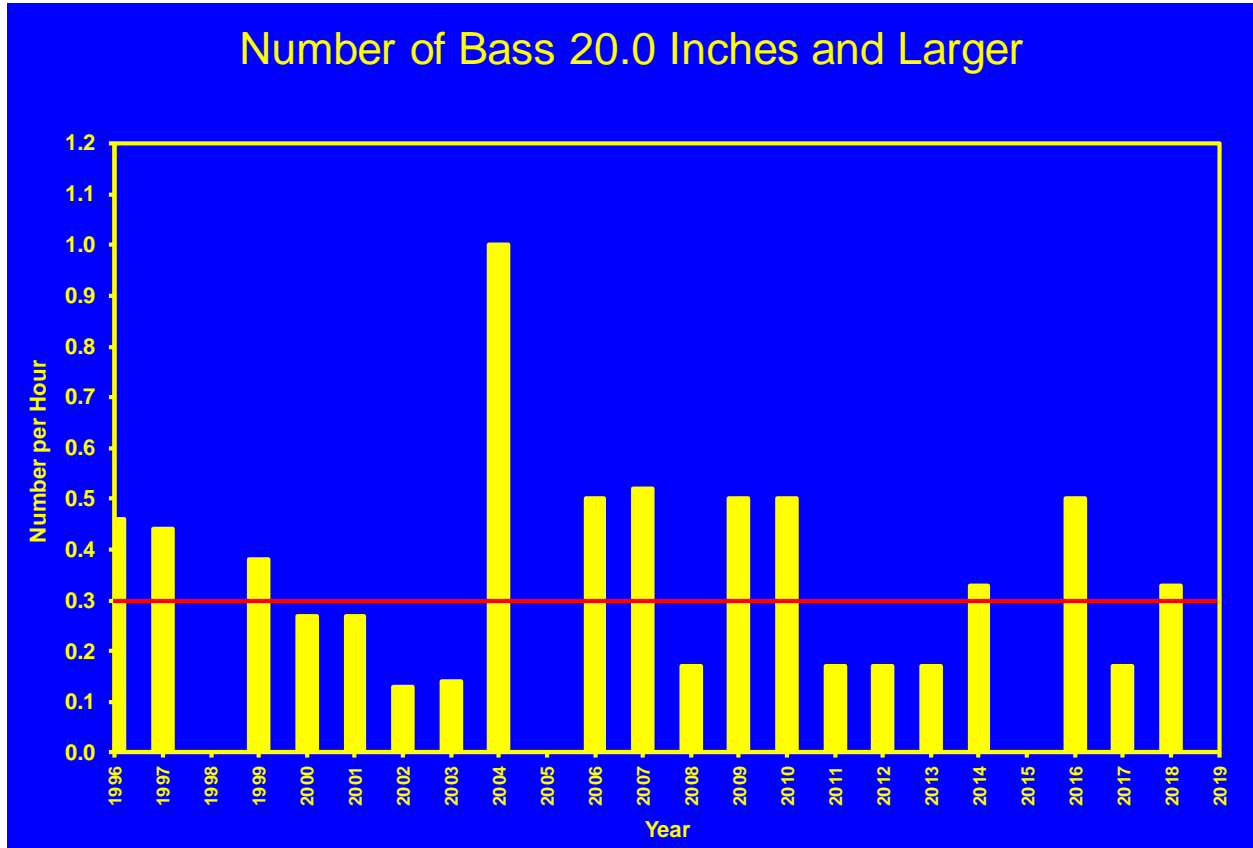
Parameter 4 – Numbers of 15.0 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Lake Cumberland has averaged 9.6 fish/hour of electrofishing (red line). This is a fair catch rate for this size group when compared to other lakes in the state. Improved catch rates from 2016-2018 maybe the result of increased survival of young fish after the drawdown. It appears there are adequate numbers of quality bass in the population, and fishing should be good for the next few years.



Parameter 5 – Numbers of 20.0 inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged about 0.3 fish/hour for Lake Cumberland since 1990 (red line). As compared to other lakes in the state, this is considered a fair catch rate for this size group.



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

Overall, the largemouth bass fishery at Lake Cumberland has averaged a fair rating (10.0) over the past 28 years. The relatively low catch rates for the various size classes have detracted from the assessment in most years. Our electrofishing efforts are designed to assess the total black bass population on Lake Cumberland, not just the largemouth bass. This approach likely dilutes our largemouth bass catch rate because we sample some areas that are better suited for spotted bass or smallmouth bass. Although the largemouth bass population has averaged a fair rating on a lake-wide basis, the population would rank higher in certain areas of the lake. Furthermore, the excellent growth rate exhibited by largemouth bass in the lake and the relatively high proportion of larger fish in the fishery bode well for the future.

