# Carr Creek Lake Bass Assessment 2019

Carr Creek Lake, located in Knott County, is a 710-acre multipurpose reservoir on Carr Fork. The majority of anglers using this lake target largemouth bass while others frequently pursue walleye and crappie. This lake is unique to others of its size because it contains a large population of alewives that were first documented in 2000. Alewives can have a detrimental impact on sport fish species since they compete excessively with small fish for resources. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment.

Please see the <u>Sportfish Assessments</u> 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.



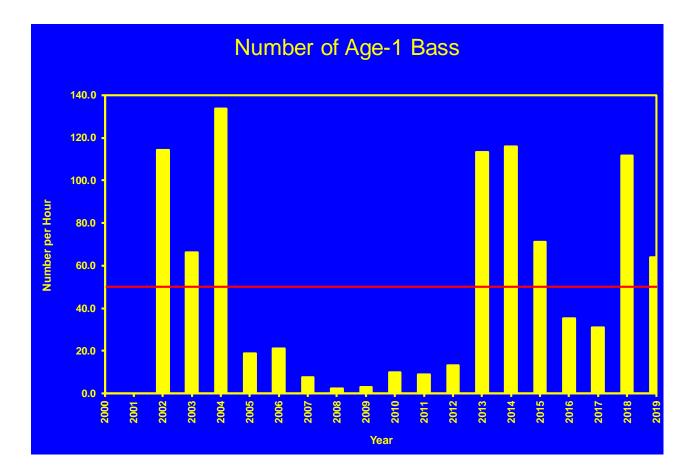
# Parameter 1 – Length at age-3 (growth rate)

At Carr Creek Lake, the length of an age-3 largemouth bass has averaged 13.1 inches since 2000 (see red line). Compared to other reservoirs of similar size, largemouth bass generally exhibit excellent growth at Carr Creek 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 Carr Creek Lake was in 2019 and found that 3-year-old largemouth experienced excellent growth, averaging 13.1 inches.



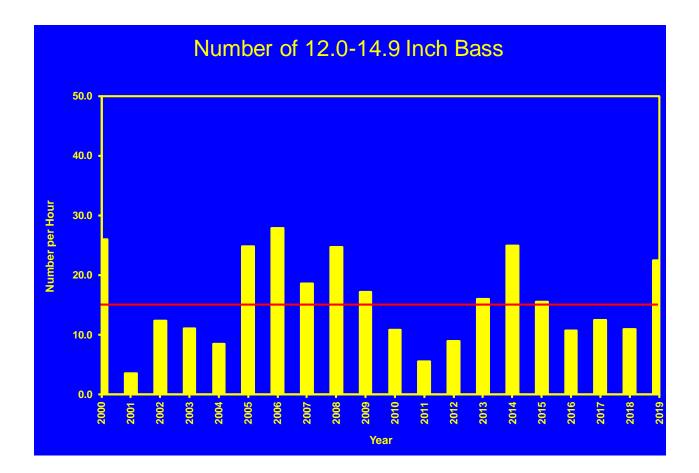
### Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the spring catch rates of age-1 largemouth bass to assess the success of the spawn that 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. Age-1 catch rate has averaged 52.3 fish per hour at Carr Creek Lake (red line). However, from 2007 to 2012 the age-1 catch rate averaged only 7.6 fish per hour, which is considered "poor." Recruitment is often a problem at Carr Creek Lake. Largemouth bass fingerlings have been stocked nearly every year since 1999 to increase numbers of bass in the lake. Since 2012, most all of these stockings were of advanced fingerlings stocked the following spring versus previous fall stockings. 2016 and 2017 were years of good natural recruitment which did not require additional stocking. During 2013, 2014, 2105 and 2018, the combined catch rate of wild and stocked age-1 largemouth bass averaged 103.0 fish per hour of electrofishing which is considered "excellent" compared to similar sized lakes. These higher catch rates were influenced by the early spring stockings.



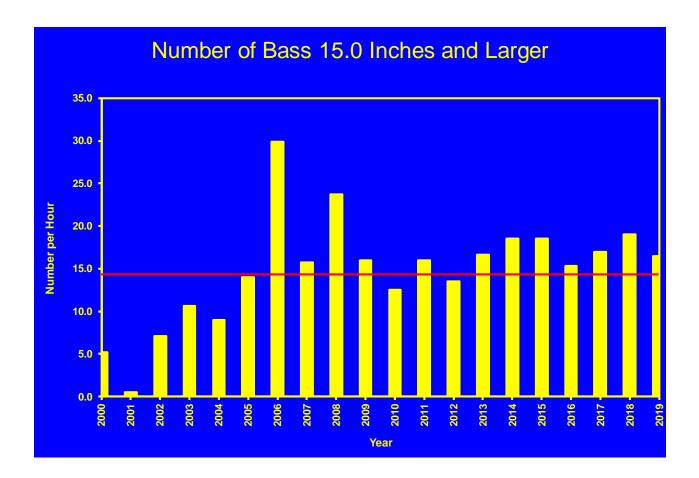
### Parameter 3 – Numbers of 12.0- to 14.9-inch bass

The electrofishing catch of 12.0- to 14.9-inch largemouth bass has averaged 15.7 fish per hour over the years as indicated by the red line. As compared to other lakes, this is a "fair" catch rate for this size group of bass. Since 2009, this size group has remained fairly stable with a few peaks and valleys largely due to supplemental stockings of the previous year classes. 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 of how bass fishing will be in years to come.



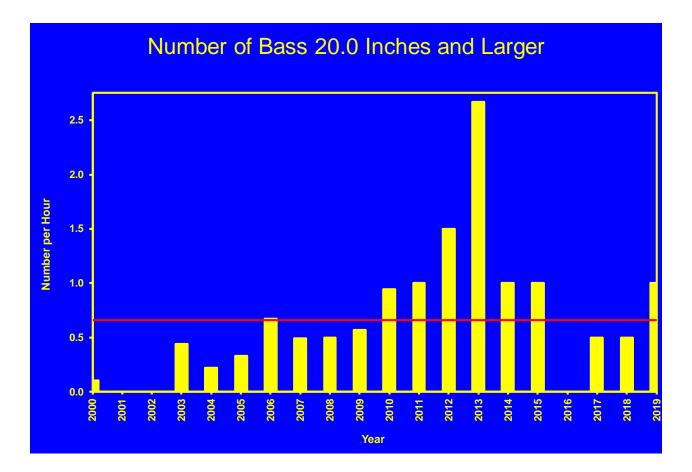
### Parameter 4 – Numbers of 15.0 inch and larger bass

This parameter generally reflects the number of legally harvestable fish in the population. The overall catch rate of 15.0 inch and larger largemouth bass at Carr Creek Lake has averaged 14.8 fish per hour of electrofishing (red line). As compared to other lakes, this is a "good" catch rate for this size group. These catch rates have been mostly above average and since 2011 and have remained very stable.



# Parameter 5 – Numbers of 20.0-inch and larger bass

The over-all catch rate of 20.0 inch and larger largemouth bass has averaged 0.7 fish per hour at Carr Creek Lake (red line). This number averaged over the past twenty years achieves a rating of "fair". These catch rates steadily increased between 2007-2013 but were followed by a decline for the next few years. Even though numbers of 20.0 inch and greater fish are low overall, growth rates at Carr Creek Lake continue to be very good. Fish achieve a larger size at a younger age and with increased recruitment, more of these fish should become available for anglers in the next few years.



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

Overall, the largemouth bass fishery at Carr Creek Lake has averaged a "good" rating. This assessment score has been fairly stable only fluctuating between fair to good over the past 20 years. Annually, the overall assessment score since 2013 has remained good for every year except 2016, yet components of the score remain highly variable. There are still above average numbers of fish 15.0 inches and larger in the lake and good numbers of smaller fish should help that trend continue. Natural recruitment continues to be a problem at Carr Creek Lake. Efforts at increasing year class strength with stocking fingerlings in the spring and implementation of a large-scale habitat improvement project in 2018 have helped to improve the assessment score. Continued work to aid recruitment of young fish to the population will likely continue to stabilize the population of largemouth bass as a whole. Supplemental stockings and the addition of crucial, winter habitat will continue to be used as needed to help accomplish this task.

