

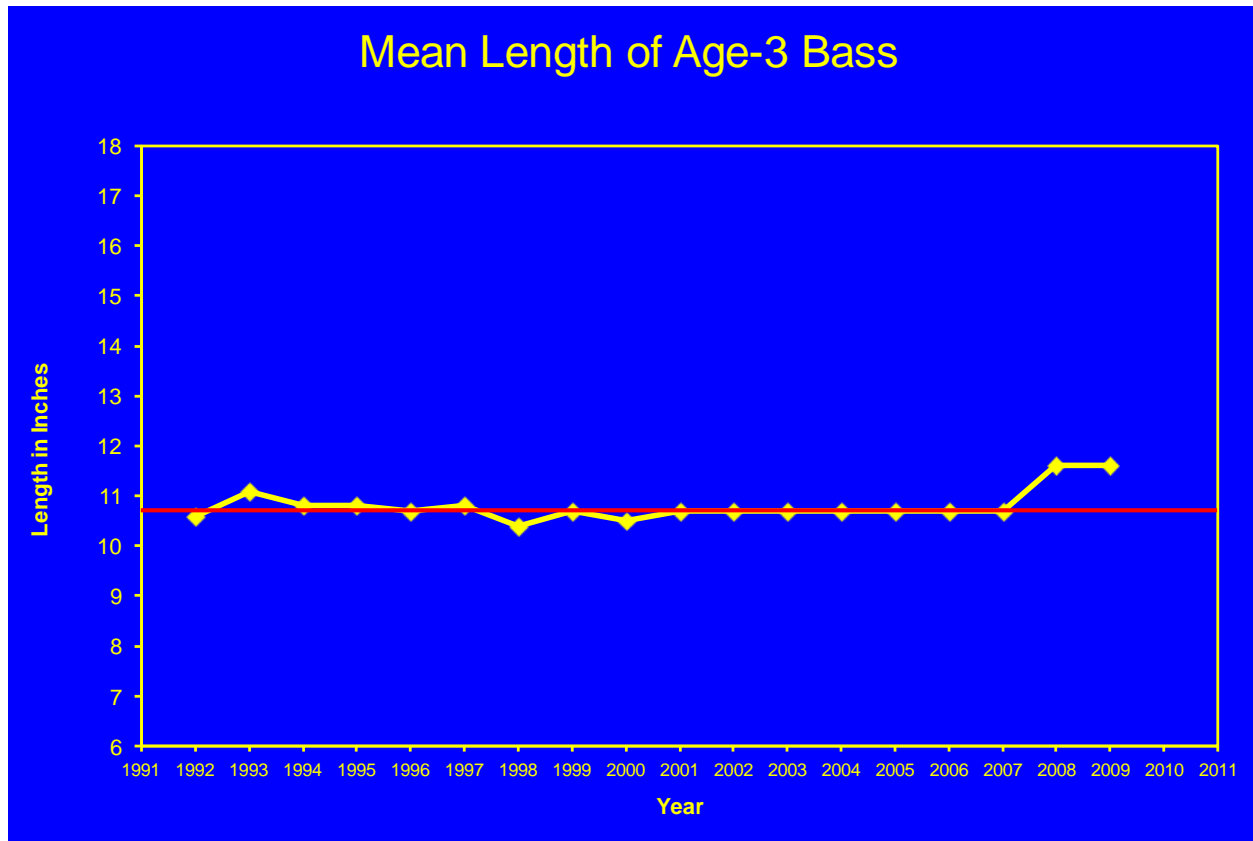
Grayson Lake Bass Assessment 2011

Grayson Lake is a 1,512-acre multipurpose reservoir on the Little Sandy River. This lake, located primarily in Carter County, is a clear, infertile reservoir that has developed into a popular fishing destination for largemouth bass. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see “Understanding the Largemouth Bass Assessment” article for an explanation of how the assessment works. During 2010, adverse water conditions made sampling unfeasible; therefore data is not presented for this year. *Please note that the minimum size limit for largemouth bass on this lake is 15.0 inches.*



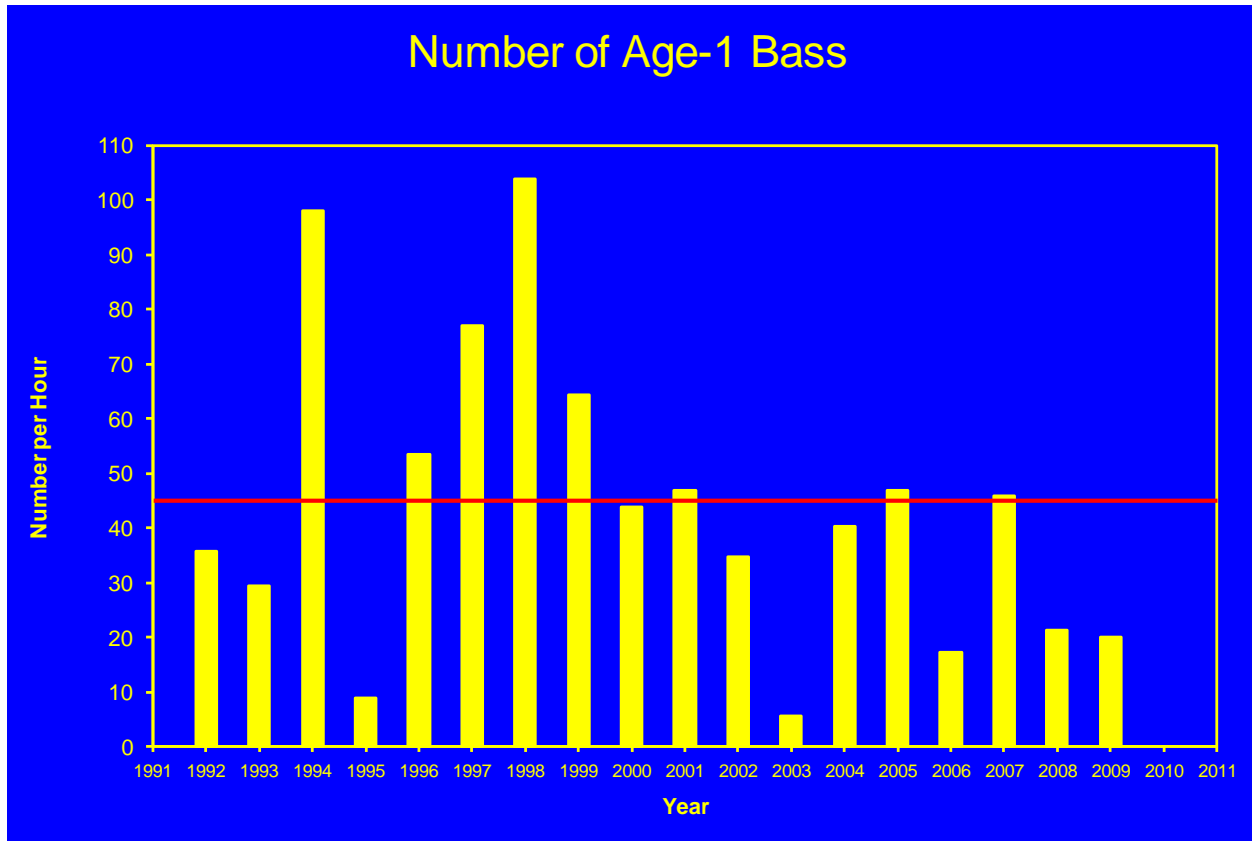
Parameter 1 – Length at age-3 (growth rate)

At Grayson Lake, the length of an age-3 largemouth bass has averaged 10.8 inches since 1992 (represented by the red line). When compared to other lakes of similar size, the growth rate for largemouth bass at Grayson Lake is considered poor. Over the past 10 years, growth rates have been relatively stable at the lake, rarely deviating from the 10.0–11.0 inch range. Growth rates are generally related to factors such as population density, food resources, and weather patterns. The last year that KDFWR aged largemouth bass at the lake was 2008, and the length of age-3 largemouth bass was above the 10-year average at 11.6 inches.



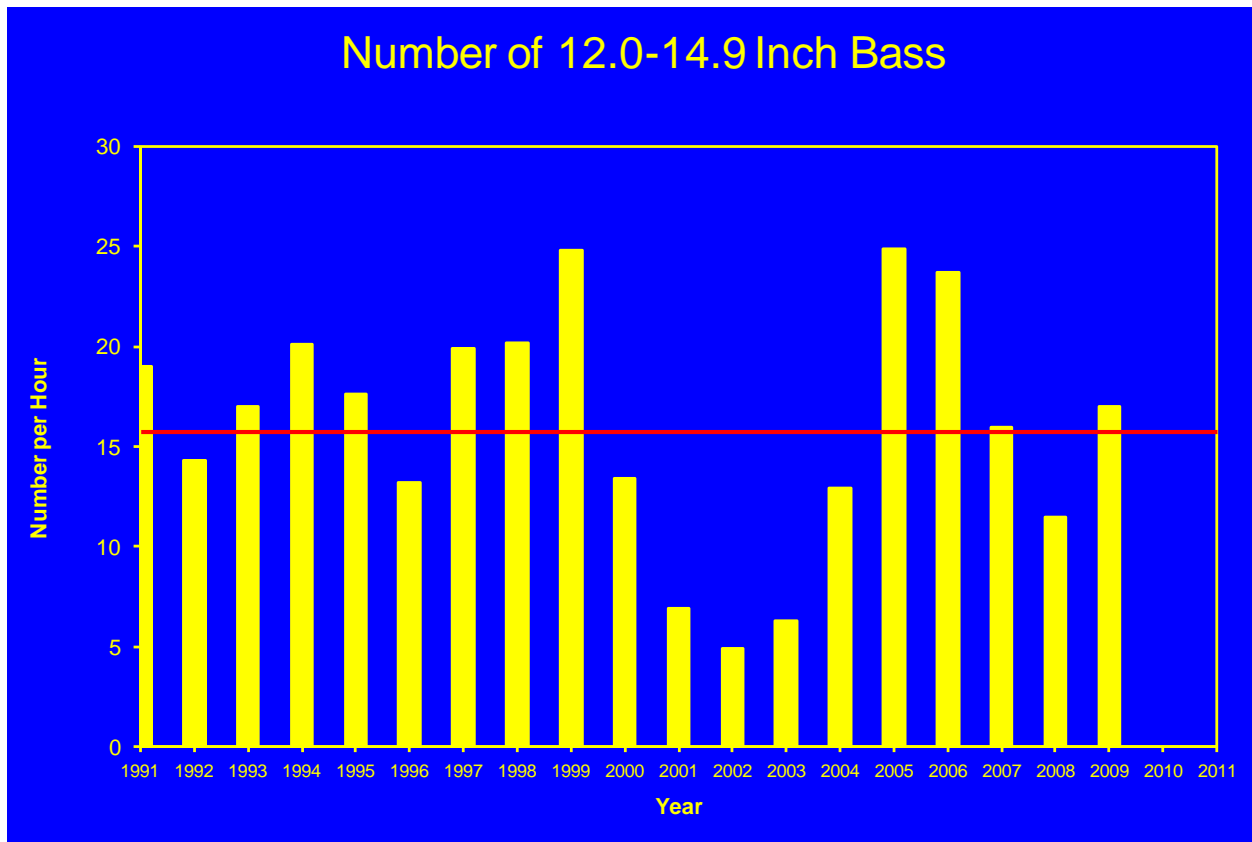
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the catch rate 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 Grayson Lake, age-1 largemouth bass catch rates have averaged just over 44.00 fish/hour of electrofishing. When compared to other lakes of similar size, this is considered to be a good age-1 catch rate. Although it is not presented in this graph, from 1998 to 2004, fingerling largemouth bass have been stocked to help supplement bass numbers in the lake. As a result of low catch rates during 2008 (21.30 fish/hour) and 2009 (19.93 fish/hour), 3,789 fingerlings were stocked in 2008 and 22,682 in 2009.



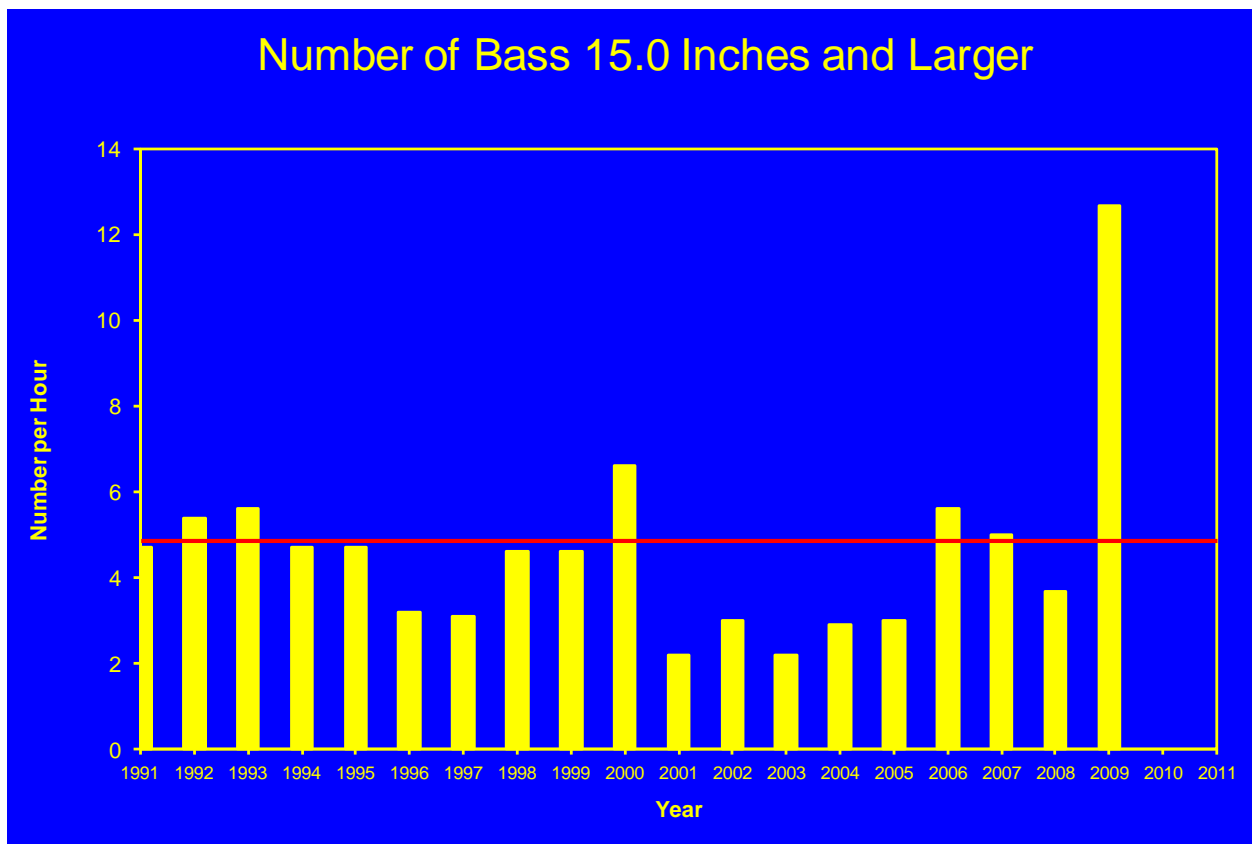
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged just over 15.50 fish/hour since 1986, which barely puts Grayson Lake into the fair rating when compared to other lakes of similar size. In 2009, the catch rate for this size range of bass was slightly above the 23 year average at 17.00 fish/hour of electrofishing and was at its highest level since 2006. This is important because these fish will hopefully grow to exceed the 15.0 inch legal size limit at the lake in the next couple years. A dip in the catch rate in 2008 is most likely due to a malfunctioning electrofishing boat.



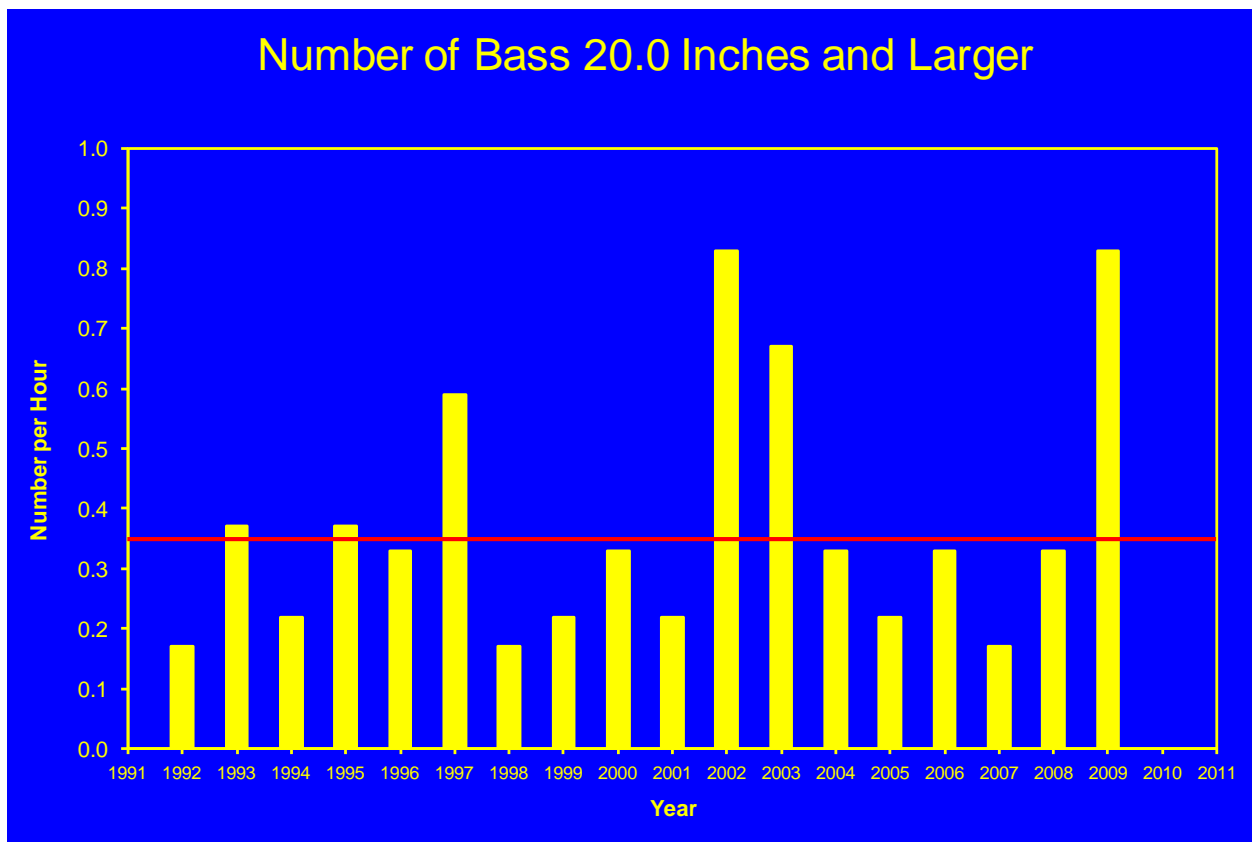
Parameter 4 – Numbers of 15.0 inch and larger bass

The electrofishing catch rate of 15.0 inch and larger largemouth bass has averaged just over 5.00 fish/hour over the past 10 years. This is fair when compared to other lakes of similar size. In 2009, biologists observed a catch rate of just under 13.00 fish/hour for largemouth bass which was substantially higher than any other year on record. The high catch rate seen in 2009 could be attributed to higher water levels experienced at the time of sampling which may have increased our ability to capture fish in association with flooded vegetation. Right now, fishing success for this size group of largemouth bass should remain as it has in the past.



Parameter 5 – Numbers of 20.0 inch and larger bass

The electrofishing catch rate of 20.0 inch and larger largemouth bass has averaged just below 0.40 fish/hour for Grayson Lake during the past decade. As compared to other lakes of similar size, this is a fair catch rate for this size group. In 2009, biologists observed a catch rate of just over 0.80 fish/hour for largemouth bass. This equaled the previous high catch rate recorded back in 2002. Higher water levels seen in 2002 and 2009 may have influenced these catch rates. Fishing for this size group of largemouth bass should be similar to or slightly better than what has been seen in the past.



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

Overall, when compared to other lakes in Kentucky, the largemouth bass fishery at Grayson Lake has rated fair over the past decade as indicated by the red line. The largemouth bass population at Grayson has been fairly consistent, dipping into the poor rating only a couple times in the last 10 years. In 2009, the overall assessment rating for the largemouth bass population at Grayson Lake landed in the upper-fair range with an assessment score of 10. The largemouth bass in this lake historically experience slow growth rates, which makes it difficult for fish to reach larger sizes.

