

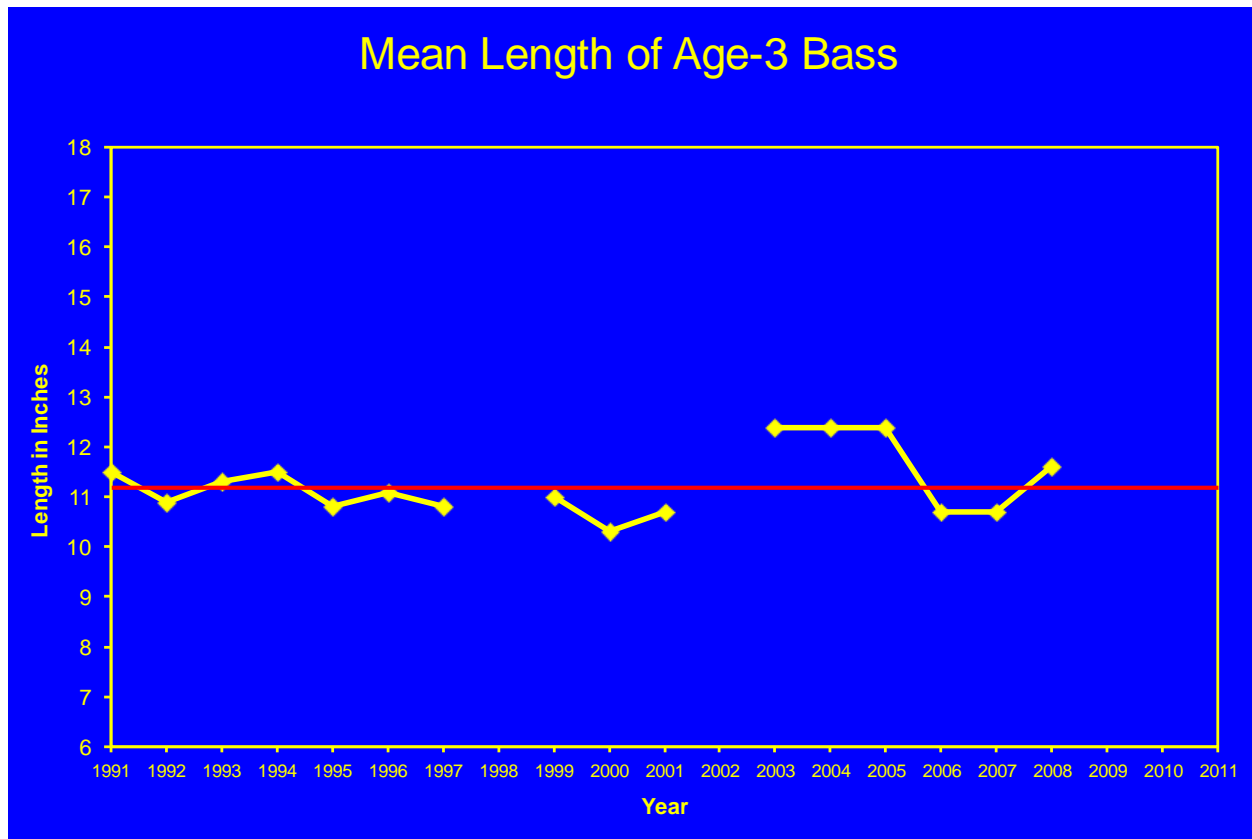
Cave Run Lake Bass Assessment 2011

Cave Run Lake is an 8,270 acre US Army Corps of Engineers reservoir on the mainstem Licking River located in Bath, Menifee, Morgan and Rowan counties and is mostly surrounded by the Daniel Boone National Forest. Impounded in the early 70's, this lake is a popular destination for those anglers fishing for largemouth bass, muskie, crappie, bluegill, white bass, channel and flathead catfish. 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. *Please note there is a 13.0-16.0 inch protective slot limit on largemouth bass which has been in effect since 1996.* In 1998, 2002, 2009, and 2010 adverse water conditions made sampling unfeasible; therefore data is not presented for those years.



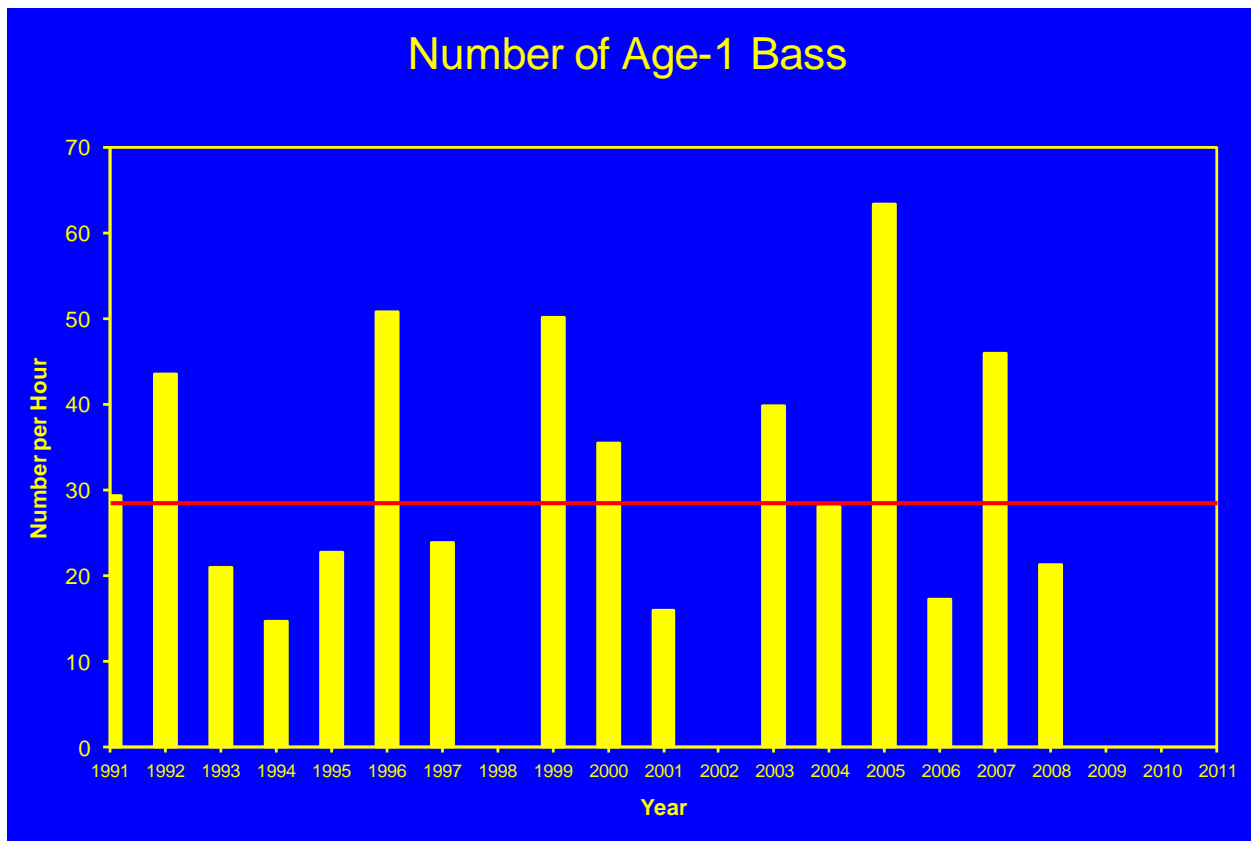
Parameter 1 – Length at age-3 (growth rate)

At Cave Run Lake, the length of an age-3 largemouth bass has averaged 11.1 inches since 1986 (represented by the red line). When compared to other lakes of this size, this is considered to be fair growth for largemouth bass. Over the last 5 years the growth rate (12.4 inches) dipped briefly below the 20 year average but in 2008 increased back above this average. 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.



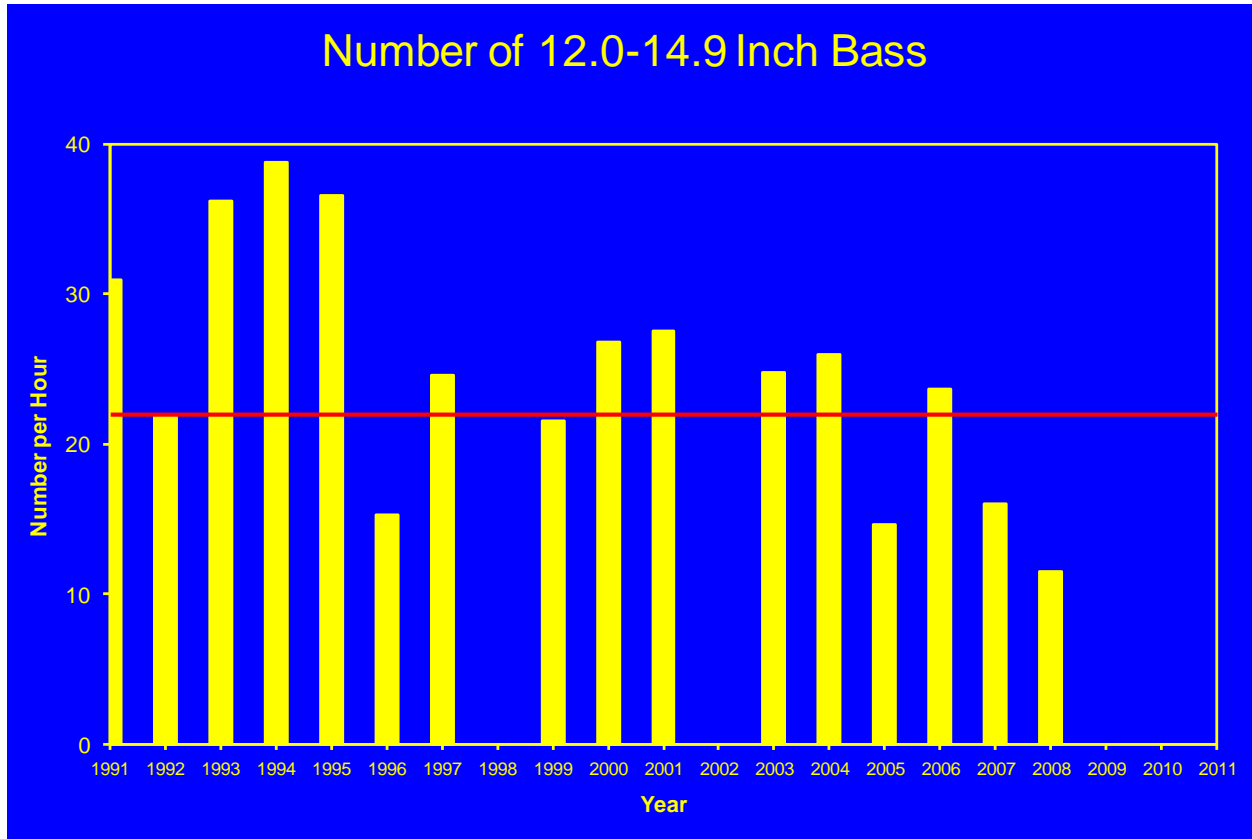
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the electrofishing 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 Cave Run Lake, age-1 largemouth bass catch rates have averaged 28.1 fish per hour of electrofishing. When compared to other lakes of similar size, this is considered to be a fair age-1 catch rate. In 2004 and 2005, this catch rate was above or right at the 20 year average, but has since fluctuated above and below average. This indicates relatively variable recruitment, but in years of low recruitment, KDFWR stocks fingerling largemouth bass to make up for any possible shortcomings. For example, in 2005, fingerling largemouth bass were stocked to supplement a poor spawn in 2004.



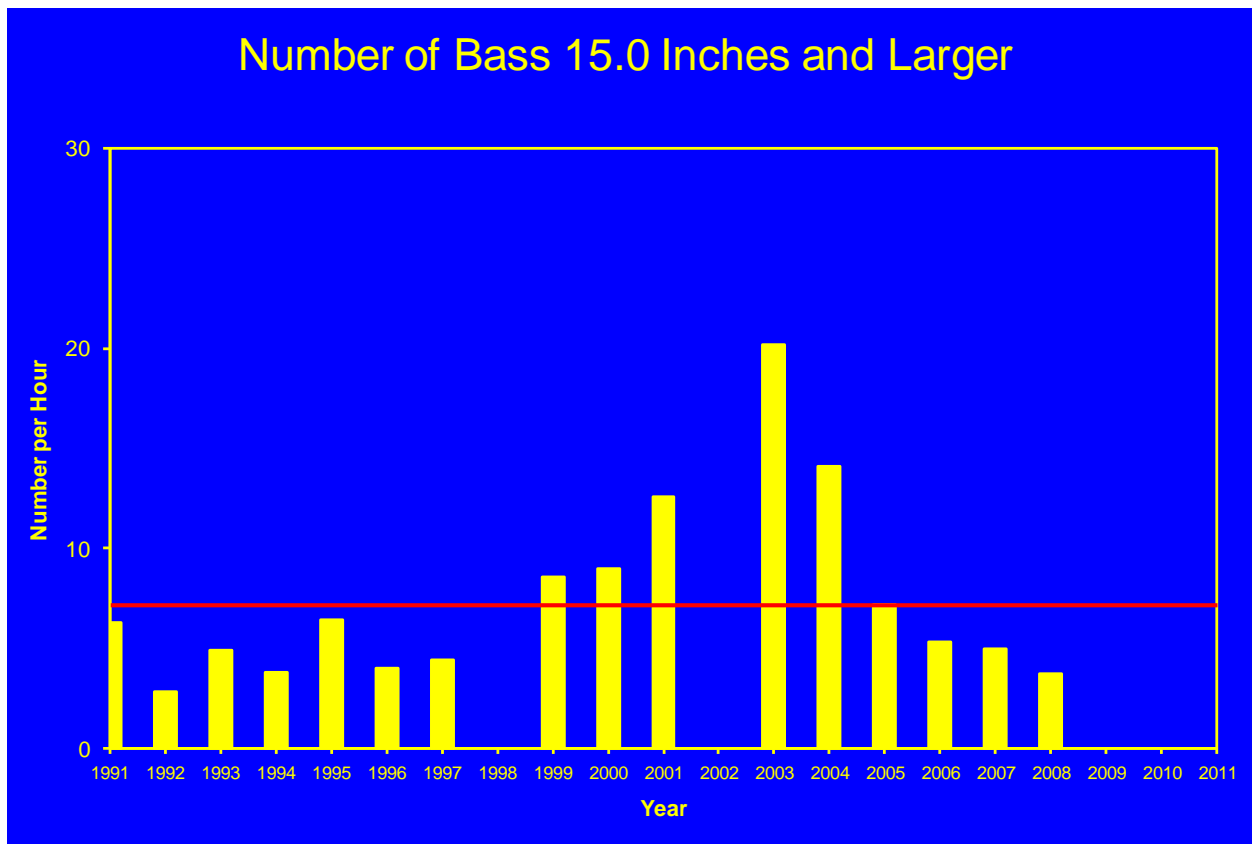
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch rate of 12.0-14.9 inch largemouth bass has averaged just under 22.0 fish/hour over the years, which gives Cave Run Lake a fair rating when compared to other lakes of similar size. Catch rates for this category can be deceiving when compared to lakes which have a 15.0-inch minimum size limit. The slot limit on Cave Run Lake allows some fish in this category, from 12.0-12.9 inches, to be harvested. Biologists monitor the catch rates of fish below the slot limit to determine if potential over-harvest may be occurring.



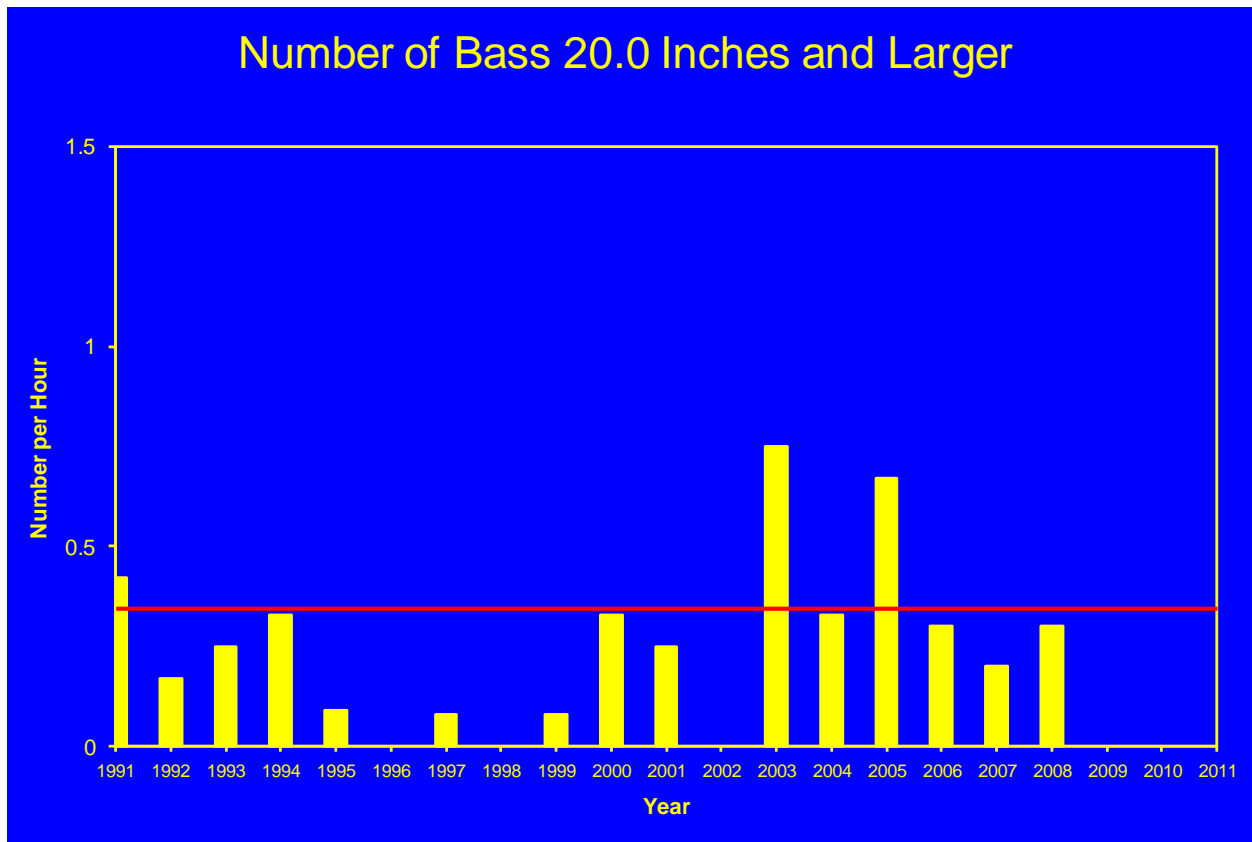
Parameter 4 – Numbers of 15.0 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Cave Run has averaged just over 7.0 fish/hour of electrofishing. When compared to other lakes of similar size, this is a fair catch rate for this size category. Catch rates since 2003 have been on the decline and since 2005 have been below the historical mean for Cave Run Lake. Although sampling has shown a decline for this size range it is noteworthy that tournament angler success has been reported to be on the increase.



Parameter 5 – Numbers of 20.0-inch and larger bass

The electrofishing catch rate of 20.0 inch and larger largemouth bass has averaged 0.35 fish/hour for Cave Run Lake since 1986. This catch rate gives the lake a fair rating when compared to other lakes of similar size. Catch rates for this size group have remained relatively constant over a 20 year period with the exception of two higher years in 2003 and 2005. The opportunity to catch an occasional trophy size largemouth bass should remain the same as it has in the past.



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

Overall, the largemouth bass fishery at Cave Run Lake has averaged a fair rating of 10.0 over the past years when compared to other lakes of similar size. The largemouth bass population has only been assessed as good during five of the twenty years the population has been assessed, however four out of the five years occurred after the inception of the 13.0-16.0 inch protective slot limit. Since 2003, the overall assessment of the largemouth bass fishery at Cave Run has been declining. The “poor” rating in 2008 can be somewhat misleading because of problems associated with our electrofishing boat. There currently is no alarm concerning the largemouth bass fishery at Cave Run, but 2011 will be watched closely to see if there are continued declines.

