

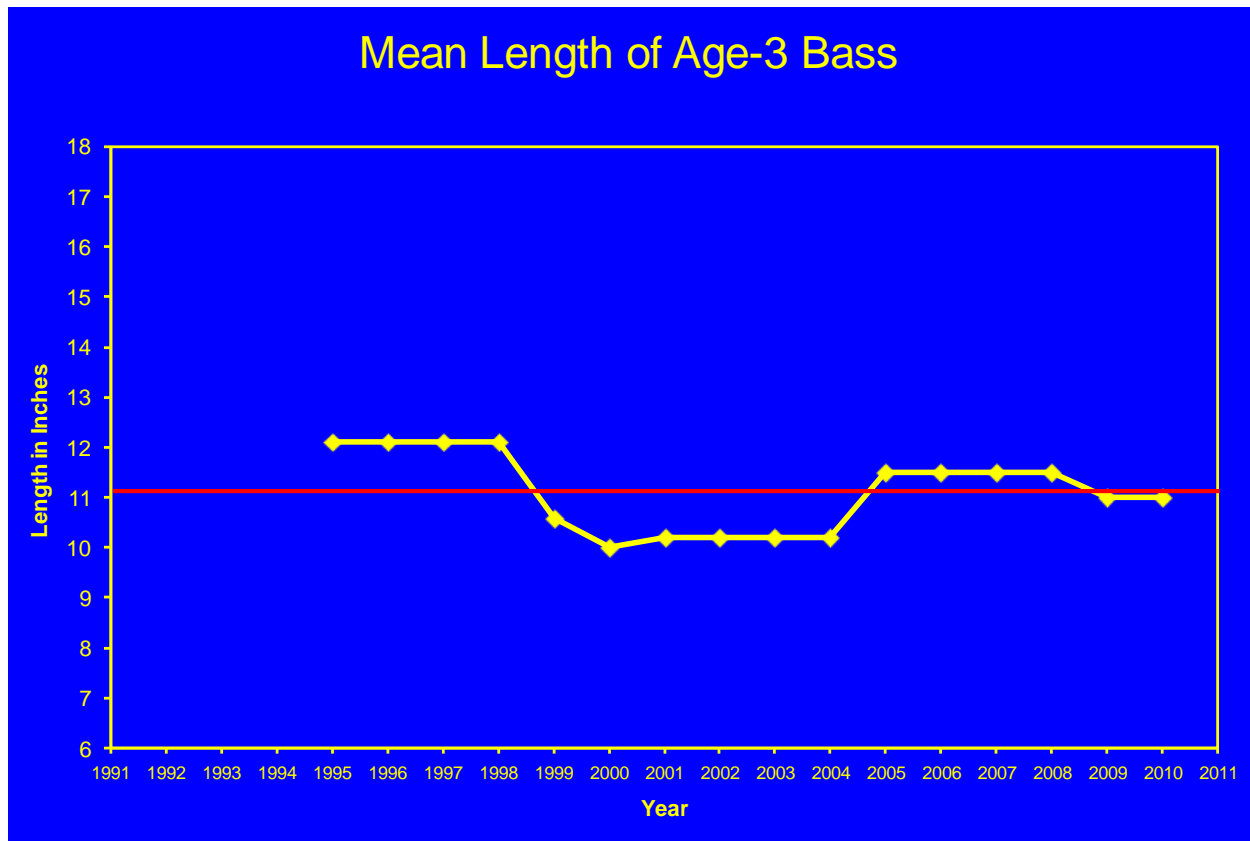
## Guist Creek Lake Bass Assessment 2011

Guist Creek Lake is a 317-acre reservoir owned by the Kentucky Department of Fish and Wildlife Resources and was impounded in the early 1960's. The lake has a very popular bass fishery due to its close proximity to Louisville. Past creel surveys have shown heavy fishing pressure for largemouth bass at Guist Creek Lake. 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.



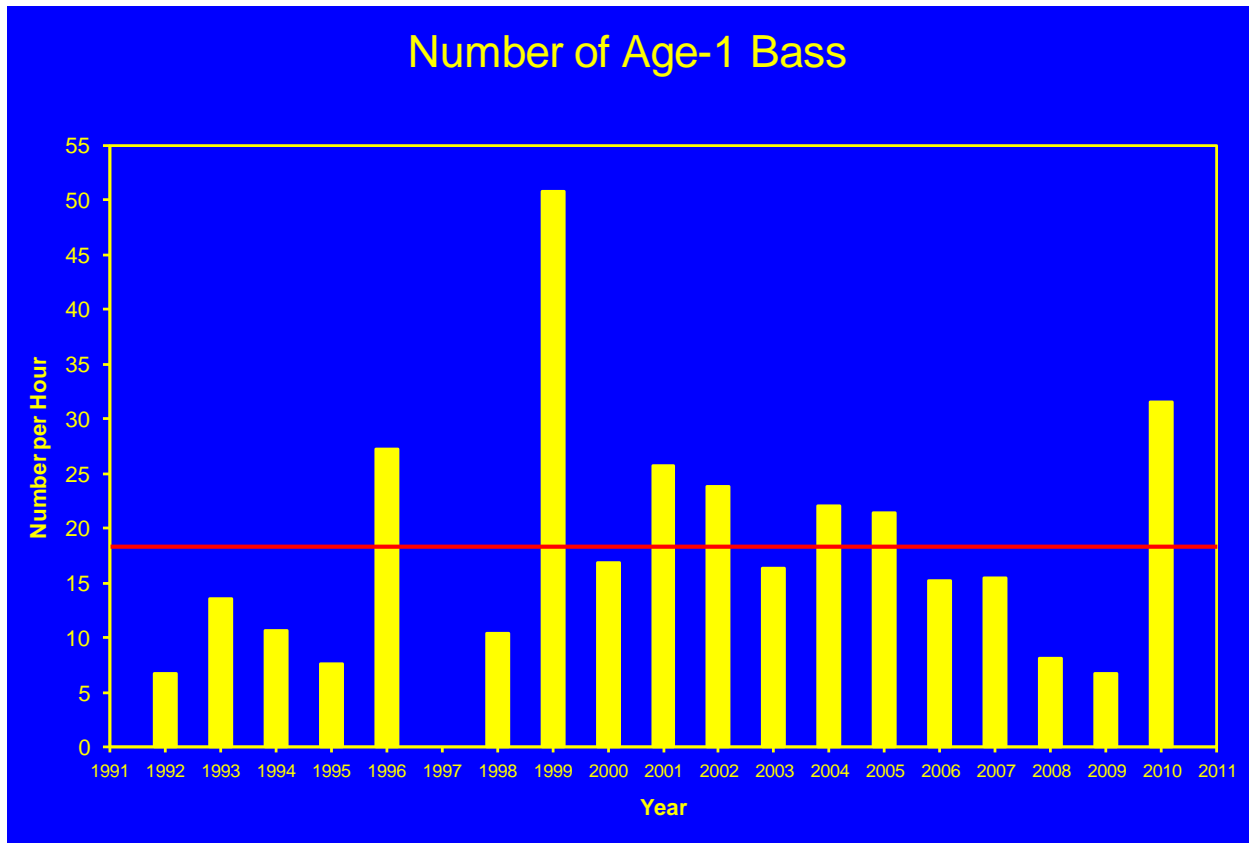
## Parameter 1 – Length at age-3 (growth rate)

At Guist Creek Lake, the length of an age-3 largemouth bass has averaged slightly above 11.0 inches since 1995 and is represented by the red line. Compared to other reservoirs of a similar size, on average, largemouth bass generally exhibit fair growth at Guist Creek Lake, even though the growth rate in any given year may range from poor to excellent. Growth rate can be variable and is generally related to factors such as population dynamics, food resources, and weather patterns. The last year that KDFWR aged largemouth bass at the lake was 2009. Growth during 2009 was ranked as being good. KDFWR biologists are planning to re-evaluate the growth rates of largemouth bass at Guist Creek Lake during their 2013 spring sampling.



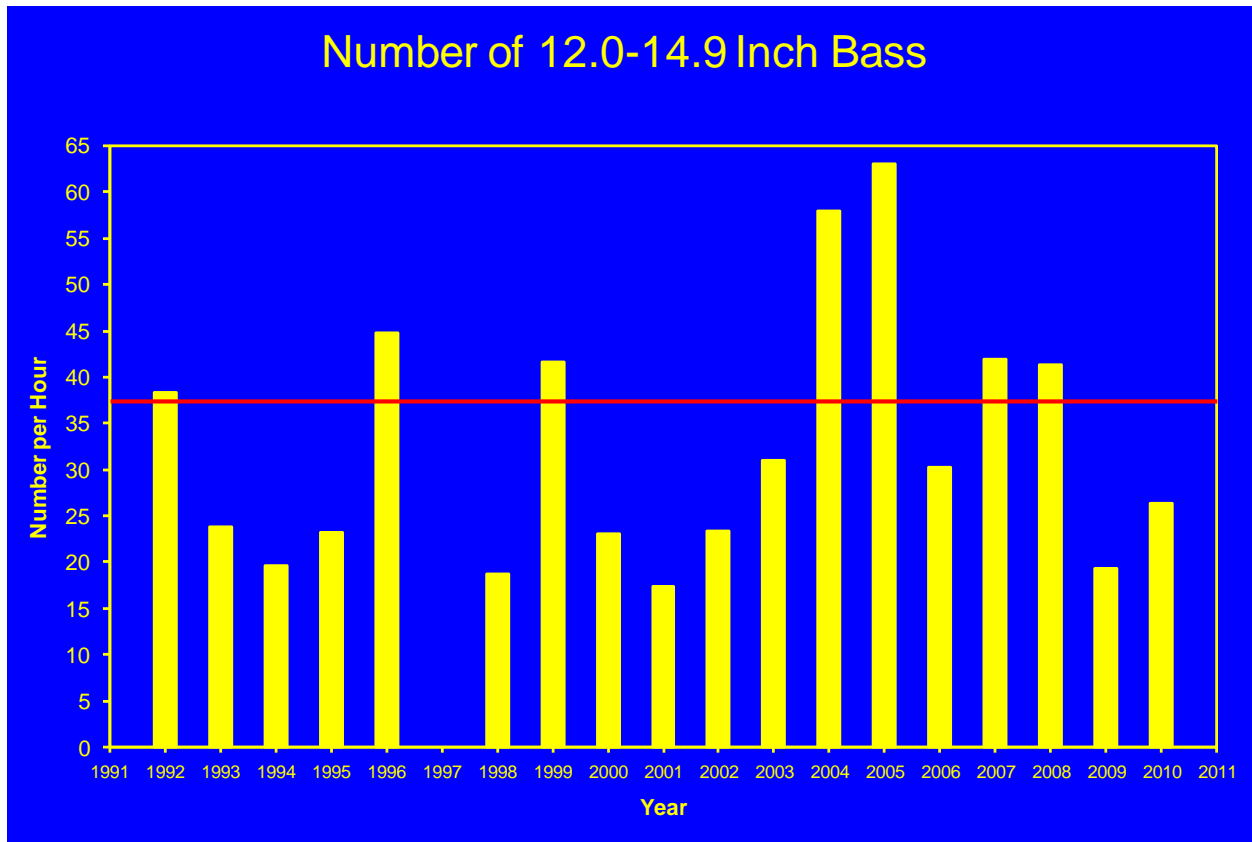
## Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the 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 Guist Creek, age-1 largemouth bass catch rates have averaged less than 20.00 bass/hr of electrofishing since 1992 as indicated by the red line. Overall, Guist Creek Lake is ranked as being fair compared to other lakes of a similar size. The recruitment has been somewhat stable since the turn of the century but the department began buffering the poor reproduction by supplemental stocking of largemouth bass. KDFWR stocked 4.0-5.0 inch largemouth bass most recently in 2009 and 2010. The reproduction had been below average since 2006, but jumped in 2010 to levels not seen since 1999.



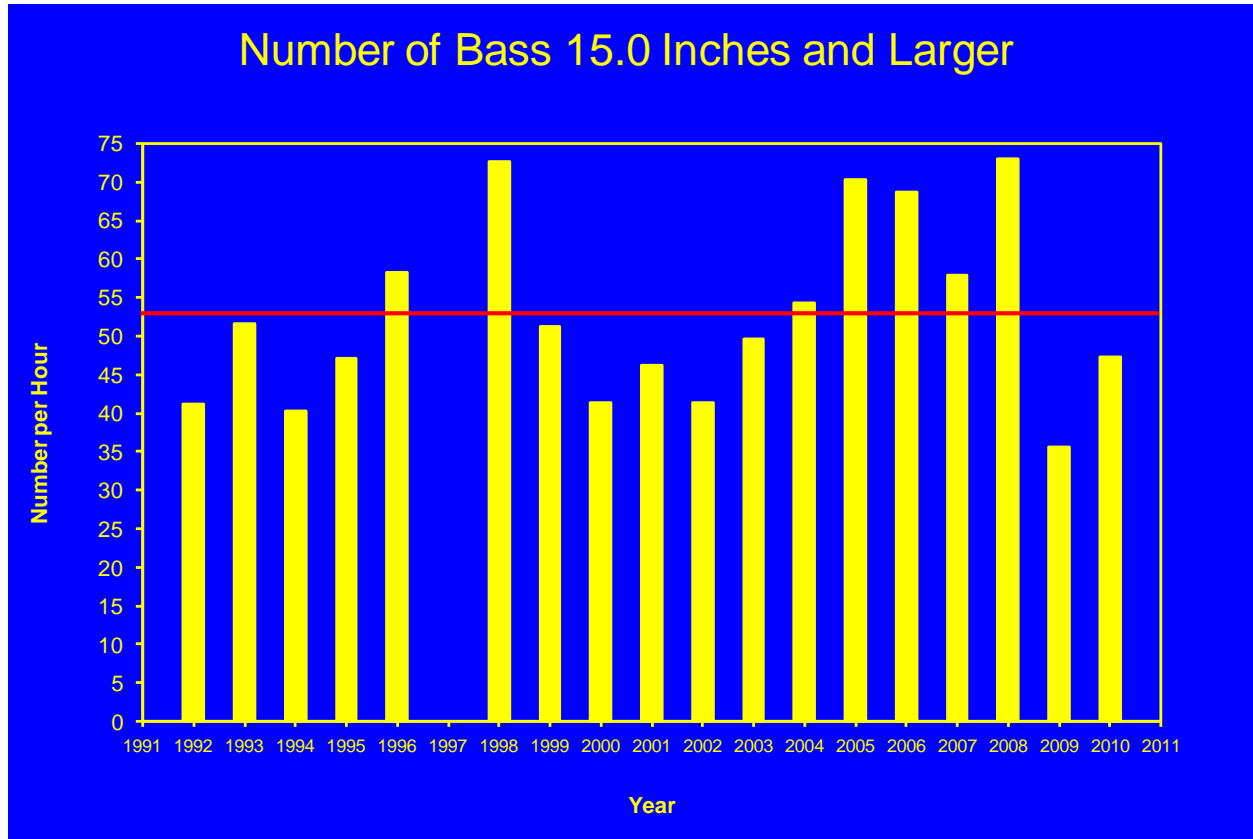
### Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged over 30.00 fish/hr, as indicated by the red line. As compared to other lakes, this is a fair catch rate for this size group of bass. Catch rates of 12.0-14.9 inch largemouth bass had fallen to historically low levels in 2009 due to reduced spring reproduction, but 2010 numbers increased. Biologists anticipate future increases in this parameter with the supplemental stocking of largemouth bass.



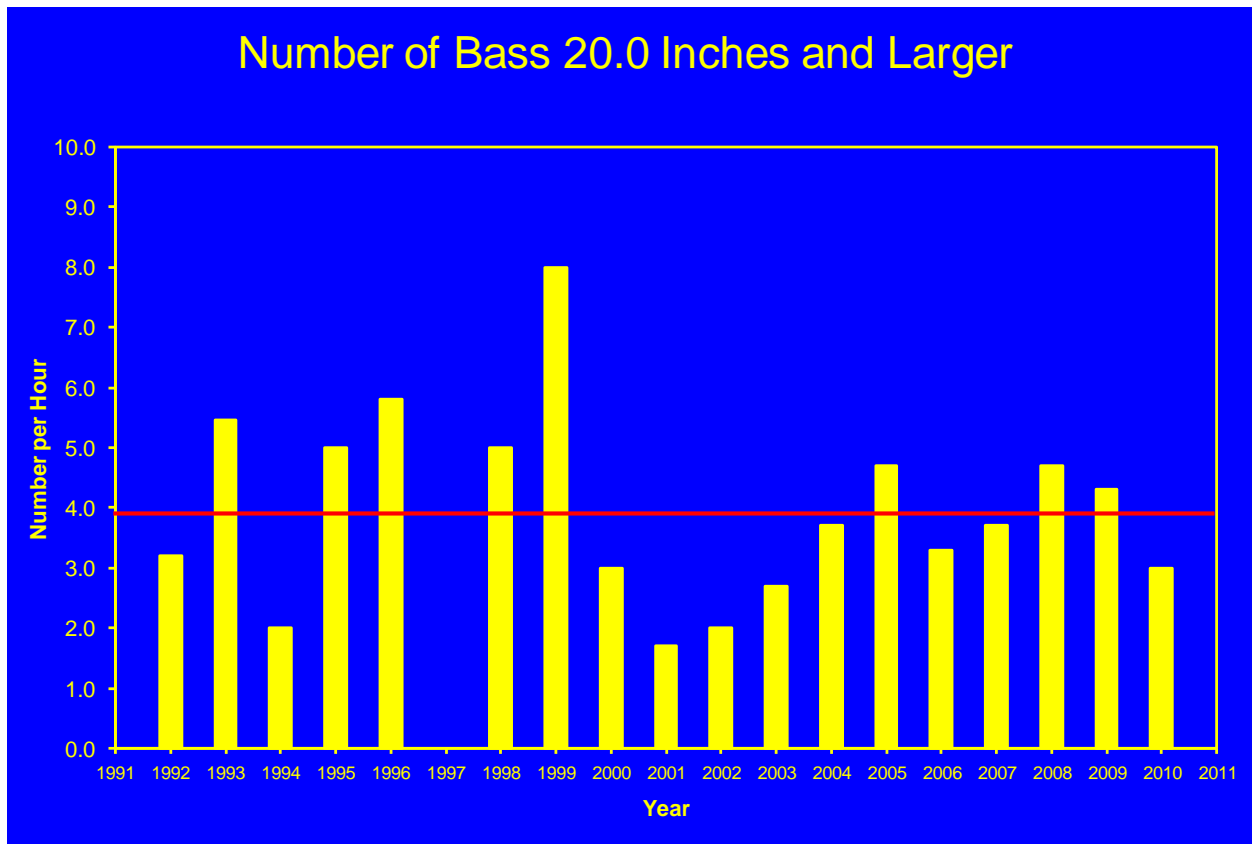
## Parameter 4 – Numbers of 15.0 inch and larger bass

Electrofishing catch of 15.0 inch and larger largemouth bass has averaged over 50.00 fish/hr, as indicated by the red line. Again, as compared to other lakes, this is an excellent catch rate for this size group. In 2009, biologists observed a historically low catch rate of largemouth bass in this size group. This is expected to rebound over subsequent years as it did in 2010 and is likely stay in the excellent category.



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

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged about 4.00 fish/hr since 1992 as indicated by the red line. As compared to other lakes, this is an excellent catch rate for this size group. The catch rates of 20.0 inch and larger bass declined after the turn of the century, but numbers have made a gradual improvement over the past several years. These numbers are expected to remain the same or gradually improve over the next few years.



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

In 2010, the overall assessment rating for the largemouth bass population at Guist Creek Lake was good. Overall, the largemouth bass fishery at Guist Creek Lake has remained stable and rated good since 1992 as indicated by the red line. The future of the largemouth bass fishery at Guist Creek Lake looks very promising based on this assessment.

