

Guist Creek Lake Bass Assessment 2019

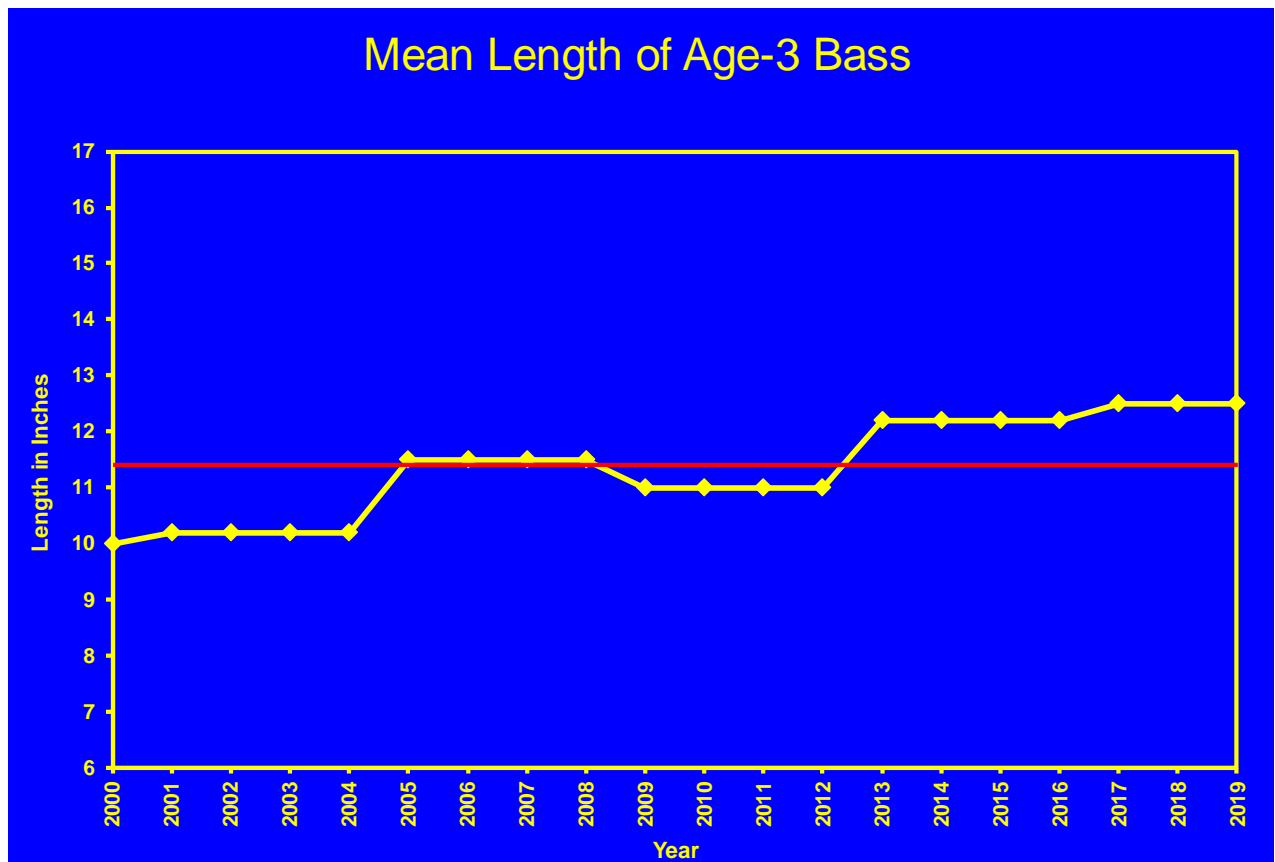
Guist Creek Lake is a 317-acre reservoir owned by the Kentucky Department of Fish and Wildlife Resources and was impounded in the early 1960's. The lake has a very popular bass fishery due to its close proximity to Louisville. Past creel surveys have shown heavy fishing pressure for largemouth bass at Guist Creek Lake. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Guist Creek Lake assessments range over a period of twenty years.

Please see the [Sportfish Assessments](#) page for an explanation of how the assessment works and for a list of other lakes with largemouth bass assessments.



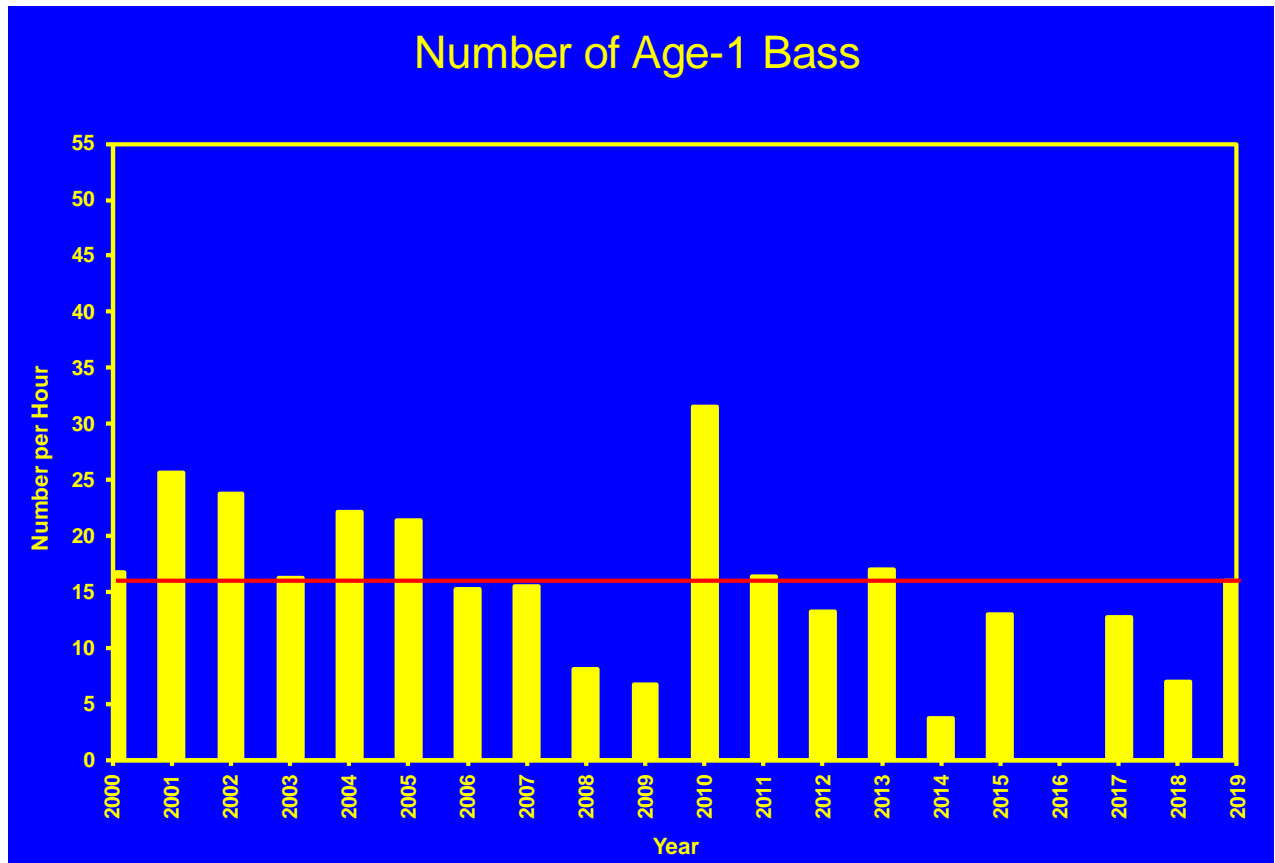
Parameter 1 – Length at age-3 (growth rate)

At Guist Creek Lake, the length of an age-3 largemouth bass has averaged slightly above 11.0 inches (1992-present) and is represented by the red line. Compared to other reservoirs of a similar size, on average, largemouth bass generally exhibit good 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 2017. Growth during 2017 was ranked as being excellent. KDFWR biologists are planning to re-evaluate the growth rates of largemouth bass at Guist Creek Lake during 2022 fall sampling.



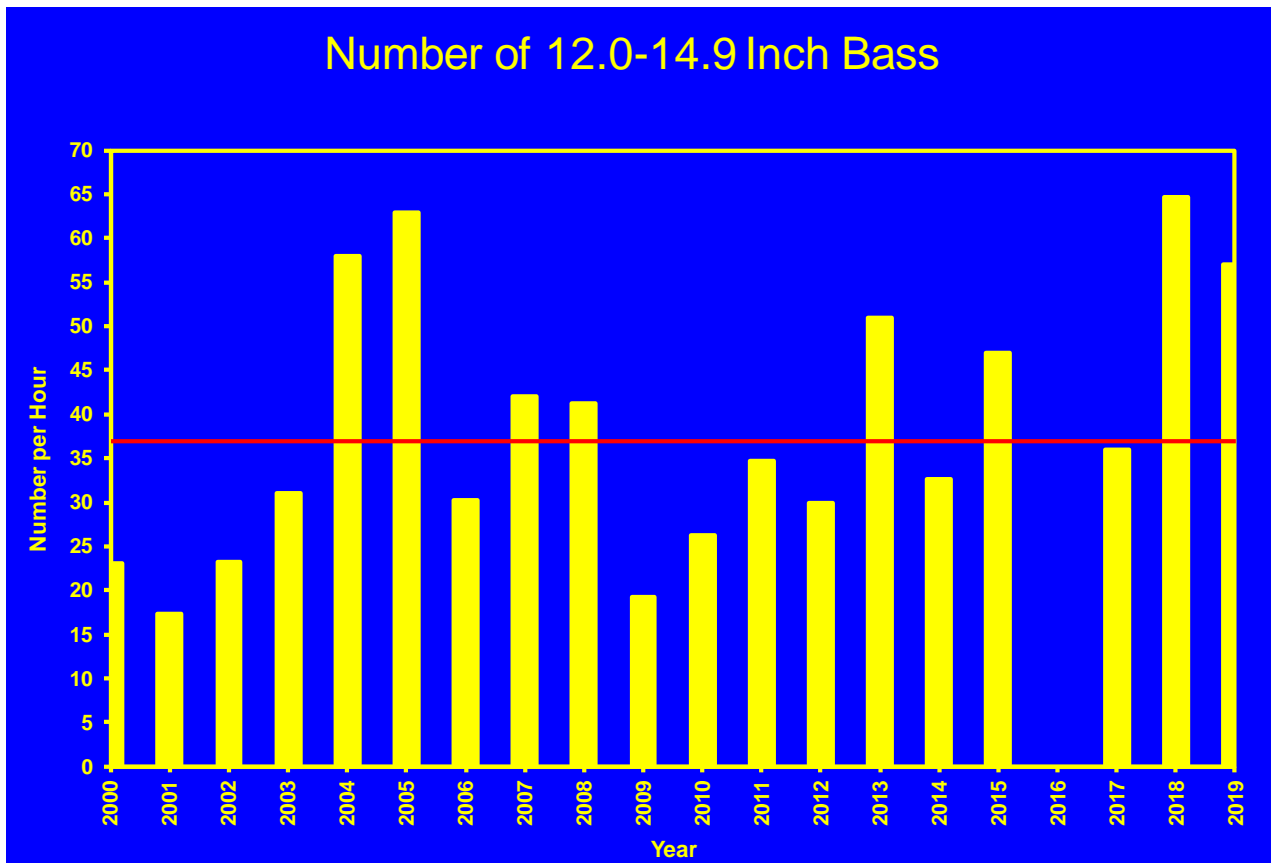
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

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 the future of bass fishing on the lake once these fish grow large enough for anglers to catch. At Guist Creek, age-1 largemouth bass catch rates have averaged less than 20.0 bass/hr of electrofishing (1992-present), 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 2000 but the department began buffering the poor reproduction by supplemental stocking of largemouth bass. Numbers of age-1 bass decreased in 2014, but returned to the lake average in 2019.



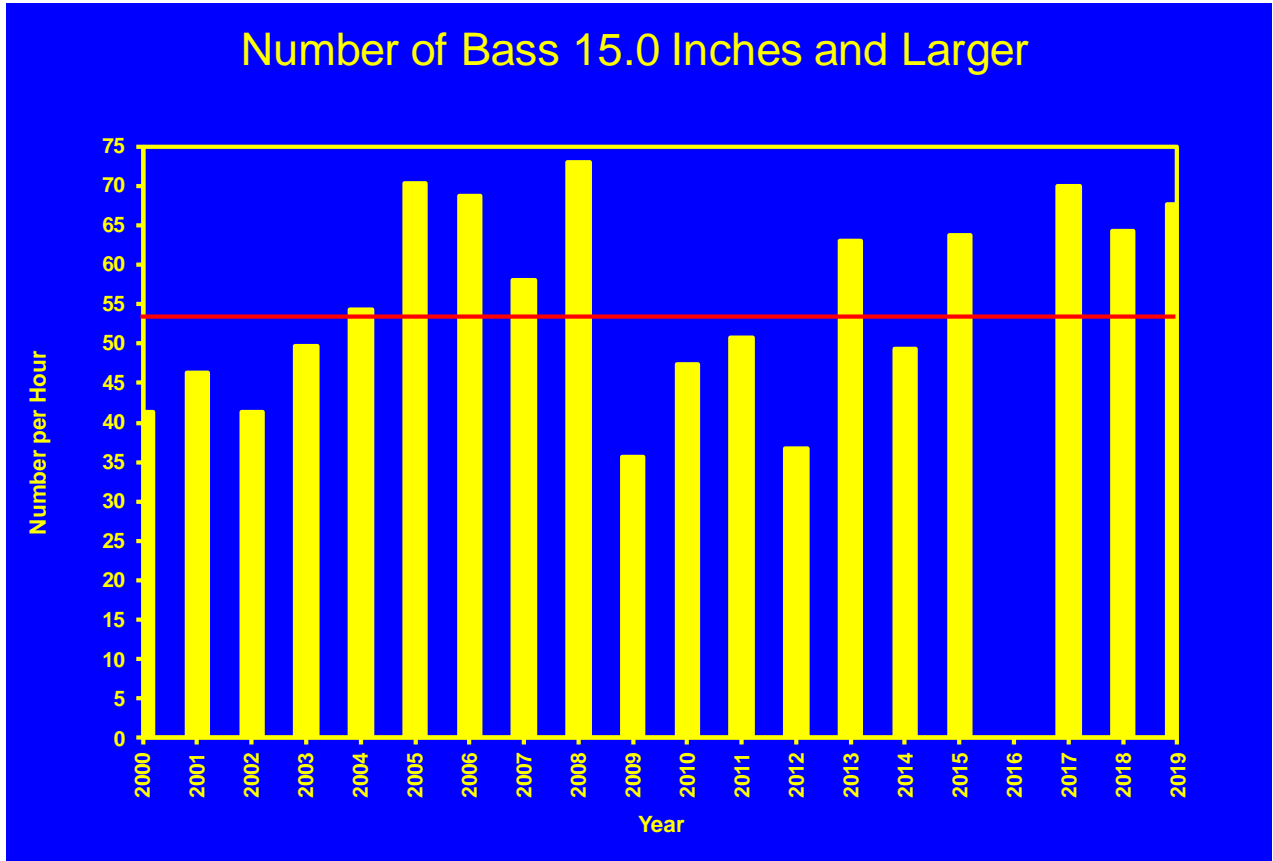
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0- to 14.9-inch largemouth bass has averaged almost 36.1 bass/hr (1992-present), 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- to 14.9-inch largemouth bass had fallen to low levels in 2009 due to reduced spring reproduction, but numbers have rebounded. Numbers in 2019 were higher than average and should translate into many quality bass at Guist Creek Lake in the future.



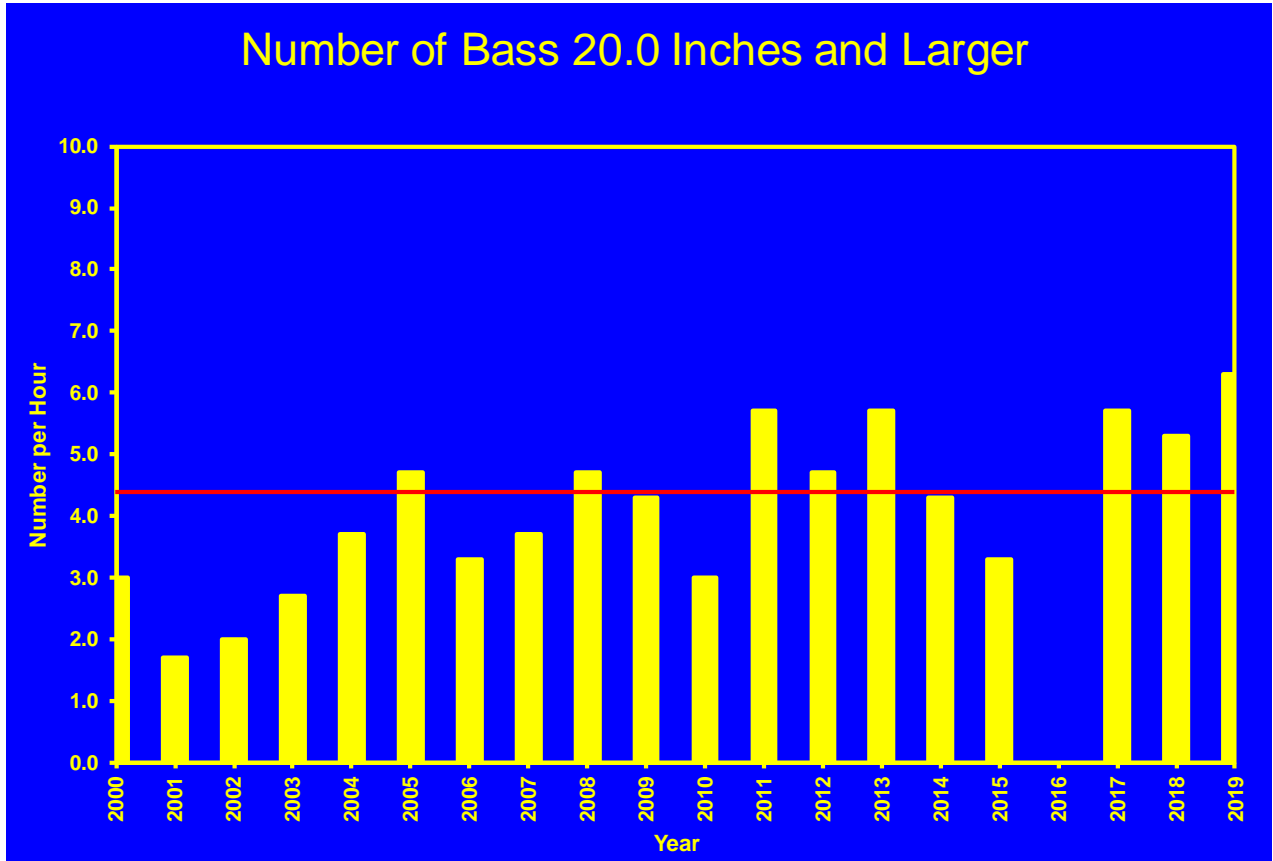
Parameter 4 – Numbers of 15.0 inch and larger bass

Electrofishing catch of 15.0-inch and larger largemouth bass has averaged over 50.0 bass/hr (1992-present), as indicated by the red line. As compared to other lakes, this is an excellent catch rate for this size group. Since 2009, biologists observed an increasing trend in the numbers of 15.0-inch and larger largemouth bass. Numbers since 2013 have been above average.



Parameter 5 – Numbers of 20.0 inch and larger bass

The electrofishing catch of 20.0-inch and larger largemouth bass has averaged 4.3 fish/hr (1992-present), as indicated by the red line. As compared to other lakes, this is an excellent catch rate for this size group. The catch rate of 20.0-inch and larger bass remains stable and has improved 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 2019, the overall assessment rating for the largemouth bass population at Guist Creek Lake was “Excellent”. 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.

