

Guist Creek Lake Bass Assessment 2023

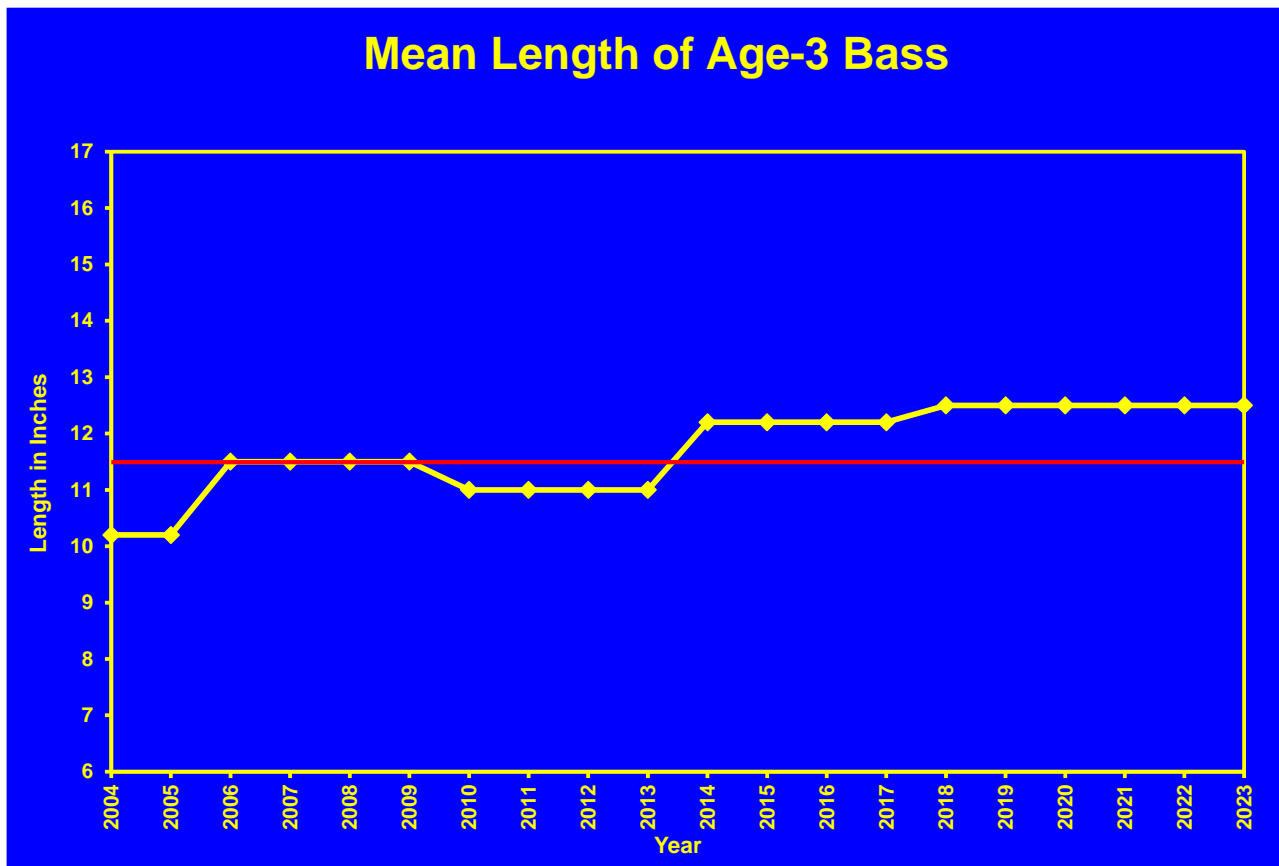
Guist Creek Lake is a 317-acre reservoir owned by the Kentucky Department of Fish and Wildlife Resources and impounded in the early 1960's. The lake has a very popular bass fishery due to its close proximity to Louisville. Past creel surveys have shown heavy fishing pressure for Largemouth Bass at Guist Creek Lake. The following graphs show trends and rankings for each of the five population parameters used in the Largemouth Bass assessment. No sampling was completed in 2016 or 2020.

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.



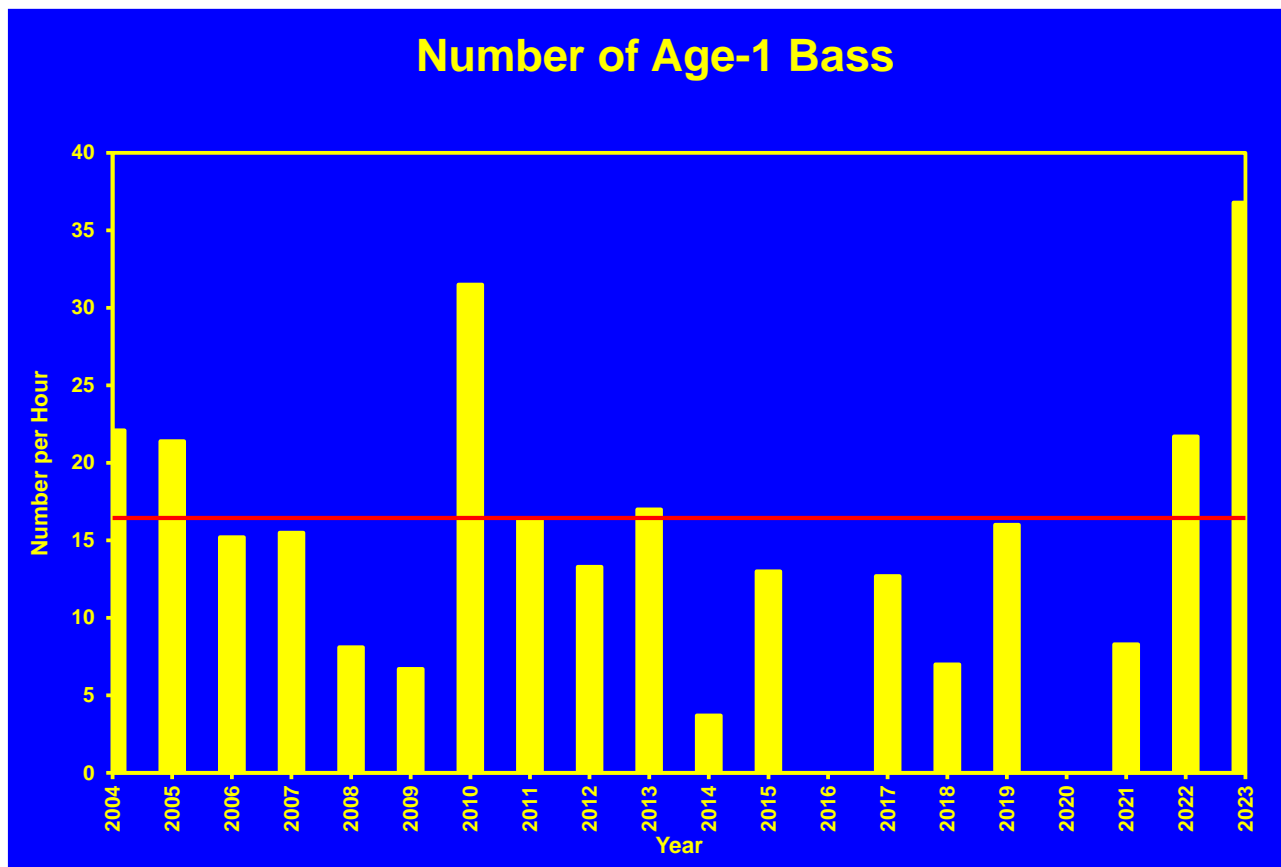
Parameter 1 – Length at age-3 (growth rate)

At Guist Creek Lake, the length of an age-3 Largemouth Bass has averaged 11.6 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 2024 sampling efforts.



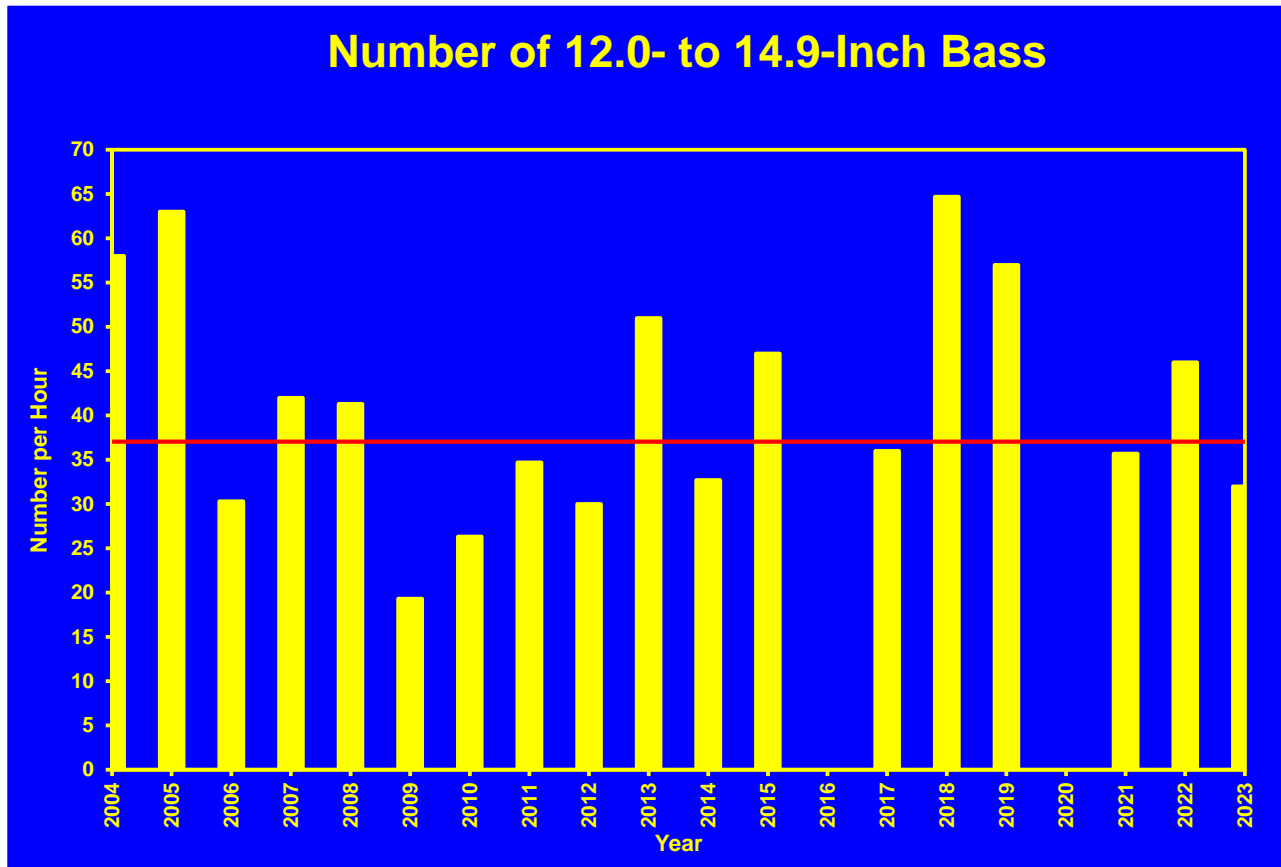
Parameter 2 – Number of age-1 bass (how good the spawn was)

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 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 17.1 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 below average from 2014-2021, but the department buffers poor reproduction with the supplemental stocking of Largemouth Bass. Numbers of age-1 bass in 2022 and 2023, were higher than the lake average, which should indicate improving numbers of catchable size fish in the upcoming years.



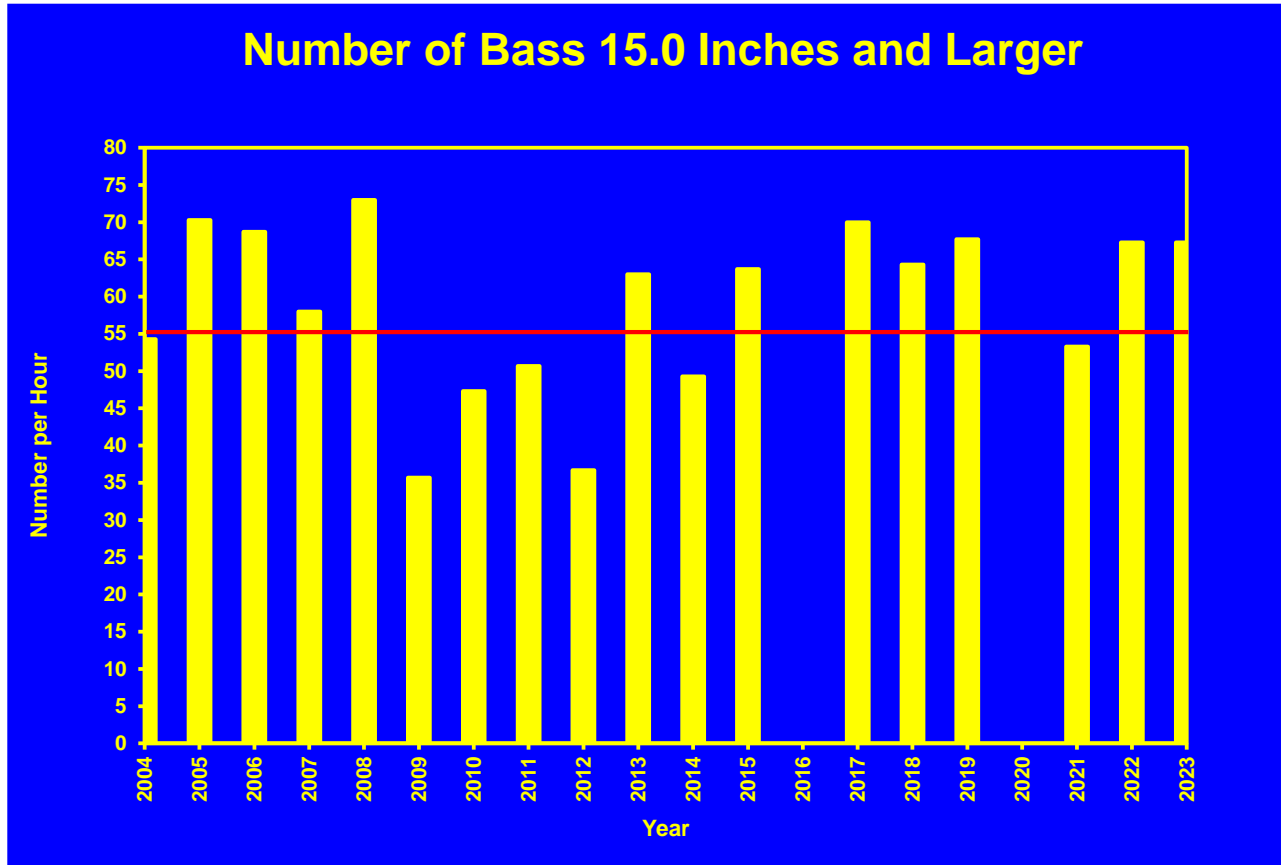
Parameter 3 – Number of 12.0- to 14.9-inch bass

The electrofishing catch of 12.0- to 14.9-inch Largemouth Bass has averaged 36.3 bass/hr (1992-present) as indicated by the red line. As compared to other lakes, this is a good 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 2023 were lower than average, but are expected to increase with above-average spawns in 2021 and 2022.



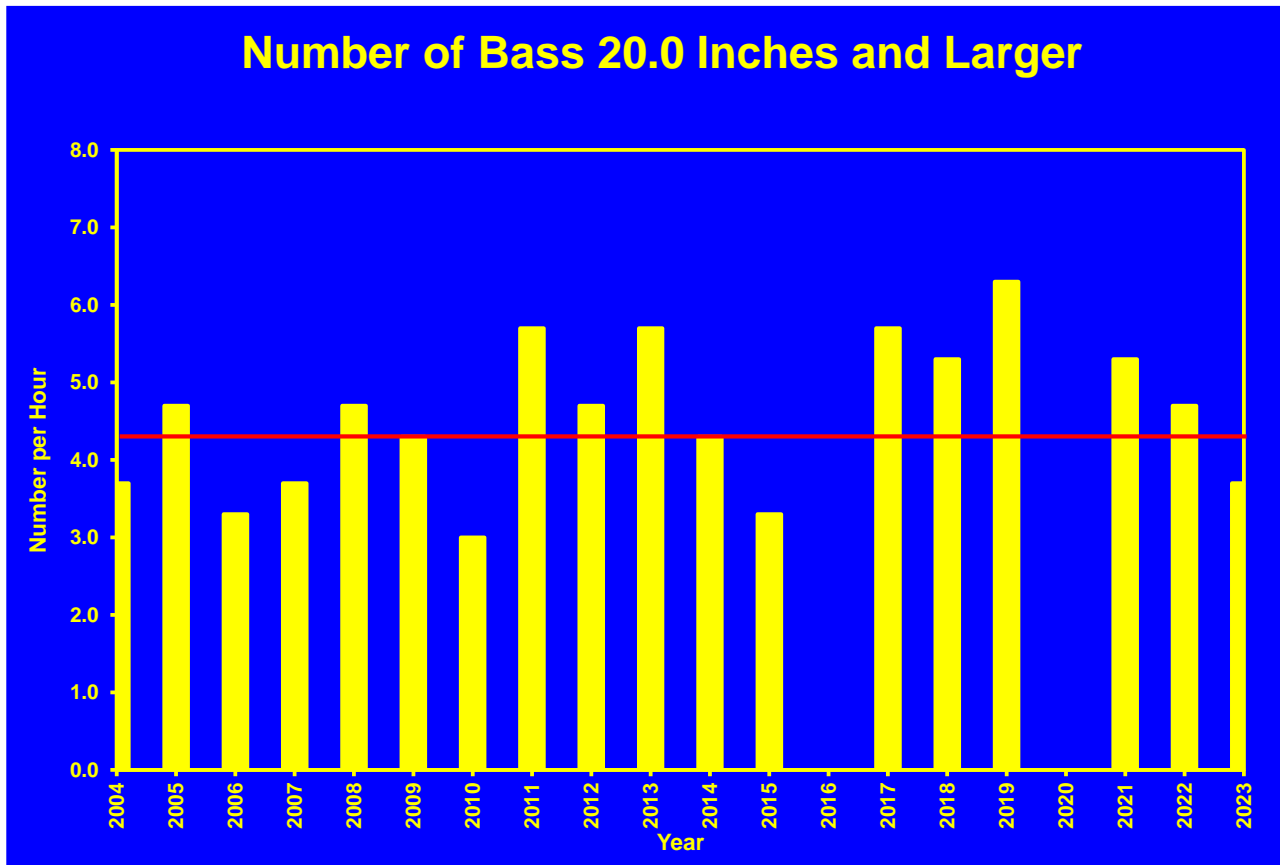
Parameter 4 – Number of bass 15.0 inches and larger

Electrofishing catch of 15.0 inch and larger Largemouth Bass has averaged 55.2 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 number of 15.0 inch and larger Largemouth Bass. Numbers since 2013 have been above average.



Parameter 5 – Number of bass 20.0 inches and larger

The electrofishing catch of 20.0 inch and larger Largemouth Bass have averaged 4.3 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. The catch rates of 20.0 inch and larger bass have been above average from 2017-2022 but dropped below average in 2023.



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

In 2023, 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, as indicated by the red line. The future of the Largemouth Bass fishery at Guist Creek Lake looks very promising based on this assessment.

