

## Green River Lake Bass Assessment 2019

Green River Lake is a 8,210-acre tributary impoundment of the upper Green River located in Taylor and Adair counties in south central Kentucky. Created in 1969, the lake serves primarily for flood control and water supply. Beginning in 2002, lake drawdown for flood control was reduced from 11-foot to 7-foot. Lake stratification occurs from mid-May to early-November with thermocline depths during the summer months ranging from 17 to 22 feet.

Largemouth bass have historically totaled 60-70% of bass angler catch and bass sampled by spring electrofishing. Spotted bass grow to good sizes in Green River Lake (15-17 inches) and at times account for a sizeable (20-40%) percentage of bass caught by anglers or electrofishing. Similarly, smallmouth grow to large sizes (20-inch plus), but only account for approximately 2-10% of bass population.

The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment.

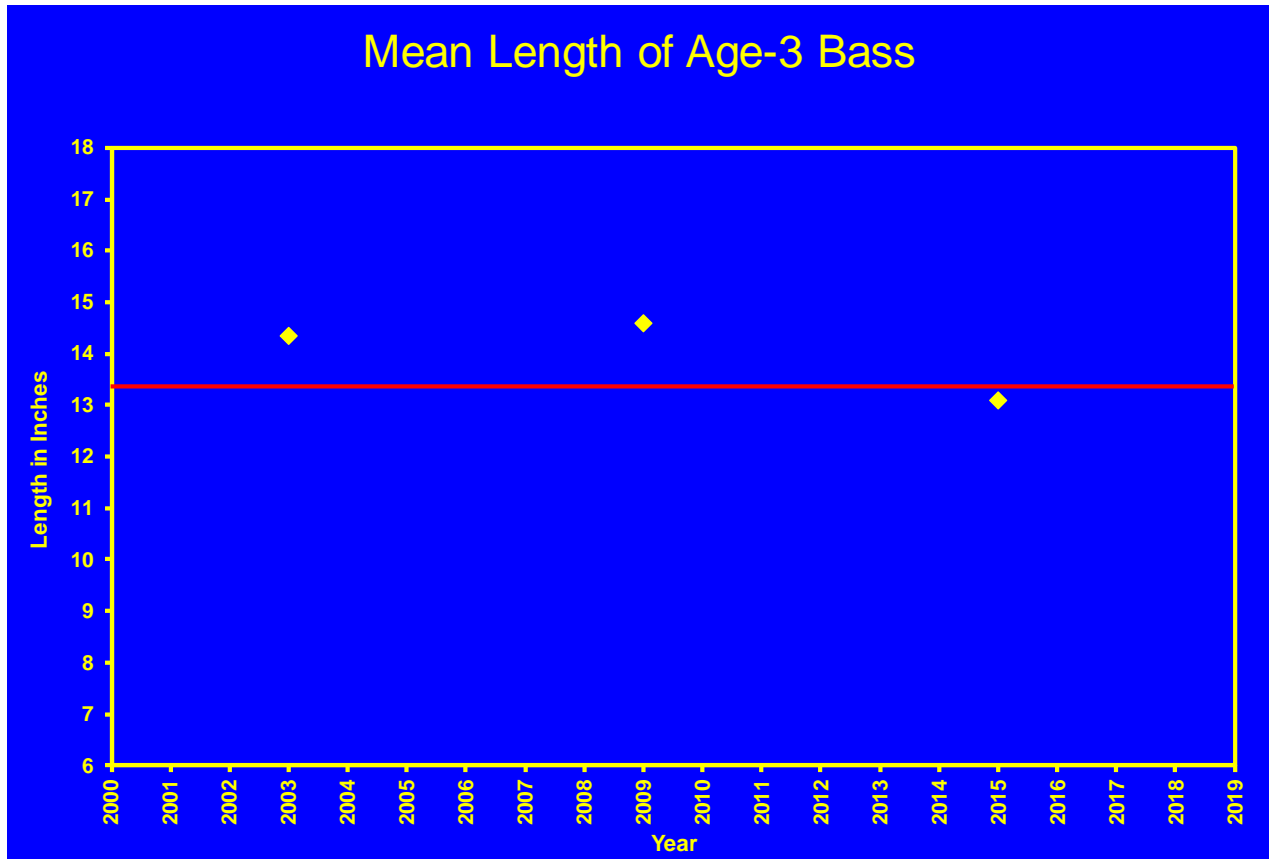
Please see the [Sportfish Assessments](#) page for an explanation of how the assessment works and for a list of other lakes with largemouth bass assessments.

*Please note that the minimum size limit for largemouth and smallmouth bass on this lake is 12 inches. In 2014, high water conditions made sampling unfeasible which explains the absence of data for that year in this assessment.*



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

Average length of an age-3 largemouth bass at Green River Lake has averaged 13.4 inches over the last 20 years (red line). Compared to other large KY reservoirs, this is very good growth for largemouth bass. The last age/length assessment occurred in 2015 and was just below the mean.

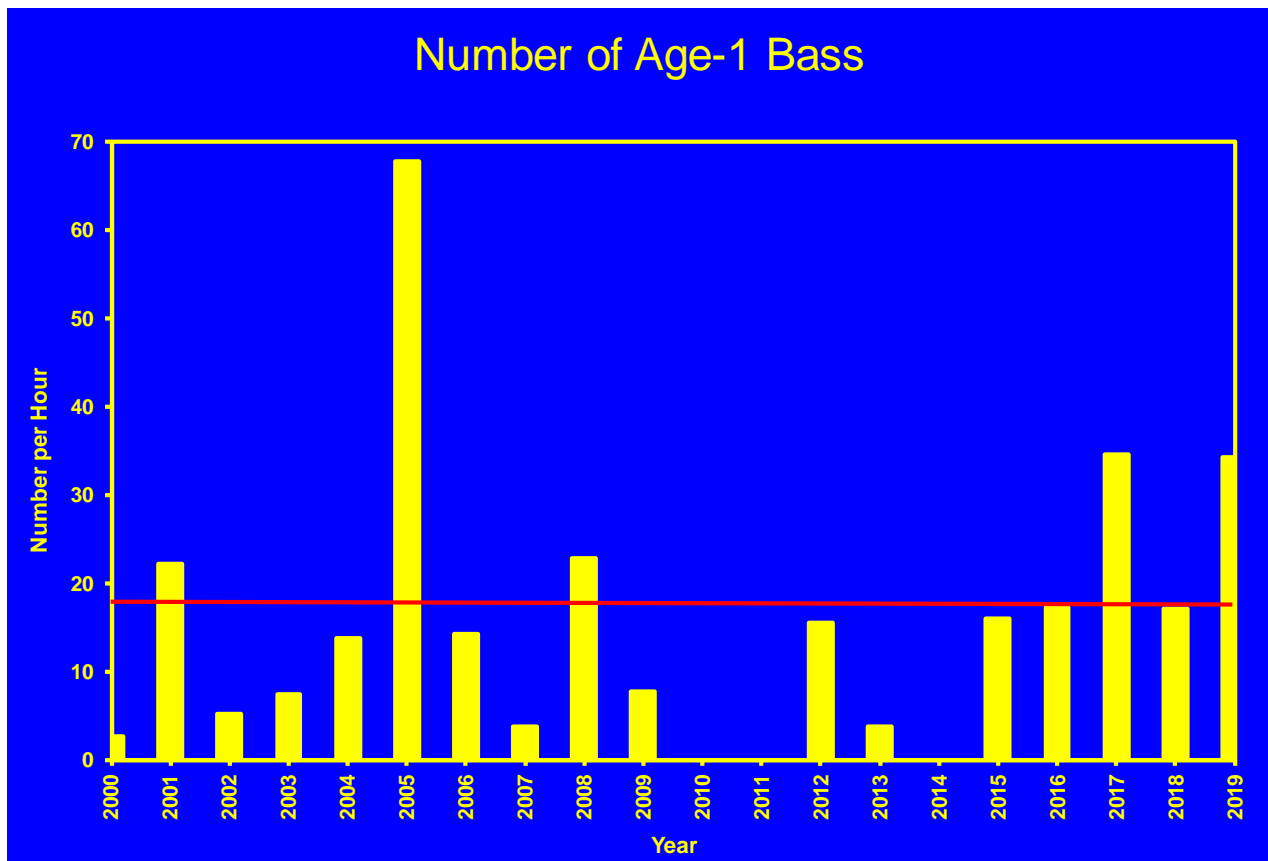


## Parameter 2 – Number of age-1 bass (how good the spawn was)

Fishery biologists look at the electrofishing catch rates of age-1 largemouth bass to assess the success of the spawn which occurred in the previous year. This is an important parameter because the number of bass that make it to age-1 often reflect how good the fishing will be once these fish grow large enough for anglers to catch.

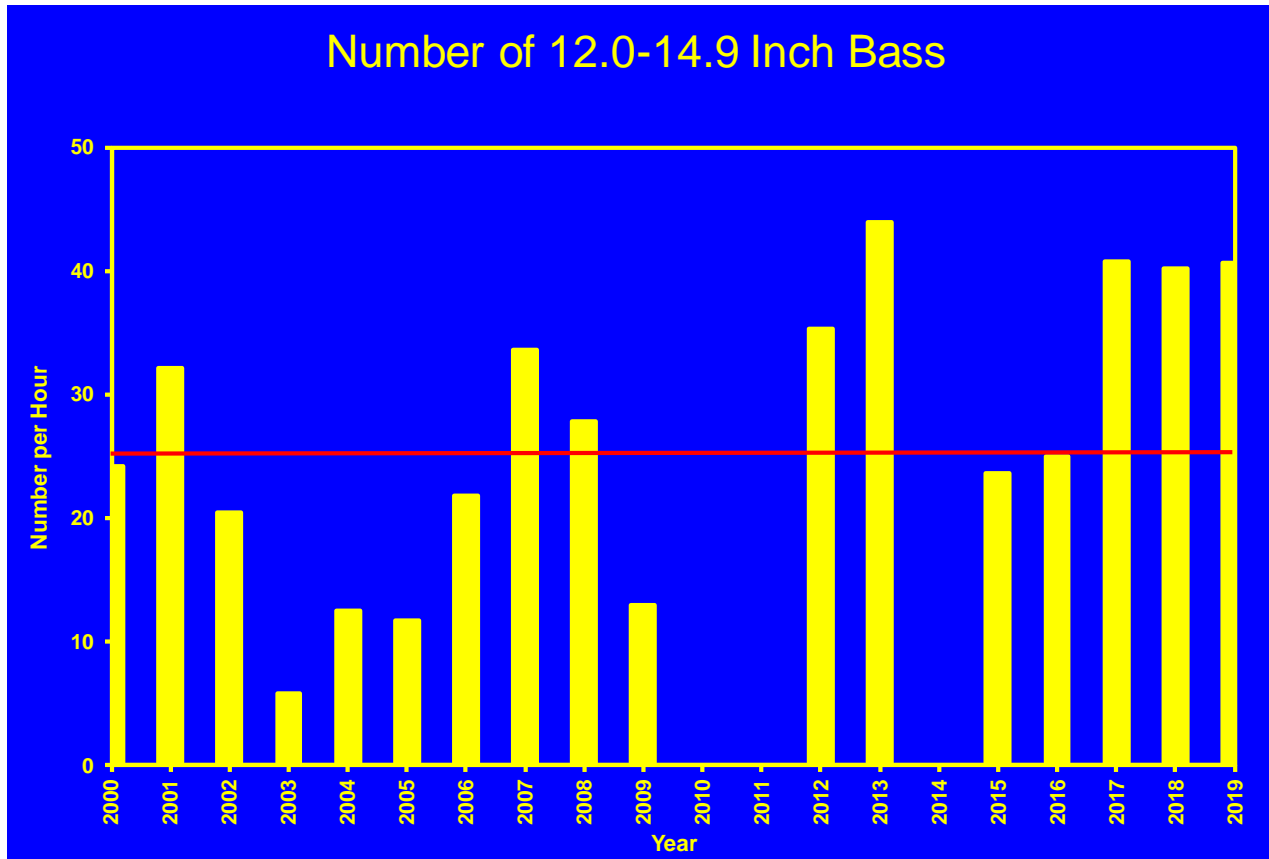
At Green River Lake, age-1 largemouth bass catch rates have averaged just below 18 fish per hour of electrofishing over the last 20 years (red line). When compared to other large KY reservoirs, this is a low catch rate. As shown in the graph below, bass spawning success (age-1 catch rate) in Green River Lake is extremely variable.

Lake water levels during that first year of life can be an important factor in bass spawning success and survival. Each of the year's (1997, 2004, 2016) that preceded higher age-1 largemouth bass catch rates (1998, 2005 and 2017) had stable water levels during much of the spawning period (April – early June) and a prolonged period of elevated water levels following the spawning period (May – July). Years that had the poorest age -1 catch rates (1997, 2000, 2007, 2013) were ones that the previous year's water levels were very erratic (up and down throughout much of the spawning period).



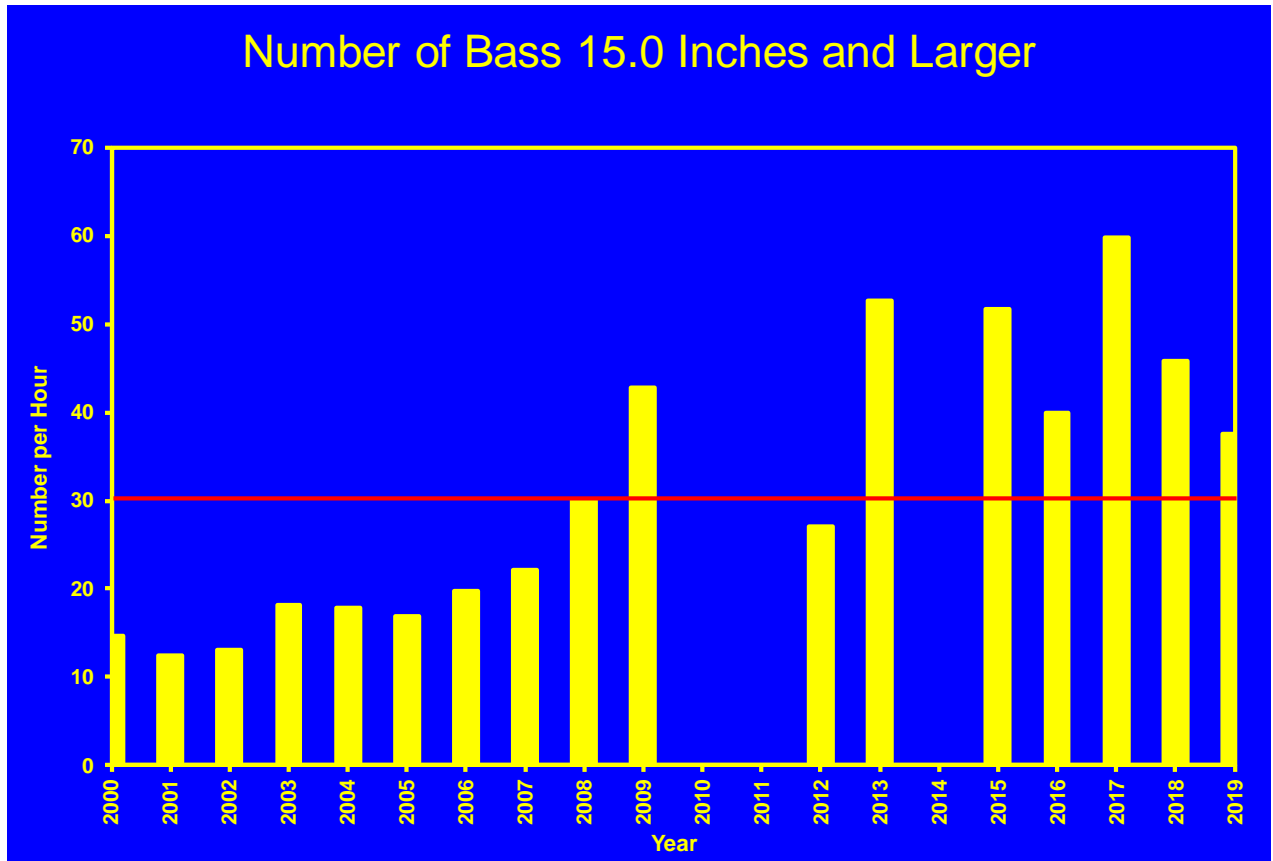
### Parameter 3 – Number of 12.0-14.9 inch bass

Spring electrofishing catch rate for this size range of largemouth bass have remained well above average (red line) since 2017. This number is important because most of these fish will have reached 15 inches and larger by the fall of 2020. Looking ahead to 2020, this should be another very good year for some quality-sized bass fishing.



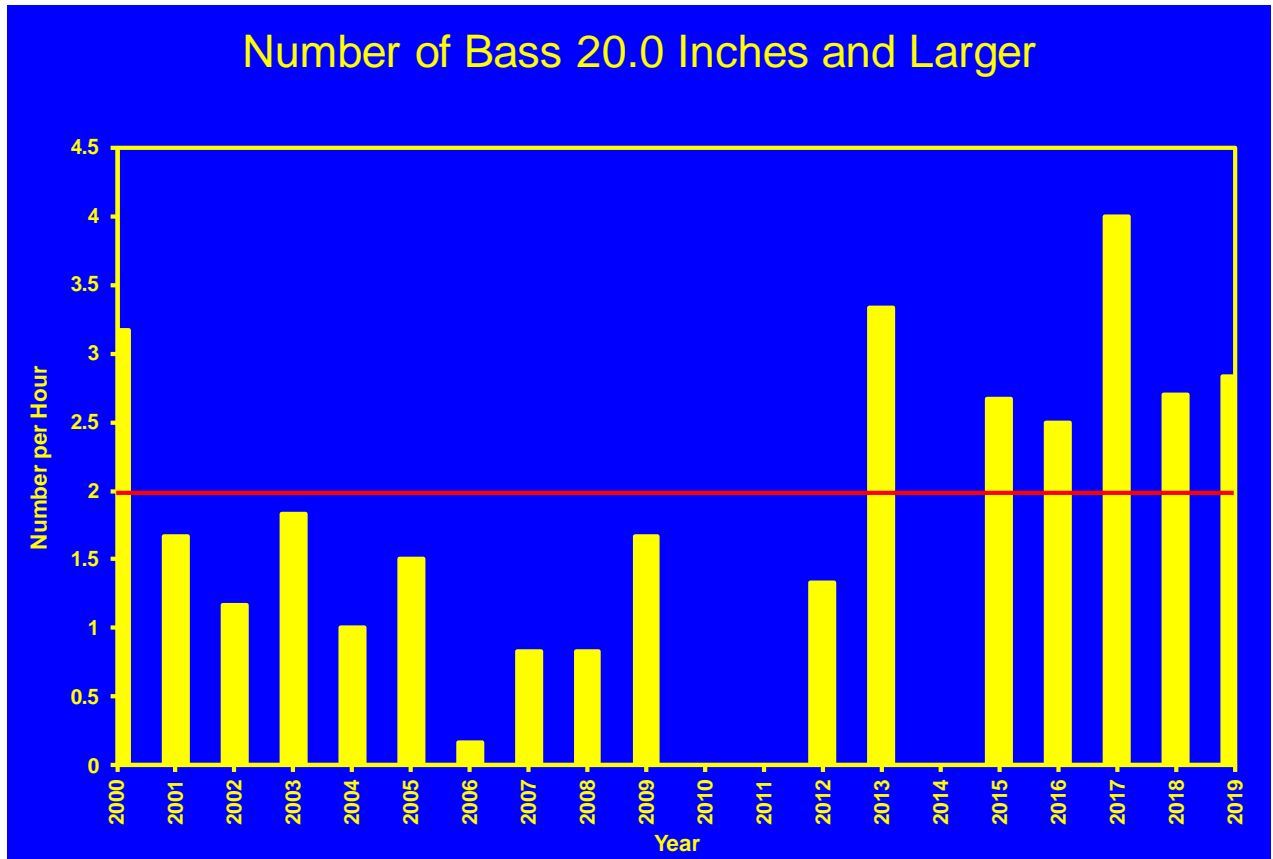
## Parameter 4 – Numbers of 15 inch and larger bass

The electrofishing catch rate of 15-inch and larger largemouth bass remains above average (red line). These numbers make Green River Lake one of better bass fishing destinations in Kentucky for 2020. Again, these numbers along with the good catch rate of bass between 12 and 14.9 inches will make for some very good bass fishing at Green River Lake over the next couple of years.



## Parameter 5 – Numbers of 20-inch and larger bass

The electrofishing catch of 20.0-inch and larger largemouth bass has averaged 2 fish/hour over the last 20 years (red line). Since 2013, the catch rate of 20-inch plus fish has been well above average and continues to reflect Green River Lake as a good destination to tangle with some trophy-sized largemouth. Largemouth bass in Green River Lake take at least 5-8 years to achieve 20 inches in length.



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

Overall, the largemouth bass fishery at Green River Lake has averaged a good rating (15.4) over the last 20 years. Since 2012, Green River Lake has sustained excellent to very good ratings. With the successive good spawns from 2014 – 2018, 2020 promises to be another very good year for quality to trophy-sized bass.

