

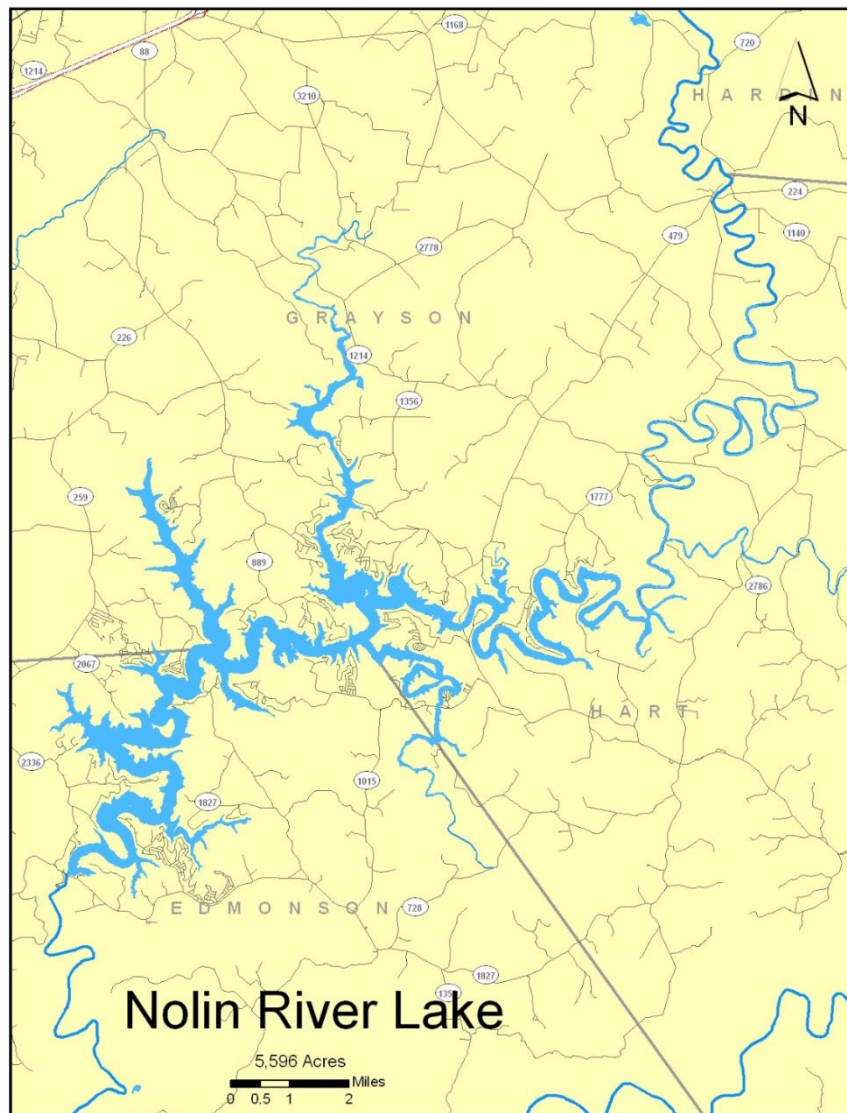
Nolin River Lake Largemouth Bass Assessment 2021

Nolin River Lake is a 5,790-acre multipurpose reservoir on Nolin River. The lake, located in Edmonson, Grayson and Hart counties, has 9 boat ramps, 3 marinas and is a popular fishing destination for largemouth bass, white bass, crappie, walleye, and catfish. The following graphs show data trends and rankings for each of the five parameters used in the largemouth bass assessment.

Nolin River Lake contains largemouth and spotted bass. There are a few smallmouth bass and hybrid bass caught annually. Over the last 15 years, 86% of the black bass population has been comprised of largemouth bass.

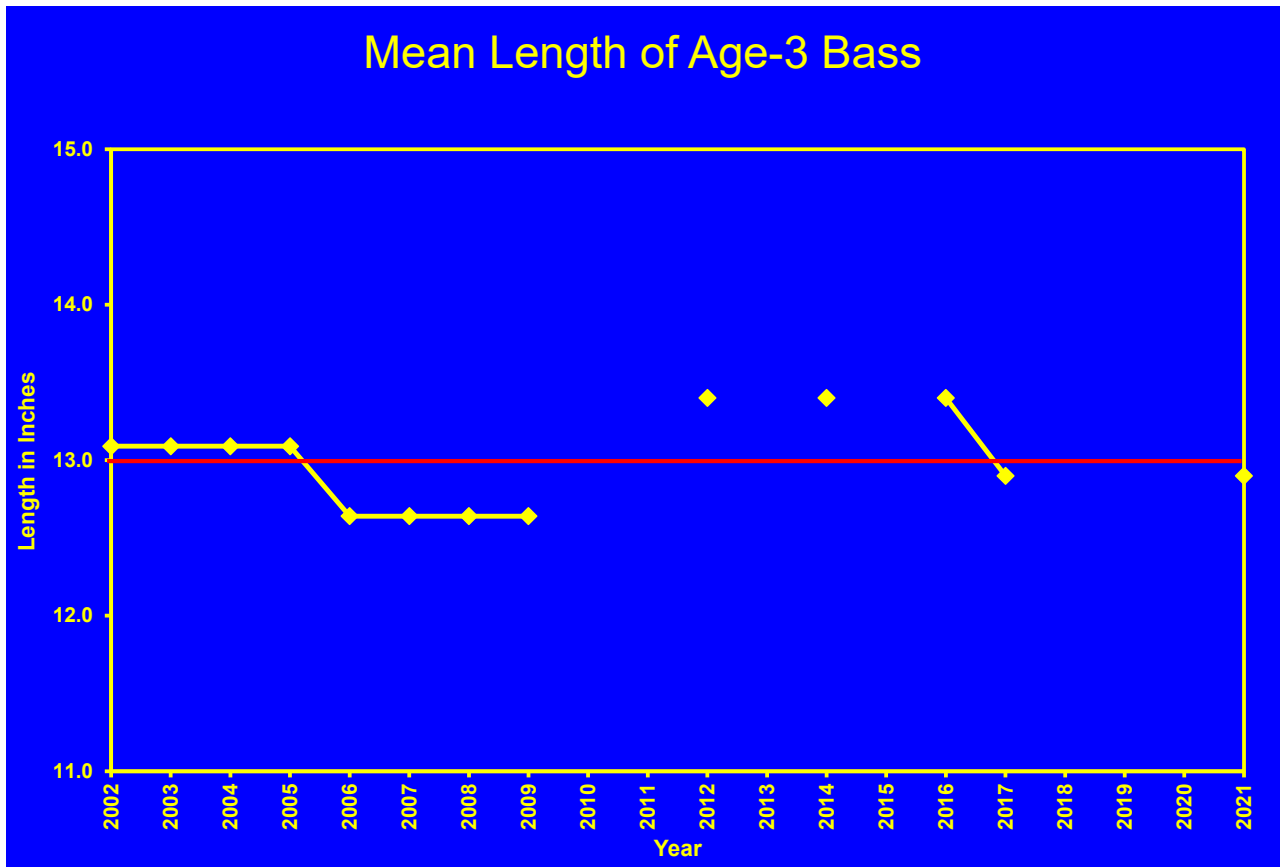
Nolin River Lake has not been sampled annually in recent years due to poor water conditions during the spring survey period (primarily high water).

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.



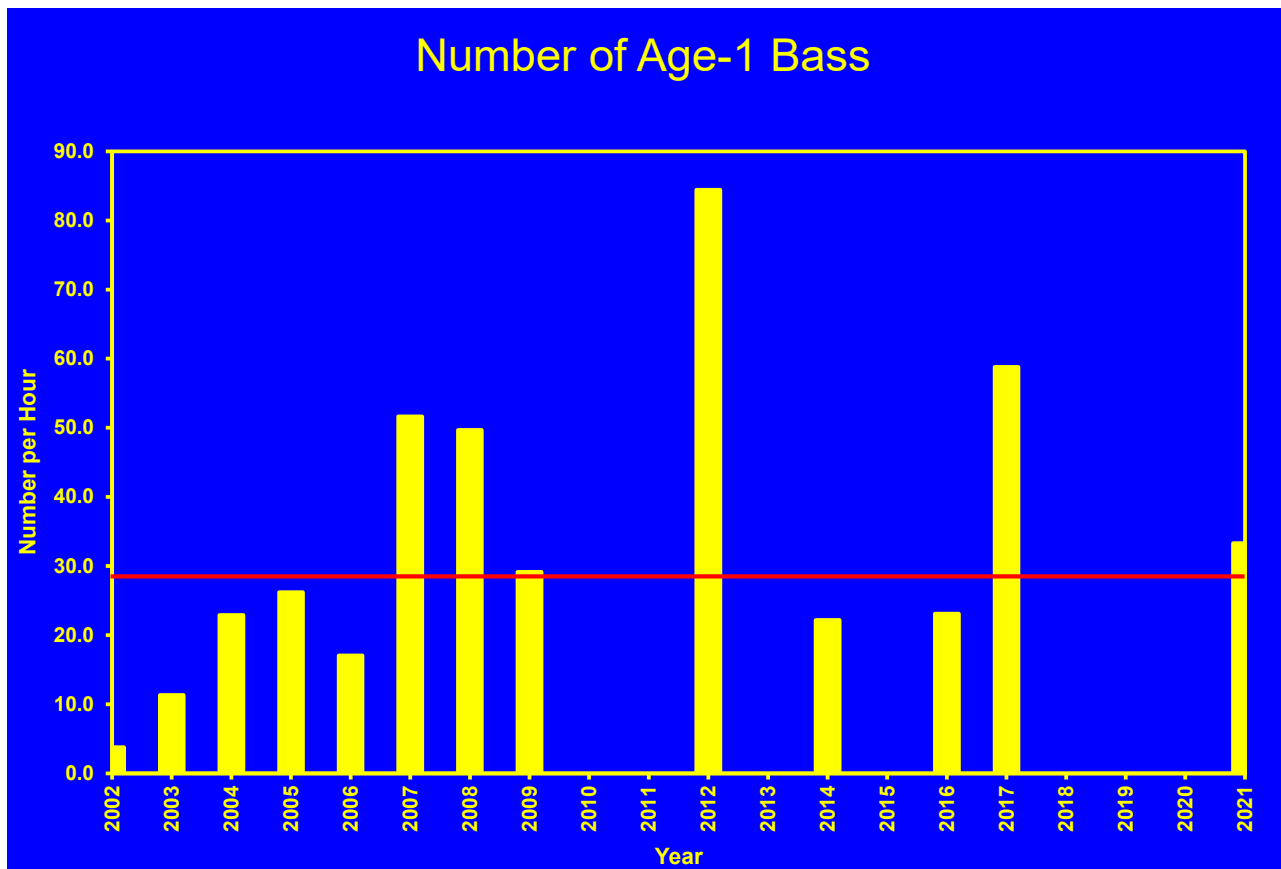
Parameter 1 – Mean Length at Age-3 (growth rate)

At Nolin River Lake, from 2000-2021, the average length of 3-year old largemouth bass is 13.0 inches (represented by the red line). This parameter is an average of the lengths of all three-year-old bass collected and is important for management purposes because it indicates how well fish are growing. When compared to other lakes of similar size, this growth rate for largemouth bass is considered “Good”. Growth rates can change annually and are tied to factors such as population density, watershed fertility, food availability, and weather.



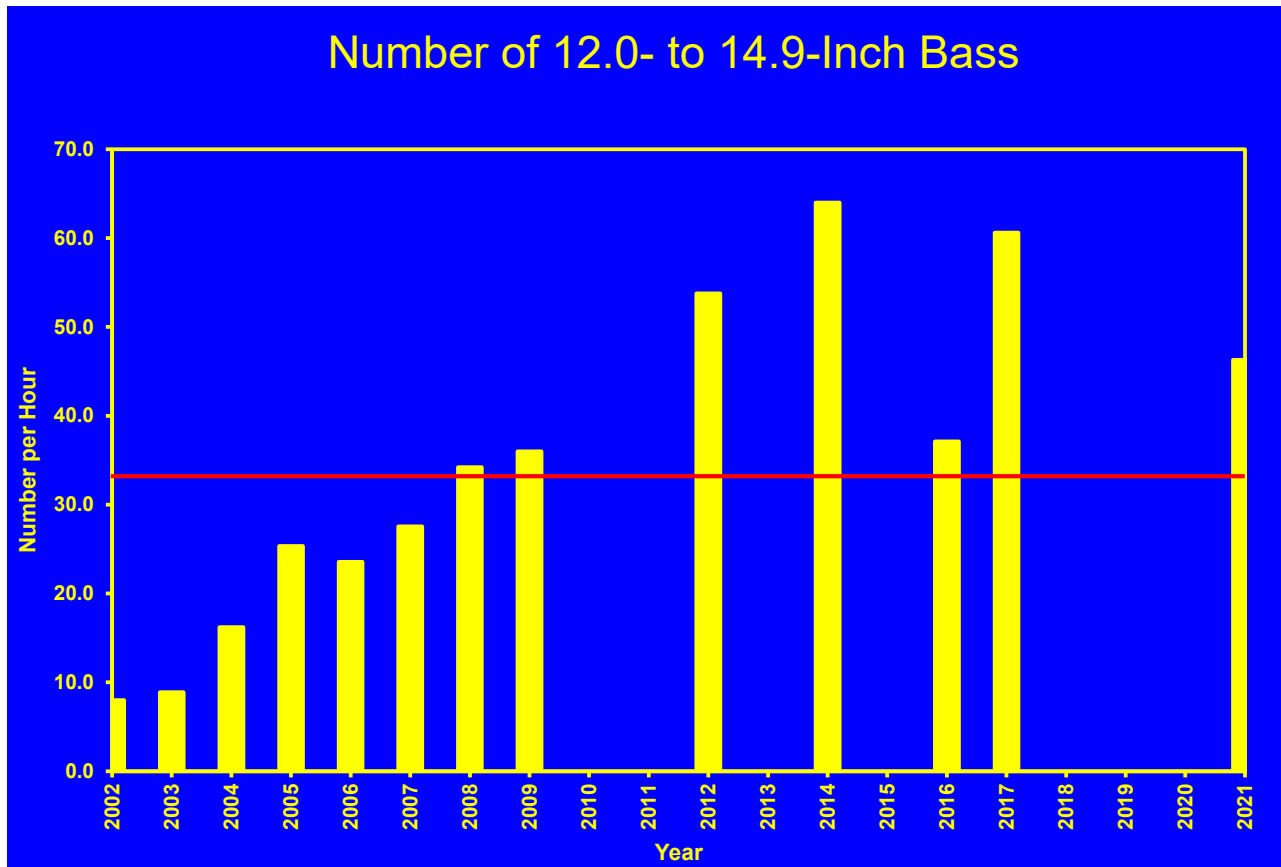
Parameter 2 – Number of Age-1 Bass (spawning success)

The electrofishing catch rate of 1-year old largemouth bass is calculated to determine the spawning success of the previous year. This is an important parameter because the number of age-1 bass is used as a predictor for how good fishing will be in the future. At Nolin River Lake, age-1 largemouth bass catch rates have been variable with a high in 2012. The high variability can be caused by sampling inefficiency due to less than ideal lake conditions or natural population variability due to the same less than ideal annual water conditions. Overall, the age-1 catch rate has averaged 29.8 age-1 fish per hour of electrofishing over the last two decades.



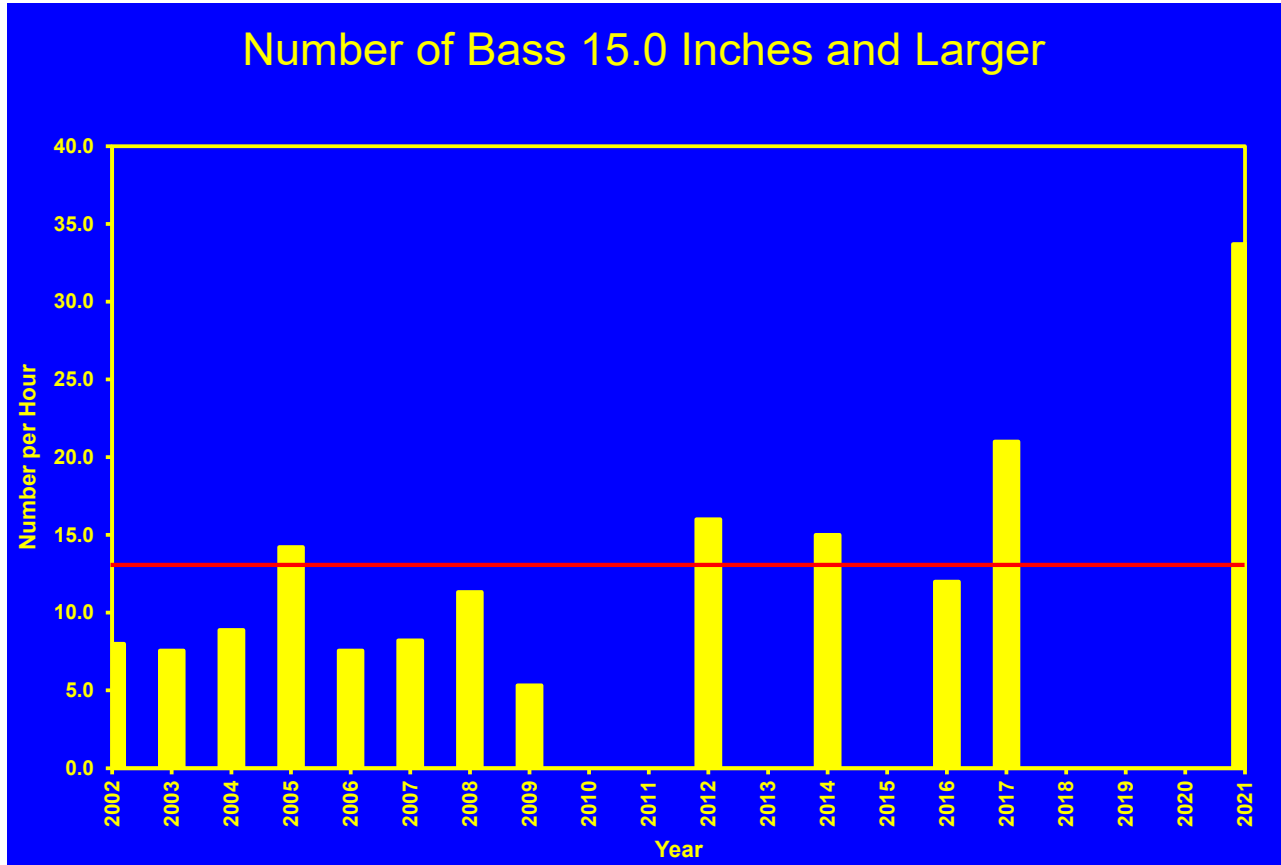
Parameter 3 – Number of 12.0- to 14.9-Inch Bass

The electrofishing catch for 12.0- to 14.9-inch largemouth bass averaged 33.4 fish/hour from 2000 to 2021. This puts Nolin River Lake in the upper end of the “Good” rating when compared to other similarly sized lakes. This parameter is important because it is indicative of the number legally harvestable fish that will be available to anglers in the next 1 to 2 years as they grow and surpass the 15.0-inch minimum size limit. Age and growth data collected in 2017 indicate largemouth bass growth dropped slightly from 2012 rates but remains good.



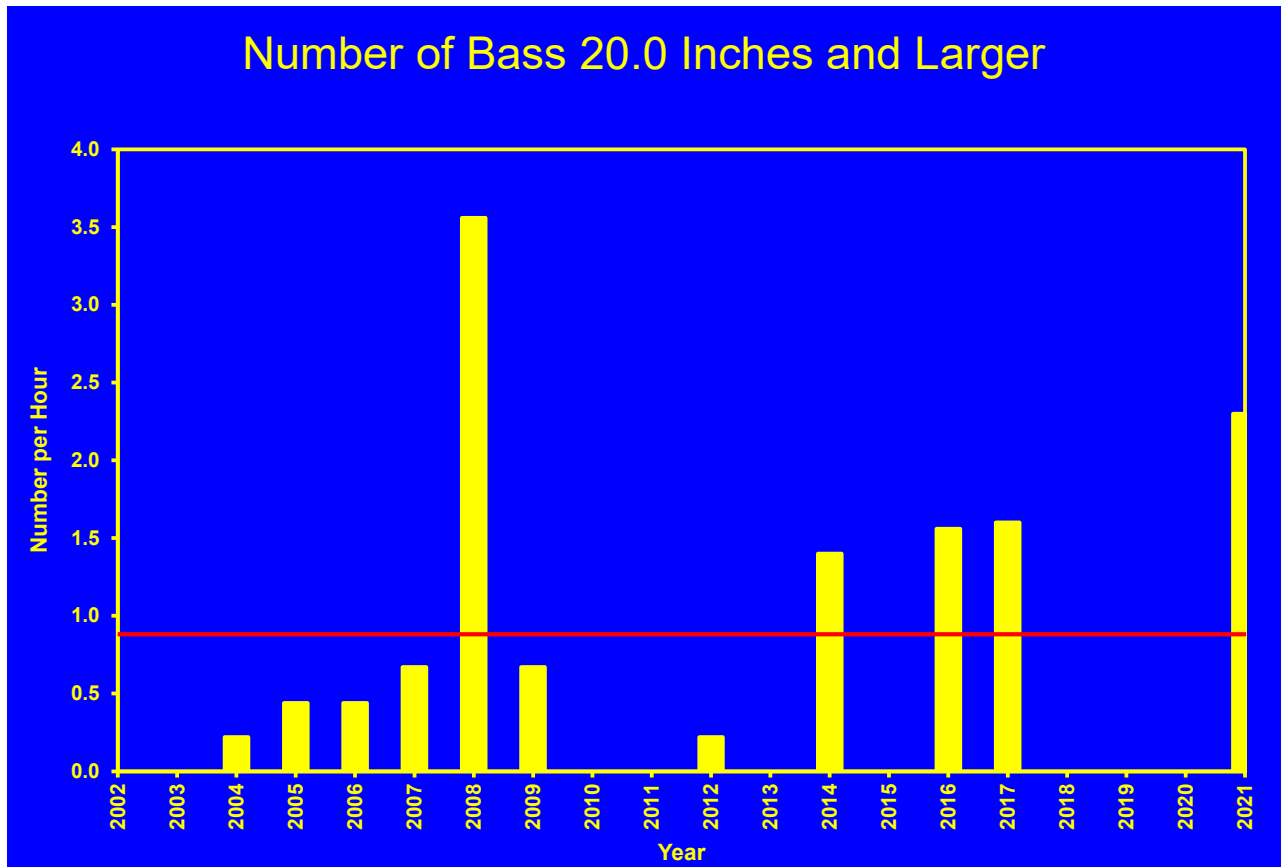
Parameter 4 – Number of Bass 15.0 Inches and Larger

This parameter generally reflects the number of legally harvestable fish in the population. The catch rate of 15.0-inch and larger largemouth bass at Nolin River Lake now averages 12.8 fish/hour of electrofishing from 2000 through 2021 after a very successful survey in 2021. The catch rate of 15.0-inch and larger fish has been erratic through the years. Larger fish are more difficult to sample and typically present in lesser numbers overall, which allows for greater potential variation in catch rates.



Parameter 5 – Numbers of Bass 20.0 Inches and Larger

The electrofishing catch of 20.0-inch and larger largemouth bass has averaged 0.9 fish/hour for Nolin River Lake from 2000 to 2021. When compared to similarly sized lakes this catch rate is considered “Good”. Fish of this size in a reservoir environment are difficult to sample consistently, which usually accounts for the variability in catch rates rather than any significant change in the population. There has been a general increasing trend for this catch rate since 2004, when working with good survey conditions. Catch rate for 20.0-inch and larger largemouth bass was “Excellent” in 2021, at 2.3 fish/hour of electrofishing.



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

Overall, the largemouth bass fishery at Nolin River Lake has averaged a “Good” rating (14.1) over the past 20 years, as indicated by the red line. Since 2012 the total assessment score has ranked in the “Excellent” range. The increased catch rates of 15.0-inch and 20.0-inch and larger fish should indicate great fishing for the next few years. Sampling data can be highly variable due to a multitude of factors, therefore, it is important to look at data over time as opposed to information collected in a single year when making management decisions. Spring sampling has not been conducted consistently in recent years due to extremely high water levels during the sampling time frame. Samples will be collected as frequently as conditions allow.

