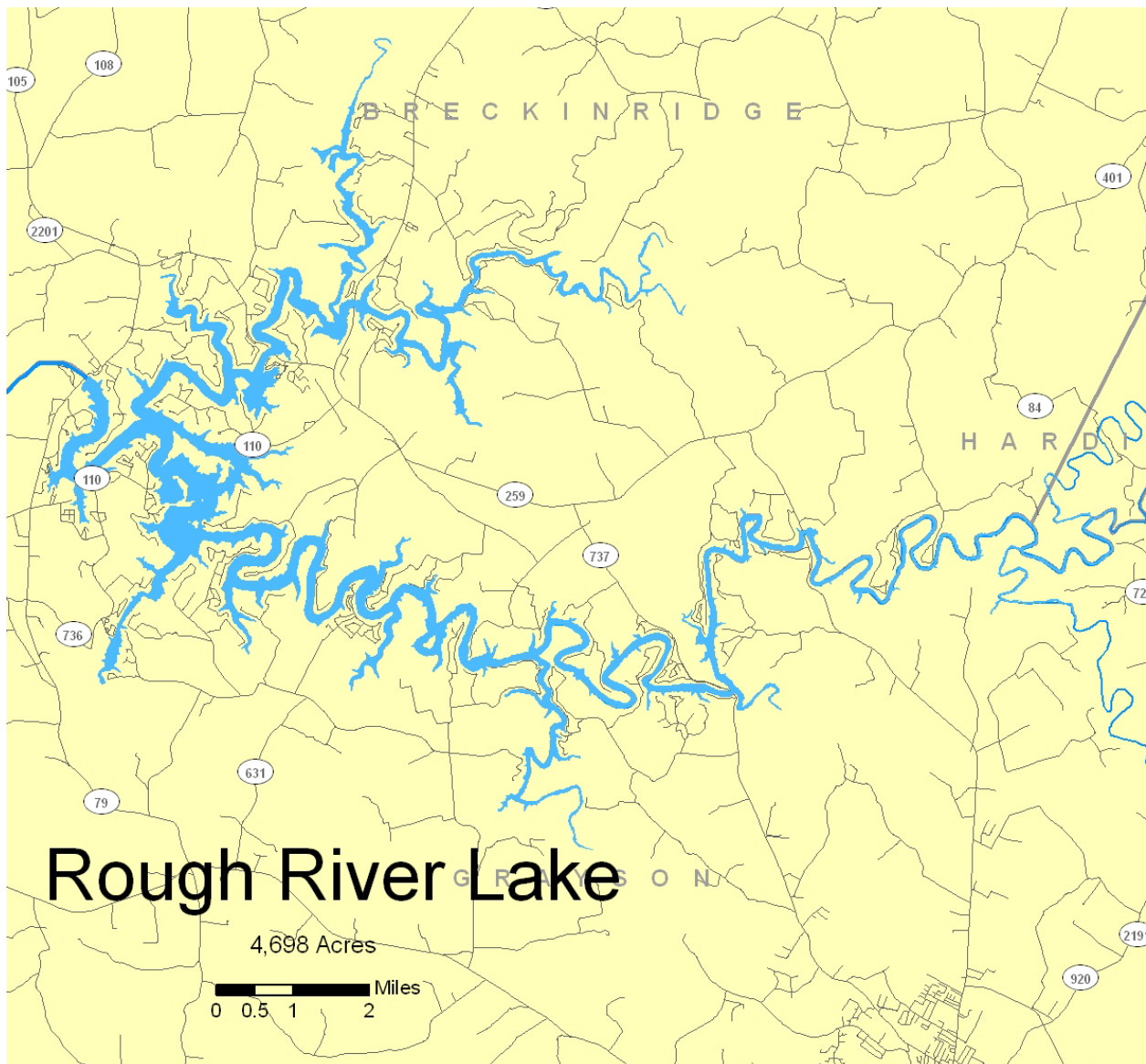# Rough River Lake Bass Assessment 2021

Rough River Lake is a 5,100-acre multipurpose reservoir on Rough River. The lake, located in Breckinridge, Grayson and Hardin counties, has 9 boat ramps and 3 marinas and is a popular fishing destination for largemouth bass, hybrid striped bass, crappie and catfish. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment.

Rough River Lake contains largemouth and spotted bass. Over the last 20 years, 89% of the black bass population has been comprised of largemouth bass.
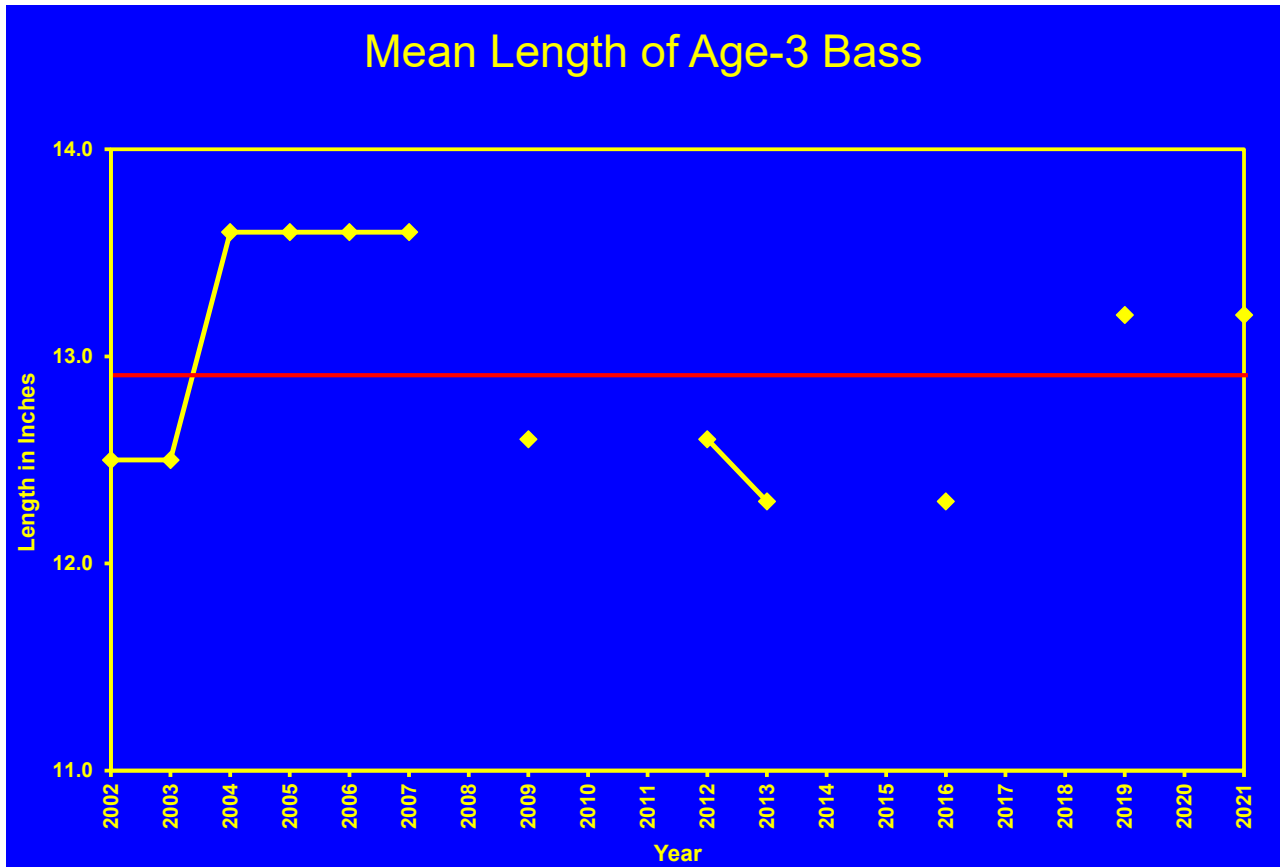
Rough River Lake has not been sampled annually in recent years due to poor water conditions during the spring survey period (primarily high water).

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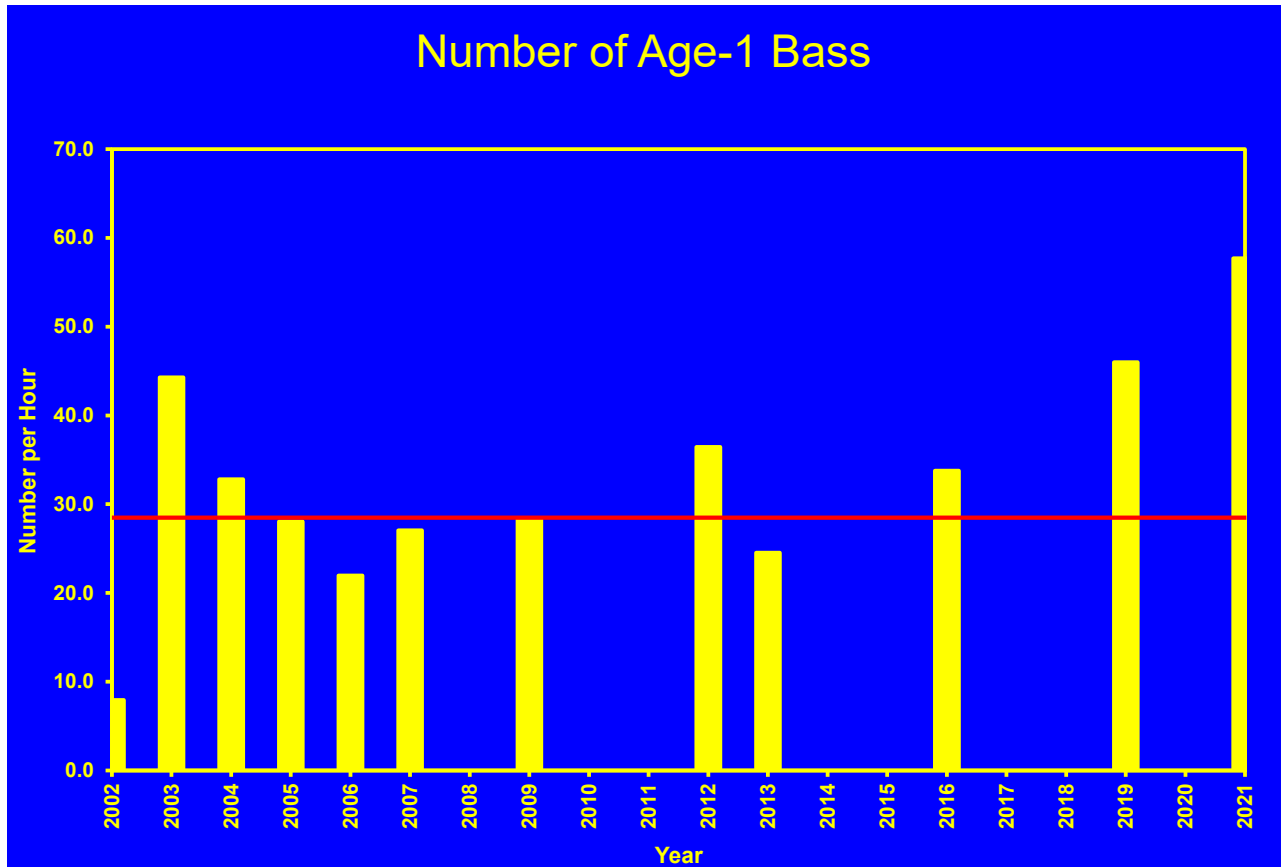
## Parameter 1 – Length at Age-3 (growth rate)

At Rough River Lake, the length of 3-year-old largemouth bass has averaged 12.9 inches since 1999 (represented by the red line).  This population parameter is important for management purposes because it tells how well fish are growing and is derived from the total lengths of all three-year-old bass collected.  When compared to other lakes of similar size, this is considered "Good" growth for largemouth bass.  Growth rates can change annually and are tied to factors such as population density, watershed fertility, food availability, and weather.
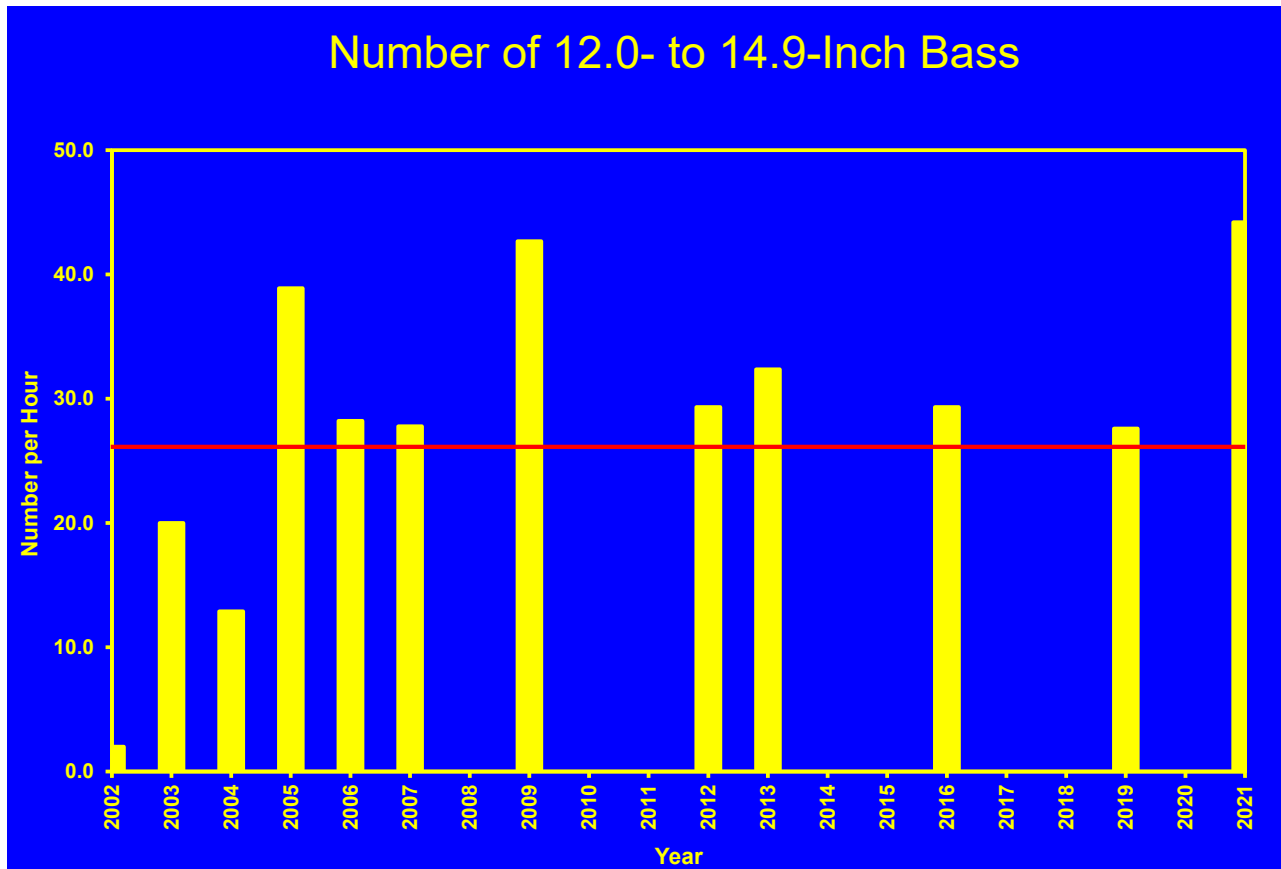
# Parameter 2 – Number of Age-1 Bass (how good the spawn was)

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 Rough River Lake, age-1 largemouth bass catch rates have averaged 28.7 fish/hour of electrofishing since 1999.  The catch rate for age-1 largemouth in 2021 was a record high at Rough.
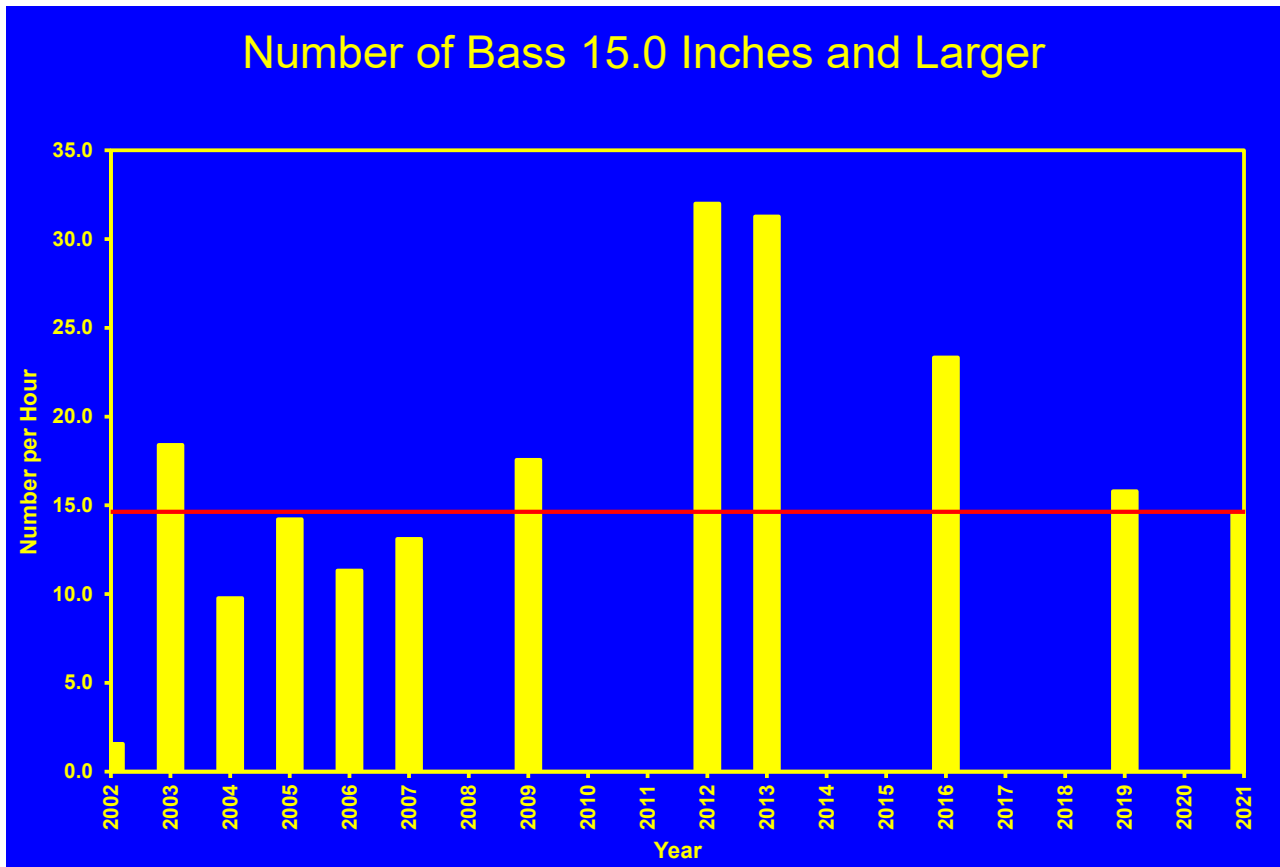
# Parameter 3 – Number of 12.0- to 14.9-Inch Bass

The electrofishing catch of 12.0- to 14.9-inch largemouth bass has averaged 26.3 fish/hour since 1999, giving Rough River Lake a "Good" rating compared to other lakes of similar size. This parameter is important because it is indicative of the number of legally harvestable fish ($\geq$ 15.0 inches) that will be available to anglers in the next 1 to 2 years. The catch rate since 2005 has been fairly consistent and above average. The 2021 catch rate is the highest recorded in more than two decades of monitoring.
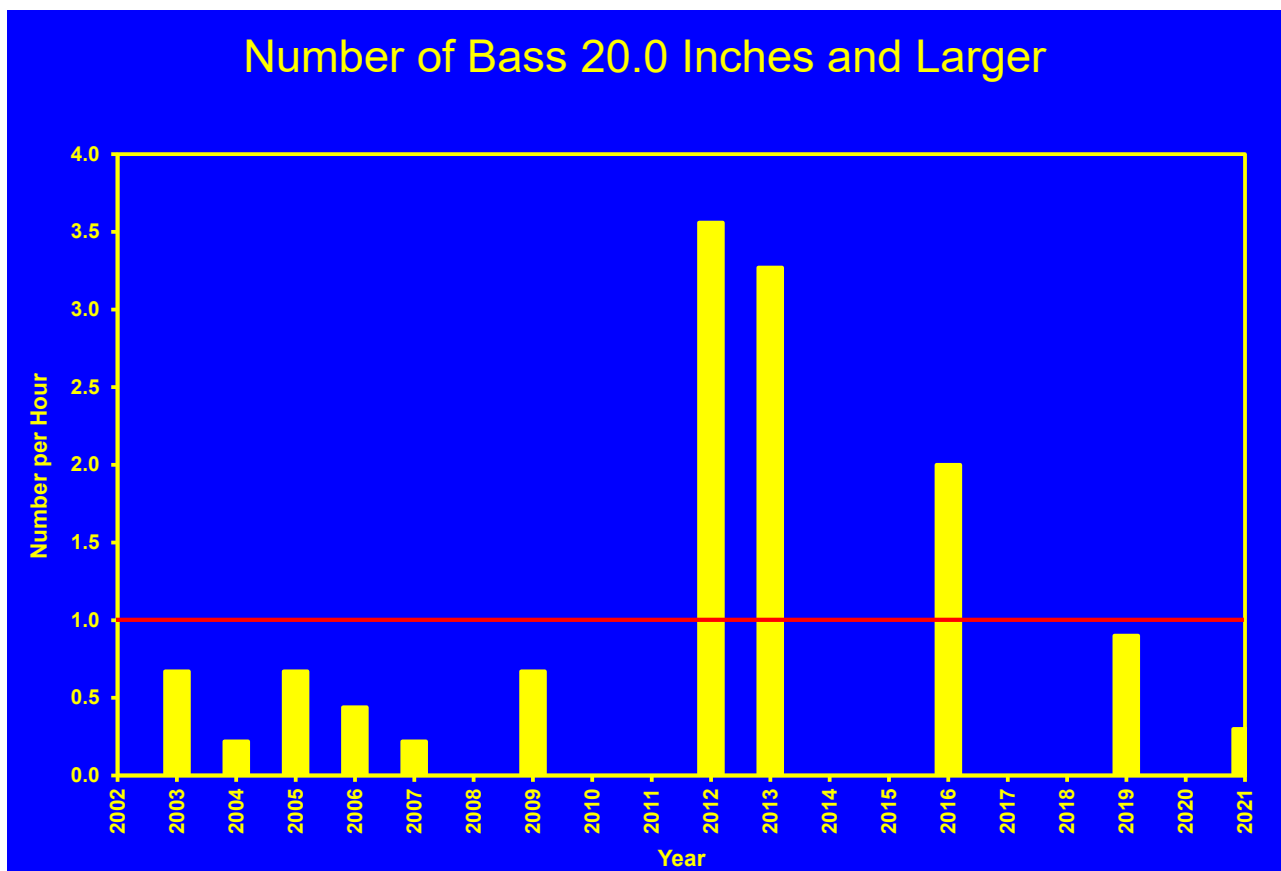
# Parameter 4 – Number of Bass 15.0 Inches and Larger

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 Rough River Lake has averaged 14.7 fish/hour of electrofishing since 1999.  The 2021 catch rate is just below the long-term average.  The catch rate of 15.0-inch and larger fish has been erratic through the years.  Larger fish are more difficult to collect during surveys and are typically present in lesser numbers overall, which allows for greater potential variation in catch rates. "Average" catch rates indicate that fishing should be similar to previous years.

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

The electrofishing catch of 20.0-inch and larger largemouth bass has averaged 1.0 fish/hour for Rough River Lake from 1999 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 survey consistently which likely accounts for the range in catch rates rather than any significant change in the population.  After several exceptional years (2012, 2013, 2016), which artificially inflated the average, 2021 dropped back down more in line with where the average probably truly lies.  Despite a lower catch rate in 2021 the trend has been for increased catch of 20.0-inch and larger fish since 2009 with this being corroborated by angler reports.

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

Overall the largemouth bass population assessment at Rough River Lake has achieved a "Good" rating since 2003 (average 14.1 since 1999, indicated by the red line), but has spent a few years in the "Excellent" range.  Largemouth bass assessment scores at Rough River Lake have been variable through time but have generally been on the rise since 2002.  Survey 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 surveys have not been conducted consistently in recent years due to extremely high water levels during the spring survey period.  Surveys will be collected as frequently as water conditions allow.