

Lake Malone Largemouth Bass Assessment 2022

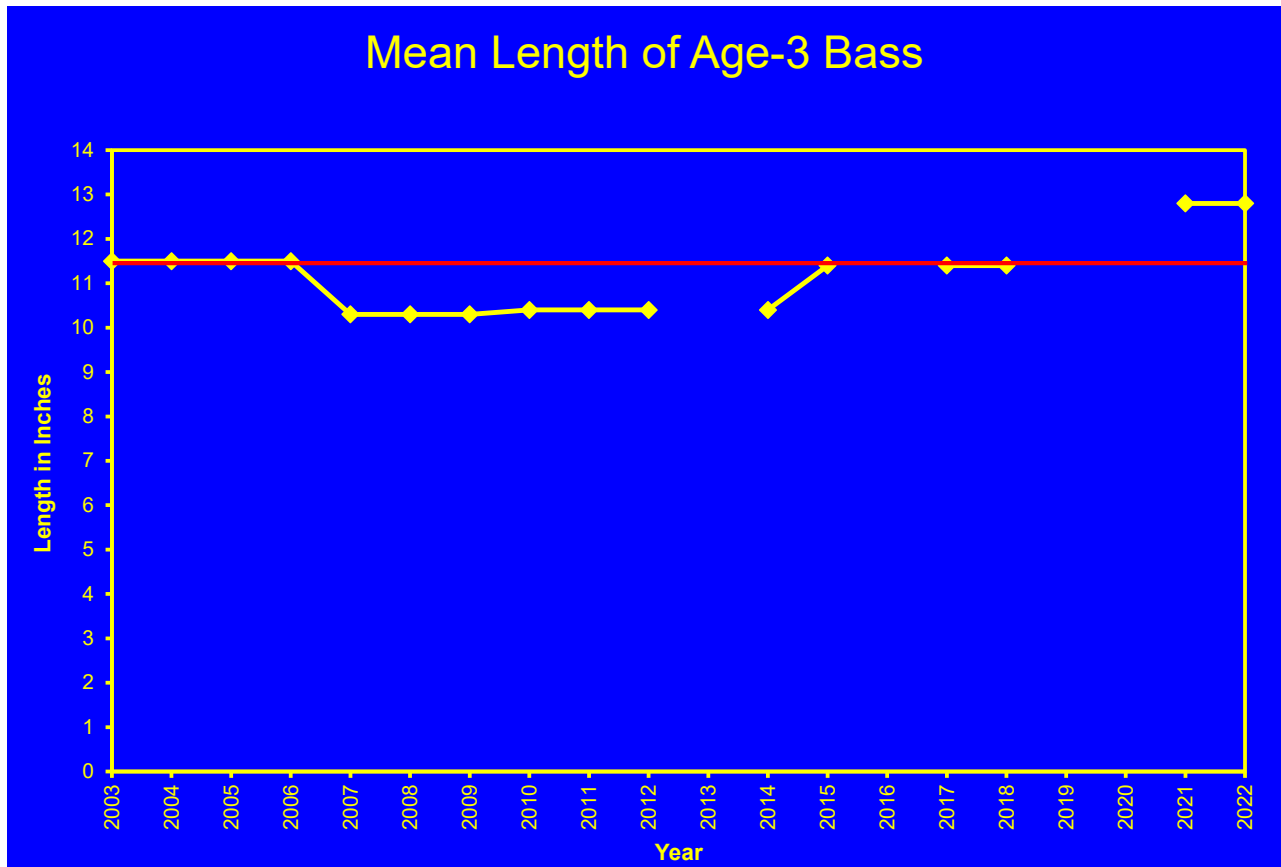
Lake Malone is a 767-acre multipurpose lake in Logan, Muhlenberg, and Todd counties. The lake has two boat ramps, two marinas and is a popular fishing destination for largemouth bass, bluegill, redear sunfish, and channel catfish. The following graphs show data trends and rankings for each of the five 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.



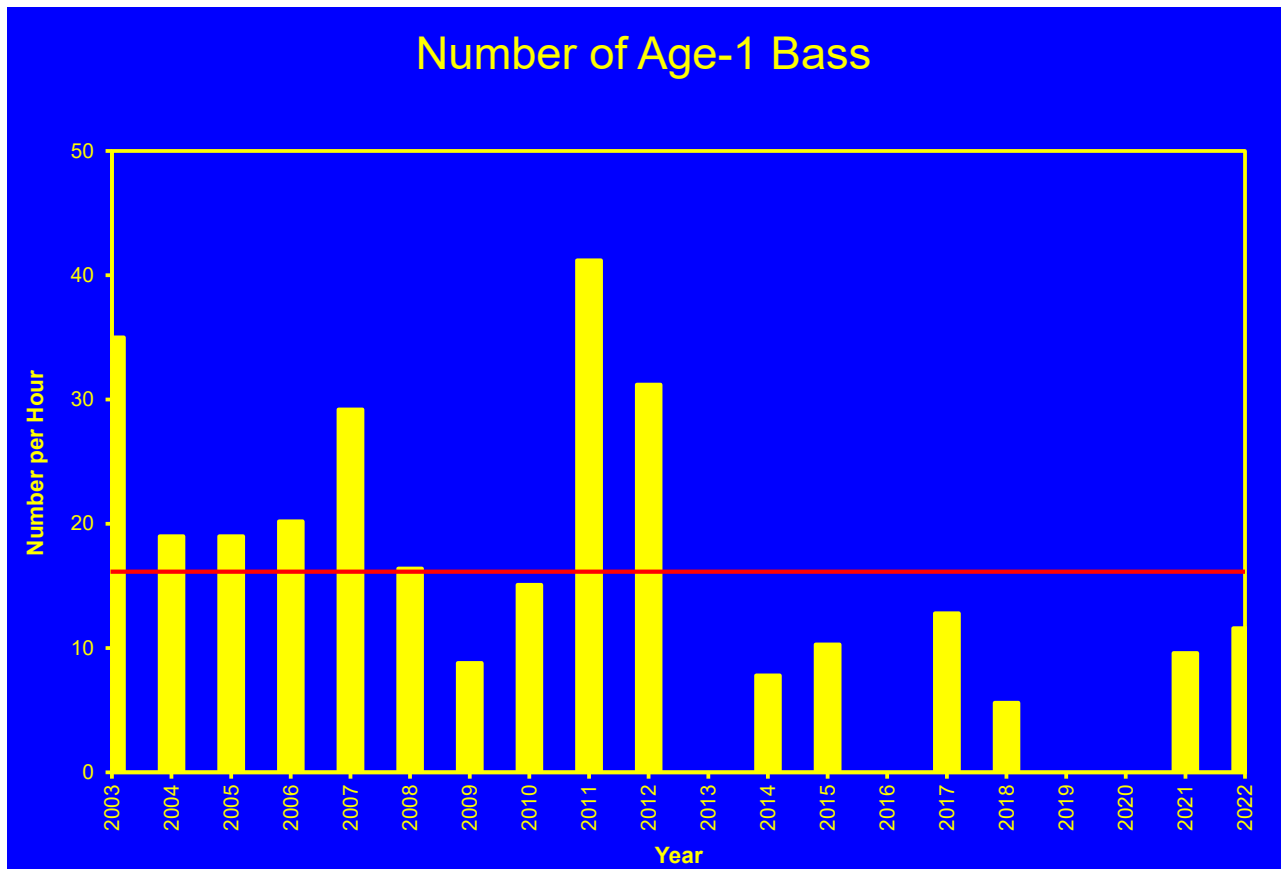
Parameter 1 – Mean Length at Age-3 (growth rate)

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. At Lake Malone, since 2000, the average length of 3-year-old largemouth bass is 11.2 inches (represented by the red line). However, growth data collected in 2021 showed an increase to an average of 12.8 inches. When compared to other lakes of similar size, the long-term average growth rate for largemouth bass is considered “Good”. However, the 2021 growth rate is considered “Excellent”. Growth rates can change annually and are tied to factors such as population density, watershed fertility, food availability, and weather. Growth declined from the early 2000s, was relatively stable for two decades, and has now increased back to early 2000s numbers. Data collected over the next few years will indicate if the increase is a short-term phenomenon or the trend moving forward.



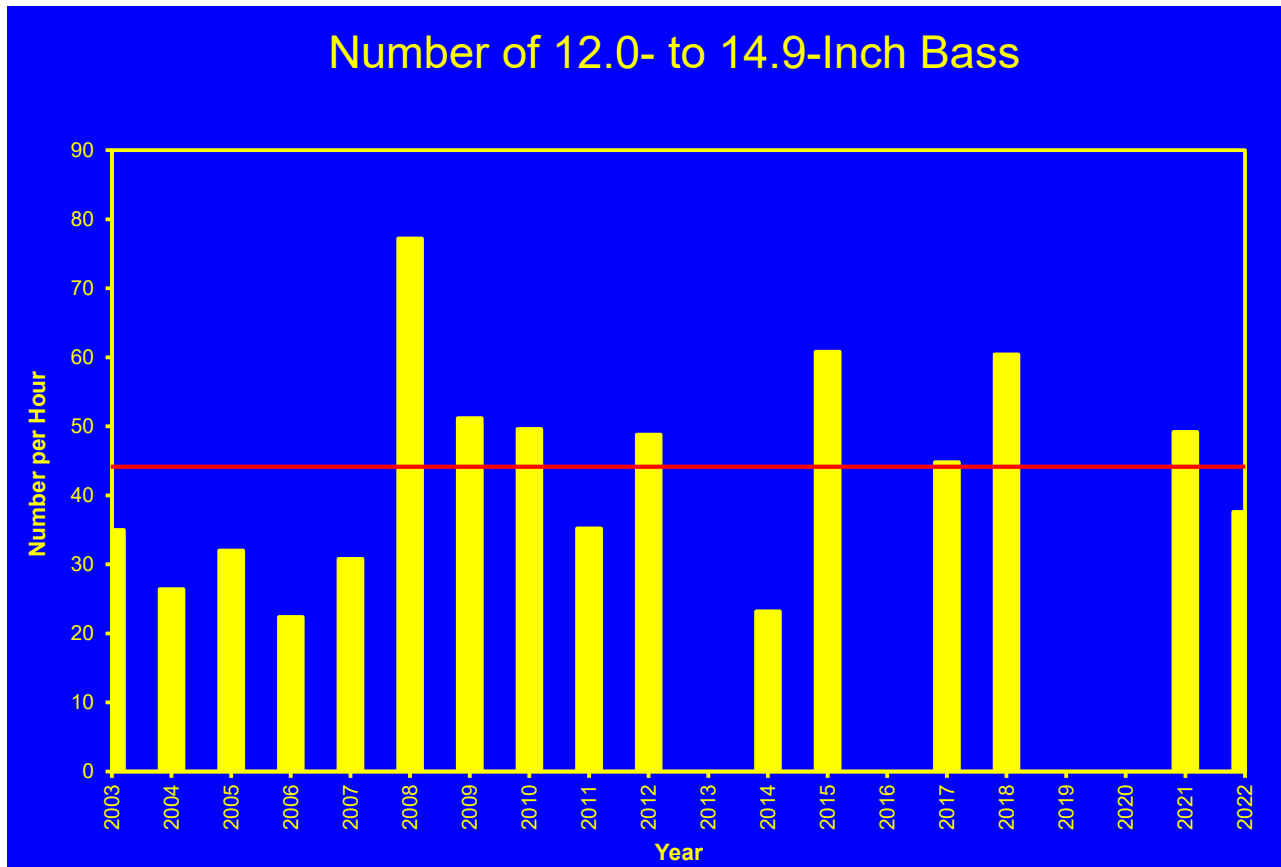
Parameter 2 – Number of Age-1 Bass (spawning success)

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 often used as a predictor for how good fishing will be in the future. At Lake Malone, age-1 largemouth bass catch rates are variable with a high of 41.2 fish/hr in 2011. Variability can be attributed to sampling inefficiency due to lake conditions, weather, or normal population fluctuation. Overall, the age-1 catch rate has been “Fair”, averaging 16.6 age-1 fish per hour of electrofishing over the last two decades.



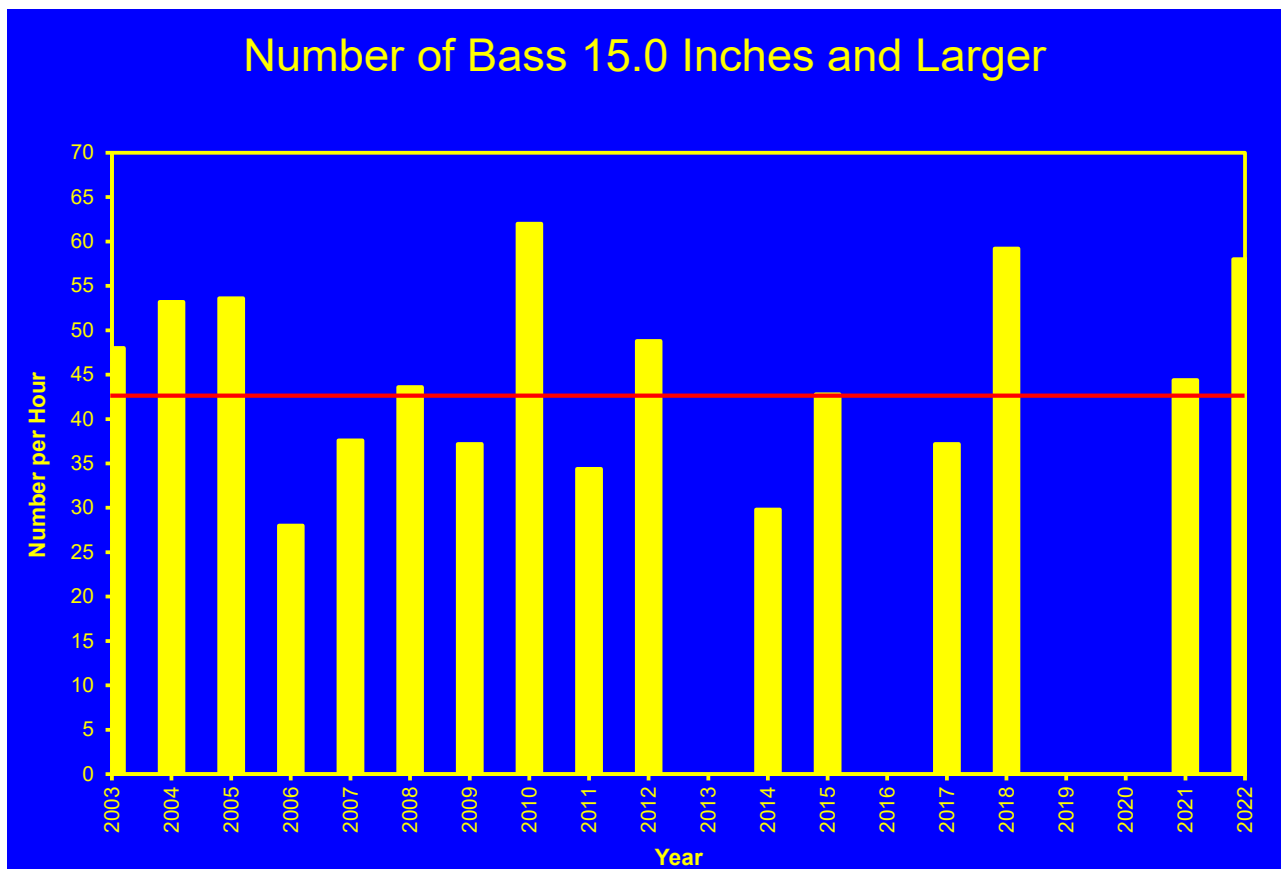
Parameter 3 – Number of 12.0- to 14.9-Inch Bass

The electrofishing catch rate for 12.0- to 14.9-inch largemouth bass averages 43.6 fish/hour from 2000 to 2022. This parameter is important because it directly represents the number of fish currently protected by the 12.0- to 15.0-inch protective slot limit. Despite “Fair” catch rates for age-1 bass through time, the catch rate for bass 12.0- to 14.9-inches remains “Good” to “Excellent” when compared to similar lakes. Age and growth data collected indicate largemouth bass growth is highly variable but has improved to “Excellent” for 2021 when compared to similar lakes.



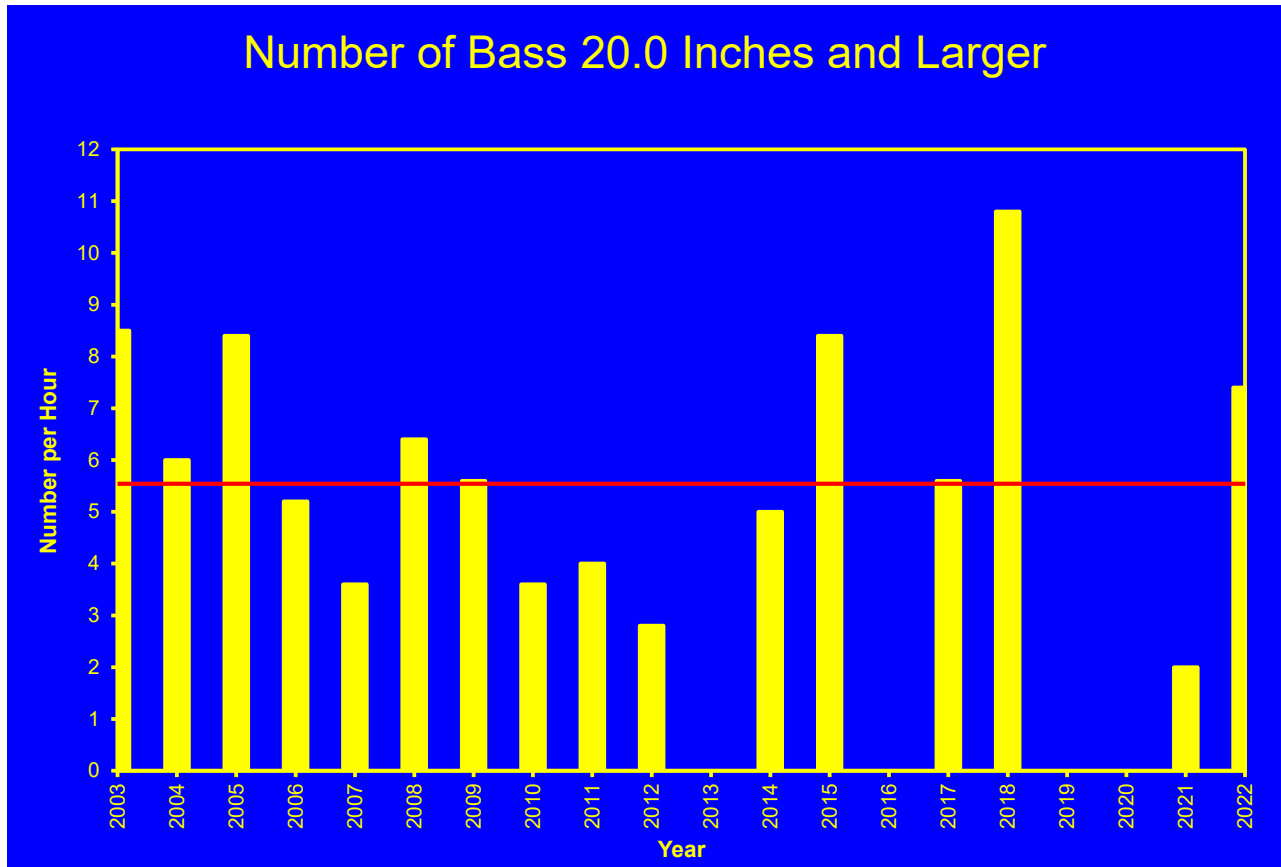
Parameter 4 – Number of Bass 15.0-Inches and Larger

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 Lake Malone has averaged 42.9 fish/hour of electrofishing from 2000 through 2022. The catch rate of 15.0-inch and larger fish has been relatively stable through the years with most variability attributable to sampling conditions and timing in relation to the spawn. Large fish are most susceptible to capture during the pre-spawn staging. When sampling occurs during this window it positively impacts the catch rate for bigger fish. Recent samples are within the expected range and are “Excellent” compared to similarly sized lakes.



Parameter 5 – Number of 20.0-Inch and Larger Bass

The electrofishing catch of 20.0-inch and larger largemouth bass has averaged 5.5 fish/hour for Lake Malone from 2000 to 2022. When compared to similarly sized lakes this catch rate is considered “Excellent”. Fish of this size in a reservoir environment are difficult to sample consistently which likely accounts for the range in catch rates rather than any significant change in the population. There are numerous 18.0- to 19.9-inch fish in the population that will be jumping to 20.0+ in 2022 and 2023.



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

Overall, the largemouth bass fishery at Lake Malone has averaged a “Good” rating (16.2) over the past 22 years as indicated by the red line. High catch rates of 15.0-inch and larger and 20.0-inch and larger fish provide many opportunities for big fish each year. Sampling data can be highly variable due to a multitude of factors, therefore, it is important to look at all data over time as opposed to information collected in a single year, or a single parameter, when making management decisions. If age-1 surveys were a bit more consistent Malone would be firmly in the “Excellent” range. Overall, the largemouth bass population at Lake Malone is relatively stable and performing very well.

