Smith Mountain Lake
2021

Smith Mountain Lake is a 20,600-acre impoundment located near Roanoke, Virginia. This reservoir is one of Virginia's premier fisheries, offering a variety of fishing and other recreational opportunities. The reservoir is owned by American Electric Power Company and is managed primarily for hydroelectric power generation. Most of the shoreline is developed with residential homes but other facilities catering to outdoor enthusiasts are found at various locations.

Black bass (largemouth and smallmouth bass) are the most sought after species by anglers at Smith Mountain Lake. Largemouth bass comprise approximately 90% of the black bass fishery. Extensive electrofishing surveys conducted by DWR fisheries biologists each spring provide annual assessments of the population and shows the largemouth bass population increased from 2015 to 2019 and has been stable the past three years. Fewer smallmouth were collected in 2020-2021 than the long term average but smallmouth are not sampled as efficiently as largemouth bass and it could potentially be just sampling variation and not substantial changes in the population. Future sampling will confirm if the smallmouth numbers are declining or remaining stable.

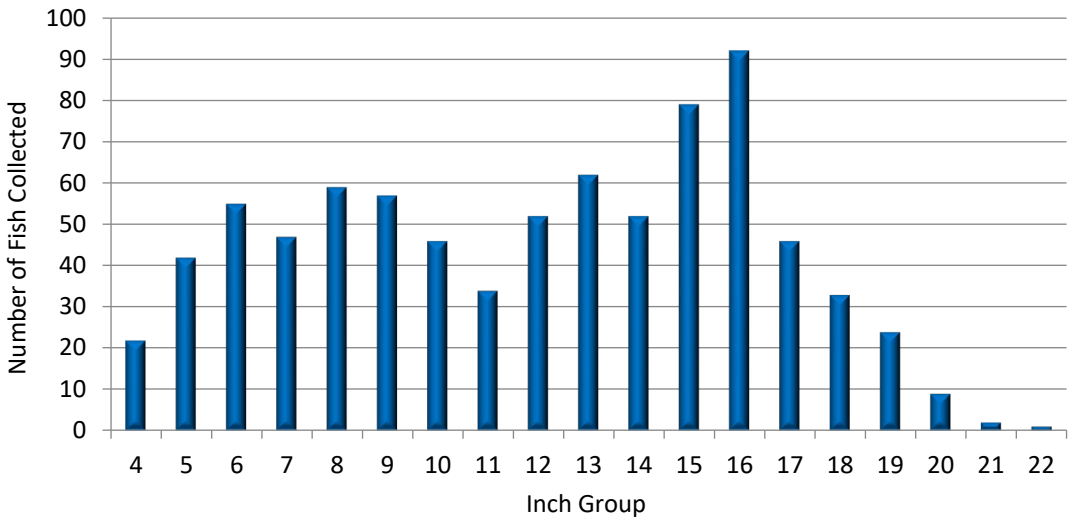
The bass population at Smith Mountain Lake is very good but this fishery receives a lot of fishing pressure, making it challenging for many anglers. The lake has good largemouth bass numbers throughout the reservoir but the highest densities of largemouth bass in this reservoir are found upstream (heading away from the dam) of Hales Ford Bridge area in the Roanoke River arm and buoy B26 in the Blackwater River arm. However, anglers are often more successful in the downstream areas where the water is less stained and bottom contours are flatter than the vertical shorelines of the upper end. Smallmouth bass are most abundant in the downstream end of the reservoir.

Piers and boathouses provide shoreline structure and are productive in the spring and early summer. Fishing around and under boat docks/piers from the water is legal but remember to be courteous to dock owners. Additionally, natural structures such as fallen trees, rock shoals and points are seasonally productive. Coves typically produce the best largemouth bass angling opportunities during the winter and spring months due to shallower water and less boating traffic. However, bass tend to move into deeper water, closer to the main channel areas, and often suspend seeking schooling shad during the warmer months (July-October). To avoid the heavy boat traffic in the summer, anglers should concentrate their efforts at night or early in the morning.

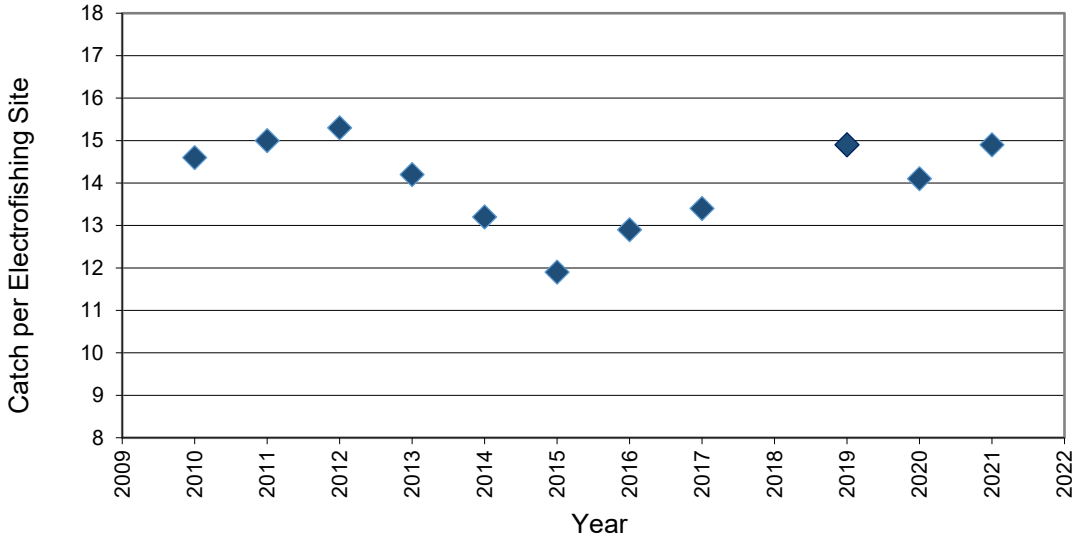
The Department of Wildlife Resources is currently involved in a pilot program to assess the potential for enhancing the quality of largemouth bass fisheries in large Virginia reservoirs (1,000 acres and larger) by stocking F1 largemouth (also referred to as “Tiger” bass) bass at relatively low rates. F1 largemouth bass are produced by using one parent that is 100% Florida bass and the other 100% Northern bass. Crossing these 100% parents often produces offspring that grow a little faster than other largemouth bass. Largemouth bass (wild) in Smith Mountain Lake were actually about 50% Florida and 50% Northern genetics before stocking began so the

stocking will not change the genetic makeup of the current bass population. Only the first cross of the 100% x 100% parents exhibit the growth advantage, so future offspring of the stocked bass will perform and grow just like the current wild bass population. Smith Mountain Lake received the first stocking in 2015 and DWR has recently added four additional large reservoirs as test waters for this project. Only the reservoirs included in this pilot program will be stocked with F1 Largemouth Bass until the success, or lack of, has been fully evaluated.

There are two primary components of the bass stocking study; how much do stocked bass add to the overall bass population and do stocked fish achieve larger sizes and improve the catch of trophy bass. Initial evaluation of the stocking program at Smith Mountain Lake showed stocked bass added approximately 7% to the number of bass produced each year for the first few years. Additional data to determine stocking contribution to the population for three more years were collected in 2021 but all the samples have not been processed at the time of this report. Samples of largemouth bass weighing at least four pounds, have been collected each spring since 2019 to evaluate the trophy component of the stockings. The first stocked bass weighing over four pounds was found in 2019. Stocked bass collected over four pounds continues to increase and added 13% to the number of bass caught over four pounds in 2021.



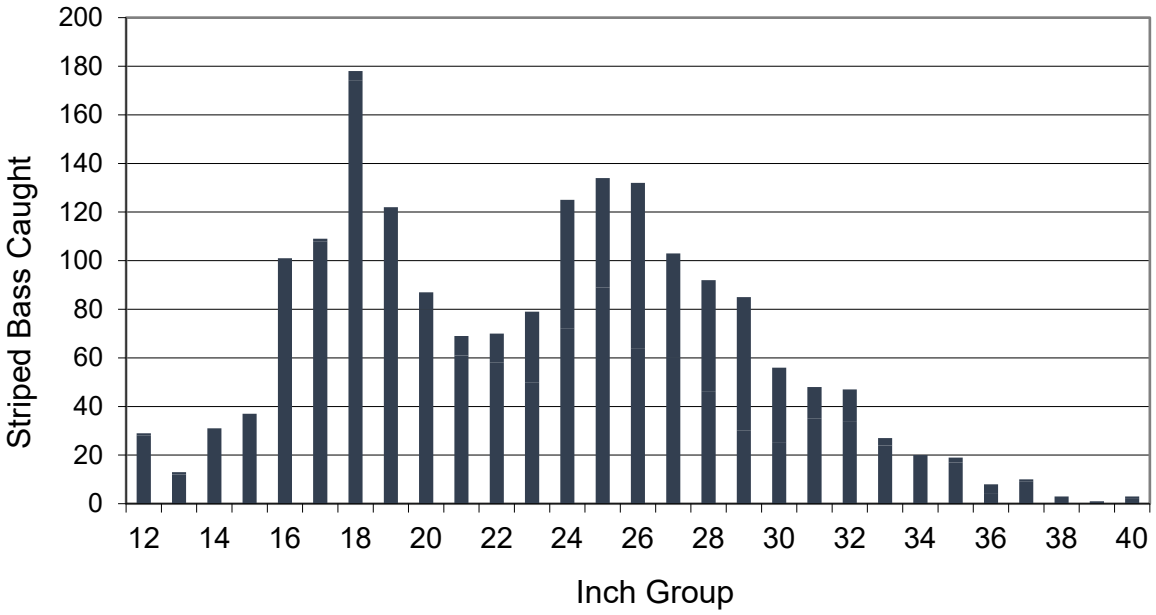
Smith Mountain Lake largemouth bass data collected during DWR sampling in the spring of 2021. Each bar represents the number of bass collected for each inch group.



Smith Mountain Lake annual catch rate for largemouth bass (≥ 8 inches) collected during DWR sampling each spring.

The Department of Wildlife Resources began experimenting with adding different types of habitat to Smith Mountain Lake that will protect juvenile fish during their first summer when mortality is highest. After several years of testing different habitat structures, larger scale habitat deployments began in 2017. Department of Wildlife Resources continues to monitor how fish use the various structures to determine the best structure designs for this lake. To date, structures have been placed primarily at the lower end of the lake because water clarity is better which allows DWR personnel to better evaluate the different structure designs. The structures are generally placed 8-10 feet deep because our studies have shown that juvenile fish seldom go deeper than 10 feet. Although these structures are not specifically designed as "fish attractors" for anglers to fish on, they are seasonally productive for adult fish, especially in the spring when most fish move shallower for spawning. GPS coordinates of these structures are available by contacting the DWR Forest regional office.

Smith Mountain Lake is recognized nationally for its striped bass fishery. Striped bass have been stocked into this reservoir since impoundment in 1963. Lack of sufficient spawning habitat for striped bass prevents natural reproduction. Unlike other species, stocking is required to maintain the striped bass fishery. Smith Mountain Lake is one of the few Virginia reservoirs that can consistently produce larger striped bass and the lake is managed specifically to maintain this trophy component with a protective slot limit of 30-40 inches (only for the months of Nov-May).



Smith Mountain Lake striped bass data collected from angler diaries in 2021. Each bar represents the number of stripers caught and recorded in angler diaries for each inch group.

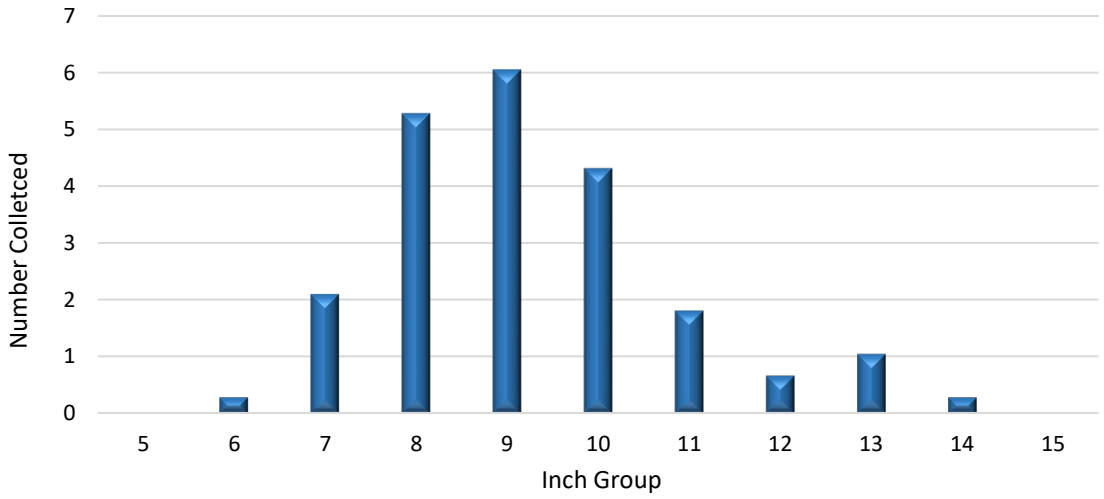
Studies have consistently shown that catch and release of striped bass in the summer months results in higher mortality than colder months. Most of these striped bass die 1-2 days after release, sink to the bottom, and never surface. Catch and release mortality appears to be especially high for the larger fish. Consequently, anglers should not be targeting large striped bass with the intent of catch and release during the summer months. Smaller fish (generally < 22 inches) usually survive summer release rather well. The Department of Wildlife Resources encourages striped bass anglers to stop fishing after catching their 2-fish limit in the months of June-September and occasionally during warm periods in October. Catch and release mortality decreases substantially after water temperatures drop below 70º. Catch and release is recommended for striped bass from November through May.

Striped bass are distributed throughout the lake during most of the year, but are concentrated in lower lake (generally between the dam and the bridge on the Roanoke Arm and up to marker B14 of the Blackwater Arm) areas during the summer months. Coves are typically not very productive for striped bass during the summer, anglers should concentrate their efforts on the main lake when water temperatures begin to rise. Some of the bigger coves and the upper ends of the lake are more productive during the fall, winter, and spring months. Although these are the general areas most striped bass are caught, these fish are very mobile and may change locations continuously depending on forage availability, water temperatures, and spawning. Striped bass anglers utilize a variety of fishing methods such as drifting or slow trolling live shad, trolling (plugs, bucktail jigs, swim baits, umbrella rigs), casting lures (flukes, swim baits, bucktail jigs), or vertical jigging. Anglers use live shad throughout the year, trolling is most popular during the warmer months, casting lures is most productive during the winter and spring at night, and vertical jig fishing is productive in the winter and summer.

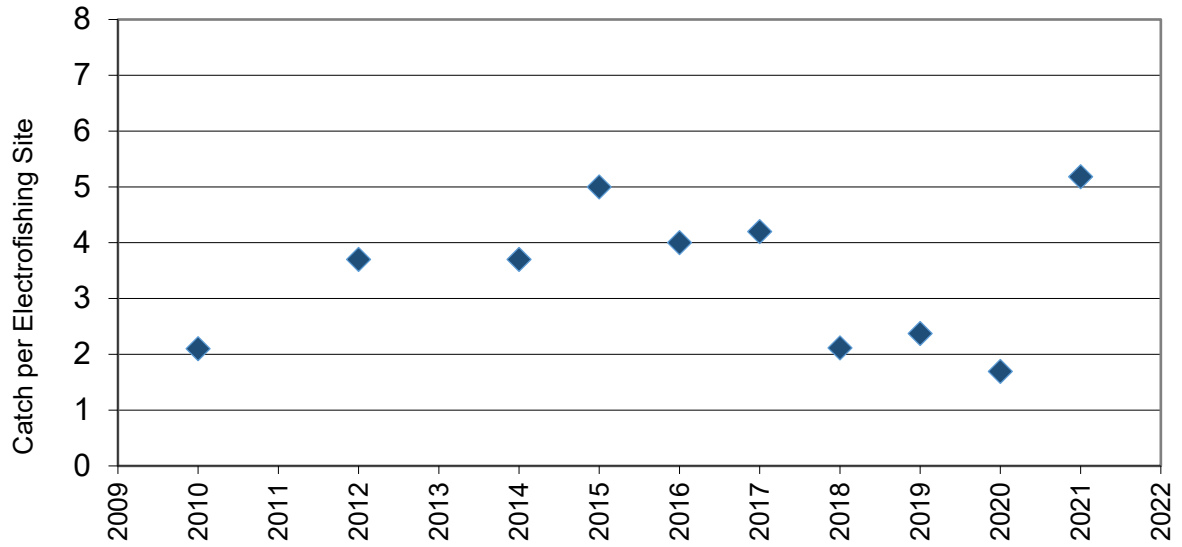
The Department of Wildlife Resources does not typically collect older and larger (over 8 lbs) striped bass in their routine sampling, but these data are very important for monitoring the fishery. Any willing angler is asked to keep striped bass heads from fish they harvest larger than

26 inches or 8 pounds. The heads can be frozen and delivered to a freezer at “Captain’s Quarters”, located next to Hales Ford Bridge, where DWR will pick up them up. Be sure to fill out and include a form for each fish detailing the length and when it was caught. If you would like to know the age of the fish, include your mailing or email address and you will be sent the information after the fish has been aged. Fish have an inner ear bone in the head (termed “otolith”), from which the age is determined. Each otolith contains rings similar to tree rings and can be counted for an accurate age determination.

This reservoir has limited crappie habitat. Although the lake produces many quality-size crappie, anglers should not expect to consistently catch large numbers of crappie. The crappie population is smaller than some other Virginia reservoirs but the quality of these fish is still good. Large coves and the upper ends of the reservoir should be the most productive, especially near fallen trees, brush piles, and some docks. Angler creel surveys indicate crappie anglers were generally most productive in March-May but October-December were also typically good months for crappie fishing. Department of Wildlife Resources sampling indicated the crappie population had been stable for many years, produced lower numbers in 2018-2020, but returned to above average numbers in 2021.



Smith Mountain Lake crappie data collected during DWR sampling in the spring of 2021. Each bar represents the number of crappie collected for each inch group.



Smith Mountain Lake annual catch rate for crappie collected during DWR sampling each spring.

Sunfish and catfish are also present at Smith Mountain Lake. Sunfish are abundant but competition with shad prevents good growth, most of these fish are small. Green sunfish are especially abundant along riprap shorelines and provide great angling opportunities during the warmer periods, especially for those youngsters who are not concerned with catching large fish but are satisfied with catching many fish. Small artificials or live bait such as worms on a bobber will all work when fished at the riprap edges. Channel catfish, flathead catfish, and white catfish make up the catfish fishery. Flathead and channel catfish are most abundant in the upper reaches of the Roanoke and Blackwater Arms and white catfish are found primarily in the lower third of the reservoir where the water clarity is much better. Catfish anglers can enjoy good fishing from the shoreline and docks.

White perch are a relatively new species to the lake and have recently provided great fishing opportunities. This species can be found throughout the reservoir but higher concentrations are typically found in the lower end (dam end) of the reservoir. White perch generally travel in large groups (schools) and can provide fast action after a “school” of white perch is located. Anglers should look for large numbers of smaller fish on their electronics, especially along points in 15-30 feet of water near channels most of the year. After locating a “school” of white perch, vertical jig small spoons or drop baits (small of pieces of cut bait or worms). White perch can also be found along shoreline structure especially in the spring and fall months but will return to deeper open water when the water begins to warm in the summer or gets colder in the late fall and winter.

Numerous public and private boat ramps and marinas are found around the lake. In addition, there are very nice handicapped-accessible fishing piers located in the Smith Mountain Lake State Park, Franklin County Park, Scruggs boat ramp, and Penhook boat ramp. Additional information concerning the fishery can be obtained by calling DWR at 434-525-7522.