

Buggs Island Lake Report 2021



Buggs Island Lake (also known as Kerr Reservoir) is a 48,900-acre impoundment of the Dan and Staunton Rivers on the Virginia-North Carolina border in Mecklenburg County, Virginia. The reservoir was created in 1952 and is operated by the U.S. Army Corps of Engineers (COE) for hydroelectric generation, flood control, water supply, and recreation. The Virginia Department of Wildlife Resources (VDWR) is charged with the responsibility of managing the fisheries resources of the reservoir. Buggs Island Lake has an average depth of about 30 feet and about 800 miles of shoreline. Full pool is at an elevation of 300 feet (msl) which is important since the lake can fluctuate about 15 feet per year.

Buggs Island Lake has a diverse sport fishery that attracts anglers from across the country. The most popular fisheries are for Largemouth Bass, crappie, catfish (channel, blue and flathead), and Striped Bass. Each of these species is supported by natural reproduction, although VDWR stocks Striped Bass to supplement the fishery.

Largemouth Bass

Largemouth Bass are by far the most popular species in the lake. In 2017, 52% of the total fishing effort for the lake was for Largemouth Bass. Angler catch rates average 0.61 fish/hour, which is very good (one fish for every 1.6 hours of fishing). Catch rates vary little throughout the year so anglers can typically expect good fishing at any time. VDWR performs spring electrofishing samples annually to track bass population changes. Good numbers of bass sampled in 2020 were in the 12-17 inch range but fish up to 22 inches were observed. Sample catch is measured as fish caught per hour of effort (CPUE) and average catch with this sampling technique is 74 f/hr. CPUE in 2020 was excellent at 110 f/hr and the best creek arms for abundant bass included Eastland, Rudds, and Grassy. In spring of 2010, we discovered that largemouth bass virus (LMBv) was present in the population resulting in higher mortality rates, especially in larger bass, and slower growth. Despite the presence of LMBv, the density and reproduction rates of largemouth bass remain consistent and survival estimates increased since the virus was detected in 2010. Spring sampling has shown an increase in numbers of Largemouth Bass greater than 15 inches and tournament catch for bass over 5 pounds, while highly variable, has improved as well. The regulation for largemouth bass is a modified 14-inch minimum length limit and a five fish per day bag limit. Two of the five bass allowed for harvest can be less than 14 inches.

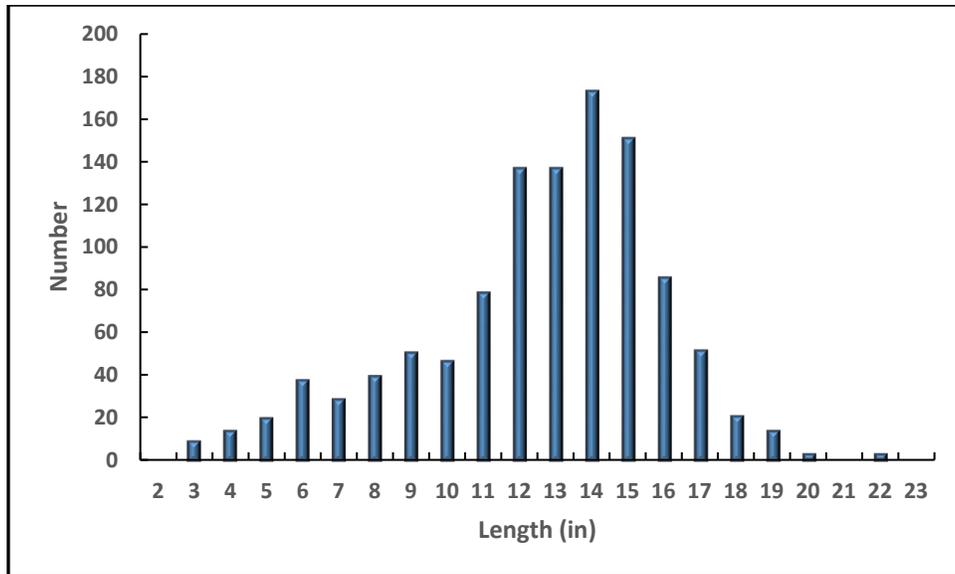


Figure 1. Length-frequency of Largemouth Bass caught in spring electrofishing samples at Buggs Island Lake, spring 2020.

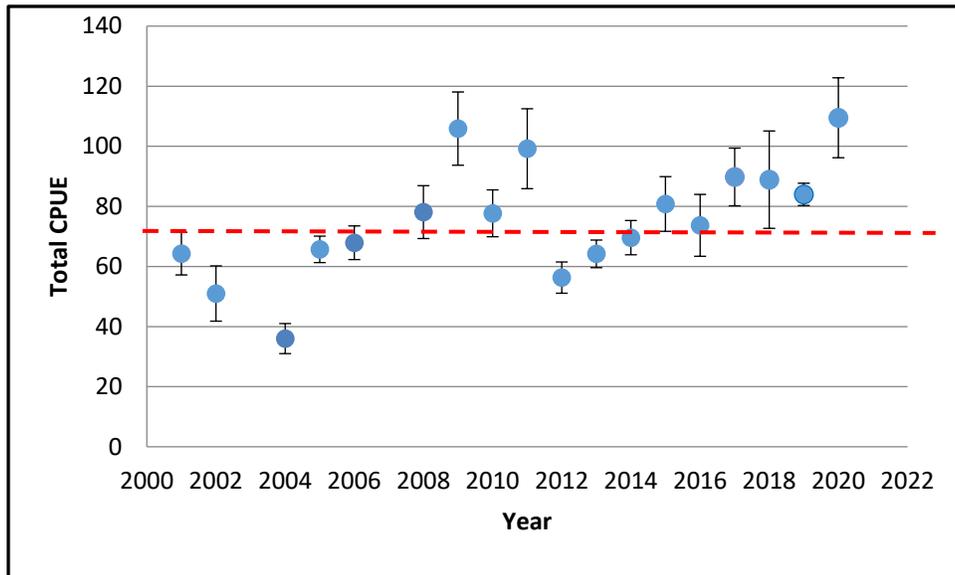


Figure 2. Largemouth Bass CPUE (fish/hour) at Buggs Island Lake. Red line indicates the long-term average CPUE.

Crappie

In addition to an excellent Largemouth Bass fishery, Buggs Island has one of the best crappie fisheries in the southeast. While both Black and White Crappie reside in Buggs Island Lake, the

large majority are Black Crappie. Crappie are the second most sought after species at Buggs Island Lake making up about 22% of the total fishing effort. Crappie make up 80% of the total fish harvested at Buggs Island with an average size harvested of 10 inches (about $\frac{3}{4}$ pounds). However, 1-2 pound fish are common. Crappie catch rates are high with 1.04 crappie caught per hour and are consistent throughout the year. However, most crappie are caught during the spring as the fish move shallow to spawn. Crappie fishing tends to be better in the creeks as opposed to the main channel. Some of the better creeks are Buffalo, Grassy, Butcher, Bluestone, Eastland, and Panhandle. The VDWR surveys crappie populations during the spring to monitor abundance, growth and survival. Overall, abundance and survival are good and Buggs Island produces some of the largest crappie in the state. Anglers have recently complained that catch rates have declined and VDWR surveys have supported those finding. Recent, poor recruitment is likely the cause of the decline and fishing pressure also remains very high. A minimum size (9 inches) and creel limit (25 fish/day) went into effect on January 1, 2019. Population trends will be closely monitored due to the high variability of growth rates of crappie and the potential to stunt the population if slow growing individuals are protected by the length limit.

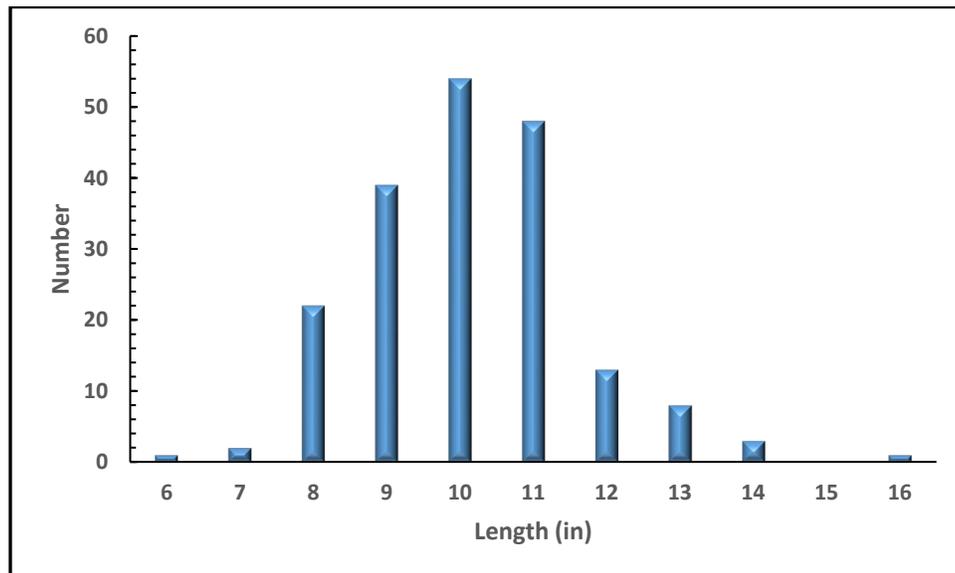


Figure 3. Length-frequency of crappie at Buggs Island Lake in 2020.

Catfish

Buggs Island is home to Blue Catfish, Channel Catfish, Flathead Catfish, and White Catfish with the Blue Catfish gaining the most attention from anglers. Based on VDWR gill net surveys, blue catfish are the most abundant of the four species, continue to expand in the reservoir, and also grow the largest. In fact, Buggs Island is home to the largest blue catfish ever caught with hook-and-line. In June 2011, a 143-pound Blue Catfish was caught, crushing the previous record of 130 pounds! Despite the potential for trophy Blue Catfish, a study performed by Virginia Tech showed that growth rates of Blue Catfish are slower than other similar lakes in the country. Despite this slow growth, anglers are very satisfied with the fishery and enjoy being able to

capture fish to eat and the potential to catch catfish over 100 pounds. The Blue Catfish fishery gains popularity each year and attracts anglers and tournaments from all over the country. Anglers can catch Blue Catfish year-round while summer is best for flatheads and channels. Catfish fishing tends to be better from late afternoon to late morning. The best areas for catfish tend to be from Goat Island to the confluence of the Dan and Staunton Rivers. Live and cut bait tend to work best for blue cats.

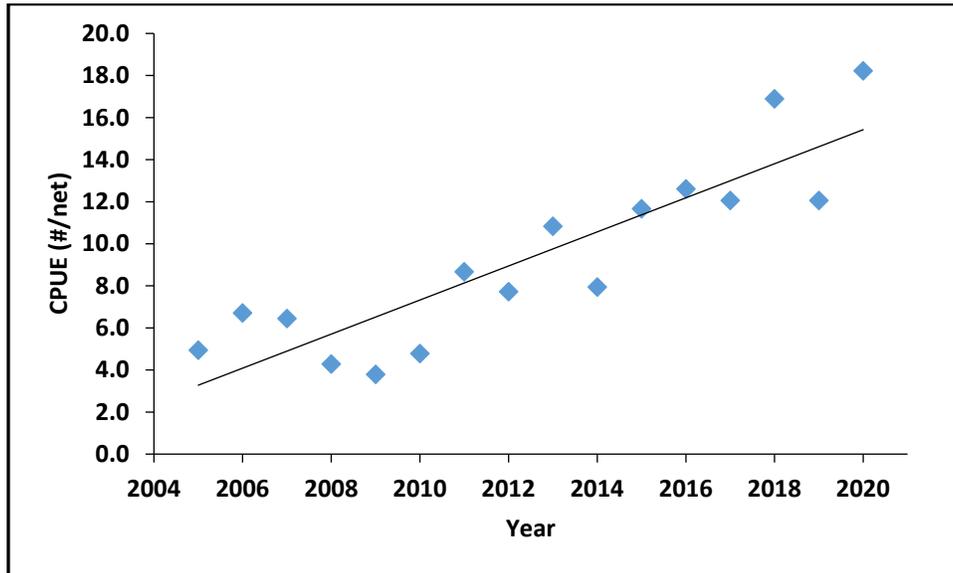


Figure 4. CPUE (#/net night) of Blue Catfish captured in fall gill nets at Buggs Island.

Striped Bass

Buggs Island is one of only a few lakes in the country where Striped Bass reproduce naturally. Each spring, adult fish migrate up the Staunton and Dan Rivers where they provide a popular fishery. During the summer, Striped Bass congregate in the lower end of the lake where they can find the only cool, oxygenated water available at that time. Fall and winter find Striped Bass spread throughout the reservoir as fish begin actively feeding. Striped Bass feed on abundant supplies of Gizzard Shad, Threadfin Shad, Alewife and Blueback Herring. Fisheries biologists monitor the Striped Bass population with gill nets set in the fall to get important information on abundance, size distribution, reproductive success, growth and survival. Striped bass reach 20 inches in 2 to 2½ years but growth of older fish is slower than Smith Mountain Lake stripers. At Buggs Island, Striped Bass typically range between 5 and 10 pounds (22 – 30 inches). Striped bass growth rates have slowed in recent years due mostly to a parasitic copepod (“gill maggot”) infestation and reduced productivity of the Buggs Island system. A split regulation season was implemented in 2006 to try to ameliorate the impacts of summertime mortality associated with fishing stress. From June to September there is no length limit and a four fish creel limit. Anglers are encouraged to quit fishing after catching those four stripers. In the cool season, October to May, there is currently a 20” length limit and 2 fish creel to protect some stripers to grow to a larger size.

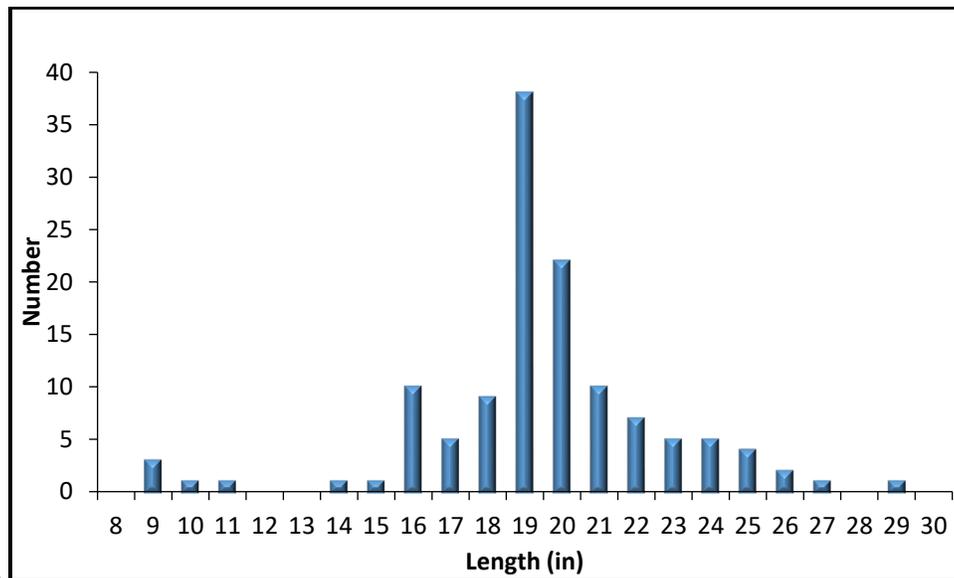


Figure 4. Length-frequency of Striped Bass at Buggs Island Lake in 2020.

Other Species

Fisheries biologists first documented White Perch in 1988 and since that time, the White Perch population has exploded and they are now one of the most abundant species in the lake. White Perch rarely exceed 10 inches, which likely limits their popularity with anglers.

Walleye are present as well, although they are not very abundant. Gill net samples conducted by fisheries biologists in the fall routinely pick up Walleye (2-6 pounds) in the South Bend area near Goat Island. There is also the potential to catch a Walleye in Kerr with a reward tag. We are currently performing an exploitation, tagging study in the Staunton River so there is potential for Kerr anglers to capture one of these Walleye if they return to the reservoir. Anglers can return the tag (address on the tag) with information on the date they caught it, where they caught it, whether they harvested or released the fish, and if they were targeting Walleye.

Summary

Anglers spend more than 400,000 hours fishing at Buggs Island Lake each year. Anglers not only have a variety of high quality fisheries to choose from, but there are numerous campgrounds, access points and boat ramps for the lake. Buggs Island Lake and the surrounding recreation areas receive about 4 million visitors each year. There is a reciprocal fishing license agreement between the VDWR and the North Carolina Wildlife Resources Commission meaning that either state fishing license is legal. For a more complete list of fishing regulations, please obtain the current year Virginia Freshwater Fishing Regulations booklet or visit our website at <https://dwr.virginia.gov/>.

