

What is going on in Briery Creek Lake? Can the trophy production of largemouth bass be maintained?

Have you been out to Briery Creek Lake recently and wondered what was going on with the orange fencing spread across two coves?



Well that is just one piece of a research project designed to continue Briery's trophy bass population. This work has been going on for the past three years in conjunction with Virginia Tech.

Beginning in 2001, the Virginia Department of Game and Inland Fisheries (VDGIF) noticed a relatively low abundance of juvenile largemouth bass. This prompted further investigation to determine the fate of the young bass. Through this focused effort it was determined that by the end of the first summer of life the abundance of largemouth bass in Briery was only 25% of what was found in nearby reservoirs, such as Sandy River Reservoir. This prompted VDGIF to start research in association with Virginia Tech.

This research, which began in 2005 has examined the first year of life of largemouth bass in an effort to figure out why the abundance of young largemouth bass is so much lower in Briery.

So what was the purpose of the closed coves? Well, the main reason these areas were closed to fishing was to determine if anglers had a negative effect on the young bass. This effect would most likely have been due to catching the males which are guarding the nest during the spring. Without the parental care the eggs and young bass are very easily eaten by other fish, primarily bluegill which could lead to the lower abundance observed. However, the researchers from Virginia Tech report that there was no difference in abundance of young bass between the closed and open areas of the reservoir. This means that anglers are not the cause of the lower abundance.

The work that has been going on did not just focus on fishing. You may have run into a biologist out on the lake this past spring. He was monitoring the success of bass spawning. The results of that part of the project found nearly 60 nests around the lake with over 50% producing young. This may seem low

but when compared to Sandy River Reservoir where only 31% of the nest found produced young the researchers were able to show that the young were initially present in Briery but something later in life was causing the lower abundance.

The VT researchers monitored the abundance of the young bass from when they hatched through the fall and found that the decline in abundance occurred by late June. They also observed that the young bass found in Briery were much smaller than those found at the same time in Sandy. This led to work, which is ongoing, looking at food availability and diet quality.

The initial results from this work show that a primary food resource in Briery is half the size that it is in Sandy. Further, the concentration of the enzyme responsible for digesting protein in fish is lower in Briery than it is in Sandy. From this, the researchers are targeting the first month of life to determine why the bass are smaller and less abundant in Briery. This work will soon be finished and from this research the answer to 'Can the trophy production of largemouth bass be maintained?' should be YES!