



## Lake Brittle 2011

Lake Brittle (77-acres) is located in Fauquier County near the town of Warrenton. This lake was impounded in 1953 and became the first impoundment in Virginia built with Dingell-Johnson Funds which are tax dollars from the sale of fishing tackle (now referred to as the Sport Fish Restoration Act). Lake Brittle offers anglers a typical warmwater fishery comprised of largemouth bass, bluegill, redear sunfish, black crappie, and channel catfish. In addition to the aforementioned species, walleye have been stocked annually since 1979. Walleye, a coolwater species, have done well in this small impoundment and offer anglers a unique opportunity to catch a traditionally northern species. Several undesirable species such as green sunfish, brown and yellow bullheads, gizzard shad, and the common carp account for much of the fish biomass in this small impoundment.

DGIF fisheries biologists sample the fishery approximately every two to three years. Most recently, an electrofishing sample was conducted in May of 2010. Biologists employ numerical descriptors of length-frequency data such as Proportional Stock Density (PSD) and Relative Stock Density (RSD) when evaluating fish populations. Proportional Stock Density is calculated by dividing the number of fish  $\geq$  minimum quality length by the number of fish  $\geq$  minimum stock length  $\times$  100. Quality length is defined as the minimum size of fish most anglers like to catch. Stock length is the minimum length at which a fish provides recreational value. Relative Stock Density (RSD) is simply the percentage of any designated length group found within a population. RSD is calculated by dividing the number of fish  $\geq$  specified length by the number of fish  $\geq$  minimum stock length  $\times$  100.

The population structure of largemouth bass remained similar to findings from 2006, with Proportional Stock Density (PSD) values virtually unchanged (PSD 56 in 2010) over the previous sample in 2006 (PSD 57). Relative Stock Density of "Preferred" fish (RSD-P) greater than 15" increased to 28 in 2010, which is slightly higher than the RSD-P value from the previous sample year (26). Catch per unit effort (CPUE) of largemouth bass was 81 fish/hour. What does this mean for bass anglers? A desirable size structure exists and angler success should be very good for bass larger than 15".

The bluegill fishery has declined since the 2006 sample and is currently out of balance (PSD 70), however some large fish are available for angler to pursue. Panfish fisheries are generally considered "balanced" when PSD values fall in the range of 20 – 60. Ample opportunities exist for anglers to target panfish during the spring/summer when these fish tend to move in shallow shoreline areas that are accessible by both bank or boat anglers. Most bluegill at this time are going to fall in the 5"-7" range, with the occasional larger fish. Redear sunfish on the other hand are available to anglers up 11", with most fish averaging 7"-9".

Black crappies generally are considered an undesirable species in small impoundments due to their ability to quickly overpopulate and stunt. Lake Brittle is no exception, with large numbers of small crappies (<8") dominating the population. Anglers are encouraged to fish for and harvest any crappie caught up to the 25-fish/day creel limit. Crappies are readily available lake-wide during the spring – early summer months. Anglers should concentrate on fishing structure whether it is a natural downed tree or a marked fish attractor. Numerous fish attractors are located around the lake, which are marked with buoys for easy identification. Small jigs or minnows seem to work best on this prolific panfish.

Channel catfish are another popular fish species available to anglers. DGIF annually stocks channel catfish at rate of 20 fish/acre to maintain a quality fishery. Walleye are the only other species that are stocked annually at a rate of 100 fish/acre. Both walleye and channel catfish generally do not successfully reproduce in small impoundments and are stocked on an annual basis to provide additional fishing opportunities.

In 2008, the Department began a walleye tagging study at several locations around the Commonwealth. Lake Brittle was included in the study designed to learn more about angler catch rates and harvest of walleyes and the project is scheduled to last through 2011. One hundred walleyes have been tagged annually at Lake Brittle with sequentially numbered floy tags attached below the dorsal fin. Anglers who catch a tagged walleye can return the tag for a \$20 reward. Anglers can remove the tag by cutting through the plastic attachment with a knife or scissors. The fish then can be released or harvested (minimum 18" length limit applies). Successful anglers can return the tag and catch information to the address printed on the tag. Important catch data include the contact information and the answers to a few questions. What was the date, time, and general location of the catch? Was the fish harvested or released? Were you fishing for walleyes? And lastly, did you catch other walleyes? Postage prepaid envelopes are available at the lake concession. Preliminary results show that anglers caught roughly 30% of tagged walleyes annually. Additionally, harvest of tagged fish has average around 50%. What has been learned through this study is that anglers catch more walleyes than previously thought. The walleye population is also larger and more robust than expected and the population seems to be expanding. As the quality of the fishery continues to develop more anglers that target specifically walleyes are visiting Lake Brittle.

General regulations are posted at the parking area at Lake Brittle. Fishing is permitted 24 hours a day and a boat ramp is available for anglers to use free of charge. In addition to boat access, there is ample shoreline for bank anglers and a public fishing pier. A concession is seasonally operated at the lake (open March – October) which offers boat rentals, live bait, fishing tackle, and snacks.

Lake Brittle can be reached from Rt. 29 by turning east onto Rt. 600 near New Baltimore. Once on Rt. 600, turn right onto Rt. 793 and follow trailblazer signs to the lake.

For more information about Lake Brittle, please contact:  
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