



Beaverdam Reservoir 2009

Introduction and History

Beaverdam Creek Reservoir is a 350-acre water supply impoundment located in eastern Loudon County that is owned and operated by the City of Fairfax. Access is currently limited at the reservoir's two primitive boat ramps due to security concerns post 9/11. The reservoir can be reached from Leesburg by heading south on Evergreen Mill Road. Then take a left onto Rt. 629 (Reservoir Road) and follow this road to the lake. Large boulders have been placed to restrict trailer access, though cartop boats/canoes are welcome for anglers willing to make the 100-yard hike to the water. Currently parking is limited to 5-6 vehicles. The other access point can be reached off of Belmont Ridge Road. Improvements or increased access to the reservoir are not likely at this facility due to jurisdictional issues. The City of Fairfax owns the reservoir, but will not develop property in Loudon County and Loudon County will not develop property that it does not own.

The reservoir was impounded in 1972 and stocked shortly thereafter by the Virginia Department of Game and Inland Fisheries (VDGIF) with bluegill and redear sunfish. Largemouth bass and channel catfish were stocked in 1973. Additionally, channel catfish were stocked from 1974-1977, and in 1982, 1984, 1987, and 1990. Historical stockings included tiger musky, hybrid striped bass, striped bass, and blue catfish - all of which were discontinued as a result of poor survival, low catch rates, and/or a change in management philosophy. The current fishery is maintained entirely by natural reproduction and includes bluegill, black crappie, common carp, largemouth bass, redear sunfish, white perch, channel catfish, gizzard shad, golden shiner and a limited population of smallmouth bass.

Methods

Fisheries sampling at Beaverdam Creek Reservoir by VDGIF biologists occurs about every five years – the last two samples were conducted in May of 2002 and 2008. Biologists employ shoreline electrofishing to obtain estimates of population size structure and relative abundance. Abundance is usually described as a catch rate in number of fish per hour. Also, numerical descriptors of length-frequency data such as Proportional Stock Density (PSD) and Relative Stock Density (RSD) are used when evaluating fish populations. PSD is calculated by dividing the number of fish \geq minimum quality length by the number of fish \geq minimum stock length x 100. Quality length is defined as the minimum size of fish most anglers like to catch (national standards – for example, 12" for largemouth bass). Stock length is the minimum length at which a fish provides recreational value and/or is recruited to the fishery (8" for largemouth bass). 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 x 100.

Bass

Largemouth bass catch rate and population size structure have consistently improved over the past four surveys spanning two decades. Catch rate of “preferred” size bass (those fish 15” total length and longer – a national index) reached an all-time high in 2008 at 28 fish/hour. This metric ranked Beaverdam Creek Reservoir 5th out of 18 managed impoundments in the Northern Virginia District. Also at a record high was a RSD of “preferred” bass = 47 indicating that the population size structure was composed mostly of larger fish and that stunting and/or stockpiling of small bass was not an issue (47% of all “adult” bass were at least 15”). Condition of bass was excellent – probably as a result of ample forage (gizzard shad, white perch, bluegill and golden shiner), and growth (while not measured) was probably above average.

In addition to largemouth bass, two smallmouth bass were collected in 2008 (three were sampled in 2002). However; these fish were impressive (16-19”), and this population has the potential to provide a trophy fishery. Low capture rates are probably due to limited immigration of this primarily riverine species from tributaries and a competitive disadvantage with the more lake-oriented largemouth bass population.

Bass fishing at Beaverdam Creek Reservoir is currently managed under the State standard black bass limit which means that there is a creel limit of five black bass per day in aggregate (largemouth and smallmouth) with no size limit. The slot limit was removed several years ago when it was determined that very few bass anglers were keeping bass.

Panfish

The bluegill population continued to exhibit very poor size structure, as all fish collected measured less than 6.5 inches. Catch rate was moderate to high (116/hour) and was similar to past samples. It is likely that the bluegill population is limited by habitat and competition from other species. The cooler, clear water of Beaverdam Creek Reservoir does not favor bluegill, and the presence of white perch and gizzard shad usually result in poor bluegill population size structure due to excessive competition.

Factors limiting a bluegill population may limit a black crappie population, which is a possibility at Beaverdam Creek Reservoir. However; with only five fish collected, it was impossible to evaluate this fishery. Crappie ranged in size from 8-13”, so it is possible anglers may be able to locate quality crappie among the beaver lodges and boulders strewn along the lake bottom.

White perch were first documented in Beaverdam Creek Reservoir in 1987 with the collection of one individual. Two distinct year classes were present by 1994, and the most recent samples indicated that the white perch fishery has expanded to become one of the more abundant species present. Currently, large numbers of white perch up to 8 inches are available. White perch are notorious for over-populating and stunting in small waters which is why anglers are encouraged to harvest this often underutilized but abundant resource. Small lures or natural baits such as red wigglers or bloodworms are good choices for individuals pursuing this scrappy fish.

For more information on Beaverdam Creek Reservoir, please contact:

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