



## **Germantown Reservoir Fisheries Management Report *Popular Format – Federal Aid Project F111-R* 2018**

Germantown Reservoir is located in central Fauquier County near Midland and is owned by Fauquier County. Built as reserve “emergency” potable water supply decades ago, the lake and surrounding land have been used as a county park. Infrastructure for water withdrawals and/or treatment has not been developed. Fauquier County Parks and Recreation manages C.M. Crockett Park which lies adjacent to reservoir and includes a boat ramp, boat rentals, plenty of shoreline access, parking, restrooms, and a concession. Crockett Park is generally open daily from dawn to dusk, but concession hours vary seasonally and can be checked by contacting C.M. Crockett Park located at 10066 Rouges Road, Midland, 540-422-8873, <http://www.fauquiercounty.gov/government/departments-h-z/parks-and-recreation/facilities/parks/c-m-crockett-park>.

DGIF fisheries biologists sample the fishery approximately every 3-5 years. Most recently, a boat electrofishing survey was conducted in May 2017. 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 x 100. Quality length is defined as the minimum size of fish most anglers like to catch (e.g., 12” for Largemouth Bass). Stock length is the minimum length at which a fish provides recreational value and is recruited to the population (e.g., 8” for Largemouth Bass). 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 x 100. Furthermore, abundance is usually quantified using catch rate or number of fish captured per hour of electrofishing time (also known as CPUE or catch per unit effort). These indices and size groups are nationally accepted standards.

Primary fish species available include Largemouth Bass, Bluegill, Redear Sunfish, and Channel Catfish. Fish populations were sampled in 2017 by electrofishing the littoral (shoreline) zone.

Largemouth Bass were extremely abundant, as CPUE was 247, and population size structure was balanced (PSD=42; bass PSD between 40 and 60 suggests balance within a predator/prey context). Additionally, large fish were common (CPE-P= 39; RSD-P=20; in this case, “P” is preferred fish, or those bass at least 15” total length). These structural indices were slightly below those observed in 2012 but above those in 2008, and all were likely within normal limits of statistical variability suggesting the population has changed little, if any, in a decade. This fishery ranked 3<sup>rd</sup> out of 21 impoundments managed in the district based on catch of 15”+ bass and is classified as “bass heavy”, although the potential for trophy bass exists. Germantown Reservoir has been a consistent producer of “preferred” size bass with minimal variation observed long term, but even more impressive was the CPUE of 7 “memorable” bass per hour (those over 20”). Bass as large as 14 lbs have been caught in the past, however; any bass larger than 8 lbs should be considered a true trophy. Germantown is one of a select few reservoirs in northern Virginia where anglers can reasonably expect to catch an 8-pound plus fish, and 10 pounders and over are not beyond reach. Anglers are encouraged to harvest bass up to 12” but release fish over this size, as this will help alleviate current stockpiling and allow remaining fish to grow out of the bottleneck.

Bluegill and Redear Sunfish were abundant with Bluegill dominating this group. Bluegill size structure improved since 2012, as stock density (PSD=22) was indicative of a balanced population (balanced PSD=20-40) offering anglers (and bass) adequate opportunities. Historical episodes of drought and resulting low water combined with excessive aquatic vegetation (and subsequent triploid Grass Carp stocking) likely resulted in this population’s fluctuation. No carp were observed during the survey, and it is hoped aquatic vegetation will return to an ecologically desirable level without interfering with access and angling. Only eight Redear Sunfish were observed in the sample, but these fish ranged across all size categories – from very small to 8” suggesting consistent albeit low reproduction and/or recruitment.

Black Crappie were the second most abundant fish in the survey, as CPUE was 99. Most fish were in the 7-9" range, but crappie up to 11" were collected. Most fish were found on beaver lodges, and anglers are encouraged to harvest their limit no matter the size (25 per day) since this species exacerbates the predator-heavy scenario already in place due to bass stockpiling.

Channel Catfish are stocked annually at a rate of 10 fish/acre – this is the only species needing stocking, since they do not successfully spawn and/or recruit in small impoundments (all others are naturally self-sustaining). Anglers pursuing Channel Catfish can expect fish to average about 2 pounds with larger fish occasionally landed. Two Channel Catfish were collected during the survey despite their low vulnerability to the gear (one was 22"). Since access is only during daylight hours; catfish harvest may be limited, since they are generally most active at night.

Other fish species collected during the survey included White Sucker (this native fish was fairly abundant especially along the face of the dam) and Yellow Bullhead. Fauquier County added 150 pounds of Golden Shiner (about 15,000 fish) in December 2017 in an effort to infuse additional forage to the predator-heavy community, while the addition of Christmas tree brush piles will continue in early 2018 and follow up several consecutive years of habitat enhancement. There is indeed good cause for optimism for those making this reservoir their fishing destination in 2018 and beyond. For more information, contact Crockett Park (see above) or VDGIF, Fisheries in Fredericksburg 540-899-4169.