



# **Mountain Run Reservoir Management Report**

*Popular Report*

**Federal Aid Project – F111R**

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Mountain Run was impounded in 1959 to form 75-acre Mountain Run Reservoir, which serves as secondary water supply for the town of Culpeper. The lake is located just upstream from Pelham Reservoir – a larger reservoir and primary water supply for the town. Mountain Run was stocked shortly after filling, and samples have documented a fishery composed of Largemouth Bass, Bluegill, Black Crappie, Redear Sunfish, and Channel Catfish. These species are all naturally sustaining except for Channel Catfish, which are stocked annually at 10/acre.

Mountain Run Reservoir is sampled every 4-5 years by electrofishing (EF) to get an accurate picture of the fisheries status. Electrofishing is an active sampling method used to determine abundance, density, and species composition of fish populations. Most recently it was sampled in April of 2022.

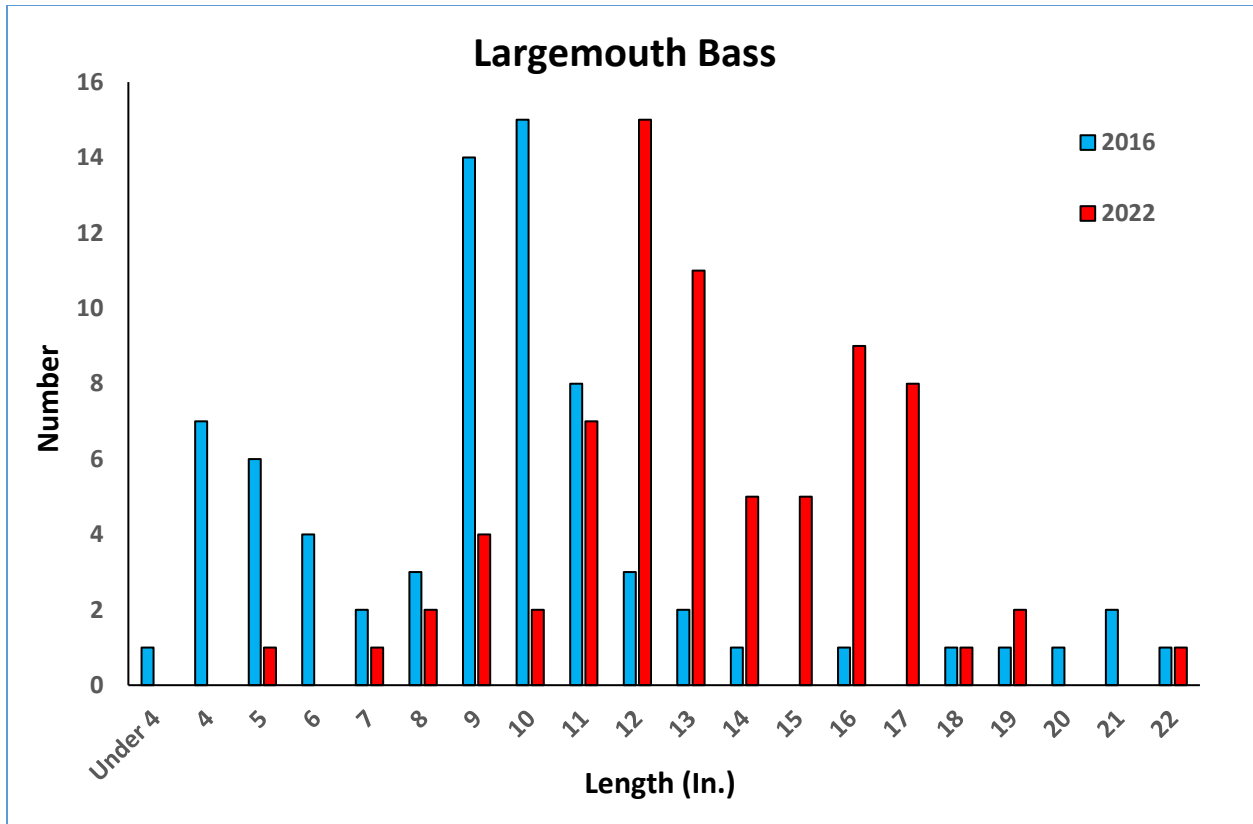
Abundance is usually described as a catch rate in number of fish per hour (CPUE, or Catch per Unit Effort). Biologists employ numerical descriptors of length-frequency data such as Proportional Size Distribution (PSD) and Proportional Size Distribution –Preferred (PSD-P) when evaluating fish populations. 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 (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). PSD-P is the percentage of preferred length group found within a population. It is calculated by dividing the (number of fish  $\geq$  preferred length by the number of fish  $\geq$  minimum stock length) x 100. Preferred bass are those 15” or larger, while memorable bass are those 20” or larger.

State standard regulations apply to the harvest of most game and nongame fish. Anglers are also encouraged to keep Black Crappie (25 per day). Channel Catfish regulations allow anglers to keep 8 per day with a 15 inch minimum.

### ***Largemouth Bass***

The 2022 electrofishing sample produced 74 Largemouth Bass. The population size structure of Largemouth Bass (LMB) in 2022 was much better than the previous sample in 2016, as PSD increased to 82 from 30. A PSD of 40-70 is indicative of a balanced fish population. Proportional Size Distribution of preferred fish (PSD-P; ratio of adults greater than 15") was greater in 2022 (38) as compared to 17 in 2016, and indicative of a desirable size structure with a population trending towards larger individuals. Total catch per unit effort (CPUE) of LMB increased to 111 fish/hr in 2022 from 74 fish/hr in 2016. CPUE of preferred size bass (>15") increased from 9/hr (2016) to 41/hr in 2022. The CPUE of memorable size bass (20") decreased from 5 to 2. The bass were holding close to shoreline cover with some along outside edges of flooded timber. Length distribution ranged from 3 to 22", with a large proportion 11 to 17" suggesting desirable size structure (larger fish). Mountain Run currently ranks 6th out of 18 impoundments managed in the district for catch rate of preferred bass.

Anglers may harvest five bass per day but are encouraged to practice catch and release on larger bass, as their value to the fishery can provide enjoyment for many others and contribute to the spawning stock.



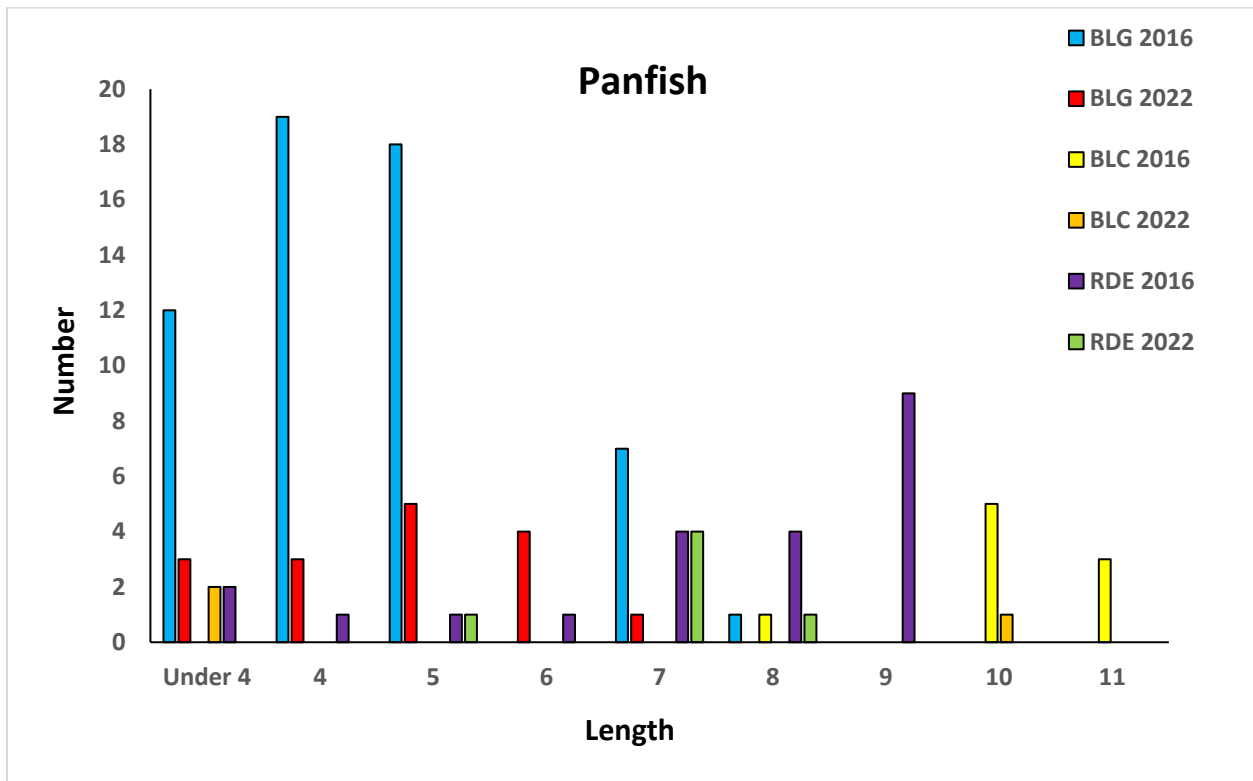
## *Panfish*

Mountain Run provides an adequate Black Crappie fishery, but EF is not an efficient gear for describing this species' population status. Black Crappie (BLC) electrofishing CPUE was lower in 2022 (5 fish/hr) compared to 2016 (9 fish/hr). The reservoir has a good population of crappie but the sampling date in 2022 was during a warm front resulting in warmer than usual water temperatures for the month and most likely pushed fish deeper where the gear wasn't effective. The length distribution ranged from 8 to 11" in 2016, while the fish in the 2022 sample were 3- 8 inches. Crappie populations are known to fluctuate due to high annual variation in spawning success, and while not a positive sign for crappie anglers; reduced abundance of this species in this predator heavy community can be viewed beneficially. Crappie are predominately piscivorous and can compete with bass exacerbating poor growth and suboptimal size structure

for both species especially in smaller, less productive lakes. Anglers are encouraged to harvest any crappie caught up to the 25-fish/day. Black Crappie can be found in areas with shelter, such as tree limbs and brush piles in clear water near structure.

Bluegill (BLG) electrofishing CPUE decreased to 24 in 2022 from 57 in 2016. PSD increased from 9 to 44 suggesting a currently balanced population. Panfish fisheries are typically considered balanced when PSD falls in the range of 20 – 60. Redear Sunfish (RDE) PSD values increased greatly from 36 in 2016 to 83 in 2022, however CPUE decreased from 2016 (22 fish/hr) to 2022 (9 fish/hr). Electrofishing data indicated most of fish were 5 to 8 inches.

There is no size limit on sunfish (Bluegill, Redear Sunfish, Warmouth, etc.), and anglers may harvest 50 sunfish (combined) per day. Anglers are encouraged to harvest to thin the populations and allow for increased growth rates resulting in larger fish.



## *Additional Fish Species*

Mountain Run is a good Channel Catfish lake and continues to get stocked annually at 10 fish/acre. Though not overly vulnerable to standard electrofishing gear, Channel Catfish were observed during both the 2016 and 2022 samples up to 25” suggesting a good population was present. The current fish community also includes populations of Yellow Perch, Green Sunfish, White Sucker and Gizzard Shad. Triploid Grass Carp can also be found and are stocked periodically to control vegetation.

Mountain Run has a DWR-funded boat ramp along with a courtesy pier. There is also good shore fishing. A picnic shelter and playground are in the park adjacent to the lake. Permits are required for fishing and boating and can be obtained from the Town of Culpeper. Permit fees are \$25 for boating and \$10 for fishing and are good for the calendar year of purchase. To access the lake, take Route 29 south from Culpeper, turn right on Route 718 and the lake will be on your left.

The Office of the Treasurer

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For more information about Mountain Run Reservoir:

Visit the DWR website [www.dwr.virginia.gov](http://www.dwr.virginia.gov)

or

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