



Lakeview Reservoir 2016 Fisheries Management Report Virginia Department of Game and Inland Fisheries

This 42-acre impoundment of Swift Creek is located in the City of Colonial Heights. The reservoir was originally constructed as a water supply impoundment, but is currently managed by the City of Colonial Heights for recreation and hydropower generation. A small park along the southern shoreline near the dam offers a fishing pier and a boat ramp for angler access. A fair amount of shoreline access is also available along the parking lot. The reservoir can be defined as a riverine style impoundment with a narrow channel that snakes its way through the surrounding hillside. The fishery receives a fair amount of fishing pressure during the peak park visitation seasons of late-spring and summer along with pressure from the surrounding home owners. The reservoir is open to fishing from sunrise to sunset. Boaters can use trolling motors only as gasoline engines use is prohibited. Lakeview Reservoir is an ideal place to try your luck fishing from a kayak or a canoe.

The Virginia Department of Game and Inland Fisheries conducted an electrofishing survey of Lakeview Reservoir on May 26th, 2015. The previous electrofishing survey was conducted on May 14th, 2008. The survey was conducted along three shoreline locations to assess the present fish assemblage. The water temperature during the survey ranged from 24.8°C to 25.3°C. Electrofishing efforts consisted of shocking along the shoreline habitat as close as possible, with the majority of the effort concentrated in the 2 to 4 foot depth range. The electrofishing effort of 0.74 hour yielded 16 fish species. This report will concentrate primarily upon the largemouth bass, bluegill and common carp populations.

Table 1. Catch rate of all fish species collected during the electrofishing survey of Lakeview Reservoir on May 26th, 2015

Species	N	CPUE #/hr	% of catch
Bluegill	517	696.5	75.47
Largemouth Bass	59	79.5	8.61
Gizzard Shad	36	48.5	5.26
Common Carp	21	28.3	3.06
Shorthead Redhorse	14	18.9	2.04
Yellow Perch	12	16.2	1.75
Redear Sunfish	9	12.1	1.31
Channel Catfish	4	5.4	0.58
Creek Chubsucker	3	4	0.44
Black Crappie	3	4	0.44
Golden Shiner	2	2.7	0.29
White Sucker	1	1.35	0.15
Redbreast Sunfish	1	1.35	0.15
Warmouth Sunfish	1	1.35	0.15
Grass Carp	1	1.35	0.15
American Eel	1	1.35	0.15
Total Fish	685		

Largemouth Bass

The largemouth bass population within Lakeview Reservoir appears to be in decent shape. A total of 59 largemouth bass were collected. The CPUE (Catch Per Unit of Effort) for largemouth bass was 79 fish/hr. This catch rate showed a favorable increase when compared to the 2008 survey (CPUE = 49 fish/hr). The average sized bass measured 10.2 inches in length. The warm water temperatures encountered during the survey may help to underestimate the strength of the largemouth bass population. It is quite possible that a number of larger bass were holding in deeper water away from the sampled shorelines. The size distribution ranged from 8 to 54 centimeters (3 to 21 inches), with a large proportion of the sample within the 25 to 35 centimeter range (10 to 14 inches).

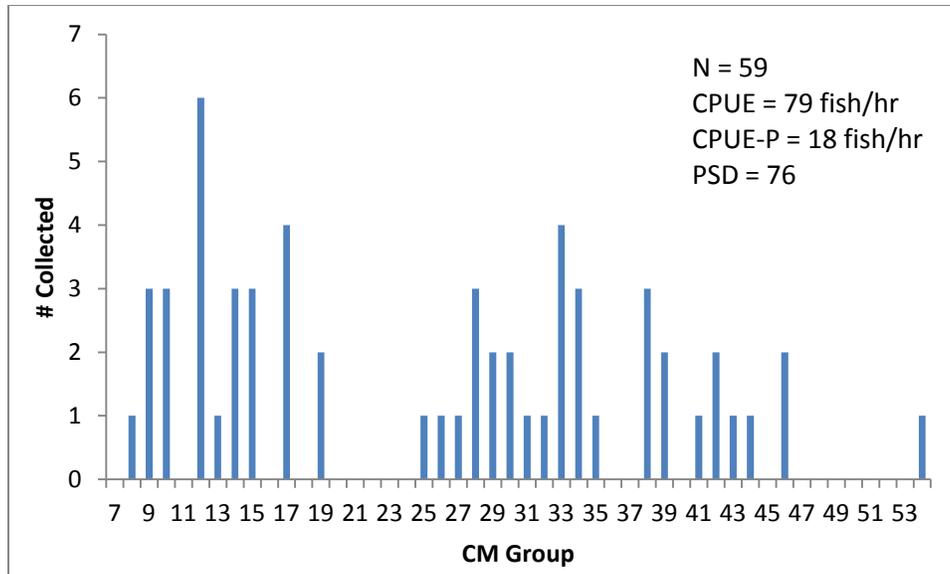


Figure 1. Length frequency of largemouth bass collected from electrofishing survey of Lakeview Reservoir on May 26th, 2015.

Besides the assortment of bass in the 10 to 14 inch range, there appeared to be a high number of juvenile bass in the 3 to 7 inch range. The survey missed the spawn as larger-sized fish may have retreated to deeper water after completing their spawning attempt. The largest bass measured 21.3 inches and weighed 6.28 pounds. Our sampling efforts are just a representative picture of the fish community collected along the shoreline and various habitat structures on the survey day. The fishery has some potential to produce a limited number of trophy largemouth bass. The excessive amounts of forage fish, gizzard shad and juvenile bluegill, can make bass fishing for the average angler a bit difficult.

With largemouth bass being the most popular game fish in this country, it has been considered that a “preferred” bass is one that is over 15 inches in length. It is through this size classification that population dynamics are analyzed. The PSD (Proportional Stock Density) is the proportion of bass in the population over 8 inches (stock size) that are also at least 12 inches (quality-sized). The sample provided a PSD value of 76, which is a direct reflection of the 25 quality-sized bass. The sample had a total of 33 bass that were stock size or larger. A balanced bass/bluegill fishery has a bass PSD value within the 40–60 range. The RSD-P (Relative Stock Density of Preferred bass) is the proportion of bass in the population over 8 inches that are also at least 15 inches. The RSD-P value of 39 is a direct reflection of the 13 preferred fish being collected. The catch rate of 18 preferred-sized bass/hr ranked Lakeview Reservoir in 10th place for the 17 public impoundments sampled in Region 1, District 1. The date of any specific survey will play a factor to some degree in what the catch rate of preferred-size bass will be. An earlier spring survey could have produced a higher catch rate of preferred-sized bass.

Weights were taken on largemouth bass to calculate relative weight values. Relative weight values are an indication of body condition. A value from 95 to 100 represents a fish that is in the healthy range and finding a decent amount of food. The higher the value, the better the condition of the fish in terms of overall body mass. The relative weight values for stock, quality, preferred and memorable bass ($\geq 8''$, $\geq 12''$, $\geq 15''$ and $\geq 20''$) were 92, 93, 93 and 112 respectively. The relative weight values for the stock, quality and preferred-sized bass may reflect increased competition with the black crappie population for juvenile sunfish and other small baitfish species or the results of post-spawn stress.

Bluegill

The bluegill fishery within Lakeview Reservoir appears to consist primarily of small fish in the 2 to 4.5 inch range. The electrofishing survey yielded a total of 517 bluegill (CPUE = 696 fish/hr), which showed a massive increase from 2008 (CPUE = 108 fish/hr). The bluegill size distribution ranged from 3 to 19 centimeters (1 to 7 inches). The average sized bluegill measured 3.36 inches while the largest bluegill measured at 7.56 inches. The PSD for bluegill is the proportion of bluegill over 3.15 inches (stock size) that are also at least 5.9 inches (quality size). The bluegill PSD value of 5 showed a less than ideal balance to the population and fell well below the desired range of 20-40. The collection consisted of only 14 quality-sized bluegill from the total of 258 stock-sized fish. The low abundance of bluegill greater than 6 inches in length may reflect the complications any fishery has when the bulk of the fish biomass is tied up in the production of gizzard shad. Stunted growth rates in this high flow through system may also factor into the lack of large bluegill.

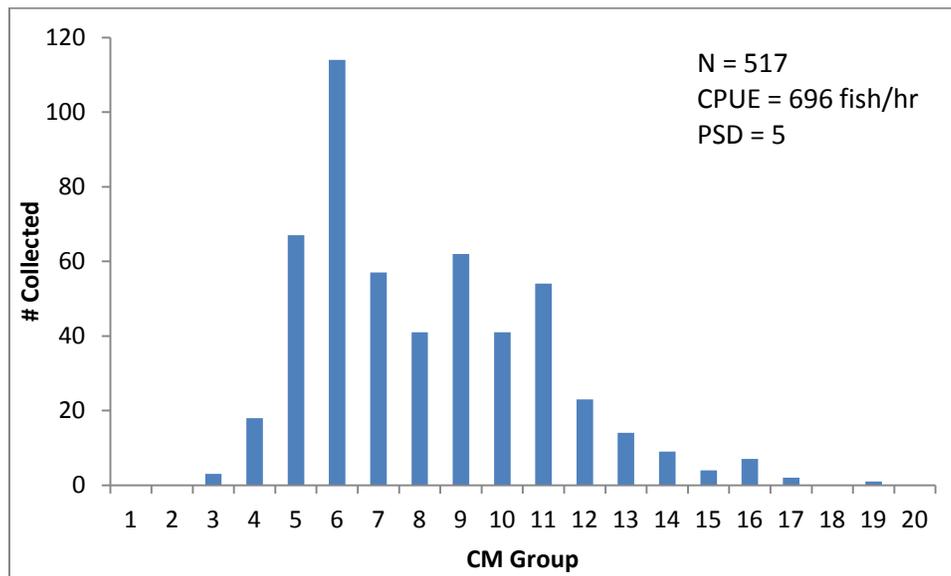


Figure 2. Length frequency distribution of bluegill collected from the electrofishing survey of Lakeview Reservoir on May 26th, 2015.

Common Carp

The Lakeview Reservoir fishery has an abundance of common carp present. The electrofishing survey was able to successfully collect 21 common carp for an expanded catch rate of 28 fish/hr. Although the carp abundance is not as prevalent as the largemouth bass population, the average size fish is much more impressive. Collected carp ranged in size from 21 to 30 inch size range. The average size carp measured 23.56 inches with the largest carp measured in at 30.79 inches. Anglers willing to try something different might want to try fishing for these strong and hard fighting fish. If you hook into a 6 pound carp, you will think you have a 12 pound bass on the end of your line. The majority of the encountered carp came from within or near the shoreline vegetation coverage in the form of water willow. Common carp will rummage through the water willow to find a variety of aquatic insects and macro-invertebrates. Carp are not a desired fish species for the majority of the angling public, but are a treasured resource over in Europe.

Additional Species

The electrofishing survey produced a total of 16 fish species with bluegill consisting of 75.47% of the total catch of 685 fish. This diversity is greater than most waters sampled in 2015, but represents various species that were found in extremely limited abundance. Refer to Table 1 on the second page of this report for the full list of collected fish species. The survey collected 36 gizzard shad that ranged in size from 5.8 to 13.7 inches. The average size gizzard shad measured 10.6 inches. These larger shad will provide forage only for the larger bass greater than 4 pounds in weight. The gizzard shad population will impact the overall growth potential of the bluegill population due to the competition for limited food resources. The survey collected four channel catfish that measured from 9 to 14.8 inches. A dozen yellow perch in the 4 to 6 inch range were collected. The fishery has a few decent redear sunfish that measured up to 8 inches in length. These species may provide some additional excitement to anglers that visit Lakeview Reservoir.

Electrofishing Summary

Lakeview Reservoir provides fishing opportunities for anglers that live in and around the greater Colonial Heights region. The reservoir has a decent largemouth bass population that might have been underestimated by the late spring survey. The fishery has an abundance of gizzard shad that will interest many of the larger bass in the system. Schools of smaller shad in the 5 to 8 inch range will be consumed by a wider size range of largemouth bass. Bass anglers should try to pattern their lures to match the forage base of gizzard shad and juvenile bluegill. The bluegill population appears to be rather abundant with the majority of fish less than 5 inches in length. The average size bluegill leaves something to be desired. The redear sunfish population appears to be limited in abundance, but their size potential is greater than the bluegill population. The survey yielded only three juvenile black crappie. The deep water within the main creek channel and in the lower basin are prime areas for schooling crappie to hide from the

electrofishing boat. Dedicated crappie anglers may be able to locate some larger crappie that typically hold near downed trees. The yellow perch population appears to have serious limitations with only small fish observed during the survey. Lakeview Reservoir and its high flow through dynamics places limitations on the fishery's productivity. The fishery has some potential to interested anglers that are willing to put in enough time on the water to figure out the most productive fishing patterns. Anglers are encouraged to try their luck with the common carp when the bass are not cooperating.

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