



## Walnut Creek Reservoir 2012



Located in Albemarle County, Walnut Creek Reservoir is the newest public impoundment in the county. The 45-acre reservoir was filled in 1990 and its primary use is recreation. The reservoir contains self-sustaining populations of largemouth bass, bluegill, redear sunfish, and black crappie. Additionally, the lake is stocked annually with channel catfish to maintain a fishery. In the spring of 2011, the fish community of Walnut Creek was sampled by boat electrofishing and trapnets. This report summarizes the results of these surveys and what anglers can expect to catch in Walnut Creek.

Walnut Creek Reservoir contained a typical fish community for a central Virginia impoundment with a total of six fish species collected in the 2011 surveys (Table 1). Largemouth bass and bluegill were by far the most abundant species collected in the electrofishing survey, while redear sunfish and black crappie were the most abundant species collected in the trapnet survey (Table 1). Walnut Creek provides a quality largemouth bass fishery with a good size distribution of bass inhabiting the lake (Figure 1). Bass catch rates were good for the area, and there was adequate numbers of young and adult bass present in the population. The 12-15 inch slot limit has allowed the adult population to build but catch rates for bass larger than 15 inches dropped considerably (Figure 1). To protect these larger fish, the top end of the slot should be increased to 18 inches. Anglers looking to harvest fish should keep the smaller bass (< 12 inches) so they do not become over abundant and start to stockpile. The largest bass collected measured 23 inches and weighed 7 lbs. The most productive areas for bass were the points and woody structures located throughout the lake.

Sunfish catch rates were fairly low with bluegill and redear sunfish comprising all the sunfish collected. The bulk of sunfish collected were small (< 8 inches); only a few bluegill and redear sunfish over 8 inches were collected (Figure 2). Redear were more abundant than most waters in the Charlottesville area and can offer a unique fishing experience for the area. Anglers determined to catch quality sunfish should concentrate their efforts around woody structure or the flats in the upper end of the lake during the spring spawning period.

Crappie catch rates were low with all the crappie catch composed of black crappie. Walnut Creek supports a decent crappie fishery with the majority of crappie collected in the 7 to 10 inch range (Figure 3). Eighty five percent of crappie collected were younger than age-5, indicating a young population. These younger fish are exhibiting fast growth; on average crappie are approaching 10 inches by age-4 (Figure 4). Very fast growth, a low catch, and a young population indicate overexploitation of the crappie fishery; the overharvest is also exhibited in the high mortality rate of the crappie population (around 55%). A 10-inch minimum size limit is recommended to allow young fast growing fish time to survive and reproduce. The recommended size limit should help maintain and grow the crappie fishery.

Anglers looking for an excellent crappie lake that is in the Charlottesville area should visit Walnut Creek Reservoir. The lake offers good numbers of catfish and smaller panfish for anglers to enjoy. The park has great amenities including an improved boat launch, plenty of bank fishing areas, and a swimming beach. Gas powered motors are prohibited in the reservoir.

For more information on Walnut Creek, please contact:

Johnathan Harris  
District Fisheries Biologist  
Virginia Department of Game and Inland Fisheries  
4010 West Broad Street  
Richmond, VA 23230  
(804) 367-6764

Table 1. Species account and catch rates for fish collected throughout Walnut Creek Reservoir in 2011.

Species	Trapnets			Electrofishing		
	Number Collected	Catch Rate (fish/net-night)	Percentage of Catch	Number Collected	Catch Rate (fish/hour electrofishing)	Percentage of Catch
<b>Black Crappie</b>	118	3.0	34.9	55	41	16.4
<b>Bluegill</b>	47	1.2	13.9	87	66	26.0
<b>Brown Bullhead</b>	4	0.1	1.2	1	1	0.3
<b>Channel Catfish</b>	2	0.1	0.6	6	5	1.8
<b>Largemouth Bass</b>	2	0.1	0.6	130	98	38.8
<b>Redear Sunfish</b>	165	4.1	48.8	56	42	16.7

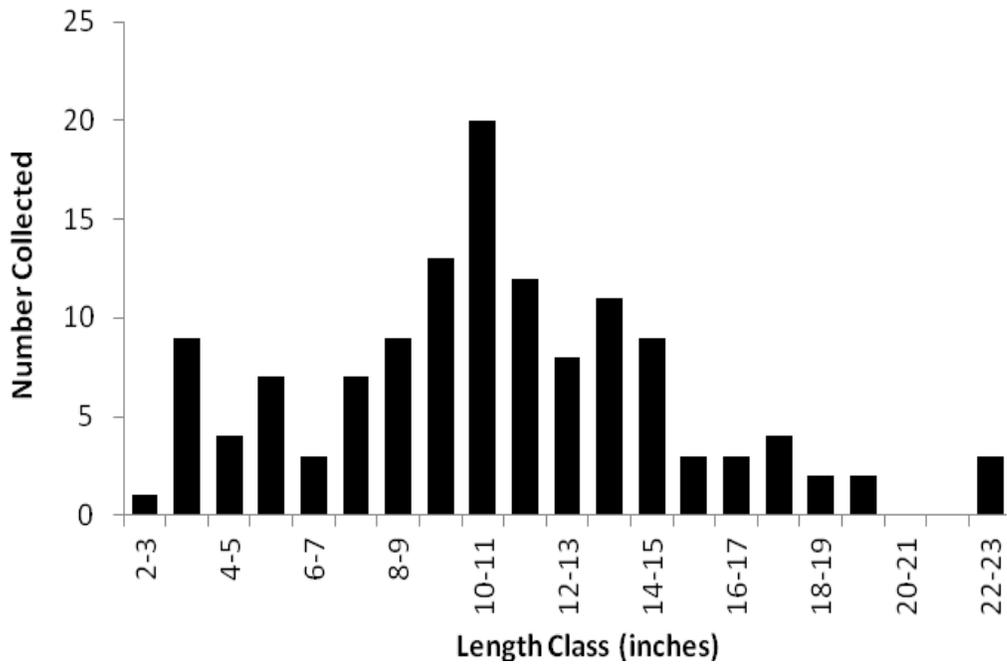


Figure 1. Length distribution of largemouth bass collected with electrofishing gear throughout Walnut Creek Reservoir in 2011.

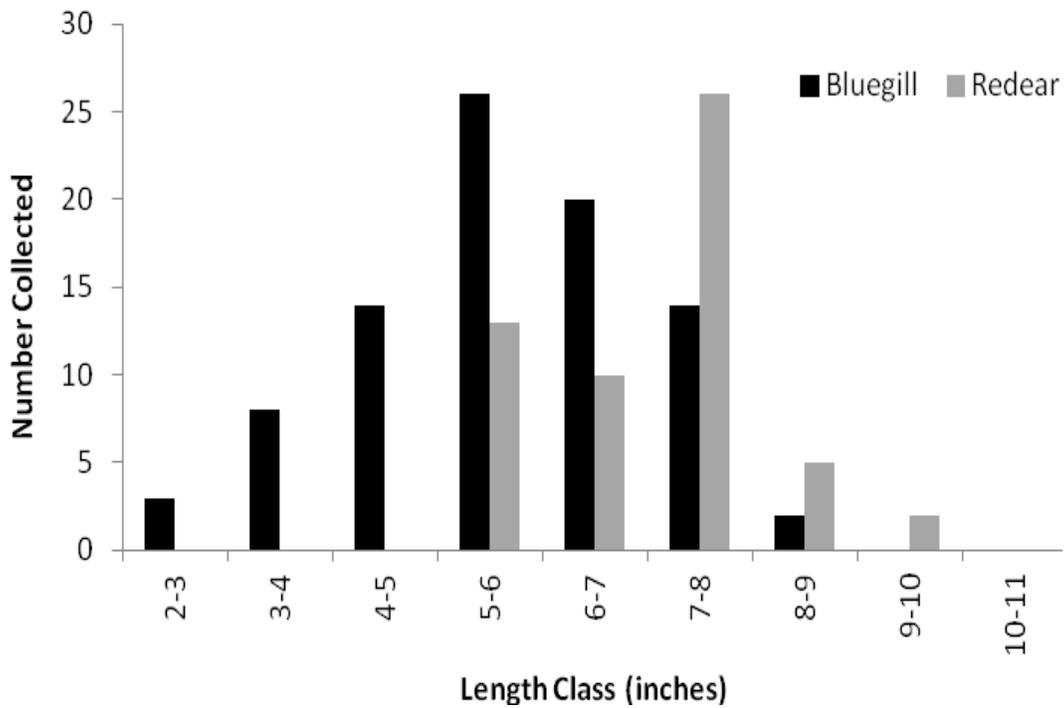


Figure 2. Length distribution of sunfish collected with electrofishing gear throughout WalnutCreek in 2011.

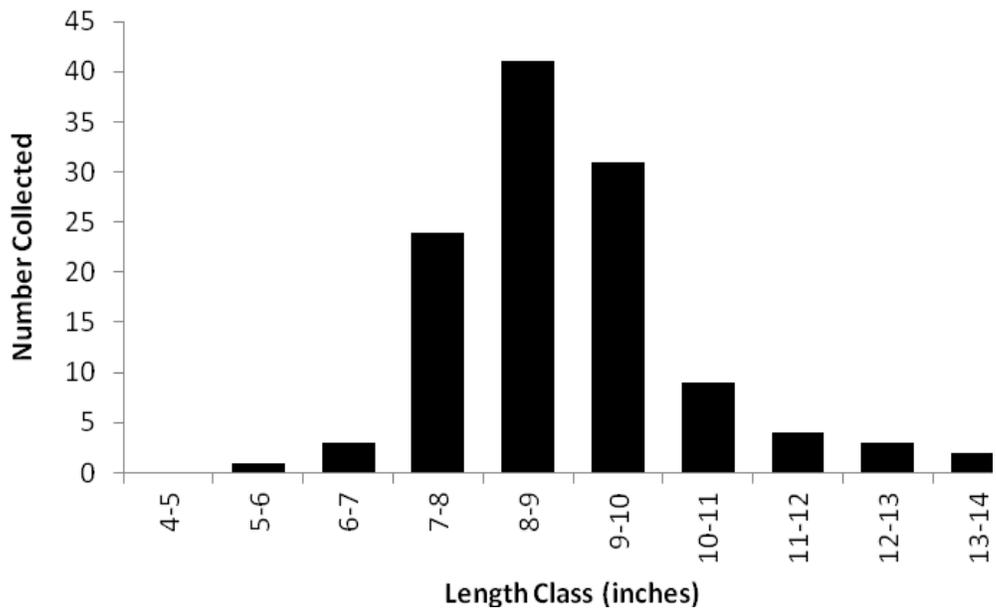


Figure 3. Length distribution of black crappie collected with trapnets throughout Walnut Creek Reservoir in 2011.

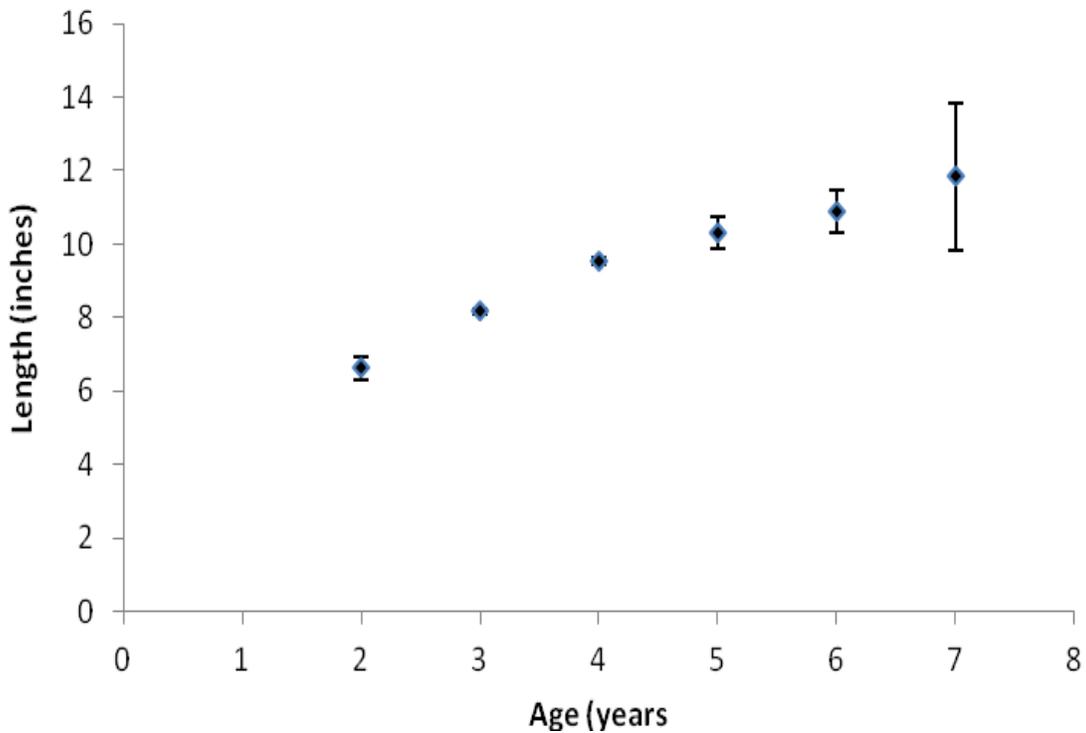


Figure 4. Average length-at-age of crappie collected throughout Walnut Creek Reservoir in 2011. Error bars indicate standard error.