



## Lake Chesdin 2010

Located on the Chesterfield-Dinwiddie border, Lake Chesdin is a 3,100-acre water supply reservoir that is administered by the Appomattox River Water Authority. Lake Chesdin is a productive lake that provides numerous angling opportunities for Virginia's anglers. The lake has traditionally been known for its largemouth bass, crappie (mostly black crappie), and channel catfish fisheries. To provide additional angling opportunities, the lake is stocked annually with walleye and striped bass. In 2008 through 2009, the fish community of Lake Chesdin was sampled by boat electrofishing (May and August), gillnets (November and December), and trapnets (March and April). This report summarizes the results of these surveys and what anglers can expect to catch in Lake Chesdin.

Lake Chesdin contains a diverse fish community with a combined 31 different fish species collected in 2008 and 2009 surveys (Table 1). The spring electrofishing surveys indicate that Lake Chesdin provides an excellent largemouth bass fishery. Largemouth bass catch rates were considerably higher in 2008 and 2009 when compared to catch rates from previous surveys; the 2008 catch rate was more than double the historical average. Stock density estimates indicate that the largemouth bass population is balanced with good proportions of young bass as well as an exceptional portion of bass in the 12-20 inch range (Figure 1). Larger fish ( $\geq 20$  inches) were less abundant, but that is to be expected with bass taking 7-15 years to reach 20 inches (average of 10 years, Figure 2). Bass survival is very good in Lake Chesdin with estimated annual survival of 81%; a 2008 angler survey indicates that more than 95% of bass captured by anglers are released regardless of fish size. On average, bass growth is good with bass reaching 12 inches in 3 years and 15 inches in 4.5 years (Figure 2). The largest largemouth collected was 22 inches and weighed approximately 7 lbs. Adult bass collected were in great condition and remain some of the plumpest bass in the state. Additionally, a high number of juvenile (young-of-the-year) largemouth bass were collected in August surveys suggesting that largemouth bass reproduction is very good with  $>300$  baby bass collected per hour. Lake Chesdin's largemouth bass anglers should experience good fishing success for moderate-sized bass (12-20 inches) with a reasonable chance to catch that occasional trophy bass ( $\geq 20$  inches). Anglers searching for bass should try fishing the coves around the shoreline vegetation. Another option for bass anglers is to carefully journey up the Appomattox River from the lake and fish the popular Winterpock Swamp.

Lake Chesdin continues to offer a good panfish fishery in terms of numbers of fish and species available to anglers. Catch rates for bluegill, black crappie, and white perch were extremely high, while catch rates for redear sunfish (shellcrackers) were about average (Table 1). Anglers targeting panfish should experience great fishing success especially for smaller-sized individuals. The majority of bluegill, redear sunfish,

and white perch collected were less than 8 inches with the occasional redear and white perch over 9 inches (Figure 3). Also available to anglers are sparse populations of green sunfish, pumpkinseed sunfish, warmouth, and yellow perch.

The crappie population of Lake Chesdin is in desperate need of angler harvest. Greater than 95% of crappie collected were in the 6-8 inch range (Figure 4). Additionally, most crappie collected were between 5 and 9 years of age (Figure 5), and on average, their growth levels off around age-6 at 8 inches. These fish on average are in poor condition with condition factors ranging in value from 75 to 88 (90-100 is ideal). The decreased growth combined with the poor condition is a classic sign of crappie overpopulation and stockpiling. Ideally, every angler should harvest their limit of crappie, especially fish in the 6-9 inch range, to reverse the stockpiling. There are a limited number of crappie in the 11-16 inch range available to anglers (Figure 4), but anglers will have to put in some time to catch these fish. These larger fish should be released to keep the genetic potential in the spawning population.

Striped bass and walleye continue to be stocked annually in Lake Chesdin. Striped bass populations remain low in Lake Chesdin; however all of the striped bass collected were quality sized or larger ( $\geq 20$  inches). The lake even produces a few striped bass in excess of 30 inches. The largest striped bass collected was 31 inches and weighed just over 12 lbs. Similar to striped bass, the walleye catch rate was very low. Over the past few years, hatchery production constraints have limited the number of walleye available to stock in Lake Chesdin. The low stocking rates have somewhat limited the expansion of the Lake Chesdin walleye population. The 2007 stocking appears to be the best in recent year, with those fish comprising greater than 90% of walleye catches. At this time, these 2007 fish are easily reaching harvestable size (18-22 inches). Future stockings should help to supplement the walleye population. Anglers fishing for walleye and striped bass should try trolling live or artificial bait across main lake points and flats in the lower half of the lake (below Whippernock Creek). Another option is to try fishing the spring spawning runs of each species in the Appomattox River.

Lake Chesdin continues to produce excellent catfish populations. Gillnet catch rates were very high for channel and white catfish, and the lake offers numerous channels in the 3-10 lb range. Most of the white catfish are small ( $< 3$ lbs), but can offer a fun fight for the younger anglers. Anglers can catch catfish throughout the lake but should concentrate fishing efforts near structure (channel drop-offs, points, or submerged debris). Chicken livers, night crawlers, and stink baits work well for both species.

For more information on Lake Chesdin, please contact:

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Table 1. Species account and catch rates for fish collected throughout Lake Chesdin in 2008 and 2009.

Species	Gillnets Catch Rate (fish/net-night)		Electrofishing Catch Rates (fish/hour)		Trapnet Catch Rates (fish/net- night)
	2008	2009	2008	2009	2009
American Eel	NC	NC	1.7	NC	NC
American Shad	0.14	NC	NC	NC	NC
Black Crappie	3.92	17.50	15.6	3.5	33.70
Blue Catfish	0.08	NC	NC	NC	NC
Bluegill	0.14	2.25	476.2	422.7	11.23
Bluespotted Sunfish	NC	NC	0.4	NC	NC
Brown Bullhead	0.25	0.15	26.5	11.2	7.40
Chain Pickerel	0.08	0.35	2.2	0.7	0.10
Channel Catfish	2.83	6.45	0.4	1.4	0.07
Common Carp	0.08	0.15	1.3	2.8	NC
Creek Chubsucker	0.03	NC	NC	0.3	0.03
Flier	NC	NC	NC	NC	0.07
Gizzard Shad	1.36	9.75	352.8	203.3	0.23
Golden Shiner	0.28	0.75	11.7	5.9	0.30
Green Sunfish	NC	0.20	0.4	1.0	NC
Largemouth Bass	0.17	0.15	86.0	65.7	0.17
Northern Hogsucker	NC	NC	NC	1.4	NC
Pumpkinseed	0.03	NC	23.9	15.0	0.33
Quillback	0.08	2.00	NC	NC	NC
Redbreast Sunfish	NC	NC	NC	0.7	NC
Redear	0.03	0.20	47.4	21.7	0.23
Shorthead Redhorse	0.19	0.65	1.7	2.8	0.13
Striped Bass	NC	0.25	NC	NC	NC
Walleye	0.14	0.75	NC	NC	NC
Warmouth	0.06	0.45	7.0	4.5	0.03
White Catfish	2.67	4.20	16.9	3.8	3.80
White Crappie	0.03	0.05	0.4	NC	0.57
White Perch	1.31	25.05	34.8	7.3	2.20
White Sucker	0.08	NC	0.9	0.3	0.40
Yellow Bullhead	NC	0.15	1.7	0.7	0.23
Yellow Perch	NC	NC	16.1	14.7	NC

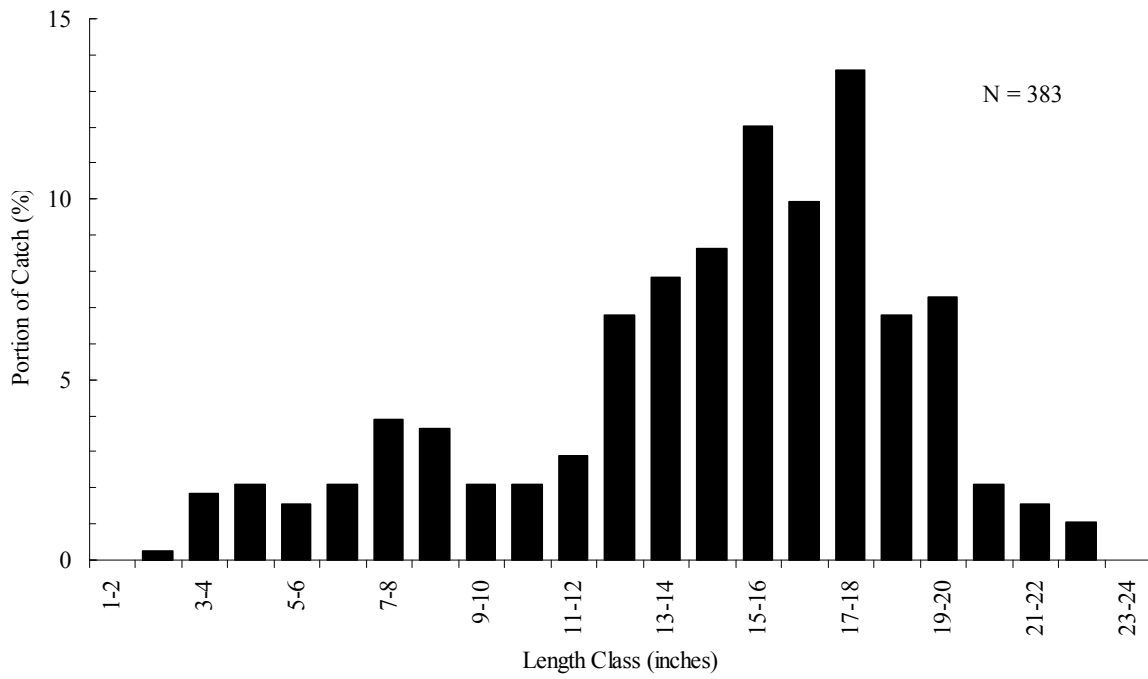


Figure 1. Length distribution of largemouth bass collected in Lake Chesdin during May of 2008 and 2009.

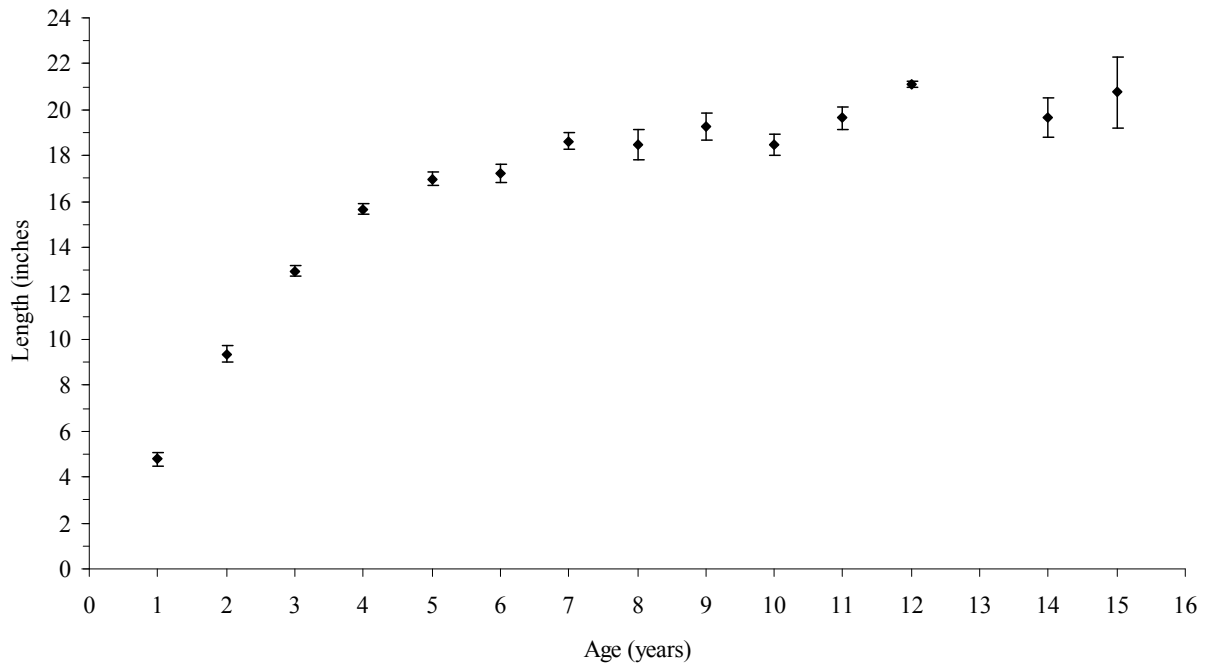


Figure 2. Average length-at-age of largemouth bass collected in Lake Chesdin during May of 2008. Error bars indicate standard error.

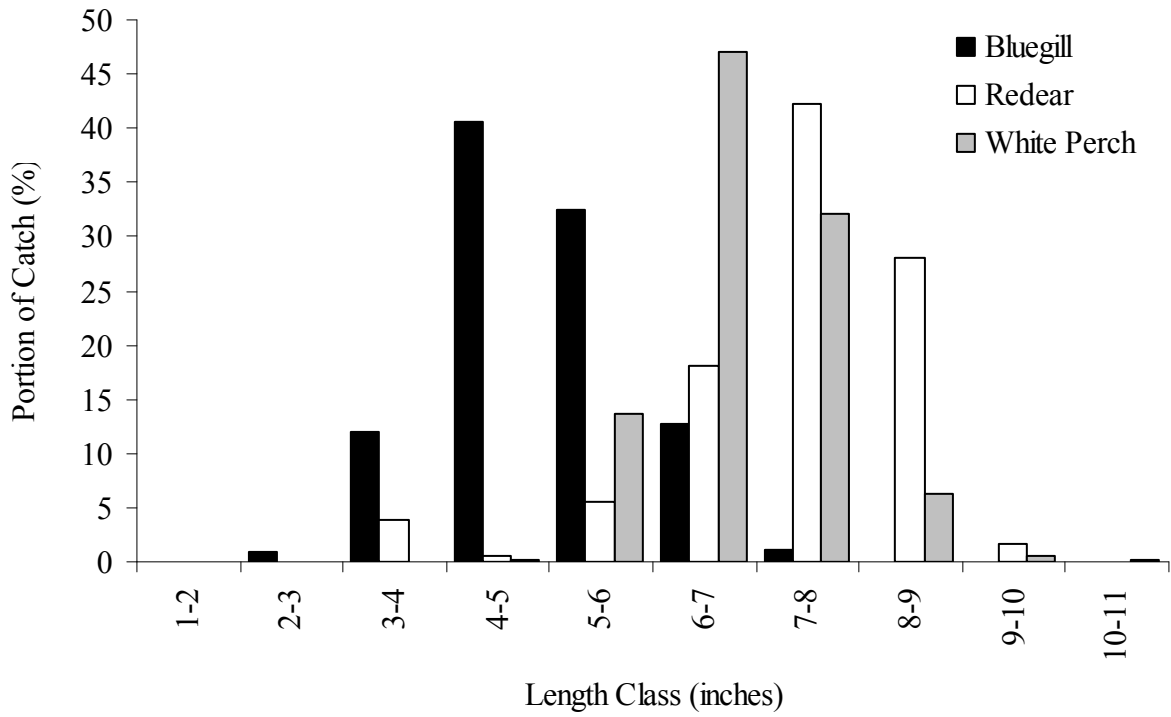


Figure 3. Length distribution of panfish collected in Lake Chesdin during 2008 and 2009.

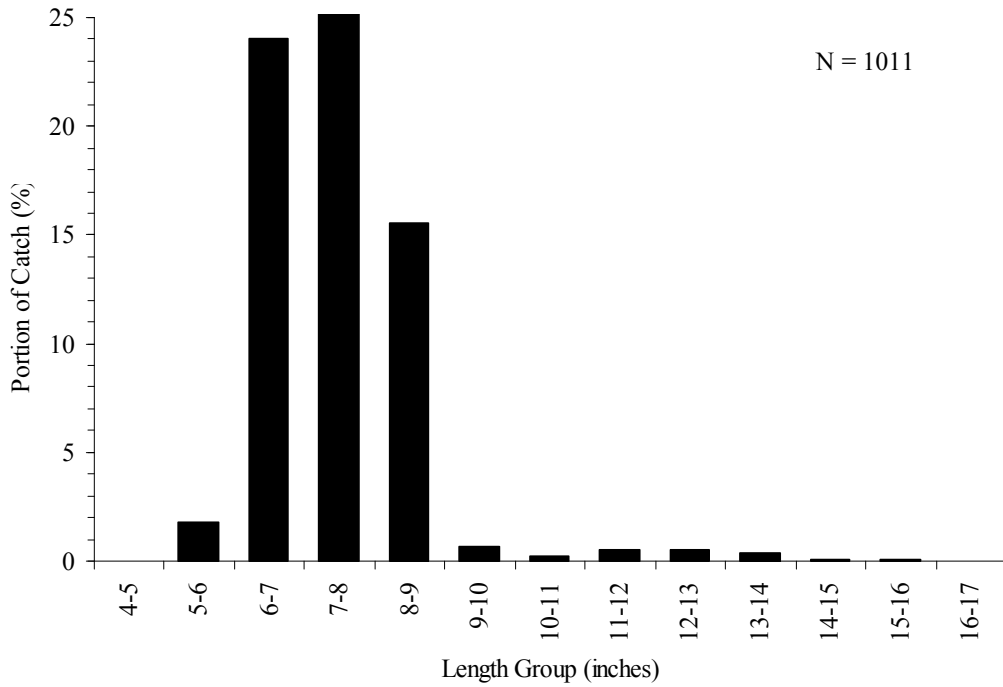


Figure 4. Length distribution of crappie collected in Lake Chesdin during April 2009.



Figure 5. Age distribution of crappie collected in Lake Chesdin during April of 2009.

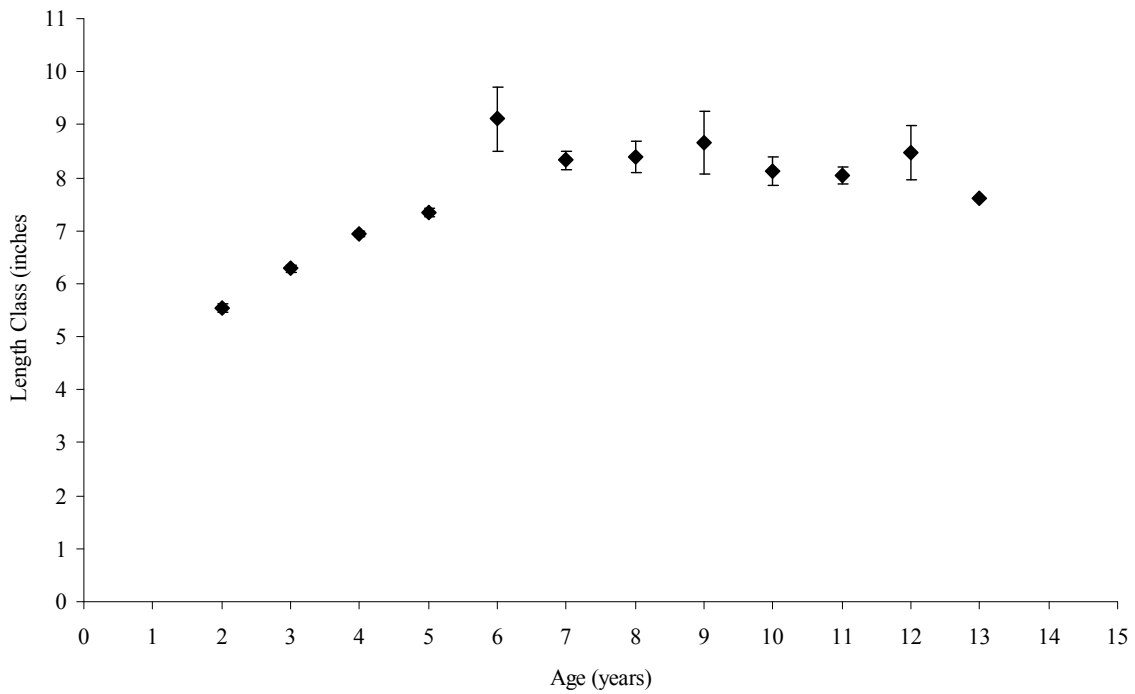


Figure 6. Average length-at-age of crappie collected in Lake Chesdin during April of 2009. Error bars indicate standard error.