



Mill Creek Reservoir Fisheries Management Report 2004



Mill Creek Reservoir is a 189-acre impoundment located in the Blue Ridge Mountains of Amherst County. This is the largest of the three public reservoirs owned by the County and provides opportunities for fishing and family outings. The various facilities include picnic tables and grills, restrooms, play area, boat ramp, and associated parking. The lake is open year round but nighttime activities are prohibited except for fishing. Anglers are required to obtain a permit from the county to fish at night. Boats propelled by oar or electric motors are welcome but outboard motor use is prohibited.

The reservoir was impounded in 1985 and was stocked with largemouth bass, bluegill, redear sunfish, and channel catfish. Initially, this reservoir supported a very good largemouth bass population with good numbers of small and large fish. As the lake aged, the growth of these fish slowed and angler harvest increased. Most of the bass were removed by anglers before they reached the protective slot limit of 12-14 inches. Largemouth bass at this reservoir reached the lower end of the protective slot limit around age 3. Consequently, the bass population was dominated by young bass, ages 1 and 2. A new largemouth bass minimum size limit of 14-inches was introduced in 2001 to improve the bass fishing by protecting additional year classes from over harvest.

The sunfish population is comprised of primarily bluegill but redear sunfish are also present. The high reproductive capability of sunfish has offset angler harvest affects on population size but the heavy fishing pressure has reduced the number of large sunfish. However, there is still good sunfish fishing available with fish up to 8 inches for those panfish enthusiasts.

Although crappie were not officially stocked into Mill Creek Lake, they have made their way into the reservoir and have produced fishing opportunities. Crappie are one of the most susceptible species to cyclic population trends. Crappie routinely have good and bad years when it comes to spawning success. The crappie population at Mill Creek Lake is no exception. Older fish dominate the current fishery. This pattern is typical in small lakes and is expected to continue. The unfortunate side to good and bad reproductive years is that anglers can expect to have good crappie fishing some years and bad in other years. Size limits and creel restrictions used by managers to control fish populations can not make up for years with poor reproduction. With this in mind, anglers may not know what to expect from year to year until they try their favorite crappie holes each spring. Most crappie at this reservoir usually do not exceed 10 inches.

No channel catfish have been collected from Mill Creek Reservoir and the stocking was discontinued due to limited contributions to the fishery. However, a trial stocking of larger channel catfish was initiated in 2003 to see if catfish stocked at larger sizes will contribute more to the catfish fishery.

The reservoir can be accessed by taking route 60 to Lowesville Road (Rt. 718), turn right onto route 610, and bear left at the first intersection. Permits for night fishing are available through Amherst County at 434-946-9371.

Mill Creek Reservoir Key Findings - 2003

- 1999 and 2000 electrofishing samples indicated that the largemouth bass population was over exploited. There were few bass collected either year from the protective slot limit (12-15 inch), indicating the fish were removed before they reached slot limit size. Consequently, the largemouth bass regulation was changed to a 14-inch minimum size limit in February of 2001.
- RSD and PSD indices for bass decreased steadily from 1990-2000 but increased from 2000-2003. This indicates that the 14-inch minimum size limit has reduced angler exploitation and is benefiting the bass fishery at Mill Creek Lake.
- Black crappie collected in 2003 were nearly all 8-9 inches indicating the population is currently supported primarily by a couple of year classes. Crappie reproductive success at Mill Creek Lake has historically been cyclic causing the fishery to fluctuate over time.
- Bluegill catch rates and indices increased since 2000. These fish should continue to provide good panfish opportunities.
- Channel catfish stockings were discontinued in 2000 due to no catfish collected in any sampling efforts. However, a trial stocking of larger channel catfish was implemented in 2003 to determine if stocking larger catfish would provide a fishery.

Management Recommendations

- Continue monitoring the 14-inch minimum size limit to determine if the new size limit is improving the quality of the largemouth bass fishery.
- Continue the new catfish stocking of larger fish for at least several years before evaluating.

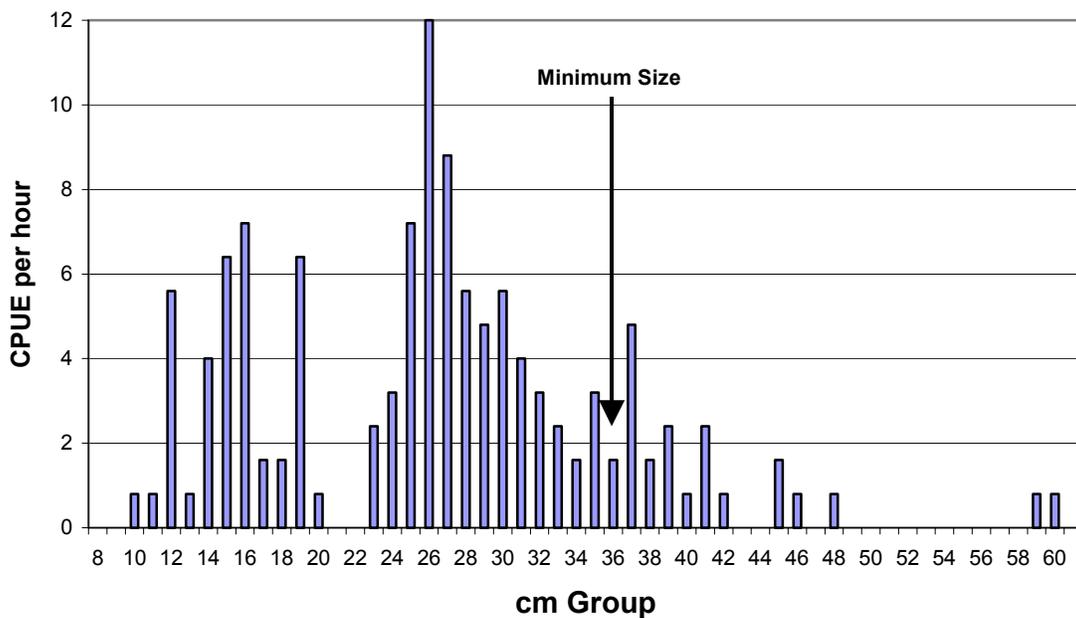


Figure 1. Length frequency distribution for largemouth bass collected with electrofishing gear at Mill Creek Reservoir on 4-28-2003.

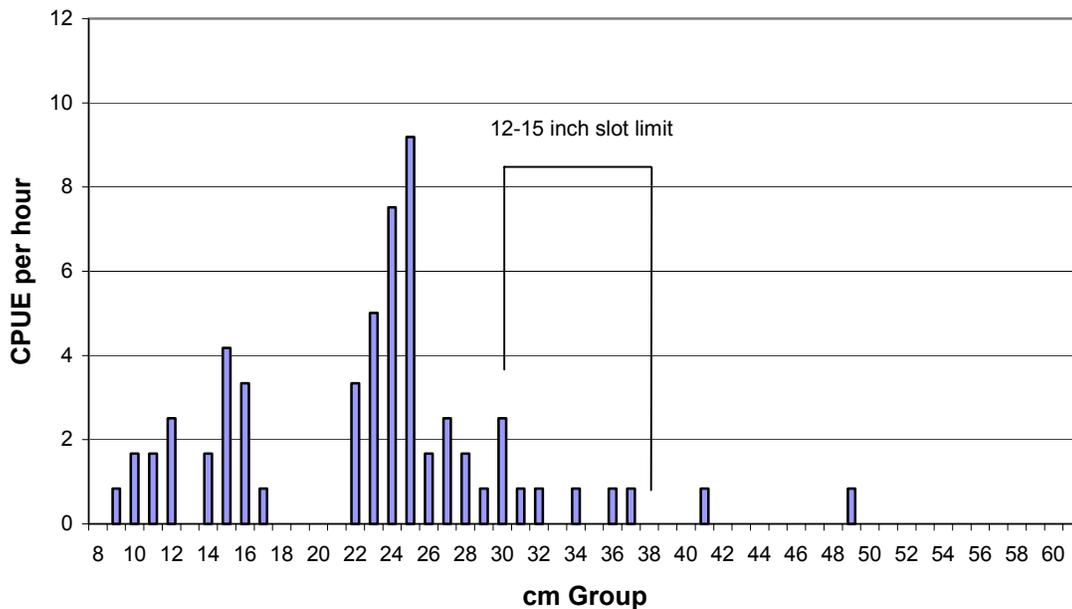


Figure 2. Length frequency distribution for largemouth bass collected with electrofishing gear at Mill Creek Reservoir on 4-24-2000.

Table 1. Proportional and relative stock indices and CPUE (hr) data collected from electrofishing samples at Mill Creek Reservoir, 1990-2003.

Species	Year	N	CPUE	Young	Stock	Quality	Preferred	PSD	RSD
LMB				(0-19)	(20-29)	(30-37)	(>37)		
	2003	149	119	44	56	33	16	47	31
	2000	70	88	20	38	10	2	24	4
	1999	125	104	91	30	2	2	12	6
	1991	104	74	71	17	2	14	50	44
	1990	86	37	38	10	11	27	79	56
BLC				(0-12)	(13-19)	(20-24)	(>24)		
	2003	95	95	0	5	82	8	95	8
	2000	27	19	0	4	18	5	85	18
	1999	138	157	1	38	82	17	72	12
	1991	43	30	15	19	9	0	32	0
BLG				(0-7)	(8-14)	(15-19)	(>19)		
	2003	215	430	7	93	107	8	55	4
	2000	170	313	9	124	30	7	23	4
	1999	136	180	21	73	25	17	36	15
	1991	80	282	13	33	34	0	50	0