

Yellow Creek Lake Indiana County

2014 Night Electrofishing and Trap Net Survey

Yellow Creek Lake is a 720 acre impoundment in Indiana County that is operated by the PA Department of Conservation and Natural Resources (DCNR) as part of [Yellow Creek State Park](#). Recreational fishing is managed by the Pennsylvania Fish and Boat Commission (PFBC) and the lake is managed with Big Bass Regulations for black bass and statewide regulations for all other species. The lake was last surveyed in 2006 as a control lake during a statewide study of Panfish Enhancement Regulations. Walleye fingerlings are stocked annually at Yellow Creek Lake, but the required numbers are not always met. Previously, musky and tiger musky were stocked but stocking was discontinued due to low survival.

Yellow Creek Lake was surveyed in April (trap nets) and May (night electrofishing) to assess the lakes warmwater and coolwater fish populations. Table 1 below shows the total catch of each species from the April trap net survey.

Table 1. Total catch and size range of fish captured during April trap netting at Yellow Creek Lake.

Species	Total Catch	Size range (inches)	Comments
Black Crappie	40	5 – 14	68% > 9 inches
Bluegill	523	2 - 8	2% > 7 inches
Brown Bullhead	124	8 - 15	58% > 12 inches
Brown Trout - Hatchery	1	12	-
Largemouth bass	3	16	-
Muskellunge	2	42 – 49	-
Northern Pike	52	18 – 28	29% > 24 inches
Pumpkinseed	46	2 – 6	0% > 7 inches
Smallmouth bass	2	9 – 15	-
Walleye	18	16 - 26	All legal fish
White Crappie	5	3 – 13	80% > 9 inches
Yellow Bullhead	23	7 - 13	22% > 12 inches
Yellow Perch	25	4 - 12	8% > 9 inches
Alewife	5776	Not measured	-
White Sucker	10	Not Measured	
Golden Shiner	3	Not Measured	-
Bluntnose Minnow	1	Not Measured	-
Common Carp	8	Not Measured	-

Bluegill were the most abundant panfish captured in trap nets with 523 individuals sampled. However, only 2% of the Bluegill captured were over 7 inches in length. Age and growth analysis through scale aging techniques revealed that Bluegills take on average 7 years to reach 7 inches in length at Yellow Creek Lake. Typically, a Bluegill will reach 7 inches in length in 5 years in Pennsylvania. It is likely that competition with the dense alewife population for food resources is impacting growth rates of Bluegill. Figure 1 below shows catch rates of Bluegill over time in Yellow Creek Lake.

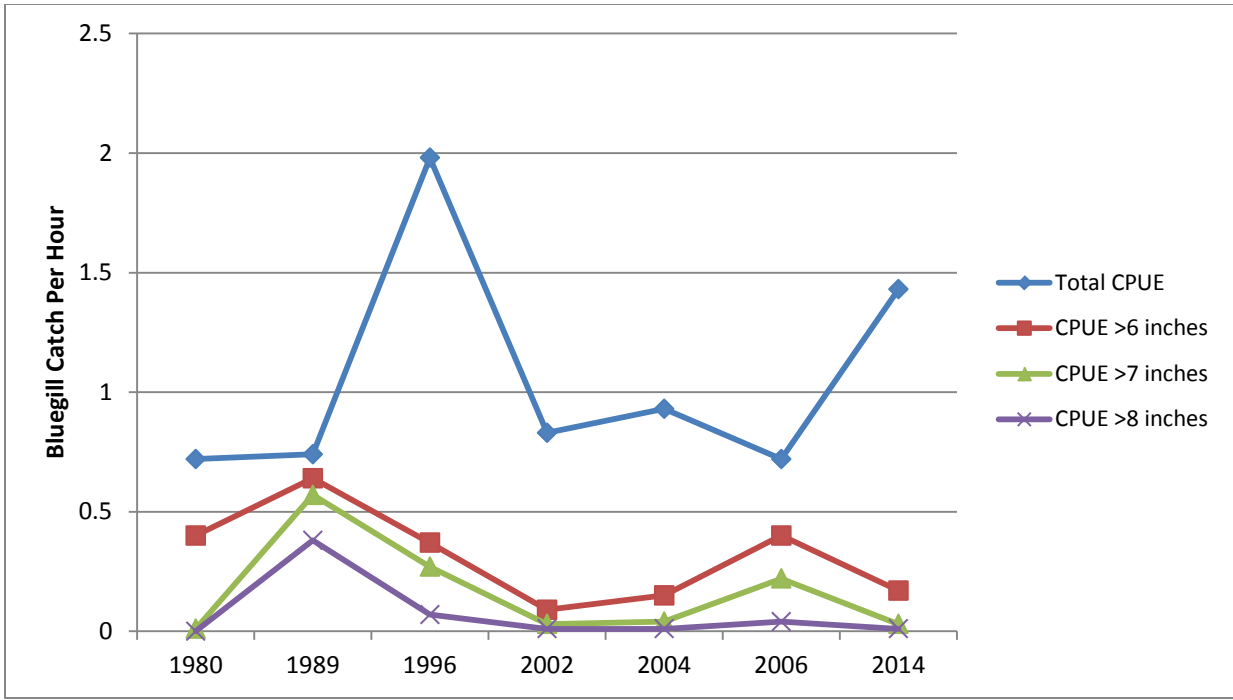


Figure 1. Bluegill trap net catch rates at Yellow Creek Lake.

Total catch of crappie and catch of crappie over 9 inches was lower in 2014 than in the previous two surveys in 2004 and 2006 (Figure 2). However, the majority of the crappie captured were over 9 inches with some individuals over 14 inches captured. Black Crappie comprised the majority of the catch with a few large White Crappie also present.

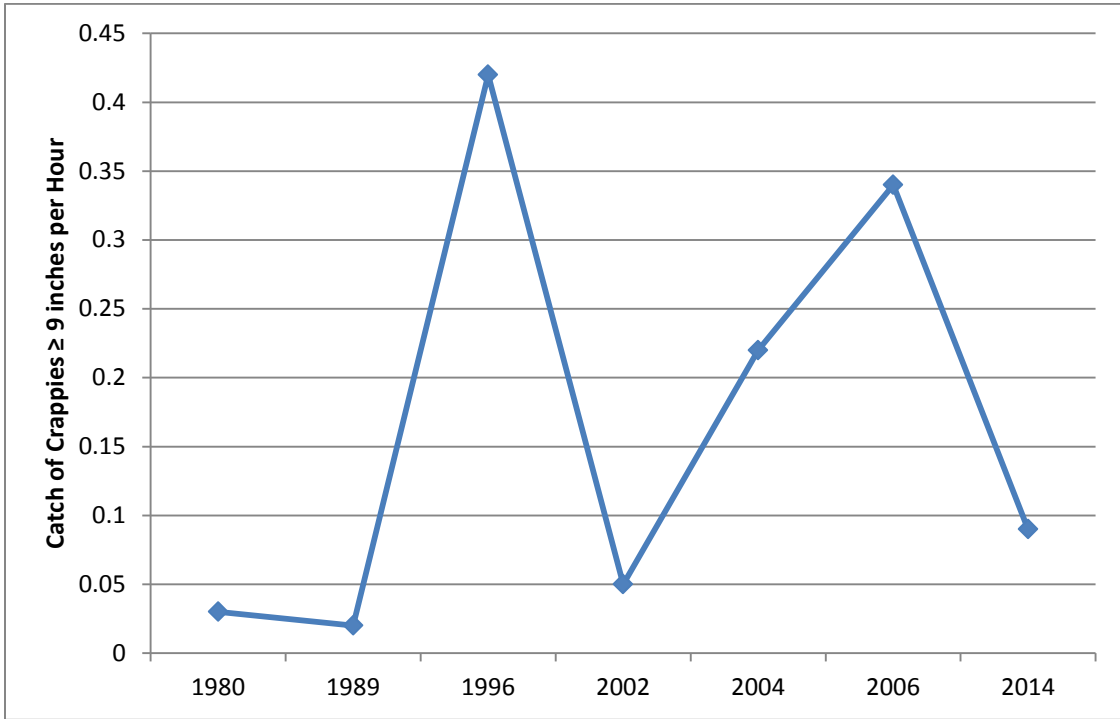


Figure 2. Trap net catch rates of 9 inches and larger crappie at Yellow Creek Lake.



Area Fisheries Manager Rick Lorson holding a Back Crappie (right hand) and White Crappie.

Northern pike were captured in good numbers at Yellow Creek Lake but the majority of individuals were below the legal size of 24 inches. However, individuals approximately 30 inches in length were captured during the survey. Two musky were also captured during the survey. These two individuals measured 42 inches and 24 pounds and 49 inches and 32 pounds. Musky stocking was discontinued in 2007 due to low trap net catch rates. However, a few large specimens are still present.



49 inch, 32 pound musky from a trap net at Yellow Creek Lake.

One of the primary purposes of the 2014 trap net survey was to evaluate the success of Walleye fingerling stocking in Yellow Creek Lake. A total of eighteen Walleye were captured in trap nets in 2014 with all the fish being of legal size (> 15 inches). The catch rate of legal length Walleyes was 0.05 fish/hr in 2014 (Figure 3), which was below the early spring trap net catch rate objective of 0.15 legal fish/hr. However, stocking of Walleye at the requested rate of 30 fish/acre has been inconsistent at Yellow Creek Lake. Therefore, we will increase our stocking rate to 50 fish/acre, beginning in 2015, and will reevaluate the Walleye stocking program at the lake following at least 5 years of consistent stocking.

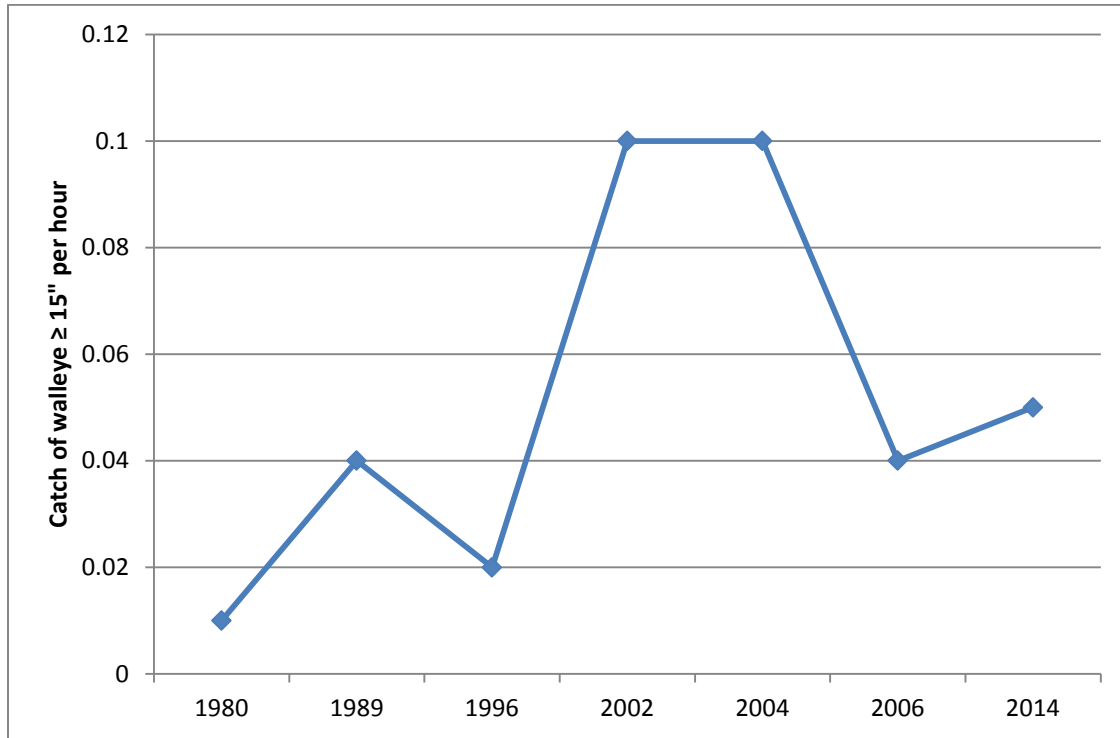


Figure 3. Trap net catch rates of 15 in and larger Walleye at Yellow Creek Lake.



Fisheries Biologist Bob Ventorini holding a nice Walleye from Yellow Creek Lake.

Night electrofishing was conducted in mid-May on Yellow Creek Lake to evaluate the black bass populations in the lake. Both Largemouth Bass and Smallmouth Bass are present in the lake with Largemouth Bass present throughout much of the lake but particularly abundant in the weedy coves on the southern shore. Smallmouth Bass tend to be found in deeper water along the steeper, rockier north shore and near the dam. Our night

electrofishing bass catch rates in Yellow Creek Lake have improved since the Big Bass Regulations were implemented in 1991. In 2014 our black bass catch rates were 63.04 total bass/hr, 35.66 bass/hr over 12 inches, and 20.45 bass/hr over 15 inches (Figure 4). These were the highest catch rates of black bass during any electrofishing survey at Yellow Creek Lake. Table 2 below shows the total catch of black bass as well as additional species collected during night electrofishing in 2014.

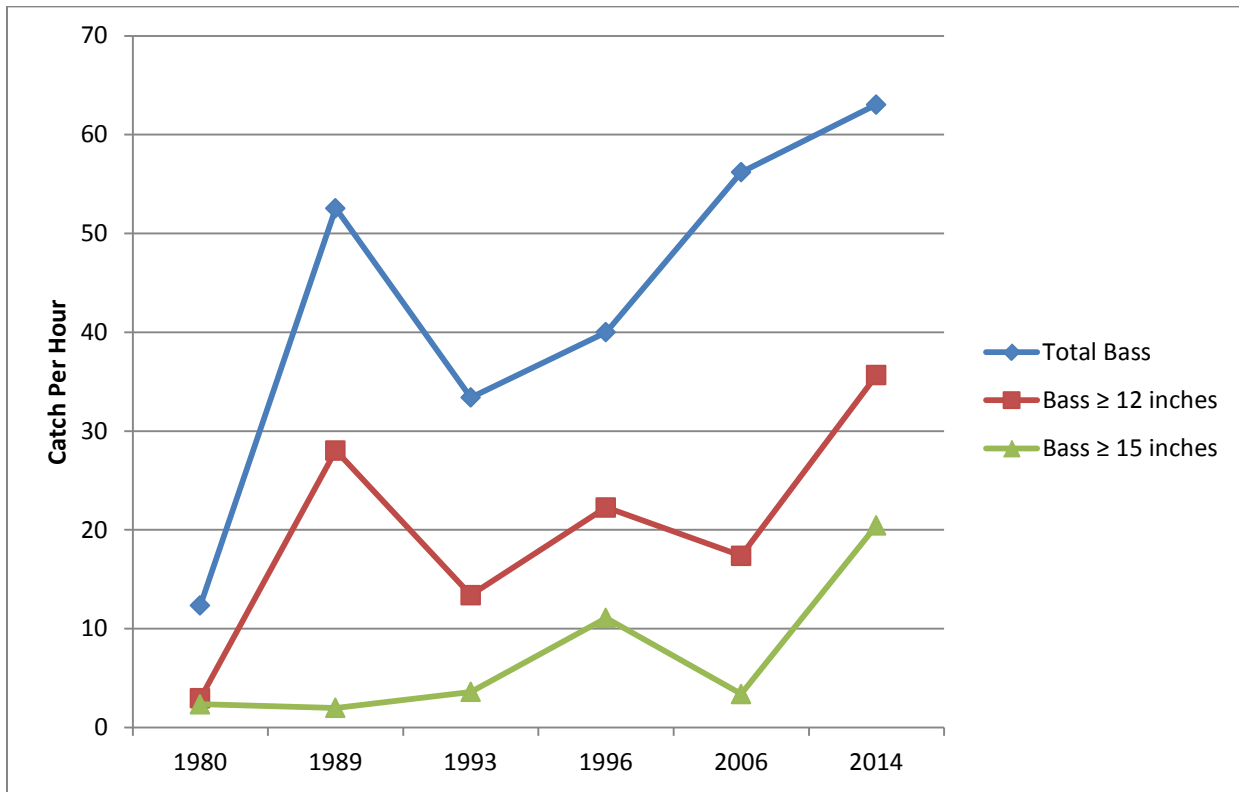


Figure 4. Night electrofishing catch rates of black bass at Yellow Creek Lake.

Table 2. Total catch and size range of fish captured during May night electrofishing at Yellow Creek Lake.

Species	Total Catch	Size range (inches)	Comments
Largemouth bass	217	5 - 21	35% > 15 inches
Smallmouth bass	36	7 - 20	14% > 15 inches
Walleye	22	8 - 27	45% > 15 inches
Northern Pike	22	13 - 33	22% > 24 inches



Fisheries Biologist Bob Ventorini with a 20 inch Smallmouth Bass from Yellow Creek Lake.



Fisheries intern Ken Parks with a 21 inch Largemouth Bass from Yellow Creek Lake.

Overall, Yellow Creek Lake provides excellent angling opportunities for black bass and good fishing opportunities for panfish, pike, and Walleye.

-Mike Depew, Area 8 Fisheries Biologist