

Lake Marburg Codorus Creek State Park York County

2017 Muskellunge Trap Net Survey



Fisheries Manager Mike Kaufmann with a 50-inch Muskellunge

The Pennsylvania Fish and Boat Commission (PFBC) evaluated Muskellunge and Tiger Muskellunge populations in Lake Marburg between April 17 and 20, 2017 in accordance with the [2017 Pennsylvania Muskellunge Plan Update](#). The survey was part of a larger statewide project designed to assess Muskellunge stocking success on all currently stocked waters. The PFBC wishes to ensure that quality fisheries are being developed and maintained by the stocking program. Muskellunge management at the 1,275 acre Lake Marburg has consisted of an alternate year stocking strategy for pure Muskellunge since 1996 with annual hybrid Tiger Muskellunge plants added to the stocking program from 2011 through 2015 (Table 1).

Table 1. Muskellunge and Tiger Muskellunge stockings in Lake Marburg from 1996 through 2017 by the PFBC's warmwater/coolwater hatchery system. Please note that the 2017 stocking occurred after the survey.

Year	Species	Life Stage	Number Stocked
2017	Muskellunge	Fingerling	1,250
2015	Muskellunge	Fingerling	1,250
2015	Tiger Muskellunge	Fingerling	3,026
2014	Tiger Muskellunge	Fingerling	1,436
2013	Muskellunge	Fingerling	2,500
2013	Tiger Muskellunge	Fingerling	5,100
2011	Muskellunge	Fingerling	1,250
2011	Tiger Muskellunge	Fingerling	5,100
2009	Muskellunge	Fingerling	2,500
2009	Muskellunge	Yearling	490
2008	Muskellunge	Fingerling	1,700
2007	Muskellunge	Fingerling	1,248
2005	Muskellunge	Fingerling	1,248
2003	Muskellunge	Fingerling	1,235
2000	Muskellunge	Fingerling	1,250
1998	Muskellunge	Fingerling	1,250
1996	Muskellunge	Fingerling	1,250

In southeastern Pennsylvania lakes, Muskellunge populations depend on hatchery stockings of fingerlings to provide quality recreational fisheries, as no natural reproduction of Muskellunge occurs in lakes there. Previous Biologist Reports on other regional evaluations documented quality Muskellunge fisheries at [Marsh Creek Lake, Chester County, Blue Marsh Lake, Berks County, and Lake Nockamixon, Bucks County.](#)

Eleven Pennsylvania style trap nets used to capture Muskellunge were set in Lake Marburg between April 17 and 20, 2017 for 237.9 hours. The trap nets were set in water depths ranging from 4 to 13 feet and left overnight for approximately 22 hours before being tended the following day. Thirteen Muskellunge, one Tiger Muskellunge, and one Northern Pike were captured during the survey. Muskellunge ranged from 36 to 50 inches in total lengths and weighed 11 to 37 pounds (Figure 1).

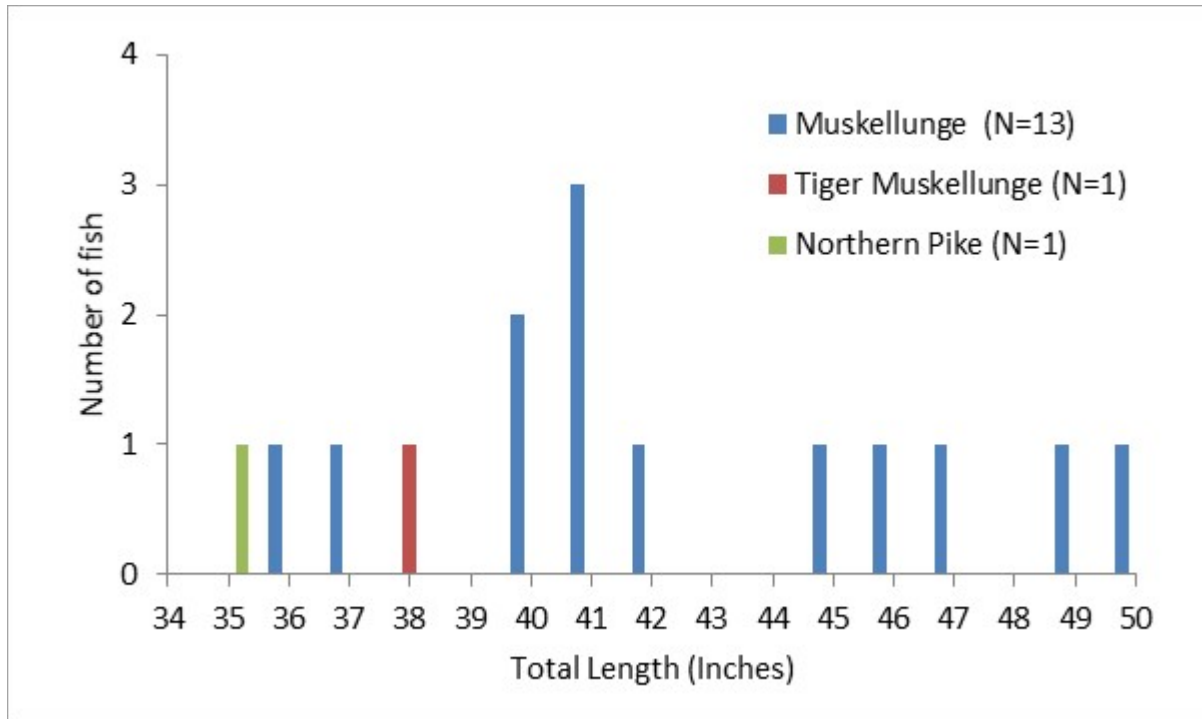


Figure 1. Length frequency distribution for Muskellunge, Tiger Muskellunge, and Northern Pike.

Lake Marburg supports a quality population of Muskellunge. The catch of thirteen individuals resulted in a mean catch rate of 0.05 Muskellunge per trap net hour, which exceeded the PFBC's minimum statewide objective of 0.01 fish/hour for continued stocking in Pennsylvania's reservoirs. For Tiger Muskellunge the catch rate of 0.004 fish/hour failed to meet the minimum objective. Stockings of these hybrids will be terminated. Also, the catch of a Northern Pike re-confirmed their continued occurrence in the reservoir from limited natural reproduction.

Lake Marburg is managed as a multiple use fishery offering a variety of species for anglers to pursue. Many other sportfish species were captured during the 2017 trap net survey, such as Largemouth Bass, Common Carp, Bluegill, Black Crappie, White Crappie Yellow Perch, and Walleye (Table 2). Noteworthy was that White Perch were the most abundant species captured with 71% of the catch \geq 9 inches, representing an unusually desirable White Perch angling opportunity. Additionally, on a region-wide basis the crappie population was very good.

As the table below is reviewed it is important to also note that trap net catches do not reflect bass abundance, as bass generally avoid the nets. For this reason, bass are sampled via

electrofishing when representative bass population surveys are being conducted.

Table 2. Summary of fish species captured during the Lake Marburg Muskellunge trap net survey conducted between April 17 and 20, 2017.

Species	Number caught	Size Range (Inches)	Comments
Game Species			
Largemouth Bass	10	3 - 16	
Bowfin	2	25 - 26	
Common carp	10	-	Not measured
Panfish			
Bluegill	1,155	2 - 9	8% > 7"
Pumpkinseed	3	3 - 5	
Green Sunfish	9	3 - 6	
Black Crappie	326	3 - 18	43% > 9"
White Crappie	69	3 - 15	35% > 9"
Rock Bass	28	4 - 11	
White Perch	1,930	5 - 13	71% > 9"
Yellow Perch	46	3 - 13	
Brown Bullhead	18		
Yellow Bullhead	9	8 - 13	
Channel Catfish	5	20 - 26	
White Sucker	14	-	Not measured
Pikes			
Muskellunge - Pure	13	36 - 50	
Muskellunge - Tiger	1	38	
Northern Pike	1	35	
Walleye	15	16-26	
Forage Species			
Bluntnose Minnow	5	-	Not measured
Gizzard Shad	67	-	Not measured
Golden Shiner	4	-	Not measured



Two "common size" Lake Marburg White Perch

Area 6 Southeast Fisheries Management Area