

Canonsburg Lake

Washington County

May 2018 Electrofishing, Trap Net, and Hoop Net Survey

Canonsburg Lake is a 76 acre Pennsylvania Fish and Boat Commission (PFBC) owned impoundment located in Washington County on Little Chartiers Creek in Canonsburg, PA ([see the 2012 Biologist Report for additional information on Canonsburg Lake](#)). The lake is an Approved Trout Water Open to Year-Round Fishing and is stocked with catchable trout in the spring and fall. Additionally, Channel Catfish are stocked annually as fingerlings and yearlings at Canonsburg Lake.

Fisheries Management personnel of the PFBC surveyed Canonsburg Lake in early May. The primary purpose of the evaluation was to evaluate the success of yearling vs fingerling stockings of Channel Catfish through night electrofishing, trap netting, and hoop netting. Channel Catfish are a popular component of the fishery at Canonsburg Lake and the PFBC has stocked fingerlings for years at this impoundment. In order to see if the fishery can be further enhanced the PFBC began stocking equal numbers of yearling (8-10") and fingerling catfish (2-3") in the lake in 2014. To identify the size and year fish were stocked, all lots of catfish received a unique fin clip. For example, all yearling fish stocked in 2014 received an adipose fin clip. This would allow biologists to determine which size of catfish were surviving better.

Night electrofishing for Largemouth Bass and Channel Catfish was performed in early May. Largemouth Bass are a substantial predator of fingerling Channel Catfish and electrofishing catch rates of Largemouth Bass may be correlated with survival of Channel Catfish fingerlings, hence we often electrofish for bass when evaluating Channel Catfish stocking. Overall, a total of 58 Largemouth Bass were captured in 2018, with a total catch rate of 64 fish/hr (Table 1). Total catch and catch rates of Largemouth Bass exhibited decline from the previous surveys in 2000 and 2012. However, 2018 bass catch rates exceeded statewide Big Bass Guidelines of 35 total bass/hr, 7 bass/hr over 12 inches, and 2 bass/hr over 15 inches used to define a quality bass population statewide at 64 bass/hr, 25 bass/hr, and 9 bass/hr, respectively for Canonsburg Lake (Figure 1).



Nineteen-inch Largemouth Bass captured from Canonsburg Lake

Length (inches)	2000	2012	2018
4	2	1	0
5	2	0	0
6	1	3	6
7	5	5	6
8	7	3	8
9	4	4	4
10	7	5	7
11	13	8	5
12	10	19	4
13	8	14	5
14	4	7	4
15	4	8	1
16	9	6	3
17	3	5	4
18	4	2	0
19	5	3	1
Total	88	93	58

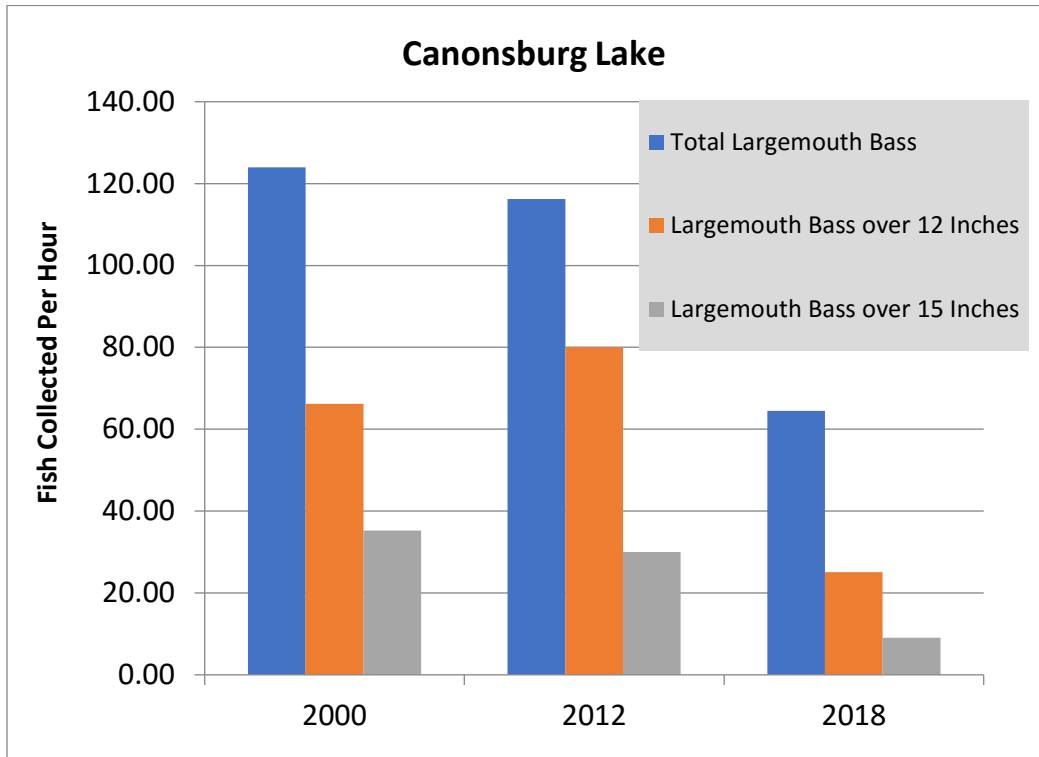


Figure 1. Catch rates of Largemouth Bass from night electrofishing at Canonsburg Lake.

Sampling for Channel Catfish provided more encouraging results. Our previous surveys in 2000 and 2012 yielded 23 and 31 Channel Catfish, respectively. In 2018 we captured 102 Channel Catfish, with fish ranging from 3 – 23 inches. Furthermore, of the 102 fish captured, 68 were determined to have been fin clipped and 67 were stocked as yearlings. The future looks bright for anglers targeting Channel Catfish at Canonsburg Lake.

We will return to the lake in 2019 for round two sampling for our catfish study and will gather additional information on catfish ages and origins in Canonsburg Lake.

Other fish species captured during the trap net portion of our survey at Canonsburg Lake included species such as Black Crappie and White Crappie, Bluegill, Pumpkinseed, Brown Bullhead, Gizzard Shad, White Sucker, and Hatchery Brown, Brook, and Rainbow Trout (Table 2). In general, panfish were abundant but size structure was poor, with few crappies over 9 inches and few Bluegill over 7 inches. Competition with Gizzard Shad for food resources is likely affecting the size structure of the panfish populations in Canonsburg Lake.

Table 2. Fish species captured from trap netting at Canonsburg Lake during May 2018.

Fish Species	Number Collected	Size Range (inches)	Additional Comments
Black Crappie	36	3 – 9 inches	3% over 9 inches
White Crappie	278	3 – 14 inches	6% over 9 inches
Yellow Perch	1	7 inches	None over 9 inches
Bluegill	115	2 – 7 inches	1% over 7 inches
Pumpkinseed	6	3 – 5 inches	None over 7 inches
Green Sunfish	1	4 inches	
Hybrid sunfish	1	3 inches	
Channel Catfish*	102	3 – 23 inches	
Largemouth Bass	2	12 – 15 inches	
Brown Bullhead	37	7 – 12 inches	
Common Carp	8	Not Measured	
Gizzard Shad	122	Not Measured	
White Sucker	57	Not Measured	
Brook Trout	4	Not Measured	
Brown Trout	1	Not Measured	
Rainbow trout	27	Not Measured	

*Channel Catfish numbers are from trap nets, hoop nets, and night electrofishing

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