

Laurel Hill Lake

Somerset County

May 2023 Night Boat Electrofishing and Trap Net Survey

Laurel Hill Lake is a 63-acre impoundment on Laurel Hill Creek within the boundaries of [Laurel Hill State Park](#) in Somerset County that is operated by the Pennsylvania Department of Conservation and Natural Resources (DCNR). Two boat launches provide access to the lake for boats with electric motors only. The lake is stocked with catchable trout multiple times throughout the year by the Pennsylvania Fish and Boat Commission (PFBC) and is managed as a [Stocked Trout Water Open to Year-Round Fishing](#). The lake also contains populations of resident warmwater and coolwater species that are managed under [Commonwealth Inland Waters Regulations](#).

Laurel Hill Lake is a relatively shallow lake with an average depth of around 4 ft and the maximum depth approaching 17 ft. Deepest water can be found along the east bank of the lake where the stream channel of Laurel Hill Creek runs adjacent to the shoreline. This bank contains multiple overhanging limbs and laydowns that offer structural habitat to resident fish populations. The western side of the lake is shallower as deposition of sediment from its tributaries, Laurel Hill Creek and Jones Mill Run, has accumulated over the years forming a large flat that extends out into the lake from its beach. To provide additional structural habitat for fish species residing within the lake, the PFBC has historically placed porcupine and porcupine jr. structures throughout the lake and the [PFBC Habitat Improvement Map](#) containing the locations of these structures can be found on the PFBC website.

This report summarizes lake surveys from May 8th through the 10th in 2023. Six Pennsylvania style trap nets were set over the course of the survey to sample the resident fish populations and three-night flatbottom boat electrofishing runs were used to sample the Largemouth Bass population of Laurel Hill Lake.

The trap nets yielded a total of 14 different species; however, the catch rates for captured species were low (Table 1). Yellow Perch were the most abundance species as 19 individuals were captured with 32% of those individuals being over 9 inches in length. Black Crappie, Bluegill, Pumpkinseed, and Rock Bass accounted for the other panfish captured in the survey with small individuals making up a majority of the catch. Black Crappies were the exception with 7 of the 9 individuals being 9 inches or more in length.

Table 1. Number and size range of fish species captured from trap nets at Laurel Hill Lake in May 2023.

Fish Species	Frequency	Size (Inches)	Comments
Yellow Perch	19	5 – 11	32% ≥ 9 inches
Brown Bullhead	14	7 – 15	43% ≥ 12 inches
Yellow Bullhead	9	7 – 11	
Black Crappie	9	6 - 10	78% ≥ 9 inches

Bluegill	8	3 - 6	No fish over 7 inches
Pumpkinseed	1	3	
Largemouth Bass	4	12 - 19	
Northern Pike	3	18 - 23	
Rock Bass	1	4	
Hatchery Brown Trout	1	Not Measured	
Hatchery Rainbow Trout	3	Not Measured	
Common Carp	1	Not Measured	
White Sucker	59	Not Measured	
Golden Shiner	5	Not Measured	

Brown Bullheads and Yellow Bullheads were fairly common in relation to the abundance of other species captured in the survey. A total of 25 bullheads were captured ranging in sizes from 7 inches to 15 inches. Forty-three percent of the Brown Bullheads captured were at or over a foot in length. A few nice Largemouth Bass were also captured in the trap nets with one individual measuring 19 inches in length. Laurel Hill Lake has historically contained populations of Northern Pike as well. The lake still holds this gamefish, but in small numbers as 3 individuals were captured in the 2023 survey. This is a decrease from the 10 individuals captured in 2015.

Night flatbottom boat electrofishing was utilized to sample the Largemouth Bass population in Laurel Hill Lake. A total of 27 Largemouth Bass were captured in the survey with sizes ranging from 10 to 20 inches in length (Table 2).

Table 2. Total catch of target species from night electrofishing in May 2023.

Species	Number caught	Size range (inches)	Comments
Largemouth Bass	27	10 - 20	67% over 12 inches 33% over 15 inches

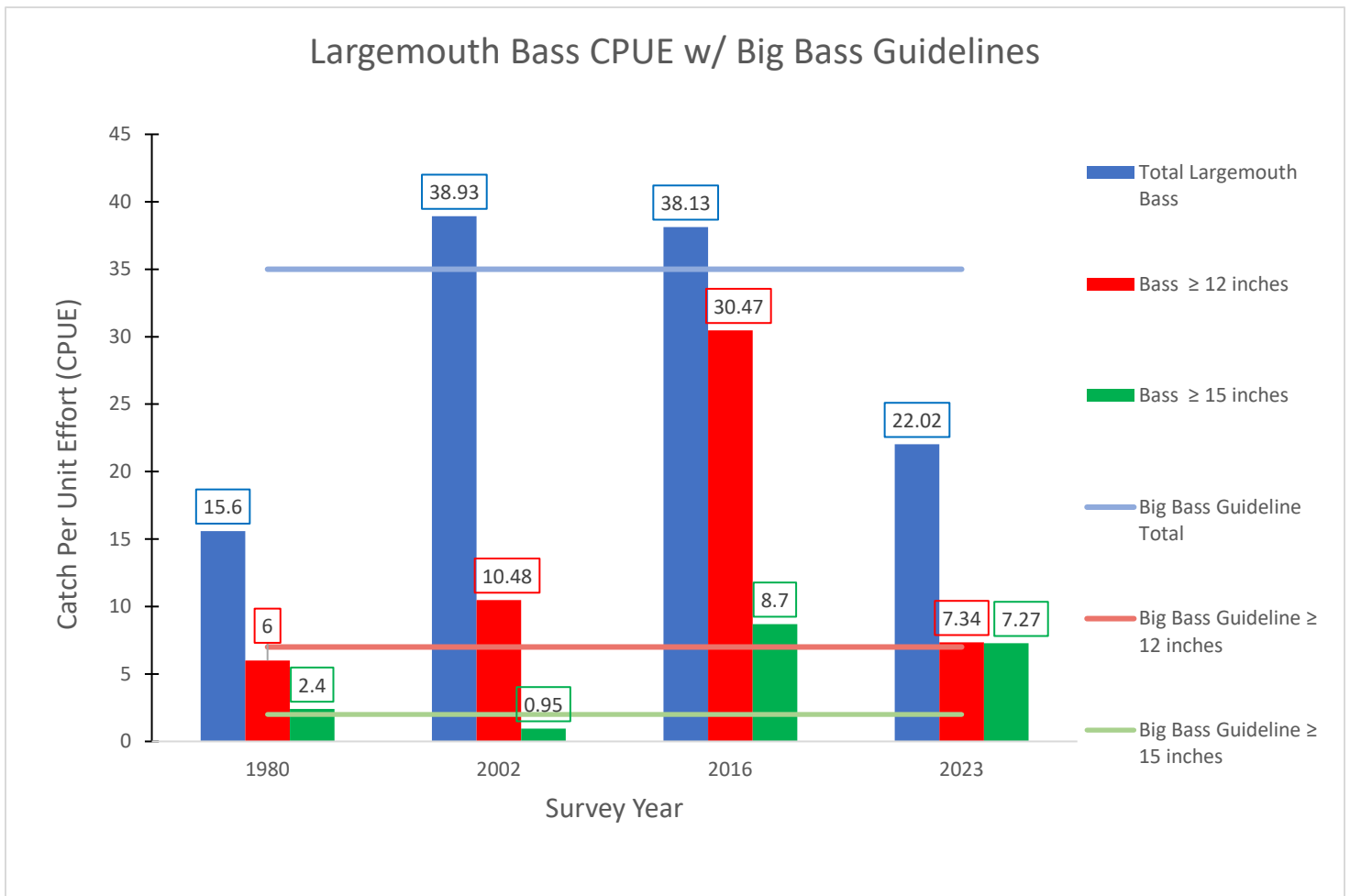


Figure 1. Largemouth Bass collected per hour during night electrofishing runs at Laurel Hill Lake.

In 2023, mean total Catch Per Unit Effort (CPUE) of Largemouth Bass was 22.02 fish/hr (Figure 1). This falls below the statewide Big Bass benchmark for total CPUE of 35 fish/hr as an indication of a quality bass fishery. The total CPUE for 2023 was also lower than that of previous surveys in 2002 and 2016, which were 38.93 fish/hr and 38.13 fish/hr, respectively. The CPUE for Largemouth Bass ≥ 12 inches in 2023 was 7.34/hr. This fell well below the 2016 CPUE for Largemouth Bass ≥ 12 inches which was 30.47/hr, yet the 2023 CPUE ≥ 12 inches still exceeded the Big Bass benchmark for bass ≥ 12 inches which is 7 fish/hr. Although the total CPUE and CPUE of fish ≥ 12 inches largely decreased from 2016 to 2023, the CPUE for fish ≥ 15 inches in 2023 was one positive result of the survey. The 2023 CPUE for Largemouth Bass ≥ 15 inches was 7.27 fish/hr. This is well above the Big Bass benchmark of 2 fish/hr and comparable to the 2016 CPUE for Largemouth Bass ≥ 15 inches of 8.7 fish/hr. Therefore, the presence of larger Largemouth Bass in Laurel Hill Lake has remained despite the overall decrease in total catch rate.



Area 8 Fisheries Biologist Aides Lucas Hartman and Rhett Pletcher with a 16 in and 20 in Largemouth Bass

Overall, the results from the survey indicated that Laurel Hill Lake contains small populations of warmwater and coolwater panfish and gamefish, as well as stocked trout. It is important to note though that the depth characteristics of the lake may have hindered the effectiveness of the survey as trap netting was confined to the shallow flats along the west bank as the east bank of the lake was too deep for the nets to work effectively. This same situation may also have affected the results of the night electrofishing as the deep water near the shore on the east bank potentially limited the effective range of the electrofishing equipment. Bullheads and Yellow Perch proved to be the most abundant species in the survey, with some quality sized Largemouth Bass being present. The lake also offers the unique opportunity to potentially land Northern Pike; however, their numbers have seemed to decline from previous surveys. The lake is still regularly stocked with trout and due to its special regulations, presents the opportunity for year-round trout angling.

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