Pennsylvania Fish and Boat Commission Biologist Report

Lily Lake

Luzerne County

2022 Black Bass Survey



Fisheries Biologist Dan Drake and Fisheries Biologist Aide Joe Pacholec with some nice Lily Lake Largemouth Bass collected June 2022.

<u>Lily Lake</u> is a 160-acre impounded natural lake in Luzerne County. The Pennsylvania Fish and Boat Commission (PFBC) maintains a launch and mooring area with parking for 23 vehicles with trailers. Boats with engines over 60HP or over 20' in length are prohibited. The <u>PFBC Habitat Division</u> has placed numerous <u>structures</u> in Lily Lake to provide aquatic habitat. The lake is managed under the PFBC <u>Big</u> <u>Bass Program</u> regulations and is designated as a <u>stocked trout water open to year-round fishing</u>, receiving Rainbow Trout twice in the spring and once in the fall. The PFBC also stocks <u>Northern Pike</u> fingerlings annually in Lily Lake.

Fisheries Management Area 4 biologists conducted a night boat electrofishing survey of Lily Lake on June 9, 2022 to collect Largemouth Bass and Smallmouth Bass as part of a routine monitoring strategy. A total of 38 Largemouth Bass were captured in 1.08 hours of sampling. No Smallmouth Bass were collected or observed. The night electrofishing total catch rate for Largemouth Bass was 35.1/hour (Table 1), ranging from 3 to 20 inches in total length (Figure 1). The catch rate for Largemouth Bass \geq 12 inches was 15.7/hour, and the catch rate for Largemouth Bass \geq 15 inches was 7.4/hour. Catch rates

from the 2022 survey are down from the previous 2014 survey but similar to the 2000 and 1998 survey. Alewife were first discovered in Lily Lake in a 2013 trap net survey with 2014 being the first electrofishing survey able to evaluate the bass response to this introduced baitfish species in Lily Lake. This survey indicates the Largemouth Bass population has remained stable. The 2022 survey catch rates continued to meet and exceed guidelines for the Big Bass program.

Table 1. Night electrofishing catch rate comparisons of Largemouth Bass from Lily Lake.

	Year				
	Big Bass Guidelines	2022	2014	2000	1998
Total catch/hour	<u>></u> 30	35.1	53.7	36.0	39.0
≥ 12 in/hour	8-12	15.7	29.2	10.0	16.0
≥ 15 in/hour	2-5	7.4	17.5	2.0	2.0

Also collected during the 2022 survey were three Northern Pike ranging in length from 15-24 inches. It is worth noting that the 2013 trap net survey targeting pike only collected two fish. There should be some good opportunities for catching them in years to come as annual fingerling stockings will continue.



Fisheries Biologist Dan Drake with a Northern Pike collected June 2022 at Lily Lake.

A number of <u>Black Crappie</u> were also observed, a trend detected in the 2013 trap net survey that we are pleased to continue to see.



Fisheries Biologist Aide Joe Pacholec with a Black Crappie collected June 2022 at Lily Lake.

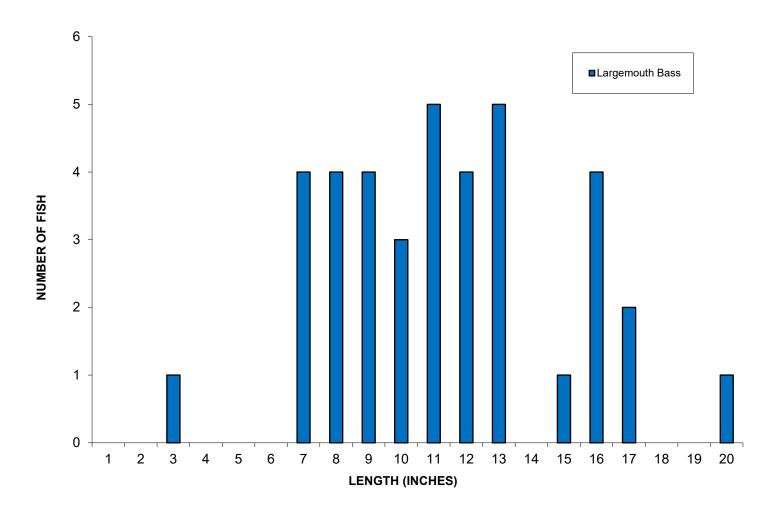


Figure 1. Length frequency distribution of Largemouth Bass caught on June 9, 2022 from Lily Lake.

Dan Drake Area 4 Fisheries Biologist