Pennsylvania Fish & Boat Commission Biologist Report

Lake Towhee Bucks County 2021 – Trapnet survey

Lake Towhee is a 50-acre reservoir in Haycock Township, Bucks County that is operated by the Bucks County Park System. Lake Towhee is the centerpiece of the 549-acre Lake Towhee Park. The park offers numerous amenities including, ball fields, hiking trails, playground, primitive camping, and restrooms. The lake attracts outdoor enthusiasts interested in bird watching, boating, kayaking, and fishing. The upper end of Lake Towhee is shallow due to years of sedimentation and becomes heavily vegetated during the warmest part of the year. The lower end of the lake is deeper and provides the greatest access for boating and fishing activities. This report details the findings of a trapnet survey conducted at Lake Towhee in fall 2021.



View of Lake Towhee from the boat ramp access.

Biologists from the <u>Pennsylvania Fish and Boat Commission's (PFBC)</u> Area 6 fisheries management office conducted a trapnet survey at Lake Towhee during October 12-14, 2021. A total of seven trapnets were set and allowed to fish overnight for approximately 24 hrs. Nets were set in the lower portion of the lake (south of the boat ramp) due to limited access in the upper reservoir (very shallow and heavily vegetated). Upon capture, fish were counted, measured, and released. Bluegill and Black Crappie were the most frequently captured sportfish species during the survey (Table 1). Other species captured were Brown Bullhead, Chain Pickerel, Largemouth Bass, Pumpkinseed, White Sucker, and Yellow Bullhead. Creek Chubsucker, Common Carp, Gizzard Shad, and Golden Shiner were captured and counted, but not measured.

Species	Count Size Range (i			
Black Crappie	413	3-14		
Bluegill	471	3-7		
Brown Bullhead	43	9-14		
Chain Pickerel	14	15-22		
Common Carp	9	Not measured		
Creek Chubsucker	3	Not measured		
Gizzard Shad	439	Not measured		
Golden Shiner	51	Not measured		
Largemouth Bass	4	16-20		
Pumpkinseed	1	4		
White Sucker	5	12-15		
Yellow Bullhead	10	8-11		

Table 1. Summary of fish species captured at Lake Towhee during the October 2021 trapnet survey.

A total of 471 Bluegills ranging 4 - 7 in were captured during the trap net survey (Table 1). Of the 471 Bluegills, only 35 (7.4%) exceeded 7 in (Table 2). A total of 413 Black Crappies were captured and most ranged from 5 – 8 in. Although infrequently encountered, Black Crappies up to 14 in were captured (Table 1 and 2). A possible explanation for the smaller size structure of panfish in Lake Towhee is competition for forage resources with other small panfishes and Gizzard Shad and dense vegetation that protects smaller fish from predation. However, the abundance of small panfishes, Gizzard Shad, and Golden Shiners may be benefiting the lake's predator populations. All of the 14 Chain Pickerel captured exceeded 15 in (ranged 15-22 in) and were in good condition. Although trap nets are not the appropriate gear for sampling Largemouth Bass, the 4 Largemouth Bass collected were all robust and measured 16-20 in. Biologists plan to return to Lake Towhee in the future to conduct an electrofishing survey to characterize the Largemouth Bass population. Angling opportunities for intermediate-sized panfish and quality-sized Chain Pickerel and Largemouth Bass appear to be good at Lake Towhee.

	Black		Brown	Chain	Largemouth		Yellow
Length (in)	Crappie	Bluegill	Bullhead	Pickerel	Bass	Pumpkinseed	Bullhead
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	1	6	-	-	-	-	-
4	8	11	-	-	-	1	-
5	140	174	-	-	-	-	-
6	17	245	-	-	-	-	-
7	135	35	-	-	-	-	-
8	93	-	-	-	-	-	2
9	15	-	1	-	-	-	1
10	2	-	3	-	-	-	2
11	-	-	9	-	-	-	5
12	1	-	17	-	-	-	-
13	-	-	11	-	-	-	-
14	1	-	2	-	-	-	-
15	-	-	-	1	-	-	-
16	-	-	-	1	2	-	-
17	-	-	-	2	-	-	-
18	-	-	-	2	-	-	-
19	-	-	-	3	1	-	-
20	-	-	-	2	1	-	-
21	-	-	-	2	-	-	-
22	-	-	-	1	-	-	-

Table 2. Length frequency distributions for fish species captured at Lake Towhee during the October2021 trapnet survey.

Anglers and boaters visiting Lake Towhee are advised that only electric motors can be used. There is one boat ramp on Lake Towhee located off <u>Old Bethlehem Road</u>. This lake provides great opportunities for recreationists preferring the use of kayaks, particularly in the upper portion of the reservoir. European Water Chestnut, a non-native plant species, is found in Lake Towhee. European Water Chestnut can be spread to new environments via a small fragment of the plant. Therefore, anglers and boaters are urged to <u>check, clean, drain, and dry</u> their gear following outings to Lake Towhee to prevent the spread of Aquatic Invasive Species to other waters. The Largemouth Bass population in Lake Towhee is managed under the <u>Big Bass Program (page 11)</u>. All other species are managed with <u>Commonwealth Inland</u> <u>Waters Regulations (page 10)</u>.

Area 6 Fisheries Management Staff

Cooper Barshinger and Tyler Grabowski- Area 6 Fisheries Biologists,

and Mike Porta – Area 6 Fisheries Manager