Pennsylvania
Fish and Boat Commission

Minsi Lake, Northampton County

Reclaimed Lake Evaluation

Introduction

Minsi Lake is a 117-acre impoundment located in Northampton County. The lake began refilling in 2020 following dam repair and restoration stockings of warm-water fish species occurred from 2020 -2025. The intent is to restore Minsi Lake to the high-quality Largemouth Bass and panfish fishery that existed prior to reconstruction. The restoration stocking of Minsi Lake has been completed. The objective of the 2025 survey is to assess if the restoration stockings were successful. The lake is currently managed under Miscellaneous Waters with Special Regulations allowing catch-and-release fishing for all species; however, all species caught other than hatchery-stocked trout must be immediately returned unharmed. For trout, Commonwealth Inland Waters regulations apply.

Methods

During April 1- 4, 2025, biologists completed a total of 12 trap net sites, set at various randomly selected sites throughout the lake (Figure 1). The nets were fished for approximately 24 hours each prior to retrieval and processing. All fish were enumerated, total length measured and returned alive back to the lake.

A nighttime boat electrofishing survey took place on October 9, 2025. A total of four, 350-meter shoreline sites were completed with 10 minutes of electrofishing effort each.

Results

The 2025 trap net survey captured a total of 624 fish representing 10 different species during 281 hours of effort (Table 1). Bluegill (n = 255), Black Crappie (n = 128), Pumpkinseed (n = 77), Brown Bullhead n = 62), and Golden Shiner (n = 56), were the most abundant fish captured. Other species captured included American Eel, Chain Pickerel, hatchery Rainbow Trout-, and *Lepomis* hybrids. The low catch of Largemouth Bass (n= 6) was expected as trap nets are not effective in capturing this species.

A high proportion of both Bluegills and Pumpkinseeds captured achieved quality size (≥ 6 inches long; Table 2). Most of the Bluegills (83%) and all but one of the Pumpkinseeds were 6 inches or longer.

Boat electrofishing surveys captured 79 Largemouth Bass for a total catch rate of 118.5 fish/h. Approximately 40% of the Largemouth Bass captured were 12 inches long or longer (Table 3). A 22-inch Largemouth Bass was also captured during this survey representing the largest captured at Minsi Lake to date (Table 3).

Table 1. *Species, number caught, and length range of fish caught during 2025 trap net surveys at Minsi Lake, Northampton County.*

Species	Number	Length (in.)
American Eel	3	Not measured
Golden Shiner	56	6 - 10
Brown Bullhead	62	7 - 15
Rainbow Trout (hatchery)	3	Not measured
Chain Pickerel	24	8 - 16
Pumpkinseed	77	5 - 8
Bluegill	255	1 - 12
Lepomis hybrids	10	7 - 8
Largemouth Bass	6	10 - 12
Black Crappie	128	3 - 11

Table 2. *Length (inches) and catch of sunfish and crappie species caught during 2025 trap net surveys at Minsi Lake, Northampton County.*

Length (in.)	Pumpkinseed	Bluegill	Black Crappie
1	0	3	0
2	0	20	0
3	0	6	2
4	0	1	0
5	1	4	0
6	2	12	3
7	58	33	29
8	12	66	45
9	0	55	25
10	0	0	0
11	0	0	2
12	0	1	0

Table 3. *Length (inches) and catch of Largemouth Bass caught during October 2025 trap net surveys at Minsi Lake, Northampton County.*

Length (in.)	Catch	Length (in.)	Catch
3	2	13	6
4	1	14	0
5	0	15	0
6	1	16	0
7	0	17	0
8	1	18	0
9	2	19	0
10	18	20	0
11	24	21	0
12	23	22	1

Discussion

The catch rate of Bluegills and Pumpkinseeds during the 2025 survey exceeded what was measured in Minsi Lake during a 1997 survey prior to the drawdown. The review of length-frequency data for Bluegills and Pumpkinseeds among recent surveys also shows a shift to larger sizes; demonstrating adequate growth and survival of stocked fish. In addition to those two species, the 2025 survey had a drastic increase in the catch rate of Black Crappies (0.46 fish/h) compared to the 2021 and 2023 surveys (> 0.01 fish per hour). Restoration stockings for both Black Crappie and Yellow Perch were doubled for the 2024 season and extended an additional year into 2025 due to the low capture rates in the 2023 trap net survey. We were able to see the effects of the increased stockings for the Black Crappies population during the 2025 survey.

Yellow Perch were not captured during the 2025 trap net survey; however, the species occurs in low abundance despite repeated stocking efforts. Yellow Perch have been seen while night-boat electrofishing so they are present in the lake but at extremely low abundance. The stocked Yellow Perch population has not established following reclamation; likely because of competition by other panfish species. The Yellow Perch population of the lake will be managed moving forward as a low-density population.

Data from 2025 night-boat electrofishing suggests Largemouth Bass populations have also met and exceeded pre-drawdown conditions. Largemouth Bass relative abundance during the 2025 survey was higher than the four previous fall surveys (1997, 1999, 2000, and 2010). The length-frequency distribution of the population also suggests a high proportion of the fish are in the 10 to 12-inch range and will be achieving the size desirable to anglers in the near future.

Black Crappie, Bluegill, Pumpkinseed, and Largemouth Bass appear to have established stable populations within Minsi Lake. Anglers can expect to see sunfish, crappie, and Largemouth Bass abundance at or above levels experience prior to the drawdown.

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