Acme Dam Westmoreland County

April/May 2021 Trap Net and Night Electrofishing Survey

Acme Dam is a 24-acre impoundment located in Chestnut Ridge Park. It is owned by the Westmoreland County Bureau of Parks and Recreation and located south of State Route 31 between Mount Pleasant and Donegal. Acme Dam is fed by the headwaters of Jacobs Creek and has an average depth of 3.3 feet. The entire lake is easily accessible for shore fishing. Boating is permitted with unpowered or electric motors only. <u>Statewide regulations</u> are used to manage all fish populations at Acme Dam.

Acme Dam was previously surveyed in 1980, 1998 and 2010. In late April/early May of 2021, fisheries management staff of the Pennsylvania Fish and Boat Commission's (PFBC) Southwest Regional Office conducted a survey to reassess the lake's fish population. Staff used Pennsylvania style trap nets to target panfish and night boat electrofishing to sample for bass.

| Species | Number caught | Size range (inches) | Notes |
|-----------------|---------------|---------------------|-------------------|
| Black Crappie | 158 | 4 – 11 inches | 86% over 9 inches |
| White Crappie | 6 | 6 – 14 inches | 33% over 9 inches |
| Bluegill | 192 | 3 – 9 inches | 80% over 7 inches |
| Pumpkinseed | 21 | 6 – 9 inches | 90% of 7 inches |
| Largemouth Bass | 1 | 9 inches | |
| Yellow Perch | 36 | 6 - 12 inches | |
| Brown Bullhead | 126 | 6 – 16 inches | |
| Yellow Bullhead | 39 | 9 – 13 inches | |
| Common Carp | 1 | Not Measured | |
| Golden Shiner | 33 | Not Measured | |
| White Sucker | 18 | Not Measured | |

Table 1. Length and frequency distribution of sampled fish from trap nets.

A total of eleven species were captured in the trap nets, with Bluegill, Black Crappie and Brown Bullhead being the most abundant (Table 1). The 2021 survey showed a dense population of quality-sized sunfish (fish \geq 7 inches). The catch rate of quality sized sunfish at Acme Dam was 1.24 fish per hour in 2021, an increase from the 0.88 fish per hour in 2010 (Figure 1). The statewide guideline for a good quality sunfish population is 0.51 sunfish \geq 7 inches per hour.

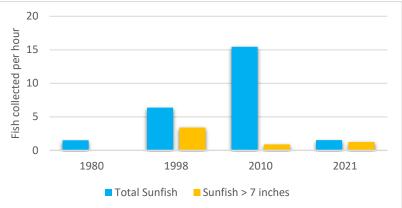


Figure 1. Trap net catch rates of Bluegill and Pumpkinseed at Acme Dam.

Crappie were the second most abundant fish in the lake with majority of them being over 9 inches. Quality sized crappie (fish \geq 9 inches) have really improved from previous surveys. The statewide guideline used to define a quality crappie population is 0.25 fish \geq 9 inches per hour. Acme Dam's catch rate for crappie over 9 inches was 0.99 fish per hour (Figure 2).

Brown Bullhead were the third most dominant fish in the lake. A total of 126 were captured in our nets with 87% of the fish being over 12 inches.

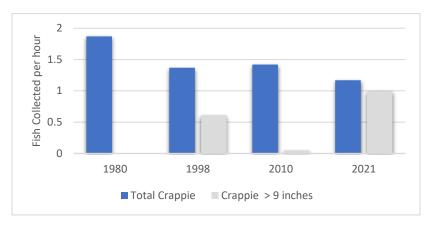


Figure 2. Trap net catch rates of crappie at Acme Dam



Nice sized Bluegill, Yellow Perch and White Crappie captured in trap nets at Acme Dam.



A large Brown Bullhead captured while trap netting.

Night electrofishing for 50 minutes yielded 66 Largemouth Bass in 2021 (Table 2). Of the 66 bass collected, 74% of the bass were quality-sized fish (fish \ge 12 inches). The total bass catch rates were similar between 2010 and 2021 (Figure 3). However, the quality-sized bass catch rate doubled from 2010 to 2021. Fish and Boat Commission guidelines for a quality black bass population are exceeded at Acme Dam. Bass over 12 inches were collected at a rate of 59 per hour (state guidelines = 7 per hour) and bass over 15 inches were collected at a rate of 42 per hour (state guidelines = 2 per hour) (Figure 3).

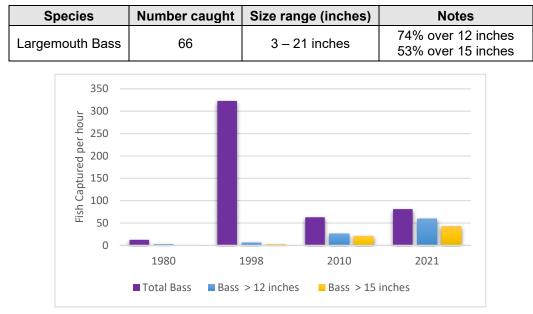
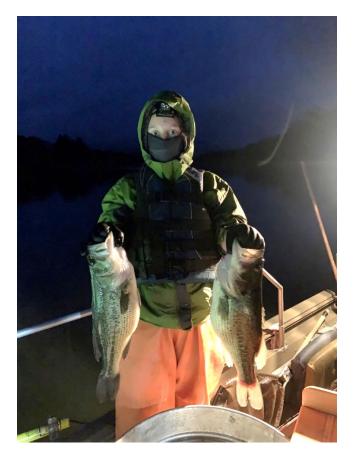


Table 2. Length and frequency distribution of Largemouth Bass from night electrofishing.

Figure 3. Night electrofishing catch rates of Largemouth Bass at Acme Dam.



Fisheries Biologist Aide Christina Edwards with a pair of big Largemouth Bass from night electrofishing.

Our 2021 survey indicated that Acme Dam provides great fishing opportunities for a variety of fish species. Acme Dam has an abundance of quality-sized sunfish, crappies, and Largemouth Bass. Brown Bullheads are also present in good numbers and are decently sized.

> Christina Edwards Area 8 Fisheries Biologist Aide