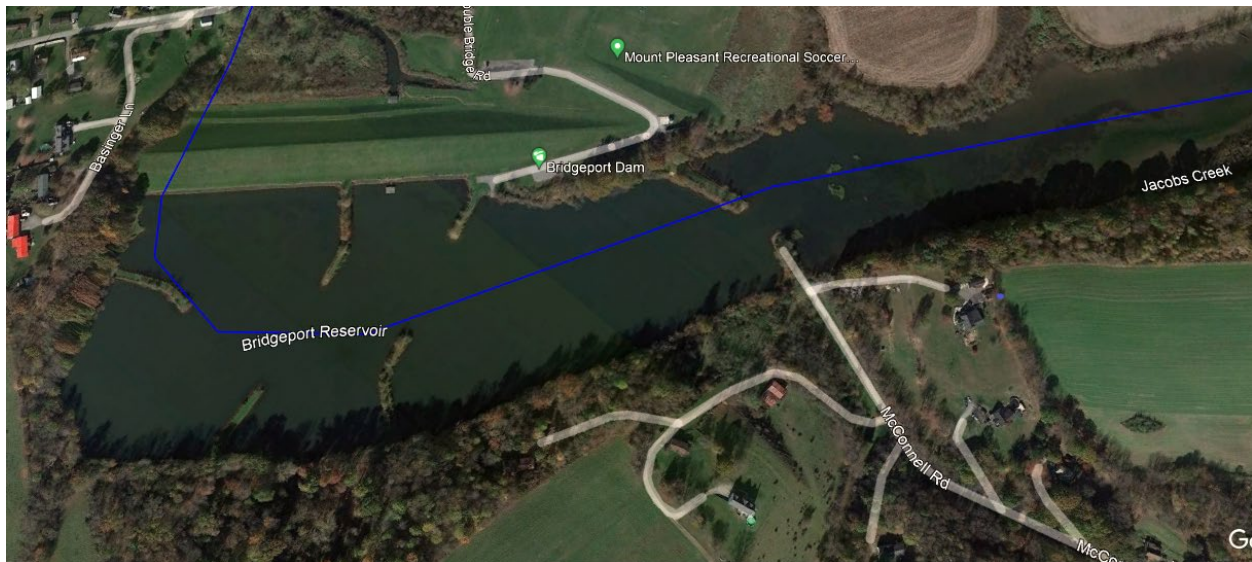


# Bridgeport Reservoir

## Westmoreland and Fayette County

### March & April 2022 Trap Net and Electrofishing Survey

Bridgeport Reservoir, located on Jacobs Creek along the border of Fayette and Westmoreland counties, is a 70-acre impoundment under the care of [Westmoreland County Bureau of Parks and Recreation](#). This shallow impoundment serves as a recreational fishing destination with plenty of access along most of its shores as well as a boat ramp restricted to daytime use and electric motors only. The reservoir has moderate turbidity and is moderately productive (alkalinity was 30 mg/L in 2022) with major habitat features such as seasonal aquatic vegetation, submerged stumps, and fishing piers. [Big Bass Program Regulations](#) were implemented at Bridgeport Reservoir in 2002 to manage the bass population. [Panfish Enhancement Regulations](#) began in 2016 to manage the crappie and sunfish populations in the lake. The Big Bass and Panfish Enhancement regulations are intended to increase the number, quality, and size of the fish under these special regulations. All other fish species in the lake are regulated by [Commonwealth Inland Waters Regulations](#).



#### ***-Satellite Image of Bridgeport Reservoir on Jacobs Creek with its Multiple Fishing Piers***

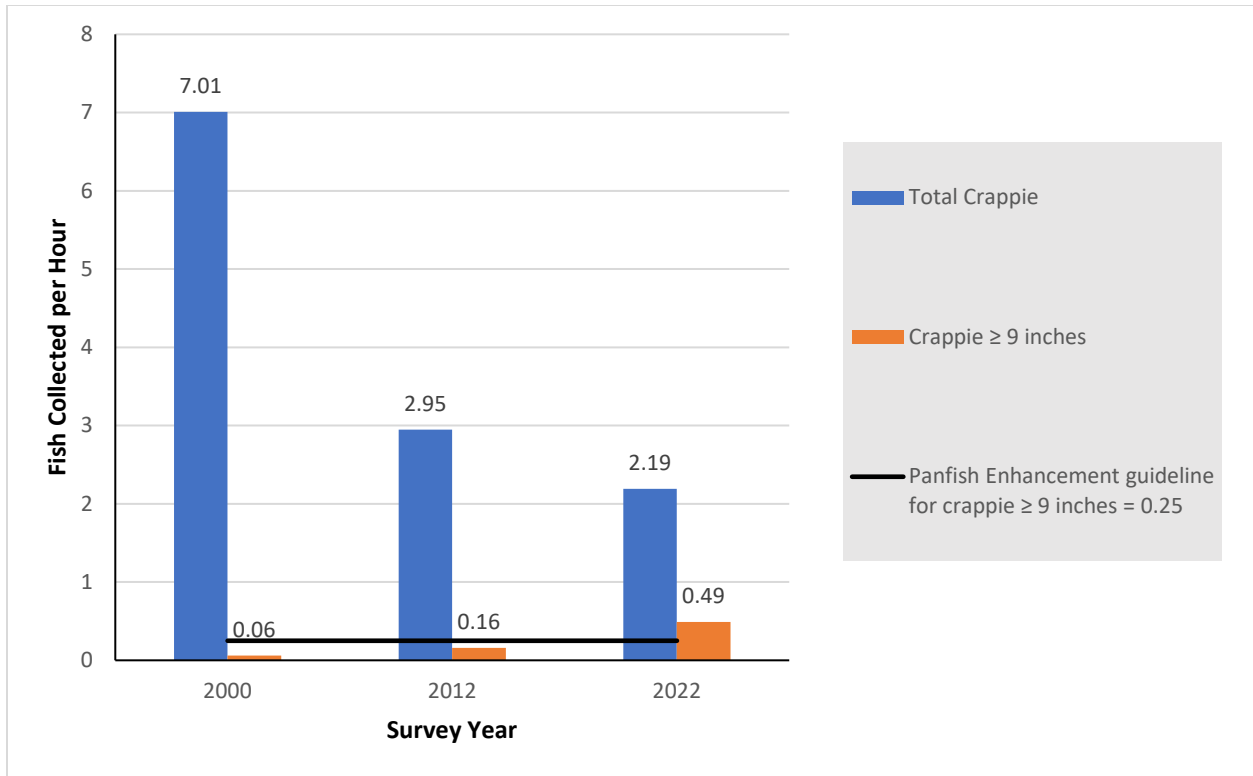
Bridgeport Reservoir was previously surveyed in 2000 and 2012 with trap nets and night electrofishing during early spring. Starting in 2013, Walleye were stocked in the reservoir to establish a fishery. In March and April of 2022, trap net and night electrofishing surveys were

performed with the purpose of measuring the quality, size structure, and abundance of the reservoir’s gamefish and panfish populations as well as determine if Walleye stocking had created a fishery. Ten fish species were collected during the 2022 trap net survey (Table 1).

**Table 1. Number and size range of fish species captured from six trap nets at Bridgeport Reservoir, 4/12/2022 – 4/13/2022.**

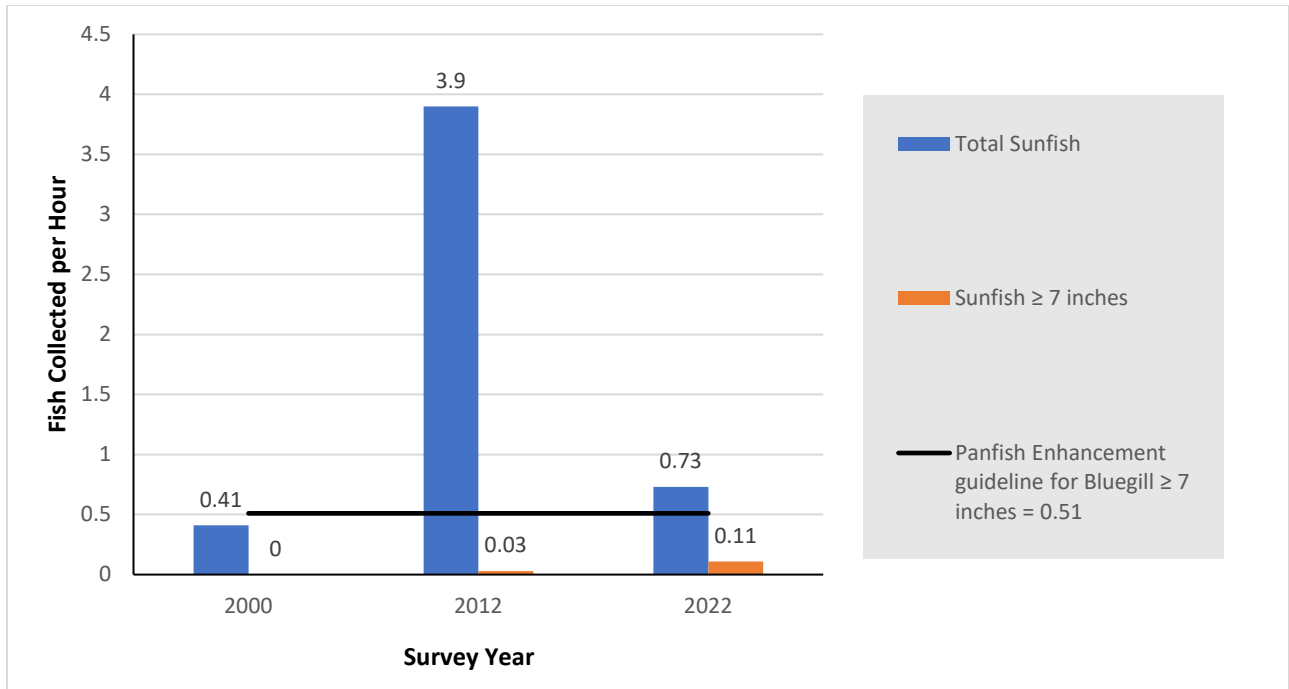
| <b>Fish Species</b>  | <b>Number Collected</b> | <b>Size Range (Inches)</b> | <b>Comments</b>  |
|----------------------|-------------------------|----------------------------|------------------|
| Bluegill             | 101                     | 2 - 7                      | 16% ≥ 7 inches   |
| White Crappie        | 199                     | 4 – 15                     | 28% ≥ 9 inches   |
| Black Crappie        | 101                     | 2- 15                      | 13% ≥ 9 inches   |
| Brown Bullhead       | 16                      | 9 - 14                     | 88% ≥ 10 inches  |
| Yellow Bullhead      | 9                       | 6- 11                      | 67% ≥ 10 inches  |
| Yellow Perch         | 10                      | 3 – 9                      | 20% ≥ 9 inches   |
| Hatchery Brook Trout | 3                       | 10 - 11                    | -                |
| Golden Shiner        | 5                       | Not Measured               | -                |
| Common Carp          | 81                      | Not Measured               | Most ≤ 20 inches |
| White Sucker         | 11                      | Not Measured               | -                |

Crappies were the most abundant fish captured in trap nets, and the size structure of crappies in the reservoir had improved from previous surveys. Fifty-five out of 199 White Crappies and 13 out of 101 Black Crappies captured were 9 inches or larger. The total catch rate of crappies has been decreasing over the years; however, the catch rate of crappies 9 inches and larger has been increasing (Figure 1). Total catch rate has decreased from 7.01 fish per hour in 2000 to 2.19 fish per hour in 2022, but the catch rate of crappies 9 inches or larger has increased from 0.06 fish per hour in 2000 to 0.49 fish per hour in 2022. The 2022 catch rate for crappies greater than or equal to 9 inches exceeds the Panfish Enhancement guideline of 0.25 fish per hour.



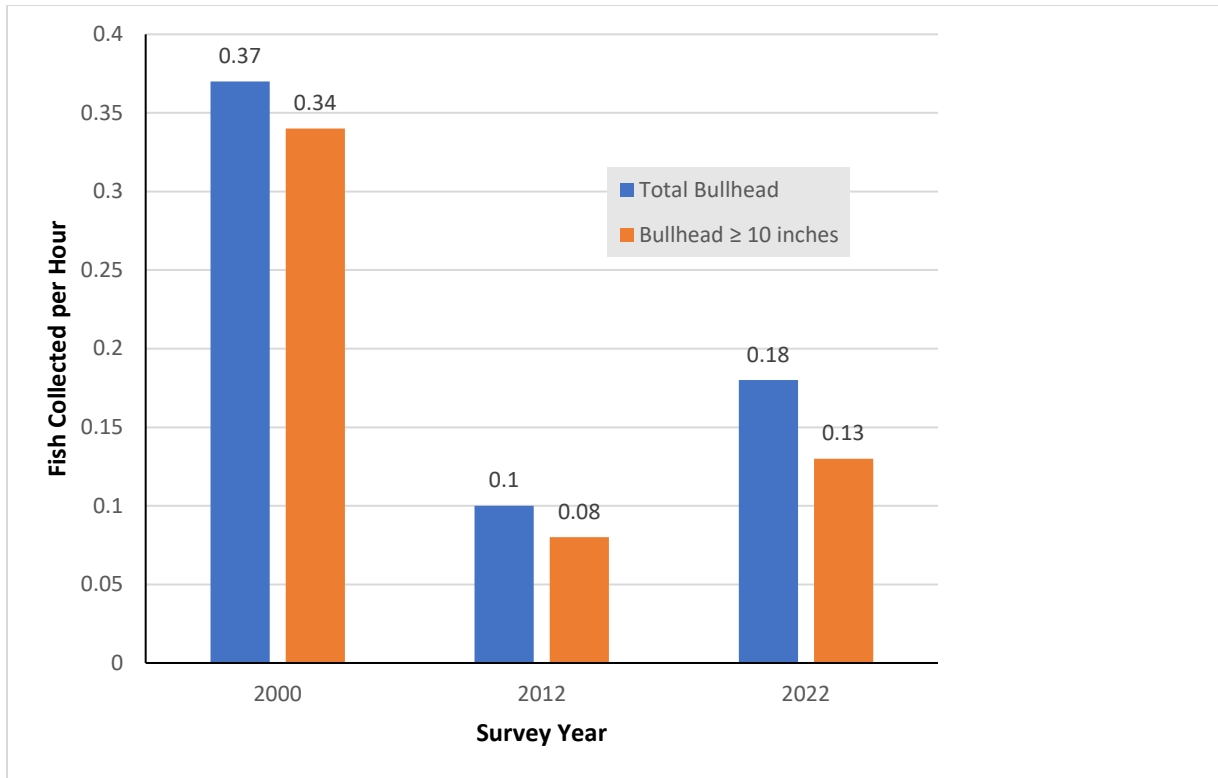
**Figure 1. Trap net catch rates of crappie from Bridgeport Reservoir in 2000, 2012, and 2022.**

A total of 101 Bluegills were captured in trap nets with 16 fish at 7 inches in length. Total catch rates of Bluegill decreased from the 2012 survey to the 2022 survey, but much like the crappies, there was an increase in quality-sized Bluegill captured in 2022. In 2000, there were no Bluegill collected above 7 inches, and the 2012 catch rate for Bluegill 7 inches or larger was 0.03 fish per hour. In our recent 2022 survey, the catch rate for quality sized Bluegill increased to 0.11 fish per hour (Figure 2). This shift in the size structure of these fishes provides anglers better fishing opportunities for quality-sized, legal Bluegill and is likely a result of the implementation of Panfish Enhancement Guidelines in 2016. Although the Bluegill fishery improved since previous surveys, the catch rate of quality-sized Bluegill, 0.11 fish per hour, did not meet the Panfish Enhancement guidelines of 0.51 fish per hour (Figure 2).



**Figure 2. Trap net catch rates of sunfish from Bridgeport Reservoir in 2000, 2012, and 2022.**

Another great gamefish opportunity for anglers is Yellow Bullheads and Brown Bullheads. A total of 16 Brown Bullheads and 9 Yellow Bullheads were captured in our 2022 trap net survey, with 88% and 67% at least 10 inches or larger, respectively. The 2022 catch rate for bullheads 10 inches or larger was 0.13 fish per hour (Figure 3). Channel Catfish fingerlings were stocked in the reservoir for many years; however, no channels were captured during our surveys. To establish a Channel Catfish fishery, stocking efforts were switched from fingerlings (2 - 3 inches in length) to yearlings (8 - 10 inches in length). This difference in size will hopefully be enough for the Channel Catfish to survive and establish a fishery.



**Figure 3. Trap net catch rates of Yellow and Brown Bullhead from Bridgeport Reservoir in 2000, 2012, and 2022.**

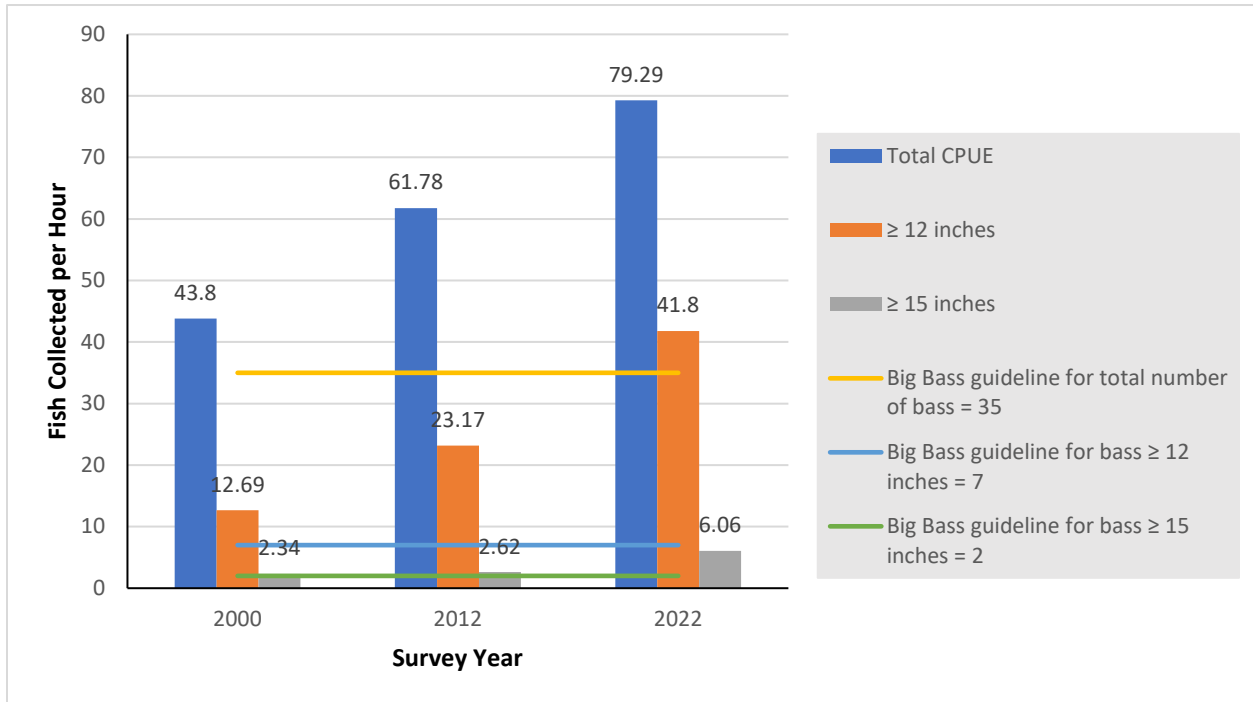
In addition to these angling opportunities, the Walleye and Largemouth Bass populations were assessed with targeted nighttime electrofishing on 3/31/2022 and 4/25/2022, respectively. No Walleyes were collected during the targeted Walleye survey on 3/31/2022, and only one Walleye was collected during the targeted Largemouth Bass survey on 4/25/2022 (Table 2).

**Table 2. Number and size range of Largemouth Bass and Walleye captured during nighttime electrofishing at Bridgeport Reservoir, 4/25/2022.**

| Fish Species    | Number collected | Size range (Inches) | Comments                          |
|-----------------|------------------|---------------------|-----------------------------------|
| Largemouth Bass | 81               | 6 - 19              | 53% ≥ 12 inches<br>7% ≥ 15 inches |
| Walleye         | 1                | 14                  | -                                 |

The Largemouth Bass population improved as the 2022 bass catch rates were greater than previous sampling years and it greatly exceeds all Big Bass Program guidelines (Figure 4). Total number of bass captured during our 2022 survey was 79.29 fish per hour. The total catch rate improved since the last survey in 2012, which had a rate of 61.78 fish per hour. The 2022 catch rates for bass 12 inches or larger was 41.8 fish per hour, which is almost doubled from the

23.17 fish per hour in 2012. Lastly, catch rates for bass 15 inches or larger in 2022 was 6.06 fish per hour whereas these catch rates in 2000 and 2012 were 2.34 and 2.62 fish per hour, respectively (Figure 4). Bridgeport Reservoir provides excellent angling opportunities for Largemouth Bass with the good abundance and size structure.



**Figure 4. Night electrofishing catch rates of Largemouth Bass from Bridgeport Reservoir in 2000, 2012, and 2022.**

One of the objectives of our 2022 Bridgeport Reservoir surveys was to assess the Walleye population after years of stocking fingerlings in the reservoir. No Walleye were captured during the 2022 trap net survey or the targeted night electrofishing survey and only one during the targeted bass survey. Our 2022 Walleye survey catch rate did not meet the Walleye Plan guidelines for trap net and night electrofishing even though Walleye stocking began in 2013. Therefore, stocking of fingerling Walleye was discontinued as of 2023.

Our 2022 trap net and nighttime electrofishing surveys show the many excellent fishing opportunities that Bridgeport Reservoir has to offer. The panfish population in our 2022 survey had an increase in quality sized crappie (9 inches and above) and sunfish (7 inches and above). Good angling opportunities also exist for Largemouth Bass, bullheads, and carp.

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