

Yellow Creek Lake

Indiana County

2021-22 Night Electrofishing and Trap Net Survey for Walleye & Black Bass

Yellow Creek Lake, a 720-acre impoundment located in Indiana County, is a part of [Yellow Creek State Park](#) and is operated by the Pennsylvania Department of Conservation and Natural Resources (DCNR). All recreational fishing opportunities are managed by the Pennsylvania Fish and Boat Commission (PFBC). Black bass are managed under Big Bass Regulations and every other species is managed under statewide regulations.

The purpose of the early April 2022 trap net and night electrofishing surveys were to evaluate the Walleye population in Yellow Creek Lake. The PFBC stocks Walleye fingerlings in Yellow Creek Lake. All the waters in the Commonwealth that are stocked with Walleye by the PFBC must meet specific survey catch guidelines outlined in our Walleye Plan to remain in the Walleye Stocking Program. The black bass populations in Yellow Creek Lake were assessed using night electrofishing in May 2021 and May 2022.

Yellow Creek Lake Walleye

April 2022 Walleye Trap Net survey

Total number of Walleye collected: 156

Size range: 13 in – 27 in

Number of legal Walleye (15 inches or greater) collected: 153

Yellow Creek Lake 2022 trap net survey: 0.46 legal Walleye / hour of trap netting

Walleye Plan Trap Net guideline: 0.15 legal Walleye / hour of trap netting

April 2022 Walleye Night Electrofishing survey

Total number of Walleye collected: 48

Size range: 13" – 24"

Number of legal Walleye (15 inches or greater) collected: 45

Yellow Creek Lake 2022 night electrofishing survey: 20.5 legal Walleye / hour of electrofishing

Walleye Plan Night Electrofishing guideline: 18 legal Walleye / hour of electrofishing

A total of 156 Walleyes were caught in trap nets with 98% of them being legal size (15 inches in length or greater). Night electrofishing yielded 48 Walleyes with 94% being of legal size. Most Walleyes captured during trap net and night electrofishing surveys were 18 inches in length (Figures 1 and 2).

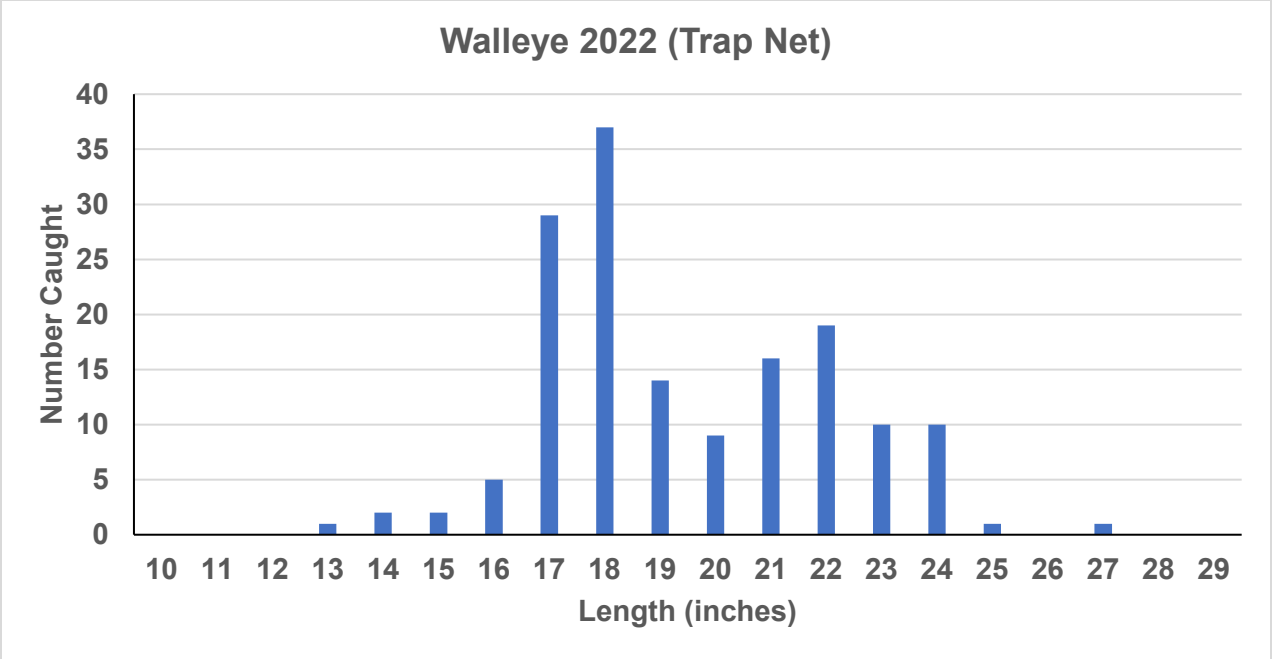


Figure 1. Length frequency distribution of Walleye caught in trap nets at Yellow Creek Lake, April 2022.

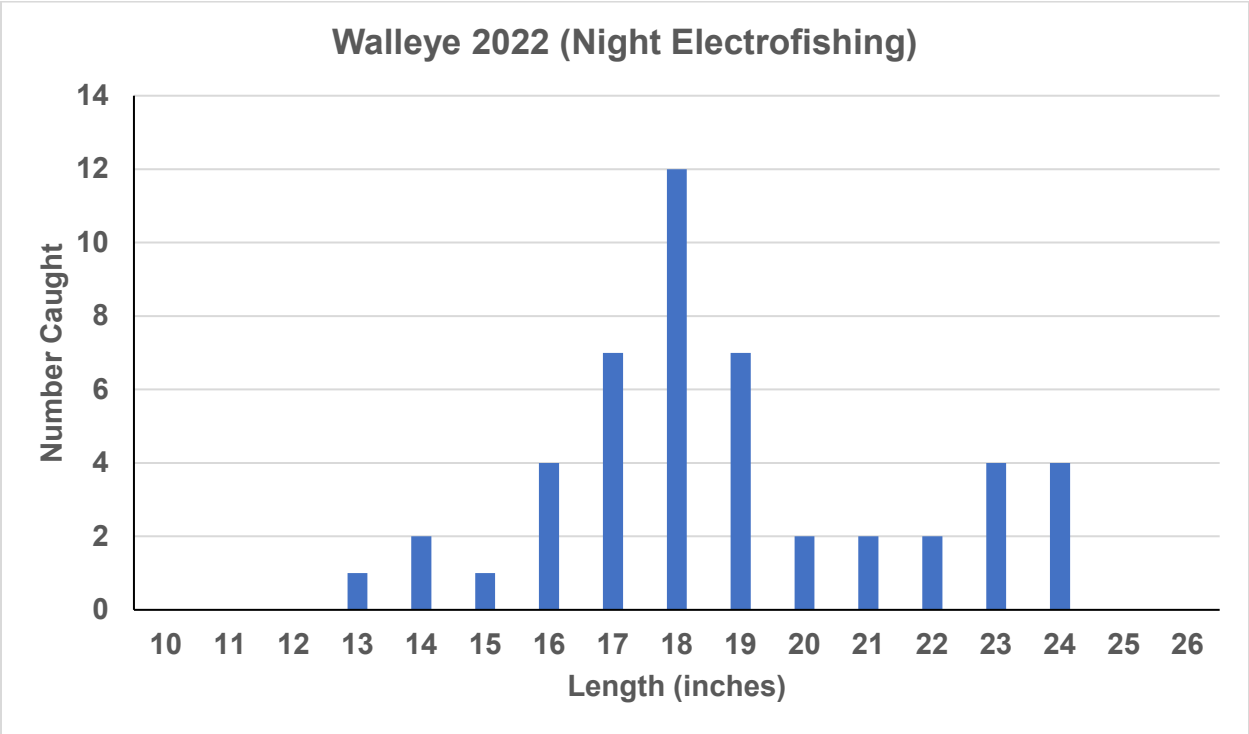


Figure 2. Length frequency distribution of Walleye caught night electrofishing at Yellow Creek Lake, April 2022.

The total catch rate and the legal size catch rate of Walleyes have increased dramatically since previous surveys (Figures 3 and 4). The trap net catch rate of legal Walleyes was 0.46 fish/hr, which is well above the early Spring trap net catch rate objective of 0.15 legal fish/hr. Additionally, the night electrofishing catch rate of legal Walleyes was 20.5 fish/hr which is also above the early Spring NEF catch rate objective of 18 fish/hr. Both the April 2022 trap net and night electrofishing Walleye catch of legal fish at Yellow Creek Lake well exceeded the Walleye Plan guidelines. The Walleye population was very good at Yellow Creek Lake and the lake will remain in our Walleye Stocking Program.

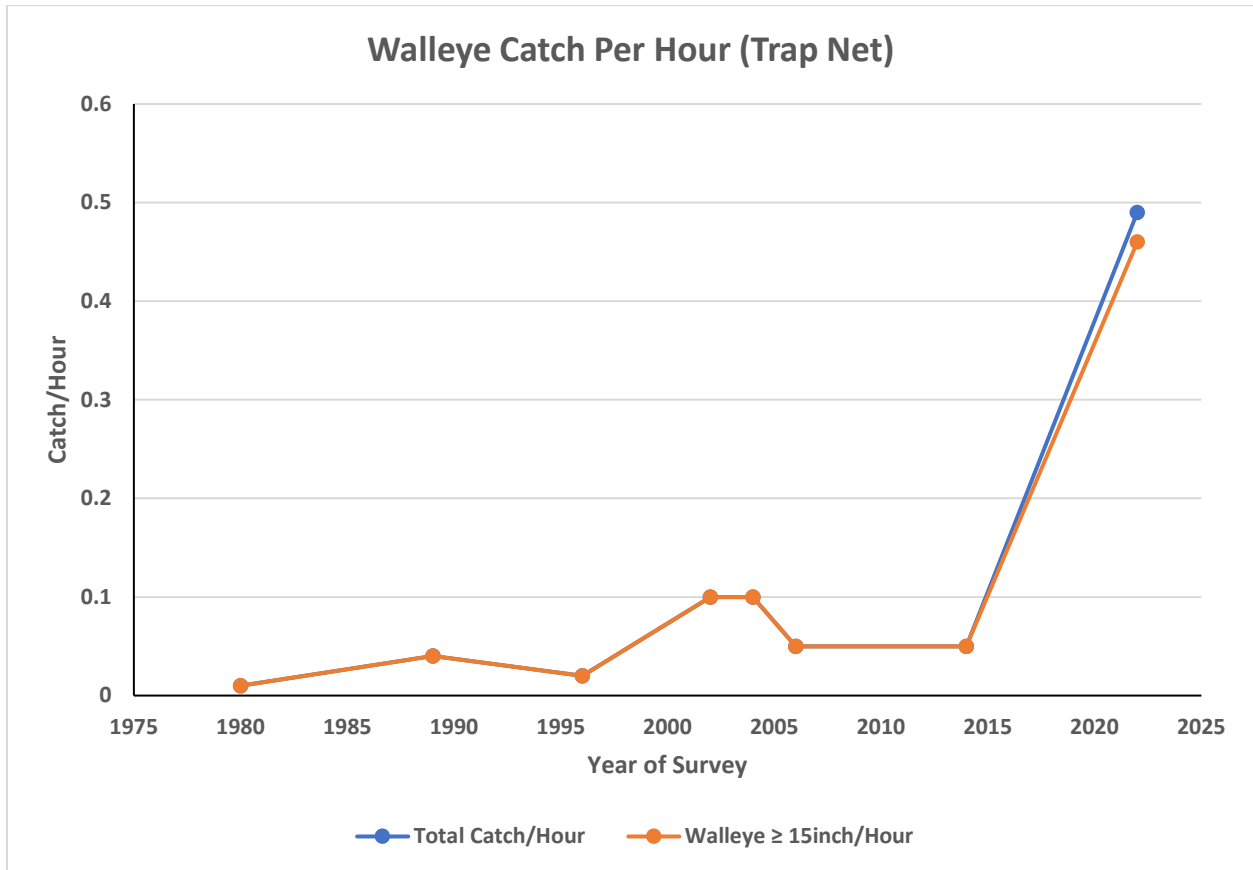


Figure 3. Trap net total catch rates and legal size catch rates of Walleyes at Yellow Creek Lake, 1980, 1989, 1996, 2002, 2004, 2006, 2014, 2022.

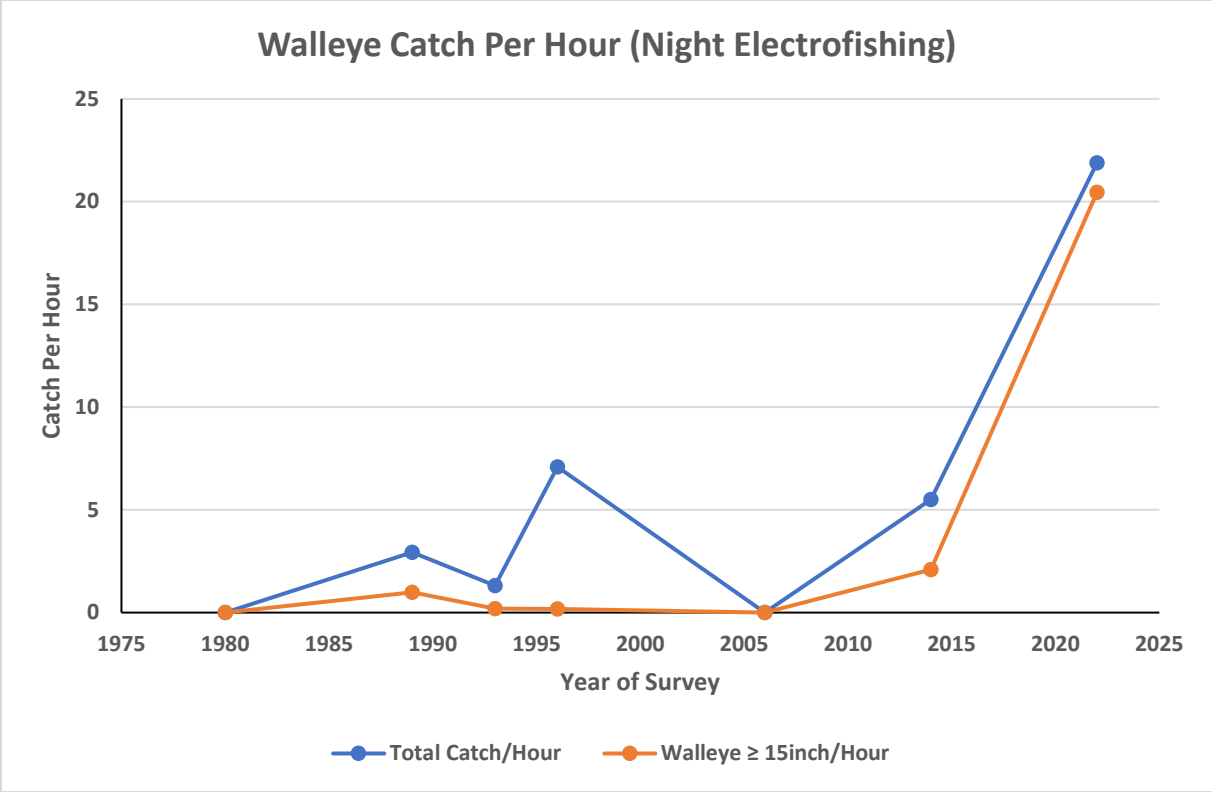


Figure 4. Night electrofishing total catch rates and legal size catch rates of Walleyes at Yellow Creek Lake, 1980, 1989, 1996, 2006, 2014, 2022.



Fisheries Biologist Mike Depew with a nice Walleye from Yellow Creek Lake.

Yellow Creek Lake Black Bass

Yellow Creek Lake has both Largemouth Bass and Smallmouth Bass. Largemouth Bass are present throughout most of the lake but are concentrated in the weedy coves along the southern shore, while Smallmouth Bass are mostly found in deeper water near the steep, rocky north shore and close to the dam. In May 2021, night electrofishing produced 69 Largemouth Bass and 38 Smallmouth Bass (Table 1). In May 2022, a total of 112 Largemouth Bass and 40 Smallmouth Bass were captured. The majority of Largemouth Bass caught during 2021 and 2022 surveys were 16 inches in length, and the majority of Smallmouth Bass caught were 10 inches in length (Figure 5).

Table 1. Total catch and size range of black bass captured during night electrofishing, May 2021 and May 2022.

Year	Fish Species	Number captured	Size Range (inches)	Comments
2021	Largemouth Bass	69	6 – 20	53% ≥ 15 inches
	Smallmouth Bass	38	5 – 19	16% ≥ 15 inches
2022	Largemouth Bass	112	5 – 21	46% ≥ 15 inches
	Smallmouth Bass	40	5 - 19	28% ≥ 15 inches

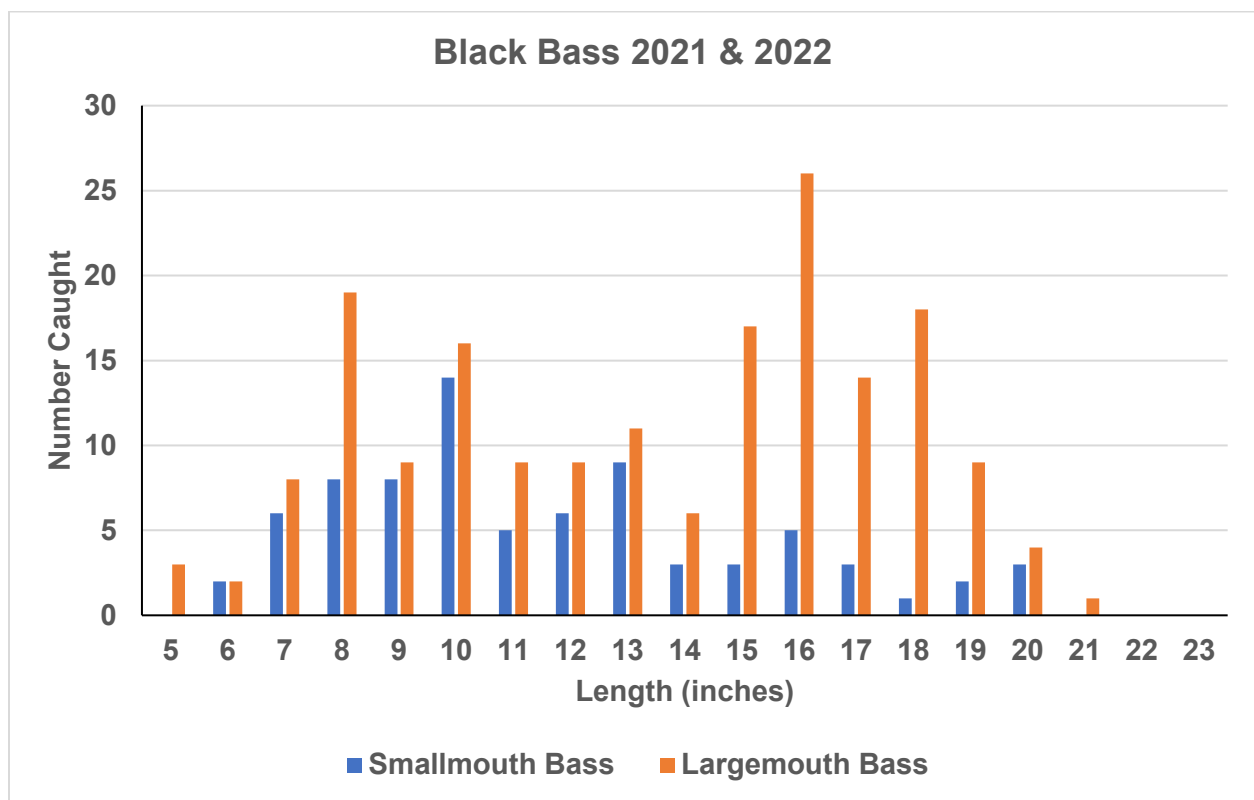


Figure 5. Length frequency distribution of black bass captured night electrofishing at Yellow Creek Lake, May 2021 & May 2022.

For 2021, the black bass total catch rate was 28.84 fish/hr, and the catch rate for bass ≥ 15 inches was 11.80 fish/hr (Figure 6). In 2022, black bass total catch rate was 37.79 fish/hr, and the catch rate for bass ≥ 15 inches was 15.61 fish/hr. Although black bass catch rates in 2021 and 2022 were lower than in 2014, Yellow Creek Lake still provides good bass fishing opportunities.

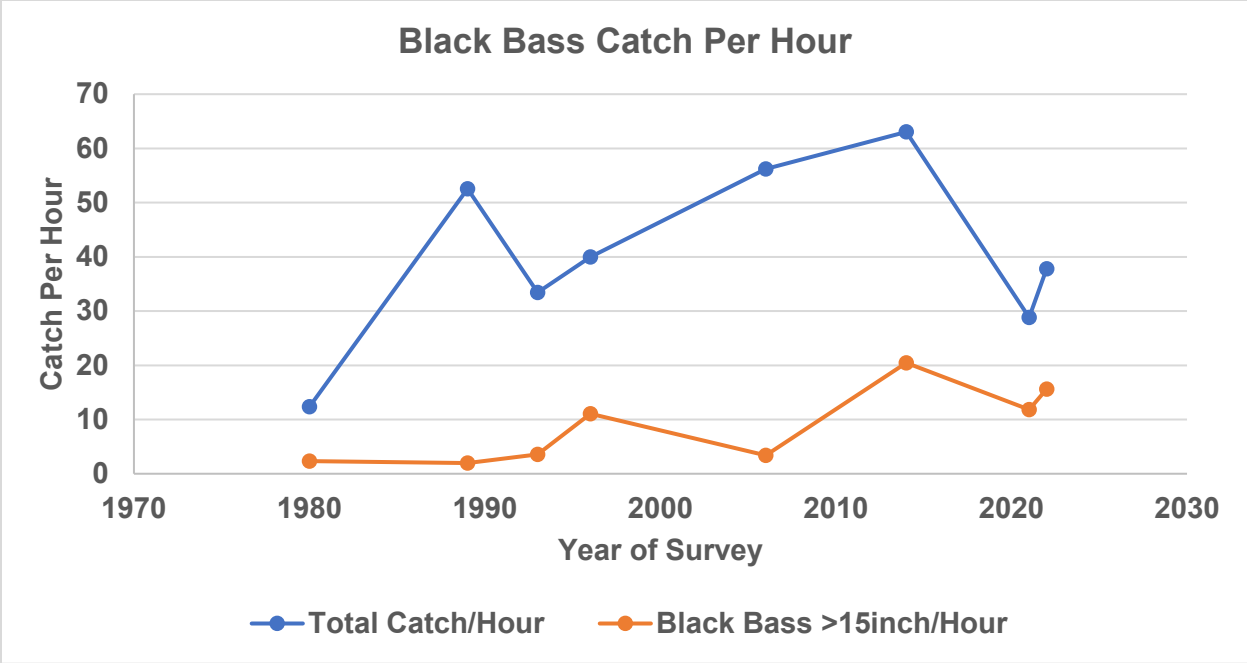


Figure 6. Night electrofishing total catch rates and legal size catch rates of black bass at Yellow Creek Lake, 1980, 1989, 1993, 1996, 2006, 2014, 2021, 2022.

-Lucas Hartman, Area 8 Fisheries Biologist Aide