

Tamarack Lake

Crawford County

Spring 2024 Trap Net and Night Boat Electrofishing Surveys



Fisheries Management Area 8 Fisheries Biologist Garrett Herigan with an adult Walleye.

Tamarack Lake is a 562-acre impoundment located in south-central Crawford County, three miles southeast of the city of Meadville. The lake is owned and maintained by the Pennsylvania Fish and Boat Commission (PFBC) for recreation. The reservoir is unique, with dams at both ends of the reservoir and a shallow area in the middle; maximum depth in the lake is about 13 feet.

The lake was drained in August 2012 to complete structural repairs to the dams. Since being refilled in 2018, the PFBC has stocked a variety of fish species to reestablish a diverse recreational fishery in Tamarack Lake (Table 1). Forage fish including Fathead Minnows, Golden Shiners, and Spottail Shiners were stocked to serve as a food base for gamefish species like Largemouth Bass, Walleye, and Muskellunge. In addition, panfish species including Bluegill, White Crappie, and Yellow Perch were stocked to provide panfish angling opportunities.

Starting January 1, 2025, Tamarack Lake will be removed from the Catch & Release program and will be managed under Big Bass Regulations for Largemouth Bass and Panfish Enhancement

Regulations for panfish. Anglers are encouraged to consult the PFBC Summary Book for further details regarding seasons, sizes, and creel limits.

Table 1. Year, species, life stage, and number of fish stocked since 2019 at Tamarack Lake, Crawford County.

Year	Species	Life Stage	Number Stocked
2024	Muskellunge	Yearling	225
2024	Spottail Shiner	Adult	250
2024	Walleye	Fingerling	11,000
2023	Walleye	Fingerling	11,000
2022	Muskellunge	Yearling	420
2022	Walleye	Fingerling	11,000
2022	White Crappie	Fingerling	2,356
2022	Yellow Perch	Fingerling	55,700
2021	Golden Shiner	Fingerling	11,000
2021	Largemouth Bass		5,500
2021	Walleye	Fingerling	11,000
2020	Bluegill	Fingerling	56,000
2020	Fathead Minnow	Adult	5,500
2020	Golden Shiner	Fingerling	11,000
2020	Largemouth Bass		5,500
2019	Fathead Minnow	Adult	28,000
2019	Golden Shiner	Fingerling	11,000
2019	Largemouth Bass		5,500

Post Refill Trap Net Assessment

Biologists from Fisheries Management Areas 1 and 2 set and retrieved Pennsylvania-style trap nets the week of April 29 and conducted night-time boat electrofishing surveys the week of May 13, 2024. The purpose of these surveys was to evaluate the status of the lake’s recovering Largemouth Bass, Walleye, Muskellunge, and Bluegill populations following the refilling of the lake. Relative abundance, or catch rate, of fish collected were expressed as catch-per-unit-effort (CPUE); or number of targeted-fish collected per unit of time gear was deployed.

During the week of April 29, we completed 15 overnight sets of Pennsylvania-style trap nets totaling 349.92 hours of effort. Results of the 2024 survey were encouraging as 3,424 individuals representing 14 different species were captured during our sampling (Table 2).

Table 2. Species, number caught, and length range for 2024 trap net and boat electrofishing surveys on Tamarack Lake, Crawford County.

Species	Number	Length Range (in.)
Common Carp	360	Not measured
Golden Shiner	15	Not measured
Yellow Bullhead	223	7 - 13
Brown Bullhead	1,914	8 - 14
Muskellunge	2	29 - 31
Green Sunfish	1	7
Pumpkinseed	1	7
Bluegill	257	4 - 8
Largemouth Bass	374	4 - 17
White Crappie	81	9 - 15
Black Crappie	79	3 - 14
Yellow Perch	1	12
Walleye	115	15 - 21

Walleye

In the spring 2024 survey, our nets captured 115 Walleyes yielding a catch rate of 0.33 fish per net hour. Captured Walleyes ranged in size from 15 - 21 inches with 115 (100%) of legal length (≥ 15 inches; Table 1)).

Fingerling Walleyes have been stocked annually since 2021 at the statewide standard rate of 20 fish per acre. Our trap net catch rate highly exceeded the minimum benchmark rate of 0.15 fish per hour necessary to produce a quality Walleye fishery. With multiple year classes represented and an overall catch exceeding the minimum required rate, it is evident that our stocking program is producing a quality Walleye fishery. The Walleye population is still growing and has not yet yielded any trophy-length fish, but if growth trends continue, it will not be long before this lake may offer anglers some trophy fishing opportunities.

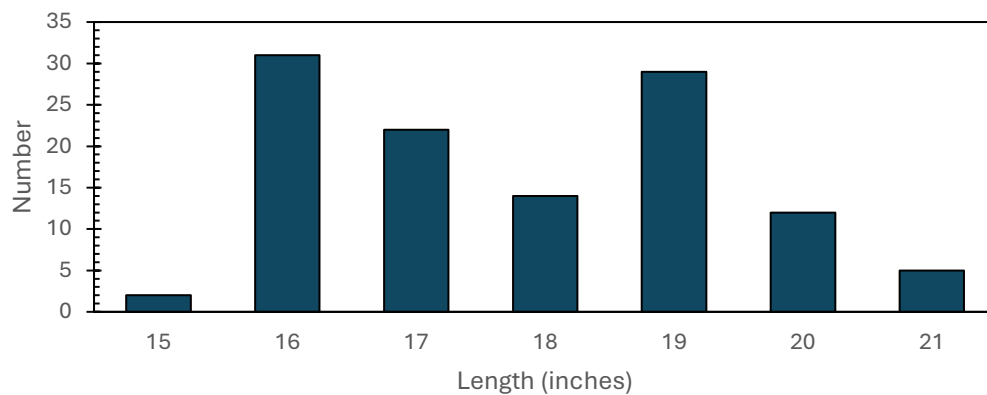


Figure 1. Length-frequency distribution (inches) of Walleyes from Tamarack Lake, Crawford County during spring 2024.

Muskellunge

The Muskellunge population in Tamarack Lake is still in the early stages of recovery as seen by our trap net catch data (Table 2). We captured a total of 2 adult Muskellunge in 349.92 hours of effort that yielded a catch rate less than 0.01 fish per hour. Captured Muskellunge ranged in size from 29 to 31 inches in total length. Yearling Muskellunge stockings occurred in 2022 and 2024 following the refilling of the lake. These small yearling fish are likely not showing up in our surveys yet because they have not achieved a size where they have fully recruited to the trap nets. Although in low numbers, it shows that the previously stocked yearlings are growing well and surviving to catchable size. Yearling Muskellunge will continue to be stocked biannually, as referenced in the updated Muskellunge Management Plan (2017).

Panfish

Panfish comprised 12% of the total trap net catch (Table 2). The predominate panfish species captured were Bluegill, White Crappie, and Black Crappie. Pumpkinseeds, Yellow Perch, and Green Sunfish were also present. Bluegills were the most abundant panfish captured in our nets with most (98%) greater than quality length (6 inches). White Crappie and Black Crappie were caught in about equal numbers, accounting for 38% of total panfish captured. White Crappies were larger on average with 95% of individuals greater than or equal to 10 inches. Black Crappies were mostly quality length or longer with 91% being in the 8-14-inch range.



Quality length panfish captured in our trap nets.

Catfish

Brown Bullheads and Yellow Bullheads are both present in very good numbers. Brown Bullheads were more common in our nets and seen up to 14 inches. Yellow Bullheads were found in lower abundance and reached 13 inches. These two species accounted for 62% of the total trap net catch (Table 2). Bullhead populations are very healthy and should provide anglers with a sustainable recreational fishery.

Post Refill Night-Time Boat Electrofishing Assessment:

Fisheries Management staff from Areas 1 and 2 returned to Tamarack Lake on the night of May 14th to evaluate the status of the Largemouth Bass population via night-time boat electrofishing. Eight runs totaling 2.45 hours of effort were conducted along the shoreline covering a representative

portion of the lake. A total of 367 Largemouth Bass were netted and ranged in length from 4 to 17 inches for a catch rate of 150.06 fish/h (Figures 4 & 5). Additionally, the catch rate of Largemouth Bass ≥ 12 inches at 103.44 fish/h highly exceeds the historical mean of 4.24 fish/h. Finally, the 49.87 fish/h catch rate of Largemouth Bass ≥ 15 inches was the highest on record. These results along with several positive reports from anglers, indicate that Tamarack Lake's bass population is thriving and should provide excellent angling opportunities for Largemouth Bass into the foreseeable future.

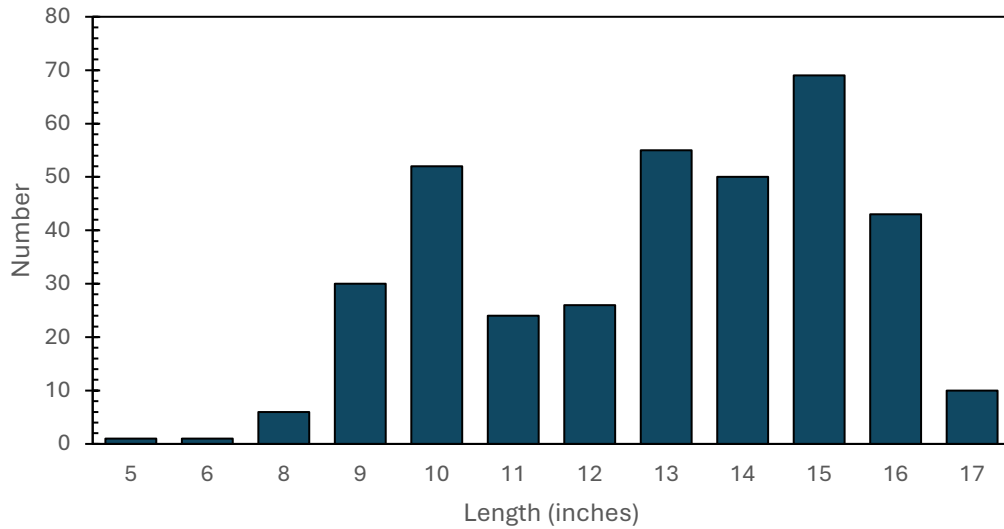


Figure 2. Length-frequency distribution (inches) of Largemouth Bass at Tamarack Lake, Crawford County during spring 2024.

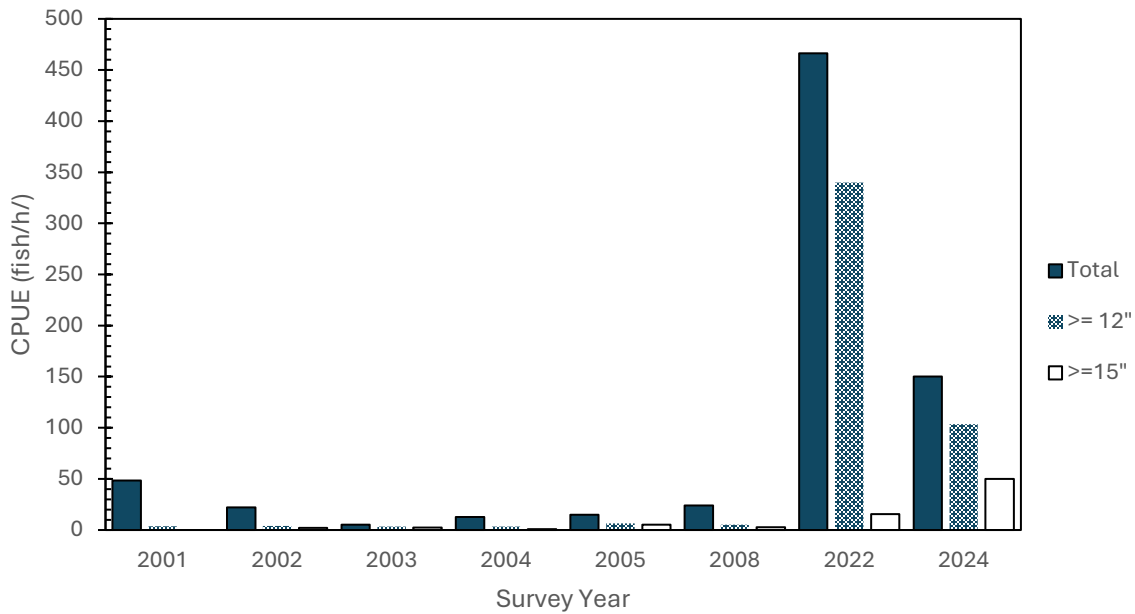


Figure 3. Largemouth Bass night-time boat electrofishing catch per unit effort (CPUE; fish/h) at Tamarack Lake, Crawford County 2001-2024.



Fisheries Biologist Aide Reed Coulson with two large Largemouth Bass from Tamarack Lake.

Conclusion

Tamarack Lake is experiencing the “New Lake Effect” that is common in recently refilled and stocked reservoirs. Anglers interested in great fishing opportunities with abundant numbers of quality fish should consider Tamarack Lake. The Largemouth Bass, Walleye, and bullhead populations of Tamarack Lake are performing exceptionally well. The lake provides multiple worthy targets for anglers. Good Luck!

Fisheries Management Area 8