

Frances Slocum Lake

Luzerne County

2025 Muskellunge Survey



Figure 1. Muskellunge Tag #731 was caught April 9, 2025 from Frances Slocum Lake and measured 38.2 inches and weighed 20.0 pounds.

Pennsylvania Fish and Boat Commission biologists conducted Muskellunge survey at Frances Slocum Lake at [Frances Slocum State Park](#) during the week of April 7, 2025. This work was part of an on-going, multi-year, statewide study to track population changes as well as growth of individual Muskellunge. We set 20 trap nets overnight and caught 16 Muskellunge for a cumulative catch rate of 0.034 per hour (Figure 2). The largest Muskellunge caught was 41.6 inches and 20.9 pounds (Table 1).

Part of this work involves tagging Muskellunge with Passive Integrated Transponder (PIT) tags to help identify fish so we can track their individual growth over time. Over the years, we have placed tags in 63 individual Muskellunge in Frances Slocum Lake. The lengths and weights of these fish captured in 2025 provide some interesting information about growth rates (Table 1). In 2025, five of the 16 fish caught during the survey were recaptures. The remaining 11 were caught for the first time with 10 of those 11 receiving PIT tags so we can assess growth if captured in the future. Two of the five recaptured fish have been aged so far with fish #258 being 12 years old in 2025 (Table 1). We are working to age the other fish during down time between field work and during the off season.

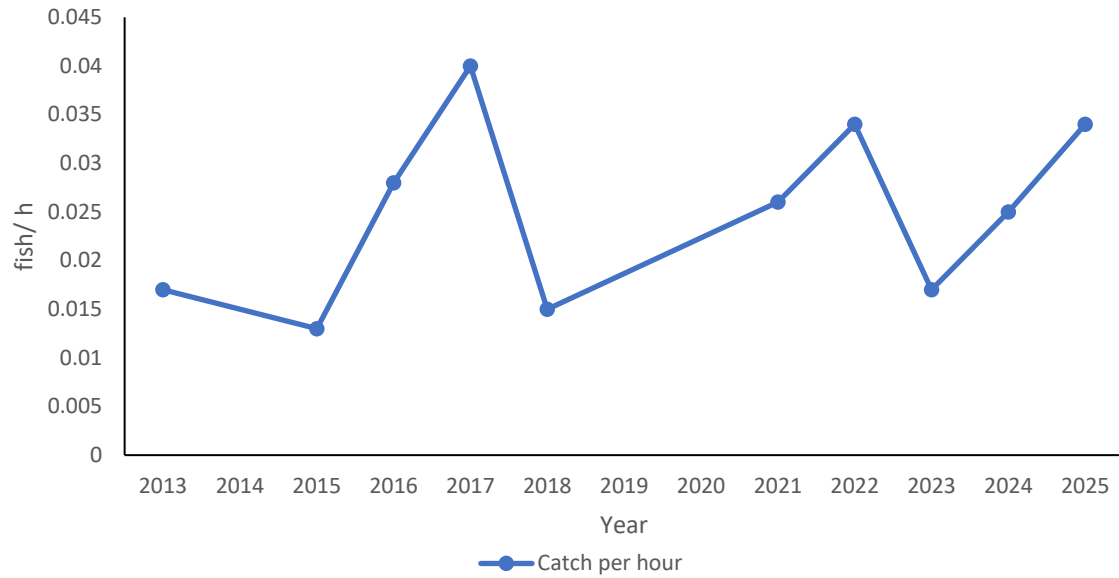


Figure 2. Frances Slocum Lake Muskellunge catch rates (number of fish caught per hour) for trap nets surveys from 2013-2025.

We hope to recapture some of the historically tagged Muskellunge in Frances Slocum Lake in coming years to further track growth rates in this lake as well as to compare to other waters around Pennsylvania.

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Table 1. Tag number, sex, age at first capture and length and weight during year of capture for individual Muskellunge captured and tagged in Frances Slocum Lake, Luzerne County in 2025.

Tag Number	Sex	Age at first capture	Length (in)							Weight (lbs)						
			2016	2017	2021	2022	2023	2024	2025	2016	2017	2021	2022	2023	2024	2025
238	Male	4	30.8	33.1	37.6	37.6	37.9	-	39.6	9.1	10.0	11.7	14.8	14.0	-	16.4
258	Male	6	33.8	35.9	40.5	39.8	40.0	41.5	41.6	10.1	13.7	15.4	19.2	20.0	20.9	20.9
549	Male	NA	-	-	27.4	31.1	-	-	35.1	-	-	5.3	4.9	-	-	11.5
579	Male	-	-	-	-	-	-	-	25.7	-	-	-	-	-	-	4.0
589	Male	NA	-	-	-	-	-	31.2	34.2	-	-	-	-	-	7.7	11.4
591	Female	NA	-	-	-	-	-	32.7	36.5	-	-	-	-	-	11.9	15.7
633	Male	-	-	-	-	-	-	-	27.8	-	-	-	-	-	-	5.5
648	Male	-	-	-	-	-	-	-	28.2	-	-	-	-	-	-	6.1
652	Male	-	-	-	--	-	-	-	34.1	-	-	-	-	-	-	12.3
653	Male	-	-	-	-	-	-	-	36.5	-	-	-	-	-	-	13.8
658	Male	-	-	-	-	-	-	-	36.3	-	-	-	-	-	-	17.6
731	Female	-	-	-	-	-	-	-	38.2	-	-	-	-	-	-	20.0
791	Female	-	-	-	-	-	-	-	40.3	-	-	-	-	-	-	13.4
802	Male	-	-	-	-	-	-	-	26.5	-	-	-	-	-	-	5.1
819	Male	-	-	-	-	-	-	-	24.9	-	-	-	-	-	-	4.2



Figure 3. Comparative pictures of Muskellunge tag #258 captured during the last four years; 39.8 inches, 19.2 pounds (2022; top), 40.0 inches, 20.0 pounds (2023), 41.5 inches, 20.9 pounds (2024), and 41.6 inches, 20.9 pounds (2025; bottom).



Figure 4. Comparative pictures of Muskellunge tag #238 captured in 2022 (top); 37.6 inches, 14.8 pounds and in 2025 (bottom) at 39.6 inches, 16.4 pounds.



Figure 5. Comparative pictures of Muskellunge tag #549 captured in 2022 (top); 31.1 inches, 4.9 pounds and in 2025 (bottom) at 35.1 inches, 11.5 pounds.



Figure 6. Comparative pictures of Muskellunge tag #589 captured in 2024 (top); 31.2 inches, 7.7 pounds and in 2025 (bottom) at 34.2 inches, 11.4 pounds.



Figure 7. Comparative pictures of Muskellunge tag #591 captured in 2024 (top); 32.7 inches, 11.9 pounds and in 2025 (bottom) at 36.5 inches, 15.7 pounds.



Figure 8. Other species captured during the survey included Chain Pickerel, Walleye, White Crappie, and Bluegill.