Pennsylvania Fish and Boat Commission Biologist Report

Frances Slocum Lake

Luzerne County

2022 Muskellunge Survey



Area 5 Fisheries Manager Daryl Pierce with 49.2 inch 37.7 pound Muskellunge caught April 14, 2022 from Frances Slocum Lake, Tag #288.

Pennsylvania Fish and Boat Commission biologists conducted Muskellunge netting in Frances Slocum Lake at <u>Frances Slocum State Park</u> during the week of April 11, 2022. This work was part of an on-going, multi-year, statewide study (see previous surveys <u>2013</u>, <u>2015</u>, <u>2016</u>, <u>2017</u>, <u>2018</u>, and <u>2021</u>.) We set 20 trap nets and caught 16 Muskellunge. Muskellunge catch rate was 0.034 per hour. The largest Muskellunge caught was 49.4 inches and 37.7 pounds.

Part of this work involves marking Muskellunge with Passive Integrated Transponder (PIT) tags. Over the years we've marked 32 individual Muskellunge in Frances Slocum Lake. The lengths and weights of these fish in each year provide some interesting information about growth rates (Table 1). In 2022, 5 of the 16 Muskellunge captured were caught for the first time.



Muskellunge Tag# 288 measured 49.2 inches, 37.7 pounds in 2022 (top), 49.6 inches, 33.1 pounds in 2021 (middle), and 44.7 inches and 33.2 pounds in 2018 (bottom).

		Length (Inches)							Weight (Pounds)							
Tag Number	Sex	2013	2015	2016	2017	2018	2021	2022	2013	2015	2016	2017	2018	2021	2022	
246	Female	20.9			38.4		42.9		2.3			15.8		27.8		
304	Female		27.9	32.2	34.1			38.1		6.5	9.5	13.0			15.9	
288	Female		40.6			44.7	49.6	49.2		19.4			33.2	33.1	37.7	
253	Male		34.7	36.1	36.8		39.0	38.4		12.3	13.2	14.6		20.3	17.9	
316	Male		36.8							17.5						
322	Female		28.1	32.7						6.7	9.9					
234	Female		35.3		39.1					15.0		22.2				
242	Female		25.8							4.4						
289	Female		19.0			35.2				1.4			13.1			
239	Male			35.6	37.0						15.8	17.6				
258	Female			33.8	35.9		40.5	39.8			10.1	13.7		15.4	19.2	
240	Female			33.8	37.1						11.0	15.1				
238	Male			30.8	33.1		37.6	37.6			9.1	10.0		11.7	14.8	
310	Male			33.4	36.0						10.6	15.9				
321	Female			32.7	35.5						10.4	12.5				
263	Female			50.2							45.2					
286	Male			34.2	35.1	35.8		37.7			12.8	12.9	15.4		13.9	
228	Female			32.9							10.1					
284	Female			34.3	36.9						11.7	14.2				
257	Female			37.3							17.3					
225	Male				36.9			39.1				12.6			13.7	
232	Female				26.3							5.6				
235	Female					35.6							13.1			
267	Female					34.1							12.2			
274	Male					31.1	35.4	35.6					11.0	15.0	12.1	

Table 1. Individual data for Muskellunge captured and tagged in Frances Slocum Lake, Luzerne County.

	Length (Inches)									Weight (Pounds)							
Tag Number	Sex	2013	2015	2016	2017	2018	2021	2022	2013	2015	2016	2017	2018	2021	2022		
281	Male					37.3		38.3					15.4		15.9		
291	Immature						26.5							5.5			
295	Immature						27.6							5.3			
525	Male						31.4							8.6			
528	Male						27.2							5.1			
545	Male						25.0	29.1						4.2	7.1		
549	Male						27.4	31.1						5.3	4.8		
571	Female							39.6							17.4		
577	Immature							13.8							0.7		
566	Immature							15.7							0.4		
559	Female							38.7							19.6		
560	Immature							19.1							0.7		

Also captured were good numbers of Black Crappie and White Crappie and Walleye with some individuals of impressive size.



A 16 inch Black Crappie caught April 2022 from Frances Slocum Lake.



A 28 inch Walleye caught April 2022 from Frances Slocum Lake.

Area 4 Fisheries Management Staff