WISCONSIN DEPARTMENT OF NATURAL RESOURCES



2024 Wadable Trout Streams Survey Report Bayfield and Douglas Counties

1701 N 4th Street, Superior, WI 54880

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Annual Trout Survey Objectives

The Wisconsin Department of Natural Resources Lake Superior fisheries team conducts annual surveys to monitor local trout stream populations. Surveys aim to estimate stream trout relative abundance, size structure and condition. A total of five streams are surveyed annually to monitor trends, while most other trout streams are surveyed on a 6- or 12-year rotation-based watershed schedule. Survey results support fisheries management decisions and provide historical records. Evaluating fishery management regulations, assessing native fish restoration efforts and prioritizing cold-water fish habitat projects are a few of the important processes trout survey results can be utilized for. These surveys also indicate productive fishing destinations for a wide variety of angler preferences. Please refer to the Wisconsin Trout Fishing Guide for additional regulations or contact your local fisheries biologists for stream specific questions.

Survey Methods

All site data is collected using either a backpack or stream barge electrofishing unit. Sampling distance is at least 35 times the mean stream width or a minimum of 100 meters, whichever is greater. All fish species are collected, counted, measured and weighed.

Metric Descriptions

Catch per unit effort (CPUE) is an indirect method of measuring fish population relative abundance. For all trout surveys we quantify the number of brook, brown or rainbow trout captured over a certain size length (inches) per one mile of stream. CPUE indices are compared to other WI trout streams to categorize trout abundance.

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Annual Trend Stream Surveys

Table 2. Summary statistics for trend streams. Age-assignments are based on length-frequencies (Figure 1).

Stream Name	County	Total Num- ber Sam- pled	Brook Trout CPUE (No. fish/ mile)					Brown Trout CPUE (No. fish/mile)					Rainbow Trout CPUE (No. fish/mile)				
			Total	YOY	Age-1	Age-2+		Total	YOY	Age-1	Age-2+		Total	YOY	Age-1	Age-2+	
Bark River	Bayfield	66	319	114	57	148		375	125	34	216		57	11	46	0	
East Fork Flag River	Bayfield	187	211	9	13	189		412	75	219	118		197	22	127	48	
Fourmile Creek	Bayfield	127	94	0	8	86		280	31	167	82		121	23	55	43	
Onion River	Bayfield	22	24	0	8	16		87	24	47	16		63	0	24	39	
Whittlesey Creek	Bayfield	16	0	0	0	0		23	0	0	23		71	8	0	63	

Rotational Watersheds Stream Surveys

Table 2. Summary statistics for rotation streams. Age-assignments are based on length-frequencies (Figure 1).

Stream Name	County	Total Num- ber Sam- pled	Brook Trout CPUE (No. fish/ mile)				E	Brown [·]		CPUE (I ile)	No. fish/	Rainbow Trout CPUE (No. fish/mile)				
			Total	YOY	Age-1	Age-2+		Total	YOY	Age-1	Age-2+	Total	YOY	Age-1	Age-2+	
West Fork Bois Brule	Douglas	62	530	205	154	171		0	0	0	0	0	0	0	0	
Bark River	Bayfield	33	516	161	161	194		1	0	0	16	0	0	0	0	
Mawikwe Creek	Bayfield	72	1,065	161	307	597		0	0	0	0	96	16	32	48	
Sioux River	Bayfield	2,470	262	62	46	154		1,393	562	477	354	2,147	185	1,239	723	
Little Sioux River	Bayfield	362	554	410	94	50		533	252	209	72	217	29	94	94	

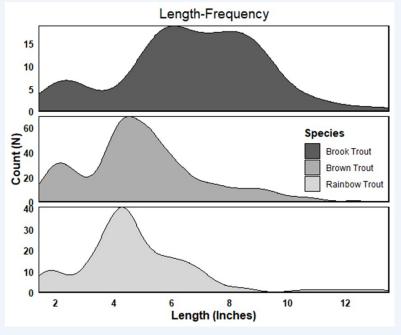


Figure 1. Lengths (inches) and number (N) of fish collected at all trend stations (N=8) in 2024.