



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2024 Stream Survey Summary Tamarack Creek, Vilas County WBIC:1624800

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Introduction And Objectives

Tamarack Creek is approximately 7 miles in length running from it's headwaters to the Wisconsin River and includes class I trout water above Tamarack Road and class II trout water below. It's headwaters consist of East and West Fork with both considered class I. The stream is located in the Tamarack-Pioneer River drainage and mostly surrounded by forest and wetland. Tamarack Creek was formally managed as a combination brook trout and brown trout fishery, with naturally reproducing brook trout and stocked brown trout populations, but brown trout stocking ceased in 1975. The current management strategy is to manage the stream for naturally reproducing brook trout. Surveys in August 2024 were conducted to asses the relative abundance and size structure of brook trout, while also gathering information on the rest of the fish community.

DNR Contact

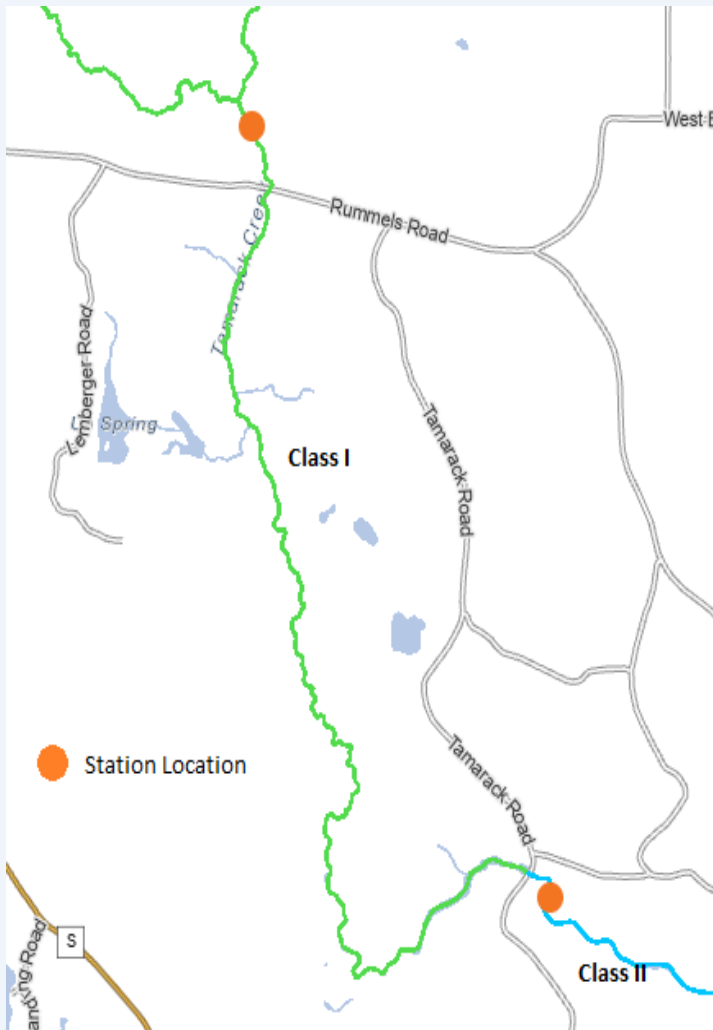
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Regulations

Category: Yellow
Daily Bag and Size Limit:
8 inch minimum length, 3 fish daily bag limit

SURVEY INFORMATION

Station	Survey Date	Station Length (m)	Temperature (° F)	Mean Stream Width (m)	GPS (Start/Finish)	Gear	Dippers	IBI
Station 5 (Rummels Road)	08/27/2024	150	63	4	46.11069, -89.32470 46.11184, -89.32509	Stream Shocker	3	Yes
Station 3 (Tamarack Road)	08/27/2024	335	64	16	46.08869, -89.30972 46.09007, -89.31185	Stream Shocker	3	Yes



Survey Method

- All streams are sampled according to DNR wadeable streams monitoring protocols.
- All trout are counted and measured and all other species are counted in order to calculate an Index of Biotic Integrity (IBI) score.
- Metrics used to describe trout populations include average length, catch per unit effort (CPUE) and length frequency distribution.

Metric Descriptions

- **Catch per unit effort (CPUE)** is a method of quantifying fish population relative abundance. For all trout surveys, we typically quantify CPUE as the number of a given size class of trout captured per mile of stream. CPUE indexes are compared to other trout streams throughout Wisconsin by what percentile (PCTL) they fall out in. For example, if a CPUE is in the 90th percentile, it is higher than 90% of the other CPUEs in the state. CPUE percentiles can also be used to categorize trout abundance as low density (<33rd percentile), moderate density (33rd - 66th percentile), high density (66th - 90th percentile) and very high density (>90th percentile).
- **Length frequency distribution** is a graphical representation of the number or percentage of fish captured by half inch or one inch size intervals.
- **Index of Biotic Integrity (IBI)** is a rating of environmental quality based on the fish assemblage. Scores of 90 - 100 indicate excellent stream quality, while scores less than 30 indicate poor stream quality. Our analysis utilizes the IBI for Wisconsin coldwater streams. Coldwater streams in Wisconsin are those in which the maximum daily mean water temperature is usually <22°C (71.6°F). A coolwater stream IBI may also be used when a stream doesn't fit the temperature criteria for a coldwater stream.



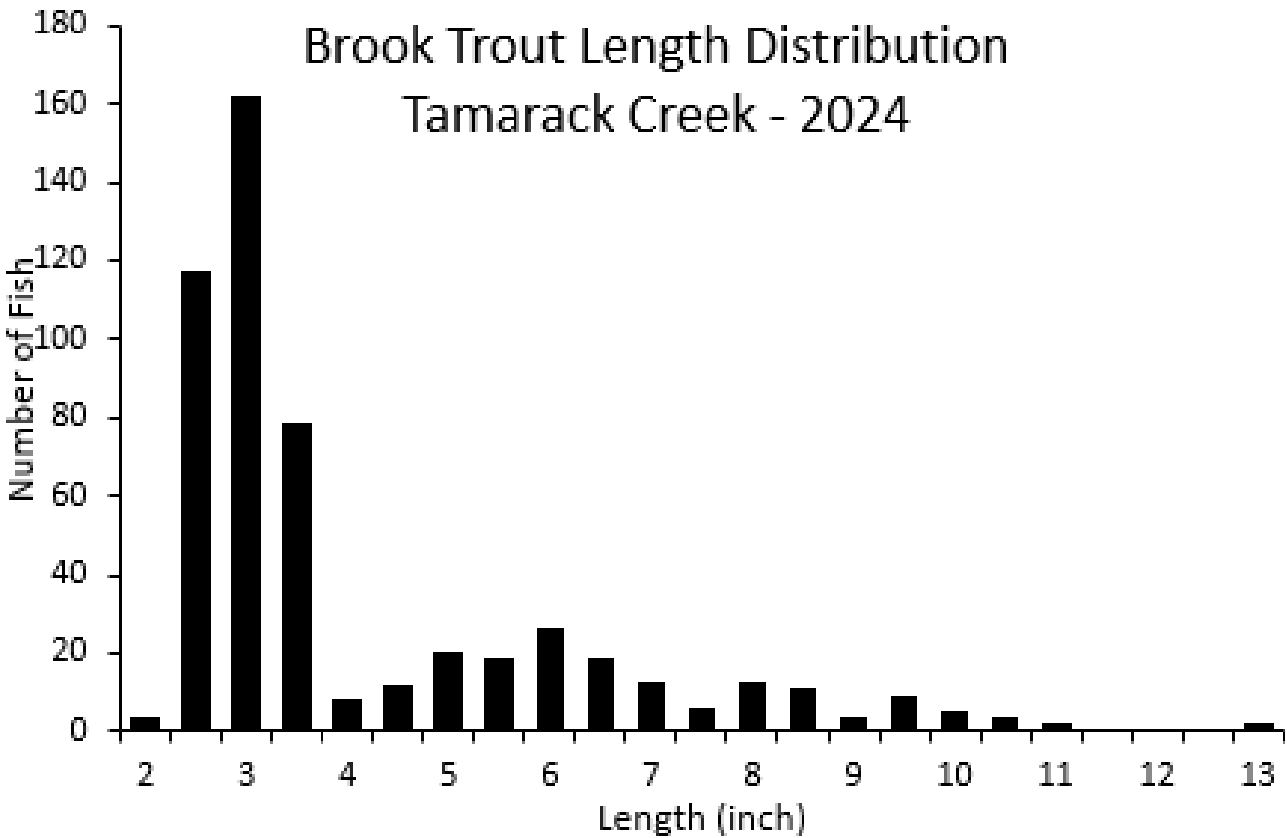
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BROOK TROUT SIZE AND ABUNDANCE (CPUE) METRICS

Station	Total Number Sampled	Average Length (inches)	Length Range (inches)	CPUE (Number per Mile)						IBI Score
				Total CPUE	Young-of-Year CPUE	≥5" CPUE	≥8" CPUE	≥10" CPUE	≥12" CPUE	
Station 5 (Rummels Road)	63	5.9	2.7 - 11.2	676	161	472	118	32	0	80
Station 3 (Tamarack Road)	472	4.1	2.4 - 13.4	2,266	1,704	523	187	48	10	100

Year	BROOK TROUT CPUE	
	Station 5	Station 3
2024	676	2,266
2007	655	-
2005	-	840



Summary

- Tamarack Creek supports a healthy naturally reproducing brook trout population with a good 2024 year class.
- Results from the 2024 surveys indicate a large increase in brook trout numbers in the downstream section and steady abundance in the upstream section.
- Catch rates of harvestable sized brook trout (≥ 8") was above average for both the class I and class II stations.
- The abundance of larger brook trout appears to have increased significantly compared to previous surveys with far more fish in the harvestable size range.
- IBI scores indicate excellent stream quality for a cool/cold water stream at both sites. Both stretches of the stream are able to maintain cool water temperatures. This is likely influenced by multiple small feeder creeks flowing into the stream, many of which originating from lakes classed as spring lakes.
- In addition to brook trout the following species were caught: western blacknose dace, northern brook lamprey, pumpkinseed, mottled sculpin, white sucker, burbot and creek chub.