



# WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2025

Kentuck Creek, Vilas County

716400

## Introduction And Objectives

Kentuck Creek lies within the Brule River (Michigan-Wisconsin Boundary) drainage and flows east and south from Kentuck Lake for roughly 3.3 miles before entering Brule Creek. The substrate is primarily sand with some gravel and muck. The stream bank is undeveloped with natural vegetation. The lower one mile of Kentuck Creek is designated trout water. Kentuck Creek is managed as a brook trout fishery, and the lower stretch of the stream appears to function as nursery habitat for juvenile brook trout. This survey focused on the stream segment immediately upstream from its confluence with Brule Creek.

## DNR Contact

Tim Tobias  
 8770 County Hwy J  
 Woodruff, Wisconsin  
 Phone 715-356-5211 (ext. 231)  
 Email: timothy.tobias@wisconsin.gov

## Regulations

Category: Green,  
 5 Bag and No Size Limit:

## SURVEY INFORMATION

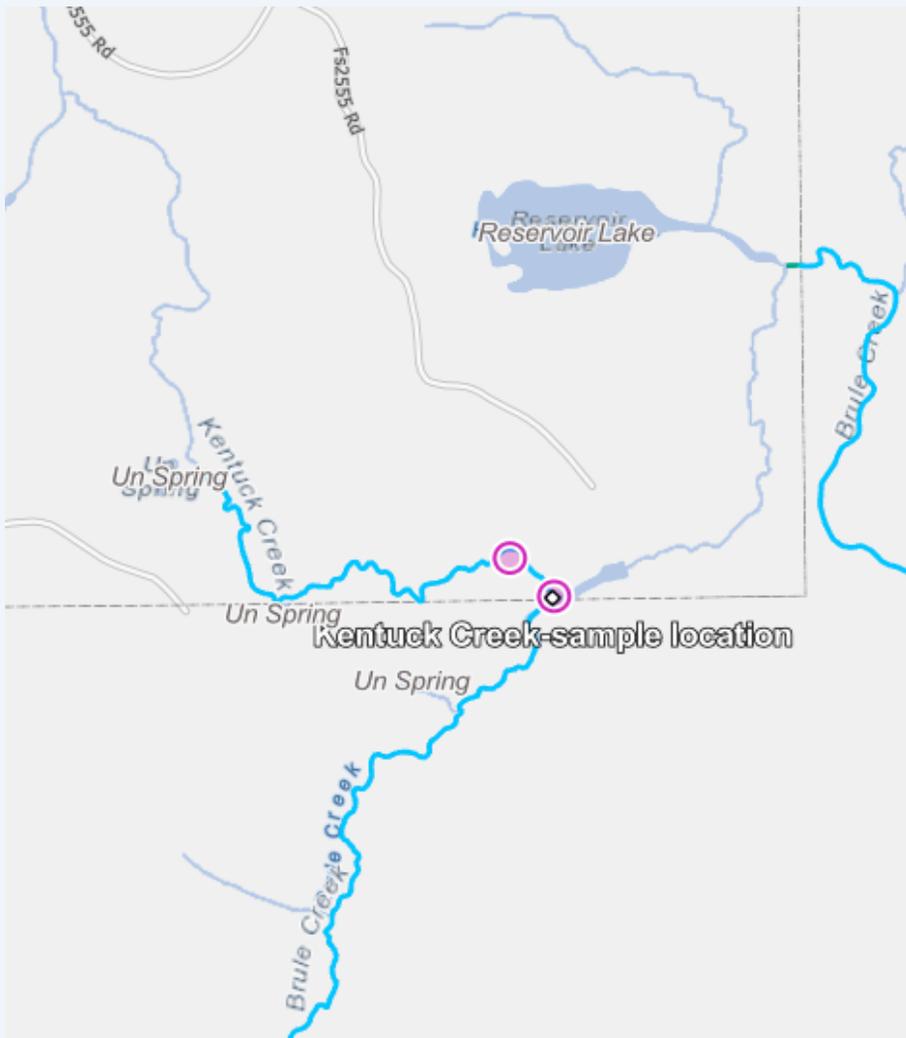
Station	Survey Date	Station Length	Temperature (° F)	Mean Stream Width	GPS (Start/Finish)	Gear	Dippers
Kentuck Creek	07/21/2025	200 m	60	4.95 m	45.98248, -88.94259 45.98345, -88.9442	Steam Shocker	2
Kentuck Creek	06/20/2013	200 m	59	4.95 m	45.98248, -88.94259 45.98345, -88.9442	Steam Shocker	2

## 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.





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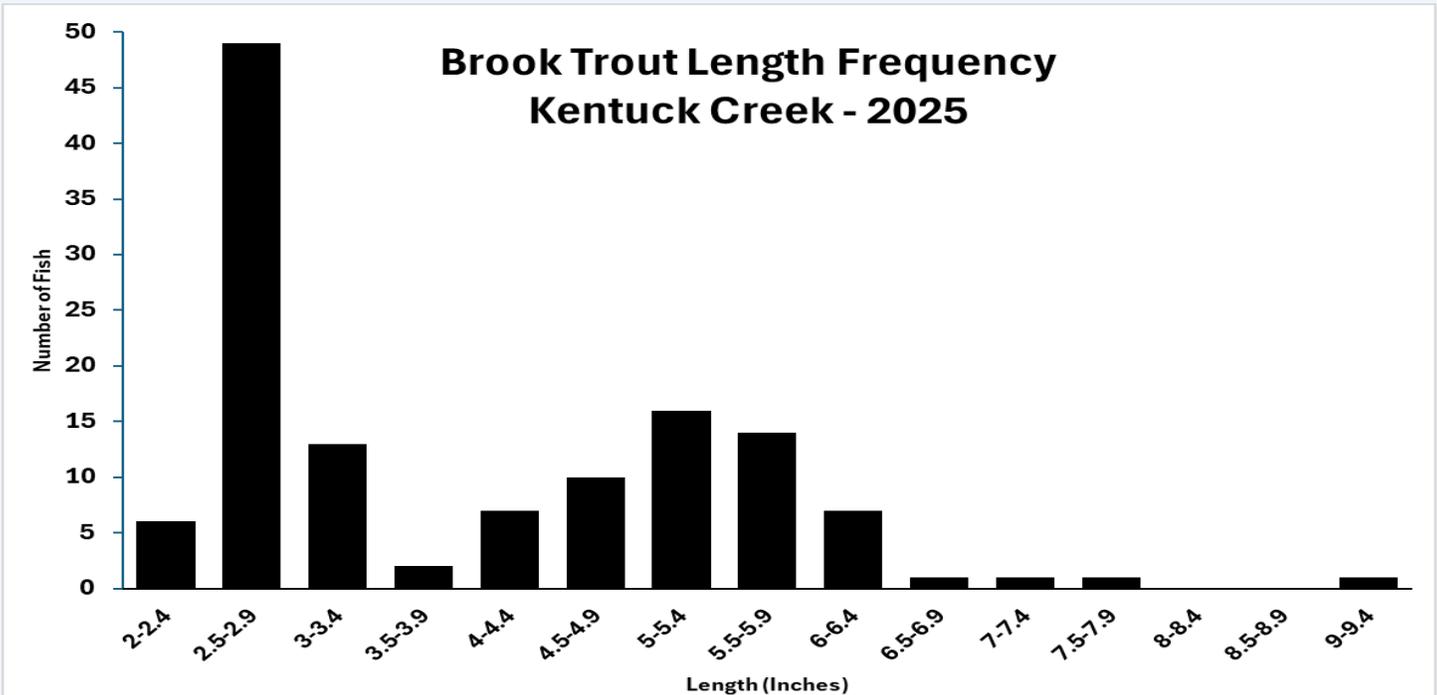
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## BROOK TROUT SIZE AND ABUNDANCE (CPUE) METRIC

Station	Total Number Sampled	Average Length (inches)	Length Range (inches)	CPUE (No. per Mile)					
				Total CPUE	YOY CPUE	≥5" CPUE	≥8" CPUE	≥10" CPUE	≥12" CPUE
20 M upstream confluence of Brule Creek-2025	128	4.0	2.2-9.3	1,030	546	320	8	0	0
20 M upstream confluence of Brule Creek-2013	14	4.8	2.5-5.9	113	16	56	0	0	0



### Summary

- Kentuck Creek's lower one mile, starting at the Unnamed Spring, is classified as a Class II brook trout stream, indicating some natural reproduction.
- Data from the 2013 survey were included for comparison to help assess changes in brook trout abundance and year-class strength over time.
- Brook trout numbers were considerably higher in the 2025 survey (July 21) than in the prior survey conducted on June 20, 2013 (128 vs. 14). Survey timing and water temperatures were very similar between the two efforts—within one month and roughly one water temperature degree.
- Brook trout were primarily small, reflecting the stream's role as a feeder system to Brule Creek, with habitat that favors juvenile fish rather than larger adults.
- Other species observed included largemouth bass, pumpkinseed, white sucker, western blacknose dace and mottled sculpin.
- Strong young-of-year numbers in 2025 may be the result of favorable winter temperatures in 2024-25, along with carryover of two-year-old fish from the mild winter of 2023-24. If winter conditions are typically a limiting factor for brook trout survival, the back to back mild winters may have reduced overwinter stress and contributed to the year-class observed.