



# 2025 Stream Survey Report

## East Branch Eau Claire River Trend Station (WBIC 1442200)

### Langlade County

### Introduction and Survey Objectives

The lower 11.5 miles of the East Branch Eau Claire River north of Antigo is high quality, naturally reproducing brook trout water. Our native species of stream trout, the brook trout, is the only trout species present. The brook trout population is supported entirely by natural reproduction and no stocking occurs. Trout habitat improvement projects have been completed in several areas throughout the stream including this trend survey site. Boom covers were installed throughout this survey station in 1983. Fishing access is very good with multiple WDNR managed properties and town, county and state road crossings. Objectives of this trend survey are to monitor trout abundance and size structure, and to evaluate angling regulations. The current regulations were enacted in 2016.

### Fishing Regulations

Location	Category	Size Limit	Daily Bag Limit	Gear Restrictions
Bluebell Road downstream to River Road	Red	None but all trout from 10-16 inches must be released	5 but only 1 may be 16 inches or over	None
Remainder of Stream	Green	None	5	None

### WISCONSIN DNR CONTACT INFO.

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### Survey Information

Site location	Survey Dates	Station Length	Water Temperature (°F)		GPS Coordinates		Gear	Anode Electrodes
			Start	End	Start	End		
Boom Covers Downstream from Bluebell Road	08/13/2025 (Marking Run) 08/19/2025 (Recapture Run)	2,300 feet	61 58	63 60	45.21587 -89.19484	45.21962 -89.18989	Towed Barge Stream Shocker	2



### Survey Methods

- The East Branch Eau Claire River trend station has been surveyed annually since 1989.
- This station is 2,300 feet in length and is electrofished with a towed barge stream shocker.
- All captured trout are identified to species, measured for length, and examined for fin clips.
- On the marking (first) run a small portion of a fin is clipped on all 4-inch and larger trout to identify them as having been captured. The ratio of marked (clipped) and unmarked trout found on the recapture (second) run allow a population estimate to be calculated.
- Most 4 inch and larger trout are at least 1 year old and considered adults.

### Metrics Used to Describe Trout Populations

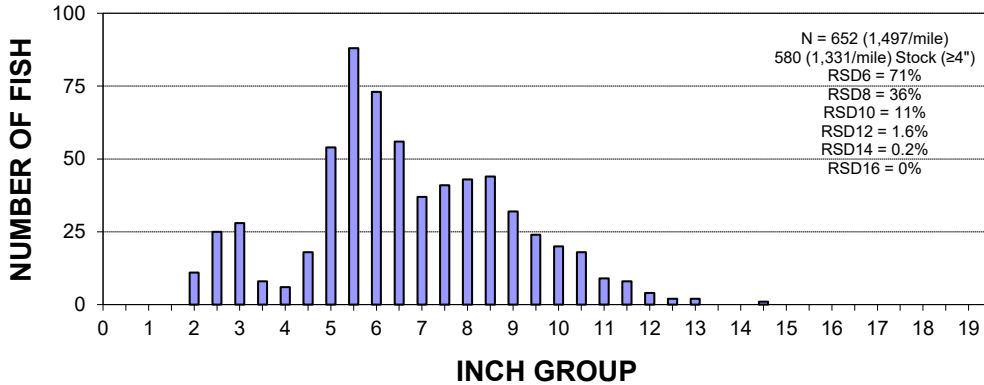
- **Population Estimate (Number of Trout Per Mile)** is the total adult population  $\geq 4$  inches and allows biologists to follow trout populations through natural up and down cycles. Population estimates are compared between years and between streams.
- **Catch Per Unit Effort (CPUE)** is an indirect method of measuring fish population abundance. For all trout surveys we typically quantify CPUE by the number and size of trout captured per mile of stream.
- **Length Frequency Distribution** describes trout size structure. It is the number of trout captured on the marking (first) run and grouped by half-inch size intervals.
- **Relative Stock Density (RSD)** is the percentage of trout that meet a minimum stock size (4 inches for stream trout) that are also over a quality size for that species. For example, RSD8 is the percentage of brook trout captured on the marking (first) run that were 8 inches and longer out of all brook trout captured that were at least 4 inches long.



Your purchase of fishing equipment and motor boat fuel supports boating access and Sport Fish Restoration.

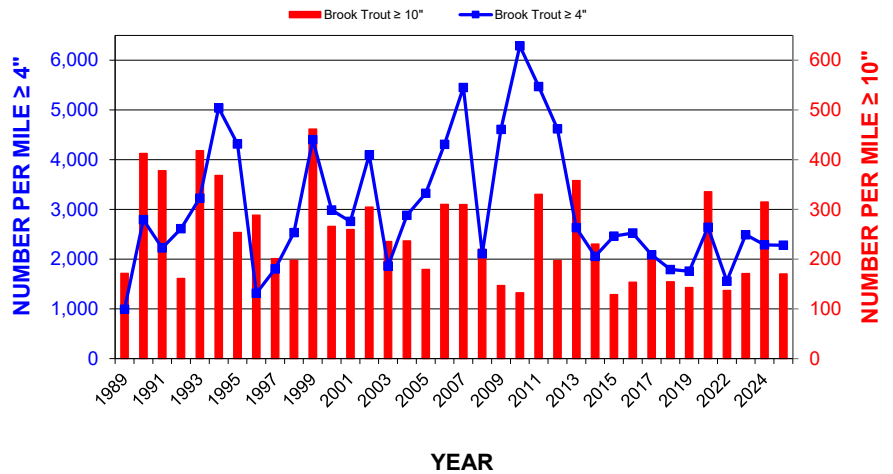
# LENGTH FREQUENCY DISTRIBUTION

## EAST BRANCH EAU CLAIRE RIVER DEVICES BELOW BLUEBELL ROAD - 2025 BROOK TROUT - TOTAL



N = Total number of trout captured on marking run  
Stock = Total number of trout ≥ 4 inches captured on marking run

## EAST BRANCH EAU CLAIRE RIVER BOOM COVERS BELOW BLUEBELL ROAD ADULT TROUT POPULATION ESTIMATES



### Summary

- The 2025 survey estimated an adult (≥ 4 inches) brook trout population that was 8 trout less and statistically the same as the previous year. The 2025 brook trout population estimate was 75% of the long-term average.
- The adult population fluctuates naturally from highs over 6,000 per mile to lows of 1,000 - 2,000 per mile.
- Years of lower abundance typically result in a higher percentage of quality size fish; whereas years of higher abundance are usually the result of many 5-7 inch trout. This is likely related to density dependent factors such as food and habitat availability and carrying capacity of the stream.
- In 2025, the percent of 8 inch and larger brook trout (RSD8) was 36%. This is 6 percentage points lower than the long-term average.
- In 2025, RSD10 was 11%, down 3 percentage points from the long-term average.
- The estimated number of brook trout ≥ 10 inches was 170 per mile. This is 79 less than the long-term average of 249 per mile.
- The East Branch of the Eau Claire River has stood the test of time and remains one of the top brook trout producers in the state, both in terms of abundance and size quality. Fluctuations in the population from year-to-year are natural and likely related to dynamic environmental conditions.
- Quality trout populations are the result of above average water quality and habitat. Maintaining, protecting, and improving water quality and quantity, and instream, riparian, and watershed habitat are a top priority for this and other high quality trout streams.