



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2024 Stream Survey Report

SOUTH BRANCH OCONTO RIVER

Trend (WBIC 480900)

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Introduction And Objectives

The South Branch Oconto River is a Class I and II trout stream in Oconto, Menominee, and Langlade counties that is 54.6 miles long. Average width is 40 feet in the lower reaches and 20 feet in the middle reaches where the trend site is located. Brook trout and brown trout are the dominant fish species. Stocking was discontinued in the system in 2008 because trout were naturally reproducing in sufficient numbers. Objectives of the trend survey are to monitor relative abundance and size structure of trout. The survey site is located in the yellow regulation section.

Regulations

Menominee County down to STH 32: RED Size Limit: 12 inches Daily Bag Limit: 2 trout
All other sections (including trend site): YELLOW Size Limit: 8 inches Daily Bag Limit: 3 trout in total

DNR Contact Info.

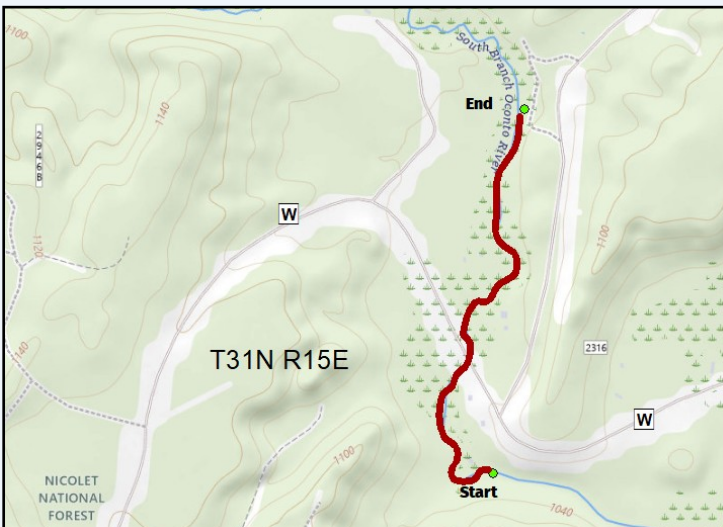
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SURVEY INFORMATION

Station	Survey Date	Station Length	Temperature (° F)	GPS (Start/Finish)	Gear	Dippers
UPSTREAM & DOWN-STREAM CTH W	07/24/2024	0.52 Mile	58	45.14250, -88.59810 45.14853, -88.59735	Towed Barge Shocker	3



Map of trend station on South Branch Oconto River, Town of Doty, Oconto County.

Survey Method

- The South Branch Oconto River trend site is typically surveyed on a 2-year rotation since 2008. Annual surveys utilizing mark and recapture techniques over a 2-day period were done from 1999-2006. Sampling gear consisted of a towed barge streamshocker. All captured trout were identified to species and measured for length.
- Catch per effort (CPE)** is an indirect method of measuring fish population relative abundance. For all trout surveys we typically quantify CPE by the number and size of trout captured per mile of stream.
- Length frequency distribution** is a graphical representation of the number or percentage of fish captured by half inch or one inch size intervals.

Habitat and Access

- The South Branch Oconto River watershed is just over 140,000 acres. The majority of the watershed is primarily forested (71%) and within the Chequamegon-Nicolet National Forest or Menominee Reservation. The lower portion of watershed is mostly forested with limited agricultural land use.
- Several road crossings provide access to the South Branch Oconto River. However, there are large segments of stream within the National Forest that do not have road crossings nearby and would require walking or wading to access secluded areas of the stream.
- There is a **Barrier-Free Fishing Access** with handicap accessible fishing piers located on U.S. Forest Service property at CTH T. In the lower reaches, the state-owned South Branch Oconto Fishery Area encompasses 625 acres with multiple access locations.
- Various **habitat improvement projects** were completed with funding by Trout Stamp dollars and Green Bay, Oconto, and Marinette Trout Unlimited chapters. These projects include the addition of bank covers, brush bundles, boulders, and thalweg restoration. An ongoing habitat project was initiated in 2015 within the Fishery Area from the end of Spruce Road down to STH 32. That project involves cutting large overhanging trees, mostly old willows, and anchoring them along the streambank to provide fish habitat and improve navigability.



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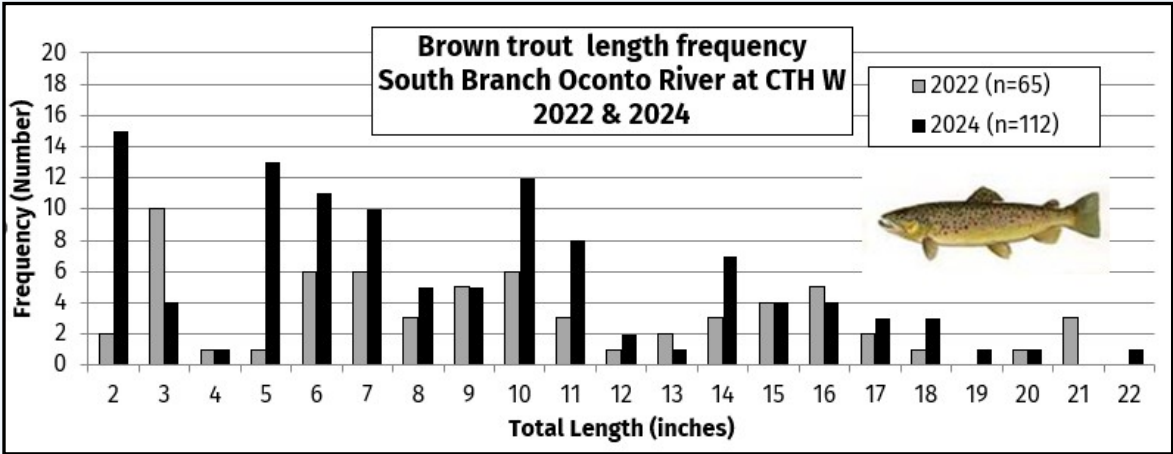
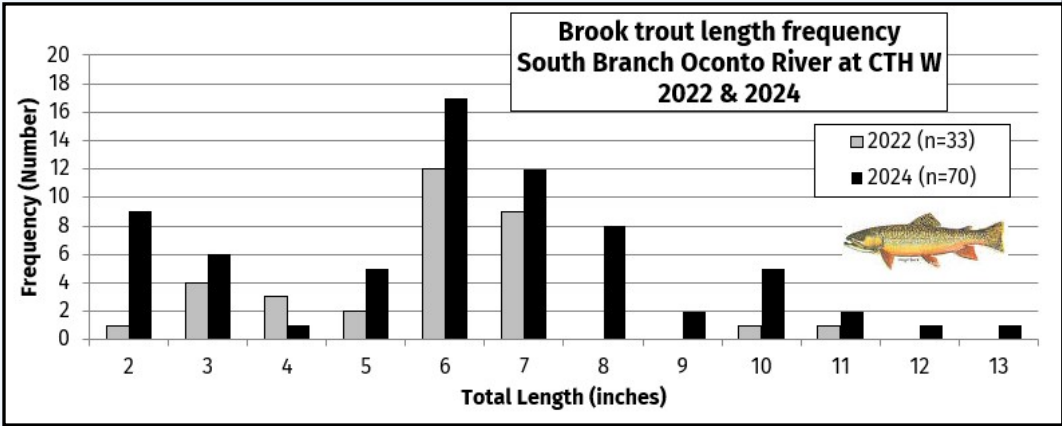
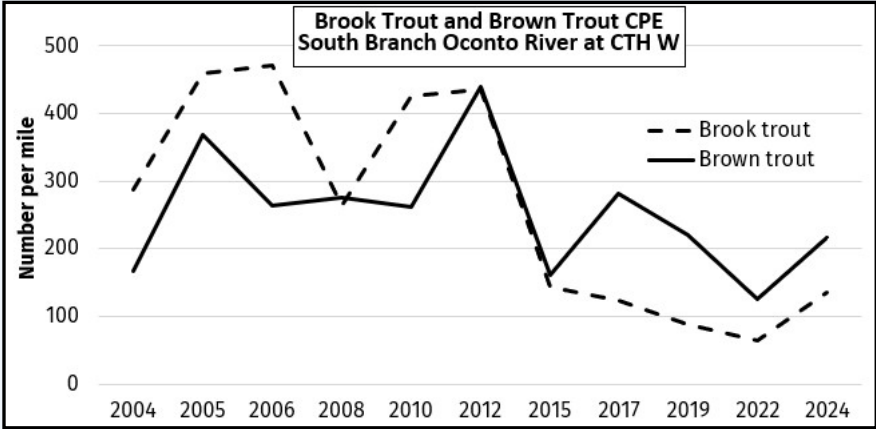
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BROOK TROUT DATA SUMMARY									
Station	Total Number Sampled	Average Length (inches)	Length Range (inches)	CPE (No. per Mile)					
				Total CPE	YOY CPE	≥5" CPE	≥8" CPE	≥10" CPE	≥12" CPE
UPSTREAM & DOWN-STREAM CTH W	70	6.7	(2.6 - 13.4)	135	31	104	37	9	4

BROWN TROUT DATA SUMMARY									
Station	Total Number Sampled	Average Length (inches)	Length Range (inches)	CPE (No. per Mile)					
				Total CPE	YOY CPE	≥5" CPE	≥8" CPE	≥10" CPE	≥12" CPE
UPSTREAM & DOWN-STREAM CTH W	112	9.2	(2.1 - 22.5)	216	39	177	110	90	52



Crew performing a wadable stream shocking survey on the South Branch Oconto River.
Photo credit R. Rosenberger.



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Summary

- A total of 70 brook trout ranging in length from 2.6 to 13.4 inches were sampled. Average length was 6.7 inches. CPE was 135 per mile.
- A total of 112 brown trout (2.1 to 22.5 inches) were sampled. Average length was 9.2 inches. CPE was 216 per mile.
- Brook trout $\geq 8"$ (legal size for harvest) increased to 37 per mile compared to 4 per mile in 2022. The 2024 CPE for legal-size brook trout is between the 70th and 75th percentile when compared to other Class I trout streams in the northern lakes and forest ecoregion in recent years. Water temperature during the 2022 survey was 61F so some trout may have migrated into the cooler headwaters. Water levels were typical of late summer in both 2022 and 2024.
- Brown trout $\geq 8"$ (legal size for harvest) increased to 118 per mile compared to 75 per mile in 2022. The 2024 CPE for legal-size brown trout is between the 80th and 85th percentile when compared to other Class I trout streams in the northern lakes and forest ecoregion in recent years.
- The overall health of the trout fishery in the South Branch Oconto River is good. Successful reproduction and recruitment of both brook and brown trout was evident from the length frequency of fish collected. Good numbers of legal size (8 inch and over) trout were present.
- A fishing regulation change was implemented in 2016 on the South Branch Oconto River that allows for additional harvest opportunities for brown trout. Prior to 2016, the regulation at the survey location was a 12 inch size minimum and 3 trout in total for brown trout instead of the current 8 inch size minimum and 3 bag limit. Despite this regulation change, CPE of both trout species have declined since 2017, with brown trout numbers now higher than brook trout.
- Mitro et al. (2019)^a predicts future declines in suitable habitat for trout in Wisconsin related to climate change. Continuing to monitor the South Branch Oconto River and other trout trend sites around the state will continue to provide important long term data from quality trout streams in the state.
- DNR surveys were completed in 2015 at eight other locations in addition to CTH W. Those locations are FR 2112, Saul Springs Road (2 stations), Van Alstine Road, STH 64, Old Grave Road, and Hill Road. The next trend survey at CTH W is planned for 2026.



Tammie Paoli and Devin Bort with some nice brown trout sampled in 2024. Photo credit: R. Rosenberger

^a Mitro, M.G., Lyons, J.D., Stewart, J.S. *et al.* Projected changes in Brook Trout and Brown Trout distribution in Wisconsin streams in the mid-twenty-first century in response to climate change. *Hydrobiologia* **840**, 215–226 (2019). <https://doi.org/10.1007/s10750-019-04020-3>