

2021 STREAM SURVEY REPORT NORTH BRANCH WEDDE CREEK

(WBIC 156100)

MARQUETTE COUNTY



INTRODUCTION AND OBJECTIVES

The North Branch Wedde Creek is a Class I trout stream and consists of 3.5 miles of trout water. It originates at Rogers Pond, with the outlet to Curtiss Lake flowing into it, and flows downstream into the Chaffee Creek. Fishing access consists of public land and road crossings. Objectives of the rotation surveys are to determine species composition, relative abundance, and size structure for trout and other gamefish.

Regulations: Entire section **GREEN**

Size Limit: Rainbow no size

Daily Bag Limit: 5 in total

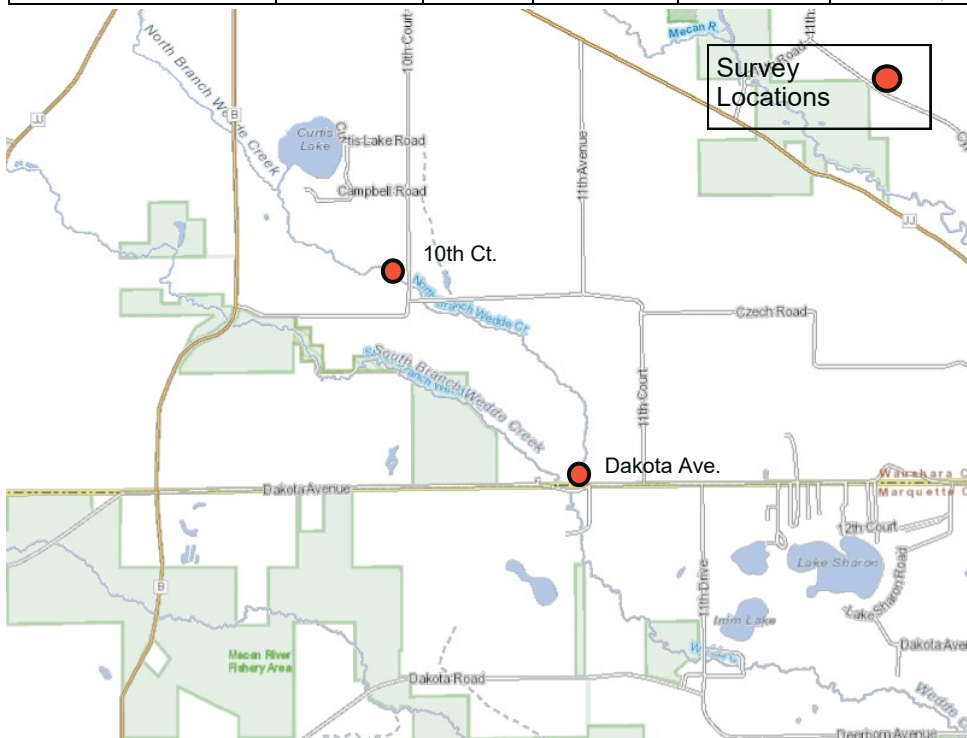
WISCONSIN DNR CONTACT INFO.

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SURVEY INFORMATION

Station	Survey Date	Station Length	Temperature (°F)	Mean Stream Width	GPS (Start/Finish)	Gear	Dippers	IBI
10th Ct	7/21/2021	569 ft	62	16.3 ft	43.995044, -89.420725 43.99602, -89.42234	Barge Shocker	3	YES
Dakota Ave.	7/21/2021	613 ft	64	17.5	43.982110, -89.406770 44.98335, -89.40550	Barge Shocker	3	NO



SURVEY METHOD

- All streams are sampled according to DNR wadable streams monitoring protocols. North Branch Wedde Creek is on a 6 year rotation schedule with two sites identified for the segment of stream in Waushara County.
- All sampling stations are electrofished with either a towed barge shocker or backpack shocker.
- Sampling distance is at least 35 times the mean stream width or a minimum of 330 feet (i.e., 100 meters).
- All trout are counted and measured and all other species are counted in order to calculate an Index of Biotic Integrity (IBI) 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 the state of 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.





2021 STREAM SURVEY REPORT - CONTINUED

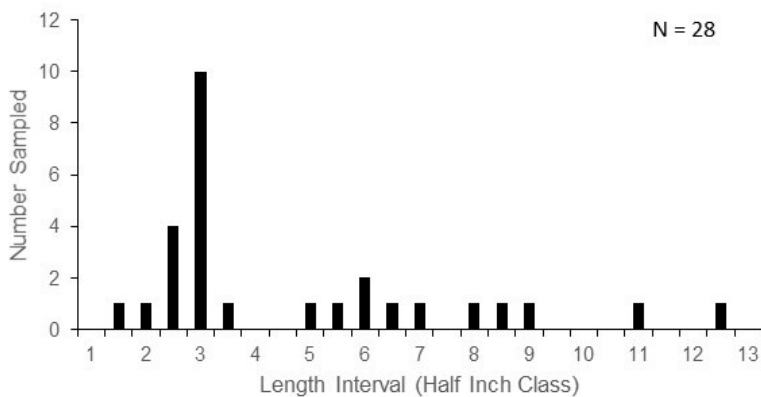
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BROWN TROUT SIZE AND ABUNDANCE (CPUE) METRICS

Station	Total Number Sampled	Average Length (inches)	Length Range (inches)	CPUE (No. per Mile) Statewide Percentile in parentheses						
				Total CPUE (PCTL)	YOY CPUE	>6" CPUE (PCTL)	>8" CPUE (PCTL)	>10" CPUE (PCTL)	>12" CPUE (PCTL)	>15" CPUE (PCTL)
10 Ct	24	4.9	1.7 - 11.4	223 (59th)	158	56 (44th)	37 (47th)	9 (35th)	-	-
Dakota Ave.	4	7.9	5.4 - 12.6	34 (27th)	-	26 (29th)	9 (23rd)	9 (35th)	9	-

Brown Trout Length Distribution



SPECIES COMMUNITY AND IBI FOR 10TH CT

Species Sampled	Total	IBI Score	Integrity Rating
Brown trout	24	60	Good
Mottled sculpin	52		
Brook lamprey	10		
Bluegill	62		
Rock bass	1		
Creek chub	6		
Largemouth bass	4		



Mottled sculpin (pictured above) is a small nongame species commonly found in coldwater streams. Similar to trout they require colder temperatures, are considered thermally intolerant, and their presence can be indicative of healthier environmental quality.



SUMMARY

- Brown trout were found in moderate to low densities at both stations with the total brown trout CPUE ranking out in the 59th and 27th percentiles when compared to trout streams throughout Wisconsin. Brown Trout 10+ inches ranked out at the 35th percentile at both stations. YOY brown trout were captured at low densities at the 10 Ct station, as the habitat is not suitable for YOY trout in the North Branch Wedde Creek
- Both stations seen improvements in number and size structure of brown trout since the last surveys in 2014. While in 2014 moderate to low densities of brook trout were sampled at both sampled stations.
- Trout populations are below average in the Wedde Creek system but provide an opportunity to some brown trout
- The IBI scores suggests this stream is a good coldwater stream and the WI Streams Natural Community Model considers this a cool - cold headwater stream. Habitat should be protected and should be able to do so with the large tracts of state owned land.
- Agricultural impacts, along with other habitat degradations are having a negative impact on this particular stream. Habitat improvement and riparian protection would be valuable to the Wedde Creek.