

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2022 STREAM SURVEY REPORT

UNNAMED TRIBUTARY TO THORNBERRY CREEK

TROUT STREAM ROTATION (WBIC 3000354)

BROWN COUNTY



INTRODUCTION AND OBJECTIVES

This unnamed tributary to Thornberry Creek consists of approximately 1.5 miles of Class III trout water within the Duck Creek Watershed in Brown County. The objectives of the rotation surveys are to determine species composition, relative abundance and size structure for trout and other gamefish present.

Regulations Category: **Yellow**

Size Limit: 8 inches

Daily Bag Limit: 3 (in total)

WISCONSIN DNR CONTACT INFO.

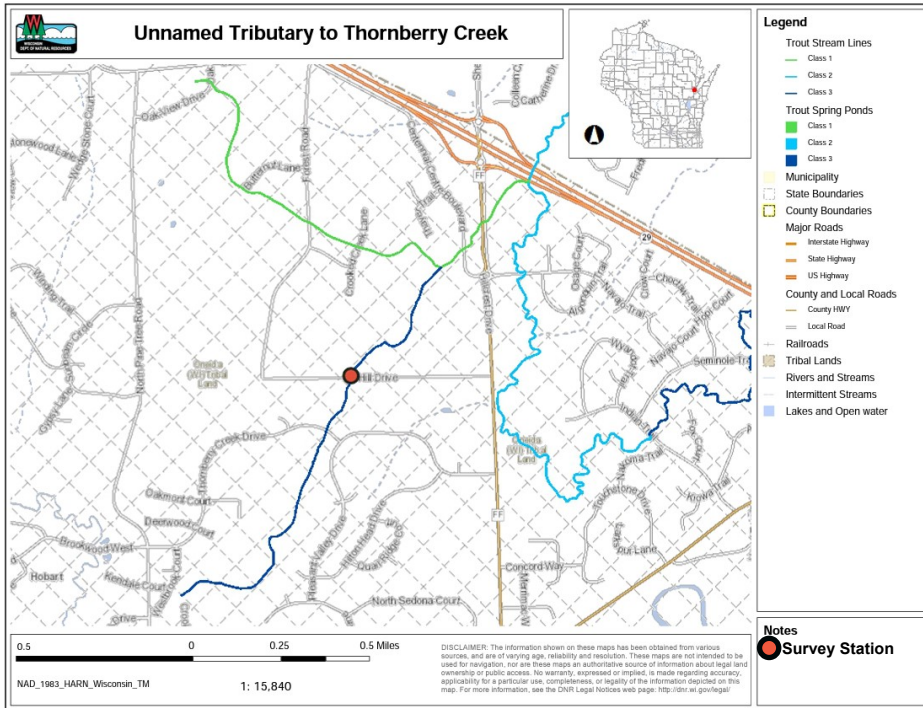
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SURVEY INFORMATION

Station	Survey Dates	Station Length	Temperature (°F)	Mean Stream Width (ft)	GPS (Start/Finish)	Gear	Dippers	IBI
Hill Drive	08/02/2022	330 ft	65	3.9	44.5510467, -88.138078 44.5517533, -88.137283	Backpack Shocker	1	Yes



SURVEY METHOD

- All streams are sampled according to DNR Wadeable Streams Monitoring Protocols. This unnamed tributary to Thornberry Creek is currently on a six-year rotation schedule with one location selected for the section of stream in Brown 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) score, which 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.

SUMMARY

- No trout were captured in this survey. A total of 111 fish from eight different species were captured in this survey. Brook stickleback, central mudminnow, fathead minnow, and creek chub were the most abundant species captured in this survey.
- This stream was last surveyed in 2015, with no trout being captured in that survey. The fish community in 2015 was similar to what was captured in 2022.
- While water temperatures may be cool enough to allow trout to persist throughout the summer, habitat conditions in this stream were very poor. In particular, this stream was very shallow and wide, with almost exclusively fine sediments and little spawning habitat for trout. Furthermore, a perched culvert at the Hill Drive road crossing is a potential fish passage barrier.
- The IBI score suggests this stream is a very poor trout stream and the Wisconsin Streams Natural Community Model considers this a cool-warm headwater stream. The lack of trout is likely the factor driving the very poor IBI score.

Species Community and IBI for Hill Drive

Species Sampled	Total	IBI Score	Integrity Rating
Brook stickleback	36	0	Very Poor
Central mudminnow	31		
Creek chub	11		
Fathead minnow	15		
Green sunfish	5		
Johnny darter	4		
Largemouth bass	8		
Yellow perch	1		