WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2023

Noisy Creek, Oneida County

1565100

Introduction And Objectives

Noisy Creek is a cool-warm stream meandering 3.67 miles within the Noisy and Pine Creek watersheds in northern Wisconsin. Noisy Creek has portions of Class 2 and Class 3 trout waters with some natural reproduction but not enough to utilize available space. Sampling sought to describe the trout population characteristics and asses the overall condition of the system.

DNR Contact

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Regulations

Category: Yellow
Daily Bag and Size Limit:
3 daily bag, 8" minimum length

SURVEY INFORMATION								
Station	**Survey Date**	**Station Length (ft)**	**Tempera-ture (°F)**	**Mean Stream Width (ft)**	**GPS (Start/Finish)**	**Gear**	**Dippers**	**IBI**
Above Camp Six Road	8/09/2023	1000	60.8	13.2	45.51949 –89.38924 45.51823 –89.38943	Stream Shocker	2	80
Above Bowman Road	8/10/2023	1000	60.0	11.0	45.52268 –89.39246 45.52138 –89.39372	Stream Shocker	2	90
Below Bowman Road	8/10/2023	1000	59.0	12.2	45.52385 –89.38972 45.52332 –89.39233	Stream Shocker	2	80
Pommerening Road	8/17/2023	1000	67.0	32.5	45.55671 –89.4470 45.55886 –89.44535	Stream Shocker	2	NA

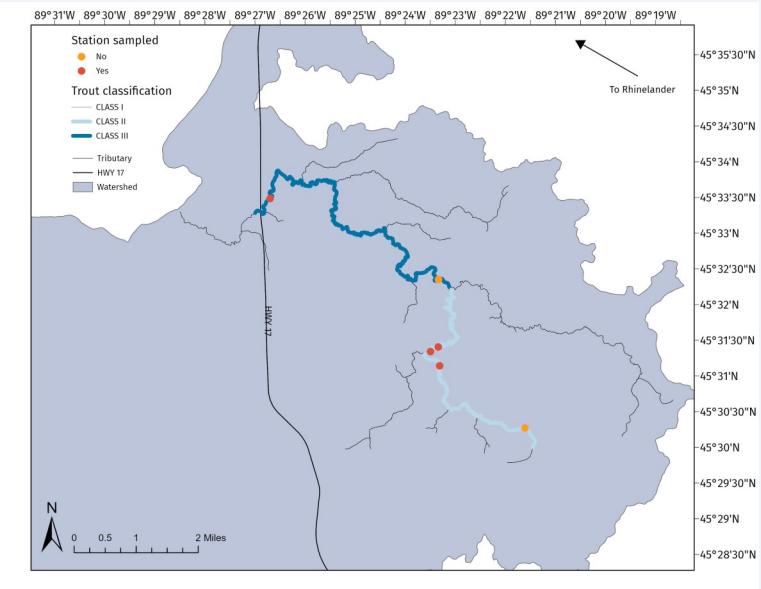

Figure 1. Station locations and trout classifications on Noisy Creek, Oneida County, WI.

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, typically CPUE is quantified 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.
- **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.

SPECIES SIZE AND ABUNDANCE (CPUE) METRICS									
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
Above Camp Six Road	164	4.5	2.2-10.6	863.2	468.4	310.5	47.4	5.3	0.0
Above Bowman Road	125	5.3	2.3-10.4	657.9	268.4	310.5	47.4	15.8	0
Below Bowman Road	124	4.4	2.5-9.8	652.63	410.5	189.5	6.4	0.0	0.0
Pommerening Road	0	0	0.0-0.0	0.0	0.0	0.0	0.0	0.0	0.0

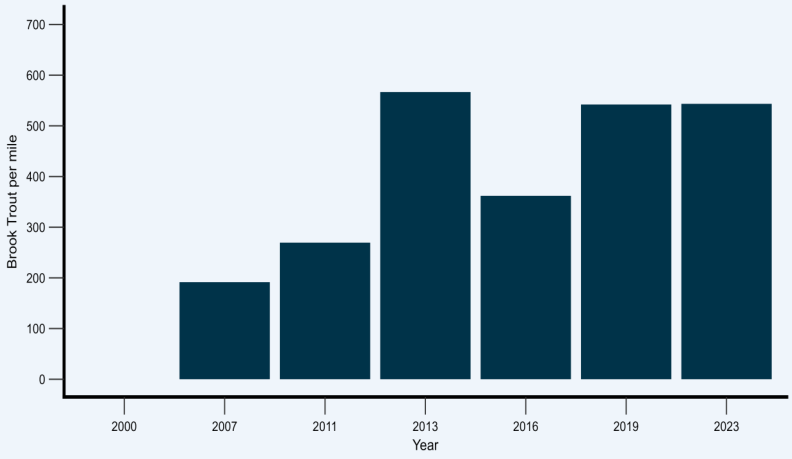

Figure 2. Stream wide brook trout catch per mile through time in Noisy Creek.

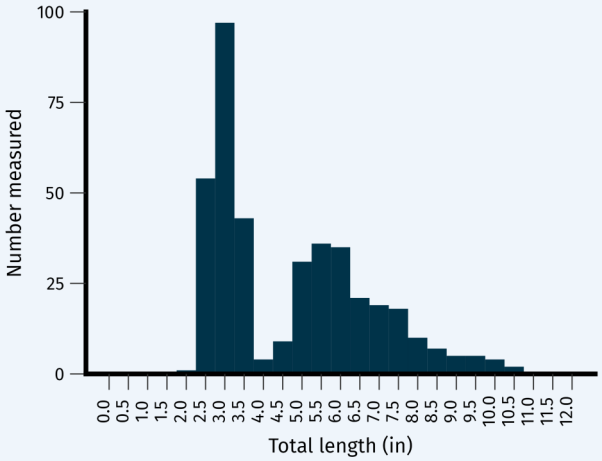

Figure 3. Brook trout stream wide size structure within Noisy Creek.

Summary

- Brook trout abundance has remained relatively stable through time in Noisy Creek (figure 2).
- Brook trout catch was above the statewide median rate for individuals < 7.9 inches but lower than the statewide median for individuals > 8.0 inches within Noisy Creek.
- Average size of brook trout remain relatively small, 2 inches smaller than the average (7.5 inches) in Wisconsin (Figure 3).
- Noisy Creek remains in an overall good condition with index of biotic integrity scores above 80 throughout the system.
- Brook trout were stocked regularly into Noisy Creek until 2001 and have been self maintain abundance since.
- Previous brush bundled added by Trout Unlimited have varying retention rates (Figure 4).
- Two stations historically sampled were unable to be sampled in 2023 due to inaccessibility (Figure 1).

Figure 4. Successful bush bundled placement (a) and failed brush bundled placed (b) White square indicate location of the brush bundle.