2021 Stream Survey Report

PINE RIVER - 19th AVE TREND SITE

(WBIC 247800)

Waushara County

INTRODUCTION AND OBJECTIVES

Pine River is a Class I or II trout water stream and consists of 27.50 miles of trout water. The Pine River is located in Waushara County and is part of the Pine and Willow River watershed. This trend site has had past habitat development work. Objectives of the trend survey are to monitor relative abundance and size structure.

Regulations: RED (upstream Wild Rose Millpond) Size Limit: All Trout –None Daily Bag Limit: 3(in total)
YELLOW (downstream Wild Rose Millpond) Size Limit: All Trout - 8 inches Daily Bag Limit: 3 (in total)

WISCONSIN DNR CONTACT INFO.

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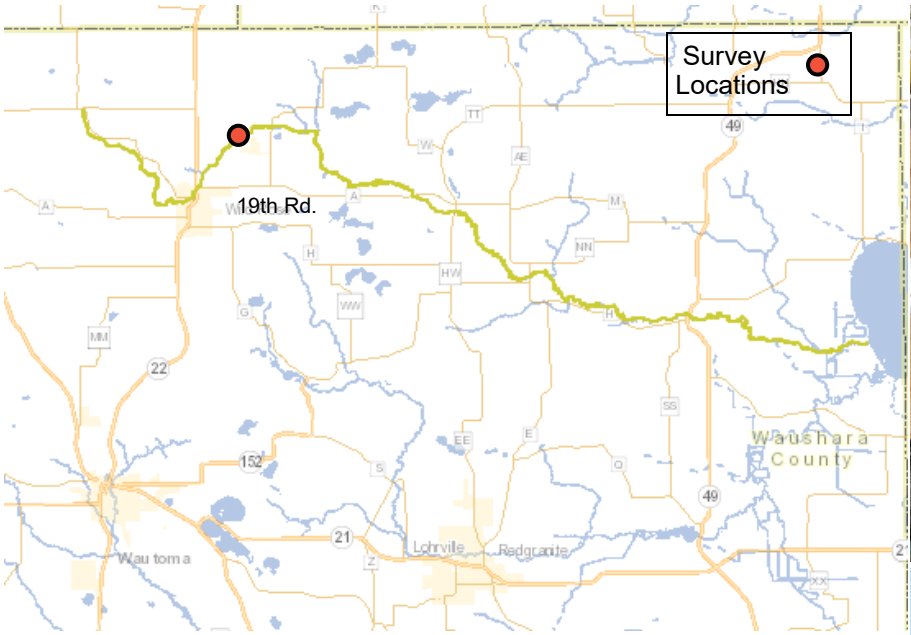
SURVEY INFORMATION

Site location	Survey Date	Station Length	Water Temperature (F)	GPS (Start/Finish)	Gear	Dippers
19th Rd. Trend	08/30/2021	2000 ft.	59	44.2045,-89.2231 44.2030,-89.2271	Towed Barge Shocker	3

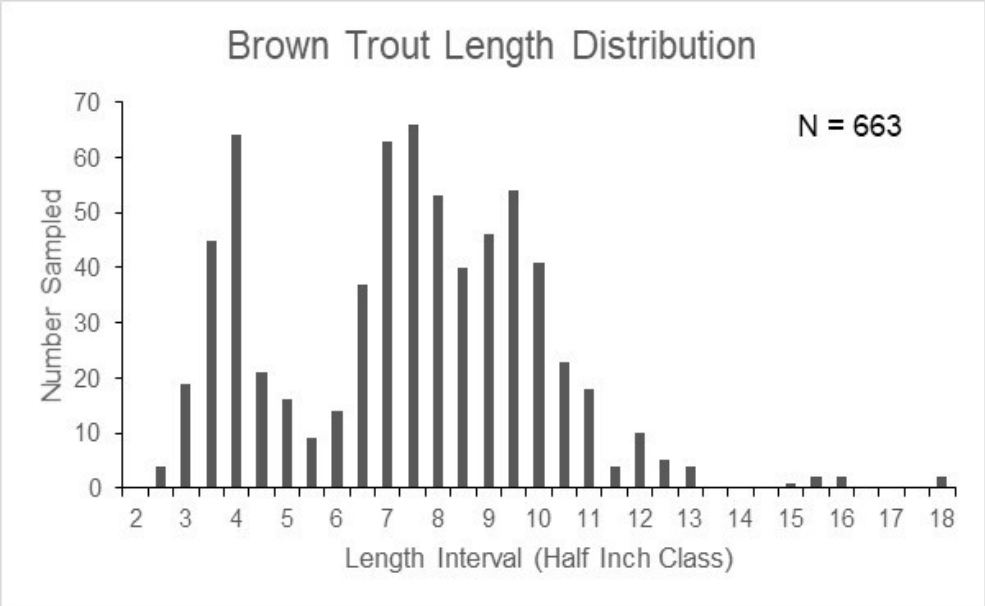


Metric Descriptions

- **Catch per effort (CPUE)** is an indirect method of measuring fish population relative abundance. For all trout surveys we typically quanitify CPUE by the number and size of trout captured per mile of stream. CPUE indexes are compared to statewide streams by percentile (PCTL). 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 by 33rd (low density), 66th (moderate), 90th (high), and 95th (very high) benchmarks.
- **Length frequency distribution** describes size structure of the population and is the number of trout captured and grouped by one inch size intervals.

Survey Method

- The 19th Rd. Pine River trend site has been surveyed annually since 2005. This particular site is 2000 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.
- Metrics used to evaluate fish populations include catch rate (CPUE) by size and proportions of length.



SIZE AND ABUNDANCE (CPUE) METRICS - BROWN TROUT

Year	Average Length (Inches)	Length Range (Inches)	Number Sampled	CPUE (Number per Mile)						
				Total and (PCTL)	YOY	>6" (PCTL)	>8" (PCTL)	>10" (PCTL)	>12" (PCTL)	>15" (PCTL)
2005	9.8	(2.5 - 17.5)	866	2285 (95th)	58	1826 (95th)	773 (95th)	549 (95th)	288 (95th)	37 (95th)
2006	7.9	(2.8-18.2)	405	1069 (85th)	214	839 (90th)	631 (95th)	148 (85th)	58 (80th)	8 (75th)
2007	7.6	(3.0-15.5)	588	1551 (90th)	322	1119 (95th)	628 (95th)	243 (90th)	42 (75th)	5 (65th)
2008	7.8	(2.3-15.8)	612	1615 (90th)	475	1095 (95th)	573 (90th)	306 (95th)	48 (80th)	3 (65th)
2009	7.3	(2.9-15.7)	565	1491 (90th)	615	868 (90th)	485 (90th)	259 (90th)	98 (90th)	5 (65th)
2010	8.0	(3.0-18.3)	804	2121 (95th)	169	1855 (95th)	868 (95th)	401 (95th)	135 (95th)	24 (90th)
2011	7.5	(3.0-20.7)	542	1506 (90th)	386	1078 (95th)	672 (95th)	261 (90th)	69 (85th)	17 (90th)
2012	7.6	(2.7-20.0)	772	2037 (90th)	329	1512 (95th)	581 (90th)	257 (90th)	111 (90th)	16 (85th)
2013	6.8	(2.6-19.6)	844	2227 (95th)	757	1406 (95th)	702 (95th)	354 (95th)	92 (90th)	3 (65th)
2014	7.8	(2.8-15.2)	582	1536 (90th)	507	997 (95th)	644 (95th)	290 (90th)	71 (85th)	3 (65th)
2015	8.1	(2.7-16.6)	916	2418 (95th)	913	1445 (95th)	747 (95th)	224 (90th)	97 (90th)	11 (85th)
2016	7.5	(2.3-18.7)	846	2233 (95th)	578	1565 (95th)	573 (90th)	174 (85th)	24 (65th)	5 (70th)
2017	7.6	(2.9-14.0)	786	2075 (90th)	625	1435 (95th)	918 (95th)	317 (95th)	40 (75th)	-
2018	7.9	(2.5-21.6)	896	2365 (95th)	673	1638 (95th)	857 (95th)	443 (95th)	98 (95th)	5 (70th)
2019	8.2	(2.5-22.6)	492	1298 (90th)	375	889 (90th)	404 (90th)	187 (85th)	79 (85th)	18 (90th)
2021	8.1	(2.8 - 18.4)	663	1750 (93rd)	180	1280 (97th)	805 (97th)	296 (94th)	69 (87th)	18 (91st)

Summary

- The 2021 survey indicated brown trout density for adult size fish was at high levels with CPUEs ranking at the 97th percentile for >6+inch trout and have remained relatively stable over the past 10 years. CPUEs for 8+, 10+ and 12+ are also at high levels and have remained stable, for the most part, over the past 10 years as well. CPUE's for 15+ inch fish have fluctuated over the years, with 2021 being above the historical median.
- CPUE's for adult fish have rebounded since the last survey in 2019, and consistently provides an excellent fishing opportunity.
- Young of the year (YOY) numbers have been relatively high over the past couple years, but 2021 showing well below average CPUE since sampling began in 2006.
- Aquatic plants were not as prevalent as past years. A noticeable slug of sand is working its way through this section of stream, likely from the flushing of the pond upstream while work was being done on the dam.
- This section of the Pine River has proven to produce good numbers of mid - size (8-10 inch) trout with CPUE's being in the 90th+ percentile almost annually.
- This reach of the Pine River has had extensive habitat work done in it, but areas should be revisited for maintenance. Large amounts of sand throughout the stream could be flushed with some narrowing of the stream.