

2021 Stream Survey Report

MECAN RIVER TREND SITE

(WBIC 155000)

Waushara County



INTRODUCTION AND OBJECTIVES

The Mecan River is a Class 1 or 2 trout water stream and consists of 24.60 miles of trout water. The Mecan River stretches through both Waushara and Marquette Counties and is part of the Mecan River watershed. This trend site has had past habitat development work. Objectives of the trend survey are to monitor relative abundance and size structure.

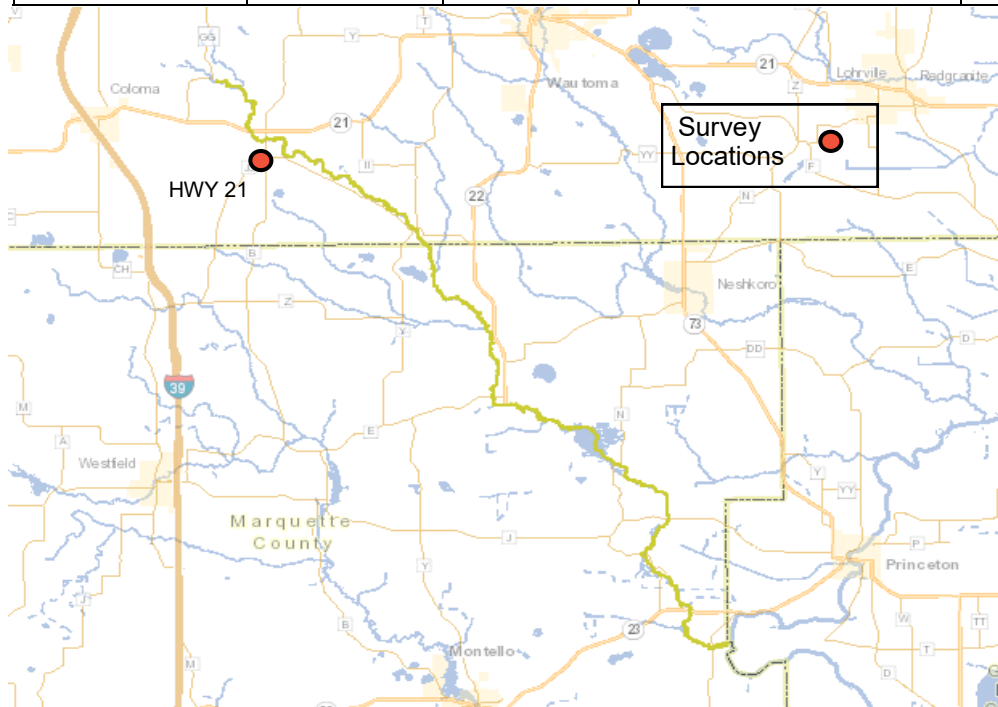
WISCONSIN DNR CONTACT INFO.

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Regulations:
Yellow (14th Ave upstream) Size Limit: All Trout - 8 inches
 Daily Bag Limit: 3 (in total)
Red (14th Ave downstream) Artificial lures only Size Limit:
 All Trout - 12 inches ; Daily Bag Limit: 2 (in total)

SURVEY INFORMATION

Site location	Survey Date	Station Length	Water Temperature (F)	GPS (Start/Finish)	Gear	Dippers
Hwy 21 TREND	08/02/2021	2000 ft.	60	44.0259,-89.4407 44.0295,-89.4438	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 quantify 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 and is the number of trout captured and grouped by one inch size intervals.

Survey Method

- The Mecan 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.

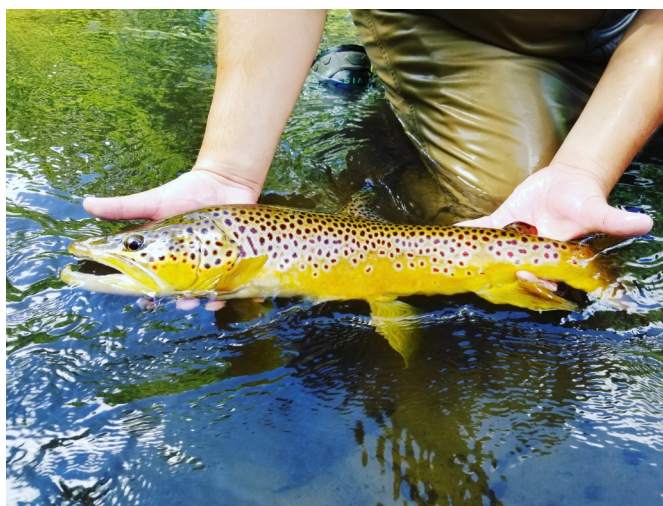
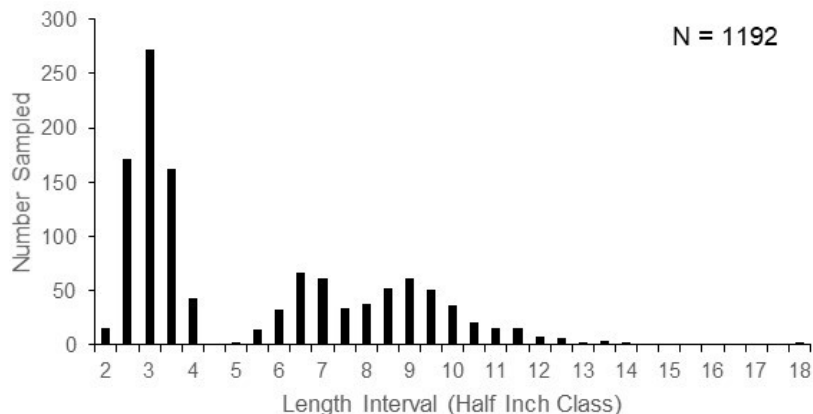


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Brown Trout Length Distribution



SIZE AND ABUNDANCE (CPUE) METRICS - BROWN TROUT

Year	Average Length (Inches)	Length Range (Inches)	Number Sampled	CPUE (Number per Mile) Statewide Percentile in Parenthesis						
				Total and (PCTL)	YOY	>6" (PCTL)	>8" (PCTL)	>10" (PCTL)	>12" (PCTL)	>15" (PCTL)
2005	7.1	(2.5-14.8)	559	1475 (90th)	528	887 (90th)	369 (85th)	87 (75th)	11 (50th)	0
2006	6.9	(2.3-15.6)	499	2515 (95th)	1420	976 (95th)	483 (90th)	132 (80th)	13 (55th)	3 (65th)
2007	6.8	(2.7-12.8)	475	1989 (95th)	879	966 (95th)	351 (85th)	92 (75th)	5 (40th)	0
2008	7.1	(2.2-15.6)	511	1929 (95th)	968	939 (95th)	454 (90th)	166 (85th)	16 (55th)	3 (65th)
2009	6.9	(2.2-13.1)	780	2541 (95th)	1026	1364 (95th)	449 (90th)	174 (85th)	11 (50th)	0
2010	7.0	(2.2-14.8)	708	2826 (95th)	1430	1248 (95th)	462 (90th)	148 (85th)	18 (60th)	0
2011	7.6	(3.0-15.2)	554	2406 (95th)	1293	979 (95th)	478 (90th)	185 (85th)	32 (70th)	8 (75th)
2012	6.8	(2.1-16.0)	1066	2813 (95th)	1319	1227 (95th)	565 (90th)	227 (90th)	42 (75th)	3 (65th)
2013	7.0	(1.7-14.4)	620	2451 (95th)	1208	1201 (95th)	580(90th)	216 (90th)	29 (65th)	0
2014	7.7	(2.2-16.4)	539	1713 (90th)	575	976 (90th)	446 (90th)	172 (85th)	45 (75th)	5 (70th)
2015	7.4	(2.2-18.2)	459	1212 (85th)	438	711 (90th)	245 (80th)	84 (75th)	24 (65th)	5 (70th)
2016	7.5	(2.3-19.4)	626	1322 (90th)	844	613 (85th)	327 (85th)	108 (75th)	15 (55th)	4 (65th)
2017	7.5	(2.3-17.2)	790	2086 (95th)	813	1224 (95th)	544 (90th)	237 (90th)	34 (70th)	5 (70th)
2018	7.9	(2.0-17.6)	1230	3247 (95th)	1420	1652 (95th)	781 (95th)	330 (95th)	100 (90th)	21 (90th)
2019	7.9	(2.2-17)	795	2099 (95th)	950	1084 (95th)	522 (90th)	219 (90th)	53 (80th)	11 (80th)
2021	7.0	(2.1 - 18.2)	1225	3234 (97th)	1639	1639 (98th)	837 (97th)	304 (95th)	74 (88th)	16 (88th)

Summary

- The 2021 survey indicated brown trout densities for adult size fish were at high levels. CPUEs ranked in the 97th percentile for fish >6.0 inches and have remained relatively stable over the past 10 years. CPUEs for fish greater than 8.0 inches were also at high levels. Densities in this stretch of the Mecan River have increased since the survey in 2019, and are higher than the historical median since annual surveys began in 2005.
- Young-of-year (YOY) numbers have been extremely high at times over the course of the annual surveys. There was a big year class in 2021, this was the highest YOY CPUE since annual surveys began in 2005. Good precipitation the since 2019 has replenished the water table and likely has had a positive impact on YOY production through increased upwelling and ground water recharge. In 2018 there was another good year class of YOY brown trout.
- There was some concern about the impact an increase of larger fish would have on the number of young fish. A positive result has been the large numbers of YOY that continue to improve alongside the increase in numbers of larger fish.
- The Mecan River has proven to consistently produce good numbers of 8.0-12.0 inch brown trout.
- Extensive habitat work has been completed over the years on the Mecan River and work on the trend survey reach was completed in 2010.