WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2022

White River Main Branch, Waushara County

WBIC: 148500

Introduction And Objectives

White River is a Class I trout stream and consists of 4.5 miles on the Main Branch and 7.9 miles on the West branch of trout water. The Main Branch originates just north of Wautoma in the Wautoma pond, the West Branch originates at the West Branch Mill Pond. Both flow south southeast eventually merging above the White River Flowage, and ultimately flowing into the Fox River. Fishing access consists of large quantities of public land and multiple road crossings. Objectives of the rotation surveys are to determine species composition, relative abundance, and size structure for trout and other gamefish.

DNR Contact

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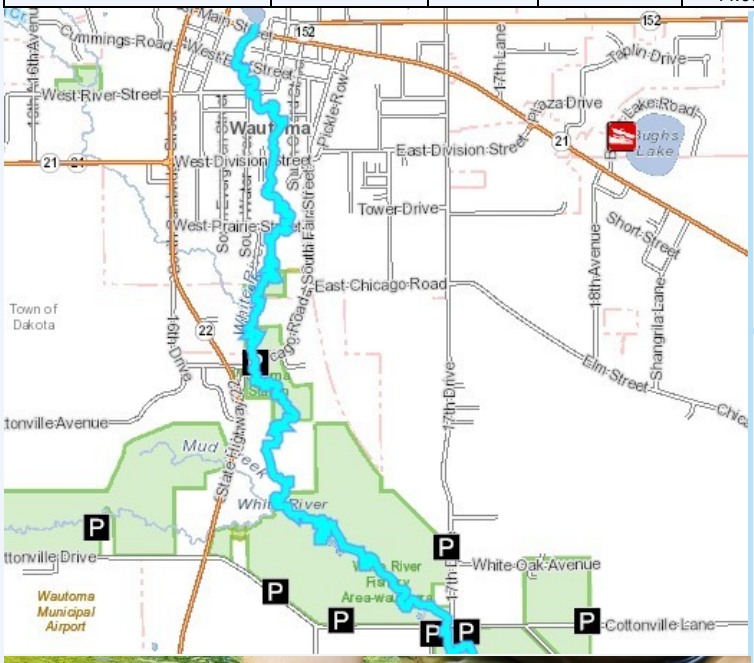
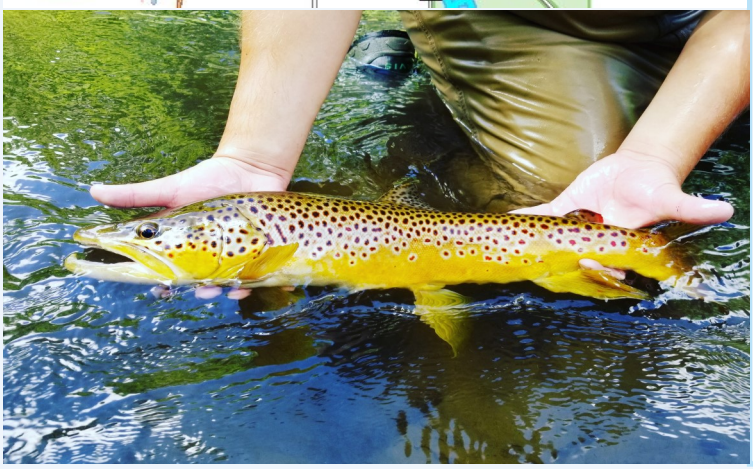
Regulations

Category: Red
Daily Bag: 2 (in total)
Size Limit: 12 inches Artificial Only

SURVEY INFORMATION

Station	Survey Date	Station Length	Tempera-ture (° F)	GPS (Start/Finish)	Gear	Dippers
Chicago Rd.	08/04/2022	950 ft	64	44.05866,-89.29172 44.05984, -89.29112	Towed Barge Shocker	3
River St to Elm Street	08/04/2022	900 ft	64	44.07214, -89.29155 44.07350, -89.29273	Towed Barge Shocker	3





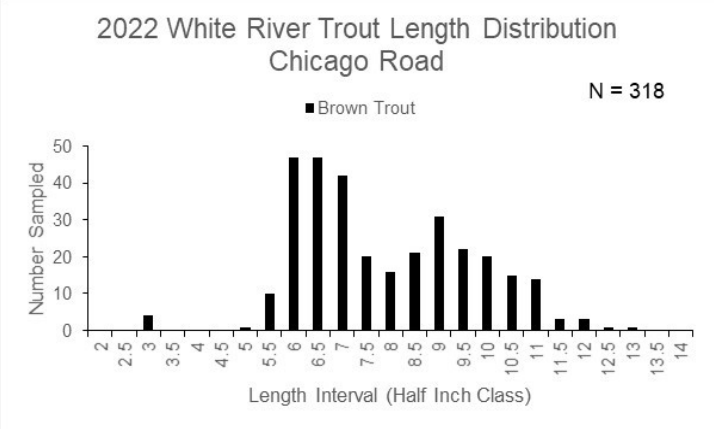
Survey Method

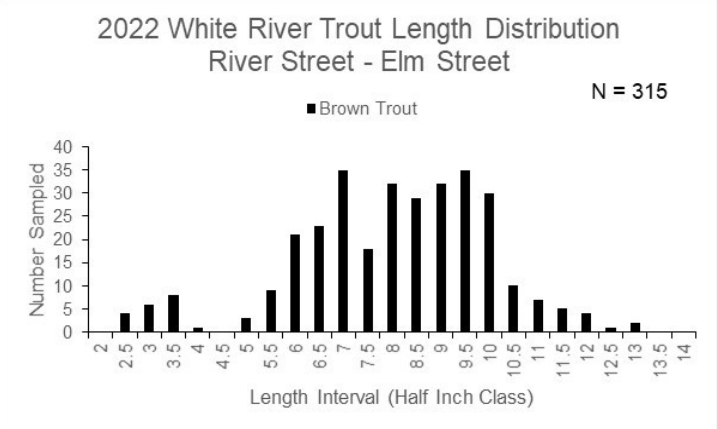
- All streams are sampled according to DNR wadeable streams monitoring protocols.
- All trout are counted and measured and all other species are counted in order to calculate an Index of Biotic Integrity (IBI) score.
- Metrics used to describe trout populations include average length, catch per unit 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, 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 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) Statewide Percentile in Parentheses						
				Total CPUE (PCTL)	YOY CPUE	≥6" CPUE (PCTL)	≥8" CPUE (PCTL)	≥10" CPUE (PCTL)	≥12" CPUE (PCTL)	≥15" CPUE (PCTL
Chicago Road 2022	318	8.2	3.0 -13.4	1767 (93rd)	22	1,683 (98th)	817 (97th)	317 (95th)	28 (68th)	-
Chicago Road 2019	174	8.7	5.0 -17.6	967 (86th)	-	878 (94th)	589 (94th)	222 (91st)	50 (82nd)	11 (83rd)
Chicago Road 2016	185	8.4	4.0 –16.5	1309 (91st)	7	1156 (97th)	723 (92nd)	284 (94th)	50 (82nd)	7 (76th)
River St to Elm Street 2022	315	7.6	2.7 –13.4	1,853 (94th)	106	1,671 (98th)	1,100 (98th)	347 (96th)	41 (77th)	-
River St to Elm Street 2016	148	8.0	4.5 –18.0	868 (85th)	53	629 (90th)	353 (89th)	135 (84th)	18 (62nd)	6 (74th)





Summary

- Overall, White River brown trout density is moderately high to high with total CPUE of brown trout ranging from 68th to 98th percentile.
- Larger sized fish ≥ 15 inches were missing from this survey at both stations compared to previous survey.
- Young of Year (YOY) densities are low in the Main White River because of the lack of suitable spawning habitat. Numbers did double at the River Street site.
- Three rainbow trout (5.9 –7.0 inches) were sampled in the Chicago Rd site compared to 5 in 2019.
- The number per mile of fish ≥ 6 inches increased 91% at Chicago Rd site and 166% at River Street site from the previous survey.
- The number of fish over the size limit of 12 inches was down 55% at the Chicago Rd site, but up 56% at River Rd.
- Downstream of Cottonville site was typically done by towed barge prior to 2019. Habitat work done in this section between 2016 –19 resulted in much of it being non wadable. Mini boom was tried in 2019. It was not repeated in 2022 because of poor repeatability.

The White River provides a very popular *Hexagenia limbata* hatch every summer. This large mayfly is an important food source for trout. During hatching, it also provides an excellent and unique fishing opportunity for fly fishermen to fish "the hex hatch".