



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2019 Wadable Streams Trout Population Report Buffalo, Jackson and Trempealeau Counties

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Survey Objectives

In 2019, the Wisconsin Department of Natural Resources (DNR) conducted electrofishing surveys on wadable trout streams in Buffalo, Jackson and Trempealeau counties. The primary sampling objectives for these surveys were to characterize relative abundance and size structure for all trout and overall ecological integrity through an index of biological integrity (IBI) based on all fish species captured in the sampled survey sites. The following report is a summary of trout metrics for all streams and stations surveyed in 2019. Please refer to the Guide to Wisconsin Trout Fishing Regulations for applicable size and bag limit restrictions for the stream you fish. If you have any stream-specific questions, contact Zach Woiaak.

DNR Contact

Zach Woiaak

DNR Fish Biologist in Buffalo,
Clark, Jackson and Trempealeau
Counties

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Survey Methods

Trend survey sites are sampled annually while rotation survey sites are sampled every 3, 6 or 12 years. All sample sites are electrofished with either a backpack or stream barge electrofishing unit. Sampling distance is at least 35 times the mean stream width or a minimum of 330 feet (100 meters), whichever is greater. All gamefish are identified by species, measured for length, and in some cases identified for fin-clips. In at least one survey station per stream, all fish are captured and counted. Metrics used to describe fish populations include catch per unit effort (CPUE), length frequency and index of biotic integrity (IBI).

Metric Descriptions

Catch per unit effort (CPUE) is an indirect method of measuring fish population relative abundance. For all trout surveys, we quantify CPUE by the number and size of trout captured per one mile of stream.

Index of Biotic Integrity (IBI) is a rating of environmental quality based on fish assemblages at each station. Scores between 90 and 100 indicate excellent quality streams, while scores less than 30 indicate poor quality. Our analysis uses Wisconsin's coldwater IBI, where the maximum daily mean water temperature is typically less than 22°C.



Photo Credit: Wisconsin DNR



Photo Credit: Wisconsin DNR



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Survey and Station Information							
Stream	County	Survey Type	Station	Survey Date	Station Length (ft)	Gear	IBI Score
Big Waumandee Creek	Buffalo	Trend	1	7/1/2019	1000	Streamboat	50 (Fair)
Borst Valley Creek	Trempealeau	Trend	1	7/24/2019	775	Streamboat	30 (Fair)
Borst Valley Creek	Trempealeau	Trend	2	7/9/2019	1000	Streamboat	40 (Fair)
Borst Valley Creek	Trempealeau	Trend	3	7/9/2019	860	Streamboat	40 (Fair)
Buffalo River	Trempealeau	Trend	1	8/1/2019	1530	Streamboat	40 (Fair)
Buffalo River	Trempealeau	Trend	2	8/1/2019	960	Streamboat	50 (Fair)
Eagle Creek	Buffalo	Trend	1	7/9/2019	1000	Backpack	-
Elk Creek	Trempealeau	Trend	1	7/24/2019	1260	Streamboat	60 (Good)
Elk Creek	Trempealeau	Trend	2	7/24/2019	1000	Streamboat	70 (Good)
Elk Creek (Bennett)	Buffalo	Trend	1	6/13/2019	675	Backpack	40 (Fair)
Halls Creek	Jackson	Trend	1	7/16/2019	1000	Streamboat	60 (Good)
Halls Creek	Jackson	Trend	2	7/18/2019	1000	Streamboat	50 (Fair)
Levis Creek	Jackson	Trend	1	7/18/2019	1125	Streamboat	70 (Good)
Little Bear Creek	Buffalo	Trend	1	7/22/2019	675	Streamboat	-
Little Waumandee Creek	Buffalo	Trend	1	7/1/2019	1000	Streamboat	50 (Fair)
North Fork Beaver Creek	Trempealeau	Trend	1	8/7/2019	450	Backpack	-
North Fork Beaver Creek	Trempealeau	Trend	2	7/29/2019	1260	Streamboat	50 (Fair)
North Fork Beaver Creek	Trempealeau	Trend	3	7/29/2019	1000	Streamboat	70 (Good)
North Fork Beaver Creek	Jackson	Trend	4	7/17/2019	450	Backpack	90 (Excellent)
North Fork Buffalo River	Trempealeau	Trend	1	7/10/2019	1000	Streamboat	70 (Good)
North Fork Buffalo River	Jackson	Trend	2	7/10/2019	1000	Streamboat	40 (Fair)
North Branch Trempealeau River	Jackson	Trend	1	6/20/2019	1000	Streamboat	80 (Good)
North Branch Trempealeau River	Jackson	Trend	2	7/11/2019	1000	Streamboat	90 (Excellent)
Pigeon Creek	Jackson	Trend	1	7/15/2019	1000	Streamboat	50 (Fair)
Pigeon Creek	Jackson	Trend	2	7/22/2019	1000	Streamboat	50 (Fair)
Pigeon Creek	Trempealeau	Trend	3	7/23/2019	1710	Streamboat	40 (Fair)
Pigeon Creek	Trempealeau	Trend	4	7/24/2019	1260	Streamboat	30 (Fair)
Pine Creek	Trempealeau	Trend	1	6/5/2019	1000	Backpack	50 (Fair)
Pine Creek	Trempealeau	Trend	2	6/5/2019	1000	Backpack	-
South Fork Beaver Creek	Trempealeau	Trend	1	7/29/2019	1000	Streamboat	50 (Fair)
South Fork Beaver Creek	Trempealeau	Trend	2	7/25/2019	675	Backpack	40 (Fair)
South Fork Beaver Creek	Trempealeau	Trend	3	7/25/2019	465	Backpack	30 (Fair)
South Fork Buffalo River	Jackson	Trend	1	7/10/2019	895	Streamboat	60 (Good)
South Fork Buffalo River	Jackson	Trend	2	6/13/2019	850	Streamboat	60 (Good)
South Branch Trempealeau River	Jackson	Trend	1	7/11/2019	1000	Streamboat	50 (Fair)
Tamarack Creek	Buffalo	Trend	1	6/13/2019	1000	Backpack	90 (Excellent)
Tank Creek	Jackson	Trend	1	4/30/2019	1000	Streamboat	-
Tank Creek	Jackson	Trend	2	4/30/2019	1000	Streamboat	70 (Good)
Trempealeau River	Jackson	Trend	1	6/20/2019	1000	Streamboat	60 (Good)
Trempealeau River	Jackson	Trend	2	7/16/2019	1555	Streamboat	60 (Good)
Trout Creek	Buffalo	Trend	1	5/22/2019	450	Backpack	90 (Excellent)
Turton Creek	Trempealeau	Trend	1	7/9/2019	450	Backpack	90 (Excellent)



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Survey and Station Information							
Stream	County	Survey Type	Station	Survey Date	Station Length (ft)	Gear	IBI Score
Turton Creek	Trempealeau	Trend	2	7/9/2019	450	Backpack	80 (Good)
Turton Creek	Trempealeau	Trend	3	6/27/2019	765	Backpack	90 (Excellent)
Turton Creek	Trempealeau	Trend	4	7/8/2019	540	Backpack	80 (Good)
Allen Creek	Jackson	3-Year Rotation	1	7/17/2019	450	Backpack	90 (Excellent)
Allen Creek	Jackson	3-Year Rotation	2	7/17/2019	450	Backpack	70 (Good)
Bear Creek	Trempealeau	3-Year Rotation	1	7/30/2019	450	Backpack	100 (Excellent)
Bruce Valley Creek	Trempealeau	6-Year Rotation	1	8/5/2019	540	Backpack	50 (Fair)
Bruce Valley Creek	Trempealeau	6-Year Rotation	2	8/5/2019	450	Backpack	60 (Good)
Chimney Rock Creek	Trempealeau	6-Year Rotation	1	6/19/2019	500	Backpack	60 (Good)
Dutch Creek	Trempealeau	6-Year Rotation	1	7/31/2019	450	Backpack	-
Dutch Creek	Trempealeau	6-Year Rotation	2	8/6/2019	540	Backpack	90 (Excellent)
Hardies Creek	Trempealeau	6-Year Rotation	1	7/31/2019	450	Backpack	80 (Good)
Hardies Creek	Trempealeau	6-Year Rotation	2	7/31/2019	450	Backpack	90 (Excellent)
Tamarack Creek	Trempealeau	6-Year Rotation	1	8/6/2019	450	Backpack	80 (Good)
Tamarack Creek	Trempealeau	6-Year Rotation	2	8/6/2019	450	Backpack	80 (Good)
Traverse Valley Creek	Buffalo	-	1	7/15/2019	800	Backpack	40 (Fair)
Washington Coulee Creek	Trempealeau	3-Year Rotation	1	8/5/2019	450	Backpack	100 (Excellent)



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Brown Trout Summary							
Trend Stations CPUE (Catch per Mile) – Brown Trout							
Stream	Station	Total	YOY	>5"	≥10"	≥12"	≥15"
Big Waumandee Creek	1	127	5	121	32	21	-
Borst Valley Creek	1	7	-	7	7	7	-
Buffalo River	1	62	-	62	24	-	-
Buffalo River	2	72	-	72	39	6	6
Eagle Creek	1	95	-	95	58	11	-
Elk Creek	1	71	-	71	67	8	-
Elk Creek	2	37	-	37	37	11	-
Elk Creek (Bennett)	1	16	-	16	-	-	-
Halls Creek	1	58	-	58	21	11	5
Halls Creek	2	5	-	5	-	-	-
Levis Creek	1	324	99	225	9	-	-
Little Waumandee Creek	1	127	11	116	21	21	5
North Fork Beaver Creek	2	8	-	8	8	4	-
North Fork Buffalo River	2	5	-	5	5	-	-
North Branch Trempealeau River	1	407	105	301	58	42	5
North Branch Trempealeau River	2	158	-	158	53	37	-
Pigeon Creek	1	5	-	5	5	5	5
Pigeon Creek	2	16	-	16	16	16	-
Pigeon Creek	3	3	-	3	-	-	-
Pigeon Creek	4	8	-	8	8	8	4
South Branch Trempealeau River	1	26	-	26	26	16	5
Tank Creek	1	79	16	63	5	-	-
Trempealeau River	1	54	-	54	31	14	7
Trempealeau River	2	79	16	63	26	16	5
Turton Creek	2	29	-	29	29	10	-
Turton Creek	3	12	-	12	12	-	-
Rotation Stations CPUE (Catch per Mile) – Brown Trout							
Allen Creek	1	153	70	82	-	-	-
Bruce Valley Creek	1	29	-	29	29	-	-
Bruce Valley Creek	2	23	-	23	12	-	-
Tamarack Creek	1	59	12	47	23	12	-
Tamarack Creek	2	35	-	35	23	12	12



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Brook Trout Summary							
Trend Stations CPUE (Catch per Mile) – Brook Trout							
Stream	Station	Total	YOY	>5"	≥8"	≥10"	≥12"
Big Waumandee Creek	1	301	5	296	201	37	-
Borst Valley Creek	1	150	7	143	123	68	20
Borst Valley Creek	2	158	53	106	74	21	11
Borst Valley Creek	3	43	-	43	25	6	-
Buffalo River	2	6	-	6	6	-	-
Eagle Creek	1	148	16	132	63	-	-
Elk Creek	1	264	13	251	193	63	13
Elk Creek	2	184	-	184	137	16	-
Elk Creek (Bennett)	1	31	-	31	-	-	-
Halls Creek	1	26	-	26	26	5	-
Halls Creek	2	79	16	63	37	5	-
Levis Creek	1	14	-	14	5	-	-
Little Bear Creek	1	39	-	39	39	23	8
Little Waumandee Creek	1	502	132	370	169	58	-
North Fork Beaver Creek	1	480	5	475	153	42	-
North Fork Beaver Creek	2	130	4	126	42	13	-
North Fork Beaver Creek	3	446	82	364	117	70	-
North Fork Beaver Creek	4	59	-	59	12	-	-
North Fork Buffalo River	1	164	26	137	53	5	-
North Fork Buffalo River	2	111	11	100	32	11	11
North Branch Trempealeau River	1	697	343	353	26	5	-
North Branch Trempealeau River	2	587	190	396	58	32	21
Pigeon Creek	1	180	58	121	90	-	-
Pigeon Creek	2	216	42	174	106	11	5
Pigeon Creek	3	96	-	96	93	52	28
Pigeon Creek	4	59	-	59	13	-	-
Pine Creek	1	58	-	58	26	21	-
Pine Creek	2	79	11	69	37	11	-
South Fork Beaver Creek	1	95	-	95	21	5	-
South Fork Beaver Creek	2	110	-	110	78	-	-
South Fork Beaver Creek	3	43	-	43	21	11	-
South Fork Buffalo River	1	153	18	136	77	18	6
South Fork Buffalo River	2	174	50	124	31	6	-
South Branch Trempealeau River	1	380	-	380	111	48	5
Tamarack Creek	1	502	5	496	63	32	-
Tank Creek	1	480	285	195	32	-	-
Tank Creek	2	1690	950	739	21	-	-
Trempealeau River	1	227	48	180	68	34	10
Trempealeau River	2	195	32	164	37	-	-
Trout Creek	1	516	-	516	235	35	-
Turton Creek	1	258	-	258	206	52	43
Turton Creek	2	313	-	313	293	88	49
Turton Creek	3	176	23	153	117	35	12
Turton Creek	4	106	-	106	23	-	-



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Brook Trout Summary							
Rotation Stations CPUE (Catch per Mile) – Brook Trout							
Stream	Station	Total	YOY	>5"	≥8"	≥10"	≥12"
Allen Creek	1	141	23	117	12	-	-
Allen Creek	2	141	-	141	12	-	-
Bear Creek	1	658	106	551	129	35	-
Bruce Valley Creek	1	323	10	313	215	59	20
Bruce Valley Creek	2	235	12	223	117	23	-
Chimney Rock Creek	1	211	32	180	74	42	11
Dutch Creek	1	176	23	153	70	12	-
Dutch Creek	2	479	147	332	78	-	-
Hardies Creek	1	235	35	199	188	23	-
Hardies Creek	2	141	129	12	12	-	-
Tamarack Creek	1	399	246	153	153	47	-
Tamarack Creek	2	176	12	164	164	94	47
Traverse Valley Creek	1	396	73	323	99	20	-
Washington Coulee Creek	1	563	305	258	12	-	-