



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2023 Wadable Streams Trout Population Report Buffalo, Clark, Jackson and Trempealeau Counties

Survey Objectives

In 2023, the Wisconsin Department of Natural Resources (DNR) conducted electrofishing surveys on wadable trout streams in Buffalo, Clark, 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 2023. 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 fish biologist Zach Woiak.

DNR Contact

Zach Woiak
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 and measured for length. 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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Stream Survey Locations and Station Information					
Stream	County	Station	Survey Date	Station Length (ft)	IBI Score
Beaver Creek	Trempealeau	1	8/29/23	1395	30
Borst Valley Creek	Trempealeau	1	7/7/23	630	40
Borst Valley Creek	Trempealeau	2	7/7/23	1000	40
Buffalo River	Trempealeau	1	8/29/23	1260	30
Eagle Creek	Buffalo	1	6/26/23	1000	30
Elk (Bennett) Creek	Buffalo	1	7/7/23	675	60
Elk Creek (Independence)	Trempealeau	1	6/15/23	1260	40
Elk Creek (Independence)	Trempealeau	2	6/15/23	1000	40
Halls Creek	Jackson	1	6/20/23	665	30
Halls Creek	Jackson	2	6/20/23	1000	40
Levis Creek	Jackson	1	10/5/23	1125	60
Little Bear Creek	Buffalo	1	7/18/23	675	60
Little Waumandee Creek	Buffalo	1	7/17/23	1000	40
North Fork Beaver Creek	Trempealeau	1	9/19/23	865	40
North Fork Beaver Creek	Trempealeau	2	8/31/23	1260	40
North Fork Buffalo River	Trempealeau	1	6/13/23	1000	30
North Fork Buffalo River	Jackson	2	6/12/23	1000	40
North Fork Buffalo River	Trempealeau	3	6/6/23	875	60
North Branch Trempealeau River	Jackson	1	8/29/23	1000	70
North Branch Trempealeau River	Jackson	2	5/30/23	1000	80
Pigeon Creek	Trempealeau	1	6/6/23	1710	50
Pigeon Creek	Jackson	2	8/29/23	1000	50
Pigeon Creek	Jackson	3	7/13/23	1000	30
Pine Creek (Osseo)	Trempealeau	1	6/12/23	1000	50
Pine Creek (Osseo)	Trempealeau	2	6/12/23	1000	50
South Branch Trempealeau River	Jackson	1	5/30/23	1000	50
South Fork Beaver Creek	Trempealeau	1	8/31/23	1000	40
South Fork Buffalo River	Trempealeau	1	6/6/23	730	80
South Fork Buffalo River	Trempealeau	2	6/5/23	670	60
Swinns Valley Creek	Buffalo	1	8/7/23	1380	50
Tamarack Creek (Modena)	Buffalo	1	7/18/23	1000	90
Tank Creek	Jackson	1	5/30/23	1000	50
Tank Creek	Jackson	2	5/23/23	1000	90
Trempealeau River	Jackson	1	7/13/23	1555	60
Turton Creek	Trempealeau	1	6/7/23	765	80
Turton Creek	Trempealeau	2	6/7/23	540	80
Turton Creek	Trempealeau	3	6/29/23	450	80
Turton Creek	Trempealeau	4	6/29/23	250	80
Turton Creek	Trempealeau	5	6/7/23	800	40
Turton Creek	Trempealeau	6	6/7/23	600	30
Waumandee Creek	Buffalo	1	6/26/23	1000	60
Waumandee Creek	Buffalo	2	8/7/23	1320	40
Waumandee Creek	Buffalo	3	8/7/23	1320	40



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Brook and Brown Trout Summaries							
Rotation Stations CPUE (Catch per Mile) – Brown Trout							
Stream	Station	Total	YOY	≥8"	≥12"	≥14"	≥16"
Beaver Creek	1	132	0	129	0	0	0
Borst Valley Creek	1	0	0	0	0	0	0
Borst Valley Creek	2	0	0	0	0	0	0
Buffalo River	1	88	4	84	4	0	0
Eagle Creek	1	422	201	84	21	5	0
Elk (Bennett) Creek	1	0	0	0	0	0	0
Elk Creek (Independence)	1	50	0	50	4	0	0
Elk Creek (Independence)	2	42	0	42	5	5	0
Halls Creek	1	151	8	119	8	8	8
Halls Creek	2	21	0	21	16	11	11
Levis Creek	1	305	99	66	5	5	0
Little Bear Creek	1	0	0	0	0	0	0
Little Waumandee Creek	1	269	21	201	42	11	0
North Fork Beaver Creek	1	0	0	0	0	0	0
North Fork Beaver Creek	2	21	0	21	4	0	0
North Fork Buffalo River	1	0	0	0	0	0	0
North Fork Buffalo River	2	0	0	0	0	0	0
North Fork Buffalo River	3	48	6	12	6	6	0
North Branch Trempealeau River	1	671	322	248	84	11	5
North Branch Trempealeau River	2	238	0	90	5	5	0
Pigeon Creek	1	9	0	9	3	3	3
Pigeon Creek	2	16	0	16	11	0	0
Pigeon Creek	3	0	0	0	0	0	0
Pine Creek (Osseo)	1	11	0	11	0	0	0
Pine Creek (Osseo)	2	0	0	0	0	0	0
South Branch Trempealeau River	1	37	0	26	11	5	0
South Fork Beaver Creek	1	0	0	0	0	0	0
South Fork Buffalo River	1	0	0	0	0	0	0
South Fork Buffalo River	2	0	0	0	0	0	0
Swinns Valley Creek	1	704	54	570	145	11	4
Tamarack Creek (Modena)	1	0	0	0	0	0	0
Tank Creek	1	312	48	100	16	5	0
Tank Creek	2	11	0	5	0	0	0
Trempealeau River	1	54	3	41	20	20	7
Turton Creek	1	110	0	69	14	0	0
Turton Creek	2	479	59	293	98	0	0
Turton Creek	3	199	94	59	12	0	0
Turton Creek	4	63	21	0	0	0	0
Turton Creek	5	271	0	238	119	53	13
Turton Creek	6	79	0	70	26	9	0
Waumandee Creek	1	517	169	280	100	5	0
Waumandee Creek	2	240	72	156	76	16	4
Waumandee Creek	3	252	12	232	116	40	4



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Stream	Station	Total	YOY	≥8"	≥10"	≥12"	≥14"
Beaver Creek	1	45	0	38	8	4	0
Borst Valley Creek	1	511	210	218	67	8	0
Borst Valley Creek	2	375	348	11	0	0	0
Buffalo River	1	54	0	34	8	0	0
Eagle Creek	1	63	42	16	0	0	0
Elk (Bennett) Creek	1	415	110	180	31	0	0
Elk Creek (Independence)	1	260	113	80	34	0	0
Elk Creek (Independence)	2	232	63	79	37	11	0
Halls Creek	1	32	0	0	0	0	0
Halls Creek	2	238	63	48	11	5	0
Levis Creek	1	23	9	9	5	0	0
Little Bear Creek	1	305	0	282	55	47	23
Little Waumandee Creek	1	290	116	106	37	0	0
North Fork Beaver Creek	1	159	18	49	6	0	0
North Fork Beaver Creek	2	268	8	184	38	0	0
North Fork Buffalo River	1	137	11	58	11	0	0
North Fork Buffalo River	2	58	5	16	5	0	0
North Fork Buffalo River	3	428	175	42	24	0	0
North Branch Trempealeau River	1	1183	649	137	16	0	0
North Branch Trempealeau River	2	470	132	95	21	0	0
Pigeon Creek	1	161	56	90	52	22	6
Pigeon Creek	2	385	216	116	53	5	0
Pigeon Creek	3	180	74	11	0	0	0
Pine Creek (Osseo)	1	201	37	37	11	0	0
Pine Creek (Osseo)	2	100	42	26	11	0	0
South Branch Trempealeau River	1	354	5	84	26	0	0
South Fork Beaver Creek	1	164	0	100	5	0	0
South Fork Buffalo River	1	217	0	14	0	0	0
South Fork Buffalo River	2	276	8	55	16	0	0
Swinns Valley Creek	1	11	0	11	0	0	0
Tamarack Creek (Modena)	1	491	417	11	0	0	0
Tank Creek	1	491	253	58	5	0	0
Tank Creek	2	1436	502	79	5	0	0
Trempealeau River	1	241	48	68	10	0	0
Turton Creek	1	283	62	207	117	28	0
Turton Creek	2	665	225	323	137	0	0
Turton Creek	3	117	35	47	0	0	0
Turton Creek	4	697	528	63	0	0	0
Turton Creek	5	119	20	79	0	0	0
Turton Creek	6	88	18	70	26	0	0
Waumandee Creek	1	158	0	143	11	0	0
Waumandee Creek	2	180	8	160	64	0	0
Waumandee Creek	3	16	0	16	8	0	0