

Instructions: **Bold** fields must be completed.

Station Summary					
Waterbody Name PINE RIVER		Waterbody ID Code 247800		Sample ID (YYYYMMDD-CY-FD) 20181017-70-03	
Sampling Location				Database Key 169215337	
SWIMS Station ID 10029791		SWIMS Station Name PINE RIVER W4902 PORTAGE ROAD SAXEVILLE			
Latitude 44.17806°	Longitude 89.12843°	Lat/Long Determination Method (circle) SWIMS SWDV <u>GPS</u>		Datum Used if using GPS WGS84 or NAD83	
Basin (WMU) WOLF RIVER		Watershed Name PINE AND WILLOW RIVERS		County WAUSHARA	
Sample and Site Descriptors					
Sample Collector (Last Name, First) DAVID BOLHA			Project Name PINE RIVER 319 PROJECT-FUNDED TWA 2018		
Sampling Device					
<input checked="" type="checkbox"/> D-Frame Kick Net		<input type="checkbox"/> Surber Sampler		<input type="checkbox"/> Eckman	
<input type="checkbox"/> Ponar		<input type="checkbox"/> Artificial Substrate		<input type="checkbox"/> Hess Sampler <input type="checkbox"/> Other: _____	
Habitat Sampled					
<input checked="" type="checkbox"/> Riffle		<input type="checkbox"/> Run		<input type="checkbox"/> Pool	
<input type="checkbox"/> Other		<input type="checkbox"/> Shoreline Composite		<input type="checkbox"/> Proportionally-Sampled Habitat	
<input type="checkbox"/> Littoral Zone		<input type="checkbox"/> Profundal Zone		<input type="checkbox"/> Wetland	
Total Sampling Time (min) 2	Estimated Area Sampled (m²) 1.0		Number of Samples in Composite 1		Replicate No. 1 of 2
Reason For Sampling					
<input type="checkbox"/> Least Impacted Reference		<input type="checkbox"/> Baseline		<input type="checkbox"/> Impact / Treatment Site	
<input type="checkbox"/> Control Site		<input type="checkbox"/> Trend		<input checked="" type="checkbox"/> Other: _____	
Water Temp. (C) 7.9	D.O. (mg/l) 11.9	D.O. (% sat.) 102.1	pH (su) 7.7	Conductivity (umhos/cm) 345.5	Transparency (cm) 120
Water Color			Estimated Stream Velocity (m/s)		
<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained			<input type="checkbox"/> Slow (< 0.15 m/s) <input type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input checked="" type="checkbox"/> Fast (> 0.5 m/s)		
Measured Velocity 2.80		circle units m/s or <u>f/s</u>	Average Stream Depth of reach (m) 0.5		Average Stream Width of reach (m) 13
Composition of Substrate Sampled (Percent):					
Bedrock: _____		Boulders (basketball or larger): 10	Rubble (tennisball to basketball): 50	Gravel (ladybug to tennisball): 30	
Sand: 10		Clay: _____	Silt/Muck: _____	Overhanging Vegetation: _____	
Aquatic Macrophytes: _____		Leaf Snags: _____	Coarse Woody Debris: _____	Other (____): _____	
Embeddedness of Substrate at Sample Site (%) 30			Canopy Cover at Sample Site (%) 0		

~~44.17770~~
~~89.12832~~

Stream and Watershed Descriptors

N = Not a problem
 U = Uncertain
 PL = Present, Low Impact
 PH = Present, High Impact

Factors that may be influencing Water Resource Integrity	Local	Water-shed	Factors that may be influencing Water Resource Integrity	Local	Water-shed
Biological			Chemical		
Algae: - Diatoms / Periphyton	N	N	Chlorine	N	N
- Filamentous Algae	N	N	Dissolved Oxygen	N	N
- Planktonic Algae	N	N	Nutrients (P, N...)	N	N
Iron Bacteria	N	N	Toxics: - Inorganic (Metals)	N	N
Macrophytes	N	N	- Organic (PCBs, pesticides...)	N	N
Slimes	N	N	Other - Specify:		
Other - Specify:			Sources of Stream Impacts		
			Bank Erosion	N	N
			Point Source - Specify:	N	N
Physical			Pasturing of Livestock	N	N
Bank Erosion	N	N	Runoff: - Barnyard	N	N
Channelization: - Upstream	PL	N	- Construction	N	N
- Downstream	PL	N	- Cropland	N	PL
Hydraulic Scour / Channel Incision	N	N	- Urban	N	N
Impoundment: - Upstream	N	PH	Septic Systems	N	N
- Downstream	PH	PH	Tile Drainage - Organic Soils	N	PL
Low Flow	N	N	- Mineral Soils	N	PL
Sedimentation	N	PH	Springs	N	PL
Sludge	N	N	Tributary(s)	N	PL
Thermal	N	N	Wetland	N	PL
Turbidity	N	N	Other - Specify:		
Other - Specify:					

Comments

Special Instructions for Laboratory

1E=10

2B, 2D=51

~~1A, 1C=~~

Total = 153

1D=26

3E, 1B=66

~~3D, 5B=~~

For Lab Use Only

Sample Sorter Murphy Steinhilber	Taxonomist Dimick, Jeffrey	Estimated Percent of Sample Sorted 40%
Date Processed 3/6/19 02-17	Specimens Saved Subsample archived in ABL until May 2022	

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Station Summary

Waterbody Name PINE RIVER	Waterbody ID Code 247800	Sample ID (YYYYMMDD-CY-FD) 20181017-70-03
Sampling Location		Database Key 169215337

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Latitude 44.17790	Longitude -89.12832	Lat/Long Determination Method (circle) SWIMS SWDV <u>GPS</u>	Datum Used if using GPS <u>WGS84</u> or NAD83
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Basin (WMU) WOLF RIVER	Watershed Name PINE AND WILLOW RIVERS	County WAUSHARA
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Sample and Site Descriptors

Sample Collector (Last Name, First) DAVID BOLHA	Project Name PINE RIVER 319 PROJECT-FUNDED TWA 2018
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Sampling Device

D-Frame Kick Net
 Surber Sampler
 Eckman
 Ponar
 Artificial Substrate
 Hess Sampler
 Other: _____

Habitat Sampled

Riffle
 Run
 Pool
 Other
 Shoreline Composite
 Proportionally-Sampled Habitat
 Littoral Zone
 Profundal Zone
 Wetland

Total Sampling Time (min) 3	Estimated Area Sampled (m²) 2.5	Number of Samples in Composite 1	Replicate No. 2 of 2
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Reason For Sampling

Least Impacted Reference
 Baseline
 Impact / Treatment Site
 Control Site
 Trend
 Other: Targeted Watershed Assessment

Water Temp. (C) 7.9	D.O. (mg/l) 11.9	D.O. (% sat.) 102.1	pH (su) 7.7	Conductivity (umhos/cm) 345.5	Transparency (cm) 120
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Water Color <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained	Estimated Stream Velocity (m/s) <input type="checkbox"/> Slow (< 0.15 m/s) <input type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input checked="" type="checkbox"/> Fast (> 0.5 m/s)
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Measured Velocity 2.80	circle units m/s or f/s	Average Stream Depth of reach (m) 0.5	Average Stream Width of reach (m) 13
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Composition of Substrate Sampled (Percent):

Bedrock: _____ Boulders (basketball or larger): 10 Rubble (tennisball to basketball): 50 Gravel (ladybug to tennisball): 30
 Sand: 10 Clay: _____ Silt/Muck: _____ Overhanging Vegetation: _____
 Aquatic Macrophytes: _____ Leaf Snags: _____ Coarse Woody Debris: _____ Other (____): _____

Embeddedness of Substrate at Sample Site (%) 20 **Canopy Cover at Sample Site (%)** 0

Stream and Watershed Descriptors

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Factors that may be influencing Water Resource Integrity			Factors that may be influencing Water Resource Integrity		
Local	Water-shed		Local	Water-shed	
Biological			Chemical		
Algae: - Diatoms / Periphyton	N	N	Chlorine	N	N
- Filamentous Algae	N	N	Dissolved Oxygen	N	N
- Planktonic Algae	N	N	Nutrients (P, N...)	N	N
Iron Bacteria	N	N	Toxics: - Inorganic (Metals)	N	N
Macrophytes	N	N	- Organic (PCBs, pesticides...)	N	N
Slimes	N	N	Other - Specify:		
Other - Specify:			Sources of Stream Impacts		
			Bank Erosion	N	N
			Point Source - Specify:	N	N
Physical			Pasturing of Livestock	N	N
Bank Erosion	N	N	Runoff: - Barnyard	N	N
Channelization: - Upstream	PL	N	- Construction	N	N
- Downstream	PL	N	- Cropland	N	PL
Hydraulic Scour / Channel Incision	N	N	- Urban	N	N
Impoundment: - Upstream	N	PH	Septic Systems	N	N
- Downstream	N	PH	Tile Drainage - Organic Soils	N	PL
Low Flow	N	N	- Mineral Soils	N	PL
Sedimentation	N	PH	Springs	N	PL
Sludge	N	N	Tributary(s)	N	PL
Thermal	N	N	Wetland	N	PL
Turbidity	N	N	Other - Specify:		
Other - Specify:					

Comments

Special Instructions for Laboratory

3E = 92

~~3A, 1E =~~

3C = 75

Total = 147

For Lab Use Only		
Sample Sorter Murphy Steiner	Taxonomist Dimitri Jeffrey	Estimated Percent of Sample Sorted 13%
Date Processed 3/11/2019	Specimens Saved subsampk archived in DSL until May 2022	

Taxa	Life Stage	Organism Count			Taxonomic Reference	Condition	Unique Taxon
		Rep 1	Rep 2	Rep 3			
1/1 Paragnetina media	L	1	1		Hils 1995		
Pteronarcys	L	1	0		"	imm	
Taeniopteryx	L	2	0		"	imm	
2/2 Baetis tricaudatus	L	3	1		Klub 2016		
Ephemerella	L	2	2		"	imm	N
3/3 E. invaria	L	0	1		"		
E. subvaria	L	1	0		"		
4/15 Teloganopsis deficiens	L	23	12		"		
Maccaffertium	L	3	1		"	dam/imm	N
5/10 M. modestum	L	2	3		"		
6/10 M. vicarium	L	2	2		"		
7/21 Brachycentrus occidentalis	L	0	1		Hils 1995		
Micrasema	L	11	2		"	imm	N
8/22 M. rustrum	L	3	1		"		
Glossosoma intermedium	L	1	0		Wynn Mar 2000		
9/27 Protophila	L	1	5		Hils 1995		
Helicopsyche borealis	L	0	1		"		
Cheumatopsyche	L	5	7		"		
Hydropsyche <u>(L. haffeni)</u>	L	0	1		"	imm	
Ceratopsyche	L	1	1		"	imm	N
C. bronata	L	0	3		Schm Hils 1986		
10/30 C. sparsa	L	25	11		"		
11/10 C. walteri	L	11	10		"		
12/52 Leuctrichia pictipes	L	1	4		Hils 1995		
Decetis	L	1	0		"	imm	
Limnephilidae	L	1	0		"	imm	
Chimarra aberrans	L	1	4		Hils 1982		
13/56 Chimarra	P	1	0		Wigg Carr 2008		N
Psychomyia flavida	L	1	4		Hils 1995		
Neophylax	L	0	1		"	imm	
14/57 Nicconia serricornis	L	1	1		Neunzeg 1966		
Optioservus	L	11	26		Hils Schm 1992	imm	N
O. fastiditus	L	12	4		"		N
O. fastiditus	A	3	1		"		
Nemerodromia	L	3	5		Court Merr 2008		
Simulium vittatum species complex 08110218	L	0	1		Adl et al 2004		
Antocha	L	1	0		Hils 1995		
Dixamesa	P	0	1		Ferr et al 2008		JJD
Orthocladinae 08300001	P	0	1		"	dam	N
Eukiefferella	P	1	1		"		N

22, >3 taxa, TOTAL 52.0

45 > (0.1 x 145)

51

