

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

**Station Summary**

<b>Waterbody Name</b> PINE RIVER		<b>Waterbody ID Code</b> 247800	<b>Sample ID (YYYYMMDD-CY-FD)</b> 20181012-70-05
<b>Sampling Location</b>			<b>Database Key</b> 168915335
<b>SWIMS Station ID</b> 703071		<b>SWIMS Station Name</b> UPPER PINE RIVER AT CTH AA	
<b>Latitude</b> 44.180267	<b>Longitude</b> -89.252146	<b>Lat/Long Determination Method (circle)</b> SWIMS SWDV <u>GPS</u>	<b>Datum Used if using GPS</b> <u>WGS84</u> or NAD83
<b>Basin (WMU)</b> WOLF RIVER		<b>Watershed Name</b> PINE AND WILLOW RIVERS	<b>County</b> WAUSHARA

**Sample and Site Descriptors**

<b>Sample Collector (Last Name, First)</b> DAVID BOLHA	<b>Project Name</b> 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

<b>Total Sampling Time (min)</b> 4	<b>Estimated Area Sampled (m<sup>2</sup>)</b> 2	<b>Number of Samples in Composite</b> 1	<b>Replicate No.</b> 1 <b>of</b> 2
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**Reason For Sampling**

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

<b>Water Temp. (C)</b> 8.0	<b>D.O. (mg/l)</b> 10.7	<b>D.O. (% sat.)</b> 92.5	<b>pH (su)</b> 7.9	<b>Conductivity (umhos/cm)</b> 380.8	<b>Transparency (cm)</b> 120
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<b>Water Color</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained	<b>Estimated Stream Velocity (m/s)</b> <input type="checkbox"/> Slow (< 0.15 m/s) <input checked="" type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input type="checkbox"/> Fast (> 0.5 m/s)
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<b>Measured Velocity</b> 1.22 (ft/s) → 1.22 (m/s) <small>circle units m/s or f/s</small>	<b>Average Stream Depth of reach (m)</b> 0.32 (inst) 0.35 (dip)	<b>Average Stream Width of reach (m)</b> 3.5
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**Composition of Substrate Sampled (Percent):**

Bedrock: \_\_\_\_\_ Boulders (basketball or larger): \_\_\_\_\_ Rubble (tennisball to basketball): 20 Gravel (ladybug to tennisball): 70  
 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

Regular + Duplicate

**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
<b>Biological</b>			<b>Chemical</b>		
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:			<b>Sources of Stream Impacts</b>		
			Bank Erosion	N	N
			Point Source - Specify:	N	N
			Pasturing of Livestock	N	N
<b>Physical</b>			Runoff: - Barnyard	N	N
Bank Erosion	N	N	- Construction	N	N
Channelization: - Upstream	N	N	- Cropland	N	PL
- Downstream	N	PL	- Urban	N	N
Hydraulic Scour / Channel Incision	N	N	Septic Systems	N	N
Impoundment: - Upstream	N	N	Tile Drainage - Organic Soils	N	N
- Downstream	PH	PH	- Mineral Soils	N	N
Low Flow	N	N	Springs	PL	PL
Sedimentation	PH	PH	Tributary(s)	N	PL
Sludge	N	N	Wetland	N	PL
Thermal	N	N	Other - Specify:		
Turbidity	N	N			
Other - Specify:					

Comments

Special Instructions for Laboratory

For Lab Use Only		
Sample Sorter Sam Lamarche	Taxonomist Derrick Jeffrey	Estimated Percent of Sample Sorted 70%
Date Processed 3/1/2019	Specimens Saved Subsample archived in ABL until May 2022	

C3

197 total specs

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

**Station Summary**

<b>Waterbody Name</b> PINE RIVER	<b>Waterbody ID Code</b> 247800	<b>Sample ID (YYYYMMDD-CY-FD)</b> 20181012-70- <del>08</del> 05
<b>Sampling Location</b>		<b>Database Key</b> 168915335

<b>SWIMS Station ID</b> 703071	<b>SWIMS Station Name</b> UPPER PINE RIVER AT CTH AA
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<b>Latitude</b> 44.18027	<b>Longitude</b> 89.25220	<b>Lat/Long Determination Method (circle)</b> SWIMS <u>SWDV</u> GPS	<b>Datum Used if using GPS</b> WGS84 or NAD83
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<b>Basin (WMU)</b> WOLF RIVER	<b>Watershed Name</b> PINE AND WILLOW RIVERS	<b>County</b> WAUSHARA
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**Sample and Site Descriptors**

<b>Sample Collector (Last Name, First)</b> DAVID BOLHA	<b>Project Name</b> 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

<b>Total Sampling Time (min)</b> 3	<b>Estimated Area Sampled (m<sup>2</sup>)</b> 2	<b>Number of Samples in Composite</b> 1	<b>Replicate No.</b> 2 <b>of</b> 2
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**Reason For Sampling**

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

<b>Water Temp. (C)</b> 8.0	<b>D.O. (mg/l)</b> 10.7	<b>D.O. (% sat.)</b> 92.5	<b>pH (su)</b> 7.9	<b>Conductivity (umhos/cm)</b> 380.8	<b>Transparency (cm)</b> 120
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<b>Measured Velocity</b> 1.30	circle units m/s or <u>f/s</u>	<b>Average Stream Depth of reach (m)</b> 0.35	<b>Average Stream Width of reach (m)</b> 3.5
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**Composition of Substrate Sampled (Percent):**

Bedrock: \_\_\_\_\_   
 Boulders (basketball or larger): \_\_\_\_\_   
 Rubble (tennisball to basketball): 20   
 Gravel (ladybug to tennisball): 70  
 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

**Stream and Watershed Descriptors**

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- 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:			<b>Sources of Stream Impacts</b>		
			Bank Erosion	N	N
			Point Source - Specify:	N	N
<b>Physical</b>			Pasturing of Livestock	N	N
Bank Erosion	N	N	Runoff: - Barnyard	N	N
Channelization: - Upstream	N	N	- Construction	N	N
- Downstream	N	PL	- Cropland	N	PL
Hydraulic Scour / Channel Incision	N	N	- Urban	N	N
Impoundment: - Upstream	N	N	Septic Systems	N	N
- Downstream	PH	PH	Tile Drainage - Organic Soils	N	N
Low Flow	N	N	- Mineral Soils	N	N
Sedimentation	PH	PH	Springs	PL	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

For Lab Use Only		
Sample Sorter <i>Sam Lamarche</i>	Taxonomist <i>Dimick, Jeffrey</i>	Estimated Percent of Sample Sorted <i>70%</i>
Date Processed <i>3/2/19</i>	Specimens Saved <i>Subsample archived in BSL until May 2022</i>	

AZ  
153

Taxa	Life Stage	Bench Tally	Organism Count			Taxonomic Reference	Condition	Unique Taxon
			Rep 1	Rep 2	Rep 3			
1/6 2/14 Paracappnia angulata	L		0	6		Hitch 1974		
Taeniopteryx	L		5	3				
Baetis	L		0	1		Klub 2016	dam	N
B. brunneicolar	L		8	4		"		
3/20 B. tricaudatus	L		5	1		"		
B. flavistriga species complex	L		5	3		"		
Maccaffertium	L		0	1		"	imm	N
4/23 M. vicarium	L		0	3		"		
5/17 Brachycentrus americanus	L		19	5		Hils 1985		
6/50 B. occidentalis	L		1	2		"		
7/31 Microsema galidum	L		1	0		"		
8/33 <del>Gammarus intermedius</del> Glossosoma	L		2	0		Wym Mar 2000		
Cheumatopsyche	L		0	3		Hils 1995		
Ceratopsyche	L		0	1		"	dam	N
C. alhedra	L		0	1		Schm Hils 1986		
9/54 C. spama	L		0	1		"		
10/55 Psychomyia flavida	L		0	1		Hils 1995		
Optiosecurus	L		23	11		Hils Schm 1992	imm	N
O. fastiditus	L		9	14		"		N
O. fastiditus	A		1	1		"		
Hemerodromia	L		2	0		Court Merr 2008		
Neoplasta	L		1	0		"		
Simulium trichosum species complex	L		1	0		Adl et al 2004		
S. vittatum species complex 0810218	L		4	3		"		
Simulium	P		4	0				
Antocha	L		6	7		Hils 1995		
Gammarus pseudolimnaeus	A		104	74		Hils 1972		
Caecidotea intermedia	A		5	0		Will 1972		
Hygrobatas	A		2	0		Ploch 1984		
Lebertia	A		1	1		"		
Belostoma flumineum	A		0	1		Hils 1984a		
Physa	A		0	1		Theop Reg Zelle		
Metagynophora = Megadrili	A		1	1		"		
<del>split A3 Chironomidae</del>	L		0	3				
Chironomidae 08250002	P		1	0		Scott et al 2008	dam	N
Cricotopus (Cricotopus)	P		3	2		Cott et al 1986		
Tanyptorinae 08270000 <u>Macropelopia</u>	L		0	1		Cran Epl 2013	mt indet	Y
Thienemannimyia group	L		1	0		"		

&gt;3 taxa, TVAL ≤ 2.0

55 &gt; (0.1 × 360)

