

Instructions: Bold fields must be completed.

Station Summary			
Waterbody Name PINE RIVER		Waterbody ID Code 247800	Sample ID (YYYYMMDD-CY-FD) 20171027-70-03
Sampling Location			Database Key 149424417
SWIMS Station ID 10037927		SWIMS Station Name PINE RIVER AT ANIWA ROAD	
Latitude 44.202923	Longitude -89.18575	Lat/Long Determination Method (circle) SWIMS SWDV GPS	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 EAST DISTRICT NC STREAM STRATIFIED SITES 2017

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) 2.5	Estimated Area Sampled (m <sup>2</sup> ) 2.0	Number of Samples in Composite 1	Replicate No. _____ of _____
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Reason For Sampling

Least Impacted Reference     
  Baseline     
  Impact / Treatment Site  
 Control Site     
  Trend     
  Other: \_\_\_\_\_

Water Temp. (°F) 46.5°F	D.O. (mg/l) 8.8	D.O. (% sat.) 75.1	pH (su) 7.8	Conductivity (umhos/cm) 401.0	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 checked="" type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input type="checkbox"/> Fast (> 0.5 m/s)
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Measured Velocity circle units m/s or f/s	Average Stream Depth of reach (m) .5	Average Stream Width of reach (m) 9.0
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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 (%) 10 Canopy Cover at Sample Site (%) 100

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

Comments

Special Instructions for Laboratory

**For Lab Use Only**

Sample Sorter <i>Kerlaniska</i>	Taxonomist <i>Dimick, Jeffrey</i>	Estimated Percent of Sample Sorted <i>7</i>
Date Processed <i>11/9/18</i>	Specimens Sayed <i>Subsample archived in ABL until Nov 2021</i>	

3=333

Taxa	Life Stage	Bench Tally	Count	Taxonomic Reference	Condition	Unique Taxon
<i>Isoneria</i>	L	1	1	Hils 1995	imm	
42 <i>Baetis tricaudatus</i>	L	"	2	Rub 2016		
<i>Ephemerella</i>	L	-1	6	"	imm	N
73 <i>E. invaria</i>	L	1	1	"		
77 <i>E. subvaria</i>	L	(111)	4	"		
8 <i>Maccaffertium vicarium</i>	L	"	2	"		
5/11 <i>Brachycentrus americanus</i>	L	"	2	Hils 1985		
1/6 <i>B. occidentalis</i>	L	-	5	"		
7/8 <i>Protophila</i>	L	"	1	Hils 1995		
<i>Cheumatopsyche</i>	L	-44	10	"		
<i>Hydropsyche</i>	L	1	1	"	imm	
<i>Ceratopsyche</i>	L	1	1	"	imm	N
<i>C. glossinae</i>	L	-111	8	Schm Hils 1986		
8/24 <i>C. sparna</i>	L	-1	11	"		
<i>Neophylax</i>	L	1	1	Hils 1995	imm	N
<i>N. concinnus</i>	L	1	1	Bright 2013		
<i>N. oligus</i>	L	"	2	"		
32 <i>Nigronia semicornis</i>	L	11	3	Mann 1966		
<i>Dolicopterus</i>	L	"	3	Hils Schm 1992	imm	N
<i>D. fasciatus</i> L, 5 A, 1	L, A	-1	6	"		
<i>Hemerodromia</i>	L	-111	8	Collet Merc 2008		
<i>Simulium vittatum</i> species complex sensu lato	L	1	1	Adl et al 2004		
<i>Amblyops</i>	L	x11	12	Hils 1995		
<i>Orthocladiinae</i>	P	1	1	Ferr et al 2008		N
<i>Gammarus pseudolimnoides</i>	A	8-11	37	Hols 1972		
<i>Hydrobaetis</i>	A	1	1	Oluchind 1984		
<i>Meimithidae</i>	A	1	1	Poirar 1991	imm	
<i>Naidinae</i>	A	"	2	Brink Aid 1991		
<i>Ferrissia rivularis</i>	A	1	1	Thorp Reg 2016		
<i>Physa</i>	A	1	1	"		
<del>Split A3 Chironomidae</del>	L	x111 300				
2/5 <i>Agastria</i>	L	x14	13	Seth And 2013		
<i>Orthocladiinae</i> 0030000	L	"	2	Conston 2013	imm	N
<i>Theremanniella</i>	L	1	1	Anders + 3 2013	imm	
<i>Tvetenia bavarica</i> group	L	0	20	Bode 1983		
<i>Procladius obscurus</i>	L	1	1	Epler 2001		

> 3 taxa, TVAL ≤ 2.0

45 > (0.1 x 3(4))

