

Instructions: Bold fields must be completed.

Station Summary			
Waterbody Name CAVES CREEK		Waterbody ID Code 166100	Sample ID (YYYYMMDD-CY-FD) 20161005-39-02
Sampling Location DS 5th Ave			Database Key 133649571
SWIMS Station ID 10017030		SWIMS Station Name CAVES CREEK AT 5TH AVE DS OF CULVERT	
Latitude 43.92932	Longitude -89.522606	Lat/Long Determination Method (circle) SWIMS SWDV <u>GPS</u>	Datum Used if using GPS <u>WGS84</u> or NAD83
Basin (WMU) UPPER FOX		Watershed Name MONTELLO RIVER	County MARQUETTE

Sample and Site Descriptors	
Sample Collector (Last Name, First) DAVID BOLHA	Project Name NER LONG-TERM TREND WADEABLE REFERENCE STREAMS

Sampling Device

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	Estimated Area Sampled (m ²) 1.5	Number of Samples in Composite 1	Replicate No. <u>1</u> of <u>1</u>
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Reason For Sampling

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

Water Temp. (°C) 56.5	D.O. (mg/l) 7.65	D.O. (%sat.) 73.6	pH (su) 7.50	Conductivity (umhos/cm) 342.3	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) 3	Average Stream Width of reach (m) 3
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Composition of Substrate Sampled (Percent):

Bedrock: _____ Boulders (basketball or larger): _____ Rubble (tennisball to basketball): 20 Gravel (ladybug to tennisball): 60
 Sand: 20 Clay: _____ Silt/Muck: _____ Overhanging Vegetation: _____
 Aquatic Macrophytes: _____ Leaf Snags: _____ Coarse Woody Debris: _____ Other (____): _____
 Embeddedness of Substrate at Sample Site (%) 50 Canopy Cover at Sample Site (%) 80

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	Watershed	Factors that may be influencing Water Resource Integrity	Local	Watershed
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:	N	N
Other - Specify:	N	N	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	N	N	- Construction	N	N
- Downstream	N	N	- Cropland	N	PL
Hydraulic Scour / Channel Incision	N	N	- Urban	N	N
Impoundment: - Upstream	PL	PL	Septic Systems	N	N
- Downstream	N	N	Tile Drainage - Organic Soils	N	N
Low Flow	N	N	- Mineral Soils	N	N
Sedimentation	PL	PL	Springs	N	N
Sludge	N	N	Tributary(s)	N	N
Thermal	N	N	Wetland	N	N
Turbidity	N	N	Other - Specify:	N	N
Other - Specify: <i>Perched culvert</i>	PH	N			

Comments

Special Instructions for Laboratory

For Lab Use Only		
Sample Sorter <i>Justin Kowalski</i>	Taxonomist <i>Dimock, Jeffrey</i>	Estimated Percent of Sample Sorted <i>7%</i>
Date Processed <i>10/3/17</i>	Specimens Saved <i>subsample archived in AOC until Dec 2020</i>	

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Taxa	Life Stage	Bench Tally	Count	Taxonomic Reference	Condition	Unique Taxon
Stenacron	L	I	1	Kubertanz 2016		
Maccaffertium vicarium	L	III	4	"		
Brachycentrus americanus	L	X IIII	14	Hilsenhoff 1985		
B. occidentalis	L	I	1	"		
Glossosoma	L	I	1	Hilsenhoff 1985	imm	N
G. intermedium	L	I	1	Wymer, Morse 2010		
Helicopsyche borealis	L	XII	12	Hilsenhoff 1985		
Chaumatopsyche	L	-	5	"		
Hydropsyche	L	III	3	"	imm	N
H. betteni	L	-I	6	Schm, Hils. 1986		
Desatopsyche glossonae	L	IIII	4	"		
Lepicostoma	L	I	1	Hilsenhoff 1985		
Pycnopsyche	L	I	1	"		
Chimarra atterrima	L	-	5	Hilsenhoff 1982		
Neophylax	L	III	3	Hilsenhoff 1985	imm	N
N. casarius	L	I	1	Bright 2013		
Optoseruus	L	XI	31	Hils, Schm. 1992	imm	N
O. fastidius	L, 17 A, 3	0	20	"		
Stenelmis crenata	A	II	2	"		
Atherix variegata	L	I	1	Hilsenhoff 1985		
Nemerochaeta	L	III	4	Conrad, Merr. 2008		
Empididae	P	I	1	Merr, Webb 2009		
Antocha	L	I	1	Hilsenhoff 1985		
Scotomyia	L	I	1	"		
Gammarus pseudolimnaeus	A	X-	15	Holsinger 1972		
Caecidotea	A	I	1	Williams 1972	imm	
Lebertia	A	I	1	Pluchino 1984		
Split A3 Chironomidae	L	+ JJD				
Tvetenia	A	II	2	Ferr. et al. 2008		N
Ciaodanyparsus	L	XIII	33	Epler et al 2013		
Diamesa	L	III	3	Seeth, Ander. 2013		
Orthocladinae	L	I	1	Constan 2013	mt indet	N
Parakcafferella	L	II	2	Ander. + 3 2013		
Thienemanniella xena	L	I	1	Bolton 2012		
Tvetenia bavaria group	L	I	1	Bode 1983 1983		
Rheotanytarsus	L	I	1	Epler et al 2013		