

Instructions: Bold fields must be completed.

Station Summary

| | | |
|--|------------------------------------|---|
| Waterbody Name MIDDLE BR EMBARRASS RIVER | Waterbody ID Code 310700 | Sample ID (YYYYMMDD-CY-FD) 20191010-59-01 |
|--|------------------------------------|---|

| | |
|--------------------------|----------------------------------|
| Sampling Location | Database Key 209699384 |
|--------------------------|----------------------------------|

| | |
|-----------------------------------|--|
| SWIMS Station ID 593163 | SWIMS Station Name EMBARRASS RIVER MIDDLE BRANCH - CTH Q |
|-----------------------------------|--|

| | | | |
|-----------------|------------------|---|--|
| Latitude | Longitude | Lat/Long Determination Method (circle) SWIMS SWDV GPS | Datum Used if using GPS WGS84 or NAD83 |
|-----------------|------------------|---|--|

| | | |
|----------------------------------|--|--------------------------|
| Basin (WMU) WOLF RIVER | Watershed Name MIDDLE AND SOUTH BRANCHES EMBARRASS | County SHAWANO |
|----------------------------------|--|--------------------------|

Sample and Site Descriptors

| | |
|--|--|
| Sample Collector (Last Name, First) ANDREW HUDAK | Project Name EAST DISTRICT NC STREAM STRATIFIED SITES 2019 |
|--|--|

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) 5 | Number of Samples in Composite 1 | Replicate No. 1 of 1 |
|---------------------------------------|--|--|------------------------------------|

Reason For Sampling

Least Impacted Reference
 Baseline
 Impact / Treatment Site
 Control Site
 Trend
 Other: Natural Community stratified Random

| | | | | | |
|--------------------------------|----------------------------|------------------------------|-----------------------|--|----------------------------------|
| Water Temp. (C) 10.9 | D.O. (mg/l) 10.3 | D.O. (% sat.) 94.4 | pH (su) 7.4 | Conductivity (umhos/cm) .344 | Transparency (cm) 7122 |
|--------------------------------|----------------------------|------------------------------|-----------------------|--|----------------------------------|

| | |
|--|--|
| Water Color <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input checked="" 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) |
|--|--|

| | | |
|--|---|--|
| Measured Velocity circle units m/s or f/s | Average Stream Depth of reach (m) 0.5 | Average Stream Width of reach (m) 16 |
|--|---|--|

Composition of Substrate Sampled (Percent):

Bedrock: _____ Boulders (basketball or larger): 70 Rubble (tennisball to basketball): _____ Gravel (ladybug to tennisball): _____
 Sand: 30 Clay: _____ Silt/Muck: _____ Overhanging Vegetation: _____
 Aquatic Macrophytes: _____ Leaf Snags: _____ Coarse Woody Debris: _____ Other (____): _____

Embeddedness of Substrate at Sample Site (%) 60 **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 | 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...) | U | U |
| Iron Bacteria | N | N | Toxics: - Inorganic (Metals) | U | U |
| Macrophytes | N | N | - Organic (PCBs, pesticides...) | U | U |
| Slimes | N | N | Other - Specify: | | |
| Other - Specify: | | | Sources of Stream Impacts | | |
| | | | Bank Erosion | U | |
| | | | Point Source - Specify: <i>CAFO</i> | U | PL |
| | | | Pasturing of Livestock | N | PL |
| | | | Runoff: - Barnyard | U | PL |
| | | | - Construction | N | U |
| | | | - Cropland | U | PL |
| | | | - Urban | U | U |
| | | | Septic Systems | U | U |
| | | | Tile Drainage - Organic Soils | N | U |
| | | | - Mineral Soils | N | U |
| | | | Springs | U | U |
| | | | Tributary(s) | U | U |
| | | | Wetland | U | U |
| | | | Other - Specify: | | |

Comments

Special Instructions for Laboratory

For Lab Use Only

| | | |
|------------------------------------|--|---|
| Sample Sorter <i>Naas, Eric</i> | Taxonomist <i>Dimick, Jeffrey</i> | Estimated Percent of Sample Sorted <i>21.6</i> |
| Date Processed <i>9/9/11</i> | Specimens Saved <i>Subsample archived in ABL undil Oct 2023</i> | |

Q1 14 27
 Q2 18 9 = 133
 Q3 16 12
 Q4 12 14 11

| Taxa | Life Stage | Bench Tally | Count | Taxonomic Reference | Condition | Unique Taxon |
|----------------------------------|------------|-------------|-------|---------------------|-----------|--------------|
| <i>Acentrella turbida</i> | L | II | 2 | Klun 2016 | | |
| <i>Baetis tricaudatus</i> | L | II | 2 | " | | |
| <i>Baetisca laurentina</i> | L | I | 1 | " | | |
| <i>Leucocosta</i> | L | I | 1 | Merrillum B 2019 | | |
| <i>Maccaffertium</i> | L | I | 1 | Klun 2016 | imm | N |
| <i>M. medipunctatum</i> | L | III | 5 | " | | |
| <i>M. modestum</i> | L | III | 4 | " | | |
| <i>M. viracum</i> | L | II | 2 | " | | |
| <i>Leptophlebia</i> | L | I | 1 | Merrillum B 2019 | imm | |
| <i>Isonychia</i> | L | I | 1 | " | imm | |
| <i>Allocaenia</i> | L | I | 1 | " | | |
| <i>Acroneuria</i> | L | I | 1 | " | imm | N |
| <i>A. abnormis</i> | L | I | 1 | Hils 1974 | | |
| <i>A. lycorias</i> | L | I | 1 | " | | |
| <i>Paragnetina media</i> | L | II | 2 | Hils 1995 | | |
| <i>Taeniopteryx</i> | L | 0-II | 27 | Merrillum B 2019 | imm | |
| <i>Ceratopsyche</i> | L | I | 1 | Hils 1995 | imm | N |
| <i>C. morosa morosa form</i> | L | I | 1 | Schm Hils 1986 | | |
| <i>C. walkeri</i> | L | -III | 10 | " | | |
| <i>Cheumatopsyche</i> | L | I | 1 | Merrillum B 2019 | | |
| <i>Leucotrichia pictipes</i> | L | X | 10 | Hils 1995 | | |
| <i>Pycnopsyche</i> | L | I | 1 | Merrillum B 2019 | | |
| Limnephilidae | L | I | 1 | " | imm | N |
| <i>Psychomyia flavida</i> | L | III | 3 | Hils 1995 | | |
| <i>Macronychus glabratus</i> | L | III | 4 | Hils Schm 1992 | | |
| <i>Optiosevus</i> | L | I | 1 | Merrillum B 2019 | imm | N |
| <i>O. trivittatus</i> | L | 0-III | 30 | Hils Schm 1992 | | |
| <i>Stenelmis</i> | L | III | 4 | Merrillum B 2019 | | N |
| <i>S. crenata</i> | A | II | 2 | Hils Schm 1992 | | |
| <i>Atherix variegata</i> | L | II | 2 | Hils 1995 | | |
| <i>Hemerodromia</i> | L | I | 1 | Merrillum B 2019 | | |
| <i>Antocha</i> | L | I | 1 | " | | |
| <i>Diamesa</i> | P | I | 1 | " | | |
| <i>Psephenus herricki</i> | L | II | 2 | Hils Schm 1992 | | |
| <i>Gammarus pseudolimnacus</i> | A | II | 3 | Hils 1972 | | |
| Split As Chironomidae | L | X-III | | | | |
| <i>Brillia</i> | L | I | 1 | And et al 2013 | imm | |

