



Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report

Station Information

Station Number: S-43
Waterbody: Little Androscoggin River - Station 43
Town: Paris
Directions: 45 M ABOVE POTW

DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 44 12 43.12 N
Longitude: 70 30 58.75 W
Stream Order: 4

Sample Information

Log Number: 2209 Type of Sample: ROCK BASKET Date Deployed: 7/16/2013
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/19/2013

Classification Attainment

Statutory Class: C **Final Determination: A** Date: 3/18/2014
Model Result with P>.6: A **Reason for Determination: Model**
Date Last Calculated: 3/17/2014 Comments:

Model Probabilities

| First Stage Model | | C or Better Model | |
|---------------------------|------|--------------------------------|------|
| Class A | 0.49 | Class A, B, or C | 1.00 |
| Class B | 0.50 | Non-Attainment | 0.00 |
| B or Better Model | | A Model | |
| Class A or B | 1.00 | Class A | 0.68 |
| Class C or Non-Attainment | 0.00 | Class B or C or Non-Attainment | 0.32 |

Model Variables

| | | | |
|--|--------|---|-------|
| 01 Total Mean Abundance | 636.00 | 18 Relative Abundance Ephemeroptera | 0.25 |
| 02 Generic Richness | 34.00 | 19 EPT Generic Richness | 16.00 |
| 03 Plecoptera Mean Abundance | 24.00 | 21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i> | 0.00 |
| 04 Ephemeroptera Mean Abundance | 157.33 | 23 Relative Generic Richness- Plecoptera | 0.09 |
| 05 Shannon-Wiener Generic Diversity | 3.64 | 25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i> | 2.80 |
| 06 Hilsenhoff Biotic Index | 3.96 | 26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i> | 67.54 |
| 07 Relative Abundance - Chironomidae | 0.31 | 28 EP Generic Richness/14 | 0.86 |
| 08 Relative Generic Richness Diptera | 0.38 | 30 Presence of Class A Indicator Taxa/7 | 0.14 |
| 09 <i>Hydropsyche</i> Abundance | 79.74 | | |
| 11 <i>Cheumatopsyche</i> Abundance | 2.80 | | |
| 12 EPT Generic Richness/ Diptera Generic Richness | 1.23 | | |
| 13 Relative Abundance - Oligochaeta | 0.00 | | |
| 15 Perlidae Mean Abundance (Family Functional Group) | 24.00 | | |
| 16 Tanypodinae Mean Abundance (Family Functional Group) | 5.33 | | |
| 17 Chironomini Abundance (Family Functional Group) | 101.33 | | |

| Five Most Dominant Taxa | | |
|-------------------------|--------------------|---------|
| Rank | Taxon Name | Percent |
| 1 | <i>Simulium</i> | 23.90 |
| 2 | <i>Polypedilum</i> | 15.72 |
| 3 | <i>Hydropsyche</i> | 12.54 |
| 4 | <i>Ephemerella</i> | 7.55 |
| 5 | <i>Tvetenia</i> | 7.55 |



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| | | |
|-----------------------------|---|---------------------------|
| Station Number: S-43 | Town: Paris | Date Deployed: 7/16/2013 |
| Log Number: 2209 | Waterbody: Little Androscoggin River - Station 43 | Date Retrieved: 8/19/2013 |

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

| | |
|-----------------------|------------|
| Temperature: | 22.1 deg C |
| Dissolved Oxygen: | 7.9 mg/l |
| Specific Conductance: | 53 uS/cm |
| Velocity: | 122.7 cm/s |
| pH: | 6.3 |
| Wetted Width: | 13 m |
| Bankfull Width: | 18 m |
| Depth: | 60 cm |

Waterbody Information - Retrieval

| | |
|-----------------------|------------|
| Temperature: | 18.1 deg C |
| Dissolved Oxygen: | 7.6 mg/l |
| Specific Conductance: | 57 uS/cm |
| Velocity: | 104.5 cm/s |
| pH: | 6.38 |
| Wetted Width: | 18 m |
| Bankfull Width: | 18 m |
| Depth: | 60 cm |

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Hardwood
Urban

Canopy Cover

Partly Open

Terrain

Rolling

Potential Stressor

Nps Pollution
Urban Runoff

Location

Above Point Source
Above POTW
Main Stem

Substrate

| | |
|---------------|------|
| Gravel | 40 % |
| Rubble/Cobble | 40 % |
| Sand | 20 % |

Landcover Summary - 2004 Data

| | | | | | | | |
|-----------------|-------|------------------|-----|----------------|------|----------------------|------|
| Total Area (ac) | 21148 | High Int. Dev. % | 1.0 | Water % | 0.6 | Non-vegetated % | 0.3 |
| | | Med Int. Dev. % | 1.1 | Wetland % | 1.5 | Tilled Agriculture % | 1.3 |
| | | Low Int. Dev. % | 3.7 | Upland Woody % | 82.5 | Grassland % | 7.5 |
| | | Development % | 5.8 | Natural % | 84.1 | Human Altered % | 15.3 |
| | | | | | | Impervious % | 4.7 |

Sample Comments

8/19/2013 - HIGH WATER LEVELS RECENTLY, FISH OBSERVED



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-43

Waterbody: Little Androscoggin River - Station 43

Town: Paris

Log Number: 2209

Subsample Factor: X4

Replicates: 3

Calculated: 3/17/2014

| Taxon | Maine Taxonomic Code | Count (Mean of Samplers) | | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance | |
|--------------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-----------------------|----------|
| | | Actual | Adjusted | | | Actual | Adjusted |
| <i>Nais</i> | 08020202009 | | 1.33 | | CG | | 0.2 |
| <i>Nais behningi</i> | 08020202009003 | 1.33 | | | -- | 0.2 | |
| Isotomidae | 09020102 | 1.33 | 1.33 | | -- | 0.2 | 0.2 |
| <i>Acroneuria</i> | 09020209042 | 4.00 | 20.00 | 0 | PR | 0.6 | 3.1 |
| <i>Acroneuria abnormis</i> | 09020209042121 | 16.00 | | 0 | PR | 2.5 | |
| <i>Paragnetina</i> | 09020209049 | | 2.67 | 1 | PR | | 0.4 |
| <i>Paragnetina immarginata</i> | 09020209049149 | 1.33 | | | -- | 0.2 | |
| <i>Paragnetina media</i> | 09020209049151 | 1.33 | | | -- | 0.2 | |
| <i>Agnatina</i> | 09020209050 | | 1.33 | 2 | PR | | 0.2 |
| <i>Agnatina capitata</i> | 09020209050152 | 1.33 | | 2 | PR | 0.2 | |
| Baetidae | 09020401 | 2.67 | | | -- | 0.4 | |
| <i>Baetis</i> | 09020401001 | 8.00 | 24.64 | 4 | CG | 1.3 | 3.9 |
| <i>Baetis flavistriga</i> | 09020401001004 | 4.00 | | | -- | 0.6 | |
| <i>Baetis pluto</i> | 09020401001009 | 10.67 | | | -- | 1.7 | |
| <i>Heterocloeon</i> | 09020401005 | | 2.90 | 2 | SC | | 0.5 |
| <i>Heterocloeon curiosum</i> | 09020401005020 | 2.67 | | | -- | 0.4 | |
| <i>Plauditus</i> | 09020401012 | 2.67 | 2.90 | | CG | 0.4 | 0.5 |
| <i>Iswaeon</i> | 09020401015 | 2.67 | 2.90 | | -- | 0.4 | 0.5 |
| Heptageniidae | 09020402 | 2.67 | | | -- | 0.4 | |
| <i>Epeorus</i> | 09020402009 | 9.33 | 9.79 | 0 | SC | 1.5 | 1.5 |
| <i>Maccaffertium</i> | 09020402015 | 36.00 | 47.54 | 4 | SC | 5.7 | 7.5 |
| <i>Maccaffertium luteum</i> | 09020402015049 | 6.67 | | | -- | 1.0 | |
| <i>Maccaffertium modestum</i> | 09020402015051 | 2.67 | | | -- | 0.4 | |
| <i>Isonychia</i> | 09020404018 | 17.33 | 17.33 | 2 | CF | 2.7 | 2.7 |
| <i>Ephemerella</i> | 09020410035 | 48.00 | 48.00 | 1 | CG | 7.5 | 7.5 |
| <i>Tricorythodes</i> | 09020411038 | 1.33 | 1.33 | 4 | CG | 0.2 | 0.2 |
| <i>Chimarra</i> | 09020601003 | 8.00 | 9.33 | 2 | CF | 1.3 | 1.5 |
| <i>Chimarra obscura</i> | 09020601003003 | 1.33 | | | -- | 0.2 | |
| Hydropsychidae | 09020604 | 4.00 | | | -- | 0.6 | |
| <i>Cheumatopsyche</i> | 09020604015 | 2.67 | 2.80 | 5 | CF | 0.4 | 0.4 |
| <i>Hydropsyche</i> | 09020604016 | 42.67 | 79.74 | 4 | CF | 6.7 | 12.5 |
| <i>Hydropsyche bronta</i> | 09020604016029 | 13.33 | | | -- | 2.1 | |
| <i>Hydropsyche sparna</i> | 09020604016032 | 18.67 | | | -- | 2.9 | |
| <i>Hydropsyche depravata complex</i> | 09020604016041 | 1.33 | | | CF | 0.2 | |
| <i>Macrostemum</i> | 09020604018 | | 2.80 | 3 | CF | | 0.4 |
| <i>Macrostemum zebratum</i> | 09020604018054 | 2.67 | | | -- | 0.4 | |
| <i>Nigronia</i> | 09020701003 | | 2.67 | 0 | PR | | 0.4 |
| <i>Nigronia serricornis</i> | 09020701003003 | 2.67 | | | -- | 0.4 | |



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| | | Actual | Adjusted | | | Actual | Adjusted |
| <i>Nilotanytus</i> | 09021011012 | | 1.33 | 6 | PR | | 0.2 |
| <i>Nilotanytus fimbriatus</i> | 09021011012027 | 1.33 | | | -- | 0.2 | |
| <i>Rheopelopia</i> | 09021011017 | | 4.00 | | PR | | 0.6 |
| <i>Rheopelopia acra group</i> | 09021011017036 | 4.00 | | | -- | 0.6 | |
| <i>Brillia</i> | 09021011033 | 4.00 | 4.00 | 5 | SH | 0.6 | 0.6 |
| <i>Cardiocladius</i> | 09021011034 | | 1.33 | 5 | PR | | 0.2 |
| <i>Cardiocladius obscurus</i> | 09021011034053 | 1.33 | | | -- | 0.2 | |
| <i>Cricotopus</i> | 09021011037 | | | 7 | SH | | |
| <i>Eukiefferiella</i> | 09021011041 | | 1.33 | 8 | CG | | 0.2 |
| <i>Eukiefferiella brehmi group</i> | 09021011041073 | 1.33 | | | -- | 0.2 | |
| <i>Nanocladius</i> | 09021011049 | | 6.67 | 3 | CG | | 1.0 |
| <i>Nanocladius downesi</i> | 09021011049092 | 6.67 | | | -- | 1.0 | |
| <i>Parametriocnemus</i> | 09021011053 | 1.33 | 1.33 | 5 | CG | 0.2 | 0.2 |
| <i>Thienemanniella</i> | 09021011062 | | 4.00 | 6 | CG | | 0.6 |
| <i>Thienemanniella xena</i> | 09021011062110 | 1.33 | | | -- | 0.2 | |
| <i>Thienemanniella similis</i> | 09021011062111 | 2.67 | | | -- | 0.4 | |
| <i>Tvetenia</i> | 09021011065 | | 48.00 | 5 | CG | | 7.5 |
| <i>Tvetenia vitracies</i> | 09021011065113 | 34.67 | | | -- | 5.5 | |
| <i>Tvetenia paucunca</i> | 09021011065114 | 13.33 | | | -- | 2.1 | |
| <i>Rheotanytarsus</i> | 09021011072 | 26.67 | 26.67 | 6 | CF | 4.2 | 4.2 |
| <i>Microtendipes</i> | 09021011094 | | 1.33 | 6 | CF | | 0.2 |
| <i>Microtendipes rydalensis group</i> | 09021011094168 | 1.33 | | | -- | 0.2 | |
| <i>Polypedilum</i> | 09021011102 | | 100.00 | 6 | SH | | 15.7 |
| <i>Polypedilum aviceps</i> | 09021011102181 | 92.00 | | | -- | 14.5 | |
| <i>Polypedilum flavum</i> | 09021011102182 | 8.00 | | | -- | 1.3 | |
| <i>Simulium</i> | 09021012047 | 1.33 | 152.00 | 4 | CF | 0.2 | 23.9 |
| <i>Simulium fibrinflatum</i> | 09021012047059 | 22.67 | | | -- | 3.6 | |
| <i>Simulium jenningsi</i> | 09021012047060 | 5.33 | | | -- | 0.8 | |
| <i>Simulium tuberosum</i> | 09021012047067 | 40.00 | | | -- | 6.3 | |
| <i>Simulium jenningsi complex</i> | 09021012047070 | 82.67 | | | CF | 13.0 | |
| <i>Stenelmis</i> | 09021113070 | 1.33 | 1.33 | 5 | SC | 0.2 | 0.2 |
| <i>Hydrozetes</i> | 09030115001 | 1.33 | 1.33 | | -- | 0.2 | 0.2 |