



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

Station Information

**Station Number:** S-122  
**Waterbody:** Little Androscoggin River - Station 122  
**Town:** Mechanic Falls  
**Directions:** 0.2 KM ABOVE SAWYER BRIDGE

**DEP Drainage:** Androscoggin  
**HUC8:** 01040002  
**HUC8 Name:** Lower Androscoggin  
**Latitude:** 44 6 36.26 N  
**Longitude:** 70 25 0.21 W  
**Stream Order:** 4

Sample Information

**Log Number:** 1729  
**Subsample Factor:** X4

**Type of Sample:** ROCK BASKET  
**Replicates:** 3

**Date Deployed:** 7/14/2008  
**Date Retrieved:** 8/22/2008

Classification Attainment

**Statutory Class:** C  
**Model Result with P>.6:** B  
**Date Last Calculated:** 5/19/2009

**Final Determination:** B  
**Reason for Determination:** Model  
**Comments:**

**Date:** 5/20/2009

Model Probabilities

| <u>First Stage Model</u> |      |         |      | <u>C or Better Model</u> |      |
|--------------------------|------|---------|------|--------------------------|------|
| Class A                  | 0.12 | Class C | 0.08 | Class A, B, or C         | 1.00 |
| Class B                  | 0.80 | NA      | 0.00 | Non-Attainment           | 0.00 |

  

| <u>B or Better Model</u>  |      | <u>A Model</u>                 |      |
|---------------------------|------|--------------------------------|------|
| Class A or B              | 0.91 | Class A                        | 0.04 |
| Class C or Non-Attainment | 0.09 | Class B or C or Non-Attainment | 0.96 |

Model Variables

|                                                            |         |                                                                                                                 |       |
|------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------|-------|
| 01 Total Mean Abundance                                    | 2333.33 | 18 Relative Abundance Ephemeroptera                                                                             | 0.02  |
| 02 Generic Richness                                        | 25.00   | 19 EPT Generic Richness                                                                                         | 11.00 |
| 03 Plecoptera Mean Abundance                               | 13.33   | 21 Sum of Abundances: <i>Dicrotendipes</i> ,<br><i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i> | 1.36  |
| 04 Ephemeroptera Mean Abundance                            | 38.67   | 23 Relative Generic Richness- Plecoptera                                                                        | 0.04  |
| 05 Shannon-Wiener Generic Diversity                        | 1.11    | 25 Sum of Abundances: <i>Cheumatopsyche</i><br><i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>       | 9.58  |
| 06 Hilsenhoff Biotic Index                                 | 3.92    | 26 Sum of Abundances: <i>Acroneuria</i> ,<br><i>Maccaffertium</i> , <i>Stenonema</i>                            | 17.78 |
| 07 Relative Abundance - Chironomidae                       | 0.03    | 28 EP Generic Richness/14                                                                                       | 0.43  |
| 08 Relative Generic Richness Diptera                       | 0.52    | 30 Presence of Class A Indicator Taxa/7                                                                         | 0.14  |
| 09 <i>Hydropsyche</i> Abundance                            | 162.29  |                                                                                                                 |       |
| 11 <i>Cheumatopsyche</i> Abundance                         | 4.13    |                                                                                                                 |       |
| 12 EPT Generic Richness/ Diptera<br>Generic Richness       | 0.85    |                                                                                                                 |       |
| 13 Relative Abundance - Oligochaeta                        | 0.00    |                                                                                                                 |       |
| 15 Perlidae Mean Abundance<br>(Family Functional Group)    | 13.33   |                                                                                                                 |       |
| 16 Tanypodinae Mean Abundance<br>(Family Functional Group) | 0.00    |                                                                                                                 |       |
| 17 Chironomini Abundance (Family<br>Functional Group)      | 4.09    |                                                                                                                 |       |

Five Most Dominant Taxa

| Rank | Taxon Name           | Percent |
|------|----------------------|---------|
| 1    | <i>Simulium</i>      | 83.60   |
| 2    | <i>Hydropsyche</i>   | 6.96    |
| 3    | <i>Chimarra</i>      | 3.83    |
| 4    | <i>Cardiocladius</i> | 1.05    |
| 5    | <i>Maccaffertium</i> | 0.76    |



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Waterbody: Little Androscoggin River - Station 122

Date Retrieved: 8/22/2008

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 22.4 deg C  
Dissolved Oxygen: 7.3 mg/l  
Specific Conductance: 80 uS/cm  
Velocity: 35 cm/s  
pH: 6.28  
Wetted Width: 19 m  
Bankfull Width: 20 m  
Depth: 67 cm

**Waterbody Information - Retrieval**

Temperature: 18.7 deg C  
Dissolved Oxygen: 9.4 mg/l  
Specific Conductance: 86 uS/cm  
Velocity: 55 cm/s  
pH: 6.19  
Wetted Width: 20 m  
Bankfull Width: 20 m  
Depth: 90 cm

**Water Chemistry - Retrieval**

**Summary of Habitat Characteristics**

Landuse Name

Canopy Cover

Terrain

Upland Hardwood

Canopy Open

Rolling Terrain

Stressor

Location

Substrate

Main Stem

Boulder 80 %  
Gravel 5 %  
Rubble/Cobble 10 %  
Sand 5 %

**Landcover Summary - 2004 Data**

**Sample Comments**

7/14/08: FLOW NOT MEASURED IN THE CENTER OF THE CHANNEL (TOO DEEP)

8/22/08: SPC/PH METER CALIBRATED FOR SPC ONLY; INITIAL PICKUP SCHEDULED 8/11, BUT WATER LEVEL TOO HIGH; ALL 3 BASKETS DISTURBED ON 8/22



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Town: Mechanic Falls

**Log Number: 1729**

Subsample Factor: X4

Replicates: 3

Calculated: 5/19/2009

| Taxon                                | Maine<br>Taxonomic<br>Code | Count<br>(Mean of Samplers) |          | Hilsenhoff<br>Biotic<br>Index | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|--------------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-----------------------|----------|
|                                      |                            | Actual                      | Adjusted |                               |                                | Actual                | Adjusted |
| <i>Attaneuria</i>                    | 09020209043                |                             | 13.33    | 1                             | --                             |                       | 0.6      |
| <i>Attaneuria ruralis</i>            | 09020209043128             | 13.33                       |          |                               | --                             | 0.6                   |          |
| Baetidae                             | 09020401                   | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Baetis</i>                        | 09020401001                |                             | 3.56     | 4                             | CG                             |                       | 0.2      |
| <i>Baetis intercalaris</i>           | 09020401001008             | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Baetis tricaudatus</i>            | 09020401001012             | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Heterocloeon</i>                  | 09020401005                |                             | 1.78     | 2                             | SC                             |                       | 0.1      |
| <i>Heterocloeon curiosum</i>         | 09020401005020             | 1.33                        |          |                               | --                             | 0.1                   |          |
| Heptageniidae                        | 09020402                   | 8.00                        |          |                               | --                             | 0.3                   |          |
| <i>Leucrocota</i>                    | 09020402011                | 1.33                        | 2.22     | 1                             | SC                             | 0.1                   | 0.1      |
| <i>Maccaffertium</i>                 | 09020402015                | 9.33                        | 17.78    | 4                             | SC                             | 0.4                   | 0.8      |
| <i>Maccaffertium modestum</i>        | 09020402015051             | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Isonychia</i>                     | 09020404018                | 13.33                       | 13.33    | 2                             | CF                             | 0.6                   | 0.6      |
| <i>Chimarra</i>                      | 09020601003                | 89.33                       | 89.33    | 2                             | CF                             | 3.8                   | 3.8      |
| Hydropsychidae                       | 09020604                   | 5.33                        |          |                               | --                             | 0.2                   |          |
| <i>Cheumatopsyche</i>                | 09020604015                | 4.00                        | 4.13     | 5                             | CF                             | 0.2                   | 0.2      |
| <i>Hydropsyche</i>                   | 09020604016                | 61.33                       | 162.29   | 4                             | CF                             | 2.6                   | 7.0      |
| <i>Hydropsyche morosa</i>            | 09020604016030             | 21.33                       |          |                               | --                             | 0.9                   |          |
| <i>Hydropsyche sparna</i>            | 09020604016032             | 44.00                       |          |                               | --                             | 1.9                   |          |
| <i>Hydropsyche depravata complex</i> | 09020604016041             | 16.00                       |          |                               | CF                             | 0.7                   |          |
| <i>Hydropsyche scalaris group</i>    | 09020604016048             | 14.67                       |          |                               | --                             | 0.6                   |          |
| <i>Macrostemum</i>                   | 09020604018                |                             | 8.25     | 3                             | CF                             |                       | 0.4      |
| <i>Macrostemum zebratum</i>          | 09020604018054             | 8.00                        |          |                               | --                             | 0.3                   |          |
| <i>Micrasema</i>                     | 09020609044                | 1.33                        | 1.33     | 2                             | SH                             | 0.1                   | 0.1      |
| Chironomidae                         | 09021011                   | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Brillia</i>                       | 09021011033                | 1.33                        | 1.36     | 5                             | SH                             | 0.1                   | 0.1      |
| <i>Cardiocladius</i>                 | 09021011034                |                             | 24.52    | 5                             | PR                             |                       | 1.1      |
| <i>Cardiocladius obscurus</i>        | 09021011034053             | 24.00                       |          |                               | --                             | 1.0                   |          |
| <i>Corynoneura</i>                   | 09021011036                | 1.33                        | 1.36     | 7                             | CG                             | 0.1                   | 0.1      |
| <i>Eukiefferiella</i>                | 09021011041                |                             | 2.72     | 8                             | CG                             |                       | 0.1      |
| <i>Eukiefferiella similis</i>        | 09021011041082             | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Eukiefferiella devonica group</i> | 09021011041083             | 1.33                        |          |                               | CG                             | 0.1                   |          |
| <i>Nanocladius</i>                   | 09021011049                |                             | 5.45     | 3                             | CG                             |                       | 0.2      |
| <i>Nanocladius spinipennis</i>       | 09021011049090             | 5.33                        |          |                               | --                             | 0.2                   |          |
| <i>Rheocricotopus</i>                | 09021011057                |                             | 1.36     | 6                             | CG                             |                       | 0.1      |
| <i>Rheocricotopus robacki</i>        | 09021011057105             | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Thienemanniella</i>               | 09021011062                |                             | 1.36     | 6                             | CG                             |                       | 0.1      |
| <i>Thienemanniella lobapodema</i>    | 09021011062114             | 1.33                        |          |                               | --                             | 0.1                   |          |



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|                              |                                                    |                       |
|------------------------------|----------------------------------------------------|-----------------------|
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| <b>Log Number: 1729</b>      | Subsample Factor: X4                               | Replicates: 3         |
|                              |                                                    | Calculated: 5/19/2009 |

| Taxon                                       | Maine<br>Taxonomic<br>Code | Count<br>(Mean of Samplers) |          | Hilsenhoff<br>Biotic<br>Index | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|---------------------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-----------------------|----------|
|                                             |                            | Actual                      | Adjusted |                               |                                | Actual                | Adjusted |
| <i>Tvetenia</i>                             | 09021011065                |                             | 10.90    | 5                             | CG                             |                       | 0.5      |
| <i>Tvetenia vitracies</i>                   | 09021011065113             | 10.67                       |          |                               | --                             | 0.5                   |          |
| <i>Micropsectra</i>                         | 09021011070                | 1.33                        | 1.36     | 7                             | CG                             | 0.1                   | 0.1      |
| <i>Rheotanytarsus</i>                       | 09021011072                | 2.67                        | 2.72     | 6                             | CF                             | 0.1                   | 0.1      |
| <i>Tanytarsus</i>                           | 09021011076                | 5.33                        | 5.45     | 6                             | CF                             | 0.2                   | 0.2      |
| <i>Polypedilum</i>                          | 09021011102                |                             | 4.09     | 6                             | SH                             |                       | 0.2      |
| <i>Polypedilum aviceps</i>                  | 09021011102181             | 4.00                        |          |                               | --                             | 0.2                   |          |
| <i>Simulium</i>                             | 09021012047                | 9.33                        | 1950.67  | 4                             | CF                             | 0.4                   | 83.6     |
| <i>Simulium fibrinflatum</i>                | 09021012047059             | 956.00                      |          |                               | --                             | 41.0                  |          |
| <i>Simulium jenningsi</i>                   | 09021012047060             | 6.67                        |          |                               | --                             | 0.3                   |          |
| <i>Simulium vittatum</i>                    | 09021012047064             | 1.33                        |          |                               | --                             | 0.1                   |          |
| <i>Simulium tuberosum</i>                   | 09021012047067             | 98.67                       |          |                               | --                             | 4.2                   |          |
| <i>Simulium jenningsi complex</i>           | 09021012047070             | 876.00                      |          |                               | CF                             | 37.5                  |          |
| <i>Simulium venustum/verecundum complex</i> | 09021012047072             | 2.67                        |          |                               | CF                             | 0.1                   |          |
| Empididae                                   | 09021016                   |                             |          | 6                             | --                             |                       |          |
| <i>Stenelmis</i>                            | 09021113070                | 1.33                        | 2.67     | 5                             | SC                             | 0.1                   | 0.1      |
| <i>Stenelmis concinna</i>                   | 09021113070054             | 1.33                        |          |                               | --                             | 0.1                   |          |