

**Maine Department of Environmental Protection  
Biological Monitoring Unit  
BioME Aquatic Life Classification Attainment Report**

**Station Information**

|                                       |                              |
|---------------------------------------|------------------------------|
| <b>Station Number:</b> S696           | DEP Drainage: Androscoggin   |
| Waterbody: Taylor Brook               | HUC Code: 01040002           |
| Town: AUBURN                          | HUC Name: Lower Androscoggin |
| Directions: Brickyard Circle off 202S | Latitude: Deg Min Sec        |
|                                       | Longitude: Deg Min Sec       |
|                                       | Stream Order:                |

**Sample Information**

|                         |                             |                           |
|-------------------------|-----------------------------|---------------------------|
| <b>Log Number:</b> 1230 | Type of Sample: Riffle Bags | Date Deployed: 16-JUL-03  |
| Subsample Factor: X4    | Replicates: 3               | Date Retrieved: 13-AUG-03 |

**Classification Attainment**

|                             |                                 |  |
|-----------------------------|---------------------------------|--|
| Statutory Class: B          | <b>Final Determination:</b> C   |  |
| Model Result with P > .6: C | Reason for Determination: Model |  |
| Date Last Calculated:       |                                 |  |

**Model Probabilities**

| <u>First Stage Model</u>  |      | <u>C or Better Model</u>       |      |
|---------------------------|------|--------------------------------|------|
| Class A                   | 0.00 | Class A, B, or C               | 1.00 |
| Class B                   | 0.01 | Non-Attainment                 | 0.00 |
|                           |      |                                |      |
|                           |      |                                |      |
| <u>B or Better Model</u>  |      | <u>A Model</u>                 |      |
| Class A or B              | 0.00 | Class A                        | 0.00 |
| Class C or Non-Attainment | 1.00 | Class B or C or Non-Attainment | 1.00 |

**Model Variables**

|  |        |  |       |
|--|--------|--|-------|
| 01 Total Abundance of Individuals                    | 629.33 | 18 Relative Abundance - Ephemeroptera              | 0.16  |
| 02 Generic Richness                                  | 50.00  | 19 EPT Generic Richness                            | 17.00 |
| 03 Plecoptera Abundance                              | 0.00   | 21 Sum of Abundances: <i>Dicrotendipes</i> ,       | 2.81  |
| 04 Ephemeroptera Abundance                           | 98.67  | <i>Micropsectra, Parachironomus, Helobdella</i>    |       |
| 05 Shannon - Wiener Diversity                        | 4.31   | 23 Relative Generic Richness- Plecoptera           | 0.00  |
| 06 Hilsenhoff Biotic Index                           | 6.15   | 25 Sum of Abundances: <i>Cheumatopsyche</i> ,      | 71.57 |
| 07 Relative Abundance - Chironomidae                 | 0.25   | <i>Cricotopus, Tanytarsus, Ablabesmyia</i>         |       |
| 08 Relative Generic Richness - Diptera               | 0.30   | 26 Sum of Abundances: <i>Acroneuria, Stenonema</i> | 54.00 |
| 09 <i>Hydropsyche</i> Abundance                      | 47.82  | 28 EP Generic Richness/14                          | 0.36  |
| 11 <i>Cheumatopsyche</i> Abundance                   | 5.52   | 30 Presence of Class A Indicator Taxa/7            | 0.00  |
| 12 EPT Generic Richness/ Diptera<br>Generic Richness | 1.13   |  |       |

**Five Most Dominant Taxa**

|   |       | Taxa Rank | Taxa Name   | Percent |
|---|-------|-----------|-------------|---------|
| 13 Relative Abundance - Oligochaeta                   | 0.01  | 1         | Caecidotea  | 20.97   |
| 15 Perlidae Abundance (Family<br>Functional Group)    | 0.00  | 2         | Tanytarsus  | 9.16    |
| 16 Tanypodinae Abundance (Family<br>Functional Group) | 2.81  | 3         | Stenonema   | 8.58    |
| 17 Chironomini Abundance (Family<br>Functional Group) | 50.59 | 4         | Hydropsyche | 7.60    |
|   |       | 5         | Polypedilum | 7.37    |

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|                |      |                         |                           |
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**Sample Collection and Processing Information**

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Sampling Organization:  
Taxonomist: Michael Winnell

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**Waterbody Information**

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|                    |         |                      |             |                |         |
|--------------------|---------|----------------------|-------------|----------------|---------|
| Water Temperature: | 21.8 °C | Specific Conductance | 133.0 uS/cm | Channel Width: | 10.0 m  |
| Velocity:          | 18 cm/s | Dissolved Oxygen:    | 3.9 ppm     | Channel Depth: | 25.0 cm |

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**Summary of Habitat Characteristics**

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| <u>Landuse Name</u>      | <u>Canopy Cover</u> | <u>Stressor</u> | <u>Location</u> |
|--------------------------|---------------------|-----------------|-----------------|
| Upland Hardwood<br>Urban | Partly Open         |                 | Not Designated  |

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**Substrate**

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|        |        |      |          |
|--------|--------|------|----------|
| Rubble | Gravel | Sand | Detritus |
| 5%     | 5%     | 60%  | 30%      |

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**Comments about the Station or Sample**

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8/13/03 Data;  
Temp:22.4C; SPC: 116uS/cm; DO: 8.3mg/L; pH: 7.21

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**Comments about the Final Determination**

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**BioME Aquatic Life Taxonomic Inventory Report**

| Taxa                                 | Code           | Count<br>(Average of<br>Baskets) |          | Biotic<br>Index<br>Value | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|--------------------------------------|----------------|----------------------------------|----------|--------------------------|--------------------------------|-----------------------|----------|
|                                      |                | Actual                           | Adjusted |                          |                                | Actual                | Adjusted |
| <i>Dugesia</i>                       | 03010101002    | 0.00                             | 28.00    |                          | --                             | 0.0                   | 4.4      |
| <i>Dugesia tigrina</i>               | 03010101002003 | 28.00                            | 0.00     |                          | --                             | 4.4                   | 0.0      |
| <i>Stylaria</i>                      | 08020202014    | 0.00                             | 4.00     |                          | CG                             | 0.0                   | 0.6      |
| <i>Stylaria lacustris</i>            | 08020202014002 | 4.00                             | 0.00     |                          | --                             | 0.6                   | 0.0      |
| <i>Caecidotea</i>                    | 09010101001    | 89.33                            | 132.00   | 8                        | SH                             | 14.2                  | 21.0     |
| <i>Caecidotea racovitzai</i>         | 09010101001002 | 42.67                            | 0.00     |                          | --                             | 6.8                   | 0.0      |
| <i>Hyalella</i>                      | 09010203006    | 0.00                             | 29.33    | 8                        | CG                             | 0.0                   | 4.7      |
| <i>Hyalella azteca</i>               | 09010203006011 | 29.33                            | 0.00     |                          | --                             | 4.7                   | 0.0      |
| <i>Boyeria</i>                       | 09020301004    | 0.00                             | 6.67     | 2                        | PR                             | 0.0                   | 1.1      |
| <i>Boyeria grafiana</i>              | 09020301004011 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Boyeria vinosa</i>                | 09020301004012 | 5.33                             | 0.00     |                          | --                             | 0.8                   | 0.0      |
| <i>Calopteryx</i>                    | 09020307043    | 0.00                             | 1.33     | 5                        | PR                             | 0.0                   | 0.2      |
| <i>Calopteryx maculata</i>           | 09020307043088 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Coenagrionidae</i>                | 09020309       | 2.67                             | 2.67     |                          | --                             | 0.4                   | 0.4      |
| <i>Argia</i>                         | 09020309048    | 18.67                            | 18.67    | 7                        | PR                             | 3.0                   | 3.0      |
| <i>Baetidae</i>                      | 09020401       | 2.67                             | 0.00     |                          | --                             | 0.4                   | 0.0      |
| <i>Baetis</i>                        | 09020401001    | 2.67                             | 3.11     | 4                        | CG                             | 0.4                   | 0.5      |
| <i>Acerpenna</i>                     | 09020401007    | 6.67                             | 15.56    | 5                        | CG                             | 1.1                   | 2.5      |
| <i>Acerpenna pygmaea</i>             | 09020401007011 | 6.67                             | 0.00     |                          | --                             | 1.1                   | 0.0      |
| <i>Heptageniidae</i>                 | 09020402       | 25.33                            | 0.00     |                          | --                             | 4.0                   | 0.0      |
| <i>Stenacron</i>                     | 09020402014    | 0.00                             | 22.00    | 7                        | SC                             | 0.0                   | 3.5      |
| <i>Stenacron interpunctatum</i>      | 09020402014045 | 14.67                            | 0.00     |                          | --                             | 2.3                   | 0.0      |
| <i>Stenonema</i>                     | 09020402015    | 24.00                            | 54.00    | 4                        | SC                             | 3.8                   | 8.6      |
| <i>Stenonema modestum</i>            | 09020402015051 | 12.00                            | 0.00     |                          | --                             | 1.9                   | 0.0      |
| <i>Tricorythodes</i>                 | 09020411038    | 4.00                             | 4.00     | 4                        | CG                             | 0.6                   | 0.6      |
| <i>Philopotamidae</i>                | 09020601       | 2.67                             | 2.67     |                          | --                             | 0.4                   | 0.4      |
| <i>Chimarra</i>                      | 09020601003    | 5.33                             | 5.33     | 2                        | CF                             | 0.8                   | 0.8      |
| <i>Ceratomyza</i>                    | 09020603006    | 12.00                            | 12.00    |                          | PR                             | 1.9                   | 1.9      |
| <i>Nyctiophylax</i>                  | 09020603009    | 0.00                             | 2.67     | 5                        | PR                             | 0.0                   | 0.4      |
| <i>Nyctiophylax moestus</i>          | 09020603009013 | 2.67                             | 0.00     |                          | --                             | 0.4                   | 0.0      |
| <i>Polycentropus</i>                 | 09020603010    | 10.67                            | 10.67    | 6                        | PR                             | 1.7                   | 1.7      |
| <i>Phylocentropus</i>                | 09020603011    | 1.33                             | 1.33     | 5                        | CF                             | 0.2                   | 0.2      |
| <i>Hydropsychidae</i>                | 09020604       | 14.67                            | 0.00     |                          | --                             | 2.3                   | 0.0      |
| <i>Cheumatopsyche</i>                | 09020604015    | 4.00                             | 5.52     | 5                        | CF                             | 0.6                   | 0.9      |
| <i>Hydropsyche</i>                   | 09020604016    | 24.00                            | 47.82    | 4                        | CF                             | 3.8                   | 7.6      |
| <i>Hydropsyche depravata-complex</i> | 09020604016041 | 10.67                            | 0.00     |                          | CF                             | 1.7                   | 0.0      |

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**BioME Aquatic Life Taxonomic Inventory Report**

| Taxa                               | Code           | Count<br>(Average of<br>Baskets) |          | Biotic<br>Index<br>Value | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|------------------------------------|----------------|----------------------------------|----------|--------------------------|--------------------------------|-----------------------|----------|
|                                    |                | Actual                           | Adjusted |                          |                                | Actual                | Adjusted |
| <i>Hydroptilidae</i>               | 09020607       | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Agraylea</i>                    | 09020607024    | 1.33                             | 2.00     | 8                        | P                              | 0.2                   | 0.3      |
| <i>Hydroptila</i>                  | 09020607026    | 1.33                             | 2.00     | 6                        | P                              | 0.2                   | 0.3      |
| <i>Pycnopsyche</i>                 | 09020610049    | 2.67                             | 2.67     | 4                        | SH                             | 0.4                   | 0.4      |
| <i>Oecetis</i>                     | 09020618078    | 8.00                             | 26.67    | 8                        | PR                             | 1.3                   | 4.2      |
| <i>Oecetis persimilis</i>          | 09020618078157 | 18.67                            | 0.00     |                          | --                             | 3.0                   | 0.0      |
| <i>Nigronia</i>                    | 09020701003    | 0.00                             | 1.33     | 0                        | PR                             | 0.0                   | 0.2      |
| <i>Nigronia serricornis</i>        | 09020701003003 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Chironomidae</i>                | 09021011       | 8.00                             | 0.00     |                          | --                             | 1.3                   | 0.0      |
| <i>Ablabesmyia</i>                 | 09021011001    | 0.00                             | 1.41     | 8                        | PR                             | 0.0                   | 0.2      |
| <i>Ablabesmyia mallochi</i>        | 09021011001004 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Conchapelopia</i>               | 09021011004    | 1.33                             | 1.41     | 6                        | PR                             | 0.2                   | 0.2      |
| <i>Pothastia</i>                   | 09021011026    | 0.00                             | 1.41     | 2                        | CG                             | 0.0                   | 0.2      |
| <i>Pothastia longimana</i>         | 09021011026046 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Cricotopus</i>                  | 09021011037    | 5.33                             | 7.03     | 7                        | SH                             | 0.8                   | 1.1      |
| <i>Cricotopus vierriensis</i>      | 09021011037071 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Parakiefferiella</i>            | 09021011052    | 1.33                             | 1.41     |                          | CG                             | 0.2                   | 0.2      |
| <i>Parametricnemus</i>             | 09021011053    | 4.00                             | 4.22     | 5                        | CG                             | 0.6                   | 0.7      |
| <i>Rheocricotopus</i>              | 09021011057    | 0.00                             | 1.41     | 6                        | CG                             | 0.0                   | 0.2      |
| <i>Rheocricotopus robacki</i>      | 09021011057105 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Thienemanniella</i>             | 09021011062    | 1.33                             | 1.41     | 6                        | CG                             | 0.2                   | 0.2      |
| <i>Rheotanytarsus</i>              | 09021011072    | 25.33                            | 26.70    | 6                        | CF                             | 4.0                   | 4.2      |
| <i>Stempellinella</i>              | 09021011074    | 1.33                             | 1.41     | 2                        | --                             | 0.2                   | 0.2      |
| <i>Tanytarsus</i>                  | 09021011076    | 48.00                            | 57.62    | 6                        | CF                             | 7.6                   | 9.2      |
| <i>Tanytarsus glabrescens</i>      | 09021011076134 | 6.67                             | 0.00     |                          | --                             | 1.1                   | 0.0      |
| <i>Dicrotendipes</i>               | 09021011085    | 2.67                             | 2.81     | 8                        | CG                             | 0.4                   | 0.4      |
| <i>Nilothauma</i>                  | 09021011095    | 1.33                             | 1.41     | 2                        | --                             | 0.2                   | 0.2      |
| <i>Polypedilum</i>                 | 09021011102    | 1.33                             | 46.38    | 6                        | SH                             | 0.2                   | 7.4      |
| <i>Polypedilum flavum</i>          | 09021011102182 | 41.33                            | 0.00     |                          | --                             | 6.6                   | 0.0      |
| <i>Polypedilum illinoense-grp.</i> | 09021011102185 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Simulium</i>                    | 09021012047    | 0.00                             | 1.33     | 4                        | CF                             | 0.0                   | 0.2      |
| <i>Simulium vittatum</i>           | 09021012047064 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Psephenus</i>                   | 09021108058    | 0.00                             | 1.33     | 4                        | SC                             | 0.0                   | 0.2      |
| <i>Psephenus herricki</i>          | 09021108058028 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Ancyronyx</i>                   | 09021113063    | 0.00                             | 8.00     | 6                        | CG                             | 0.0                   | 1.3      |
| <i>Ancyronyx variegatus</i>        | 09021113063034 | 8.00                             | 0.00     |                          | --                             | 1.3                   | 0.0      |
| <i>Macronychus</i>                 | 09021113065    | 0.00                             | 1.33     | 4                        | --                             | 0.0                   | 0.2      |
| <i>Macronychus glabratus</i>       | 09021113065040 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |

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| Taxa                           | Code           | Count<br>(Average of<br>Baskets) |          | Biotic<br>Index<br>Value | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|--------------------------------|----------------|----------------------------------|----------|--------------------------|--------------------------------|-----------------------|----------|
|                                |                | Actual                           | Adjusted |                          |                                | Actual                | Adjusted |
| <i>Microcylloepus</i>          | 09021113066    | 0.00                             | 1.33     | 3                        | --                             | 0.0                   | 0.2      |
| <i>Microcylloepus pusillus</i> | 09021113066041 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Stenelmis</i>               | 09021113070    | 2.67                             | 9.33     | 5                        | SC                             | 0.4                   | 1.5      |
| <i>Stenelmis crenata</i>       | 09021113070055 | 6.67                             | 0.00     |                          | --                             | 1.1                   | 0.0      |
| <i>Lebertia</i>                | 09030105001    | 2.67                             | 2.67     |                          | --                             | 0.4                   | 0.4      |
| <i>Amnicola</i>                | 10010104013    | 0.00                             | 1.33     |                          | SC                             | 0.0                   | 0.2      |
| <i>Amnicola limosa</i>         | 10010104013018 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |
| <i>Sphaeriidae</i>             | 10020201       | 1.33                             | 1.33     |                          | SC                             | 0.2                   | 0.2      |
| <i>Sphaerium</i>               | 10020201003    | 0.00                             | 1.33     |                          | CF                             | 0.0                   | 0.2      |
| <i>Sphaerium striatinum</i>    | 10020201003024 | 1.33                             | 0.00     |                          | --                             | 0.2                   | 0.0      |