



# Maine Department of Environmental Protection

## Biological Monitoring Program

### Aquatic Life Classification Attainment Report

#### Station Information

|                                                                                                                                                                                 |                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Station Number:</b> S-1115<br><b>Waterbody:</b> Creamer Brook - Station 1115<br><b>Town:</b> T19 Ed Bpp<br><b>Directions:</b> SITE IS DOWNSTREAM OF THE OLD BRIDGE LOCATION. | <b>River Basin:</b> Maine Coastal<br><b>HUC8 Name:</b> Maine Coastal<br><b>Latitude:</b> 44 58 16.07 N<br><b>Longitude:</b> 67 30 33.57 W<br><b>Stream Order:</b> 2 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Sample Information

|                         |                          |                           |
|-------------------------|--------------------------|---------------------------|
| <b>Log Number:</b> 2763 | Type of Sample: ROCK BAG | Date Deployed: 7/31/2019  |
| Subsample Factor: X1    | Replicates: 3            | Date Retrieved: 8/29/2019 |

#### Classification Attainment

|                                    |                                        |                |
|------------------------------------|----------------------------------------|----------------|
| <b>Statutory Class:</b> AA         | <b>Final Determination:</b> A          | Date: 1/9/2020 |
| Model Result with $P \geq 0.6$ : A | <b>Reason for Determination:</b> Model |                |
| Date Last Calculated: 12/20/2019   | Comments:                              |                |

#### Model Probabilities

| <u>First Stage Model</u>  |      |         |      | <u>C or Better Model</u>       |      |
|---------------------------|------|---------|------|--------------------------------|------|
| Class A                   | 0.79 | Class C | 0.01 | Class A, B, or C               | 1.00 |
| Class B                   | 0.21 | NA      | 0.00 | Non-Attainment                 | 0.00 |
| <u>B or Better Model</u>  |      |         |      | <u>A Model</u>                 |      |
| Class A or B              |      | 1.00    |      | Class A                        | 0.98 |
| Class C or Non-Attainment |      | 0.00    |      | Class B or C or Non-Attainment | 0.02 |

#### Model Variables

|                                      |       |                                                                 |       |
|--------------------------------------|-------|-----------------------------------------------------------------|-------|
| 01 Total Mean Abundance              | 95.67 | 18 Relative Abundance Ephemeroptera                             | 0.36  |
| 02 Generic Richness                  | 36.00 | 19 EPT Generic Richness                                         | 16.00 |
| 03 Plecoptera Mean Abundance         | 3.00  | 21 Sum of Abundances: <i>Dicrotendipes</i> ,                    | 3.00  |
| 04 Ephemeroptera Mean Abundance      | 34.67 | <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i> |       |
| 05 Shannon-Wiener Generic Diversity  | 3.67  | 23 Relative Generic Richness- Plecoptera                        | 0.06  |
| 06 Hilsenhoff Biotic Index           | 3.91  | 25 Sum of Abundances: <i>Cheumatopsyche</i> ,                   | 0.33  |
| 07 Relative Abundance - Chironomidae | 0.18  | <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>      |       |
| 08 Relative Generic Richness Diptera | 0.33  | 26 Sum of Abundances: <i>Acroneuria</i> ,                       | 31.33 |
| 09 <i>Hydropsyche</i> Abundance      | 18.67 | <i>Maccaffertium</i> , <i>Stenonema</i>                         |       |
| 11 <i>Cheumatopsyche</i> Abundance   | 0.33  | 28 EP Generic Richness/14                                       | 0.43  |
| 12 EPT Generic Richness/ Diptera     | 1.33  | 30 Presence of Class A Indicator Taxa/7                         | 0.29  |
| Generic Richness                     |       |                                                                 |       |

#### Five Most Dominant Taxa

|                                                         |      | Rank | Taxon Name            | Percent |
|---------------------------------------------------------|------|------|-----------------------|---------|
| 13 Relative Abundance - Oligochaeta                     | 0.00 | 1    | <i>Maccaffertium</i>  | 31.36   |
| 15 Perlidae Mean Abundance (Family Functional Group)    | 1.33 | 2    | <i>Hydropsyche</i>    | 19.51   |
| 16 Tanypodinae Mean Abundance (Family Functional Group) | 1.33 | 3    | <i>Lepidostoma</i>    | 9.41    |
| 17 Chironomini Abundance (Family Functional Group)      | 4.33 | 4    | <i>Rheotanytarsus</i> | 3.48    |
|                                                         |      | 5    | <i>Rheocricotopus</i> | 3.14    |
|                                                         |      | 6    | <i>Micropsectra</i>   | 3.14    |
|                                                         |      | 7    | <i>Polypedilum</i>    | 3.14    |



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|                               |                                         |                           |
|-------------------------------|-----------------------------------------|---------------------------|
| <b>Station Number: S-1115</b> | Town: T19 Ed Bpp                        | Date Deployed: 7/31/2019  |
| <b>Log Number: 2763</b>       | Waterbody: Creamer Brook - Station 1115 | Date Retrieved: 8/29/2019 |

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

|                              |             |
|------------------------------|-------------|
| Temperature:                 | 20.53 deg C |
| Dissolved Oxygen:            | 8.46 mg/l   |
| Dissolved Oxygen Saturation: | 94.7 %      |
| Specific Conductance:        | 17.29 uS/cm |
| Velocity:                    |             |
| pH:                          | 6.06        |
| Wetted Width:                | 6.1 m       |
| Bankfull Width:              | 6.5 m       |
| Depth:                       | 25 cm       |

**Waterbody Information - Retrieval**

|                              |             |
|------------------------------|-------------|
| Temperature:                 | 17.02 deg C |
| Dissolved Oxygen:            | 9.18 mg/l   |
| Dissolved Oxygen Saturation: | 95.2 %      |
| Specific Conductance:        | 18.1 uS/cm  |
| Velocity:                    | 24.4 cm/s   |
| pH:                          | 5.9         |
| Wetted Width:                | 6.3 m       |
| Bankfull Width:              | 6.5 m       |
| Depth:                       | 34 cm       |

**Water Chemistry**

**Summary of Habitat Characteristics**

|                           |                     |                    |
|---------------------------|---------------------|--------------------|
| <u>Landuse Name</u>       | <u>Canopy Cover</u> | <u>Terrain</u>     |
| Upland Conifer            | Dense               | Flat               |
| Upland Hardwood           |                     |                    |
| <u>Potential Stressor</u> | <u>Location</u>     | <u>Substrate</u>   |
|                           | Minimally Disturbed | Boulder 55 %       |
|                           |                     | Gravel 10 %        |
|                           |                     | Rubble/Cobble 35 % |

**Landcover Summary - 2004 Data**

**Sample Comments**

WATER SAMPLES COLLECTED BY SALMON UNIT - EMILY Z.



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

| <b>Station Number: S-1115</b>      | Waterbody: Creamer Brook - Station 1115 |                             |          | Town: T19 Ed Bpp              |                                |                         |          |
|------------------------------------|-----------------------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-------------------------|----------|
| <b>Log Number: 2763</b>            | Subsample Factor: X1                    | Replicates: 3               |          | Calculated: 12/20/2019        |                                |                         |          |
| 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 |
| Perlodidae                         | 09020207                                | 1.67                        | 1.67     |                               | --                             | 1.7                     | 1.7      |
| <i>Acroneuria</i>                  | 09020209042                             | 0.67                        | 1.33     | 0                             | PR                             | 0.7                     | 1.4      |
| <i>Acroneuria abnormis</i>         | 09020209042121                          | 0.67                        |          | 0                             | PR                             | 0.7                     |          |
| Aeshnidae                          | 09020301                                | 1.67                        | 1.67     |                               | --                             | 1.7                     | 1.7      |
| <i>Calopteryx</i>                  | 09020307043                             | 0.33                        | 0.33     | 5                             | PR                             | 0.3                     | 0.3      |
| <i>Leucrocota</i>                  | 09020402011                             | 1.33                        | 1.33     | 1                             | SC                             | 1.4                     | 1.4      |
| <i>Maccaffertium</i>               | 09020402015                             | 24.33                       | 30.00    | 4                             | SC                             | 25.4                    | 31.4     |
| <i>Maccaffertium vicarium</i>      | 09020402015055                          | 5.67                        |          |                               | --                             | 5.9                     |          |
| <i>Paraleptophlebia</i>            | 09020406026                             | 2.33                        | 2.33     | 1                             | CG                             | 2.4                     | 2.4      |
| <i>Eurylophella</i>                | 09020410036                             |                             | 1.00     | 3                             | CG                             |                         | 1.0      |
| <i>Eurylophella funeralis</i>      | 09020410036115                          | 1.00                        |          |                               | SH                             | 1.0                     |          |
| <i>Polycentropus</i>               | 09020603010                             | 2.33                        | 2.33     | 6                             | PR                             | 2.4                     | 2.4      |
| <i>Cheumatopsyche</i>              | 09020604015                             | 0.33                        | 0.33     | 5                             | CF                             | 0.3                     | 0.3      |
| <i>Hydropsyche</i>                 | 09020604016                             |                             | 18.67    | 4                             | CF                             |                         | 19.5     |
| <i>Hydropsyche slossonae</i>       | 09020604016031                          | 2.00                        |          |                               | --                             | 2.1                     |          |
| <i>Hydropsyche sparna</i>          | 09020604016032                          | 15.67                       |          |                               | --                             | 16.4                    |          |
| <i>Hydropsyche betteni</i>         | 09020604016037                          | 1.00                        |          |                               | --                             | 1.0                     |          |
| <i>Rhyacophila</i>                 | 09020605019                             | 1.00                        | 1.00     | 2                             | PR                             | 1.0                     | 1.0      |
| <i>Hydroptila</i>                  | 09020607026                             | 0.33                        | 0.33     | 6                             | P                              | 0.3                     | 0.3      |
| <i>Oligostomis</i>                 | 09020608039                             | 0.67                        | 0.67     | 2                             | PR                             | 0.7                     | 0.7      |
| <i>Micrasema</i>                   | 09020609044                             | 0.67                        | 0.67     | 2                             | SH                             | 0.7                     | 0.7      |
| <i>Lepidostoma</i>                 | 09020611064                             | 9.00                        | 9.00     | 1                             | SH                             | 9.4                     | 9.4      |
| <i>Mystacides</i>                  | 09020618075                             |                             | 0.33     | 4                             | CG                             |                         | 0.3      |
| <i>Mystacides sepulchralis</i>     | 09020618075147                          | 0.33                        |          |                               | --                             | 0.3                     |          |
| <i>Oecetis</i>                     | 09020618078                             | 1.00                        | 1.00     | 8                             | PR                             | 1.0                     | 1.0      |
| <i>Nigronia</i>                    | 09020701003                             |                             | 0.33     | 0                             | PR                             |                         | 0.3      |
| <i>Nigronia serricornis</i>        | 09020701003003                          | 0.33                        |          |                               | --                             | 0.3                     |          |
| Chironomidae                       | 09021011                                |                             |          |                               | --                             |                         |          |
| <i>Labrundinia</i>                 | 09021011008                             | 0.33                        | 0.33     | 7                             | PR                             | 0.3                     | 0.3      |
| <i>Thienemannimyia</i>             | 09021011020                             |                             | 0.33     | 3                             | PR                             |                         | 0.3      |
| <i>Thienemannimyia group</i>       | 09021011020041                          | 0.33                        |          |                               | --                             | 0.3                     |          |
| <i>Trissopelopia</i>               | 09021011021                             | 0.67                        | 0.67     |                               | PR                             | 0.7                     | 0.7      |
| <i>Brillia</i>                     | 09021011033                             | 0.33                        | 0.33     | 5                             | SH                             | 0.3                     | 0.3      |
| <i>Rheocricotopus</i>              | 09021011057                             | 2.67                        | 3.00     | 6                             | CG                             | 2.8                     | 3.1      |
| <i>Rheocricotopus tuberculatus</i> | 09021011057106                          | 0.33                        |          |                               | --                             | 0.3                     |          |
| <i>Tvetenia</i>                    | 09021011065                             |                             | 1.33     | 5                             | CG                             |                         | 1.4      |
| <i>Tvetenia vitracies</i>          | 09021011065113                          | 0.33                        |          |                               | --                             | 0.3                     |          |



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| <b>Log Number: 2763</b>       | Subsample Factor: X1                    | Replicates: 3          |
|                               |                                         | Calculated: 12/20/2019 |

| 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 paucunca</i>              | 09021011065114             | 1.00                        |          |                               | --                             | 1.0                     |          |
| <i>Micropsectra</i>                   | 09021011070                | 3.00                        | 3.00     | 7                             | CG                             | 3.1                     | 3.1      |
| <i>Rheotanytarsus</i>                 | 09021011072                |                             | 3.33     | 6                             | CF                             |                         | 3.5      |
| <i>Rheotanytarsus exiguus group</i>   | 09021011072127             | 0.67                        |          |                               | CF                             | 0.7                     |          |
| <i>Rheotanytarsus pellucidus</i>      | 09021011072128             | 2.67                        |          |                               | CF                             | 2.8                     |          |
| <i>Stempellinella</i>                 | 09021011074                | 0.33                        | 0.33     | 2                             | --                             | 0.3                     | 0.3      |
| <i>Tanytarsus</i>                     | 09021011076                |                             |          | 6                             | CF                             |                         |          |
| <i>Microtendipes</i>                  | 09021011094                |                             | 1.33     | 6                             | CF                             |                         | 1.4      |
| <i>Microtendipes rydalensis group</i> | 09021011094168             | 1.33                        |          |                               | --                             | 1.4                     |          |
| <i>Polypedilum</i>                    | 09021011102                |                             | 3.00     | 6                             | SH                             |                         | 3.1      |
| <i>Polypedilum aviceps</i>            | 09021011102181             | 2.67                        |          |                               | --                             | 2.8                     |          |
| <i>Polypedilum illinoense group</i>   | 09021011102185             | 0.33                        |          |                               | --                             | 0.3                     |          |
| <i>Atherix</i>                        | 09021015055                | 0.67                        | 0.67     | 2                             | PR                             | 0.7                     | 0.7      |
| <i>Hydrochus</i>                      | 09021105035                | 0.33                        | 0.33     |                               | SH                             | 0.3                     | 0.3      |
| <i>Dubiraphia</i>                     | 09021113064                |                             | 0.33     | 6                             | --                             |                         | 0.3      |
| <i>Dubiraphia vittata</i>             | 09021113064038             | 0.33                        |          |                               | --                             | 0.3                     |          |
| <i>Promoresia</i>                     | 09021113069                |                             | 2.00     |                               | --                             |                         | 2.1      |
| <i>Promoresia tardella</i>            | 09021113069052             | 2.00                        |          |                               | --                             | 2.1                     |          |
| <i>Stenelmis</i>                      | 09021113070                | 0.67                        | 0.67     | 5                             | SC                             | 0.7                     | 0.7      |
| Acariformes                           | 090301                     | 0.33                        | 0.33     |                               | --                             | 0.3                     | 0.3      |