



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

**Station Information**

|   |                        |
|---|------------------------|
| <b>Station Number:</b> S-1114                                     | River Basin: Kennebec  |
| Waterbody: Stratton Brook - Station 1114                          | HUC8 Name: Dead        |
| Town: Wyman Twp   | Latitude: 45 6 47.45 N |
| Directions: RT 16 TO STRATTON BROOK POND RD. IN BIGELOW PRESERVE. | Longitude: 70 21 5.4 W |
|   | Stream Order: 2        |

**Sample Information**

|                         |                          |                           |
|-------------------------|--------------------------|---------------------------|
| <b>Log Number:</b> 2566 | Type of Sample: ROCK BAG | Date Deployed: 7/13/2017  |
| Subsample Factor: X1    | Replicates: 3            | Date Retrieved: 8/10/2017 |

**Classification Attainment**

|                                    |  |                 |
|------------------------------------|--|-----------------|
| <b>Statutory Class:</b> A          | <b>Final Determination:</b> A          | Date: 1/23/2018 |
| Model Result with $P \geq 0.6$ : A | <b>Reason for Determination:</b> Model |                 |
| Date Last Calculated: 1/22/2018    | Comments:                              |                 |

**Model Probabilities**

|                           |      |                                |      |
|---------------------------|------|--------------------------------|------|
| <u>First Stage Model</u>  |      | <u>C or Better Model</u>       |      |
| Class A                   | 0.85 | Class A, B, or C               | 1.00 |
| Class B                   | 0.15 | Non-Attainment                 | 0.00 |
| <u>B or Better Model</u>  |      | <u>A Model</u>                 |      |
| Class A or B              | 1.00 | Class A                        | 1.00 |
| Class C or Non-Attainment | 0.00 | Class B or C or Non-Attainment | 0.00 |

**Model Variables**

|   |        |  |       |
|---|--------|--|-------|
| 01 Total Mean Abundance                                 | 342.67 | 18 Relative Abundance Ephemeroptera  | 0.40  |
| 02 Generic Richness                                     | 66.00  | 19 EPT Generic Richness  | 29.00 |
| 03 Plecoptera Mean Abundance                            | 4.00   | 21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i> | 0.00  |
| 04 Ephemeroptera Mean Abundance                         | 135.67 | 23 Relative Generic Richness- Plecoptera   | 0.05  |
| 05 Shannon-Wiener Generic Diversity                     | 4.71   | 25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>     | 19.08 |
| 06 Hilsenhoff Biotic Index                              | 4.33   | 26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>                    | 36.00 |
| 07 Relative Abundance - Chironomidae                    | 0.24   | 28 EP Generic Richness/14  | 1.00  |
| 08 Relative Generic Richness Diptera                    | 0.27   | 30 Presence of Class A Indicator Taxa/7  | 0.57  |
| 09 <i>Hydropsyche</i> Abundance                         | 1.00   |  |       |
| 11 <i>Cheumatopsyche</i> Abundance                      | 0.00   |  |       |
| 12 EPT Generic Richness/ Diptera Generic Richness       | 1.61   |  |       |
| 13 Relative Abundance - Oligochaeta                     | 0.00   |  |       |
| 15 Perlidae Mean Abundance (Family Functional Group)    | 3.67   |  |       |
| 16 Tanypodinae Mean Abundance (Family Functional Group) | 19.41  |  |       |
| 17 Chironomini Abundance (Family Functional Group)      | 23.43  |  |       |

**Five Most Dominant Taxa**

| Rank | Taxon Name             | Percent |
|------|------------------------|---------|
| 1    | <i>Tricorythodes</i>   | 21.60   |
| 2    | <i>Maccaffertium</i>   | 9.53    |
| 3    | <i>Pisidium</i>        | 9.33    |
| 4    | <i>Tanytarsus</i>      | 5.18    |
| 5    | <i>Thienemannimyia</i> | 4.49    |



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**Log Number: 2566**      Waterbody: Stratton Brook - Station 1114      Date Retrieved: 8/10/2017

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature:                      18.15 deg C  
Dissolved Oxygen:                8.73 mg/l  
Dissolved Oxygen Saturation:    95.3 %  
Specific Conductance:            48.7 uS/cm  
Velocity:                          24.4 cm/s  
pH:                                  7.08  
Wetted Width:                      8 m  
Bankfull Width:                    8 m  
Depth:                                48 cm

**Waterbody Information - Retrieval**

Temperature:                      20.8 deg C  
Dissolved Oxygen:                9.45 mg/l  
Dissolved Oxygen Saturation:    108 %  
Specific Conductance:            53.5 uS/cm  
Velocity:                          9.1 cm/s  
pH:                                  7.36  
Wetted Width:                      8 m  
Bankfull Width:                    8 m  
Depth:                                40 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

|                           |                     |                  |      |
|---------------------------|---------------------|------------------|------|
| <u>Landuse Name</u>       | <u>Canopy Cover</u> | <u>Terrain</u>   |      |
| Swamp Hardwood            | Open                | Rolling          |      |
| Upland Conifer            |                     |                  |      |
| <u>Potential Stressor</u> | <u>Location</u>     | <u>Substrate</u> |      |
|                           | Lake Outlet         | Boulder          | 5 %  |
|                           | Minimally Disturbed | Gravel           | 10 % |
|                           |                     | Rubble/Cobble    | 75 % |

**Landcover Summary - 2004 Data**

**Sample Comments**

AT RETRIEVAL FISH WERE OBSERVED.



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Waterbody: Stratton Brook - Station 1114

Town: Wyman Twp

**Log Number: 2566**

Subsample Factor: X1

Replicates: 3

Calculated: 1/22/2018

| Taxon                         | Maine Taxonomic Code | Count<br>(Mean of Samplers) |          | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance % |          |
|-------------------------------|----------------------|-----------------------------|----------|-------------------------|--------------------------|----------------------|----------|
|                               |                      | Actual                      | Adjusted |                         |                          | Actual               | Adjusted |
| <i>Nais</i>                   | 08020202009          | 0.67                        | 0.67     |                         | CG                       | 0.2                  | 0.2      |
| <i>Leuctra</i>                | 09020204020          | 0.33                        | 0.33     | 0                       | SH                       | 0.1                  | 0.1      |
| <i>Acroneuria</i>             | 09020209042          | 1.67                        | 3.33     | 0                       | PR                       | 0.5                  | 1.0      |
| <i>Acroneuria abnormis</i>    | 09020209042121       | 0.67                        |          | 0                       | PR                       | 0.2                  |          |
| <i>Acroneuria lycorias</i>    | 09020209042125       | 1.00                        |          |                         | --                       | 0.3                  |          |
| <i>Agnatina</i>               | 09020209050          |                             | 0.33     | 2                       | PR                       |                      | 0.1      |
| <i>Agnatina capitata</i>      | 09020209050152       | 0.33                        |          | 2                       | PR                       | 0.1                  |          |
| Odonata                       | 090203               | 0.33                        | 0.33     |                         | --                       | 0.1                  | 0.1      |
| Aeshnidae                     | 09020301             | 0.33                        | 0.33     |                         | --                       | 0.1                  | 0.1      |
| <i>Boyeria</i>                | 09020301004          |                             | 3.33     | 2                       | PR                       |                      | 1.0      |
| <i>Boyeria grafiana</i>       | 09020301004011       | 3.33                        |          |                         | --                       | 1.0                  |          |
| Gomphidae                     | 09020302             | 2.33                        | 2.33     |                         | --                       | 0.7                  | 0.7      |
| <i>Gomphus</i>                | 09020302012          | 0.33                        | 0.33     | 5                       | PR                       | 0.1                  | 0.1      |
| <i>Cordulegaster</i>          | 09020303019          | 1.00                        | 1.00     | 3                       | PR                       | 0.3                  | 0.3      |
| Corduliidae                   | 09020305             | 4.33                        | 4.33     |                         | --                       | 1.3                  | 1.3      |
| Calopterygidae                | 09020307             | 8.33                        | 8.33     |                         | --                       | 2.4                  | 2.4      |
| <i>Calopteryx</i>             | 09020307043          | 4.67                        | 4.67     | 5                       | PR                       | 1.4                  | 1.4      |
| <i>Argia</i>                  | 09020309048          | 0.33                        | 0.33     | 7                       | PR                       | 0.1                  | 0.1      |
| <i>Acerpenna</i>              | 09020401007          |                             | 1.00     | 5                       | CG                       |                      | 0.3      |
| <i>Acerpenna macdunnoughi</i> | 09020401007001       | 0.33                        |          |                         | --                       | 0.1                  |          |
| <i>Acerpenna pygmaea</i>      | 09020401007011       | 0.67                        |          |                         | --                       | 0.2                  |          |
| <i>Labiobaetis</i>            | 09020401009          | 0.33                        | 0.33     |                         | --                       | 0.1                  | 0.1      |
| <i>Procloeon</i>              | 09020401010          | 6.33                        | 6.33     |                         | CG                       | 1.8                  | 1.8      |
| <i>Leucrocuta</i>             | 09020402011          | 2.67                        | 2.67     | 1                       | SC                       | 0.8                  | 0.8      |
| <i>Stenacron</i>              | 09020402014          | 3.67                        | 3.67     | 7                       | SC                       | 1.1                  | 1.1      |
| <i>Maccaffertium</i>          | 09020402015          | 28.67                       | 32.67    | 4                       | SC                       | 8.4                  | 9.5      |
| <i>Maccaffertium vicarium</i> | 09020402015055       | 4.00                        |          |                         | --                       | 1.2                  |          |
| Leptophlebiidae               | 09020406             | 7.67                        | 7.67     |                         | --                       | 2.2                  | 2.2      |
| <i>Paraleptophlebia</i>       | 09020406026          | 4.00                        | 4.00     | 1                       | CG                       | 1.2                  | 1.2      |
| <i>Ephemerella</i>            | 09020410035          | 1.67                        | 1.67     | 1                       | CG                       | 0.5                  | 0.5      |
| <i>Eurylophella</i>           | 09020410036          | 1.67                        | 1.67     | 3                       | CG                       | 0.5                  | 0.5      |
| <i>Tricorythodes</i>          | 09020411038          | 74.00                       | 74.00    | 4                       | CG                       | 21.6                 | 21.6     |
| <i>Neureclipsis</i>           | 09020603008          | 1.00                        | 1.00     | 7                       | CF                       | 0.3                  | 0.3      |
| <i>Polycentropus</i>          | 09020603010          | 0.33                        | 0.33     | 6                       | PR                       | 0.1                  | 0.1      |
| <i>Hydropsyche</i>            | 09020604016          | 0.67                        | 1.00     | 4                       | CF                       | 0.2                  | 0.3      |
| <i>Hydropsyche betteni</i>    | 09020604016037       | 0.33                        |          |                         | --                       | 0.1                  |          |
| <i>Rhyacophila</i>            | 09020605019          |                             | 2.33     | 2                       | PR                       |                      | 0.7      |



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| Taxon                               | Maine Taxonomic Code | Count<br>(Mean of Samplers) |          | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance % |          |
|-------------------------------------|----------------------|-----------------------------|----------|-------------------------|--------------------------|----------------------|----------|
|                                     |                      | Actual                      | Adjusted |                         |                          | Actual               | Adjusted |
| <i>Rhyacophila minor</i>            | 09020605019063       | 2.33                        |          |                         | PR                       | 0.7                  |          |
| <i>Oxyethira</i>                    | 09020607028          | 2.00                        | 2.00     | 3                       | P                        | 0.6                  | 0.6      |
| Phryganeidae                        | 09020608             | 1.33                        | 1.33     |                         | --                       | 0.4                  | 0.4      |
| <i>Oligostomis</i>                  | 09020608039          | 1.00                        | 1.00     | 2                       | PR                       | 0.3                  | 0.3      |
| <i>Brachycentrus</i>                | 09020609043          |                             | 1.33     | 0                       | CF                       |                      | 0.4      |
| <i>Brachycentrus appalachia</i>     | 09020609043096       | 1.33                        |          |                         | --                       | 0.4                  |          |
| Limnephilidae                       | 09020610             | 2.00                        | 2.00     |                         | --                       | 0.6                  | 0.6      |
| <i>Pycnopsyche</i>                  | 09020610049          | 1.00                        | 1.00     | 4                       | SH                       | 0.3                  | 0.3      |
| <i>Lepidostoma</i>                  | 09020611064          | 4.67                        | 4.67     | 1                       | SH                       | 1.4                  | 1.4      |
| <i>Psilotreta</i>                   | 09020614068          | 1.00                        | 1.00     | 0                       | SC                       | 0.3                  | 0.3      |
| Leptoceridae                        | 09020618             |                             |          |                         | --                       |                      |          |
| <i>Mystacides</i>                   | 09020618075          | 8.67                        | 13.33    | 4                       | CG                       | 2.5                  | 3.9      |
| <i>Mystacides sepulchralis</i>      | 09020618075147       | 4.67                        |          |                         | --                       | 1.4                  |          |
| <i>Oecetis</i>                      | 09020618078          | 8.33                        | 10.33    | 8                       | PR                       | 2.4                  | 3.0      |
| <i>Oecetis avara</i>                | 09020618078153       | 0.33                        |          |                         | --                       | 0.1                  |          |
| <i>Oecetis persimilis</i>           | 09020618078157       | 1.67                        |          |                         | --                       | 0.5                  |          |
| <i>Apatania</i>                     | 09020619061          | 0.33                        | 0.33     |                         | SC                       | 0.1                  | 0.1      |
| Chironomidae                        | 09021011             | 0.33                        |          |                         | --                       | 0.1                  |          |
| <i>Nilotanytus</i>                  | 09021011012          |                             | 1.34     | 6                       | PR                       |                      | 0.4      |
| <i>Nilotanytus fimbriatus</i>       | 09021011012027       | 1.33                        |          |                         | --                       | 0.4                  |          |
| <i>Thienemannimyia</i>              | 09021011020          |                             | 15.40    | 3                       | PR                       |                      | 4.5      |
| <i>Thienemannimyia group</i>        | 09021011020041       | 15.33                       |          |                         | --                       | 4.5                  |          |
| <i>Zavrelimyia</i>                  | 09021011022          | 2.67                        | 2.68     | 8                       | PR                       | 0.8                  | 0.8      |
| <i>Corynoneura</i>                  | 09021011036          | 0.67                        | 0.67     | 7                       | CG                       | 0.2                  | 0.2      |
| <i>Cricotopus</i>                   | 09021011037          |                             | 1.34     | 7                       | SH                       |                      | 0.4      |
| <i>Cricotopus bicinctus</i>         | 09021011037057       | 1.33                        |          |                         | --                       | 0.4                  |          |
| <i>Nanocladius</i>                  | 09021011049          | 1.00                        | 1.00     | 3                       | CG                       | 0.3                  | 0.3      |
| <i>Orthocladius</i>                 | 09021011050          | 1.00                        | 5.02     | 6                       | CG                       | 0.3                  | 1.5      |
| <i>Orthocladius annectens</i>       | 09021011050092       | 4.00                        |          |                         | --                       | 1.2                  |          |
| <i>Parametrioconemus</i>            | 09021011053          | 1.33                        | 1.34     | 5                       | CG                       | 0.4                  | 0.4      |
| <i>Psectrocladius</i>               | 09021011056          | 1.00                        | 1.00     | 8                       | CG                       | 0.3                  | 0.3      |
| <i>Tvetenia</i>                     | 09021011065          |                             | 1.34     | 5                       | CG                       |                      | 0.4      |
| <i>Tvetenia vitracies</i>           | 09021011065113       | 1.33                        |          |                         | --                       | 0.4                  |          |
| <i>Rheotanytarsus</i>               | 09021011072          |                             | 2.34     | 6                       | CF                       |                      | 0.7      |
| <i>Rheotanytarsus exiguus group</i> | 09021011072127       | 0.67                        |          |                         | CF                       | 0.2                  |          |
| <i>Rheotanytarsus pellucidus</i>    | 09021011072128       | 1.67                        |          |                         | CF                       | 0.5                  |          |
| <i>Stempellinella</i>               | 09021011074          | 7.33                        | 7.36     | 2                       | --                       | 2.1                  | 2.1      |
| <i>Tanytarsus</i>                   | 09021011076          | 17.67                       | 17.74    | 6                       | CF                       | 5.2                  | 5.2      |



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| Taxon                                 | Maine Taxonomic Code | Count<br>(Mean of Samplers) |          | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance % |          |
|---------------------------------------|----------------------|-----------------------------|----------|-------------------------|--------------------------|----------------------|----------|
|                                       |                      | Actual                      | Adjusted |                         |                          | Actual               | Adjusted |
| <i>Pseudochironomus</i>               | 09021011078          | 1.33                        | 1.34     | 5                       | CG                       | 0.4                  | 0.4      |
| <i>Microtendipes</i>                  | 09021011094          |                             | 7.70     | 6                       | CF                       |                      | 2.2      |
| <i>Microtendipes pedellus group</i>   | 09021011094166       | 1.67                        |          |                         | --                       | 0.5                  |          |
| <i>Microtendipes rydalensis group</i> | 09021011094168       | 6.00                        |          |                         | --                       | 1.8                  |          |
| <i>Phaenopsectra</i>                  | 09021011101          | 9.67                        | 9.71     | 7                       | SC                       | 2.8                  | 2.8      |
| <i>Polypedilum</i>                    | 09021011102          |                             | 4.69     | 6                       | SH                       |                      | 1.4      |
| <i>Polypedilum aviceps</i>            | 09021011102181       | 4.67                        |          |                         | --                       | 1.4                  |          |
| <i>Hemerodromia</i>                   | 09021016057          | 3.00                        | 3.00     | 3                       | PR                       | 0.9                  | 0.9      |
| <i>Ectopria</i>                       | 09021109059          |                             | 0.67     | 5                       | SC                       |                      | 0.2      |
| <i>Ectopria nervosa</i>               | 09021109059029       | 0.67                        |          |                         | --                       | 0.2                  |          |
| <i>Dubiraphia</i>                     | 09021113064          | 1.33                        | 1.33     | 6                       | --                       | 0.4                  | 0.4      |
| <i>Promoresia</i>                     | 09021113069          |                             | 1.67     |                         | --                       |                      | 0.5      |
| <i>Promoresia tardella</i>            | 09021113069052       | 1.67                        |          |                         | --                       | 0.5                  |          |
| <i>Stenelmis</i>                      | 09021113070          | 5.33                        | 5.33     | 5                       | SC                       | 1.6                  | 1.6      |
| Physidae                              | 10010202             | 2.67                        | 2.67     |                         | SC                       | 0.8                  | 0.8      |
| <i>Gyraulus</i>                       | 10010203029          | 2.00                        | 3.33     |                         | SC                       | 0.6                  | 1.0      |
| <i>Gyraulus parvus</i>                | 10010203029057       | 1.33                        |          |                         | --                       | 0.4                  |          |
| <i>Helisoma</i>                       | 10010203030          |                             | 1.67     |                         | SC                       |                      | 0.5      |
| <i>Helisoma anceps</i>                | 10010203030058       | 1.67                        |          |                         | --                       | 0.5                  |          |
| Sphaeriidae                           | 10020201             | 3.00                        |          |                         | CF                       | 0.9                  |          |
| <i>Musculium</i>                      | 10020201001          | 0.33                        | 0.37     |                         | CF                       | 0.1                  | 0.1      |
| <i>Pisidium</i>                       | 10020201002          | 29.00                       | 31.97    |                         | CF                       | 8.5                  | 9.3      |