



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

Station Information

| | |
|---|-------------------------------|
| Station Number: S-103 | River Basin: Androscoggin |
| Waterbody: Wild River - Station 103 | HUC8 Name: Lower Androscoggin |
| Town: Gilead | Latitude: 44 23 17.93 N |
| Directions: 1 KM ABOVE CONFLUENCE WITH ANDROSCOGGIN RIVER | Longitude: 70 58 47.14 W |
| | Stream Order: 4 |

Sample Information

| | | |
|-------------------------|--------------------------|---------------------------|
| Log Number: 2656 | Type of Sample: ROCK BAG | Date Deployed: 7/16/2018 |
| Subsample Factor: X1 | Replicates: 3 | Date Retrieved: 8/13/2018 |

Classification Attainment

| | | |
|------------------------------------|--|------------------|
| Statutory Class: AA | Final Determination: A | Date: 12/11/2018 |
| Model Result with $P \geq 0.6$: A | Reason for Determination: Model | |
| Date Last Calculated: 12/10/2018 | Comments: | |

Model Probabilities

| | | | |
|---------------------------|------|--------------------------------|------|
| <u>First Stage Model</u> | | <u>C or Better Model</u> | |
| Class A | 0.81 | Class A, B, or C | 1.00 |
| Class B | 0.19 | 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 | 223.33 | 18 Relative Abundance Ephemeroptera | 0.10 |
| 02 Generic Richness | 41.00 | 19 EPT Generic Richness | 21.00 |
| 03 Plecoptera Mean Abundance | 7.33 | 21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i> | 3.33 |
| 04 Ephemeroptera Mean Abundance | 22.33 | 23 Relative Generic Richness- Plecoptera | 0.12 |
| 05 Shannon-Wiener Generic Diversity | 3.56 | 25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i> | 17.00 |
| 06 Hilsenhoff Biotic Index | 3.49 | 26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i> | 4.67 |
| 07 Relative Abundance - Chironomidae | 0.22 | 28 EP Generic Richness/14 | 0.79 |
| 08 Relative Generic Richness Diptera | 0.39 | 30 Presence of Class A Indicator Taxa/7 | 0.57 |
| 09 <i>Hydropsyche</i> Abundance | 70.00 | | |
| 11 <i>Cheumatopsyche</i> Abundance | 14.33 | | |
| 12 EPT Generic Richness/ Diptera Generic Richness | 1.31 | | |
| 13 Relative Abundance - Oligochaeta | 0.00 | | |
| 15 Perlidae Mean Abundance (Family Functional Group) | 5.00 | | |
| 16 Tanypodinae Mean Abundance (Family Functional Group) | 2.67 | | |
| 17 Chironomini Abundance (Family Functional Group) | 6.33 | | |

Five Most Dominant Taxa

| | | |
|------|-----------------------|---------|
| Rank | Taxon Name | Percent |
| 1 | <i>Hydropsyche</i> | 31.34 |
| 2 | <i>Brachycentrus</i> | 18.21 |
| 3 | <i>Rheotanytarsus</i> | 12.84 |
| 4 | <i>Cheumatopsyche</i> | 6.42 |
| 5 | <i>Serratella</i> | 3.88 |



**Maine Department of Environmental Protection
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Aquatic Life Classification Attainment Report**

Station Number: S-103 Town: Gilead Date Deployed: 7/16/2018
Log Number: 2656 Waterbody: Wild River - Station 103 Date Retrieved: 8/13/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 19.9 deg C
Dissolved Oxygen: 9.79 mg/l
Dissolved Oxygen Saturation: 108.4 %
Specific Conductance: 19.5 uS/cm
Velocity: 18.3 cm/s
pH: 6.67
Wetted Width: 25 m
Bankfull Width: 28 m
Depth: 42 cm

Waterbody Information - Retrieval

Temperature: 20 deg C
Dissolved Oxygen: 10.19 mg/l
Dissolved Oxygen Saturation: 112.7 %
Specific Conductance: 16.3 uS/cm
Velocity: 33.5 cm/s
pH: 6.45
Wetted Width: 27 m
Bankfull Width: 28 m
Depth: 54 cm

Water Chemistry

Summary of Habitat Characteristics

| | | | |
|---------------------------|---------------------|------------------|------|
| <u>Landuse Name</u> | <u>Canopy Cover</u> | <u>Terrain</u> | |
| Upland Conifer | Open | Mountainous | |
| <u>Potential Stressor</u> | <u>Location</u> | <u>Substrate</u> | |
| | Minimally Disturbed | Boulder | 70 % |
| | | Rubble/Cobble | 20 % |
| | | Sand | 10 % |

Landcover Summary - 2004 Data

| | | | | | | | |
|-----------------|-------|------------------|-----|----------------|------|----------------------|-----|
| Total Area (ac) | 13571 | High Int. Dev. % | 0.0 | Water % | 0.1 | Non-vegetated % | 0.1 |
| | | Med Int. Dev. % | 0.0 | Wetland % | 0.6 | Tilled Agriculture % | 0.0 |
| | | Low Int. Dev. % | 0.2 | Upland Woody % | 99.1 | Grassland % | 0.0 |
| | | Development % | 0.3 | Natural % | 99.7 | Human Altered % | 0.3 |
| | | | | | | Impervious % | 0.4 |

Sample Comments

7/16: TADPOLES AND SMALL FISH



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-103

Waterbody: Wild River - Station 103

Town: Gilead

Log Number: 2656

Subsample Factor: X1

Replicates: 3

Calculated: 12/10/2018

| Taxon | Maine Taxonomic Code | Count (Mean of Samplers) | | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance % | |
|---------------------------------|----------------------|-----------------------------|----------|-------------------------|--------------------------|----------------------|----------|
| | | Actual | Adjusted | | | Actual | Adjusted |
| <i>Pteronarcys</i> | 09020205023 | 0.67 | 1.00 | 0 | SH | 0.3 | 0.4 |
| <i>Pteronarcys biloba</i> | 09020205023061 | 0.33 | | | -- | 0.1 | |
| Chloroperlidae | 09020208 | 0.67 | 0.67 | | -- | 0.3 | 0.3 |
| <i>Sweltsa</i> | 09020208040 | 0.67 | 0.67 | | PR | 0.3 | 0.3 |
| Perlidae | 09020209 | 0.33 | | | -- | 0.1 | |
| <i>Paragnetina</i> | 09020209049 | 0.67 | 0.71 | 1 | PR | 0.3 | 0.3 |
| <i>Aagnetina</i> | 09020209050 | | 4.29 | 2 | PR | | 1.9 |
| <i>Aagnetina capitata</i> | 09020209050152 | 4.00 | | 2 | PR | 1.8 | |
| Gomphidae | 09020302 | 2.67 | 2.67 | | -- | 1.2 | 1.2 |
| Baetidae | 09020401 | 0.67 | | | -- | 0.3 | |
| <i>Baetis</i> | 09020401001 | 0.67 | 1.44 | 4 | CG | 0.3 | 0.6 |
| <i>Baetis flavistriga</i> | 09020401001004 | 0.33 | | | -- | 0.1 | |
| <i>Baetis pluto</i> | 09020401001009 | 0.33 | | | -- | 0.1 | |
| <i>Acerpenna</i> | 09020401007 | | 2.17 | 5 | CG | | 1.0 |
| <i>Acerpenna macdunnoughi</i> | 09020401007001 | 2.00 | | | -- | 0.9 | |
| <i>Plauditus</i> | 09020401012 | 4.67 | 5.06 | | CG | 2.1 | 2.3 |
| <i>Maccaffertium</i> | 09020402015 | 1.00 | 4.67 | 4 | SC | 0.4 | 2.1 |
| <i>Maccaffertium vicarium</i> | 09020402015055 | 3.67 | | | -- | 1.6 | |
| Leptophlebiidae | 09020406 | 0.33 | 0.33 | | -- | 0.1 | 0.1 |
| <i>Serratella</i> | 09020410037 | | 8.67 | 2 | CG | | 3.9 |
| <i>Serratella serratoides</i> | 09020410037124 | 8.67 | | | -- | 3.9 | |
| <i>Neureclipsis</i> | 09020603008 | 0.67 | 0.67 | 7 | CF | 0.3 | 0.3 |
| <i>Polycentropus</i> | 09020603010 | 0.33 | 0.33 | 6 | PR | 0.1 | 0.1 |
| Hydropsychidae | 09020604 | | | | -- | | |
| <i>Cheumatopsyche</i> | 09020604015 | 14.33 | 14.33 | 5 | CF | 6.4 | 6.4 |
| <i>Hydropsyche</i> | 09020604016 | 62.00 | 70.00 | 4 | CF | 27.8 | 31.3 |
| <i>Hydropsyche morosa</i> | 09020604016030 | 1.33 | | | -- | 0.6 | |
| <i>Hydropsyche slossonae</i> | 09020604016031 | 0.33 | | | -- | 0.1 | |
| <i>Hydropsyche sparna</i> | 09020604016032 | 6.33 | | | -- | 2.8 | |
| <i>Rhyacophila</i> | 09020605019 | 0.33 | 5.33 | 2 | PR | 0.1 | 2.4 |
| <i>Rhyacophila minora</i> | 09020605019063 | 5.00 | | | PR | 2.2 | |
| <i>Brachycentrus</i> | 09020609043 | | 40.67 | 0 | CF | | 18.2 |
| <i>Brachycentrus appalachia</i> | 09020609043096 | 39.33 | | | -- | 17.6 | |
| <i>Brachycentrus numerosus</i> | 09020609043098 | 1.33 | | | -- | 0.6 | |
| <i>Lepidostoma</i> | 09020611064 | 0.33 | 0.33 | 1 | SH | 0.1 | 0.1 |
| <i>Psilotreta</i> | 09020614068 | 0.67 | 1.33 | 0 | SC | 0.3 | 0.6 |
| <i>Psilotreta labida</i> | 09020614068133 | 0.67 | | | -- | 0.3 | |



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Town: Gilead

Log Number: 2656

Subsample Factor: X1

Replicates: 3

Calculated: 12/10/2018

| Taxon | Maine Taxonomic Code | Count (Mean of Samplers) | | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance % | |
|---------------------------------------|----------------------|-----------------------------|----------|-------------------------|--------------------------|----------------------|----------|
| | | Actual | Adjusted | | | Actual | Adjusted |
| <i>Helicopsyche</i> | 09020616070 | | 0.67 | 3 | SC | | 0.3 |
| <i>Helicopsyche borealis</i> | 09020616070137 | 0.67 | | | -- | 0.3 | |
| <i>Mystacides</i> | 09020618075 | 0.33 | 0.33 | 4 | CG | 0.1 | 0.1 |
| <i>Nigronia</i> | 09020701003 | | 0.67 | 0 | PR | | 0.3 |
| <i>Nigronia serricornis</i> | 09020701003003 | 0.67 | | | -- | 0.3 | |
| <i>Hexatoma</i> | 09021001008 | 0.67 | 0.67 | 2 | PR | 0.3 | 0.3 |
| <i>Ablabesmyia</i> | 09021011001 | 0.33 | 0.33 | 8 | PR | 0.1 | 0.1 |
| <i>Thienemannimyia</i> | 09021011020 | | 2.33 | 3 | PR | | 1.0 |
| <i>Thienemannimyia group</i> | 09021011020041 | 2.33 | | | -- | 1.0 | |
| <i>Cricotopus</i> | 09021011037 | 0.67 | 1.67 | 7 | SH | 0.3 | 0.7 |
| <i>Cricotopus bicinctus</i> | 09021011037057 | 1.00 | | | -- | 0.4 | |
| <i>Orthocladius</i> | 09021011050 | | 0.33 | 6 | CG | | 0.1 |
| <i>Orthocladius annectens</i> | 09021011050092 | 0.33 | | | -- | 0.1 | |
| <i>Thienemanniella</i> | 09021011062 | 0.33 | 0.33 | 6 | CG | 0.1 | 0.1 |
| <i>Tvetenia</i> | 09021011065 | | 5.33 | 5 | CG | | 2.4 |
| <i>Tvetenia vitracies</i> | 09021011065113 | 5.33 | | | -- | 2.4 | |
| <i>Micropsectra</i> | 09021011070 | 3.33 | 3.33 | 7 | CG | 1.5 | 1.5 |
| <i>Rheotanytarsus</i> | 09021011072 | | 28.67 | 6 | CF | | 12.8 |
| <i>Rheotanytarsus exiguus group</i> | 09021011072127 | 27.00 | | | CF | 12.1 | |
| <i>Rheotanytarsus pellucidus</i> | 09021011072128 | 1.67 | | | CF | 0.7 | |
| <i>Tanytarsus</i> | 09021011076 | 0.67 | 0.67 | 6 | CF | 0.3 | 0.3 |
| <i>Microtendipes</i> | 09021011094 | | 2.00 | 6 | CF | | 0.9 |
| <i>Microtendipes pedellus group</i> | 09021011094166 | 1.00 | | | -- | 0.4 | |
| <i>Microtendipes rydalensis group</i> | 09021011094168 | 1.00 | | | -- | 0.4 | |
| <i>Polypedilum</i> | 09021011102 | | 4.00 | 6 | SH | | 1.8 |
| <i>Polypedilum aviceps</i> | 09021011102181 | 3.33 | | | -- | 1.5 | |
| <i>Polypedilum flavum</i> | 09021011102182 | 0.67 | | | -- | 0.3 | |
| <i>Robackia</i> | 09021011103 | 0.33 | 0.33 | | CG | 0.1 | 0.1 |
| <i>Simulium</i> | 09021012047 | 1.33 | 1.33 | 4 | CF | 0.6 | 0.6 |
| <i>Atherix</i> | 09021015055 | 1.00 | 1.00 | 2 | PR | 0.4 | 0.4 |
| <i>Neoplasta</i> | 09021016064 | 0.33 | 0.33 | | PR | 0.1 | 0.1 |
| <i>Promoesia</i> | 09021113069 | | 3.00 | | -- | | 1.3 |
| <i>Promoesia tardella</i> | 09021113069052 | 3.00 | | | -- | 1.3 | |
| <i>Stenelmis</i> | 09021113070 | 0.67 | 0.67 | 5 | SC | 0.3 | 0.3 |