



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

Station Information

| | |
|---|--------------------------|
| Station Number: S-271 | River Basin: Saco |
| Waterbody: Goosefare Brook - Station 271 | HUC8 Name: Presumpscot |
| Town: Saco | Latitude: 43 31 24.63 N |
| Directions: 80 M ABOVE INDUSTRIAL PARK RD. CROSSING | Longitude: 70 26 52.18 W |
| | Stream Order: 1 |

Sample Information

| | | |
|-------------------------|--------------------------|---------------------------|
| Log Number: 2803 | Type of Sample: ROCK BAG | Date Deployed: 7/13/2020 |
| Subsample Factor: X1 | Replicates: 3 | Date Retrieved: 8/12/2020 |

Classification Attainment

| | | |
|-------------------------------------|--|-----------------|
| Statutory Class: B | Final Determination: NA | Date: 5/12/2021 |
| Model Result with $P \geq 0.6$: NA | Reason for Determination: Model | |
| Date Last Calculated: 5/12/2021 | Comments: | |

Model Probabilities

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

Model Variables

| | | | |
|--|--------|---|-------|
| 01 Total Mean Abundance | 208.00 | 18 Relative Abundance Ephemeroptera | 0.00 |
| 02 Generic Richness | 25.00 | 19 EPT Generic Richness | 4.00 |
| 03 Plecoptera Mean Abundance | 0.00 | 21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i> | 10.00 |
| 04 Ephemeroptera Mean Abundance | 0.00 | 23 Relative Generic Richness- Plecoptera | 0.00 |
| 05 Shannon-Wiener Generic Diversity | 3.37 | 25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i> | 37.59 |
| 06 Hilsenhoff Biotic Index | 5.43 | 26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i> | 0.00 |
| 07 Relative Abundance - Chironomidae | 0.48 | 28 EP Generic Richness/14 | 0.00 |
| 08 Relative Generic Richness Diptera | 0.44 | 30 Presence of Class A Indicator Taxa/7 | 0.00 |
| 09 <i>Hydropsyche</i> Abundance | 0.00 | | |
| 11 <i>Cheumatopsyche</i> Abundance | 0.00 | | |
| 12 EPT Generic Richness/ Diptera Generic Richness | 0.36 | | |
| 13 Relative Abundance - Oligochaeta | 0.17 | | |
| 15 Perlidae Mean Abundance (Family Functional Group) | 0.00 | | |
| 16 Tanypodinae Mean Abundance (Family Functional Group) | 6.04 | | |
| 17 Chironomini Abundance (Family Functional Group) | 49.00 | | |

Five Most Dominant Taxa

| Rank | Taxon Name | Percent |
|------|-----------------------|---------|
| 1 | <i>Tribelos</i> | 22.43 |
| 2 | <i>Tanytarsus</i> | 18.07 |
| 3 | Lumbriculidae | 13.78 |
| 4 | <i>Gammarus</i> | 12.66 |
| 5 | <i>Phylocentropus</i> | 7.37 |



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Station Number: S-271
Log Number: 2803

Town: Saco
Waterbody: Goosefare Brook - Station 271

Date Deployed: 7/13/2020
Date Retrieved: 8/12/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 19.3 deg C
Dissolved Oxygen: 8.36 mg/l
Dissolved Oxygen Saturation: 91.3 %
Specific Conductance: 727 uS/cm
Velocity: 0.1 cm/s
pH: 7.1
Wetted Width: 2.2 m
Bankfull Width: 3.1 m
Depth: 41.7 cm

Waterbody Information - Retrieval

Temperature: 20.7 deg C
Dissolved Oxygen: 7.32 mg/l
Dissolved Oxygen Saturation: 82.1 %
Specific Conductance: 1046 uS/cm
Velocity: 0.1 cm/s
pH: 7.31
Wetted Width: 1.95 m
Bankfull Width: 2.25 m
Depth: 38.7 cm

Water Chemistry

Summary of Habitat Characteristics

| | | | |
|---------------------------|---------------------|------------------|------|
| <u>Landuse Name</u> | <u>Canopy Cover</u> | <u>Terrain</u> | |
| Swamp Conifer | Dense | Rolling | |
| Urban | | | |
| <u>Potential Stressor</u> | <u>Location</u> | <u>Substrate</u> | |
| Nps Pollution | Below Urban NPS | Detritus | 20 % |
| Urban Runoff | | Gravel | 5 % |
| | | Sand | 70 % |
| | | Silt | 5 % |

Landcover Summary - 2004 Data

| | | | | | | | |
|-----------------|-----|------------------|------|----------------|------|----------------------|------|
| Total Area (ac) | 585 | High Int. Dev. % | 2.8 | Water % | 0.0 | Non-vegetated % | 0.0 |
| | | Med Int. Dev. % | 2.4 | Wetland % | 24.2 | Tilled Agriculture % | 0.2 |
| | | Low Int. Dev. % | 6.3 | Upland Woody % | 47.9 | Grassland % | 0.0 |
| | | Development % | 11.4 | Natural % | 72.1 | Human Altered % | 27.9 |
| | | | | | | Impervious % | 7.5 |

Sample Comments

VISIBLE FLOW.



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

Station Number: S-271

Waterbody: Goosefare Brook - Station 271

Town: Saco

Log Number: 2803

Subsample Factor: X1

Replicates: 3

Calculated: 5/12/2021

| Taxon | Maine Taxonomic Code | Count (Mean of Samplers) | | Hilsenhoff Biotic Index | Functional Feeding Group | Relative Abundance % | |
|-------------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-------------------------|----------|
| | | Actual | Adjusted | | | Actual | Adjusted |
| Lumbriculidae | 08020101 | 28.67 | 28.67 | | -- | 13.8 | 13.8 |
| Naididae | 08020202 | 0.33 | | | -- | 0.2 | |
| <i>Aulodrilus</i> | 08020202018 | | 5.63 | | -- | | 2.7 |
| <i>Aulodrilus pluriseta</i> | 08020202018004 | 5.33 | | | -- | 2.6 | |
| <i>Limnodrilus</i> | 08020202022 | | 0.70 | | CG | | 0.3 |
| <i>Limnodrilus hoffmeisteri</i> | 08020202022003 | 0.67 | | | -- | 0.3 | |
| <i>Helobdella</i> | 08030101005 | 0.33 | 10.00 | | -- | 0.2 | 4.8 |
| <i>Helobdella stagnalis complex</i> | 08030101005004 | 9.67 | | | -- | 4.6 | |
| <i>Caecidotea</i> | 09010101001 | 12.33 | 12.33 | 8 | SH | 5.9 | 5.9 |
| <i>Gammarus</i> | 09010201003 | 26.33 | 26.33 | 4 | -- | 12.7 | 12.7 |
| <i>Polycentropus</i> | 09020603010 | 3.33 | 3.33 | 6 | PR | 1.6 | 1.6 |
| <i>Phylocentropus</i> | 09020603011 | 15.33 | 15.33 | 5 | CF | 7.4 | 7.4 |
| <i>Oligostomis</i> | 09020608039 | 2.67 | 2.67 | 2 | PR | 1.3 | 1.3 |
| <i>Pycnopsyche</i> | 09020610049 | 1.00 | 1.00 | 4 | SH | 0.5 | 0.5 |
| <i>Sialis</i> | 09020702004 | 1.00 | 1.00 | 4 | PR | 0.5 | 0.5 |
| <i>Tipula</i> | 09021001002 | 0.33 | 0.33 | 4 | SH | 0.2 | 0.2 |
| Chironomidae | 09021011 | 0.67 | | | -- | 0.3 | |
| <i>Natarsia</i> | 09021011011 | 2.00 | 2.01 | 8 | PR | 1.0 | 1.0 |
| <i>Procladius</i> | 09021011015 | 4.00 | 4.03 | 9 | PR | 1.9 | 1.9 |
| <i>Parametrioctenemus</i> | 09021011053 | 0.33 | 0.34 | 5 | CG | 0.2 | 0.2 |
| <i>Rheotanytarsus</i> | 09021011072 | | 0.34 | 6 | CF | | 0.2 |
| <i>Rheotanytarsus pellucidus</i> | 09021011072128 | 0.33 | | | CF | 0.2 | |
| <i>Tanytarsus</i> | 09021011076 | 37.33 | 37.59 | 6 | CF | 17.9 | 18.1 |
| <i>Paratendipes</i> | 09021011100 | 0.67 | 0.67 | 8 | CG | 0.3 | 0.3 |
| <i>Polypedilum</i> | 09021011102 | | 1.68 | 6 | SH | | 0.8 |
| <i>Polypedilum scalaenum group</i> | 09021011102189 | 1.67 | | | -- | 0.8 | |
| <i>Tribelos</i> | 09021011107 | | 46.65 | 5 | CG | | 22.4 |
| <i>Tribelos jucundus</i> | 09021011107198 | 46.33 | | | -- | 22.3 | |
| <i>Apsectrotanypus</i> | 09021011109 | 0.33 | 0.34 | | -- | 0.2 | 0.2 |
| <i>Macropelopia</i> | 09021011111 | 5.33 | 5.37 | | P | 2.6 | 2.6 |
| <i>Dubiraphia</i> | 09021113064 | 0.33 | 0.33 | 6 | -- | 0.2 | 0.2 |
| <i>Physella</i> | 10010202027 | 0.33 | 0.33 | | SC | 0.2 | 0.2 |
| <i>Pisidium</i> | 10020201002 | 1.00 | 1.00 | | CF | 0.5 | 0.5 |