



**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>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 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		

Five Most Dominant Taxa

13 Relative Abundance - Oligochaeta	0.17	Rank	Taxon Name	Percent
15 Perlidae Mean Abundance (Family Functional Group)	0.00	1	<i>Tribelos</i>	22.43
16 Tanypodinae Mean Abundance (Family Functional Group)	6.04	2	<i>Tanytarsus</i>	18.07
17 Chironomini Abundance (Family Functional Group)	49.00	3	Lumbriculidae	13.78
		4	<i>Gammarus</i>	12.66
		5	<i>Phylocentropus</i>	7.37



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Station Number: S-271	Town: Saco	Date Deployed: 7/13/2020
Log Number: 2803	Waterbody: Goosefare Brook - Station 271	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>Parametriocnemus</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>Apsectrotanytus</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