



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

Station Information

Station Number: S-48	River Basin: Saco
Waterbody: Goosefare Brook - Station 48	HUC8 Name: Presumpscot
Town: Saco	Latitude: 43 32 3.83 N
Directions: 75 M BELOW JENKINS RD. CROSSING	Longitude: 70 27 8.14 W
	Stream Order: 1

Sample Information

Log Number: 2801	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: C	Date: 2/17/2021
Model Result with $P \geq 0.6$: C	Reason for Determination: Model	
Date Last Calculated: 1/27/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.18	Class A, B, or C	1.00
Class B	0.59	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.05
Class A or B	0.27	Class B or C or Non-Attainment	0.95
Class C or Non-Attainment	0.73		

Model Variables

01 Total Mean Abundance	419.00	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	37.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	160.34
04 Ephemeroptera Mean Abundance	3.67	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	2.96	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	5.34
06 Hilsenhoff Biotic Index	4.95	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.38	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.41	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.80		
13 Relative Abundance - Oligochaeta	0.11		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	34.74		
17 Chironomini Abundance (Family Functional Group)	108.23		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Helobdella</i>	37.95
2	<i>Tribelos</i>	24.40
3	<i>Aulodrilus</i>	10.74
4	<i>Phylocentropus</i>	4.85
5	<i>Procladius</i>	4.62



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 18.2 deg C
Dissolved Oxygen: 8.91 mg/l
Dissolved Oxygen Saturation: 95.1 %
Specific Conductance: 146.2 uS/cm
Velocity: 1 cm/s
pH: 7.15
Wetted Width: 1.6 m
Bankfull Width: 2.1 m
Depth: 22 cm

Waterbody Information - Retrieval

Temperature: 19.5 deg C
Dissolved Oxygen: 8.38 mg/l
Dissolved Oxygen Saturation: 91.2 %
Specific Conductance: 105.3 uS/cm
Velocity: 0.1 cm/s
pH: 7.2
Wetted Width: 0.75 m
Bankfull Width: 1.46 m
Depth: 22.3 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>	
	Below Road Crossing	Detritus	30 %
		Gravel	5 %
		Sand	40 %
		Silt	25 %

Landcover Summary - 2004 Data

Total Area (ac)	460	High Int. Dev. %	1.1	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	2.8	Wetland %	30.9	Tilled Agriculture %	0.2
		Low Int. Dev. %	5.5	Upland Woody %	48.4	Grassland %	0.0
		Development %	9.4	Natural %	79.3	Human Altered %	20.7
						Impervious %	5.6

Sample Comments

VISBLE FLOW. EEL IN NET.



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

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Subsample Factor: X1

Replicates: 3

Calculated: 1/27/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Nematomorpha	06	0.33	0.33		--	0.1	0.1
Lumbriculidae	08020101	2.33	2.33		--	0.6	0.6
Naididae	08020202	0.67			--	0.2	
<i>Aulodrilus</i>	08020202018		45.00		--		10.7
<i>Aulodrilus pluriset</i>	08020202018004	44.33			--	10.6	
<i>Limnodrilus</i>	08020202022	0.33	0.34		CG	0.1	0.1
<i>Helobdella</i>	08030101005		159.00		--		37.9
<i>Helobdella stagnalis complex</i>	08030101005004	159.00			--	37.9	
<i>Paracapnia</i>	09020203018	1.67	1.67	1	SH	0.4	0.4
<i>Maccaffertium</i>	09020402015		0.33	4	SC		0.1
<i>Maccaffertium modestum</i>	09020402015051	0.33			--	0.1	
<i>Paraleptophlebia</i>	09020406026	3.33	3.33	1	CG	0.8	0.8
<i>Chimarra</i>	09020601003		0.67	2	CF		0.2
<i>Chimarra aterrima</i>	09020601003002	0.67			--	0.2	
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	0.2	0.2
<i>Phylocentropus</i>	09020603011	20.33	20.33	5	CF	4.9	4.9
Phryganeidae	09020608	1.67	1.67		--	0.4	0.4
<i>Oligostomis</i>	09020608039	2.33	2.33	2	PR	0.6	0.6
<i>Pycnopsyche</i>	09020610049	11.00	11.00	4	SH	2.6	2.6
<i>Frenesia</i>	09020610058	5.00	5.00	0	SH	1.2	1.2
<i>Psilotreta</i>	09020614068	2.33	3.67	0	SC	0.6	0.9
<i>Psilotreta frontalis</i>	09020614068134	1.33			--	0.3	
<i>Heteroplectron</i>	09020617071		0.33		SH		0.1
<i>Heteroplectron americanum</i>	09020617071138	0.33			--	0.1	
<i>Chauliodes</i>	09020701001		0.33	4	PR		0.1
<i>Chauliodes rastricornis</i>	09020701001002	0.33			--	0.1	
Chironomidae	09021011	0.33			--	0.1	
<i>Paramerina</i>	09021011013	12.00	12.03		--	2.9	2.9
<i>Procladius</i>	09021011015	19.33	19.37	9	PR	4.6	4.6
<i>Thienemannimyia</i>	09021011020		3.34	3	PR		0.8
<i>Thienemannimyia group</i>	09021011020041	3.33			--	0.8	
<i>Heterotrissocladius</i>	09021011044		0.67	0	CG		0.2
<i>Heterotrissocladius marcidus</i>	09021011044083	0.67			--	0.2	
<i>Micropsectra</i>	09021011070	1.33	1.34	7	CG	0.3	0.3
<i>Stempellinella</i>	09021011074	5.67	5.68	2	--	1.4	1.4
<i>Tanytarsus</i>	09021011076	5.33	5.34	6	CF	1.3	1.3
<i>Chironomus</i>	09021011080	1.33	1.34	10	CG	0.3	0.3



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		Actual	Adjusted				
<i>Microtendipes</i>	09021011094		1.34	6	CF		0.3
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	0.3	
<i>Paratendipes</i>	09021011100	2.33	2.34	8	CG	0.6	0.6
<i>Polypedilum</i>	09021011102		1.00	6	SH		0.2
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	0.2	
<i>Tribelos</i>	09021011107	102.00	102.22	5	CG	24.3	24.4
<i>Brundiniella</i>	09021011115	1.67	1.67		--	0.4	0.4
<i>Xylotopus</i>	09021011117		0.33	2	--		0.1
<i>Xylotopus par</i>	09021011117001	0.33			--	0.1	
Tabanidae	09021014	0.67	0.67		--	0.2	0.2
<i>Dubiraphia</i>	09021113064	0.33	0.67	6	--	0.1	0.2
<i>Dubiraphia quadrinotata</i>	09021113064037	0.33			--	0.1	
<i>Microcyloepus</i>	09021113066		0.33	3	--		0.1
<i>Microcyloepus pusillus</i>	09021113066041	0.33			--	0.1	
Acariformes	090301	0.33	0.33		--	0.1	0.1
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.1	0.1