



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

Station Information

Station Number: S-338	River Basin: Saco
Waterbody: Goosefare Brook - Station 338	HUC8 Name: Presumpscot
Town: Saco	Latitude: 43 31 14.85 N
Directions: BELOW SACO DEFENSE; MOODY RD.	Longitude: 70 26 8.11 W
	Stream Order: 1

Sample Information

Log Number: 2386	Type of Sample: ROCK BAG	Date Deployed: 7/23/2015
Subsample Factor: X1	Replicates: 2	Date Retrieved: 8/20/2015

Classification Attainment

Statutory Class: B	Final Determination: NA	Date: 6/8/2016
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 6/8/2016	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	0.02
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.98

Model Variables

01 Total Mean Abundance	51.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	27.00	19 EPT Generic Richness	7.00
03 Plecoptera Mean Abundance	2.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.83	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	2.65
06 Hilsenhoff Biotic Index	5.20	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.42	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.37	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	2.40		
11 <i>Cheumatopsyche</i> Abundance	0.60		
12 EPT Generic Richness/ Diptera Generic Richness	0.70		
13 Relative Abundance - Oligochaeta	0.05		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.56		
17 Chironomini Abundance (Family Functional Group)	1.02		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	27.10
2	<i>Dubiraphia</i>	16.67
3	<i>Plectrocnemia</i>	8.82
4	<i>Gammarus</i>	4.90
5	<i>Boyeria</i>	4.90



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 17.1 deg C
Dissolved Oxygen: 8.22 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 902 uS/cm
Velocity: 3 cm/s
pH: 7.31
Wetted Width: 2.2 m
Bankfull Width: 5.8 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 20.3 deg C
Dissolved Oxygen: 7.35 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 435 uS/cm
Velocity: 3 cm/s
pH: 7.36
Wetted Width: 1.9 m
Bankfull Width: 5.8 m
Depth: 29.5 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Dense	Rolling	
Upland Hardwood			
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below In-place Contamination	Bedrock	45 %
		Boulder	10 %
		Gravel	15 %
		Rubble/Cobble	20 %
		Sand	10 %

Landcover Summary - 2004 Data

Total Area (ac)	1196	High Int. Dev. %	11.6	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	3.9	Wetland %	11.9	Tilled Agriculture %	0.1
		Low Int. Dev. %	8.2	Upland Woody %	33.6	Grassland %	0.3
		Development %	23.8	Natural %	45.4	Human Altered %	54.6
						Impervious %	20.4

Sample Comments

7/23/2015: 85.6% DO.
8/20/2015: 80.8% DO. MILKY COLOR. ONE BAG VANDALIZED.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-338

Waterbody: Goosefare Brook - Station 338

Town: Saco

Log Number: 2386

Subsample Factor: X1

Replicates: 2

Calculated: 6/8/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Lumbriculus</i>	08020101002		0.50		CG		1.0
<i>Lumbriculus variegatus</i>	08020101002001	0.50			--	1.0	
Tubificida	080202	0.50	0.50		--	1.0	1.0
<i>Nais</i>	08020202009		1.00		CG		2.0
<i>Nais communis</i>	08020202009005	1.00			--	2.0	
<i>Aulodrilus</i>	08020202018		0.50		--		1.0
<i>Aulodrilus pluriset</i>	08020202018004	0.50			--	1.0	
<i>Caecidotea</i>	09010101001	0.50	1.00	8	SH	1.0	2.0
<i>Caecidotea communis</i>	09010101001001	0.50			--	1.0	
<i>Gammarus</i>	09010201003		2.50	4	--		4.9
<i>Gammarus fasciatus</i>	09010201003003	2.50			--	4.9	
<i>Leuctra</i>	09020204020	1.00	2.00	0	SH	2.0	3.9
<i>Leuctra ferruginea</i>	09020204020050	1.00			--	2.0	
<i>Boyeria</i>	09020301004		2.50	2	PR		4.9
<i>Boyeria vinosa</i>	09020301004012	2.50			--	4.9	
Calopterygidae	09020307	0.50	0.50		--	1.0	1.0
<i>Calopteryx</i>	09020307043		0.50	5	PR		1.0
<i>Calopteryx maculata</i>	09020307043088	0.50			--	1.0	
<i>Plectrocnemia</i>	09020603012	4.50	4.50	6	PR	8.8	8.8
Hydropsychidae	09020604	0.50			--	1.0	
<i>Cheumatopsyche</i>	09020604015	0.50	0.60	5	CF	1.0	1.2
<i>Hydropsyche</i>	09020604016	1.50	2.40	4	CF	2.9	4.7
<i>Hydropsyche placoda</i>	09020604016059	0.50			--	1.0	
<i>Oligostomis</i>	09020608039	0.50	0.50	2	PR	1.0	1.0
Limnephilidae	09020610	0.50	0.50		--	1.0	1.0
<i>Psilotreta</i>	09020614068	0.50	0.50	0	SC	1.0	1.0
Chironomidae	09021011	0.50			--	1.0	
<i>Ablabesmyia</i>	09021011001		0.51	8	PR		1.0
<i>Ablabesmyia mallochii</i>	09021011001004	0.50			--	1.0	
<i>Meropelopia</i>	09021011010	0.50	0.51		--	1.0	1.0
<i>Natarsia</i>	09021011011		0.51	8	PR		1.0
<i>Natarsia baltimoreus</i>	09021011011026	0.50			--	1.0	
<i>Trissopelopia</i>	09021011021		1.02		PR		2.0
<i>Trissopelopia ogemawi</i>	09021011021042	1.00			--	2.0	
<i>Zavrelimyia</i>	09021011022			8	PR		
<i>Parametricnemus</i>	09021011053	1.00	1.02	5	CG	2.0	2.0
<i>Tvetenia</i>	09021011065		1.02	5	CG		2.0



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<i>Tvetenia paucunca</i>	09021011065114	1.00			--	2.0	
<i>Rheotanytarsus</i>	09021011072		13.82	6	CF		27.1
<i>Rheotanytarsus pellucidus</i>	09021011072128	13.50			CF	26.5	
<i>Tanytarsus</i>	09021011076	1.50	1.54	6	CF	2.9	3.0
<i>Polypedilum</i>	09021011102		1.02	6	SH		2.0
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	2.0	
<i>Apsectrotanypus</i>	09021011109		0.51		--		1.0
<i>Apsectrotanypus johnsoni</i>	09021011109001	0.50			--	1.0	
<i>Dubiraphia</i>	09021113064	0.50	8.50	6	--	1.0	16.7
<i>Dubiraphia quadrinotata</i>	09021113064037	8.00			--	15.7	
<i>Physa</i>	10010202027	0.50	0.50		SC	1.0	1.0