



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

Station Information

Station Number: S-272 River Basin: Saco  
Waterbody: Goosefare Brook - Station 272 HUC8 Name: Presumpscot  
Town: Saco Latitude: 43 30 8.36 N  
Directions: 20 M BELOW OLD ORCHARD RD. CROSSING Longitude: 70 24 50.31 W  
Stream Order: 2

Sample Information

Log Number: 2387 Type of Sample: ROCK BAG Date Deployed: 7/27/2015  
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/20/2015

Classification Attainment

Statutory Class: B Final Determination: C Date: 6/8/2016  
Model Result with  $P \geq 0.6$ : C Reason for Determination: Model  
Date Last Calculated: 6/8/2016 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.99
Class B	0.01	Non-Attainment	0.01
B or Better Model		A Model	
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	1073.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	47.00	19 EPT Generic Richness	8.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	36.57
04 Ephemeroptera Mean Abundance	5.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.73	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	531.02
06 Hilsenhoff Biotic Index	5.61	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.64	28 EP Generic Richness/14	0.14
08 Relative Generic Richness Diptera	0.51	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	17.84		
11 <i>Cheumatopsyche</i> Abundance	219.49		
12 EPT Generic Richness/ Diptera Generic Richness	0.33		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	6.77		
17 Chironomini Abundance (Family Functional Group)	132.74		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	24.23
2	<i>Cheumatopsyche</i>	20.45
3	<i>Rheotanytarsus</i>	10.35
4	<i>Microtendipes</i>	9.21
5	<i>Gammarus</i>	5.96



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<b>Log Number: 2387</b>	Waterbody: Goosefare Brook - Station 272	Date Retrieved: 8/20/2015

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	17.9 deg C
Dissolved Oxygen:	9.2 mg/l
Dissolved Oxygen Saturation:	
Specific Conductance:	
Velocity:	15.2 cm/s
pH:	
Wetted Width:	3.3 m
Bankfull Width:	4.5 m
Depth:	34 cm

**Waterbody Information - Retrieval**

Temperature:	20.1 deg C
Dissolved Oxygen:	7.67 mg/l
Dissolved Oxygen Saturation:	
Specific Conductance:	493 uS/cm
Velocity:	9.1 cm/s
pH:	7.06
Wetted Width:	3.3 m
Bankfull Width:	4.5 m
Depth:	32 cm

**Water Chemistry - 8/20/2015**

Nitrate+nitrite As N	0.3 mg/l	Total Phosphorus	23 ug/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	3 mg/l
Dissolved Organic Carbon	2.2 mg/l	Total Dissolved Solids	280 mg/l
Orthophosphate As Phosphorus	2 ug/l		

**Summary of Habitat Characteristics**

Landuse Name

Upland Conifer  
Upland Hardwood  
Urban

Canopy Cover

Open

Terrain

Rolling

Potential Stressor

Urban Runoff

Location

Below Road Crossing  
Below Urban NPS

Substrate

Bedrock	80 %
Boulder	5 %
Rubble/Cobble	5 %
Silt	10 %

**Landcover Summary - 2004 Data**

Total Area (ac)	3656	High Int. Dev. %	9.9	Water %	0.0	Non-vegetated %	0.1
		Med Int. Dev. %	6.2	Wetland %	4.7	Tilled Agriculture %	0.7
		Low Int. Dev. %	9.8	Upland Woody %	45.3	Grassland %	1.9
		Development %	26.0	Natural %	50.2	Human Altered %	49.8
						Impervious %	19.7

**Sample Comments**

7/27/2015: 96.6% DO.

8/20/2015: 84% DO. EEL, FOUR SPINE AND NINE SPINE STICKLEBACKS PRESENT.



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Replicates: 3

Calculated: 6/8/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Rhabditophora	0301	4.00	4.00		--	0.4	0.4
<i>Prostoma</i>	04010101001	1.33	1.33		--	0.1	0.1
<i>Chaetogaster</i>	08020202002		1.33		--		0.1
<i>Chaetogaster limnaei</i>	08020202002004	1.33			--	0.1	
<i>Nais</i>	08020202009		5.33		CG		0.5
<i>Nais communis</i>	08020202009005	1.33			--	0.1	
<i>Nais variabilis</i>	08020202009009	4.00			--	0.4	
<i>Slavina</i>	08020202012		1.33		--		0.1
<i>Slavina appendiculata</i>	08020202012001	1.33			--	0.1	
<i>Caecidotea</i>	09010101001	2.67	4.00	8	SH	0.2	0.4
<i>Caecidotea communis</i>	09010101001001	1.33			--	0.1	
<i>Gammarus</i>	09010201003		64.00	4	--		6.0
<i>Gammarus fasciatus</i>	09010201003003	64.00			--	6.0	
Baetidae	09020401	1.33	1.33		--	0.1	0.1
Leptophlebiidae	09020406	4.00	4.00		--	0.4	0.4
<i>Plectrocnemia</i>	09020603012	2.67	2.67	6	PR	0.2	0.2
Hydropsychidae	09020604	60.00			--	5.6	
<i>Cheumatopsyche</i>	09020604015	164.00	219.49	5	CF	15.3	20.4
<i>Hydropsyche</i>	09020604016	6.67	17.84	4	CF	0.6	1.7
<i>Hydropsyche depravata species group</i>	09020604016041	6.67			CF	0.6	
<i>Hydroptila</i>	09020607026	2.67	2.67	6	P	0.2	0.2
Leptoceridae	09020618				--		
<i>Mystacides</i>	09020618075		18.67	4	CG		1.7
<i>Mystacides sepulchralis</i>	09020618075147	18.67			--	1.7	
<i>Oecetis</i>	09020618078	1.33	1.33	8	PR	0.1	0.1
<i>Tipula</i>	09021001002	1.33	1.33	4	SH	0.1	0.1
<i>Antocha</i>	09021001004	4.00	4.00	3	CG	0.4	0.4
Chironomidae	09021011	10.67			--	1.0	
<i>Ablabesmyia</i>	09021011001		1.35	8	PR		0.1
<i>Ablabesmyia mallochii</i>	09021011001004	1.33			--	0.1	
<i>Conchapelopia</i>	09021011004	1.33	1.35	6	PR	0.1	0.1
<i>Meropelopia</i>	09021011010	1.33	1.35		--	0.1	0.1
<i>Trissopelopia</i>	09021011021		2.71		PR		0.3
<i>Trissopelopia ogemawi</i>	09021011021042	2.67			--	0.2	
<i>Pagastia</i>	09021011025		5.42	1	--		0.5
<i>Pagastia orthogonia</i>	09021011025001	5.33			--	0.5	
<i>Brillia</i>	09021011033		1.35	5	SH		0.1



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		Actual	Adjusted			Actual	Adjusted
<i>Brillia flavifrons</i>	09021011033049	1.33			--	0.1	
<i>Corynoneura</i>	09021011036	4.00	4.06	7	CG	0.4	0.4
<i>Cricotopus</i>	09021011037		50.12	7	SH		4.7
<i>Cricotopus bicinctus</i>	09021011037057	49.33			--	4.6	
<i>Parakiefferiella</i>	09021011052	13.33	13.54		CG	1.2	1.3
<i>Parametriocnemus</i>	09021011053	6.67	6.77	5	CG	0.6	0.6
<i>Rheocricotopus</i>	09021011057		13.54	6	CG		1.3
<i>Rheocricotopus robacki</i>	09021011057105	13.33			--	1.2	
<i>Micropsectra</i>	09021011070	10.67	21.67	7	CG	1.0	2.0
<i>Micropsectra polita</i>	09021011070124	10.67		7	--	1.0	
<i>Paratanytarsus</i>	09021011071		40.63	6	--		3.8
<i>Paratanytarsus dissimilis</i>	09021011071125	34.67			--	3.2	
<i>Paratanytarsus longistylus</i>	09021011071126	5.33		6	--	0.5	
<i>Rheotanytarsus</i>	09021011072		111.07	6	CF		10.3
<i>Rheotanytarsus exiguus group</i>	09021011072127	18.67			CF	1.7	
<i>Rheotanytarsus pellucidus</i>	09021011072128	90.67			CF	8.4	
<i>Stempellinella</i>	09021011074		14.90	2	--		1.4
<i>Stempellinella leptocelloides</i>	09021011074001	5.33			--	0.5	
<i>Stempellinella fimbriata</i>	09021011074002	9.33			--	0.9	
<i>Tanytarsus</i>	09021011076	120.00	260.06	6	CF	11.2	24.2
<i>Tanytarsus buckleyi</i>	09021011076139	136.00			CF	12.7	
<i>Dicrotendipes</i>	09021011085	2.67	14.90	8	CG	0.2	1.4
<i>Dicrotendipes neomodestus</i>	09021011085152	12.00			--	1.1	
<i>Microtendipes</i>	09021011094		98.88	6	CF		9.2
<i>Microtendipes pedellus group</i>	09021011094166	9.33			--	0.9	
<i>Microtendipes rydalensis group</i>	09021011094168	88.00			--	8.2	
<i>Phaenopsectra</i>	09021011101		13.54	7	SC		1.3
<i>Phaenopsectra obediens</i>	09021011101182	13.33			SC	1.2	
<i>Polypedilum</i>	09021011102		5.42	6	SH		0.5
<i>Polypedilum aviceps</i>	09021011102181	5.33			--	0.5	
Empididae	09021016	1.33	1.33	6	--	0.1	0.1
<i>Neoplasta</i>	09021016064	1.33	1.33		PR	0.1	0.1
<i>Ancyronyx</i>	09021113063		1.33	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	1.33			CG	0.1	
<i>Dubiraphia</i>	09021113064	2.67	12.00	6	--	0.2	1.1
<i>Dubiraphia quadrinotata</i>	09021113064037	9.33			--	0.9	
<i>Stenelmis</i>	09021113070	4.00	4.00	5	SC	0.4	0.4
<i>Torrenticola</i>	09030104001	1.33	1.33		--	0.1	0.1



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<i>Lebertia</i>	09030105001	2.67	2.67		--	0.2	0.2
Basommatophora	100102	2.67	2.67		--	0.2	0.2
Lymnaeidae	10010201	1.33	1.33		--	0.1	0.1
<i>Physa</i>	10010202027	5.33	5.33		SC	0.5	0.5
<i>Helisoma</i>	10010203030		2.67		SC		0.2
<i>Helisoma anceps</i>	10010203030058	2.67			--	0.2	