



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

Station Information

Station Number: S-49	River Basin: Saco
Waterbody: Goosefare Brook - Station 49	HUC8 Name: Presumpscot
Town: Saco	Latitude: 43 31 15.49 N
Directions: 0.5 KM BELOW I-195	Longitude: 70 26 31.08 W
	Stream Order: 2

Sample Information

Log Number: 2371	Type of Sample: ROCK BAG	Date Deployed: 7/20/2015
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/19/2015

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: 6/7/2016	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	0.01
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Mean Abundance	246.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	49.00	19 EPT Generic Richness	8.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	3.70
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	3.77	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	35.96
06 Hilsenhoff Biotic Index	5.26	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.33	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.49	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	1.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.33		
13 Relative Abundance - Oligochaeta	0.07		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	18.82		
17 Chironomini Abundance (Family Functional Group)	5.71		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	34.10
2	<i>Tanytarsus</i>	14.60
3	<i>Dubiraphia</i>	7.04
4	<i>Natarsia</i>	5.05
5	<i>Caecidotea</i>	4.87



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

Station Number: S-49 Town: Saco Date Deployed: 7/20/2015
Log Number: 2371 Waterbody: Goosefare Brook - Station 49 Date Retrieved: 8/19/2015

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 18.6 deg C
Dissolved Oxygen: 7.48 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 660 uS/cm
Velocity: 27 cm/s
pH:
Wetted Width: 2.3 m
Bankfull Width: 3.2 m
Depth: 26.7 cm

Waterbody Information - Retrieval

Temperature: 19.6 deg C
Dissolved Oxygen: 7.05 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 1066 uS/cm
Velocity: 21 cm/s
pH:
Wetted Width: 2.1 m
Bankfull Width: 2.9 m
Depth: 18.3 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Swamp Hardwood Urban	Dense	Flat
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Below Road Crossing	Detritus 10 %
	Below Urban NPS	Sand 90 %

Landcover Summary - 2004 Data

Total Area (ac) 822	High Int. Dev. % 7.6	Water % 0.0	Non-vegetated % 0.0
	Med Int. Dev. % 3.2	Wetland % 17.3	Tilled Agriculture % 0.1
	Low Int. Dev. % 8.6	Upland Woody % 34.3	Grassland % 0.0
	Development % 19.4	Natural % 51.6	Human Altered % 48.4
			Impervious % 16.1

Sample Comments

7/20/2015: 83.7% DO.
8//19/2015: 77.9% DO. SALAMANDER PRESENT.



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

Station Number: S-49

Waterbody: Goosefare Brook - Station 49

Town: Saco

Log Number: 2371

Subsample Factor: X1

Replicates: 3

Calculated: 6/7/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Phagocata</i>	03010101004	1.00	1.00		--	0.4	0.4
<i>Prostoma</i>	04010101001	1.00	1.00		--	0.4	0.4
<i>Lumbriculus</i>	08020101002		11.00		CG		4.5
<i>Lumbriculus variegatus</i>	08020101002001	11.00			--	4.5	
Tubificida	080202	0.33	0.33		--	0.1	0.1
Enchytraeidae	08020201	0.33	0.33		--	0.1	0.1
<i>Aulodrilus</i>	08020202018		4.67		--		1.9
<i>Aulodrilus plurisetus</i>	08020202018004	4.67			--	1.9	
Lumbricidae	08020205	0.33	0.33		--	0.1	0.1
<i>Caecidotea</i>	09010101001	7.33	12.00	8	SH	3.0	4.9
<i>Caecidotea communis</i>	09010101001001	4.67			--	1.9	
Amphipoda	090102	0.33	0.33	8	--	0.1	0.1
<i>Gammarus</i>	09010201003		84.00	4	--		34.1
<i>Gammarus fasciatus</i>	09010201003003	84.00			--	34.1	
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.1	0.1
<i>Aeshna</i>	09020301001		0.33	5	PR		0.1
<i>Aeshna umbrosa</i>	09020301001006	0.33			--	0.1	
<i>Boyeria</i>	09020301004		3.33	2	PR		1.4
<i>Boyeria vinosa</i>	09020301004012	3.33			--	1.4	
<i>Cordulegaster</i>	09020303019	2.00	2.00	3	PR	0.8	0.8
Calopterygidae	09020307	1.33	1.33		--	0.5	0.5
<i>Phylocentropus</i>	09020603011		5.67	5	CF		2.3
<i>Phylocentropus placidus</i>	09020603011021	5.67			--	2.3	
<i>Plectrocnemia</i>	09020603012	6.33	8.00	6	PR	2.6	3.2
<i>Plectrocnemia remota</i>	09020603012001	1.67			--	0.7	
<i>Diplectrona</i>	09020604014		0.67	0	CF		0.3
<i>Diplectrona modesta</i>	09020604014025	0.67			--	0.3	
<i>Hydropsyche</i>	09020604016	0.67	1.00	4	CF	0.3	0.4
<i>Hydropsyche depravata species group</i>	09020604016041	0.33			CF	0.1	
<i>Oligostomis</i>	09020608039	0.67	0.67	2	PR	0.3	0.3
<i>Pycnopsyche</i>	09020610049	0.67	0.67	4	SH	0.3	0.3
<i>Psilotreta</i>	09020614068		1.00	0	SC		0.4
<i>Psilotreta labida</i>	09020614068133	0.33			--	0.1	
<i>Psilotreta frontalis</i>	09020614068134	0.67			--	0.3	
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.1	0.1
Chironomidae	09021011	0.67			--	0.3	



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

Station Number: S-49

Waterbody: Goosefare Brook - Station 49

Town: Saco

Log Number: 2371

Subsample Factor: X1

Replicates: 3

Calculated: 6/7/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Conchapelopia</i>	09021011004	0.67	0.67	6	PR	0.3	0.3
<i>Meropelopia</i>	09021011010	3.67	3.70		--	1.5	1.5
<i>Natarsia</i>	09021011011	0.33	12.44	8	PR	0.1	5.0
<i>Natarsia baltimoreus</i>	09021011011026	12.00			--	4.9	
<i>Procladius</i>	09021011015	0.33	0.34	9	PR	0.1	0.1
<i>Trissopelopia</i>	09021011021		0.34		PR		0.1
<i>Trissopelopia ogemawi</i>	09021011021042	0.33			--	0.1	
<i>Zavrelimyia</i>	09021011022		1.34	8	PR		0.5
<i>Zavrelimyia thryptica group</i>	09021011022045	1.33			PR	0.5	
<i>Prodiamesa</i>	09021011031		0.34	3	CG		0.1
<i>Prodiamesa olivacea</i>	09021011031048	0.33			--	0.1	
<i>Heterotrissocladius</i>	09021011044		0.34	0	CG		0.1
<i>Heterotrissocladius marcidus</i>	09021011044083	0.33			--	0.1	
<i>Parametriocnemus</i>	09021011053	3.00	3.02	5	CG	1.2	1.2
<i>Rheocricotopus</i>	09021011057		3.36	6	CG		1.4
<i>Rheocricotopus robacki</i>	09021011057105	3.33			--	1.4	
<i>Tvetenia</i>	09021011065		0.34	5	CG		0.1
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.1	
<i>Micropsectra</i>	09021011070	3.67	3.70	7	CG	1.5	1.5
<i>Paratanytarsus</i>	09021011071		0.34	6	--		0.1
<i>Paratanytarsus dissimilis</i>	09021011071125	0.33			--	0.1	
<i>Rheotanytarsus</i>	09021011072		6.72	6	CF		2.7
<i>Rheotanytarsus exiguus group</i>	09021011072127	2.33			CF	0.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	4.33			CF	1.8	
<i>Tanytarsus</i>	09021011076	35.67	35.96	6	CF	14.5	14.6
<i>Phaenopsectra</i>	09021011101		0.34	7	SC		0.1
<i>Phaenopsectra punctipes</i>	09021011101183	0.33			SC	0.1	
<i>Polypedilum</i>	09021011102		3.70	6	SH		1.5
<i>Polypedilum aviceps</i>	09021011102181	0.33			--	0.1	
<i>Polypedilum scalaenum group</i>	09021011102189	3.00			--	1.2	
<i>Polypedilum illinoense</i>	09021011102204	0.33			--	0.1	
<i>Stictochironomus</i>	09021011106	1.33	1.34	9	CG	0.5	0.5
<i>Tribelos</i>	09021011107		0.34	5	CG		0.1
<i>Tribelos jucundus</i>	09021011107198	0.33			--	0.1	
<i>Macropelopia</i>	09021011111		2.35		P		1.0
<i>Macropelopia decedens</i>	09021011111002	2.33			--	0.9	
<i>Simulium</i>	09021012047	0.33	0.67	4	CF	0.1	0.3



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

Station Number: S-49

Waterbody: Goosefare Brook - Station 49

Town: Saco

Log Number: 2371

Subsample Factor: X1

Replicates: 3

Calculated: 6/7/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072	0.33			CF	0.1	
<i>Chrysops</i>	09021014052	0.67	0.67	6	CG	0.3	0.3
<i>Dubiraphia</i>	09021113064	1.33	17.33	6	--	0.5	7.0
<i>Dubiraphia minima</i>	09021113064036	1.67			--	0.7	
<i>Dubiraphia quadrinotata</i>	09021113064037	12.67			--	5.1	
<i>Dubiraphia robusta</i>	09021113064040	1.67			--	0.7	
<i>Promoesia</i>	09021113069		0.33		--		0.1
<i>Promoesia tardella</i>	09021113069052	0.33			--	0.1	
Curculionidae	09021115	0.33	0.33		--	0.1	0.1
<i>Physa</i>	10010202027	4.00	4.00		SC	1.6	1.6
<i>Pisidium</i>	10020201002	1.33	1.33		CF	0.5	0.5