



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

Station Information

Station Number: S-474
Waterbody: Tannery Brook - Station 474
Town: Gorham
Directions: L1/LIBBY AVE TO QUEEN STREET DRIVE

DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8: 01060001
HUC8 Name: Presumpscot
Latitude: 43 42 4.88 N
Longitude: 70 26 10.61 W
Stream Order: 2

Sample Information

Log Number: 1970
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/27/2010
Date Retrieved: 8/30/2010

Classification Attainment

Statutory Class: B
Model Result with P>.6: NA
Date Last Calculated: 3/3/2011

Final Determination: NA
Reason for Determination: Model
Comments:

Date: 3/4/2011

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.00
Class B	0.01	Non-Attainment	1.00
Class C			
0.44			
NA			
0.54			
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	121.67	18 Relative Abundance Ephemeroptera	0.02
02 Generic Richness	32.00	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>	0.00
04 Ephemeroptera Mean Abundance	2.67	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.36	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	56.81
06 Hilsenhoff Biotic Index	4.75	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	2.33
07 Relative Abundance - Chironomidae	0.21	28 EP Generic Richness/14	0.14
08 Relative Generic Richness Diptera	0.28	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	3.39		
11 <i>Cheumatopsyche</i> Abundance	52.94		
12 EPT Generic Richness/ Diptera	0.89		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.70		
(Family Functional Group)			
17 Chironomini Abundance (Family	11.97		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cheumatopsyche</i>	43.51
2	<i>Chimarra</i>	8.77
3	<i>Microtendipes</i>	8.68
4	<i>Macronychus</i>	4.66
5	<i>Dubiraphia</i>	3.56



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Date Retrieved: 8/30/2010

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 22.5 deg C
Dissolved Oxygen: 6.7 mg/l
Specific Conductance: 221 uS/cm
Velocity: 16 cm/s
pH:
Wetted Width: 4.2 m
Bankfull Width: 5.1 m
Depth: 20 cm

Waterbody Information - Retrieval

Temperature: 18.6 deg C
Dissolved Oxygen: 6.1 mg/l
Specific Conductance: 186 uS/cm
Velocity: 6 cm/s
pH: 6.73
Wetted Width: 4 m
Bankfull Width: 5.1 m
Depth: 33 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Swamp Hardwood

Upland Conifer

Upland Hardwood

Canopy Cover

Partly Open

Terrain

Rolling

Potential Stressor

Location

Below Town

Substrate

Boulder	5 %
Gravel	5 %
Rubble/Cobble	65 %
Sand	20 %
Silt	5 %

Landcover Summary - 2004 Data

Total Area (ac)	1721	High Int. Dev. %	3.8	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	3.9	Wetland %	1.7	Tilled Agriculture %	2.4
		Low Int. Dev. %	6.8	Upland Woody %	54.7	Grassland %	14.3
		Development %	14.4	Natural %	56.5	Human Altered %	43.5
						Impervious %	11.6

Sample Comments

7/27/2010 FISH; BLOWN OUT BANKS; SILT ON ROCKS; TREE CUTTING ON RIGHT BANK.

8/30/2010 FISH INCLUDING COMMON SHINER, SALAMANDERS (ONE IN EACH OF THE 3 BAGS).



Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report

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Town: Gorham

Log Number: 1970

Subsample Factor: X1

Replicates: 3

Calculated: 3/3/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Aulodrilus</i>	08020202018		1.33		--		1.1
<i>Aulodrilus limnobius</i>	08020202018002	1.33			--	1.1	
Erpobdellidae	08030203	0.33	0.33		--	0.3	0.3
<i>Orconectes</i>	09010301008		0.33		CG		0.3
<i>Orconectes virilis</i>	09010301008016	0.33			--	0.3	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.5
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.5	
Calopterygidae	09020307	2.67	2.67		--	2.2	2.2
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.3	0.3
<i>Centropilum</i>	09020401003	0.33	0.33	2	CG	0.3	0.3
<i>Maccaffertium</i>	09020402015	1.67	2.33	4	SC	1.4	1.9
<i>Maccaffertium modestum</i>	09020402015051	0.67			--	0.5	
<i>Chimarra</i>	09020601003	10.67	10.67	2	CF	8.8	8.8
<i>Cernotina</i>	09020603006	1.00	1.00		PR	0.8	0.8
<i>Nyctiophylax</i>	09020603009		1.33	5	PR		1.1
<i>Nyctiophylax moestus</i>	09020603009013	1.33			--	1.1	
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	0.8	0.8
Hydropsychidae	09020604	1.00			--	0.8	
<i>Cheumatopsyche</i>	09020604015	52.00	52.94	5	CF	42.7	43.5
<i>Hydropsyche</i>	09020604016		3.39	4	CF		2.8
<i>Hydropsyche depravata complex</i>	09020604016041	3.33			CF	2.7	
Limnephilidae	09020610				--		
<i>Nigronia</i>	09020701003		1.33	0	PR		1.1
<i>Nigronia serricornis</i>	09020701003003	1.33			--	1.1	
Chironomidae	09021011	1.33			--	1.1	
<i>Paramerina</i>	09021011013	0.67	0.70		--	0.5	0.6
<i>Rheopelopia</i>	09021011017				PR		
<i>Nanocladius</i>	09021011049		0.35	3	CG		0.3
<i>Nanocladius spinipennis</i>	09021011049090	0.33			--	0.3	
<i>Parametriocnemus</i>	09021011053	2.33	2.46	5	CG	1.9	2.0
<i>Tvetenia</i>	09021011065		0.35	5	CG		0.3
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.3	
<i>Paratanytarsus</i>	09021011071	2.33	2.46	6	--	1.9	2.0
<i>Rheotanytarsus</i>	09021011072	2.67	2.82	6	CF	2.2	2.3
<i>Tanytarsus</i>	09021011076	3.67	3.87	6	CF	3.0	3.2
<i>Microtendipes</i>	09021011094		10.56	6	CF		8.7
<i>Microtendipes rydalensis group</i>	09021011094168	10.00			--	8.2	
<i>Polypedilum</i>	09021011102		1.41	6	SH		1.2



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<i>Polypedilum aviceps</i>	09021011102181	0.33			--	0.3	
<i>Polypedilum flavum</i>	09021011102182	1.00			--	0.8	
<i>Simulium venustum/verecundum</i> complex	09021012047072				CF		
<i>Dubiraphia</i>	09021113064	4.33	4.33	6	--	3.6	3.6
<i>Macronychus</i>	09021113065		5.67	4	--		4.7
<i>Macronychus glabratus</i>	09021113065040	5.67			--	4.7	
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.3	0.3
<i>Oulimnius</i>	09021113068	0.33	0.33		--	0.3	0.3
<i>Promoresia</i>	09021113069		0.67		--		0.5
<i>Promoresia tardella</i>	09021113069052	0.67			--	0.5	
<i>Stenelmis</i>	09021113070	0.67	1.00	5	SC	0.5	0.8
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.3	
<i>Pisidium</i>	10020201002		0.33		CF		0.3
<i>Pisidium compressum</i>	10020201002007	0.33			CF	0.3	
<i>Sphaerium</i>	10020201003		4.00		CF		3.3
<i>Sphaerium striatinum</i>	10020201003024	4.00			--	3.3	