



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

Station Information

Station Number: S-934
Waterbody: Capisic Brook - Station 934
Town: Portland
Directions: BELOW WARWICK STREET; STREAM TMDL CODE RFRC12
DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8:
HUC8 Name:
Latitude: 43 40 40.66 N
Longitude: 70 18 54.76 W
Stream Order: 2

Sample Information

Log Number: 1838
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/15/2009
Date Retrieved: 8/11/2009

Classification Attainment

Statutory Class: C
Model Result with $P > .6$: I
Date Last Calculated: 5/26/2010
Final Determination: NA
Reason for Determination: Best Professional Judgement
Date: 5/26/2010
Comments: Minimum Provision for Generic Richness not met. Community is exhibiting a toxic response.

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
B or Better Model		A Model	
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	565.67	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	14.00	19 EPT Generic Richness	2.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	4.00
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	0.67	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.00
06 Hilsenhoff Biotic Index	4.05	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.01	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.36	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.40		
13 Relative Abundance - Oligochaeta	0.08		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	3.67		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Gammarus</i>	89.33
2	Naididae	7.66
3	<i>Glossiphonia</i>	0.88
4	<i>Micropsectra</i>	0.59
5	<i>Stictochironomus</i>	0.53



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 16 deg C
Dissolved Oxygen: 7.61 mg/l
Specific Conductance: 652 uS/cm
Velocity: 8.3 cm/s
pH:
Wetted Width: 3.7 m
Bankfull Width: 4.6 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 20.1 deg C
Dissolved Oxygen: 6.76 mg/l
Specific Conductance: 770 uS/cm
Velocity: 9 cm/s
pH:
Wetted Width: 3.7 m
Bankfull Width: 4.6 m
Depth: 24 cm

Water Chemistry - 8/11/2009

Ammonia As Nitrogen 0.24 mg/l
Nitrate+nitrite As N 0.91 mg/l
Total Suspended Solids 29 mg/l
Total Dissolved Solids 580 mg/l

Soluble Reactive Phosphorus 5 ug/l
Total Kjeldahl Nitrogen 1.1 mg/l
Dissolved Organic Carbon 9.1 mg/l

Summary of Habitat Characteristics

Landuse Name

Upland Hardwood
Urban

Canopy Cover

Partly Open

Terrain

Flat

Potential Stressor

Urban Runoff

Location

Below Road Crossing

Substrate

Detritus 3 %
Gravel 4 %
Rubble/Cobble 3 %
Sand 2 %
Silt 88 %

Landcover Summary - 2004 Data

Sample Comments

POOR HABITAT QUALITY.



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

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Subsample Factor: X1

Replicates: 3

Calculated: 5/26/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Stylodrilus</i>	08020101004		0.67		--		0.1
<i>Stylodrilus heringianus</i>	08020101004001	0.67			--	0.1	
Naididae	08020202	43.33	43.33		--	7.7	7.7
<i>Limnodrilus</i>	08020202022		1.33		CG		0.2
<i>Limnodrilus hoffmeisteri</i>	08020202022003	1.33			--	0.2	
<i>Glossiphonia</i>	08030101004		5.00		--		0.9
<i>Glossiphonia complanata</i>	08030101004001	5.00			--	0.9	
<i>Helobdella</i>	08030101005		0.67		--		0.1
<i>Helobdella stagnalis</i>	08030101005004	0.67			--	0.1	
<i>Erpobdella</i>	08030203002		0.33		--		0.1
<i>Erpobdella microstoma</i>	08030203002005	0.33			--	0.1	
<i>Gammarus</i>	09010201003		505.33	4	--		89.3
<i>Gammarus fasciatus</i>	09010201003003	505.33			--	89.3	
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	0.2	0.2
<i>Ptilostomis</i>	09020608041	0.33	0.33	5	SH	0.1	0.1
<i>Prodiamesa</i>	09021011031		0.67	3	CG		0.1
<i>Prodiamesa olivacea</i>	09021011031048	0.67			--	0.1	
<i>Micropsectra</i>	09021011070	3.33	3.33	7	CG	0.6	0.6
<i>Phaenopsectra</i>	09021011101		0.33	7	SC		0.1
<i>Phaenopsectra flavipes</i>	09021011101179	0.33			SC	0.1	
<i>Polypedilum</i>	09021011102		0.33	6	SH		0.1
<i>Polypedilum scalaenum group</i>	09021011102189	0.33			--	0.1	
<i>Stictochironomus</i>	09021011106	3.00	3.00	9	CG	0.5	0.5