



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

Station Information

Station Number: S-257
Waterbody: Capisic Brook - Station 257
Town: Portland
Directions: 50 M BELOW LUCAS ST. BRIDGE CROSSING
DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8: 01060001
HUC8 Name: Presumpscot River-Casco Bay
Latitude: 43 40 13.27 N
Longitude: 70 18 30.4 W
Stream Order: 2

Sample Information

Log Number: 1839
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: NA
Date Last Calculated: 5/26/2010
Final Determination: NA
Reason for Determination: Model
Date: 5/26/2010
Comments:

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	2011.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	16.00	19 EPT Generic Richness	1.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	16.48
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	1.78	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.33
06 Hilsenhoff Biotic Index	4.06	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.00	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.25	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.33		
12 EPT Generic Richness/ Diptera	0.25		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.66		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.00		
(Family Functional Group)			
17 Chironomini Abundance (Family	7.77		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Limnodrilus</i>	40.46
2	<i>Gammarus</i>	31.86
3	<i>Aulodrilus</i>	24.90
4	<i>Helobdella</i>	0.78
5	<i>Stylodrilus</i>	0.55



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Town: Portland

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Log Number: 1839

Waterbody: Capisic Brook - Station 257

Date Retrieved: 8/11/2009

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 16.4 deg C
Dissolved Oxygen: 8.62 mg/l
Specific Conductance: 599 uS/cm
Velocity: 15.3 cm/s
pH:
Wetted Width: 3.1 m
Bankfull Width: 4 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 20.1 deg C
Dissolved Oxygen: 7.15 mg/l
Specific Conductance: 633 uS/cm
Velocity: 8 cm/s
pH:
Wetted Width: 3.1 m
Bankfull Width: 4 m
Depth: 22 cm

Water Chemistry - 8/11/2009

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	6 ug/l
Nitrate+nitrite As N	1.1 mg/l	Total Kjeldahl Nitrogen	0.8 mg/l
Total Suspended Solids	36 mg/l	Dissolved Organic Carbon	6.2 mg/l
Total Dissolved Solids	390 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	40 %
Rubble/Cobble	30 %
Sand	20 %
Silt	7 %

Landcover Summary - 2004 Data

Total Area (ac)	1487	High Int. Dev. %	19.2	Water %	0.2	Non-vegetated %	0.1
		Med Int. Dev. %	10.2	Wetland %	0.0	Tilled Agriculture %	0.1
		Low Int. Dev. %	24.2	Upland Woody %	14.9	Grassland %	0.0
		Development %	53.6	Natural %	15.0	Human Altered %	84.9
						Impervious %	34.5

Sample Comments

FAIR HABITAT QUALITY.

All worm taxa for Repl. 2 & 3 were subsampled at 4X, i.e., 1/4 sample; this subsample was further subsampled at ~100 organisms. For detailed information on the subsampling effort, see original data submission form.



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

Station Number: S-257

Waterbody: Capisic Brook - Station 257

Town: Portland

Log Number: 1839

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		11.00		--		0.5
<i>Stylodrilus heringianus</i>	08020101004001	11.00			--	0.5	
Naididae	08020202	1286.33			--	64.0	
<i>Aulodrilus</i>	08020202018		500.70		--		24.9
<i>Aulodrilus limnobius</i>	08020202018002	5.33			--	0.3	
<i>Aulodrilus pluriset</i>	08020202018004	5.33			--	0.3	
<i>Limnodrilus</i>	08020202022		813.63		CG		40.5
<i>Limnodrilus hoffmeisteri</i>	08020202022003	17.33			--	0.9	
<i>Glossiphonia</i>	08030101004		7.00		--		0.3
<i>Glossiphonia complanata</i>	08030101004001	7.00			--	0.3	
<i>Helobdella</i>	08030101005		15.67		--		0.8
<i>Helobdella stagnalis</i>	08030101005004	15.67			--	0.8	
<i>Erpobdella</i>	08030203002		1.33		--		0.1
<i>Erpobdella punctata</i>	08030203002001	1.33			--	0.1	
<i>Gammarus</i>	09010201003		640.67	4	--		31.9
<i>Gammarus fasciatus</i>	09010201003003	640.67			--	31.9	
<i>Cheumatopsyche</i>	09020604015	0.33	0.33	5	CF	0.0	0.0
Chironomidae	09021011	1.67			--	0.1	
<i>Parakiefferiella</i>	09021011052	0.33	0.41		CG	0.0	0.0
<i>Micropsectra</i>	09021011070	0.67	0.82	7	CG	0.0	0.0
<i>Paratendipes</i>	09021011100		2.45	8	CG		0.1
<i>Paratendipes albimanus group</i>	09021011100176	2.00			--	0.1	
<i>Stictochironomus</i>	09021011106	4.33	5.32	9	CG	0.2	0.3
<i>Lymnaea</i>	10010201022		0.33		SC		0.0
<i>Lymnaea columella</i>	10010201022038	0.33			--	0.0	
<i>Physa</i>	10010202026	2.00	2.00		SC	0.1	0.1
Sphaeriidae	10020201	0.67			CF	0.0	
<i>Pisidium</i>	10020201002	7.67	8.26		CF	0.4	0.4
<i>Sphaerium</i>	10020201003		1.08		CF		0.1
<i>Sphaerium striatinum</i>	10020201003024	1.00			--	0.0	