



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

Station Information

Station Number: S-526
Waterbody: Carleton Stream - Station 526
Town: Blue Hill
Directions: BELOW SECOND POND, CLOSE TO FIRST POND
DEP Drainage: St. Croix - Coastal
HUC8: 01050002
HUC8 Name: Maine Coastal
Latitude: 44 22 50.23 N
Longitude: 68 36 50.53 W
Stream Order: 2

Sample Information

Log Number: 2047
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/19/2011
Date Retrieved: 8/18/2011

Classification Attainment

Statutory Class: C
Model Result with P>.6: NA
Date Last Calculated: 2/27/2012
Final Determination: NA
Reason for Determination: Model
Date: 3/1/2012
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
Class C			
0.00			
NA			
1.00			
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	603.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	29.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	8.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	1.90	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	13.81
06 Hilsenhoff Biotic Index	3.79	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.04	28 EP Generic Richness/14	0.14
08 Relative Generic Richness Diptera	0.55	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	364.66		
11 <i>Cheumatopsyche</i> Abundance	0.67		
12 EPT Generic Richness/ Diptera	0.63		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.71		
(Family Functional Group)			
17 Chironomini Abundance (Family	2.49		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	60.44
2	<i>Simulium</i>	20.94
3	<i>Chimarra</i>	9.39
4	<i>Boyeria</i>	1.82
5	<i>Cricotopus</i>	1.30



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	25.3 deg C
Dissolved Oxygen:	7.8 mg/l
Specific Conductance:	52 uS/cm
Velocity:	43 cm/s
pH:	6.55
Wetted Width:	5.7 m
Bankfull Width:	6.1 m
Depth:	25 cm

Waterbody Information - Retrieval

Temperature:	20.8 deg C
Dissolved Oxygen:	8.2 mg/l
Specific Conductance:	51 uS/cm
Velocity:	33 cm/s
pH:	6.7
Wetted Width:	6.1 m
Bankfull Width:	6.1 m
Depth:	20 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Lake Outlet	Below In-place Contamination	Boulder	60 %
Logging	Below Wetland	Gravel	10 %
Metals	Lake Outlet	Rubble/Cobble	30 %

Landcover Summary - 2004 Data

Sample Comments

UPSTREAM OF CULVERT IS WETLAND AND LEDGE, DOWNSTREAM OF SAMPLERS BECOMES WETLAND. SOME TIMBER CUTTING IN WATERSHED. POTENTIAL STRESSOR METALS IS DUE TO UPSTREAM COPPER MINE. LAKE OUTLET IS SECOND POND. SITE PREVIOUSLY SAMPLED UPSTREAM OF CULVERT - SAME SITE THOUGH SAMPLED DOWNSTREAM.



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-526

Waterbody: Carleton Stream - Station 526

Town: Blue Hill

Log Number: 2047

Subsample Factor: X1

Replicates: 3

Calculated: 2/27/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Paracapnia</i>	09020203018	0.33	0.33	1	SH	0.1	0.1
<i>Leuctra</i>	09020204020	0.33	7.67	0	SH	0.1	1.3
<i>Leuctra ferruginea</i>	09020204020050	1.67			--	0.3	
<i>Leuctra tenuis</i>	09020204020056	2.33			--	0.4	
<i>Leuctra truncata</i>	09020204020058	3.33			--	0.6	
<i>Boyeria</i>	09020301004		11.00	2	PR		1.8
<i>Boyeria vinosa</i>	09020301004012	11.00			--	1.8	
Philopotamidae	09020601	0.33	0.33		--	0.1	0.1
<i>Chimarra</i>	09020601003	33.33	56.67	2	CF	5.5	9.4
<i>Chimarra aterrima</i>	09020601003002	23.33			--	3.9	
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.1	0.1
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	0.1	0.1
Hydropsychidae	09020604	1.33			--	0.2	
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	0.1	0.1
<i>Hydropsyche</i>	09020604016	208.67	364.66	4	CF	34.6	60.4
<i>Hydropsyche sparna</i>	09020604016032	146.67			--	24.3	
<i>Hydropsyche depravata complex</i>	09020604016041	8.00			CF	1.3	
<i>Rhyacophila</i>	09020605019		1.33	2	PR		0.2
<i>Rhyacophila fuscula</i>	09020605019060	1.33			PR	0.2	
Hydroptilidae	09020607				--		
<i>Oecetis</i>	09020618078		3.00	8	PR		0.5
<i>Oecetis persimilis</i>	09020618078157	3.00			--	0.5	
<i>Nigronia</i>	09020701003		1.67	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	1.67			--	0.3	
Chironomidae	09021011	1.67			--	0.3	
<i>Conchapelopia</i>	09021011004	0.33	0.36	6	PR	0.1	0.1
<i>Meropelopia</i>	09021011010	0.33	0.36		--	0.1	0.1
<i>Pagastia</i>	09021011025		4.62	1	--		0.8
<i>Pagastia orthogonia</i>	09021011025001	4.33			--	0.7	
<i>Cricotopus</i>	09021011037		7.82	7	SH		1.3
<i>Cricotopus bicinctus</i>	09021011037057	4.00			--	0.7	
<i>Cricotopus vierriensis</i>	09021011037071	2.67			--	0.4	
<i>Cricotopus annulator complex</i>	09021011037074	0.67			--	0.1	
<i>Eukiefferiella</i>	09021011041		1.07	8	CG		0.2
<i>Eukiefferiella devonica group</i>	09021011041083	1.00			CG	0.2	
<i>Parametriocnemus</i>	09021011053	0.67	0.71	5	CG	0.1	0.1
<i>Psectrocladius</i>	09021011056		0.36	8	CG		0.1
<i>Psectrocladius elatus</i>	09021011056105	0.33			--	0.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Thienemanniella</i>	09021011062		0.36	6	CG		0.1
<i>Thienemanniella xena</i>	09021011062110	0.33			--	0.1	
<i>Tvetenia</i>	09021011065		1.07	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	0.67			--	0.1	
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.1	
<i>Rheotanytarsus</i>	09021011072	1.00	1.07	6	CF	0.2	0.2
<i>Stempellinella</i>	09021011074		1.42	2	--		0.2
<i>Stempellinella leptocelloides</i>	09021011074001	0.33			--	0.1	
<i>Stempellinella fimbriata</i>	09021011074002	1.00			--	0.2	
<i>Tanytarsus</i>	09021011076	5.00	5.33	6	CF	0.8	0.9
<i>Microtendipes</i>	09021011094		0.36	6	CF		0.1
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.1	
<i>Polypedilum</i>	09021011102		2.13	6	SH		0.4
<i>Polypedilum aviceps</i>	09021011102181	1.33			--	0.2	
<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.1	
<i>Simulium</i>	09021012047	21.00	126.33	4	CF	3.5	20.9
<i>Simulium vittatum</i>	09021012047064	0.33			--	0.1	
<i>Simulium tuberosum</i>	09021012047067	18.33			--	3.0	
<i>Simulium venustum/verecundum complex</i>	09021012047072	86.67			CF	14.4	
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.2	0.2
<i>Promoresia</i>	09021113069		0.33		--		0.1
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.1	