



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

Station Information

Station Number: S-455
Waterbody: Marshall Brook - Station 455
Town: Southwest Harbor
Directions: CHECK LOCATION
DEP Drainage: Maine Coastal
HUC8: 01050002
HUC8 Name: Maine Coastal
Latitude: 44 16 29.13 N
Longitude: 68 21 5.48 W
Stream Order: 2

Sample Information

Log Number: 1594
Subsample Factor: X4
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 8/3/2006
Date Retrieved: 8/31/2006

Classification Attainment

Statutory Class: AA
Model Result with P>.6: C
Date Last Calculated: 3/18/2009
Final Determination: B
Reason for Determination: Best Professional Judgement
Date: 3/31/2009
Comments: Indeterminate for Class B (.49) raised to Class B. Number of Rheotanytarsus in the sample may have influenced model results.

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.07	Class A, B, or C	1.00
Class B	0.67	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.49	Class A	0.15
Class C or Non-Attainment	0.51	Class B or C or Non-Attainment	0.85

Model Variables

01 Total Mean Abundance	444.00	18 Relative Abundance Ephemeroptera	0.05
02 Generic Richness	22.00	19 EPT Generic Richness	8.00
03 Plecoptera Mean Abundance	9.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	24.00	23 Relative Generic Richness- Plecoptera	0.14
05 Shannon-Wiener Generic Diversity	2.38	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	5.15	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	24.00
07 Relative Abundance - Chironomidae	0.65	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.45	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	53.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.80		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.35		
17 Chironomini Abundance (Family Functional Group)	2.70		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	55.73
2	<i>Hydropsyche</i>	12.01
3	<i>Simulium</i>	9.61
4	<i>Tvetenia</i>	7.00
5	<i>Maccaffertium</i>	5.41



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Sample Collection and Processing Information

Sampling Organization: ACADIA NATIONAL PARK

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	19.01 deg C
Dissolved Oxygen:	8.77 mg/l
Specific Conductance:	98 uS/cm
Velocity:	49 cm/s
pH:	6.96
Wetted Width:	2.13 m
Bankfull Width:	
Depth:	

Waterbody Information - Retrieval

Temperature:	
Dissolved Oxygen:	
Specific Conductance:	
Velocity:	28 cm/s
pH:	
Wetted Width:	
Bankfull Width:	
Depth:	

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Dense	Flat
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Minimally Disturbed	Boulder 5 %
		Gravel 35 %
		Rubble/Cobble 35 %
		Sand 20 %

Landcover Summary - 2004 Data

Sample Comments



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

Station Number: S-455

Waterbody: Marshall Brook - Station 455

Town: Southwest Harbor

Log Number: 1594

Subsample Factor: X4

Replicates: 3

Calculated: 3/18/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Paracapnia</i>	09020203018		1.33	1	SH		0.3
<i>Paracapnia angulata</i>	09020203018044	1.33			--	0.3	
<i>Isoperla</i>	09020207026	6.67	6.67	2	PR	1.5	1.5
<i>Sweltsa</i>	09020208040	1.33	1.33		PR	0.3	0.3
<i>Boyeria</i>	09020301004		4.00	2	PR		0.9
<i>Boyeria vinosa</i>	09020301004012	4.00			--	0.9	
<i>Maccaffertium</i>	09020402015	12.00	24.00	4	SC	2.7	5.4
<i>Maccaffertium modestum</i>	09020402015051	12.00			--	2.7	
Hydropsychidae	09020604	1.33	1.33		--	0.3	0.3
<i>Hydropsyche</i>	09020604016	17.33	53.33	4	CF	3.9	12.0
<i>Hydropsyche sparna</i>	09020604016032	32.00			--	7.2	
<i>Hydropsyche depravata complex</i>	09020604016041	4.00			CF	0.9	
<i>Rhyacophila</i>	09020605019	2.67	4.00	2	PR	0.6	0.9
<i>Rhyacophila fuscula</i>	09020605019060	1.33			PR	0.3	
<i>Glossosoma</i>	09020606020	2.67	2.67	0	SC	0.6	0.6
Chironomidae	09021011	4.00			--	0.9	
<i>Labrundinia</i>	09021011008		1.35	7	PR		0.3
<i>Labrundinia pilosella</i>	09021011008022	1.33			--	0.3	
<i>Corynoneura</i>	09021011036	1.33	1.35	7	CG	0.3	0.3
<i>Synorthocladius</i>	09021011061	2.67	2.70	2	CG	0.6	0.6
<i>Thienemanniella</i>	09021011062		1.35	6	CG		0.3
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.3	
<i>Tvetenia</i>	09021011065		31.10	5	CG		7.0
<i>Tvetenia paucunca</i>	09021011065114	30.67			--	6.9	
<i>Rheotanytarsus</i>	09021011072	244.00	247.44	6	CF	55.0	55.7
<i>Polypedilum</i>	09021011102		2.70	6	SH		0.6
<i>Polypedilum aviceps</i>	09021011102181	2.67			--	0.6	
<i>Simulium</i>	09021012047	16.00	42.67	4	CF	3.6	9.6
<i>Simulium tuberosum</i>	09021012047067	26.67			--	6.0	
<i>Roederiodes</i>	09021016058	1.33	1.33	3	PR	0.3	0.3
<i>Neoplata</i>	09021016064	1.33	1.33		PR	0.3	0.3
<i>Promoresia</i>	09021113069		9.33		--		2.1
<i>Promoresia tardella</i>	09021113069052	9.33			--	2.1	
<i>Hygrobates</i>	09030102001	1.33	1.33		--	0.3	0.3
<i>Physa</i>	10010202026	1.33	1.33		SC	0.3	0.3