

**Maine Department of Environmental Protection
Biological Monitoring Unit
BioME Aquatic Life Classification Attainment Report**

Station Information

Station Number: S458	DEP Drainage: St. John
Waterbody: Pretty Brook	HUC Code: 01010005
Town: MARS HILL	HUC Name: Meduxnekeag
Directions: 75ft upstrm of bridge crossing of snowmobile trail - east of Rte 1	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 3

Sample Information

Log Number: 1393	Type of Sample: Riffle Bags	Date Deployed: 22-JUL-04
Subsample Factor: X1	Replicates: 3	Date Retrieved: 17-AUG-04

Classification Attainment

Statutory Class: B	Final Determination: A	
Model Result with P > .6: A	Reason for Determination:	Model
Date Last Calculated:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.83	Class A, B, or C	1.00
Class B	0.16	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.99
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Abundance of Individuals	359.67	18 Relative Abundance - Ephemeroptera	0.27
02 Generic Richness	51.00	19 EPT Generic Richness	20.00
03 Plecoptera Abundance	11.33	21 Sum of Abundances: <i>Dicrotendipes</i> ,	5.33
04 Ephemeroptera Abundance	96.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.91	23 Relative Generic Richness- Plecoptera	0.04
06 Hilsenhoff Biotic Index	3.57	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	56.69
07 Relative Abundance - Chironomidae	0.21	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.43	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	2.67
09 <i>Hydropsyche</i> Abundance	89.98	28 EP Generic Richness/14	0.79
11 <i>Cheumatopsyche</i> Abundance	44.02	30 Presence of Class A Indicator Taxa/7	0.29
12 EPT Generic Richness/ Diptera Generic Richness	0.91		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.00	1	Hydropsyche	25.02
15 Perlidae Abundance (Family Functional Group)	11.00	2	Ephemerella	18.81
16 Tanypodinae Abundance (Family Functional Group)	5.33	3	Cheumatopsyche	12.24
17 Chironomini Abundance (Family Functional Group)	20.00	4	Microtendipes	5.37
		5	Agnetina	3.06

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Station Number S458 Town: MARS HILL Date Deployed: 22-JUL-04
Log Number: 1393 Waterbody: Pretty Brook Date Retrieved: 17-AUG-04

Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Lotic

Waterbody Information

Water Temperature: 23.0 °C	Specific Conductance 318.0 uS/cm	Channel Width: 5.7 m
Velocity: 55 cm/s	Dissolved Oxygen: 8.2 ppm	Channel Depth: 45.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Cultivated	Open		Not Designated
Upland Hardwood			

Substrate

Boulder	Rubble	Gravel	Sand	Silt
20%	40%	20%	10%	10%

Comments about the Station or Sample

8/17/04 Data:
Flow: 33.6cm/s; Depth: 24cm; Temp: 20.3C; SPC: 225uS/cm; DO: mg/L; pH:7.52

Comments about the Final Determination

**Maine Department of Environmental Protection
Biological Monitoring Unit**

Station Number: S458 Waterbody: Pretty Brook

Town: MARS HILL

Log Number: 1393 Subsample: X1 Replicates: 3 Calculated:

BioME Aquatic Life Taxonomic Inventory Report

Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
		<i>Lumbriculus</i>	08020101002			0.67	0.67
<i>Placobdella</i>	08030101006	0.00	0.33		--	0.0	0.1
<i>Placobdella papillifera</i>	08030101006003	0.33	0.00		--	0.1	0.0
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.1	0.1
<i>Agnetina</i>	09020209050	0.67	11.00	2	PR	0.2	3.1
<i>Agnetina capitata</i>	09020209050152	0.67	0.00	2	PR	0.2	0.0
<i>Agnetina flavescens</i>	09020209050153	9.67	0.00	2	PR	2.7	0.0
<i>Boyeria</i>	09020301004	1.33	1.33	2	PR	0.4	0.4
<i>Baetis</i>	09020401001	4.33	10.00	4	CG	1.2	2.8
<i>Baetis flavistriga</i>	09020401001004	5.67	0.00		--	1.6	0.0
<i>Acerpenna</i>	09020401007	0.00	1.00	5	CG	0.0	0.3
<i>Acerpenna pygmaea</i>	09020401007011	1.00	0.00		--	0.3	0.0
<i>Acentrella</i>	09020401008	0.00	4.67	3	CG	0.0	1.3
<i>Acentrella ampla</i>	09020401008001	4.67	0.00		--	1.3	0.0
<i>Heptagenia</i>	09020402010	1.33	1.33	2	SC	0.4	0.4
<i>Leucrocuta</i>	09020402011	7.67	7.67	1	SC	2.1	2.1
<i>Stenonema</i>	09020402015	2.67	2.67	4	SC	0.7	0.7
<i>Paraleptophlebia</i>	09020406026	1.00	1.00	1	CG	0.3	0.3
<i>Ephemerella</i>	09020410035	67.67	67.67	1	CG	18.8	18.8
<i>Tricorythodes</i>	09020411038	0.33	0.33	4	CG	0.1	0.1
<i>Polycentropodidae</i>	09020603	1.33	1.33		--	0.4	0.4
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.1	0.1
<i>Hydropsychidae</i>	09020604	18.33	0.00		--	5.1	0.0
<i>Cheumatopsyche</i>	09020604015	38.00	44.02	5	CF	10.6	12.2
<i>Hydropsyche</i>	09020604016	77.67	89.98	4	CF	21.6	25.0
<i>Rhyacophila</i>	09020605019	5.67	5.67	2	PR	1.6	1.6
<i>Glossosoma</i>	09020606020	5.67	5.67	0	SC	1.6	1.6
<i>Hydroptilidae</i>	09020607	0.33	0.33		--	0.1	0.1
<i>Brachycentridae</i>	09020609	1.00	1.00		--	0.3	0.3
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.1	0.1
<i>Nigronia</i>	09020701003	0.33	0.33	0	PR	0.1	0.1
<i>Antocha</i>	09021001004	1.00	1.00	3	CG	0.3	0.3
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.4	0.4
<i>Bezzia/Palpomyia</i>	09021010043	0.33	0.33	6	PR	0.1	0.1
<i>Natarsia</i>	09021011011	0.33	0.33	8	PR	0.1	0.1
<i>Thienemannimyia</i>	09021011020	5.00	5.00	3	PR	1.4	1.4
<i>Pagastia</i>	09021011025	1.00	1.00	1	--	0.3	0.3

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Replicates: 3

Calculated:

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Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
		<i>Potthastia</i>	09021011026			1.00	1.00
<i>Cricotopus</i>	09021011037	0.33	4.67	7	SH	0.1	1.3
<i>Cricotopus bicinctus</i>	09021011037057	4.33	0.00		--	1.2	0.0
<i>Orthocladus</i>	09021011050	0.67	0.67	6	CG	0.2	0.2
<i>Parakiefferiella</i>	09021011052	0.33	0.33		CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	7.00	7.00	5	CG	1.9	1.9
<i>Tvetenia</i>	09021011065	11.00	11.00	5	CG	3.1	3.1
<i>Micropsectra</i>	09021011070	5.33	5.33	7	CG	1.5	1.5
<i>Paratanytarsus</i>	09021011071	0.33	0.33	6	--	0.1	0.1
<i>Rheotanytarsus</i>	09021011072	10.00	10.00	6	CF	2.8	2.8
<i>Stempellinella</i>	09021011074	2.33	2.33	2	--	0.6	0.6
<i>Tanytarsus</i>	09021011076	8.00	8.00	6	CF	2.2	2.2
<i>Chironomus</i>	09021011080	0.33	0.33	10	CG	0.1	0.1
<i>Microtendipes</i>	09021011094	19.33	19.33	6	CF	5.4	5.4
<i>Polypedilum</i>	09021011102	0.33	0.33	6	SH	0.1	0.1
<i>Atherix</i>	09021015055	1.67	1.67	2	PR	0.5	0.5
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.3	0.3
<i>Elmidae</i>	09021113	0.67	0.00		--	0.2	0.0
<i>Optioservus</i>	09021113067	10.00	10.45	3	SC	2.8	2.9
<i>Promoresia</i>	09021113069	1.33	1.39		--	0.4	0.4
<i>Stenelmis</i>	09021113070	3.33	3.48	5	SC	0.9	1.0
<i>Ancylidae</i>	10010204	2.67	2.67		SC	0.7	0.7
<i>Sphaeriidae</i>	10020201	0.33	0.33		CF	0.1	0.1