

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

Station Information

Station Number: S819	DEP Drainage: Penobscot
Waterbody: Little Smith Brook	HUC Code: 01020001
Town: MILLINOCKET	HUC Name: West Branch Penobscot
Directions: upstrm of Penobscot Ave	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

Sample Information

Log Number: 1572	Type of Sample: Riffle Bags	Date Deployed: 19-JUL-06
Subsample Factor: X1	Replicates: 3	Date Retrieved: 16-AUG-06

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.05	Class A, B, or C	1.00
Class B	0.09	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.05	Class A	0.01
Class C or Non-Attainment	0.95	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Abundance of Individuals	117.33	18 Relative Abundance - Ephemeroptera	0.48
02 Generic Richness	34.00	19 EPT Generic Richness	12.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	56.67	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.90	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	4.05	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	9.33
07 Relative Abundance - Chironomidae	0.21	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.35	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	8.33
09 <i>Hydropsyche</i> Abundance	0.33	28 EP Generic Richness/14	0.36
11 <i>Cheumatopsyche</i> Abundance	0.00	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	1.00		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.00	1	Paraleptophlebia	26.99
15 Perlidae Abundance (Family Functional Group)	0.00	2	Polycentropus	10.23
16 Tanypodinae Abundance (Family Functional Group)	9.67	3	Leptophlebiidae	7.67
17 Chironomini Abundance (Family Functional Group)	3.67	4	Stenonema	7.10
		5	Hyalella	6.25

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Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Lotic

Waterbody Information

Water Temperature: 23.4 °C	Specific Conductance 97.0 uS/cm	Channel Width:
Velocity: 9 cm/s	Dissolved Oxygen: 5.3 ppm	Channel Depth: 60.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Swamp Hardwood Urban	Partly Open		Below Town

Substrate

Boulder	Rubble	Gravel	Sand
5%	35%	45%	15%

Comments about the Station or Sample

8/16/06 Data: Width: 5.5m; Flow: 7cm/s; Depth: 49cm; T: 18.6C; SPC: 94uS/cm; DO: 6.8mg/L; pH: 6.55.

Comments about the Final Determination

Resample.

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

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Town: MILLINOCKET

Log Number: 1572 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>Hyaella</i>	09010203006			7.33	7.33
<i>Orconectes</i>	09010301008	2.67	2.67		CG	2.3	2.3
<i>Aeshna</i>	09020301001	0.00	0.67	5	PR	0.0	0.6
<i>Aeshna umbrosa</i>	09020301001006	0.67	0.00		--	0.6	0.0
<i>Corduliidae</i>	09020305	0.33	0.33		--	0.3	0.3
<i>Calopteryx</i>	09020307043	1.00	1.00	5	PR	0.9	0.9
<i>Coenagrionidae</i>	09020309	1.33	1.33		--	1.1	1.1
<i>Stenacron</i>	09020402014	7.33	7.33	7	SC	6.2	6.2
<i>Stenonema</i>	09020402015	7.00	8.33	4	SC	6.0	7.1
<i>Stenonema modestum</i>	09020402015051	1.33	0.00		--	1.1	0.0
<i>Leptophlebiidae</i>	09020406	9.00	9.00		--	7.7	7.7
<i>Paraleptophlebia</i>	09020406026	31.67	31.67	1	CG	27.0	27.0
<i>Caenis</i>	09020412040	0.33	0.33	7	CG	0.3	0.3
<i>Lype</i>	09020602004	0.33	0.33	2	SC	0.3	0.3
<i>Polycentropus</i>	09020603010	12.00	12.00	6	PR	10.2	10.2
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.3	0.3
<i>Macrostemum</i>	09020604018	0.33	0.33	3	CF	0.3	0.3
<i>Oxyethira</i>	09020607028	0.33	0.33	3	P	0.3	0.3
<i>Hydatophylax</i>	09020610048	3.67	3.67	2	SH	3.1	3.1
<i>Molanna</i>	09020615069	1.00	1.00	6	SC	0.9	0.9
<i>Nigronia</i>	09020701003	1.33	1.33	0	PR	1.1	1.1
<i>Sialis</i>	09020702004	1.00	1.00	4	PR	0.9	0.9
<i>Ablabesmyia</i>	09021011001	3.00	3.00	8	PR	2.6	2.6
<i>Thienemannimyia</i>	09021011020	0.00	6.67	3	PR	0.0	5.7
<i>Thienemannimyia/Arctopelopia</i> group	09021011020041	6.67	0.00		--	5.7	0.0
<i>Orthocladius</i>	09021011050	0.33	0.33	6	CG	0.3	0.3
<i>Parametriocnemus</i>	09021011053	0.33	0.33	5	CG	0.3	0.3
<i>Paratanytarsus</i>	09021011071	2.00	2.00	6	--	1.7	1.7
<i>Stempellinella</i>	09021011074	1.67	1.67	2	--	1.4	1.4
<i>Tanytarsus</i>	09021011076	6.33	6.33	6	CF	5.4	5.4
<i>Cryptochironomus</i>	09021011082	0.33	0.33	8	PR	0.3	0.3
<i>Phaenopsectra</i>	09021011101	2.33	2.33	7	SC	2.0	2.0
<i>Polypedilum</i>	09021011102	1.00	1.00	6	SH	0.9	0.9
<i>Macropelopia</i>	09021011111	0.33	0.33		P	0.3	0.3
<i>Empididae</i>	09021016	0.33	0.33	6	--	0.3	0.3
<i>Dubiraphia</i>	09021113064	1.67	1.67	6	CG	1.4	1.4

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		Actual	Adjusted			Actual	Adjusted
		<i>Sphaeriidae</i>	10020201			0.67	0.67