

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

Station Information

Station Number: S814	DEP Drainage: Penobscot
Waterbody: Card Brook	HUC Code: 01020005
Town: ELLSWORTH	HUC Name: Lower Penobscot
Directions: Upstrm of Rt 3 - Traylor Park	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order:

Sample Information

Log Number: 1547	Type of Sample: Riffle Bags	Date Deployed: 11-JUL-06
Subsample Factor: X1	Replicates: 3	Date Retrieved: 08-AUG-06

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.00	Class C	0.24	Class A, B, or C	0.00
Class B	0.01	Class NA	0.75	Non-Attainment	1.00
<u>B or Better Model</u>			<u>A Model</u>		
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 Abundance of Individuals	273.67	18 Relative Abundance - Ephemeroptera	0.00
02 Generic Richness	39.00	19 EPT Generic Richness	8.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	1.38
04 Ephemeroptera Abundance	1.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.00	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	5.00	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	90.95
07 Relative Abundance - Chironomidae	0.33	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.36	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	47.06	28 EP Generic Richness/14	0.21
11 <i>Cheumatopsyche</i> Abundance	90.61	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.57		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.01	1	Cheumatopsyche	33.11
15 Perlidae Abundance (Family Functional Group)	0.00	2	Polypedilum	21.92
16 Tanypodinae Abundance (Family Functional Group)	1.03	3	Hydropsyche	17.20
17 Chironomini Abundance (Family Functional Group)	59.98	4	Rheotanytarsus	8.57
		5	Hemerodromia	3.29

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Station Number S814 Town: ELLSWORTH Date Deployed: 11-JUL-06
Log Number: 1547 Waterbody: Card Brook Date Retrieved: 08-AUG-06

Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 25.0 °C	Specific Conductance 188.0 uS/cm	Channel Width: 3.5 m
Velocity: 18 cm/s	Dissolved Oxygen: 5.0 ppm	Channel Depth: 28.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Upland Hardwood Urban	Partly Open		Above Road Crossing

Substrate

Boulder	Rubble	Gravel
70%	25%	5%

Comments about the Station or Sample

8/8/06:
Width: 3.5m; Flow: 25cm/s; Depth: 33cm; T: 24.9C; SPC: 179uS/cm; DO: 5.3mg/L; pH: 6.48.

Comments about the Final Determination

**Maine Department of Environmental Protection
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Station Number: S814 Waterbody: Card Brook

Town: ELLSWORTH

Log Number: 1547 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>Prostoma</i>	04010101001			5.00	5.00
<i>Nematoda</i>	05	0.33	0.33		--	0.1	0.1
<i>Nais</i>	08020202009	0.00	2.33		CG	0.0	0.9
<i>Nais communis</i>	08020202009005	2.33	0.00		--	0.9	0.0
<i>Slavina</i>	08020202012	0.00	0.67		--	0.0	0.2
<i>Slavina appendiculata</i>	08020202012001	0.67	0.00		--	0.2	0.0
<i>Stylodrilus</i>	08020203011	0.00	0.67		--	0.0	0.2
<i>Stylodrilus heringianus</i>	08020203011001	0.67	0.00		--	0.2	0.0
<i>Glossiphonia</i>	08030101004	0.00	0.33		--	0.0	0.1
<i>Glossiphonia complanata</i>	08030101004001	0.33	0.00		--	0.1	0.0
<i>Mooreobdella</i>	08030301003	0.00	0.33		--	0.0	0.1
<i>Mooreobdella fervida</i>	08030301003001	0.33	0.00		--	0.1	0.0
<i>Hyalella</i>	09010203006	0.00	0.33	8	CG	0.0	0.1
<i>Hyalella azteca</i>	09010203006011	0.33	0.00		--	0.1	0.0
<i>Boyeria</i>	09020301004	0.00	0.67	2	PR	0.0	0.2
<i>Boyeria grafiana</i>	09020301004011	0.33	0.00		--	0.1	0.0
<i>Boyeria vinosa</i>	09020301004012	0.33	0.00		--	0.1	0.0
<i>Calopterygidae</i>	09020307	0.33	0.33		--	0.1	0.1
<i>Baetidae</i>	09020401	0.33	0.33		--	0.1	0.1
<i>Acerpenna</i>	09020401007	0.33	0.67	5	CG	0.1	0.2
<i>Acerpenna pygmaea</i>	09020401007011	0.33	0.00		--	0.1	0.0
<i>Caenis</i>	09020412040	0.33	0.33	7	CG	0.1	0.1
<i>Chimarra</i>	09020601003	4.67	4.67	2	CF	1.7	1.7
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.1	0.1
<i>Hydropsychidae</i>	09020604	7.00	0.00		--	2.6	0.0
<i>Cheumatopsyche</i>	09020604015	86.00	90.61	5	CF	31.4	33.1
<i>Hydropsyche</i>	09020604016	24.67	47.06	4	CF	9.0	17.2
<i>Hydropsyche depravata-complex</i>	09020604016041	20.00	0.00		CF	7.3	0.0
<i>Pycnopsyche</i>	09020610049	1.67	1.67	4	SH	0.6	0.6
<i>Corydalus</i>	09020701002	0.00	0.33	6	PR	0.0	0.1
<i>Corydalus cornutus</i>	09020701002002	0.33	0.00		--	0.1	0.0
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	0.4	0.4
<i>Chironomidae</i>	09021011	3.00	0.00		--	1.1	0.0
<i>Meropelopia</i>	09021011010	0.67	0.69		--	0.2	0.3
<i>Zavrelimyia</i>	09021011022	0.00	0.34	8	PR	0.0	0.1
<i>Zavrelimyia thryptica-grp.</i>	09021011022045	0.33	0.00		PR	0.1	0.0

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		Actual	Adjusted			Actual	Adjusted
		<i>Corynoneura</i>	09021011036			0.33	0.34
<i>Nanocladius</i>	09021011049	0.33	0.34	3	CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	2.67	2.76	5	CG	1.0	1.0
<i>Thienemanniella</i>	09021011062	0.00	1.03	6	CG	0.0	0.4
<i>Thienemanniella xena</i>	09021011062110	1.00	0.00		--	0.4	0.0
<i>Micropsectra</i>	09021011070	1.33	1.38	7	CG	0.5	0.5
<i>Rheotanytarsus</i>	09021011072	22.67	23.44	6	CF	8.3	8.6
<i>Tanytarsus</i>	09021011076	0.33	0.34	6	CF	0.1	0.1
<i>Polypedilum</i>	09021011102	0.00	59.98	6	SH	0.0	21.9
<i>Polypedilum aviceps</i>	09021011102181	0.33	0.00		--	0.1	0.0
<i>Polypedilum flavum</i>	09021011102182	57.33	0.00		--	20.9	0.0
<i>Polypedilum scalaenum-grp.</i>	09021011102189	0.33	0.00		--	0.1	0.0
<i>Simulium</i>	09021012047	6.67	8.67	4	CF	2.4	3.2
<i>Simulium aureum</i>	09021012047052	0.67	0.00		--	0.2	0.0
<i>Simulium tuberosum</i>	09021012047067	1.33	0.00		--	0.5	0.0
<i>Empididae</i>	09021016	2.00	2.00	6	--	0.7	0.7
<i>Hemerodromia</i>	09021016057	9.00	9.00	3	PR	3.3	3.3
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	CG	0.1	0.1
<i>Stenelmis</i>	09021113070	3.67	3.67	5	SC	1.3	1.3
<i>Hygrobates</i>	09030102001	0.33	0.33		--	0.1	0.1
<i>Sperchon</i>	09030107001	0.33	0.33		--	0.1	0.1
<i>Amnicola</i>	10010104013	0.00	0.33		SC	0.0	0.1
<i>Amnicola limosa</i>	10010104013018	0.33	0.00		--	0.1	0.0
<i>Physa</i>	10010202026	0.33	0.33		SC	0.1	0.1