

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

Station Information

Station Number: S815	DEP Drainage: Penobscot
Waterbody: Card Brook	HUC Code: 01020005
Town: ELLSWORTH	HUC Name: Lower Penobscot
Directions: 32 meters downstream of Rt 230	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order:

Sample Information

Log Number: 1548	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 A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.00	Class A	0.01
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Abundance of Individuals	477.67	18 Relative Abundance - Ephemeroptera	0.03
02 Generic Richness	27.00	19 EPT Generic Richness	6.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	12.00	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	1.37	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	4.05	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	3.19
07 Relative Abundance - Chironomidae	0.03	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.41	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.33
09 <i>Hydropsyche</i> Abundance	369.48	28 EP Generic Richness/14	0.14
11 <i>Cheumatopsyche</i> Abundance	2.85	30 Presence of Class A Indicator Taxa/7	0.14
12 EPT Generic Richness/ Diptera Generic Richness	0.55		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.01	1	Hydropsyche	77.35
15 Perlidae Abundance (Family Functional Group)	0.00	2	Simulium	12.28
16 Tanypodinae Abundance (Family Functional Group)	0.00	3	Baetis	2.44
17 Chironomini Abundance (Family Functional Group)	1.03	4	Prostoma	1.61
		5	Stylodrilus	1.33

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Station Number S815 Town: ELLSWORTH Date Deployed: 11-JUL-06
Log Number: 1548 Waterbody: Card Brook Date Retrieved: 08-AUG-06

Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 23.6 °C	Specific Conductance 282.0 uS/cm	Channel Width: 7.6 m
Velocity: 20 cm/s	Dissolved Oxygen: 8.1 ppm	Channel Depth: 30.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Upland Hardwood Urban	Dense		Below Urban NPS

Substrate

Boulder	Rubble	Gravel	Sand
70%	20%	5%	5%

Comments about the Station or Sample

8/8/06: Width: 6.0m; Flow: 26cm/s; Depth: 30cm; T: 22.8C; SPC: 254uS/cm; DO: 7.9mg/L; pH: 7.46.

Comments about the Final Determination

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

Station Number: S815 Waterbody: Card Brook

Town: ELLSWORTH

Log Number: 1548 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			7.67	7.67
<i>Nais</i>	08020202009	0.00	0.67		CG	0.0	0.1
<i>Nais communis</i>	08020202009005	0.67	0.00		--	0.1	0.0
<i>Stylodrilus</i>	08020203011	0.00	6.33		--	0.0	1.3
<i>Stylodrilus heringianus</i>	08020203011001	6.33	0.00		--	1.3	0.0
<i>Boyeria</i>	09020301004	0.00	0.67	2	PR	0.0	0.1
<i>Boyeria vinosa</i>	09020301004012	0.67	0.00		--	0.1	0.0
<i>Baetis</i>	09020401001	8.00	11.67	4	CG	1.7	2.4
<i>Baetis pluto</i>	09020401001009	3.67	0.00		--	0.8	0.0
<i>Stenonema</i>	09020402015	0.00	0.33	4	SC	0.0	0.1
<i>Stenonema luteum</i>	09020402015049	0.33	0.00		--	0.1	0.0
<i>Chimarra</i>	09020601003	2.00	2.00	2	CF	0.4	0.4
<i>Hydropsychidae</i>	09020604	67.33	0.00		--	14.1	0.0
<i>Cheumatopsyche</i>	09020604015	2.33	2.85	5	CF	0.5	0.6
<i>Hydropsyche</i>	09020604016	240.67	369.48	4	CF	50.4	77.4
<i>Hydropsyche morosa</i>	09020604016030	1.67	0.00		--	0.3	0.0
<i>Hydropsyche depravata-complex</i>	09020604016041	60.33	0.00		CF	12.6	0.0
<i>Glossosoma</i>	09020606020	1.00	1.00	0	SC	0.2	0.2
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	0.2	0.2
<i>Chironomidae</i>	09021011	0.33	0.00		--	0.1	0.0
<i>Brillia</i>	09021011033	0.00	0.68	5	SH	0.0	0.1
<i>Brillia flavifrons</i>	09021011033049	0.67	0.00		--	0.1	0.0
<i>Cardiocladius</i>	09021011034	0.33	0.34	5	PR	0.1	0.1
<i>Cricotopus</i>	09021011037	0.00	0.34	7	SH	0.0	0.1
<i>Cricotopus trifascia</i>	09021011037070	0.33	0.00		--	0.1	0.0
<i>Eukiefferiella</i>	09021011041	0.00	3.42	8	CG	0.0	0.7
<i>Eukiefferiella claripennis-grp.</i>	09021011041075	3.33	0.00		--	0.7	0.0
<i>Parametriocnemus</i>	09021011053	0.67	0.68	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	0.00	0.34	6	CG	0.0	0.1
<i>Thienemanniella xena</i>	09021011062110	0.33	0.00		--	0.1	0.0
<i>Tvetenia</i>	09021011065	0.00	0.68	5	CG	0.0	0.1
<i>Tvetenia paucunca</i>	09021011065114	0.67	0.00		--	0.1	0.0
<i>Rheotanytarsus</i>	09021011072	5.67	5.81	6	CF	1.2	1.2
<i>Polypedilum</i>	09021011102	0.00	1.03	6	SH	0.0	0.2
<i>Polypedilum aviceps</i>	09021011102181	0.67	0.00		--	0.1	0.0
<i>Polypedilum flavum</i>	09021011102182	0.33	0.00		--	0.1	0.0

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Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
		<i>Simulium</i>	09021012047			45.67	58.67
<i>Simulium tuberosum</i>	09021012047067	13.00	0.00		--	2.7	0.0
<i>Anacaena</i>	09021105041	0.33	0.33		--	0.1	0.1
<i>Stenelmis</i>	09021113070	0.00	0.33	5	SC	0.0	0.1
<i>Stenelmis crenata</i>	09021113070055	0.33	0.00		--	0.1	0.0
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.1	0.1
<i>Fossaria</i>	10010201021	0.33	0.33		--	0.1	0.1
<i>Planorbella</i>	10010203032	0.00	0.33		SC	0.0	0.1
<i>Planorbella campanulata</i>	10010203032060	0.33	0.00		--	0.1	0.0
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.1	0.1