

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

Station Information

Station Number: S511	DEP Drainage: Penobscot
Waterbody: Penjajawoc Stream	HUC Code: 01020005
Town: BANGOR	HUC Name: Lower Penobscot
Directions: Above Stillwater Ave.	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 1

Sample Information

Log Number: 1555	Type of Sample: Riffle Bags	Date Deployed: 13-JUL-06
Subsample Factor: X4	Replicates: 3	Date Retrieved: 10-AUG-06

Classification Attainment

Statutory Class: B	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	0.00	Class A, B, or C	0.96
Class B	0.00	Non-Attainment	0.04
<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	2318.67	18 Relative Abundance - Ephemeroptera	0.01
02 Generic Richness	47.00	19 EPT Generic Richness	11.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	191.19
04 Ephemeroptera Abundance	24.00	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.09	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	4.69	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	101.74
07 Relative Abundance - Chironomidae	0.32	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.40	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	1.33
09 <i>Hydropsyche</i> Abundance	1014.36	28 EP Generic Richness/14	0.29
11 <i>Cheumatopsyche</i> Abundance	97.64	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.58		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
		1	Hydropsyche	43.75
		2	Rheotanytarsus	10.07
		3	Polypedilum	9.01
		4	Micropsectra	8.25
		5	Chimarra	7.82

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Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 22.8 °C	Specific Conductance 140.0 uS/cm	Channel Width: 3.5 m
Velocity: 30 cm/s	Dissolved Oxygen: 6.1 ppm	Channel Depth: 24.0 cm

Summary of Habitat Characteristics

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

Substrate

Rubble	Gravel	Sand	Silt
20%	55%	10%	15%

Comments about the Station or Sample

8/10/06 Data:
Width: 3.2m; Flow: 46cm/s; Depth: 27cm; T: 21C; SPC: 94uS/cm; DO: 5.2mg/L; pH: 6.2.

Comments about the Final Determination

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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>Phagocata</i>	03010101004	0.00	1.33		--	0.0	0.1
<i>Phagocata gracilis</i>	03010101004001	1.33	0.00		--	0.1	0.0
<i>Nais</i>	08020202009	0.00	1.33		CG	0.0	0.1
<i>Nais variabilis</i>	08020202009009	1.33	0.00		--	0.1	0.0
<i>Pristinella</i>	08020202016	0.00	1.33		--	0.0	0.1
<i>Pristinella jenkiniae</i>	08020202016002	1.33	0.00		--	0.1	0.0
<i>Tubificidae</i>	08020203	10.67	0.00		--	0.5	0.0
<i>Aulodrilus</i>	08020203001	0.00	3.11		--	0.0	0.1
<i>Aulodrilus pigueti</i>	08020203001003	1.33	0.00		--	0.1	0.0
<i>Limnodrilus</i>	08020203005	0.00	15.56		CG	0.0	0.7
<i>Limnodrilus hoffmeisteri</i>	08020203005003	6.67	0.00		--	0.3	0.0
<i>Mooreobdella</i>	08030301003	0.00	1.33		--	0.0	0.1
<i>Mooreobdella fervida</i>	08030301003001	1.33	0.00		--	0.1	0.0
<i>Nephelopsis</i>	08030301004	0.00	2.67		--	0.0	0.1
<i>Nephelopsis obscura</i>	08030301004001	2.67	0.00		--	0.1	0.0
<i>Caecidotea</i>	09010101001	13.33	28.00	8	SH	0.6	1.2
<i>Caecidotea communis</i>	09010101001001	14.67	0.00		--	0.6	0.0
<i>Boyeria</i>	09020301004	0.00	4.00	2	PR	0.0	0.2
<i>Boyeria vinosa</i>	09020301004012	4.00	0.00		--	0.2	0.0
<i>Calopterygidae</i>	09020307	16.00	16.00		--	0.7	0.7
<i>Calopteryx</i>	09020307043	0.00	1.33	5	PR	0.0	0.1
<i>Calopteryx maculata</i>	09020307043088	1.33	0.00		--	0.1	0.0
<i>Baetidae</i>	09020401	1.33	0.00		--	0.1	0.0
<i>Baetis</i>	09020401001	1.33	15.64	4	CG	0.1	0.7
<i>Baetis flavistriga</i>	09020401001004	13.33	0.00		--	0.6	0.0
<i>Acerpenna</i>	09020401007	2.67	5.69	5	CG	0.1	0.2
<i>Acerpenna macdunnoughi</i>	09020401007001	2.67	0.00		--	0.1	0.0
<i>Stenonema</i>	09020402015	1.33	1.33	4	SC	0.1	0.1
<i>Leptophlebiidae</i>	09020406	1.33	1.33		--	0.1	0.1
<i>Chimarra</i>	09020601003	181.33	181.33	2	CF	7.8	7.8
<i>Lype</i>	09020602004	0.00	1.33	2	SC	0.0	0.1
<i>Lype diversa</i>	09020602004005	1.33	0.00		--	0.1	0.0
<i>Hydropsychidae</i>	09020604	18.67	0.00		--	0.8	0.0
<i>Cheumatopsyche</i>	09020604015	96.00	97.64	5	CF	4.1	4.2
<i>Hydropsyche</i>	09020604016	132.00	1014.36	4	CF	5.7	43.7
<i>Hydropsyche depravata-complex</i>	09020604016041	865.33	0.00		CF	37.3	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>Pycnopsyche</i>	09020610049			1.33	1.33
<i>Lepidostoma</i>	09020611064	4.00	4.00	1	SH	0.2	0.2
<i>Helicopsyche</i>	09020616070	0.00	1.33	3	SC	0.0	0.1
<i>Helicopsyche borealis</i>	09020616070137	1.33	0.00		--	0.1	0.0
<i>Bezzia/Palpomyia</i>	09021010043	6.67	6.67	6	PR	0.3	0.3
<i>Chironomidae</i>	09021011	17.33	0.00		--	0.7	0.0
<i>Meropelopia</i>	09021011010	4.00	4.10		--	0.2	0.2
<i>Nilotanypus</i>	09021011012	0.00	8.19	6	PR	0.0	0.4
<i>Nilotanypus fimbriatus</i>	09021011012027	8.00	0.00		--	0.3	0.0
<i>Chaetocladius</i>	09021011035	1.33	1.37	6	CG	0.1	0.1
<i>Corynoneura</i>	09021011036	4.00	4.10	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037	0.00	2.73	7	SH	0.0	0.1
<i>Cricotopus bicinctus</i>	09021011037057	2.67	0.00		--	0.1	0.0
<i>Nanocladius</i>	09021011049	1.33	2.73	3	CG	0.1	0.1
<i>Nanocladius spiniplenus</i>	09021011049090	1.33	0.00		--	0.1	0.0
<i>Parametriocnemus</i>	09021011053	1.33	1.37	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	0.00	8.19	6	CG	0.0	0.4
<i>Thienemanniella xena</i>	09021011062110	8.00	0.00		--	0.3	0.0
<i>Tvetenia</i>	09021011065	0.00	1.37	5	CG	0.0	0.1
<i>Tvetenia paucunca</i>	09021011065114	1.33	0.00		--	0.1	0.0
<i>Micropsectra</i>	09021011070	186.67	191.19	7	CG	8.1	8.2
<i>Rheotanytarsus</i>	09021011072	228.00	233.53	6	CF	9.8	10.1
<i>Tanytarsus</i>	09021011076	1.33	1.37	6	CF	0.1	0.1
<i>Microtendipes</i>	09021011094	0.00	61.46	6	CF	0.0	2.7
<i>Microtendipes pedellus-grp.</i>	09021011094166	60.00	0.00		--	2.6	0.0
<i>Polypedilum</i>	09021011102	0.00	208.95	6	SH	0.0	9.0
<i>Polypedilum flavum</i>	09021011102182	110.67	0.00		--	4.8	0.0
<i>Polypedilum scalaenum-grp.</i>	09021011102189	93.33	0.00		--	4.0	0.0
<i>Helopelopia</i>	09021011114	1.33	1.37	6	PR	0.1	0.1
<i>Simulium</i>	09021012047	6.67	8.00	4	CF	0.3	0.3
<i>Simulium tuberosum</i>	09021012047067	1.33	0.00		--	0.1	0.0
<i>Empididae</i>	09021016	9.33	0.00	6	--	0.4	0.0
<i>Hemerodromia</i>	09021016057	24.00	32.84	3	PR	1.0	1.4
<i>Neoplasta</i>	09021016064	1.33	1.82		PR	0.1	0.1
<i>Optioservus</i>	09021113067	5.33	5.33	3	SC	0.2	0.2
<i>Stenelmis</i>	09021113070	68.00	73.33	5	SC	2.9	3.2
<i>Stenelmis crenata</i>	09021113070055	5.33	0.00		--	0.2	0.0

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		<i>Acariformes</i>	090301			2.67	2.67
<i>Ferrissia</i>	10010204035	9.33	12.00	SC	0.4	0.5	
<i>Ferrissia rivularis</i>	10010204035066	2.67	0.00	--	0.1	0.0	
<i>Sphaeriidae</i>	10020201	9.33	9.33	CF	0.4	0.4	
<i>Pisidium</i>	10020201002	33.33	33.33	CF	1.4	1.4	