

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

Station Information

Station Number: S315	DEP Drainage: Penobscot
Waterbody: Penjajawoc Stream	HUC Code: 01020005
Town: Bangor	HUC Name: Lower Penobscot
Directions: upstrm of Rt 2 crossing	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

Sample Information

Log Number: 1272	Type of Sample: Riffle Bags	Date Deployed: 13-JUL-03
Subsample Factor: X1	Replicates: 3	Date Retrieved: 28-AUG-03

Classification Attainment

Statutory Class: B	Final Determination: NA	
Model Result with P > .6: NA	Reason for Determination:	
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	279.33	18 Relative Abundance - Ephemeroptera	0.00
02 Generic Richness	49.00	19 EPT Generic Richness	10.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.33
04 Ephemeroptera Abundance	0.00	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.79	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	5.36	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	82.78
07 Relative Abundance - Chironomidae	0.22	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.37	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	7.22	28 EP Generic Richness/14	0.00
11 <i>Cheumatopsyche</i> Abundance	36.11	30 Presence of Class A Indicator Taxa/7	0.14
12 EPT Generic Richness/ Diptera Generic Richness	0.56		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.06	1	Pseudosuccinea	28.52
15 Perlidae Abundance (Family Functional Group)	0.00	2	Cheumatopsyche	12.93
16 Tanypodinae Abundance (Family Functional Group)	5.33	3	Cricotopus	12.41
17 Chironomini Abundance (Family Functional Group)	2.00	4	Dubiraphia	6.61
		5	Nais	5.37

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Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Lotic

Waterbody Information

Water Temperature:	19.8 °C	Specific Conductance	1413.0 uS/cm	Channel Width:	2.1 m
Velocity:	12 cm/s	Dissolved Oxygen:	9.6 ppm	Channel Depth:	15.0 cm

Summary of Habitat Characteristics

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

Substrate

Boulder	Rubble	Gravel	Sand
15%	50%	20%	15%

Comments about the Station or Sample

8/28/03 Data:
Flow: 10.2cm/s; Depth: 15cm; Temp: 20.4C; SPC: 1354; DO: 10.1mg/L; pH: 7.27

Comments about the Final Determination

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Biological Monitoring Unit**

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Log Number: 1272 **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>Planariidae</i>	03010101	2.00	2.00		--	0.7	0.7
<i>Lumbriculus</i>	08020101002	0.33	0.33		CG	0.1	0.1
<i>Enchytraeidae</i>	08020201	0.33	0.33		--	0.1	0.1
<i>Nais</i>	08020202009	15.00	15.00		CG	5.4	5.4
<i>Limnodrilus</i>	08020203005	0.67	0.67		CG	0.2	0.2
<i>Pharyngobdellida</i>	080303	0.33	0.33		--	0.1	0.1
<i>Erpobdella</i>	08030301002	0.33	0.33		--	0.1	0.1
<i>Hyaella</i>	09010203006	0.33	0.33	8	CG	0.1	0.1
<i>Boyeria</i>	09020301004	4.33	4.33	2	PR	1.6	1.6
<i>Calopterygidae</i>	09020307	2.33	2.33		--	0.8	0.8
<i>Belostoma</i>	09020502009	0.33	0.33		PR	0.1	0.1
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.1	0.1
<i>Polycentropodidae</i>	09020603	0.33	0.33		--	0.1	0.1
<i>Hydropsychidae</i>	09020604	3.33	0.00		--	1.2	0.0
<i>Cheumatopsyche</i>	09020604015	33.33	36.11	5	CF	11.9	12.9
<i>Hydropsyche</i>	09020604016	6.67	7.22	4	CF	2.4	2.6
<i>Glossosoma</i>	09020606020	0.33	0.33	0	SC	0.1	0.1
<i>Hydroptila</i>	09020607026	3.33	3.33	6	P	1.2	1.2
<i>Phryganeidae</i>	09020608	0.33	0.33		--	0.1	0.1
<i>Brachycentridae</i>	09020609	0.67	0.67		--	0.2	0.2
<i>Agarodes</i>	09020613066	0.33	0.33	3	SH	0.1	0.1
<i>Helicopsyche</i>	09020616070	8.00	8.00	3	SC	2.9	2.9
<i>Nigronia</i>	09020701003	2.00	2.00	0	PR	0.7	0.7
<i>Antocha</i>	09021001004	0.33	0.33	3	CG	0.1	0.1
<i>Ablabesmyia</i>	09021011001	1.00	1.00	8	PR	0.4	0.4
<i>Labrundinia</i>	09021011008	2.33	2.33	7	PR	0.8	0.8
<i>Natarsia</i>	09021011011	0.67	0.67	8	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020	1.33	1.33	3	PR	0.5	0.5
<i>Cricotopus</i>	09021011037	18.67	34.67	7	SH	6.7	12.4
<i>Cricotopus bicinctus</i>	09021011037057	16.00	0.00		--	5.7	0.0
<i>Eukiefferiella</i>	09021011041	0.33	0.33	8	CG	0.1	0.1
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	0.2	0.2
<i>Parakiefferiella</i>	09021011052	0.33	0.33		CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	4.33	4.33	5	CG	1.6	1.6
<i>Rheocricotopus</i>	09021011057	0.33	0.33	6	CG	0.1	0.1
<i>Synorthocladius</i>	09021011061	0.33	0.33	2	CG	0.1	0.1
<i>Tvetenia</i>	09021011065	1.33	1.33	5	CG	0.5	0.5
<i>Paratanytarsus</i>	09021011071	1.00	1.00	6	--	0.4	0.4

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<i>Tanytarsus</i>	09021011076	11.00	11.00	6	CF	3.9	3.9
<i>Dicrotendipes</i>	09021011085	0.33	0.33	8	CG	0.1	0.1
<i>Polypedilum</i>	09021011102	1.67	1.67	6	SH	0.6	0.6
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058	2.33	2.33	4	SC	0.8	0.8
<i>Elmidae</i>	09021113	1.33	0.00		--	0.5	0.0
<i>Dubiraphia</i>	09021113064	17.67	18.46	6	CG	6.3	6.6
<i>Macronychus</i>	09021113065	0.67	0.70	4	--	0.2	0.3
<i>Optioservus</i>	09021113067	1.00	1.04	3	SC	0.4	0.4
<i>Stenelmis</i>	09021113070	10.33	10.80	5	SC	3.7	3.9
<i>Ammicola</i>	10010104013	0.33	0.33		SC	0.1	0.1
<i>Pseudosuccinea</i>	10010201023	79.67	79.67		SC	28.5	28.5
<i>Stagnicola</i>	10010201025	2.33	2.33		--	0.8	0.8
<i>Gyraulus</i>	10010203029	15.00	15.00		SC	5.4	5.4
<i>Sphaeriidae</i>	10020201	1.00	1.00		SC	0.4	0.4