

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

Station Information

Station Number: S312	DEP Drainage: Penobscot
Waterbody: Birch Stream (Bangor)	HUC Code: 01020005
Town: BANGOR	HUC Name: Lower Penobscot
Directions: dwnstrm of Ohio Street crossing	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 1

Sample Information

Log Number: 1549	Type of Sample: Riffle Bags	Date Deployed: 12-JUL-06
Subsample Factor: X1	Replicates: 2	Date Retrieved: 09-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	0.22
Class B	0.01	Non-Attainment	0.78
<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	406.50	18 Relative Abundance - Ephemeroptera	0.01
02 Generic Richness	36.00	19 EPT Generic Richness	3.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	9.53
04 Ephemeroptera Abundance	3.00	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.65	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	5.47	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	58.23
07 Relative Abundance - Chironomidae	0.53	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.61	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	11.00	28 EP Generic Richness/14	0.07
11 <i>Cheumatopsyche</i> Abundance	0.00	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.14		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
		1	Simulium	23.62
		2	Rheotanytarsus	18.23
		3	Nais	10.21
		4	Cricotopus	8.33
		5	Nephelopsis	6.03

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Log Number: 1549 Waterbody: Birch Stream (Bangor) Date Retrieved: 09-AUG-06

Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 22.8 °C	Specific Conductance 487.0 uS/cm	Channel Width: 4.3 m
Velocity: 24 cm/s	Dissolved Oxygen: 8.3 ppm	Channel Depth: 20.0 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 Urban NPS

Substrate

Boulder	Rubble	Gravel	Sand
65%	20%	10%	5%

Comments about the Station or Sample

8/9/06 Data:
Width: 3.9m; Flow: 22cm/s; Depth: 20cm; Temp: 20.1C; SPC: 597; DO: 9.1mg/L; pH: 8.16.

Comments about the Final Determination

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Town: BANGOR

Log Number: 1549 **Subsample:** X1

Replicates: 2

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	0.50	0.50		--	0.1	0.1
<i>Dero</i>	08020202007	0.00	0.50		CG	0.0	0.1
<i>Dero nivea</i>	08020202007003	0.50	0.00		--	0.1	0.0
<i>Nais</i>	08020202009	0.00	41.50		CG	0.0	10.2
<i>Nais communis</i>	08020202009005	17.50	0.00		--	4.3	0.0
<i>Nais variabilis</i>	08020202009009	24.00	0.00		--	5.9	0.0
<i>Slavina</i>	08020202012	0.00	0.50		--	0.0	0.1
<i>Slavina appendiculata</i>	08020202012001	0.50	0.00		--	0.1	0.0
<i>Lumbricidae</i>	08020205	0.50	0.50		--	0.1	0.1
<i>Nephelopsis</i>	08030301004	0.00	24.50		--	0.0	6.0
<i>Nephelopsis obscura</i>	08030301004001	24.50	0.00		--	6.0	0.0
<i>Hyalella</i>	09010203006	0.00	0.50	8	CG	0.0	0.1
<i>Hyalella azteca</i>	09010203006011	0.50	0.00		--	0.1	0.0
<i>Ischnura</i>	09020309052	0.50	0.50	9	PR	0.1	0.1
<i>Baetis</i>	09020401001	0.00	3.00	4	CG	0.0	0.7
<i>Baetis flavistriga</i>	09020401001004	3.00	0.00		--	0.7	0.0
<i>Hydropsyche</i>	09020604016	5.00	11.00	4	CF	1.2	2.7
<i>Hydropsyche depravata-complex</i>	09020604016041	6.00	0.00		CF	1.5	0.0
<i>Hydroptila</i>	09020607026	2.50	2.50	6	P	0.6	0.6
<i>Tipula</i>	09021001002	0.50	0.50	4	SH	0.1	0.1
<i>Chironomidae</i>	09021011	12.00	0.00		--	3.0	0.0
<i>Conchapelopia</i>	09021011004	23.00	24.35	6	PR	5.7	6.0
<i>Cardiocladius</i>	09021011034	0.00	2.65	5	PR	0.0	0.7
<i>Cardiocladius obscurus</i>	09021011034053	2.50	0.00		--	0.6	0.0
<i>Cricotopus</i>	09021011037	3.00	33.88	7	SH	0.7	8.3
<i>Cricotopus bicinctus</i>	09021011037057	26.00	0.00		--	6.4	0.0
<i>Cricotopus triannulatus/infuscatus</i>	09021011037069	3.00	0.00		--	0.7	0.0
<i>Eukiefferiella</i>	09021011041	0.00	9.53	8	CG	0.0	2.3
<i>Eukiefferiella brehmi-grp.</i>	09021011041073	0.50	0.00		--	0.1	0.0
<i>Eukiefferiella claripennis-grp.</i>	09021011041075	8.50	0.00		--	2.1	0.0
<i>Limnophyes</i>	09021011047	4.00	4.23	8	CG	1.0	1.0
<i>Nanocladius</i>	09021011049	1.50	1.59	3	CG	0.4	0.4
<i>Parametriocnemus</i>	09021011053	3.50	3.71	5	CG	0.9	0.9
<i>Paraphaenocladius</i>	09021011054	2.00	2.12	4	CG	0.5	0.5
<i>Thienemanniella</i>	09021011062	0.00	2.65	6	CG	0.0	0.7

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<i>Thienemanniella xena</i>	09021011062110	2.50	0.00		--	0.6	0.0
<i>Tvetenia</i>	09021011065	0.00	0.53	5	CG	0.0	0.1
<i>Tvetenia paucunca</i>	09021011065114	0.50	0.00		--	0.1	0.0
<i>Micropsectra</i>	09021011070	8.00	8.47	7	CG	2.0	2.1
<i>Paratanytarsus</i>	09021011071	12.00	12.70	6	--	3.0	3.1
<i>Rheotanytarsus</i>	09021011072	70.00	74.11	6	CF	17.2	18.2
<i>Tanytarsus</i>	09021011076	23.00	24.35	6	CF	5.7	6.0
<i>Dicrotendipes</i>	09021011085	0.00	0.53	8	CG	0.0	0.1
<i>Dicrotendipes simpsoni</i>	09021011085156	0.50	0.00		--	0.1	0.0
<i>Parachironomus</i>	09021011097	0.00	0.53	10	PR	0.0	0.1
<i>Parachironomus tenuicaudatus-complex</i>	09021011097179	0.50	0.00		--	0.1	0.0
<i>Phaenopsectra</i>	09021011101	0.00	2.12	7	SC	0.0	0.5
<i>Phaenopsectra punctipes-grp.</i>	09021011101181	2.00	0.00		--	0.5	0.0
<i>Polypedilum</i>	09021011102	0.00	8.47	6	SH	0.0	2.1
<i>Polypedilum flavum</i>	09021011102182	4.00	0.00		--	1.0	0.0
<i>Polypedilum illinoense-grp.</i>	09021011102185	4.00	0.00		--	1.0	0.0
<i>Simulium</i>	09021012047	7.00	96.00	4	CF	1.7	23.6
<i>Simulium vittatum</i>	09021012047064	89.00	0.00		--	21.9	0.0
<i>Hemerodromia</i>	09021016057	6.00	6.00	3	PR	1.5	1.5
<i>Neoplasta</i>	09021016064	0.50	0.50		PR	0.1	0.1
<i>Stenelmis</i>	09021113070	0.50	0.50	5	SC	0.1	0.1
<i>Sperchonopsis</i>	09030107002	0.50	0.50		--	0.1	0.1
<i>Gyraulus</i>	10010203029	0.50	0.50		SC	0.1	0.1