

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

**Station Information**

<b>Station Number:</b> 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**

<b>Log Number:</b> 1153	Type of Sample: Riffle Bags	Date Deployed: 19-JUL-02
Subsample Factor: X1	Replicates: 3	Date Retrieved: 16-AUG-02

**Classification Attainment**

Statutory Class: B	<b>Final Determination:</b> C
Model Result with P > .6: C	Reason for Determination:
Date Last Calculated:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A 0.08	Class C 0.63	Class A, B, or C	0.90
Class B 0.14	Class NA 0.15	Non-Attainment	0.10
<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	302.33	18 Relative Abundance - Ephemeroptera	0.04
02 Generic Richness	47.00	19 EPT Generic Richness	10.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	6.33
04 Ephemeroptera Abundance	10.67	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.15	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	3.95	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	13.91
07 Relative Abundance - Chironomidae	0.08	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.26	26 Sum of Abundances: Acroneuria, Stenonema	0.00
09 <i>Hydropsyche</i> Abundance	0.00	28 EP Generic Richness/14	0.29
11 <i>Cheumatopsyche</i> Abundance	2.33	30 Presence of a Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.83		

**Five Most Dominant Taxa**

		<u>Taxa Rank</u>	<u>Taxa Name</u>	<u>Percent</u>
13 Relative Abundance - Oligochaeta	0.00	1	Helicopsyche	45.75
15 Perlidae Abundance (Family Functional Group)	0.00	2	Stagnicola	16.98
16 Tanypodinae Abundance (Family Functional Group)	1.09	3	Gyraulus	6.82
17 Chironomini Abundance (Family Functional Group)	6.15	4	Tanytarsus	3.83
		5	Dubiraphia	3.53

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Station Number	S315	Waterbody: Penjajawoc Stream	Date Deployed: 19-JUL-02
Log Number:	1153	Town: Bangor	Date Retrieved: 16-AUG-02

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**Sample Collection and Processing Information**

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Sampling Organization:  
Taxonomist: Michael Winnell

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**Waterbody Information**

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Water Temperature:	19.8 °C	Specific Conductance	714.0 mS/cm	Channel Width:	5.0 m
Velocity:	11 cm/s	Dissolved Oxygen:	8.1 ppm	Channel Depth:	20.0 cm

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**Summary of Habitat Characteristics**

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

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**Substrate**

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

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**Comments about the Station or Sample**

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**Comments about the Final Determination**

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Biological Monitoring Unit**

**StationNumber:** S315      **Waterbody:** Penjajawoc Stream      **Town:** Bangor  
**Lognum:** 1153      **Subsample Factor:** X1      **Replicates:** 3      **Calculated:**

**BioME Aquatic Life Taxonomic Inventory Report**

Taxa	Code	Count		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		(Average of Baskets)				Actual	Adjusted
		Actual	Adjusted				
<i>Prostoma</i>	04010101001	0.3	0.3		--	0.1	0.1
<i>Pristinella</i>	08020202016	0.0	0.3		--	0.0	0.1
<i>Pristinella osborni</i>	08020202016001	0.3	0.0		--	0.1	0.0
<i>Helobdella</i>	08030101005	6.0	6.3		--	2.0	2.1
<i>Helobdella fusca</i>	08030101005002	0.3	0.0		--	0.1	0.0
<i>Erpobdella</i>	08030301002	0.0	0.3		--	0.0	0.1
<i>Erpobdella punctata</i>	08030301002001	0.3	0.0		--	0.1	0.0
<i>Caecidotea</i>	09010101001	5.3	6.7	8	SH	1.8	2.2
<i>Caecidotea communis</i>	09010101001001	1.3	0.0		--	0.4	0.0
<i>Hyaella</i>	09010203006	0.0	2.0	8	CG	0.0	0.7
<i>Hyaella azteca</i>	09010203006011	2.0	0.0		--	0.7	0.0
<i>Aeshna</i>	09020301001	0.0	0.3	5	PR	0.0	0.1
<i>Aeshna umbrosa</i>	09020301001006	0.3	0.0		--	0.1	0.0
<i>Boyeria</i>	09020301004	0.0	1.7	2	PR	0.0	0.6
<i>Boyeria grafiana</i>	09020301004011	0.7	0.0		--	0.2	0.0
<i>Boyeria vinosa</i>	09020301004012	1.0	0.0		--	0.3	0.0
<i>Baetidae</i>	09020401	2.3	0.0		--	0.8	0.0
<i>Baetis</i>	09020401001	0.0	1.5	4	CG	0.0	0.5
<i>Baetis flavistriga</i>	09020401001004	0.3	0.0		--	0.1	0.0
<i>Procloeon</i>	09020401010	0.3	1.5		CG	0.1	0.5
<i>Leptophlebiidae</i>	09020406	0.7	0.7		--	0.2	0.2
<i>Caenis</i>	09020412040	7.0	7.0	7	CG	2.3	2.3
<i>Microvelia</i>	09020510025	1.0	1.0		PR	0.3	0.3
<i>Trichoptera</i>	090206	0.3	0.3		--	0.1	0.1
<i>Cheumatopsyche</i>	09020604015	2.3	2.3	5	CF	0.8	0.8
<i>Rhyacophila</i>	09020605019	0.3	0.3	2	PR	0.1	0.1
<i>Hydroptila</i>	09020607026	3.3	3.3	6	P	1.1	1.1
<i>Micrasema</i>	09020609044	0.0	0.3	2	SH	0.0	0.1
<i>Micrasema rusticum-grp.</i>	09020609044100	0.3	0.0		--	0.1	0.0
<i>Helicopsyche</i>	09020616070	0.0	138.3	3	SC	0.0	45.8
<i>Helicopsyche borealis</i>	09020616070137	138.3	0.0		--	45.8	0.0
<i>Mystacides</i>	09020618075	0.0	1.0	4	CG	0.0	0.3
<i>Mystacides sepulchralis</i>	09020618075147	1.0	0.0		--	0.3	0.0
<i>Nigronia</i>	09020701003	0.0	0.3	0	PR	0.0	0.1
<i>Nigronia serricornis</i>	09020701003003	0.3	0.0		--	0.1	0.0
<i>Chironomidae</i>	09021011	2.0	0.0		--	0.7	0.0
<i>Conchapelopia</i>	09021011004	0.7	0.7	6	PR	0.2	0.2
<i>Nilotanypus</i>	09021011012	0.0	0.4	6	PR	0.0	0.1
<i>Nilotanypus fimbriatus</i>	09021011012027	0.3	0.0		--	0.1	0.0
<i>Pagastia</i>	09021011025	0.0	1.1	1	--	0.0	0.4
<i>Pagastia orthogonia</i>	09021011025001	1.0	0.0		--	0.3	0.0

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Taxa	Code	Count		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		(Average of Baskets)				Actual	Adjusted
		Actual	Adjusted				
<i>Corynoneura</i>	09021011036	1.7	1.8	7	CG	0.6	0.6
<i>Nanocladius</i>	09021011049	0.3	0.4	3	CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	1.0	1.1	5	CG	0.3	0.4
<i>Rheotanytarsus</i>	09021011072	1.3	1.5	6	CF	0.4	0.5
<i>Stempellinella</i>	09021011074	0.7	0.7	2	--	0.2	0.2
<i>Tanytarsus</i>	09021011076	7.0	11.6	6	CF	2.3	3.8
<i>Tanytarsus glabrescens</i>	09021011076134	3.7	0.0		--	1.2	0.0
<i>Pseudochironomus</i>	09021011078	0.3	0.4	5	CG	0.1	0.1
<i>Microtendipes</i>	09021011094	0.0	5.1	6	CF	0.0	1.7
<i>Microtendipes pedellus-</i> <i>grp.</i>	09021011094166	4.3	0.0		--	1.4	0.0
<i>Microtendipes rydalensis-</i> <i>grp.</i>	09021011094168	0.3	0.0		--	0.1	0.0
<i>Polypedilum</i>	09021011102	0.7	0.7	6	SH	0.2	0.2
<i>Haliphus</i>	09021101001	0.7	0.7		P	0.2	0.2
<i>Anacaena</i>	09021105041	0.7	0.7		--	0.2	0.2
<i>Psephenus</i>	09021108058	0.0	0.7	4	SC	0.0	0.2
<i>Psephenus herricki</i>	09021108058028	0.7	0.0		--	0.2	0.0
<i>Dubiraphia</i>	09021113064	10.7	10.7	6	CG	3.5	3.5
<i>Macronychus</i>	09021113065	0.0	1.3	4	--	0.0	0.4
<i>Macronychus glabratus</i>	09021113065040	1.3	0.0		--	0.4	0.0
<i>Optioservus</i>	09021113067	1.0	1.7	3	SC	0.3	0.6
<i>Optioservus fastiditus</i>	09021113067044	0.7	0.0		--	0.2	0.0
<i>Promoesia</i>	09021113069	0.0	0.3		--	0.0	0.1
<i>Promoesia tardella</i>	09021113069052	0.3	0.0		--	0.1	0.0
<i>Stenelmis</i>	09021113070	3.7	6.7	5	SC	1.2	2.2
<i>Stenelmis crenata</i>	09021113070055	3.0	0.0		--	1.0	0.0
<i>Gastropoda</i>	1001	0.3	0.3		--	0.1	0.1
<i>Amnicola</i>	10010104013	0.0	0.7		SC	0.0	0.2
<i>Amnicola limosa</i>	10010104013018	0.7	0.0		--	0.2	0.0
<i>Fossaria</i>	10010201021	0.7	0.7		--	0.2	0.2
<i>Stagnicola</i>	10010201025	51.3	51.3		--	17.0	17.0
<i>Physella</i>	10010202027	1.3	1.3		SC	0.4	0.4
<i>Planorbidae</i>	10010203	3.0	0.0		--	1.0	0.0
<i>Gyraulus</i>	10010203029	0.0	20.6		SC	0.0	6.8
<i>Gyraulus deflectus</i>	10010203029056	17.7	0.0		--	5.8	0.0
<i>Helisoma</i>	10010203030	0.0	0.4		SC	0.0	0.1
<i>Helisoma anceps</i>	10010203030058	0.3	0.0		--	0.1	0.0
<i>Pisidium</i>	10020201002	1.3	3.0		CF	0.4	1.0
<i>Pisidium casertanum</i>	10020201002006	1.3	0.0		--	0.4	0.0
<i>Pisidium compressum</i>	10020201002007	0.3	0.0		--	0.1	0.0