

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

Station Information

Station Number: S480	DEP Drainage: Penobscot
Waterbody: Shaw Brook	HUC Code: 01020005
Town: HERMON	HUC Name: Lower Penobscot
Directions: dwnstrm of Odlin Rd	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

Sample Information

Log Number: 1551	Type of Sample: Riffle Bags	Date Deployed: 12-JUL-06
Subsample Factor: X1	Replicates: 3	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	0.00
Class B	0.01	Non-Attainment	1.00
<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	65.00	18 Relative Abundance - Ephemeroptera	0.04
02 Generic Richness	26.00	19 EPT Generic Richness	6.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	2.67	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.56	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	5.34	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	23.30
07 Relative Abundance - Chironomidae	0.59	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.38	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	0.70	28 EP Generic Richness/14	0.21
11 <i>Cheumatopsyche</i> Abundance	5.96	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.60		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.01	1	Tanytarsus	26.66
15 Perlidae Abundance (Family Functional Group)	0.00	2	Rheotanytarsus	17.95
16 Tanypodinae Abundance (Family Functional Group)	4.67	3	Cheumatopsyche	9.17
17 Chironomini Abundance (Family Functional Group)	3.67	4	Ferrissia	8.72
		5	Thienemannimyia	7.18

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Station Number S480 Town: HERMON Date Deployed: 12-JUL-06
Log Number: 1551 Waterbody: Shaw Brook Date Retrieved: 09-AUG-06

Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Lotic

Waterbody Information

Water Temperature: 21.9 °C	Specific Conductance 342.0 uS/cm	Channel Width: 2.1 m
Velocity: 13 cm/s	Dissolved Oxygen: 7.1 ppm	Channel Depth: 30.0 cm

Summary of Habitat Characteristics

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

Substrate

Boulder	Rubble	Gravel	Silt
5%	60%	20%	15%

Comments about the Station or Sample

8/9/06 Data:
Width: 2.4m; Flow: 7cm/s; Depth: 27cm; Temp: 17.9C; SPC: 391; DO: 6.66mg/L; pH: 7.46.

Comments about the Final Determination

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

Station Number: S480 **Waterbody:** Shaw Brook

Town: HERMON

Log Number: 1551 **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>Lumbriculus</i>	08020101002	0.33	0.33		CG	0.5	0.5
<i>Naididae</i>	08020202	0.33	0.33		--	0.5	0.5
<i>Hyalella</i>	09010203006	0.33	0.33	8	CG	0.5	0.5
<i>Calopteryx</i>	09020307043	2.33	2.33	5	PR	3.6	3.6
<i>Coenagrionidae</i>	09020309	0.33	0.33		--	0.5	0.5
<i>Callibaetis</i>	09020401002	0.67	0.67	9	CG	1.0	1.0
<i>Paraleptophlebia</i>	09020406026	1.33	1.33	1	CG	2.0	2.0
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	1.0	1.0
<i>Hydropsychidae</i>	09020604	0.33	0.00		--	0.5	0.0
<i>Cheumatopsyche</i>	09020604015	5.67	5.96	5	CF	8.7	9.2
<i>Hydropsyche</i>	09020604016	0.67	0.70	4	CF	1.0	1.1
<i>Hydatophylax</i>	09020610048	0.67	0.67	2	SH	1.0	1.0
<i>Thienemannimyia</i>	09021011020	0.00	4.67	3	PR	0.0	7.2
<i>Thienemannimyia/Arctopelopia</i> group	09021011020041	4.67	0.00		--	7.2	0.0
<i>Orthocladus</i>	09021011050	0.33	0.33	6	CG	0.5	0.5
<i>Parametriocnemus</i>	09021011053	0.33	0.33	5	CG	0.5	0.5
<i>Rheotanytarsus</i>	09021011072	11.67	11.67	6	CF	18.0	18.0
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	0.5	0.5
<i>Tanytarsus</i>	09021011076	17.33	17.33	6	CF	26.7	26.7
<i>Cryptochironomus</i>	09021011082	0.33	0.33	8	PR	0.5	0.5
<i>Microtendipes</i>	09021011094	0.00	1.67	6	CF	0.0	2.6
<i>Microtendipes pedellus-grp.</i>	09021011094166	1.67	0.00		--	2.6	0.0
<i>Polypedilum</i>	09021011102	1.67	1.67	6	SH	2.6	2.6
<i>Hemerodromia</i>	09021016057	0.67	0.67	3	PR	1.0	1.0
<i>Dytiscidae</i>	09021103	0.33	0.33		--	0.5	0.5
<i>Hydroporus</i>	09021103013	0.67	0.67		PR	1.0	1.0
<i>Promoresia</i>	09021113069	2.00	2.00		--	3.1	3.1
<i>Stenelmis</i>	09021113070	3.67	3.67	5	SC	5.6	5.6
<i>Ferrissia</i>	10010204035	5.67	5.67		SC	8.7	8.7