

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

**Station Information**

<b>Station Number:</b> S742	DEP Drainage: St. John
<b>Waterbody:</b> Merritt Brook	HUC Code: 01010004
<b>Town:</b> PRESQUE ISLE	HUC Name: Aroostook
<b>Directions:</b> above confluence with Aroostook River, Fort Road, park at ATV trail	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 1379	Type of Sample: Rock Baskets	Date Deployed: 19-JUL-04
Subsample Factor: X1	Replicates: 3	Date Retrieved: 16-AUG-04

**Classification Attainment**

Statutory Class: B	<b>Final Determination:</b> I	
Model Result with P > .6 C	Reason for Determination:	Indeterminate for Class B (.58)
Date Last Calculated:		

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.26	Class A, B, or C	1.00
Class B	0.54	Non-Attainment	0.00
Class C	0.21		
Class NA	0.00		
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.58	Class A	0.03
Class C or Non-Attainment	0.42	Class B or C or Non-Attainment	0.97

**Model Variables**

01 Total Abundance of Individuals	450.00	18 Relative Abundance - Ephemeroptera	0.15
02 Generic Richness	41.00	19 EPT Generic Richness	11.00
03 Plecoptera Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes,</i>	9.33
04 Ephemeroptera Abundance	65.67	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.40	23 Relative Generic Richness- Plecoptera	0.02
06 Hilsenhoff Biotic Index	4.29	25 Sum of Abundances: <i>Cheumatopsyche,</i>	22.33
07 Relative Abundance - Chironomidae	0.38	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.49	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	71.67	28 EP Generic Richness/14	0.36
11 <i>Cheumatopsyche</i> Abundance	0.67	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.55		

**Five Most Dominant Taxa**

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.00	1	Simulium	28.15
15 Perlidae Abundance (Family Functional Group)	0.00	2	Hydropsyche	15.93
16 Tanypodinae Abundance (Family Functional Group)	5.33	3	Tvetenia	13.48
17 Chironomini Abundance (Family Functional Group)	7.67	4	Baetis	12.63
		5	Pagastia	6.00

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**Sample Collection and Processing Information**

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Sampling Organization:  
Taxonomist: Lotic

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**Waterbody Information**

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Water Temperature: 18.5 °C	Specific Conductance 364.0 uS/cm	Channel Width: 3.6 m
Velocity: 29 cm/s	Dissolved Oxygen: 8.6 ppm	Channel Depth: 28.0 cm

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**Summary of Habitat Characteristics**

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<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Cultivated	Open		Above Confluence

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**Substrate**

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Boulder	Rubble	Gravel	Sand
35%	45%	15%	5%

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**Comments about the Station or Sample**

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8/16/04 Data:  
Flow: 52.5cm/s; Depth: 25cm; Temp: 17.2C; SPC: 369uS/cm; DO: 8.7mg/L; pH:

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**Comments about the Final Determination**

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Resample - High water may have influenced sample

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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>Nais</i>	08020202009	0.33	0.33		CG	0.1	0.1
<i>Ophidonais</i>	08020202010	0.33	0.33		CG	0.1	0.1
<i>Helobdella</i>	08030101005	0.00	0.33		--	0.0	0.1
<i>Helobdella stagnalis</i>	08030101005004	0.33	0.00		--	0.1	0.0
<i>Erpobdellidae</i>	08030301	0.33	0.33		--	0.1	0.1
<i>Chloroperlidae</i>	09020208	0.33	0.33		--	0.1	0.1
<i>Boyeria</i>	09020301004	1.67	1.67	2	PR	0.4	0.4
<i>Baetidae</i>	09020401	1.67	0.00		--	0.4	0.0
<i>Baetis</i>	09020401001	0.00	56.84	4	CG	0.0	12.6
<i>Baetis flavistriga</i>	09020401001004	55.33	0.00		--	12.3	0.0
<i>Acentrella</i>	09020401008	0.00	6.16	3	CG	0.0	1.4
<i>Acentrella ampla</i>	09020401008001	6.00	0.00		--	1.3	0.0
<i>Paraleptophlebia</i>	09020406026	0.67	0.67	1	CG	0.1	0.1
<i>Ephemerella</i>	09020410035	2.00	2.00	1	CG	0.4	0.4
<i>Dolophilodes</i>	09020601001	0.67	0.67	0	CF	0.1	0.1
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	0.1	0.1
<i>Hydropsyche</i>	09020604016	71.67	71.67	4	CF	15.9	15.9
<i>Hydroptila</i>	09020607026	0.67	0.67	6	P	0.1	0.1
<i>Hydatophylax</i>	09020610048	0.33	0.33	2	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	2.33	2.33	1	SH	0.5	0.5
<i>Tipula</i>	09021001002	2.67	2.67	4	SH	0.6	0.6
<i>Paramerina</i>	09021011013	0.33	0.33		--	0.1	0.1
<i>Thienemannimyia</i>	09021011020	5.00	5.00	3	PR	1.1	1.1
<i>Pagastia</i>	09021011025	27.00	27.00	1	--	6.0	6.0
<i>Cricotopus</i>	09021011037	0.33	20.00	7	SH	0.1	4.4
<i>Cricotopus bicinctus</i>	09021011037057	19.67	0.00		--	4.4	0.0
<i>Eukiefferiella</i>	09021011041	4.33	4.33	8	CG	1.0	1.0
<i>Heterotrissocladius</i>	09021011044	0.33	0.33	0	CG	0.1	0.1
<i>Orthocladius</i>	09021011050	1.00	1.00	6	CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	15.00	15.00	5	CG	3.3	3.3
<i>Thienemanniella</i>	09021011062	2.67	2.67	6	CG	0.6	0.6
<i>Tvetenia</i>	09021011065	0.00	60.67	5	CG	0.0	13.5
<i>Tvetenia paucunca</i>	09021011065114	60.67	0.00		--	13.5	0.0
<i>Micropsectra</i>	09021011070	9.00	9.00	7	CG	2.0	2.0
<i>Rheotanytarsus</i>	09021011072	14.67	14.67	6	CF	3.3	3.3
<i>Tanytarsus</i>	09021011076	1.67	1.67	6	CF	0.4	0.4
<i>Chironomus</i>	09021011080	1.67	1.67	10	CG	0.4	0.4

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		Actual	Adjusted			Actual	Adjusted
		<i>Phaenopsectra</i>	09021011101			1.33	1.33
<i>Polypedilum</i>	09021011102	1.33	4.67	6	SH	0.3	1.0
<i>Polypedilum aviceps</i>	09021011102181	3.33	0.00		--	0.7	0.0
<i>Simulium</i>	09021012047	126.67	126.67	4	CF	28.1	28.1
<i>Atherix</i>	09021015055	0.67	0.67	2	PR	0.1	0.1
<i>Muscidae</i>	09021022	0.33	0.33	6	--	0.1	0.1
<i>Elmidae</i>	09021113	0.33	0.33		--	0.1	0.1
<i>Promoresia</i>	09021113069	1.67	1.67		--	0.4	0.4
<i>Physidae</i>	10010202	1.33	1.33		SC	0.3	0.3
<i>Gyraulus</i>	10010203029	1.33	1.33		SC	0.3	0.3
<i>Planorbella</i>	10010203032	0.33	0.33		SC	0.1	0.1