

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

**Station Information**

<b>Station Number:</b> S732	DEP Drainage: St. John
<b>Waterbody:</b> Limestone Stream	HUC Code: 01010004
<b>Town:</b> LIMESTONE	HUC Name: Aroostook
<b>Directions:</b> ~80m downstream of Long Road	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order:

**Sample Information**

<b>Log Number:</b> 1384	Type of Sample: Rock Baskets	Date Deployed: 20-JUL-04
Subsample Factor: X4	Replicates: 3	Date Retrieved: 17-AUG-04

**Classification Attainment**

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

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.48	Class A, B, or C	1.00
Class B	0.49	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.15
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.85

**Model Variables**

01 Total Abundance of Individuals	648.00	18 Relative Abundance - Ephemeroptera	0.05
02 Generic Richness	33.00	19 EPT Generic Richness	12.00
03 Plecoptera Abundance	4.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	29.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	2.86	23 Relative Generic Richness- Plecoptera	0.03
06 Hilsenhoff Biotic Index	3.26	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	23.94
07 Relative Abundance - Chironomidae	0.17	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.45	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	288.78	28 EP Generic Richness/14	0.36
11 <i>Cheumatopsyche</i> Abundance	13.88	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.80		

**Five Most Dominant Taxa**

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.00	1	Hydropsyche	44.56
15 Perlidae Abundance (Family Functional Group)	4.00	2	Dolophilodes	23.66
16 Tanypodinae Abundance (Family Functional Group)	4.31	3	Polypedilum	7.76
17 Chironomini Abundance (Family Functional Group)	50.26	4	Tvetenia	3.10
		5	Baetis	2.39

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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:      20.0 °C	Specific Conductance      273.0 uS/cm	Channel Width:      10.2 m
Velocity:      50 cm/s	Dissolved Oxygen:      8.9 ppm	Channel Depth:      40.0 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 Urban	Partly Open		Below Road Crossing

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**Substrate**

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Boulder	Rubble	Gravel	Sand	Silt
2%	20%	66%	8%	4%

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**Comments about the Station or Sample**

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8/17/04 Data:  
Flow: 80cm/s; Depth: 64cm; Temp: 20.4C; SPC: 159uS/cm; DO: 9.1mg/L; pH:

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**Comments about the Final Determination**

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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>Agnetina</i>	09020209050	0.00	4.00	2	PR	0.0	0.6
<i>Agnetina capitata</i>	09020209050152	4.00	0.00	2	PR	0.6	0.0
<i>Boyeria</i>	09020301004	0.00	2.67	2	PR	0.0	0.4
<i>Boyeria grafiana</i>	09020301004011	2.67	0.00		--	0.4	0.0
<i>Calopterygidae</i>	09020307	1.33	1.33		--	0.2	0.2
<i>Baetidae</i>	09020401	1.33	0.00		--	0.2	0.0
<i>Baetis</i>	09020401001	2.67	15.48	4	CG	0.4	2.4
<i>Baetis flavistriga</i>	09020401001004	12.00	0.00		--	1.9	0.0
<i>Acerpenna</i>	09020401007	0.00	4.22	5	CG	0.0	0.7
<i>Acerpenna macdunnoughi</i>	09020401007001	4.00	0.00		--	0.6	0.0
<i>Dipheter</i>	09020401013	0.00	5.63		--	0.0	0.9
<i>Dipheter hageni</i>	09020401013001	5.33	0.00		--	0.8	0.0
<i>Tricorythodes</i>	09020411038	4.00	4.00	4	CG	0.6	0.6
<i>Dolophilodes</i>	09020601001	153.33	153.33	0	CF	23.7	23.7
<i>Chimarra</i>	09020601003	2.67	2.67	2	CF	0.4	0.4
<i>Hydropsychidae</i>	09020604	12.00	0.00		--	1.9	0.0
<i>Cheumatopsyche</i>	09020604015	13.33	13.88	5	CF	2.1	2.1
<i>Hydropsyche</i>	09020604016	76.00	288.78	4	CF	11.7	44.6
<i>Hydropsyche bronta</i>	09020604016029	1.33	0.00		--	0.2	0.0
<i>Hydropsyche morosa</i>	09020604016030	42.67	0.00		--	6.6	0.0
<i>Hydropsyche slossonae</i>	09020604016031	1.33	0.00		--	0.2	0.0
<i>Hydropsyche sparna</i>	09020604016032	50.67	0.00		--	7.8	0.0
<i>Hydropsyche depravata-complex</i>	09020604016041	104.00	0.00		CF	16.0	0.0
<i>Hydropsyche scalaris-group</i>	09020604016048	1.33	0.00		--	0.2	0.0
<i>Rhyacophila</i>	09020605019	1.33	1.33	2	PR	0.2	0.2
<i>Limnephilus</i>	09020610055	1.33	1.33	3	SH	0.2	0.2
<i>Oecetis</i>	09020618078	0.00	1.33	8	PR	0.0	0.2
<i>Oecetis persimilis</i>	09020618078157	1.33	0.00		--	0.2	0.0
<i>Tipula</i>	09021001002	4.00	4.00	4	SH	0.6	0.6
<i>Antocha</i>	09021001004	2.67	2.67	3	CG	0.4	0.4
<i>Chironomidae</i>	09021011	8.00	0.00		--	1.2	0.0
<i>Nilotanypus</i>	09021011012	0.00	1.44	6	PR	0.0	0.2
<i>Nilotanypus fimbriatus</i>	09021011012027	1.33	0.00		--	0.2	0.0
<i>Rheopelopia</i>	09021011017	0.00	2.87		PR	0.0	0.4
<i>Rheopelopia acra-grp.</i>	09021011017036	2.67	0.00		--	0.4	0.0
<i>Pagastia</i>	09021011025	0.00	2.87	1	--	0.0	0.4

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		Actual	Adjusted			Actual	Adjusted
		<i>Pagastia orthogonia</i>	09021011025001			2.67	0.00
<i>Parametriocnemus</i>	09021011053	13.33	14.36	5	CG	2.1	2.2
<i>Thienemanniella</i>	09021011062	1.33	1.44	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065	0.00	20.10	5	CG	0.0	3.1
<i>Tvetenia vitracies</i>	09021011065113	13.33	0.00		--	2.1	0.0
<i>Tvetenia paucunca</i>	09021011065114	5.33	0.00		--	0.8	0.0
<i>Rheotanytarsus</i>	09021011072	5.33	5.74	6	CF	0.8	0.9
<i>Stempellinella</i>	09021011074	0.00	2.87	2	--	0.0	0.4
<i>Stempellinella sp. A Epler</i>	09021011074002	2.67	0.00		--	0.4	0.0
<i>Tanytarsus</i>	09021011076	4.00	10.05	6	CF	0.6	1.6
<i>Tanytarsus glabrescens</i>	09021011076134	5.33	0.00		--	0.8	0.0
<i>Polypedilum</i>	09021011102	1.33	50.26	6	SH	0.2	7.8
<i>Polypedilum aviceps</i>	09021011102181	37.33	0.00		--	5.8	0.0
<i>Polypedilum flavum</i>	09021011102182	8.00	0.00		--	1.2	0.0
<i>Simulium</i>	09021012047	1.33	2.67	4	CF	0.2	0.4
<i>Simulium tuberosum</i>	09021012047067	1.33	0.00		--	0.2	0.0
<i>Clinocera</i>	09021016056	6.67	6.67	3	--	1.0	1.0
<i>Hemerodromia</i>	09021016057	4.00	4.00	3	PR	0.6	0.6
<i>Psephenus</i>	09021108058	0.00	6.67	4	SC	0.0	1.0
<i>Psephenus herricki</i>	09021108058028	6.67	0.00		--	1.0	0.0
<i>Optioservus</i>	09021113067	0.00	4.00	3	SC	0.0	0.6
<i>Optioservus fastiditus</i>	09021113067044	4.00	0.00		--	0.6	0.0
<i>Promoresia</i>	09021113069	1.33	4.00		--	0.2	0.6
<i>Promoresia tardella</i>	09021113069052	2.67	0.00		--	0.4	0.0
<i>Stenelmis</i>	09021113070	0.00	1.33	5	SC	0.0	0.2
<i>Stenelmis crenata</i>	09021113070055	1.33	0.00		--	0.2	0.0