

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

Station Information

Station Number: S755	DEP Drainage: Kennebec
Waterbody: Martin Stream (Dixmont)	HUC Code: 01030003
Town: DIXMONT	HUC Name: Lower Kennebec
Directions: 30m upstream of manure outfall	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order:

Sample Information

Log Number: 1404	Type of Sample: Rock Baskets	Date Deployed: 28-JUL-04
Subsample Factor: X1	Replicates: 3	Date Retrieved: 24-AUG-04

Classification Attainment

Statutory Class:	A	Final Determination:	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	0.27	Class C	0.29	Class A, B, or C	1.00
Class B	0.43	Class NA	0.01	Non-Attainment	0.00
<u>B or Better Model</u>			<u>A Model</u>		
Class A or B		1.00	Class A		0.28
Class C or Non-Attainment		0.00	Class B or C or Non-Attainment		0.72

Model Variables

01 Total Abundance of Individuals	65.00	18 Relative Abundance - Ephemeroptera	0.83
02 Generic Richness	23.00	19 EPT Generic Richness	15.00
03 Plecoptera Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	53.67	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.04	23 Relative Generic Richness- Plecoptera	0.04
06 Hilsenhoff Biotic Index	4.82	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	1.02
07 Relative Abundance - Chironomidae	0.08	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.22	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	23.66
09 <i>Hydropsyche</i> Abundance	2.33	28 EP Generic Richness/14	0.71
11 <i>Cheumatopsyche</i> Abundance	0.67	30 Presence of Class A Indicator Taxa/7	0.14
12 EPT Generic Richness/ Diptera Generic Richness	3.00		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.00	1	Stenonema	35.89
15 Perlidae Abundance (Family Functional Group)	0.33	2	Stenacron	27.08
16 Tanypodinae Abundance (Family Functional Group)	0.00	3	Leptophlebiidae	5.65
17 Chironomini Abundance (Family Functional Group)	3.21	4	Polypedilum	3.85
		5	Hydropsyche	3.58

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Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 17.9 °C	Specific Conductance 124.0 uS/cm	Channel Width: 9.5 m
Velocity: 6 cm/s	Dissolved Oxygen: 9.3 ppm	Channel Depth: 45.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Swamp Hardwood	Open		Above Point Source
Upland Hardwood			

Substrate

Bedrock	Boulder	Rubble	Gravel	Sand	Silt
5%	10%	35%	30%	15%	5%

Comments about the Station or Sample

8/24/04 Data:
Flow: 25.2 cm/s; Depth: 50cm; Temp: 17.1; SPC: 85uS/cm; DO: 8.4mg/L; pH:

Comments about the Final Determination

Resample - High water may have influenced sample

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Town: DIXMONT

Log Number: 1404 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>Orconectes</i>	09010301008	0.00	0.33		CG	0.0	0.5
<i>Orconectes virilis</i>	09010301008016	0.33	0.00		--	0.5	0.0
<i>Acroneuria</i>	09020209042	0.00	0.33	0	PR	0.0	0.5
<i>Acroneuria lycorias</i>	09020209042125	0.33	0.00		--	0.5	0.0
<i>Boyeria</i>	09020301004	0.00	0.33	2	PR	0.0	0.5
<i>Boyeria vinosa</i>	09020301004012	0.33	0.00		--	0.5	0.0
<i>Baetidae</i>	09020401	1.33	0.00		--	2.0	0.0
<i>Baetis</i>	09020401001	1.00	1.87	4	CG	1.5	2.9
<i>Baetis flavistriga</i>	09020401001004	0.33	0.00		--	0.5	0.0
<i>Acerpenna</i>	09020401007	0.33	1.87	5	CG	0.5	2.9
<i>Acerpenna macdunnoughi</i>	09020401007001	1.00	0.00		--	1.5	0.0
<i>Proclleon</i>	09020401010	0.67	0.93		CG	1.0	1.4
<i>Heptageniidae</i>	09020402	7.67	0.00		--	11.8	0.0
<i>Leucrocuta</i>	09020402011	0.33	0.41	1	SC	0.5	0.6
<i>Stenacron</i>	09020402014	0.00	17.60	7	SC	0.0	27.1
<i>Stenacron interpunctatum</i>	09020402014045	14.33	0.00		--	22.0	0.0
<i>Stenonema</i>	09020402015	2.33	23.33	4	SC	3.6	35.9
<i>Stenonema luteum</i>	09020402015049	16.67	0.00		--	25.6	0.0
<i>Leptophlebiidae</i>	09020406	3.67	3.67		--	5.6	5.6
<i>Paraleptophlebia</i>	09020406026	2.00	2.00	1	CG	3.1	3.1
<i>Ephemerella</i>	09020410035	2.00	2.00	1	CG	3.1	3.1
<i>Nyctiophylax</i>	09020603009	0.00	0.33	5	PR	0.0	0.5
<i>Nyctiophylax moestus</i>	09020603009013	0.33	0.00		--	0.5	0.0
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	1.0	1.0
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	1.0	1.0
<i>Hydropsyche</i>	09020604016	2.33	2.33	4	CF	3.6	3.6
<i>Ceraclea</i>	09020618072	1.00	1.00	3	CG	1.5	1.5
<i>Nigronia</i>	09020701003	0.00	0.33	0	PR	0.0	0.5
<i>Nigronia serricornis</i>	09020701003003	0.33	0.00		--	0.5	0.0
<i>Chironomidae</i>	09021011	0.33	0.00		--	0.5	0.0
<i>Thienemanniella</i>	09021011062	0.33	0.36	6	CG	0.5	0.6
<i>Rheotanytarsus</i>	09021011072	1.00	1.07	6	CF	1.5	1.6
<i>Tanytarsus</i>	09021011076	0.33	0.36	6	CF	0.5	0.6
<i>Microtendipes</i>	09021011094	0.00	0.71	6	CF	0.0	1.1
<i>Microtendipes pedellus-grp.</i>	09021011094166	0.33	0.00		--	0.5	0.0
<i>Microtendipes rydalensis-grp.</i>	09021011094168	0.33	0.00		--	0.5	0.0
<i>Polypedilum</i>	09021011102	0.00	2.50	6	SH	0.0	3.8

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		Actual	Adjusted			Actual	Adjusted
		<i>Polypedilum aviceps</i>	09021011102181			2.33	0.00