

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

Station Information

Station Number: S756	DEP Drainage: Kennebec
Waterbody: Martin Stream (Dixmont)	HUC Code: 01030003
Town: DIXMONT	HUC Name: Lower Kennebec
Directions: 32m below manure outfall	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order:

Sample Information

Log Number: 1403	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: I	
Model Result with P > .6: I	Reason for Determination:	Minimum Provisions not met for
Date Last Calculated:		Total Mean Abundance (Variable 1)

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.70	Class A, B, or C	1.00
Class B	0.27	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.70
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.30

Model Variables

01 Total Abundance of Individuals	43.33	18 Relative Abundance - Ephemeroptera	0.63
02 Generic Richness	24.00	19 EPT Generic Richness	12.00
03 Plecoptera Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	27.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.67	23 Relative Generic Richness- Plecoptera	0.04
06 Hilsenhoff Biotic Index	4.14	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	2.76
07 Relative Abundance - Chironomidae	0.21	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.29	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	14.42
09 <i>Hydropsyche</i> Abundance	1.33	28 EP Generic Richness/14	0.57
11 <i>Cheumatopsyche</i> Abundance	0.33	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	1.71		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
		1	Stenonema	29.42
		2	Baetis	9.88
		3	Polypedilum	8.79
		4	Ephemerella	8.47
		5	Leptophlebiidae	7.68

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Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 17.8 °C	Specific Conductance 126.0 uS/cm	Channel Width: 8.5 m
Velocity: 8 cm/s	Dissolved Oxygen: 9.1 ppm	Channel Depth: 30.0 cm

Summary of Habitat Characteristics

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

Substrate

Bedrock	Boulder	Rubble	Gravel	Sand	Silt
45%	5%	25%	10%	10%	5%

Comments about the Station or Sample

8/24/04 Data:
Flow: 33.3cm/s; Depth: 45cm; Temp: 16.7C; SPC: 86uS/cm; DO: 8.3mg/L; pH:

Comments about the Final Determination

Resample - High water may have influenced Total Mean Abundance

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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>Orconectes</i>	09010301008			0.00	1.00
<i>Orconectes virilis</i>	09010301008016	1.00	0.00		--	2.3	0.0
<i>Acroneuria</i>	09020209042	0.00	1.67	0	PR	0.0	3.9
<i>Acroneuria lycorias</i>	09020209042125	1.67	0.00		--	3.9	0.0
<i>Boyeria</i>	09020301004	0.00	0.33	2	PR	0.0	0.8
<i>Boyeria vinosa</i>	09020301004012	0.33	0.00		--	0.8	0.0
<i>Calopterygidae</i>	09020307	0.33	0.33		--	0.8	0.8
<i>Baetidae</i>	09020401	1.00	0.00		--	2.3	0.0
<i>Baetis</i>	09020401001	2.67	4.28	4	CG	6.2	9.9
<i>Baetis flavistriga</i>	09020401001004	0.67	0.00		--	1.5	0.0
<i>Baetis intercalaris</i>	09020401001008	0.33	0.00		--	0.8	0.0
<i>Acerpenna</i>	09020401007	0.67	2.33	5	CG	1.5	5.4
<i>Acerpenna macdunnoughi</i>	09020401007001	1.33	0.00		--	3.1	0.0
<i>Procloeon</i>	09020401010	0.33	0.39		CG	0.8	0.9
<i>Heptageniidae</i>	09020402	5.67	0.00		--	13.1	0.0
<i>Stenacron</i>	09020402014	0.00	0.58	7	SC	0.0	1.3
<i>Stenacron interpunctatum</i>	09020402014045	0.33	0.00		--	0.8	0.0
<i>Stenonema</i>	09020402015	1.33	12.75	4	SC	3.1	29.4
<i>Stenonema luteum</i>	09020402015049	6.00	0.00		--	13.8	0.0
<i>Leptophlebiidae</i>	09020406	3.33	3.33		--	7.7	7.7
<i>Ephemera</i>	09020410035	3.67	3.67	1	CG	8.5	8.5
<i>Cernotina</i>	09020603006	0.33	0.33		PR	0.8	0.8
<i>Cheumatopsyche</i>	09020604015	0.33	0.33	5	CF	0.8	0.8
<i>Hydropsyche</i>	09020604016	1.33	1.33	4	CF	3.1	3.1
<i>Ceraclea</i>	09020618072	1.00	1.00	3	CG	2.3	2.3
<i>Lepidoptera</i>	090209	0.33	0.33		--	0.8	0.8
<i>Chironomidae</i>	09021011	0.33	0.00		--	0.8	0.0
<i>Corynoneura</i>	09021011036	0.33	0.35	7	CG	0.8	0.8
<i>Cricotopus</i>	09021011037	1.00	1.73	7	SH	2.3	4.0
<i>Cricotopus bicinctus</i>	09021011037057	0.67	0.00		--	1.5	0.0
<i>Thienemanniella</i>	09021011062	0.33	0.69	6	CG	0.8	1.6
<i>Thienemanniella lobapodema</i>	09021011062114	0.33	0.00		--	0.8	0.0
<i>Paratanytarsus</i>	09021011071	0.33	0.35	6	--	0.8	0.8
<i>Rheotanytarsus</i>	09021011072	1.33	1.38	6	CF	3.1	3.2
<i>Tanytarsus</i>	09021011076	0.67	0.69	6	CF	1.5	1.6
<i>Polypedilum</i>	09021011102	0.00	3.81	6	SH	0.0	8.8
<i>Polypedilum aviceps</i>	09021011102181	3.67	0.00		--	8.5	0.0

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		Actual	Adjusted			Actual	Adjusted
		<i>Ferrissia</i>	10010204035			0.00	0.33
<i>Ferrissia walkeri</i>	10010204035067	0.33	0.00	--	0.8	0.0	