



Maine Department of Environmental Protection  
Biological Monitoring Program  
Aquatic Life Classification Attainment Report

Station Information

Station Number: S-756

Waterbody: Martin Stream (dixmont) - Station 756

Town: Dixmont

Directions: 32 M BELOW MANURE OUTFALL

DEP Drainage:

HUC8: 01030003

HUC8 Name: Lower Kennebec

Latitude: 44 43 25.62 N

Longitude: 69 10 27.52 W

Stream Order: 3

Sample Information

Log Number: 2125

Type of Sample: ROCK BAG

Date Deployed: 7/19/2012

Subsample Factor: X1

Replicates: 3

Date Retrieved: 8/22/2012

Classification Attainment

Statutory Class: A

Final Determination: A

Date: 1/16/2013

Model Result with P>.6: A

Reason for Determination: Model

Date Last Calculated: 1/11/2013

Comments:

Model Probabilities

First Stage Model

Class A	0.72	Class C	0.01
Class B	0.27	NA	0.00

B or Better Model

Class A or B	1.00
Class C or Non-Attainment	0.00

C or Better Model

Class A, B, or C	1.00
Non-Attainment	0.00

A Model

Class A	0.89
Class B or C or Non-Attainment	0.11

Model Variables

01 Total Mean Abundance	150.67	18 Relative Abundance Ephemeroptera	0.69																					
02 Generic Richness	37.00	19 EPT Generic Richness	16.00																					
03 Plecoptera Mean Abundance	7.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00																					
04 Ephemeroptera Mean Abundance	104.00	23 Relative Generic Richness- Plecoptera	0.05																					
05 Shannon-Wiener Generic Diversity	3.32	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	4.15																					
06 Hilsenhoff Biotic Index	4.07	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	62.72																					
07 Relative Abundance - Chironomidae	0.14	28 EP Generic Richness/14	0.64																					
08 Relative Generic Richness Diptera	0.32	30 Presence of Class A Indicator Taxa/7	0.14																					
09 <i>Hydropsyche</i> Abundance	2.00	<table><tr><th colspan="3">Five Most Dominant Taxa</th></tr><tr><th>Rank</th><th>Taxon Name</th><th>Percent</th></tr><tr><td>1</td><td><i>Maccaffertium</i></td><td>37.20</td></tr><tr><td>2</td><td><i>Ephemerella</i></td><td>13.72</td></tr><tr><td>3</td><td><i>Stenacron</i></td><td>13.44</td></tr><tr><td>4</td><td><i>Rheotanytarsus</i></td><td>9.39</td></tr><tr><td>5</td><td><i>Acroneuria</i></td><td>4.42</td></tr></table>		Five Most Dominant Taxa			Rank	Taxon Name	Percent	1	<i>Maccaffertium</i>	37.20	2	<i>Ephemerella</i>	13.72	3	<i>Stenacron</i>	13.44	4	<i>Rheotanytarsus</i>	9.39	5	<i>Acroneuria</i>	4.42
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Rank	Taxon Name	Percent																						
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4	<i>Rheotanytarsus</i>	9.39																						
5	<i>Acroneuria</i>	4.42																						
11 <i>Cheumatopsyche</i> Abundance	2.33																							
12 EPT Generic Richness/ Diptera	1.33																							
Generic Richness																								
13 Relative Abundance - Oligochaeta	0.00																							
15 Perlidae Mean Abundance (Family	6.67																							
Functional Group)																								
16 Tanypodinae Mean Abundance	0.00																							
(Family Functional Group)																								
17 Chironomini Abundance (Family	3.26																							
Functional Group)																								



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<b>Station Number: S-756</b>	Town: Dixmont	Date Deployed: 7/19/2012
<b>Log Number: 2125</b>	Waterbody: Martin Stream (dixmont) - Station 756	Date Retrieved: 8/22/2012

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	22.2 deg C
Dissolved Oxygen:	8.7 mg/l
Specific Conductance:	138 uS/cm
Velocity:	31.5 cm/s
pH:	7.85
Wetted Width:	8.6 m
Bankfull Width:	8.6 m
Depth:	45 cm

**Waterbody Information - Retrieval**

Temperature:	21.4 deg C
Dissolved Oxygen:	9.7 mg/l
Specific Conductance:	162 uS/cm
Velocity:	9.7 cm/s
pH:	7.83
Wetted Width:	8.15 m
Bankfull Width:	8.6 m
Depth:	40 cm

**Water Chemistry - 8/22/2012**

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.03 mg/l	Total Phosphorus	0.017 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	5.5 mg/l	Total Dissolved Solids	91 mg/l

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Pasture	Partly Open	Rolling
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Agricultural Runoff	Below Agriculture NPS	Bedrock 65 %
Nutrients		Boulder 30 %
		Rubble/Cobble 5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	12838	High Int. Dev. %	0.1	Water %	0.1	Non-vegetated %	0.1
		Med Int. Dev. %	0.1	Wetland %	5.1	Tilled Agriculture %	4.3
		Low Int. Dev. %	2.2	Upland Woody %	85.3	Grassland %	2.8
		Development %	2.3	Natural %	90.4	Human Altered %	9.5
						Impervious %	2.0

**Sample Comments**

MANY FISH OBSERVED DURING DEPLOYMENT AND RETRIEVAL.



**Maine Department of Environmental Protection  
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Aquatic Life Taxonomic Inventory Report**

**Station Number: S-756**

Waterbody: Martin Stream (dixmont) - Station 756

Town: Dixmont

**Log Number: 2125**

Subsample Factor: X1

Replicates: 3

Calculated: 1/11/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009		0.33		CG		0.2
<i>Nais simplex</i>	08020202009008	0.33			--	0.2	
Perlodidae	09020207	0.67	0.67		--	0.4	0.4
<i>Acroneuria</i>	09020209042		6.67	0	PR		4.4
<i>Acroneuria abnormis</i>	09020209042121	4.67		0	PR	3.1	
<i>Acroneuria lycorias</i>	09020209042125	2.00			--	1.3	
<i>Boyeria</i>	09020301004		2.33	2	PR		1.5
<i>Boyeria vinosa</i>	09020301004012	2.33			--	1.5	
Calopterygidae	09020307	2.00	2.00		--	1.3	1.3
<i>Acerpenna</i>	09020401007	1.67	3.00	5	CG	1.1	2.0
<i>Acerpenna macdunnoughi</i>	09020401007001	1.00			--	0.7	
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.2	
<i>Proclleon</i>	09020401010	1.67	1.67		CG	1.1	1.1
Heptageniidae	09020402	6.00			--	4.0	
<i>Leucrocuta</i>	09020402011	0.33	0.36	1	SC	0.2	0.2
<i>Stenacron</i>	09020402014	18.67	20.25	7	SC	12.4	13.4
<i>Maccaffertium</i>	09020402015	21.33	56.05	4	SC	14.2	37.2
<i>Maccaffertium luteum</i>	09020402015049	29.33			--	19.5	
<i>Maccaffertium modestum</i>	09020402015051	1.00			--	0.7	
Leptophlebiidae	09020406	2.00	2.00		--	1.3	1.3
<i>Ephemerella</i>	09020410035	20.67	20.67	1	CG	13.7	13.7
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.2	0.2
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	0.7	0.7
<i>Cheumatopsyche</i>	09020604015	2.33	2.33	5	CF	1.5	1.5
<i>Hydropsyche</i>	09020604016	1.33	2.00	4	CF	0.9	1.3
<i>Hydropsyche bronta</i>	09020604016029	0.33			--	0.2	
<i>Hydropsyche morosa</i>	09020604016030	0.33			--	0.2	
Limnephilidae	09020610				--		
<i>Apatania</i>	09020610061	1.00	1.00		SC	0.7	0.7
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Oecetis</i>	09020618078	0.67	0.67	8	PR	0.4	0.4
<i>Nigronia</i>	09020701003		0.33	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.2	
Chironomidae	09021011	1.67			--	1.1	
<i>Conchapelopia</i>	09021011004			6	PR		
<i>Cricotopus</i>	09021011037		0.36	7	SH		0.2
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.2	
<i>Nanocladius</i>	09021011049	0.33	0.73	3	CG	0.2	0.5



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		Actual	Adjusted			Actual	Adjusted
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.2	
<i>Micropsectra</i>	09021011070			7	CG		
<i>Rheotanytarsus</i>	09021011072	13.00	14.14	6	CF	8.6	9.4
<i>Stempellinella</i>	09021011074		0.36	2	--		0.2
<i>Stempellinella fimbriata</i>	09021011074002	0.33			--	0.2	
<i>Sublettea</i>	09021011075		0.36		--		0.2
<i>Sublettea coffmani</i>	09021011075131	0.33			--	0.2	
<i>Tanytarsus</i>	09021011076	1.33	1.45	6	CF	0.9	1.0
<i>Microtendipes</i>	09021011094		0.73	6	CF		0.5
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.2	
<i>Nilothauma</i>	09021011095	1.00	1.09	2	--	0.7	0.7
<i>Polypedilum</i>	09021011102		1.45	6	SH		1.0
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	0.7	
<i>Polypedilum flavum</i>	09021011102182	0.33			--	0.2	
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.2	0.2
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.2	0.2
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.2	0.2
<i>Psephenus</i>	09021108058		0.67	4	SC		0.4
<i>Psephenus herricki</i>	09021108058028	0.67			--	0.4	
<i>Dubiraphia</i>	09021113064		1.67	6	--		1.1
<i>Dubiraphia minima</i>	09021113064036	1.33			--	0.9	
<i>Dubiraphia robusta</i>	09021113064040	0.33			--	0.2	
<i>Macronychus</i>	09021113065		0.33	4	--		0.2
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.2	
<i>Stenelmis</i>	09021113070	0.33	2.00	5	SC	0.2	1.3
<i>Stenelmis crenata</i>	09021113070055	1.67			--	1.1	
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.2	0.2