



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

**Station Information**

<b>Station Number:</b> S-756	River Basin: Kennebec
Waterbody: Martin Stream (dixmont) - Station 756	HUC8 Name: Lower Kennebec
Town: Dixmont	Latitude: 44 43 25.62 N
Directions: 32 M BELOW MANURE OUTFALL	Longitude: 69 10 27.52 W
	Stream Order: 3

**Sample Information**

<b>Log Number:</b> 2466	Type of Sample: ROCK BAG	Date Deployed: 7/7/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/3/2016

**Classification Attainment**

<b>Statutory Class:</b> A	<b>Final Determination:</b> B	Date: 12/14/2016
Model Result with $P \geq 0.6$ : B	<b>Reason for Determination:</b> Model	
Date Last Calculated: 10/13/2016	Comments: Class A (.19).	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.27	Class A, B, or C	1.00
Class B	0.52	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.19
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.81

**Model Variables**

01 Total Mean Abundance	96.00	18 Relative Abundance Ephemeroptera	0.67
02 Generic Richness	34.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	1.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.85
04 Ephemeroptera Mean Abundance	64.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.60	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	6.09
06 Hilsenhoff Biotic Index	5.56	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	9.31
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.24	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	1.00		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.38		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.39		
17 Chironomini Abundance (Family Functional Group)	2.55		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Stenacron</i>	39.96
2	<i>Maccaffertium</i>	8.31
3	<i>Tricorythodes</i>	6.25
4	<i>Apatania</i>	6.25
5	<i>Procloeon</i>	5.56



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**Log Number: 2466**      Waterbody: Martin Stream (dixmont) - Station 756      Date Retrieved: 8/3/2016

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 18.6 deg C  
Dissolved Oxygen: 9.6 mg/l  
Dissolved Oxygen Saturation: 103.8 %  
Specific Conductance: 121.4 uS/cm  
Velocity:  
pH: 7.8  
Wetted Width: 8.7 m  
Bankfull Width: 8.7 m  
Depth: 35 cm

**Waterbody Information - Retrieval**

Temperature: 23.3 deg C  
Dissolved Oxygen: 12.45 mg/l  
Dissolved Oxygen Saturation: 146 %  
Specific Conductance: 149.9 uS/cm  
Velocity:  
pH: 8.24  
Wetted Width: 8 m  
Bankfull Width: 8.7 m  
Depth: 28 cm

**Water Chemistry - 8/3/2016**

Nitrate+nitrite As N	0.01 mg/l	Total Phosphorus	14 ug/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	3.6 mg/l
Dissolved Organic Carbon	2.3 mg/l	Total Dissolved Solids	98 mg/l
Orthophosphate As Phosphorus	1 ug/l		

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Partly Open	Rolling
Pasture		
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Agricultural Runoff	Below Agriculture NPS	Bedrock 30 %
Nutrients		Boulder 30 %
		Rubble/Cobble 40 %

**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**

DAIRY FARM IN OPERATION. VISIBLE FLOW AT DEPLOYMENT. 7/7/2016: SILTY; FISH.  
VISIBLE FLOW AT RETRIEVAL. 8/3/2016: SILTY; FISH, FROG, SALAMANDER.



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Town: Dixmont

**Log Number: 2466**

Subsample Factor: X1

Replicates: 3

Calculated: 10/13/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Acroneuria</i>	09020209042		1.33	0	PR		1.4
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	1.4	
<i>Boyeria</i>	09020301004		1.33	2	PR		1.4
<i>Boyeria vinosa</i>	09020301004012	1.33			--	1.4	
<i>Procloeon</i>	09020401010		5.33		CG		5.6
<i>Procloeon rubropictum</i>	09020401010002	5.33			--	5.6	
<i>Neocloeon (Centroptilum)</i>	09020401017		1.67	2	CG		1.7
<i>Neocloeon (Centroptilum) triangulifer</i>	09020401017001	1.67			--	1.7	
Heptageniidae	09020402	5.67			--	5.9	
<i>Stenacron</i>	09020402014		38.36	7	SC		40.0
<i>Stenacron interpunctatum</i>	09020402014045	33.67			--	35.1	
<i>Maccaffertium</i>	09020402015	1.67	7.98	4	SC	1.7	8.3
<i>Maccaffertium luteum</i>	09020402015049	5.33			--	5.6	
Leptophlebiidae	09020406	2.00	2.00		--	2.1	2.1
<i>Paraleptophlebia</i>	09020406026	2.33	2.33	1	CG	2.4	2.4
<i>Tricorythodes</i>	09020411038	6.00	6.00	4	CG	6.3	6.3
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	0.7	0.7
<i>Cernotina</i>	09020603006	0.33	0.33		PR	0.3	0.3
<i>Nyctiophylax</i>	09020603009		0.67	5	PR		0.7
<i>Nyctiophylax moestus</i>	09020603009013	0.67			--	0.7	
<i>Plectrocnemia</i>	09020603012	2.33	2.33	6	PR	2.4	2.4
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	1.0	1.0
<i>Hydropsyche</i>	09020604016	0.67	1.00	4	CF	0.7	1.0
<i>Hydropsyche placoda</i>	09020604016059	0.33			--	0.3	
<i>Pycnopsyche</i>	09020610049	3.67	3.67	4	SH	3.8	3.8
<i>Psilotreta</i>	09020614068		0.67	0	SC		0.7
<i>Psilotreta indecisa</i>	09020614068132	0.67			--	0.7	
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.3	0.3
<i>Mystacides</i>	09020618075		0.67	4	CG		0.7
<i>Mystacides sepulchralis</i>	09020618075147	0.67			--	0.7	
<i>Apatania</i>	09020619061		6.00		SC		6.3
<i>Apatania incerta</i>	09020619061001	6.00			--	6.3	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.3	
Chironomidae	09021011	2.00			--	2.1	
<i>Ablabesmyia</i>	09021011001		3.39	8	PR		3.5
<i>Ablabesmyia mallochii</i>	09021011001004	2.67			--	2.8	



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<i>Cricotopus</i>	09021011037	0.33	1.70	7	SH	0.3	1.8
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.3	
<i>Cricotopus vierriensis</i>	09021011037071	0.67			--	0.7	
<i>Cladotanytarsus</i>	09021011068	0.33	0.42	7	CG	0.3	0.4
<i>Paratanytarsus</i>	09021011071		0.85	6	--		0.9
<i>Paratanytarsus dissimilis</i>	09021011071125	0.67			--	0.7	
<i>Stempellinella</i>	09021011074		0.42	2	--		0.4
<i>Stempellinella fimbriata</i>	09021011074002	0.33			--	0.3	
<i>Dicrotendipes</i>	09021011085		0.85	8	CG		0.9
<i>Dicrotendipes neomodestus</i>	09021011085152	0.67			--	0.7	
<i>Microtendipes</i>	09021011094		1.27	6	CF		1.3
<i>Microtendipes pedellus group</i>	09021011094166	0.67			--	0.7	
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.3	
<i>Nilothauma</i>	09021011095	0.33	0.42	2	--	0.3	0.4
<i>Psephenus</i>	09021108058		0.67	4	SC		0.7
<i>Psephenus herricki</i>	09021108058028	0.67			--	0.7	
<i>Dubiraphia</i>	09021113064		0.67	6	--		0.7
<i>Dubiraphia minima</i>	09021113064036	0.33			--	0.3	
<i>Dubiraphia quadrinotata</i>	09021113064037	0.33			--	0.3	
<i>Optioservus</i>	09021113067	0.67	0.67	3	SC	0.7	0.7
<i>Promoesia</i>	09021113069		0.33		--		0.3
<i>Promoesia tardella</i>	09021113069052	0.33			--	0.3	
<i>Stenelmis</i>	09021113070	0.33	0.33	5	SC	0.3	0.3