



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

Station Information

Station Number: 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

Log Number: 2552	Type of Sample: ROCK BAG	Date Deployed: 7/6/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/2/2017

Classification Attainment

Statutory Class: A	Final Determination: B	Date: 11/6/2017
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 11/6/2017	Comments: Class A (.29)	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.19	Class A, B, or C	1.00
Class B	0.59	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.29
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.71

Model Variables

01 Total Mean Abundance	143.00	18 Relative Abundance Ephemeroptera	0.71
02 Generic Richness	38.00	19 EPT Generic Richness	18.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.67
04 Ephemeroptera Mean Abundance	102.00	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.12	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	6.33
06 Hilsenhoff Biotic Index	5.85	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	19.67
07 Relative Abundance - Chironomidae	0.08	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.26	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	0.67		
11 <i>Cheumatopsyche</i> Abundance	4.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.80		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.67		
17 Chironomini Abundance (Family Functional Group)	4.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stenacron</i>	49.42
2	<i>Maccaffertium</i>	12.82
3	<i>Proclaeon</i>	5.83
4	<i>Cheumatopsyche</i>	3.03
5	<i>Apatania</i>	3.03



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Station Number: S-756 Town: Dixmont Date Deployed: 7/6/2017
Log Number: 2552 Waterbody: Martin Stream (dixmont) - Station 756 Date Retrieved: 8/2/2017

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 22.5 deg C
Dissolved Oxygen: 10.71 mg/l
Dissolved Oxygen Saturation: 122.9 %
Specific Conductance: 130.2 uS/cm
Velocity: 6.1 cm/s
pH: 7.84
Wetted Width: 8.9 m
Bankfull Width: 8.9 m
Depth: 35 cm

Waterbody Information - Retrieval

Temperature: 22.8 deg C
Dissolved Oxygen: 10.3 mg/l
Dissolved Oxygen Saturation: 119.5 %
Specific Conductance: 150.2 uS/cm
Velocity: 7.66
pH: 7.66
Wetted Width: 8.9 m
Bankfull Width: 8.9 m
Depth: 31 cm

Water Chemistry

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 30 %
		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

7/6/17: SILT ON ROCKS, FISH PRESENT.
8/2/17: FLOW VISIBLE. VERY SILTY.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-756

Waterbody: Martin Stream (dixmont) - Station 756

Town: Dixmont

Log Number: 2552

Subsample Factor: X1

Replicates: 3

Calculated: 11/6/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Cambaridae	09010301	0.33	0.33		--	0.2	0.2
<i>Paracapnia</i>	09020203018	0.33	0.33	1	SH	0.2	0.2
<i>Acroneuria</i>	09020209042	0.33	1.33	0	PR	0.2	0.9
<i>Acroneuria arenosa</i>	09020209042122	1.00			--	0.7	
<i>Boyeria</i>	09020301004		3.00	2	PR		2.1
<i>Boyeria vinosa</i>	09020301004012	3.00			--	2.1	
Coenagrionidae	09020309	0.33	0.33		--	0.2	0.2
<i>Procloeon</i>	09020401010	1.00	8.33		CG	0.7	5.8
<i>Procloeon rufostrigatum</i>	09020401010003	7.33			--	5.1	
<i>Stenacron</i>	09020402014		70.67	7	SC		49.4
<i>Stenacron interpunctatum</i>	09020402014045	70.67			--	49.4	
<i>Maccaffertium</i>	09020402015	8.33	18.33	4	SC	5.8	12.8
<i>Maccaffertium mediopunctatum</i>	09020402015050	0.33			--	0.2	
<i>Maccaffertium vicarium</i>	09020402015055	9.67			--	6.8	
Leptophlebiidae	09020406	0.67	0.67		--	0.5	0.5
<i>Paraleptophlebia</i>	09020406026	0.67	0.67	1	CG	0.5	0.5
<i>Eurylophella</i>	09020410036		0.33	3	CG		0.2
<i>Eurylophella funeralis</i>	09020410036115	0.33			SH	0.2	
<i>Tricorythodes</i>	09020411038	2.33	2.33	4	CG	1.6	1.6
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	0.5	0.5
<i>Nyctiophylax</i>	09020603009	0.67	0.67	5	PR	0.5	0.5
<i>Polycentropus</i>	09020603010	3.67	3.67	6	PR	2.6	2.6
<i>Cheumatopsyche</i>	09020604015	4.33	4.33	5	CF	3.0	3.0
<i>Hydropsyche</i>	09020604016		0.67	4	CF		0.5
<i>Hydropsyche bronta</i>	09020604016029	0.67			--	0.5	
<i>Pycnopsyche</i>	09020610049	3.67	3.67	4	SH	2.6	2.6
<i>Psilotreta</i>	09020614068		0.67	0	SC		0.5
<i>Psilotreta labida</i>	09020614068133	0.67			--	0.5	
<i>Mystacides</i>	09020618075		1.00	4	CG		0.7
<i>Mystacides sepulchralis</i>	09020618075147	1.00			--	0.7	
<i>Apatania</i>	09020619061	4.33	4.33		SC	3.0	3.0
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	1.00	1.00	8	PR	0.7	0.7
<i>Paramerina</i>	09021011013	0.33	0.33		--	0.2	0.2
<i>Thienemannimyia</i>	09021011020		2.33	3	PR		1.6
<i>Thienemannimyia group</i>	09021011020041	2.33			--	1.6	
<i>Paratanytarsus</i>	09021011071	2.00	2.00	6	--	1.4	1.4



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<i>Rheotanytarsus</i>	09021011072		0.67	6	CF		0.5
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.67			CF	0.5	
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	0.2	0.2
<i>Tanytarsus</i>	09021011076	1.00	1.00	6	CF	0.7	0.7
<i>Dicrotendipes</i>	09021011085	1.67	1.67	8	CG	1.2	1.2
<i>Microtendipes</i>	09021011094		2.00	6	CF		1.4
<i>Microtendipes pedellus group</i>	09021011094166	1.67			--	1.2	
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.2	
<i>Polypedilum</i>	09021011102		0.67	6	SH		0.5
<i>Polypedilum aviceps</i>	09021011102181	0.67			--	0.5	
<i>Dubiraphia</i>	09021113064	2.00	2.00	6	--	1.4	1.4
<i>Promoresia</i>	09021113069		0.67		--		0.5
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.2	
<i>Promoresia tardella</i>	09021113069052	0.33			--	0.2	
<i>Stenelmis</i>	09021113070	0.67	0.67	5	SC	0.5	0.5
<i>Sperchonopsis</i>	09030107002	0.33	0.33		--	0.2	0.2
Cladocera	090504	0.33	0.33		--	0.2	0.2
<i>Gyraulus</i>	10010203029		0.33		SC		0.2
<i>Gyraulus parvus</i>	10010203029057	0.33			--	0.2	
Ancylidae	10010204	0.33	0.33		SC	0.2	0.2