



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

Station Information

Station Number: S-859
Waterbody: East Cathance Stream - Station 859
Town: Bowdoin
Directions: UPSTREAM OF RTE. 125
DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 44 2 1.15 N
Longitude: 69 57 0.44 W
Stream Order: 2

Sample Information

Log Number: 2205
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/18/2013
Date Retrieved: 8/15/2013

Classification Attainment

Statutory Class: B
Model Result with P>.6: B
Date Last Calculated: 1/27/2014
Final Determination: B
Reason for Determination: Model
Date: 1/27/2014
Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.42	Class A, B, or C	1.00
Class B	0.47	Non-Attainment	0.00
Class C			
	0.10		
NA			
	0.00		
B or Better Model		A Model	
Class A or B	0.99	Class A	0.09
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.91

Model Variables

01 Total Mean Abundance	271.33	18 Relative Abundance Ephemeroptera	0.24
02 Generic Richness	45.00	19 EPT Generic Richness	15.00
03 Plecoptera Mean Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	65.67	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.22	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	36.00
06 Hilsenhoff Biotic Index	4.68	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	53.67
07 Relative Abundance - Chironomidae	0.36	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.40	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	12.33		
11 <i>Cheumatopsyche</i> Abundance	28.33		
12 EPT Generic Richness/ Diptera	0.83		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family	0.33		
Functional Group)			
16 Tanypodinae Mean Abundance	17.33		
(Family Functional Group)			
17 Chironomini Abundance (Family	51.33		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	19.66
2	<i>Polypedilum</i>	15.36
3	<i>Cheumatopsyche</i>	10.44
4	<i>Thienemannimyia</i>	5.28
5	<i>Hydropsyche</i>	4.55



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Station Number: S-859	Town: Bowdoin	Date Deployed: 7/18/2013
Log Number: 2205	Waterbody: East Cathance Stream - Station 859	Date Retrieved: 8/15/2013

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: LOTIC INC.

Waterbody Information - Deployment

Temperature:	23.9 deg C
Dissolved Oxygen:	6 mg/l
Specific Conductance:	62 uS/cm
Velocity:	67.1 cm/s
pH:	6.4
Wetted Width:	6.7 m
Bankfull Width:	6.7 m
Depth:	40 cm

Waterbody Information - Retrieval

Temperature:	17.7 deg C
Dissolved Oxygen:	6.9 mg/l
Specific Conductance:	42 uS/cm
Velocity:	70.3 cm/s
pH:	6.23
Wetted Width:	5.7 m
Bankfull Width:	6.7 m
Depth:	45 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Flat
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
BOD (Low DO)	Above Road Crossing	Detritus 20 %
		Sand 80 %

Landcover Summary - 2004 Data

Total Area (ac)	7624	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	5.5	Tilled Agriculture %	0.4
		Low Int. Dev. %	2.2	Upland Woody %	88.1	Grassland %	3.6
		Development %	2.4	Natural %	93.6	Human Altered %	6.4
						Impervious %	2.4

Sample Comments

7/18/2013 - VALESNARIA AND PICKEREL WEED OBSERVED IN WATER, FISH OBSERVED



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

Station Number: S-859	Waterbody: East Cathance Stream - Station 859	Town: Bowdoin
Log Number: 2205	Subsample Factor: X1	Replicates: 3
		Calculated: 1/27/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Lumbriculus</i>	08020101002	2.00	2.00		CG	0.7	0.7
<i>Limnodrilus</i>	08020202022	1.00	1.00		CG	0.4	0.4
<i>Erpobdella</i>	08030203002	0.33	0.33		--	0.1	0.1
<i>Hyaella</i>	09010203006	4.33	4.33	8	CG	1.6	1.6
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.1	0.1
<i>Acroneuria</i>	09020209042		0.33	0	PR		0.1
<i>Acroneuria carolinensis</i>	09020209042123	0.33			--	0.1	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.5
<i>Boyeria grafiana</i>	09020301004011	1.00			--	0.4	
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.1	
<i>Calopteryx</i>	09020307043	1.00	1.00	5	PR	0.4	0.4
<i>Baetis</i>	09020401001		3.67	4	CG		1.4
<i>Baetis intercalaris</i>	09020401001008	3.67			--	1.4	
<i>Centropilum</i>	09020401003	0.33	0.33	2	CG	0.1	0.1
<i>Acerpenna</i>	09020401007		2.33	5	CG		0.9
<i>Acerpenna macdunnoughi</i>	09020401007001	2.33			--	0.9	
<i>Maccaffertium</i>	09020402015		53.33	4	SC		19.7
<i>Maccaffertium modestum</i>	09020402015051	53.33			--	19.7	
<i>Paraleptophlebia</i>	09020406026	6.00	6.00	1	CG	2.2	2.2
<i>Chimarra</i>	09020601003		4.00	2	CF		1.5
<i>Chimarra aterrima</i>	09020601003002	4.00			--	1.5	
<i>Neureclipsis</i>	09020603008	3.00	3.00	7	CF	1.1	1.1
<i>Phylocentropus</i>	09020603011	3.33	3.33	5	CF	1.2	1.2
<i>Cheumatopsyche</i>	09020604015	28.33	28.33	5	CF	10.4	10.4
<i>Hydropsyche</i>	09020604016	12.33	12.33	4	CF	4.5	4.5
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.1	0.1
<i>Hydatophylax</i>	09020610048	0.67	0.67	2	SH	0.2	0.2
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.1	0.1
<i>Nigronia</i>	09020701003		4.00	0	PR		1.5
<i>Nigronia serricornis</i>	09020701003003	4.00			--	1.5	
<i>Dicranota</i>	09021001005	10.00	10.00	3	PR	3.7	3.7
<i>Hexatoma</i>	09021001008	0.33	0.33	2	PR	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	4.00	4.00	6	PR	1.5	1.5
<i>Larsia</i>	09021011009	2.33	2.33	6	PR	0.9	0.9
<i>Procladius</i>	09021011015	0.67	0.67	9	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		14.33	3	PR		5.3
<i>Thienemannimyia/arctopelopia</i> <i>group</i>	09021011020041	14.33			--	5.3	



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Town: Bowdoin

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Subsample Factor: X1

Replicates: 3

Calculated: 1/27/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Corynoneura</i>	09021011036	2.00	2.00	7	CG	0.7	0.7
<i>Cricotopus</i>	09021011037		2.00	7	SH		0.7
<i>Cricotopus bicinctus</i>	09021011037057	2.00			--	0.7	
<i>Parametriocnemus</i>	09021011053	11.67	11.67	5	CG	4.3	4.3
<i>Tvetenia</i>	09021011065		0.33	5	CG		0.1
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.1	
<i>Rheotanytarsus</i>	09021011072	8.33	8.33	6	CF	3.1	3.1
<i>Tanytarsus</i>	09021011076	5.67	5.67	6	CF	2.1	2.1
<i>Cryptochironomus</i>	09021011082	9.67	9.67	8	PR	3.6	3.6
<i>Polypedilum</i>	09021011102		41.67	6	SH		15.4
<i>Polypedilum aviceps</i>	09021011102181	8.00			--	2.9	
<i>Polypedilum scalaenum group</i>	09021011102189	33.67			--	12.4	
<i>Simulium</i>	09021012047	9.67	9.67	4	CF	3.6	3.6
<i>Chrysops</i>	09021014052	0.33	0.33	6	CG	0.1	0.1
<i>Clinocera</i>	09021016056	0.33	0.33	3	PR	0.1	0.1
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.5	0.5
<i>Dineutus</i>	09021104032	0.33	0.33	2	--	0.1	0.1
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	0.2	0.2
<i>Optioservus</i>	09021113067	2.00	2.00	3	SC	0.7	0.7
<i>Stenelmis</i>	09021113070	2.00	2.00	5	SC	0.7	0.7
<i>Sphaerium</i>	10020201003	9.00	9.00		CF	3.3	3.3