



Maine Department of Environmental Protection

Biological Monitoring Program

Aquatic Life Classification Attainment Report

Station Information

Station Number: S-1116 Waterbody: Richardson Brook - Station 1116 Town: T19 Ed Bpp Directions: PARK AT WIDE SPOT IN ROAD JUST SOUTH OF THE BRIDGE TO WALK DOWNSTREAM TO THE LOWER SITE.	River Basin: Maine Coastal HUC8 Name: Maine Coastal Latitude: 44 55 34.18 N Longitude: 67 29 34.88 W Stream Order: 2
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Sample Information

Log Number: 2590	Type of Sample: ROCK BAG	Date Deployed: 7/27/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/28/2017

Classification Attainment

Statutory Class: A	Final Determination: A	Date: 3/16/2018
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 3/15/2018	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.96	Class A, B, or C	1.00
Class B	0.04	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	56.33	18 Relative Abundance Ephemeroptera	0.31
02 Generic Richness	31.00	19 EPT Generic Richness	13.00
03 Plecoptera Mean Abundance	5.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	17.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	4.17	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	3.07
06 Hilsenhoff Biotic Index	2.78	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	7.89
07 Relative Abundance - Chironomidae	0.14	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.29	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.44		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	5.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.15		
17 Chironomini Abundance (Family Functional Group)	1.53		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Lepidostoma</i>	15.98
2	<i>Paraleptophlebia</i>	15.38
3	<i>Acroneuria</i>	8.88
4	<i>Leptophlebiidae</i>	7.69
5	<i>Tanytarsus</i>	5.44



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	17.6 deg C
Dissolved Oxygen:	10.64 mg/l
Dissolved Oxygen Saturation:	110.5 %
Specific Conductance:	10.6 uS/cm
Velocity:	3 cm/s
pH:	6.59
Wetted Width:	2.5 m
Bankfull Width:	4 m
Depth:	36.3 cm

Waterbody Information - Retrieval

Temperature:	17.9 deg C
Dissolved Oxygen:	10.75 mg/l
Dissolved Oxygen Saturation:	110.9 %
Specific Conductance:	23.4 uS/cm
Velocity:	
pH:	6.21
Wetted Width:	2.3 m
Bankfull Width:	4 m
Depth:	31.7 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Partly Open	Rolling
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Below Road Crossing	Boulder 30 %
		Gravel 5 %
		Rubble/Cobble 60 %
		Sand 5 %

Landcover Summary - 2004 Data

Sample Comments

VELOCITY VISIBLE AT RETRIEVAL. FISH PRESENT.



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

Station Number: S-1116	Waterbody: Richardson Brook - Station 1116	Town: T19 Ed Bpp
Log Number: 2590	Subsample Factor: X1	Replicates: 3
		Calculated: 3/15/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Acroneuria</i>	09020209042	0.33	5.00	0	PR	0.6	8.9
<i>Acroneuria lycorias</i>	09020209042125	4.67			--	8.3	
Aeshnidae	09020301	0.33	0.33		--	0.6	0.6
<i>Boyeria</i>	09020301004	0.33	1.33	2	PR	0.6	2.4
<i>Boyeria vinosa</i>	09020301004012	1.00			--	1.8	
Corduliidae	09020305	0.67	0.67		--	1.2	1.2
<i>Helocordulia</i>	09020305025		0.33		PR		0.6
<i>Helocordulia selysii</i>	09020305025051	0.33			--	0.6	
<i>Calopteryx</i>	09020307043		2.33	5	PR		4.1
<i>Calopteryx aequabilis</i>	09020307043085	1.00			--	1.8	
<i>Calopteryx maculata</i>	09020307043088	1.33			--	2.4	
Heptageniidae	09020402	0.33			--	0.6	
<i>Leucrocota</i>	09020402011	1.33	1.44	1	SC	2.4	2.6
<i>Maccaffertium</i>	09020402015	2.00	2.89	4	SC	3.6	5.1
<i>Maccaffertium luteum</i>	09020402015049	0.67			--	1.2	
Leptophlebiidae	09020406	4.33	4.33		--	7.7	7.7
<i>Paraleptophlebia</i>	09020406026	8.67	8.67	1	CG	15.4	15.4
<i>Plectrocnemia</i>	09020603012	2.67	2.67	6	PR	4.7	4.7
<i>Brachycentrus</i>	09020609043		0.67	0	CF		1.2
<i>Brachycentrus appalachia</i>	09020609043096	0.67			--	1.2	
Limnephilidae	09020610				--		
<i>Lepidostoma</i>	09020611064	9.00	9.00	1	SH	16.0	16.0
<i>Psilotreta</i>	09020614068	0.67	0.67	0	SC	1.2	1.2
<i>Helicopsyche</i>	09020616070		0.33	3	SC		0.6
<i>Helicopsyche borealis</i>	09020616070137	0.33			--	0.6	
<i>Ceraclea</i>	09020618072	1.00	1.00	3	CG	1.8	1.8
<i>Mystacides</i>	09020618075		1.67	4	CG		3.0
<i>Mystacides sepulchralis</i>	09020618075147	1.67			--	3.0	
<i>Oecetis</i>	09020618078	2.67	3.00	8	PR	4.7	5.3
<i>Oecetis persimilis</i>	09020618078157	0.33			--	0.6	
Chironomidae	09021011	1.00			--	1.8	
<i>Meropelopia</i>	09021011010	0.67	0.77		--	1.2	1.4
<i>Paramerina</i>	09021011013	0.33	0.38		--	0.6	0.7
<i>Tvetenia</i>	09021011065		0.38	5	CG		0.7
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.6	
<i>Stempellinella</i>	09021011074		1.53	2	--		2.7
<i>Stempellinella leptocelloides</i>	09021011074001	0.33			--	0.6	



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<i>Stempellinella fimbriata</i>	09021011074002	1.00			--	1.8	
<i>Tanytarsus</i>	09021011076	2.67	3.07	6	CF	4.7	5.4
<i>Lauterborniella</i>	09021011092		0.38		CG		0.7
<i>Lauterborniella agrayloides</i>	09021011092001	0.33			--	0.6	
<i>Microtendipes</i>	09021011094		0.38	6	CF		0.7
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.6	
<i>Phaenopsectra</i>	09021011101		0.38	7	SC		0.7
<i>Phaenopsectra obediens</i>	09021011101182	0.33			SC	0.6	
<i>Polypedilum</i>	09021011102		0.38	6	SH		0.7
<i>Polypedilum illinoense</i>	09021011102204	0.33			--	0.6	
<i>Dubiraphia</i>	09021113064		1.00	6	--		1.8
<i>Dubiraphia quadrinotata</i>	09021113064037	1.00			--	1.8	
<i>Stenelmis</i>	09021113070	0.33	0.33	5	SC	0.6	0.6
<i>Amnicola</i>	10010104013		0.67		SC		1.2
<i>Amnicola limosus</i>	10010104013018	0.67			--	1.2	
<i>Physa</i>	10010202027	0.33	0.33		SC	0.6	0.6