



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

Station Information

Station Number: S-1117	River Basin: Maine Coastal
Waterbody: Richardson Brook - Station 1117	HUC8 Name: Maine Coastal
Town: T19 Ed Bpp	Latitude: 44 55 34.17 N
Directions: DRIVE 250 FEET FURTHER SOUTH ON 19 RD THAN S-1116. PARK IN SMALL PULL OFF ON LEFT. WALK UPSTREAM THROUGH WOODS.	Longitude: 67 29 25.92 W
	Stream Order: 2

Sample Information

Log Number: 2591	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	0.94	Class A, B, or C	1.00
Class B	0.06	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	1.00
Class A or B	1.00	Class B or C or Non-Attainment	0.00
Class C or Non-Attainment	0.00		

Model Variables

01 Total Mean Abundance	105.67	18 Relative Abundance Ephemeroptera	0.49
02 Generic Richness	37.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	3.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.33
04 Ephemeroptera Mean Abundance	52.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.99	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.00
06 Hilsenhoff Biotic Index	3.01	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	12.64
07 Relative Abundance - Chironomidae	0.03	28 EP Generic Richness/14	0.57
08 Relative Generic Richness Diptera	0.24	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	2.11		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	3.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.33		
17 Chironomini Abundance (Family Functional Group)	0.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Paraleptophlebia</i>	16.72
2	<i>Lepidostoma</i>	16.40
3	Leptophlebiidae	12.30
4	<i>Maccaffertium</i>	9.12
5	<i>Oecetis</i>	5.61



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 17.7 deg C
Dissolved Oxygen: 10.23 mg/l
Dissolved Oxygen Saturation: 106.5 %
Specific Conductance: 20.2 uS/cm
Velocity: 6.1 cm/s
pH: 6.44
Wetted Width: 1.9 m
Bankfull Width: 4.9 m
Depth: 27 cm

Waterbody Information - Retrieval

Temperature: 15.1 deg C
Dissolved Oxygen: 11.11 mg/l
Dissolved Oxygen Saturation: 108.1 %
Specific Conductance: 20.6 uS/cm
Velocity:
pH: 5.37
Wetted Width: 1.4 m
Bankfull Width: 4.9 m
Depth: 21.3 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>	
	Above Road Crossing	Boulder	60 %
		Rubble/Cobble	40 %

Landcover Summary - 2004 Data

Sample Comments

FLOW VISIBLE AT RETRIEVAL.



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

Station Number: S-1117 Waterbody: Richardson Brook - Station 1117 Town: T19 Ed Bpp
Log Number: 2591 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	3.00	0	PR	0.3	2.8
<i>Acroneuria lycorias</i>	09020209042125	2.67			--	2.5	
<i>Boyeria</i>	09020301004		2.67	2	PR		2.5
<i>Boyeria vinosa</i>	09020301004012	2.67			--	2.5	
<i>Helocordulia</i>	09020305025		0.33		PR		0.3
<i>Helocordulia selysii</i>	09020305025051	0.33			--	0.3	
<i>Calopteryx</i>	09020307043		1.00	5	PR		0.9
<i>Calopteryx aequabilis</i>	09020307043085	1.00			--	0.9	
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.3
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.3	
Heptageniidae	09020402	1.67			--	1.6	
<i>Leucrocota</i>	09020402011	2.33	2.70	1	SC	2.2	2.6
<i>Maccaffertium</i>	09020402015	5.00	9.64	4	SC	4.7	9.1
<i>Maccaffertium luteum</i>	09020402015049	2.67			--	2.5	
<i>Maccaffertium modestum</i>	09020402015051	0.67			--	0.6	
Leptophlebiidae	09020406	13.00	13.00		--	12.3	12.3
<i>Paraleptophlebia</i>	09020406026	17.67	17.67	1	CG	16.7	16.7
Ephemerellidae	09020410	5.33	5.33		--	5.0	5.0
<i>Eurylophella</i>	09020410036	3.33	3.33	3	CG	3.2	3.2
<i>Cernotina</i>	09020603006	0.33	0.33		PR	0.3	0.3
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.3	0.3
<i>Plectrocnemia</i>	09020603012	5.67	5.67	6	PR	5.4	5.4
Hydropsychidae	09020604	0.33	0.33		--	0.3	0.3
<i>Hydroptila</i>	09020607026	2.67	2.67	6	P	2.5	2.5
<i>Brachycentrus</i>	09020609043		0.33	0	CF		0.3
<i>Brachycentrus appalachia</i>	09020609043096	0.33			--	0.3	
Limnephilidae	09020610				--		
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.3	0.3
<i>Lepidostoma</i>	09020611064	17.33	17.33	1	SH	16.4	16.4
Leptoceridae	09020618	0.33			--	0.3	
<i>Ceraclea</i>	09020618072	1.00	1.05	3	CG	0.9	1.0
<i>Mystacides</i>	09020618075		0.70	4	CG		0.7
<i>Mystacides sepulchralis</i>	09020618075147	0.67			--	0.6	
<i>Oecetis</i>	09020618078	5.33	5.92	8	PR	5.0	5.6
<i>Oecetis persimilis</i>	09020618078157	0.33			--	0.3	
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.3	0.3
<i>Labrundinia</i>	09021011008		0.33	7	PR		0.3



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<i>Labrundinia pilosella</i>	09021011008022	0.33			--	0.3	
<i>Cricotopus</i>	09021011037		0.33	7	SH		0.3
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.3	
<i>Psectrocladius</i>	09021011056		0.33	8	CG		0.3
<i>Psectrocladius simulans</i>	09021011056110	0.33			--	0.3	
<i>Micropsectra</i>	09021011070	0.33	0.33	7	CG	0.3	0.3
<i>Stempellinella</i>	09021011074		0.33	2	--		0.3
<i>Stempellinella leptocelloides</i>	09021011074001	0.33			--	0.3	
<i>Stempellinella fimbriata</i>	09021011074002				--		
<i>Tanytarsus</i>	09021011076	0.67	0.67	6	CF	0.6	0.6
<i>Microtendipes</i>	09021011094		0.33	6	CF		0.3
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.3	
<i>Paracricotopus</i>	09021011110	0.67	0.67		CG	0.6	0.6
<i>Psephenus</i>	09021108058		0.33	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.3	
Elmidae	09021113	0.33			--	0.3	
<i>Dubiraphia</i>	09021113064		3.14	6	--		3.0
<i>Dubiraphia quadrinotata</i>	09021113064037	3.00			--	2.8	
<i>Macronychus</i>	09021113065		0.70	4	--		0.7
<i>Macronychus glabratus</i>	09021113065040	0.67			--	0.6	
<i>Promoresia</i>	09021113069		3.14		--		3.0
<i>Promoresia tardella</i>	09021113069052	3.00			--	2.8	
<i>Stenelmis</i>	09021113070	0.33	0.35	5	SC	0.3	0.3
<i>Amnicola</i>	10010104013		0.33		SC		0.3
<i>Amnicola limosus</i>	10010104013018	0.33			--	0.3	