



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

Station Information

Station Number: S-850	River Basin: Maine Coastal
Waterbody: Little River - Station 850	HUC8 Name: Maine Coastal
Town: Belfast	Latitude: 44 24 18.29 N
Directions: 50M UPSTREAM OF RT. 52	Longitude: 69 1 52.49 W
	Stream Order: 2

Sample Information

Log Number: 2559	Type of Sample: ROCK BAG	Date Deployed: 7/11/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/8/2017

Classification Attainment

Statutory Class: B	Final Determination: C	Date: 12/11/2017
Model Result with $P \geq 0.6$: C	Reason for Determination: Model	
Date Last Calculated: 12/8/2017	Comments: Habitat Effect.	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.01	Class C	0.92
Class B	0.06	NA	0.01
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B		Class A	0.25
Class C or Non-Attainment	0.96	Class B or C or Non-Attainment	0.75

Model Variables

01 Total Mean Abundance	209.67	18 Relative Abundance Ephemeroptera	0.20
02 Generic Richness	54.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	41.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.43	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	30.67
06 Hilsenhoff Biotic Index	5.37	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	3.87
07 Relative Abundance - Chironomidae	0.42	28 EP Generic Richness/14	0.79
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.12		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	10.00		
17 Chironomini Abundance (Family Functional Group)	25.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	Physidae	11.92
2	<i>Tanytarsus</i>	11.76
3	<i>Microtendipes</i>	11.29
4	<i>Paratanytarsus</i>	10.02
5	<i>Tricorythodes</i>	7.31



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Station Number: S-850 Town: Belfast Date Deployed: 7/11/2017
Log Number: 2559 Waterbody: Little River - Station 850 Date Retrieved: 8/8/2017

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 20.3 deg C
Dissolved Oxygen: 10.55 mg/l
Dissolved Oxygen Saturation: 115.8 %
Specific Conductance: 191.3 uS/cm
Velocity:
pH: 7.54
Wetted Width: 2.9 m
Bankfull Width: 5.2 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 16.3 deg C
Dissolved Oxygen: 10.29 mg/l
Dissolved Oxygen Saturation: 103.9 %
Specific Conductance: 150.6 uS/cm
Velocity: 3 cm/s
pH: 7.65
Wetted Width: 2.8 m
Bankfull Width: 5.2 m
Depth: 31 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Swamp Hardwood	Partly Open	Rolling
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Above Road Crossing	Gravel 30 % Rubble/Cobble 60 % Sand 10 %

Landcover Summary - 2004 Data

Total Area (ac)	7849	High Int. Dev. %	1.0	Water %	0.1	Non-vegetated %	0.1
		Med Int. Dev. %	0.9	Wetland %	4.5	Tilled Agriculture %	2.4
		Low Int. Dev. %	3.7	Upland Woody %	75.4	Grassland %	9.6
		Development %	5.7	Natural %	78.0	Human Altered %	22.0
						Impervious %	4.3

Sample Comments

AT DEPLOYMENT FLOW WAS VISIBLE. FISH WERE PRESENT, AND THERE WAS A BIG BLOWDOWN SINCE STREAM WAS LAST SAMPLED.



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-850

Waterbody: Little River - Station 850

Town: Belfast

Log Number: 2559

Subsample Factor: X1

Replicates: 3

Calculated: 12/8/2017

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Hydra</i>	02010101001	1.00	1.00		PR	0.5	0.5
<i>Girardia</i>	03010102002	1.33	1.33		--	0.6	0.6
<i>Nais</i>	08020202009	0.33	0.33		CG	0.2	0.2
Isotomidae	09020102	0.33	0.33		--	0.2	0.2
<i>Boyeria</i>	09020301004	0.67	1.67	2	PR	0.3	0.8
<i>Boyeria vinosa</i>	09020301004012	1.00			--	0.5	
<i>Cordulegaster</i>	09020303019	0.33	0.33	3	PR	0.2	0.2
Corduliidae	09020305	0.67	0.67		--	0.3	0.3
<i>Calopteryx</i>	09020307043	0.67	0.67	5	PR	0.3	0.3
<i>Baetis</i>	09020401001		0.33	4	CG		0.2
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.2	
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.2
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.2	
<i>Proclleon</i>	09020401010	4.67	4.67		CG	2.2	2.2
Heptageniidae	09020402	1.00			--	0.5	
<i>Leucrocuta</i>	09020402011	0.33	0.35	1	SC	0.2	0.2
<i>Stenacron</i>	09020402014		14.44	7	SC		6.9
<i>Stenacron interpunctatum</i>	09020402014045	13.67			--	6.5	
<i>Maccaffertium</i>	09020402015	2.67	3.87	4	SC	1.3	1.8
<i>Maccaffertium vicarium</i>	09020402015055	1.00			--	0.5	
<i>Paraleptophlebia</i>	09020406026	0.33	0.33	1	CG	0.2	0.2
<i>Eurylophella</i>	09020410036		0.33	3	CG		0.2
<i>Eurylophella funeralis</i>	09020410036115	0.33			SH	0.2	
<i>Serratella</i>	09020410037		0.67	2	CG		0.3
<i>Serratella serrata</i>	09020410037123	0.33			--	0.2	
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.2	
<i>Tricorythodes</i>	09020411038	15.33	15.33	4	CG	7.3	7.3
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	0.3	0.3
<i>Polycentropus</i>	09020603010	1.67	1.67	6	PR	0.8	0.8
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.2	0.2
<i>Oxyethira</i>	09020607028			3	P		
<i>Micrasema</i>	09020609044			2	SH		
<i>Pycnopsyche</i>	09020610049	4.33	4.33	4	SH	2.1	2.1
<i>Lepidostoma</i>	09020611064	0.67	0.67	1	SH	0.3	0.3
<i>Helicopsyche</i>	09020616070	2.67	2.67	3	SC	1.3	1.3
Leptoceridae	09020618	2.33	2.33		--	1.1	1.1
<i>Mystacides</i>	09020618075		8.00	4	CG		3.8



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Station Number: S-850

Waterbody: Little River - Station 850

Town: Belfast

Log Number: 2559

Subsample Factor: X1

Replicates: 3

Calculated: 12/8/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Mystacides sepulchralis</i>	09020618075147	8.00			--	3.8	
<i>Apatania</i>	09020619061	4.67	4.67		SC	2.2	2.2
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.2	0.2
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	5.33	5.33	8	PR	2.5	2.5
<i>Paramerina</i>	09021011013	3.00	3.00		--	1.4	1.4
<i>Thienemannimyia</i>	09021011020		1.33	3	PR		0.6
<i>Thienemannimyia group</i>	09021011020041	1.33			--	0.6	
<i>Zavrelimyia</i>	09021011022	0.33	0.33	8	PR	0.2	0.2
<i>Cricotopus</i>	09021011037		0.67	7	SH		0.3
<i>Cricotopus bicinctus</i>	09021011037057	0.67			--	0.3	
<i>Orthocladius</i>	09021011050		1.67	6	CG		0.8
<i>Orthocladius annectens</i>	09021011050092	1.67			--	0.8	
<i>Tvetenia</i>	09021011065		1.67	5	CG		0.8
<i>Tvetenia vitracies</i>	09021011065113	1.33			--	0.6	
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.2	
<i>Paratanytarsus</i>	09021011071	21.00	21.00	6	--	10.0	10.0
<i>Rheotanytarsus</i>	09021011072		2.00	6	CF		1.0
<i>Rheotanytarsus exiguus group</i>	09021011072127	2.00			CF	1.0	
<i>Stempellinella</i>	09021011074	0.67	0.67	2	--	0.3	0.3
<i>Tanytarsus</i>	09021011076	24.67	24.67	6	CF	11.8	11.8
<i>Microtendipes</i>	09021011094		23.67	6	CF		11.3
<i>Microtendipes pedellus group</i>	09021011094166	8.33			--	4.0	
<i>Microtendipes rydalis group</i>	09021011094168	15.33			--	7.3	
<i>Paratendipes</i>	09021011100	0.67	0.67	8	CG	0.3	0.3
<i>Phaenopsectra</i>	09021011101	0.33	0.33	7	SC	0.2	0.2
<i>Polypedilum</i>	09021011102		0.67	6	SH		0.3
<i>Polypedilum aviceps</i>	09021011102181	0.67			--	0.3	
<i>Neoplasta</i>	09021016064	0.33	0.33		PR	0.2	0.2
<i>Anacaena</i>	09021105041	0.33	0.33		--	0.2	0.2
<i>Psephenus</i>	09021108058		10.33	4	SC		4.9
<i>Psephenus herricki</i>	09021108058028	10.33			--	4.9	
<i>Dubiraphia</i>	09021113064	2.67	2.67	6	--	1.3	1.3
<i>Optioservus</i>	09021113067	0.67	1.33	3	SC	0.3	0.6
<i>Optioservus ovalis</i>	09021113067046	0.67			--	0.3	
<i>Oulimnius</i>	09021113068		0.33		--		0.2
<i>Oulimnius latiusculus</i>	09021113068049	0.33			--	0.2	
<i>Promoresia</i>	09021113069		1.33		--		0.6



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Subsample Factor: X1

Town: Belfast
Replicates: 3
Calculated: 12/8/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Promoesia tardella</i>	09021113069052	1.33			--	0.6	
<i>Stenelmis</i>	09021113070	0.33	7.00	5	SC	0.2	3.3
<i>Stenelmis crenata</i>	09021113070055	6.67			--	3.2	
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.2	0.2
Physidae	10010202	25.00	25.00		SC	11.9	11.9
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.2	0.2