



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

Station Information

Station Number: S-112	DEP Drainage: St. Croix - Coastal
Waterbody: Narraguagus River - Station 112	HUC8: 01050002
Town: Beddington	HUC8 Name: Maine Coastal
Directions: DIRECTLY ABOVE RT. 9 BRIDGE	Latitude: 44 50 37.7 N
	Longitude: 68 4 11.6 W
	Stream Order: 4

Sample Information

Log Number: 2054	Type of Sample: ROCK BAG	Date Deployed: 7/25/2011
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/24/2011

Classification Attainment

Statutory Class: AA	Final Determination: A	Date: 1/27/2012
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 1/24/2012	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.68	Class C	0.01
Class B	0.31	NA	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	542.67	18 Relative Abundance Ephemeroptera	0.26
02 Generic Richness	38.00	19 EPT Generic Richness	25.00
03 Plecoptera Mean Abundance	6.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Mean Abundance	140.00	<i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	
05 Shannon-Wiener Generic Diversity	4.06	23 Relative Generic Richness- Plecoptera	0.08
06 Hilsenhoff Biotic Index	3.55	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	10.67
07 Relative Abundance - Chironomidae	0.10	<i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	
08 Relative Generic Richness Diptera	0.24	26 Sum of Abundances: <i>Acroneuria</i> ,	53.31
09 <i>Hydropsyche</i> Abundance	157.33	<i>Maccaffertium</i> , <i>Stenonema</i>	
11 <i>Cheumatopsyche</i> Abundance	5.33	28 EP Generic Richness/14	0.86
12 EPT Generic Richness/ Diptera	2.78	30 Presence of Class A Indicator Taxa/7	0.71

Five Most Dominant Taxa

13 Relative Abundance - Oligochaeta	0.00	Rank	Taxon Name	Percent
15 Perlidae Mean Abundance	4.00	1	<i>Hydropsyche</i>	28.99
(Family Functional Group)		2	<i>Maccaffertium</i>	9.82
16 Tanypodinae Mean Abundance	2.67	3	<i>Lepidostoma</i>	8.60
(Family Functional Group)		4	<i>Neureclipsis</i>	4.67
17 Chironomini Abundance (Family	26.67	5	<i>Polypedilum</i>	4.18
Functional Group)		6	<i>Promoresia</i>	4.18



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Date Retrieved: 8/24/2011

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 26.2 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 26 uS/cm
Velocity: 35 cm/s
pH: 7.07
Wetted Width: 10 m
Bankfull Width: 17 m
Depth: 50 cm

Waterbody Information - Retrieval

Temperature: 22.1 deg C
Dissolved Oxygen: 8.3 mg/l
Specific Conductance: 18 uS/cm
Velocity: 93 cm/s
pH: 7.02
Wetted Width: 15 m
Bankfull Width: 17 m
Depth: 80 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Swamp Hardwood

Open

Rolling

Upland Conifer

Upland Hardwood

Potential Stressor

Location

Substrate

Above Road Crossing

Boulder 60 %

Minimally Disturbed

Gravel 5 %

Rubble/Cobble 30 %

Sand 5 %

Landcover Summary - 2004 Data

Total Area (ac)	46566	High Int. Dev. %	0.0	Water %	1.7	Non-vegetated %	0.4
		Med Int. Dev. %	0.0	Wetland %	6.7	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.8	Upland Woody %	90.5	Grassland %	0.2
		Development %	0.8	Natural %	97.4	Human Altered %	0.9
						Impervious %	0.3

Sample Comments

7/25/11: FISH AND STRANDS OF ALGAE OBERVED.

8/24/11: FISH OBSERVED, WATER VERY STAINED.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-112

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Town: Beddington

Log Number: 2054

Subsample Factor: X4

Replicates: 3

Calculated: 1/24/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hyalella</i>	09010203006		1.33	8	CG		0.2
<i>Hyalella azteca</i>	09010203006011	1.33			--	0.2	
<i>Pteronarcys</i>	09020205023		1.33	0	SH		0.2
<i>Pteronarcys dorsata</i>	09020205023063	1.33			--	0.2	
Perlodidae	09020207	1.33	1.33		--	0.2	0.2
<i>Agnetina</i>	09020209050		4.00	2	PR		0.7
<i>Agnetina capitata</i>	09020209050152	4.00		2	PR	0.7	
<i>Boyeria</i>	09020301004		2.67	2	PR		0.5
<i>Boyeria vinosa</i>	09020301004012	2.67			--	0.5	
Baetidae	09020401	5.33			--	1.0	
<i>Baetis</i>	09020401001	4.00	22.40	4	CG	0.7	4.1
<i>Baetis brunneicolor</i>	09020401001003	13.33			--	2.5	
<i>Baetis intercalaris</i>	09020401001008	1.33			--	0.2	
<i>Iswaeon</i>	09020401015	8.00	9.60		--	1.5	1.8
Heptageniidae	09020402	14.67			--	2.7	
<i>Epeorus</i>	09020402009	6.67	8.08	0	SC	1.2	1.5
<i>Leucrocuta</i>	09020402011	18.67	22.62	1	SC	3.4	4.2
<i>Maccaffertium</i>	09020402015	21.33	53.31	4	SC	3.9	9.8
<i>Maccaffertium luteum</i>	09020402015049	22.67			--	4.2	
Leptophlebiidae	09020406	2.67	2.67		--	0.5	0.5
<i>Ephemerella</i>	09020410035	10.67	10.67	1	CG	2.0	2.0
<i>Serratella</i>	09020410037		1.33	2	CG		0.2
<i>Serratella serratoides</i>	09020410037124	1.33			--	0.2	
<i>Tricorythodes</i>	09020411038	9.33	9.33	4	CG	1.7	1.7
<i>Dolophilodes</i>	09020601001	9.33	9.33	0	CF	1.7	1.7
<i>Chimarra</i>	09020601003	9.33	10.67	2	CF	1.7	2.0
<i>Chimarra socia</i>	09020601003004	1.33			--	0.2	
<i>Neureclipsis</i>	09020603008	25.33	25.33	7	CF	4.7	4.7
<i>Cheumatopsyche</i>	09020604015	5.33	5.33	5	CF	1.0	1.0
<i>Hydropsyche</i>	09020604016	81.33	157.33	4	CF	15.0	29.0
<i>Hydropsyche bronta</i>	09020604016029	5.33			--	1.0	
<i>Hydropsyche morosa</i>	09020604016030	56.00			--	10.3	
<i>Hydropsyche sparna</i>	09020604016032	13.33			--	2.5	
<i>Hydropsyche depravata complex</i>	09020604016041	1.33			CF	0.2	
<i>Glossosoma</i>	09020606020	8.00	8.00	0	SC	1.5	1.5
<i>Hydroptila</i>	09020607026	4.00	4.00	6	P	0.7	0.7
<i>Brachycentrus</i>	09020609043		12.00	0	CF		2.2
<i>Brachycentrus appalachia</i>	09020609043096	5.33			--	1.0	



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<i>Brachycentrus numerosus</i>	09020609043098	6.67			--	1.2	
<i>Lepidostoma</i>	09020611064	46.67	46.67	1	SH	8.6	8.6
<i>Psilotreta</i>	09020614068	1.33	1.33	0	SC	0.2	0.2
<i>Helicopsyche</i>	09020616070		8.00	3	SC		1.5
<i>Helicopsyche borealis</i>	09020616070137	8.00			--	1.5	
Leptoceridae	09020618	1.33	1.33		--	0.2	0.2
<i>Oecetis</i>	09020618078		6.67	8	PR		1.2
<i>Oecetis avara</i>	09020618078153	2.67			--	0.5	
<i>Oecetis persimilis</i>	09020618078157	4.00			--	0.7	
Chironomidae	09021011				--		
<i>Rheopelopia</i>	09021011017		2.67		PR		0.5
<i>Rheopelopia acra group</i>	09021011017036	2.67			--	0.5	
<i>Cricotopus</i>	09021011037		5.33	7	SH		1.0
<i>Cricotopus bicinctus</i>	09021011037057	5.33			--	1.0	
<i>Tvetenia</i>	09021011065		10.67	5	CG		2.0
<i>Tvetenia vitracies</i>	09021011065113	10.67			--	2.0	
<i>Rheotanytarsus</i>	09021011072	9.33	9.33	6	CF	1.7	1.7
<i>Microtendipes</i>	09021011094		4.00	6	CF		0.7
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	2.67			--	0.5	
<i>Polypedilum</i>	09021011102		22.67	6	SH		4.2
<i>Polypedilum aviceps</i>	09021011102181	14.67			--	2.7	
<i>Polypedilum flavum</i>	09021011102182	8.00			--	1.5	
<i>Hayesomyia</i>	09021011112		1.33		--		0.2
<i>Hayesomyia senata</i>	09021011112001	1.33			--	0.2	
<i>Simulium</i>	09021012047		14.67	4	CF		2.7
<i>Simulium fibrinflatum</i>	09021012047059	1.33			--	0.2	
<i>Simulium tuberosum</i>	09021012047067	2.67			--	0.5	
<i>Simulium jenningsi complex</i>	09021012047070	10.67			CF	2.0	
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.2	0.2
<i>Macronychus</i>	09021113065		1.33	4	--		0.2
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.2	
<i>Promoresia</i>	09021113069		22.67		--		4.2
<i>Promoresia elegans</i>	09021113069051	6.67			--	1.2	
<i>Promoresia tardella</i>	09021113069052	16.00			--	2.9	