



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

Station Information

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

Sample Information

Log Number: 2508 Type of Sample: ROCK BAG Date Deployed: 7/26/2016
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/23/2016

Classification Attainment

Statutory Class: AA Final Determination: A Date: 6/19/2017
Model Result with $P \geq 0.6$: A Reason for Determination: Model
Date Last Calculated: 6/14/2017 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.50	Class A, B, or C	1.00
Class B	0.45	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	0.93
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.07

Model Variables

01 Total Mean Abundance	233.00	18 Relative Abundance Ephemeroptera	0.37
02 Generic Richness	48.00	19 EPT Generic Richness	23.00
03 Plecoptera Mean Abundance	2.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	86.33	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.42	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	18.33
06 Hilsenhoff Biotic Index	4.99	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	24.57
07 Relative Abundance - Chironomidae	0.33	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	4.33		
11 <i>Cheumatopsyche</i> Abundance	0.67		
12 EPT Generic Richness/ Diptera	1.28		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	1.67		
Functional Group)			
16 Tanypodinae Mean Abundance	4.67		
(Family Functional Group)			
17 Chironomini Abundance (Family	51.33		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	17.60
2	<i>Maccaffertium</i>	9.83
3	<i>Baetis</i>	9.43
4	<i>Oecetis</i>	7.01
5	<i>Promoresia</i>	6.15



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Date Retrieved: 8/23/2016

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	28.3 deg C
Dissolved Oxygen:	8.95 mg/l
Dissolved Oxygen Saturation:	116.8 %
Specific Conductance:	38.1 uS/cm
Velocity:	18.3 cm/s
pH:	7.48
Wetted Width:	11 m
Bankfull Width:	21 m
Depth:	68 cm

Waterbody Information - Retrieval

Temperature:	23.5 deg C
Dissolved Oxygen:	9.78 mg/l
Dissolved Oxygen Saturation:	115.3 %
Specific Conductance:	36.3 uS/cm
Velocity:	15.2 cm/s
pH:	7.43
Wetted Width:	11 m
Bankfull Width:	21 m
Depth:	65.5 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name
Swamp Hardwood
Upland Conifer
Upland Hardwood
Potential Stressor

Canopy Cover
Open

Terrain
Rolling

Location

Above Road Crossing
Main Stem

Substrate

Boulder	80 %
Gravel	5 %
Rubble/Cobble	10 %
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

FISH PRESENT.



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

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Subsample Factor: X1

Replicates: 3

Calculated: 6/14/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042	0.33	1.67	0	PR	0.1	0.7
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	0.6	
<i>Boyeria</i>	09020301004		0.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.1	
<i>Calopteryx</i>	09020307043		0.67	5	PR		0.3
<i>Calopteryx aequabilis</i>	09020307043085	0.67			--	0.3	
Baetidae	09020401	0.67			--	0.3	
<i>Baetis</i>	09020401001	0.33	21.98	4	CG	0.1	9.4
<i>Baetis flavistriga</i>	09020401001004	18.33			--	7.9	
<i>Baetis intercalaris</i>	09020401001008	3.00			--	1.3	
<i>Acerpenna</i>	09020401007	0.67	14.20	5	CG	0.3	6.1
<i>Acerpenna pygmaea</i>	09020401007011	13.33			--	5.7	
<i>Procloeon</i>	09020401010	5.33	5.41		CG	2.3	2.3
<i>Plauditus</i>	09020401012	1.67	1.69		CG	0.7	0.7
<i>Iswaeon</i>	09020401015		3.38		--		1.5
<i>Iswaeon anoka</i>	09020401015001	3.33			--	1.4	
Heptageniidae	09020402	0.33			--	0.1	
<i>Leucrocuta</i>	09020402011	9.67	9.77	1	SC	4.1	4.2
<i>Maccaffertium</i>	09020402015	5.33	22.90	4	SC	2.3	9.8
<i>Maccaffertium luteum</i>	09020402015049	17.33			--	7.4	
Leptophlebiidae	09020406	0.67	0.67		--	0.3	0.3
<i>Paraleptophlebia</i>	09020406026	6.00	6.00	1	CG	2.6	2.6
<i>Ephemerella</i>	09020410035	0.33	0.33	1	CG	0.1	0.1
<i>Neureclipsis</i>	09020603008	2.33	2.33	7	CF	1.0	1.0
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	0.3	0.3
<i>Hydropsyche</i>	09020604016	4.33	4.33	4	CF	1.9	1.9
<i>Hydroptila</i>	09020607026	8.67	8.67	6	P	3.7	3.7
<i>Oxyethira</i>	09020607028	0.67	0.67	3	P	0.3	0.3
<i>Brachycentrus</i>	09020609043		1.33	0	CF		0.6
<i>Brachycentrus appalachia</i>	09020609043096	1.00			--	0.4	
<i>Brachycentrus numerosus</i>	09020609043098	0.33			--	0.1	
<i>Lepidostoma</i>	09020611064	3.33	3.33	1	SH	1.4	1.4
<i>Psilotreta</i>	09020614068		2.00	0	SC		0.9
<i>Psilotreta indecisa</i>	09020614068132	0.67			--	0.3	
<i>Psilotreta labida</i>	09020614068133	1.33			--	0.6	
<i>Helicopsyche</i>	09020616070		1.67	3	SC		0.7



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		Actual	Adjusted			Actual	Adjusted
<i>Helicopsyche borealis</i>	09020616070137	1.67			--	0.7	
<i>Nectopsyche</i>	09020618074	1.00	1.00	3	SH	0.4	0.4
<i>Oecetis</i>	09020618078	1.33	16.33	8	PR	0.6	7.0
<i>Oecetis avara</i>	09020618078153	14.67			--	6.3	
<i>Oecetis persimilis</i>	09020618078157	0.33			--	0.1	
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.1	0.1
<i>Ablabesmyia</i>	09021011001		2.33	8	PR		1.0
<i>Ablabesmyia mallochii</i>	09021011001004	2.33			--	1.0	
<i>Conchapelopia</i>	09021011004			6	PR		
<i>Labrundinia</i>	09021011008		0.33	7	PR		0.1
<i>Labrundinia pilosella</i>	09021011008022	0.33			--	0.1	
<i>Paramerina</i>	09021011013				--		
<i>Pentaneura</i>	09021011014		0.67	6	PR		0.3
<i>Pentaneura inconspicua</i>	09021011014028	0.67			--	0.3	
<i>Rheopelopia</i>	09021011017	0.67	1.00		PR	0.3	0.4
<i>Rheopelopia acra group</i>	09021011017036	0.33			--	0.1	
<i>Thienemannimyia</i>	09021011020		0.33	3	PR		0.1
<i>Thienemannimyia senata</i>	09021011020040	0.33			--	0.1	
<i>Potthastia</i>	09021011026		1.00	2	CG		0.4
<i>Potthastia gaedii</i>	09021011026045	1.00			--	0.4	
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037	2.00	9.67	7	SH	0.9	4.1
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.6	
<i>Cricotopus vierriensis</i>	09021011037071	6.33			--	2.7	
<i>Nanocladius</i>	09021011049	0.33	0.67	3	CG	0.1	0.3
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.1	
<i>Psectrocladius</i>	09021011056		1.67	8	CG		0.7
<i>Psectrocladius simulans</i>	09021011056110	1.67			--	0.7	
<i>Rheocricotopus</i>	09021011057		0.33	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.1	
<i>Tvetenia</i>	09021011065		1.00	5	CG		0.4
<i>Tvetenia vitracies</i>	09021011065113	1.00			--	0.4	
<i>Tanytarsus</i>	09021011076	5.00	5.67	6	CF	2.1	2.4
<i>Tanytarsus buckleyi</i>	09021011076139	0.67			CF	0.3	
<i>Microtendipes</i>	09021011094		41.00	6	CF		17.6
<i>Microtendipes pedellus group</i>	09021011094166	3.00			--	1.3	
<i>Microtendipes rydalensis group</i>	09021011094168	38.00			--	16.3	
<i>Phaenopsectra</i>	09021011101		2.33	7	SC		1.0



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<i>Phaenopsectra obediens</i>	09021011101182	2.33			SC	1.0	
<i>Polypedilum</i>	09021011102		8.00	6	SH		3.4
<i>Polypedilum aviceps</i>	09021011102181	7.33			--	3.1	
<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.3	
<i>Simulium</i>	09021012047		0.33	4	CF		0.1
<i>Simulium jenningsi species group</i>	09021012047070	0.33			CF	0.1	
<i>Dubiraphia</i>	09021113064		6.33	6	--		2.7
<i>Dubiraphia minima</i>	09021113064036	6.33			--	2.7	
<i>Macronychus</i>	09021113065		0.67	4	--		0.3
<i>Macronychus glabratus</i>	09021113065040	0.67			--	0.3	
<i>Promoresia</i>	09021113069		14.33		--		6.2
<i>Promoresia elegans</i>	09021113069051	11.67			--	5.0	
<i>Promoresia tardella</i>	09021113069052	2.67			--	1.1	
<i>Stenelmis</i>	09021113070	0.67	2.33	5	SC	0.3	1.0
<i>Stenelmis crenata</i>	09021113070055	1.67			--	0.7	
Basommatophora	100102	0.33	0.33		--	0.1	0.1