



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

Station Information

Station Number: S-8 DEP Drainage: St. John
Waterbody: St John River - Station 8 HUC8: 01010001
Town: Fort Kent HUC8 Name: St. John River at Bay of Fundy
Directions: ABOVE FT. KENT; .48 KM ABOVE US/CAN BRIDGE Latitude: 47 14 51.92 N
Longitude: 68 36 19.12 W
Stream Order: 5

Sample Information

Log Number: 1847 Type of Sample: ROCK BAG Date Deployed: 7/21/2009
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/18/2009

Classification Attainment

Statutory Class: A **Final Determination: A** Date: 4/16/2010
Model Result with P>.6: A **Reason for Determination: Model**
Date Last Calculated: 4/15/2010 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.39	Class A, B, or C	1.00
Class B	0.58	Non-Attainment	0.00
Class C			
	0.03		
NA			
	0.00		
B or Better Model		A Model	
Class A or B	1.00	Class A	0.87
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.13

Model Variables

01 Total Mean Abundance	928.00	18 Relative Abundance Ephemeroptera	0.13
02 Generic Richness	33.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	10.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Mean Abundance	124.00	<i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	
05 Shannon-Wiener Generic Diversity	2.94	23 Relative Generic Richness- Plecoptera	0.09
06 Hilsenhoff Biotic Index	3.47	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	22.04
07 Relative Abundance - Chironomidae	0.10	<i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	
08 Relative Generic Richness Diptera	0.30	26 Sum of Abundances: <i>Acroneuria</i> ,	18.13
09 <i>Hydropsyche</i> Abundance	416.60	<i>Maccaffertium</i> , <i>Stenonema</i>	
11 <i>Cheumatopsyche</i> Abundance	20.69	28 EP Generic Richness/14	0.93
12 EPT Generic Richness/ Diptera	2.00	30 Presence of Class A Indicator Taxa/7	0.43
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	9.33		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.00		
(Family Functional Group)			
17 Chironomini Abundance (Family	50.04		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	44.89
2	<i>Chimarra</i>	20.55
3	<i>Polypedilum</i>	4.95
4	<i>Simulium</i>	4.45
5	<i>Isonychia</i>	3.74



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 22 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 44 uS/cm
Velocity:
pH: 7.07
Wetted Width:
Bankfull Width:
Depth:

Waterbody Information - Retrieval

Temperature: 26.1 deg C
Dissolved Oxygen: 8.3 mg/l
Specific Conductance: 62 uS/cm
Velocity: 44 cm/s
pH: 7.33
Wetted Width:
Bankfull Width:
Depth: 36 cm

Water Chemistry - 7/21/2009

Soluble Reactive Phosphorus	1 ug/l	Nitrate+nitrite As N	0.04 mg/l
Total Phosphorus	0.015 mg/l	Total Kjeldahl Nitrogen	0.4 mg/l
Dissolved Organic Carbon	10 mg/l	Total Alkalinity	25 mg/l

Summary of Habitat Characteristics

Landuse Name

Upland Conifer
Urban

Canopy Cover

Open

Terrain

Rolling

Potential Stressor

Location

Main Stem

Substrate

Boulder	10 %
Gravel	10 %
Rubble/Cobble	75 %
Sand	5 %

Landcover Summary - 2004 Data

Sample Comments

7/21/09: WATER LEVEL AND VELOCITY HIGH.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-8	Waterbody: St John River - Station 8	Town: Fort Kent
Log Number: 1847	Subsample Factor: X4	Replicates: 3
		Calculated: 4/15/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Perlodidae	09020207	1.33	1.33		--	0.1	0.1
Perlidae	09020209	2.67			--	0.3	
<i>Acroneuria</i>	09020209042	1.33	7.47	0	PR	0.1	0.8
<i>Acroneuria abnormis</i>	09020209042121	4.00		0	PR	0.4	
<i>Paragnetina</i>	09020209049		1.87	1	PR		0.2
<i>Paragnetina immarginata</i>	09020209049149	1.33			--	0.1	
<i>Ophiogomphus</i>	09020302015		2.67	1	PR		0.3
<i>Ophiogomphus anomalus</i>	09020302015031	2.67			--	0.3	
Baetidae	09020401	8.00			--	0.9	
<i>Baetis</i>	09020401001	5.33	31.41	4	CG	0.6	3.4
<i>Baetis intercalaris</i>	09020401001008	16.00			--	1.7	
<i>Baetis pluto</i>	09020401001009	1.33			--	0.1	
<i>Baetis tricaudatus</i>	09020401001012	2.67			--	0.3	
<i>Acentrella</i>	09020401008	4.00	4.96	3	CG	0.4	0.5
<i>Plautidius</i>	09020401012	4.00	4.96		CG	0.4	0.5
Heptageniidae	09020402	18.67			--	2.0	
<i>Epeorus</i>	09020402009	6.67	13.33	0	SC	0.7	1.4
<i>Leucrocota</i>	09020402011	1.33	2.67	1	SC	0.1	0.3
<i>Rhithrogena</i>	09020402013	5.33	10.67	0	SC	0.6	1.1
<i>Maccaffertium</i>	09020402015	5.33	10.67	4	SC	0.6	1.1
<i>Isonychia</i>	09020404018	34.67	34.67	2	CF	3.7	3.7
Leptophlebiidae	09020406	8.00	8.00		--	0.9	0.9
<i>Ephemerella</i>	09020410035	2.67	2.67	1	CG	0.3	0.3
<i>Chimarra</i>	09020601003	190.67	190.67	2	CF	20.5	20.5
<i>Neureclipsis</i>	09020603008	1.33	1.33	7	CF	0.1	0.1
Hydropsychidae	09020604	14.67			--	1.6	
<i>Cheumatopsyche</i>	09020604015	20.00	20.69	5	CF	2.2	2.2
<i>Hydropsyche</i>	09020604016	156.00	416.60	4	CF	16.8	44.9
<i>Hydropsyche alhedra</i>	09020604016028	1.33			--	0.1	
<i>Hydropsyche bronta</i>	09020604016029	1.33			--	0.1	
<i>Hydropsyche morosa</i>	09020604016030	228.00			--	24.6	
<i>Hydropsyche sparna</i>	09020604016032	5.33			--	0.6	
<i>Hydropsyche phalerata</i>	09020604016047	10.67			--	1.1	
<i>Macrostemum</i>	09020604018		1.38	3	CF		0.1
<i>Macrostemum zebratum</i>	09020604018054	1.33			--	0.1	
<i>Brachycentrus</i>	09020609043		10.67	0	CF		1.1
<i>Brachycentrus appalachia</i>	09020609043096	10.67			--	1.1	
<i>Lepidostoma</i>	09020611064	2.67	2.67	1	SH	0.3	0.3



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		Actual	Adjusted			Actual	Adjusted
Chironomidae	09021011	1.33			--	0.1	
<i>Rheopelopia</i>	09021011017				PR		
<i>Brillia</i>	09021011033	1.33	1.35	5	SH	0.1	0.1
<i>Cricotopus</i>	09021011037		1.35	7	SH		0.1
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.1	
<i>Rheocricotopus</i>	09021011057		1.35	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	1.33			--	0.1	
<i>Thienemanniella</i>	09021011062		1.35	6	CG		0.1
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.1	
<i>Tvetenia</i>	09021011065		20.29	5	CG		2.2
<i>Tvetenia vitracies</i>	09021011065113	16.00			--	1.7	
<i>Tvetenia paucunca</i>	09021011065114	4.00			--	0.4	
<i>Rheotanytarsus</i>	09021011072	18.67	18.93	6	CF	2.0	2.0
<i>Microtendipes</i>	09021011094		4.06	6	CF		0.4
<i>Microtendipes rydalensis group</i>	09021011094168	4.00			--	0.4	
<i>Polypedilum</i>	09021011102		45.98	6	SH		5.0
<i>Polypedilum aviceps</i>	09021011102181	18.67			--	2.0	
<i>Polypedilum flavum</i>	09021011102182	26.67			--	2.9	
<i>Simulium</i>	09021012047	1.33	41.33	4	CF	0.1	4.5
<i>Simulium jenningsi</i>	09021012047060				--		
<i>Simulium tuberosum</i>	09021012047067	33.33			--	3.6	
<i>Simulium jenningsi complex</i>	09021012047070	6.67			CF	0.7	
<i>Atherix</i>	09021015055	8.00	8.00	2	PR	0.9	0.9
<i>Optioservus</i>	09021113067		1.33	3	SC		0.1
<i>Optioservus trivittatus</i>	09021113067048	1.33			--	0.1	
<i>Ferrissia</i>	10010204035		1.33		SC		0.1
<i>Ferrissia rivularis</i>	10010204035066	1.33			--	0.1	