



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

Station Information

**Station Number:** S-926  
**Waterbody:** River De Chute - Station 926  
**Town:** Easton  
**Directions:** 30 M DOWNSTREAM OF LADNER ST.  
**DEP Drainage:** St. John  
**HUC8:** 01010001  
**HUC8 Name:** St. John River at Bay of Fundy  
**Latitude:** 46 37 1.35 N  
**Longitude:** 67 47 57 W  
**Stream Order:** 3

Sample Information

**Log Number:** 1846  
**Subsample Factor:** X4  
**Type of Sample:** ROCK BAG  
**Replicates:** 3  
**Date Deployed:** 7/23/2009  
**Date Retrieved:** 8/17/2009

Classification Attainment

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

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.86	Class A, B, or C	1.00
Class B	0.14	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
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	569.33	18 Relative Abundance Ephemeroptera	0.29
02 Generic Richness	61.00	19 EPT Generic Richness	29.00
03 Plecoptera Mean Abundance	32.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	164.00	23 Relative Generic Richness- Plecoptera	0.13
05 Shannon-Wiener Generic Diversity	5.08	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	75.92
06 Hilsenhoff Biotic Index	4.04	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	28.67
07 Relative Abundance - Chironomidae	0.33	28 EP Generic Richness/14	1.43
08 Relative Generic Richness Diptera	0.36	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	37.33		
11 <i>Cheumatopsyche</i> Abundance	4.00		
12 EPT Generic Richness/ Diptera	1.32		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	4.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.00		
(Family Functional Group)			
17 Chironomini Abundance (Family	10.27		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	10.57
2	<i>Tvetenia</i>	6.70
3	Leptophlebiidae	6.56
4	<i>Hydropsyche</i>	6.56
5	<i>Optioservus</i>	6.56



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Date Retrieved: 8/17/2009

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 16.4 deg C  
Dissolved Oxygen: 8.9 mg/l  
Specific Conductance: 211 uS/cm  
Velocity: 30 cm/s  
pH: 7.04  
Wetted Width: 11.4 m  
Bankfull Width: 12.9 m  
Depth: 44 cm

Waterbody Information - Retrieval

Temperature: 21.1 deg C  
Dissolved Oxygen: 8.7 mg/l  
Specific Conductance: 222 uS/cm  
Velocity: 25 cm/s  
pH: 7.98  
Wetted Width: 10.3 m  
Bankfull Width: 11.5 m  
Depth: 48 cm

Water Chemistry - 7/23/2009

Soluble Reactive Phosphorus	3 ug/l	Nitrate+nitrite As N	0.18 mg/l
Total Phosphorus	0.018 mg/l	Total Kjeldahl Nitrogen	0.2 mg/l
Dissolved Organic Carbon	3.6 mg/l	Total Alkalinity	103 mg/l

Summary of Habitat Characteristics

Landuse Name

Cultivated

Swamp Hardwood

Upland Hardwood

Potential Stressor

Agricultural Runoff

Canopy Cover

Open

Location

Below Agriculture NPS

Terrain

Rolling

Substrate

Boulder	40 %
Gravel	20 %
Rubble/Cobble	30 %
Sand	10 %

Landcover Summary - 2004 Data

Sample Comments

2 ROCKBAGS AND 1 ROCK BASKET USED. BEAVER ACTIVITY UPSTREAM. GOOD HABITAT QUALITY; SOME SEDIMENT IN SLOW AREAS. NO MACROPHYTES.



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**Log Number: 1846**

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
Turbellaria	0301	1.33	1.33		--	0.2	0.2
Lumbriculidae	08020101	1.33	1.33		--	0.2	0.2
<i>Cambarus</i>	09010301007		1.33		CG		0.2
<i>Cambarus bartonii</i>	09010301007012	1.33			--	0.2	
<i>Taeniopteryx</i>	09020202014	1.33	1.33	2	SH	0.2	0.2
<i>Paracapnia</i>	09020203018	6.67	6.67	1	SH	1.2	1.2
<i>Leuctra</i>	09020204020	5.33	10.67	0	SH	0.9	1.9
<i>Leuctra truncata</i>	09020204020058	5.33			--	0.9	
<i>Pteronarcys</i>	09020205023		1.33	0	SH		0.2
<i>Pteronarcys biloba</i>	09020205023061	1.33			--	0.2	
Perlodidae	09020207	2.67	2.67		--	0.5	0.5
<i>Isoperla</i>	09020207026	1.33	1.33	2	PR	0.2	0.2
<i>Sweltsa</i>	09020208040	4.00	4.00		PR	0.7	0.7
<i>Agnetina</i>	09020209050		4.00	2	PR		0.7
<i>Agnetina capitata</i>	09020209050152	4.00		2	PR	0.7	
Gomphidae	09020302	1.33	1.33		--	0.2	0.2
Baetidae	09020401	2.67			--	0.5	
<i>Baetis</i>	09020401001		17.00	4	CG		3.0
<i>Baetis flavistriga</i>	09020401001004	12.00			--	2.1	
<i>Baetis tricaudatus</i>	09020401001012	4.00			--	0.7	
<i>Centroptilum</i>	09020401003	2.67	2.83	2	CG	0.5	0.5
<i>Acerpenna</i>	09020401007	1.33	5.67	5	CG	0.2	1.0
<i>Acerpenna macdunnoughi</i>	09020401007001	4.00			--	0.7	
<i>Diphetor</i>	09020401013		19.83		--		3.5
<i>Diphetor hageni</i>	09020401013001	18.67			--	3.3	
Heptageniidae	09020402	12.00			--	2.1	
<i>Heptagenia</i>	09020402010	2.67	3.37	2	SC	0.5	0.6
<i>Leucrocuta</i>	09020402011	10.67	13.49	1	SC	1.9	2.4
<i>Stenacron</i>	09020402014		11.80	7	SC		2.1
<i>Stenacron interpunctatum</i>	09020402014045	9.33			--	1.6	
<i>Maccaffertium</i>	09020402015	12.00	28.67	4	SC	2.1	5.0
<i>Maccaffertium luteum</i>	09020402015049	10.67			--	1.9	
Leptophlebiidae	09020406	37.33	37.33		--	6.6	6.6
<i>Paraleptophlebia</i>	09020406026	4.00	4.00	1	CG	0.7	0.7
<i>Ephemerella</i>	09020410035	16.00	16.00	1	CG	2.8	2.8
<i>Eurylophella</i>	09020410036	4.00	4.00	3	CG	0.7	0.7
<i>Dolophilodes</i>	09020601001	2.67	2.67	0	CF	0.5	0.5
<i>Psychomyia</i>	09020602005		1.33	2	CG		0.2



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		Actual	Adjusted			Actual	Adjusted
<i>Psychomyia flavida</i>	09020602005006	1.33			--	0.2	
<i>Cheumatopsyche</i>	09020604015	4.00	4.00	5	CF	0.7	0.7
<i>Hydropsyche</i>	09020604016	13.33	37.33	4	CF	2.3	6.6
<i>Hydropsyche alhedra</i>	09020604016028	6.67			--	1.2	
<i>Hydropsyche morosa</i>	09020604016030	14.67			--	2.6	
<i>Hydropsyche slossonae</i>	09020604016031	2.67			--	0.5	
<i>Rhyacophila</i>	09020605019	6.67	10.67	2	PR	1.2	1.9
<i>Rhyacophila fuscula</i>	09020605019060	4.00			PR	0.7	
<i>Glossosoma</i>	09020606020	4.00	4.00	0	SC	0.7	0.7
<i>Micrasema</i>	09020609044		1.33	2	SH		0.2
<i>Micrasema wataga</i>	09020609044101	1.33			--	0.2	
<i>Pycnopsyche</i>	09020610049	1.33	1.33	4	SH	0.2	0.2
<i>Lepidostoma</i>	09020611064	1.33	1.33	1	SH	0.2	0.2
<i>Antocha</i>	09021001004	5.33	5.33	3	CG	0.9	0.9
<i>Dicranota</i>	09021001005	12.00	12.00	3	PR	2.1	2.1
<i>Bezzia/palpomyia</i>	09021010043	4.00	4.00	6	PR	0.7	0.7
Chironomidae	09021011	17.33			--	3.0	
<i>Pagastia</i>	09021011025		2.94	1	--		0.5
<i>Pagastia orthogonia</i>	09021011025001	2.67			--	0.5	
<i>Potthastia</i>	09021011026		7.34	2	CG		1.3
<i>Potthastia gaedii</i>	09021011026045	6.67			--	1.2	
<i>Corynoneura</i>	09021011036	1.33	1.47	7	CG	0.2	0.3
<i>Cricotopus</i>	09021011037	8.00	60.18	7	SH	1.4	10.6
<i>Cricotopus bicinctus</i>	09021011037057	34.67			--	6.1	
<i>Cricotopus annulator complex</i>	09021011037074	12.00			--	2.1	
<i>Eukiefferiella</i>	09021011041		2.94	8	CG		0.5
<i>Eukiefferiella pseudomontana group</i>	09021011041080	2.67			--	0.5	
<i>Nanocladius</i>	09021011049		1.47	3	CG		0.3
<i>Nanocladius branchicolus</i>	09021011049091	1.33			--	0.2	
<i>Parakiefferiella</i>	09021011052	2.67	2.94		CG	0.5	0.5
<i>Parametriocnemus</i>	09021011053	8.00	8.81	5	CG	1.4	1.5
<i>Synorthocladius</i>	09021011061	1.33	1.47	2	CG	0.2	0.3
<i>Thienemanniella</i>	09021011062	5.33	10.27	6	CG	0.9	1.8
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.2	
<i>Thienemanniella sp. B</i>	09021011062116	2.67			--	0.5	
<i>Tvetenia</i>	09021011065		38.16	5	CG		6.7
<i>Tvetenia paucunca</i>	09021011065114	34.67			--	6.1	
<i>Cladotanytarsus</i>	09021011068		1.47	7	CG		0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Cladotanytarsus sp. A Epler</i>	09021011068121	1.33			--	0.2	
<i>Rheotanytarsus</i>	09021011072	21.33	23.48	6	CF	3.7	4.1
<i>Stempellinella</i>	09021011074		4.40	2	--		0.8
<i>Stempellinella leptocelloides</i>	09021011074001	1.33			--	0.2	
<i>Stempellinella fimbriata</i>	09021011074002	2.67			--	0.5	
<i>Tanytarsus</i>	09021011076	10.67	11.74	6	CF	1.9	2.1
<i>Microtendipes</i>	09021011094		2.94	6	CF		0.5
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	0.2	
<i>Polypedilum</i>	09021011102		7.34	6	SH		1.3
<i>Polypedilum aviceps</i>	09021011102181	6.67			--	1.2	
<i>Simulium</i>	09021012047		2.67	4	CF		0.5
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.2	
<i>Simulium venustum/verecundum complex</i>	09021012047072	1.33			CF	0.2	
<i>Atherix</i>	09021015055	30.67	30.67	2	PR	5.4	5.4
<i>Dubiraphia</i>	09021113064	6.67	6.67	6	--	1.2	1.2
<i>Optioservus</i>	09021113067	34.67	37.33	3	SC	6.1	6.6
<i>Optioservus fastiditus</i>	09021113067044	2.67			--	0.5	
<i>Promoresia</i>	09021113069		6.67		--		1.2
<i>Promoresia tardella</i>	09021113069052	6.67			--	1.2	
Acariformes	090301	1.33	1.33		--	0.2	0.2
<i>Hygrobates</i>	09030102001	4.00	4.00		--	0.7	0.7
<i>Physa</i>	10010202026	1.33	1.33		SC	0.2	0.2
Sphaeriidae	10020201	2.67	2.67		CF	0.5	0.5