



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

Station Information

Station Number: S-923
Waterbody: Violette Stream - Station 923
Town: Van Buren
Directions: 20 M UPSTREAM OF CHAMPLAIN STREET

DEP Drainage: St. John
HUC8: 01010001
HUC8 Name: St. John River at Bay of Fundy
Latitude: 47 9 45.74 N
Longitude: 67 57 23.1 W
Stream Order:

Sample Information

Log Number: 1853
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/21/2009
Date Retrieved: 8/18/2009

Classification Attainment

Statutory Class: B
Model Result with P>.6: A
Date Last Calculated: 4/9/2010
Final Determination: A
Reason for Determination: Model
Comments:

Date: 4/13/2010

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.78	Class A, B, or C	1.00
Class B	0.22	Non-Attainment	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	275.33	18 Relative Abundance Ephemeroptera	0.24
02 Generic Richness	84.00	19 EPT Generic Richness	34.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	5.91
04 Ephemeroptera Mean Abundance	66.00	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	5.16	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	44.67
06 Hilsenhoff Biotic Index	5.57	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	11.29
07 Relative Abundance - Chironomidae	0.46	28 EP Generic Richness/14	1.50
08 Relative Generic Richness Diptera	0.35	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	11.00		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera	1.17		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	0.67		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	14.56		
(Family Functional Group)			
17 Chironomini Abundance (Family	5.09		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Paratanytarsus</i>	11.50
2	<i>Stenacron</i>	7.94
3	<i>Dubiraphia</i>	7.26
4	<i>Tanytarsus</i>	7.14
5	<i>Cricotopus</i>	4.76



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 18.9 deg C
Dissolved Oxygen:
Specific Conductance: 90 uS/cm
Velocity: 22 cm/s
pH: 7.29
Wetted Width: 16.4 m
Bankfull Width: 16.4 m
Depth: 62 cm

Waterbody Information - Retrieval

Temperature: 23.7 deg C
Dissolved Oxygen: 7.7 mg/l
Specific Conductance: 134 uS/cm
Velocity: 14 cm/s
pH: 7.55
Wetted Width: 16.4 m
Bankfull Width: 16.4 m
Depth: 42 cm

Water Chemistry - 7/21/2009

Soluble Reactive Phosphorus	1 ug/l	Nitrate+nitrite As N	0.03 mg/l
Total Phosphorus	0.017 mg/l	Total Kjeldahl Nitrogen	0.4 mg/l
Dissolved Organic Carbon	9.6 mg/l	Total Alkalinity	48 mg/l

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Cultivated

Open

Rolling

Upland Hardwood

Urban

Potential Stressor

Location

Substrate

Agricultural Runoff

Above Road Crossing

Boulder 10 %

Urban Runoff

Below Agriculture NPS

Gravel 60 %

Below Urban NPS

Rubble/Cobble 25 %

Sand 5 %

Landcover Summary - 2004 Data

Sample Comments

8/18/09: >12 M LONG STRANDS OF ALGAE; >50% COVER.



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Replicates: 3

Calculated: 4/9/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009		0.33		CG		0.1
<i>Nais variabilis</i>	08020202009009	0.33			--	0.1	
<i>Glossiphonia</i>	08030101004		1.00		--		0.4
<i>Glossiphonia complanata</i>	08030101004001	1.00			--	0.4	
<i>Helobdella</i>	08030101005		3.00		--		1.1
<i>Helobdella stagnalis</i>	08030101005004	3.00			--	1.1	
<i>Placobdella</i>	08030101006		0.33		--		0.1
<i>Placobdella papillifera</i>	08030101006003	0.33			--	0.1	
Erpobdellidae	08030301	0.33			--	0.1	
<i>Erpobdella</i>	08030301002	0.33	1.85		--	0.1	0.7
<i>Erpobdella punctata</i>	08030301002001	1.33			--	0.5	
<i>Mooreobdella</i>	08030301003		0.37		--		0.1
<i>Mooreobdella fervida</i>	08030301003001	0.33			--	0.1	
<i>Nephelopsis</i>	08030301004		1.11		--		0.4
<i>Nephelopsis obscura</i>	08030301004001	1.00			--	0.4	
<i>Hyaella</i>	09010203006		3.67	8	CG		1.3
<i>Hyaella azteca</i>	09010203006011	3.67			--	1.3	
<i>Paracapnia</i>	09020203018	0.33	0.33	1	SH	0.1	0.1
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.1	0.1
Perlodidae	09020207	1.00	1.00		--	0.4	0.4
<i>Isoperla</i>	09020207026	0.33	0.33	2	PR	0.1	0.1
<i>Agneta</i>	09020209050		0.67	2	PR		0.2
<i>Agneta capitata</i>	09020209050152	0.67		2	PR	0.2	
<i>Calopteryx</i>	09020307043		0.33	5	PR		0.1
<i>Calopteryx aequabilis</i>	09020307043085	0.33			--	0.1	
<i>Baetis</i>	09020401001		1.00	4	CG		0.4
<i>Baetis intercalaris</i>	09020401001008	1.00			--	0.4	
<i>Pseudocloeon</i>	09020401006		0.33	4	SC		0.1
<i>Pseudocloeon propinquum</i>	09020401006028	0.33			--	0.1	
<i>Acerpenna</i>	09020401007	2.33	8.67	5	CG	0.8	3.1
<i>Acerpenna macdunnoughi</i>	09020401007001	6.33			--	2.3	
<i>Acentrella</i>	09020401008		0.67	3	CG		0.2
<i>Acentrella parvula</i>	09020401008002	0.67			--	0.2	
<i>Procloeon</i>	09020401010	4.33	4.33		CG	1.6	1.6
<i>Plauditus</i>	09020401012	6.00	6.00		CG	2.2	2.2
Heptageniidae	09020402	3.00			--	1.1	
<i>Leucrocota</i>	09020402011	2.00	2.19	1	SC	0.7	0.8
<i>Stenacron</i>	09020402014		21.86	7	SC		7.9



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		Actual	Adjusted			Actual	Adjusted
<i>Stenacron interpunctatum</i>	09020402014045	20.00			--	7.3	
<i>Maccaffertium</i>	09020402015	2.67	11.29	4	SC	1.0	4.1
<i>Maccaffertium luteum</i>	09020402015049	7.67			--	2.8	
Leptophlebiidae	09020406	1.33	1.33		--	0.5	0.5
<i>Ephemera</i>	09020407027	0.67	0.67	1	CG	0.2	0.2
Ephemerellidae	09020410	0.33			--	0.1	
<i>Ephemerella</i>	09020410035	1.00	1.20	1	CG	0.4	0.4
<i>Eurylophella</i>	09020410036	0.67	0.80	3	CG	0.2	0.3
<i>Tricorythodes</i>	09020411038	1.00	1.00	4	CG	0.4	0.4
<i>Caenis</i>	09020412040	3.67	3.67	7	CG	1.3	1.3
<i>Baetisca</i>	09020413041	1.00	1.00	4	CG	0.4	0.4
<i>Chimarra</i>	09020601003	4.33	4.33	2	CF	1.6	1.6
<i>Cernotina</i>	09020603006	0.67	0.67		PR	0.2	0.2
<i>Polycentropus</i>	09020603010	2.00	2.00	6	PR	0.7	0.7
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016	3.67	11.00	4	CF	1.3	4.0
<i>Hydropsyche morosa</i>	09020604016030	2.33			--	0.8	
<i>Hydropsyche slossonae</i>	09020604016031	4.33			--	1.6	
<i>Hydropsyche sparna</i>	09020604016032	0.67			--	0.2	
<i>Hydroptila</i>	09020607026	11.00	11.00	6	P	4.0	4.0
<i>Oxyethira</i>	09020607028	0.33	0.33	3	P	0.1	0.1
<i>Oligostomis</i>	09020608039	0.33	0.33	2	PR	0.1	0.1
<i>Ptilostomis</i>	09020608041	1.67	1.67	5	SH	0.6	0.6
Limnephilidae	09020610				--		
<i>Apatania</i>	09020610061	0.33	0.33		SC	0.1	0.1
<i>Molanna</i>	09020615069		0.33	6	SC		0.1
<i>Molanna blenda</i>	09020615069133	0.33			--	0.1	
<i>Mystacides</i>	09020618075	0.67	0.67	4	CG	0.2	0.2
<i>Oecetis</i>	09020618078	0.67	1.00	8	PR	0.2	0.4
<i>Oecetis persimilis</i>	09020618078157	0.33			--	0.1	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.1	0.1
<i>Hexatoma</i>	09021001008	0.33	0.33	2	PR	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	0.67	0.67	6	PR	0.2	0.2
Chironomidae	09021011	10.67			--	3.9	
<i>Ablabesmyia</i>	09021011001		10.92	8	PR		4.0
<i>Ablabesmyia mallochi</i>	09021011001004	9.33			--	3.4	
<i>Ablabesmyia monilis</i>	09021011001009	0.67			--	0.2	
<i>Conchapelopia</i>	09021011004	2.67	2.91	6	PR	1.0	1.1



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<i>Paramerina</i>	09021011013	0.67	0.73		--	0.2	0.3
<i>Pagastia</i>	09021011025		0.73	1	--		0.3
<i>Pagastia orthogonia</i>	09021011025001	0.67			--	0.2	
<i>Corynoneura</i>	09021011036	1.33	1.46	7	CG	0.5	0.5
<i>Cricotopus</i>	09021011037		13.10	7	SH		4.8
<i>Cricotopus bicinctus</i>	09021011037057	10.67			--	3.9	
<i>Cricotopus vierriensis</i>	09021011037071	1.33			--	0.5	
<i>Eukiefferiella</i>	09021011041		1.46	8	CG		0.5
<i>Eukiefferiella devonica group</i>	09021011041083	1.33			CG	0.5	
<i>Heterotrissocladius</i>	09021011044		0.73	0	CG		0.3
<i>Heterotrissocladius marcidus</i>	09021011044083	0.67			--	0.2	
<i>Limnophyes</i>	09021011047	0.67	0.73	8	CG	0.2	0.3
<i>Nanocladius</i>	09021011049		2.18	3	CG		0.8
<i>Nanocladius spiniplenus</i>	09021011049090	2.00			--	0.7	
<i>Orthocladius</i>	09021011050		8.73	6	CG		3.2
<i>Orthocladius annectens</i>	09021011050092	8.00			--	2.9	
<i>Parakiefferiella</i>	09021011052		2.18		CG		0.8
<i>Parakiefferiella sp. E</i>	09021011052001	2.00			--	0.7	
<i>Tvetenia</i>	09021011065		2.91	5	CG		1.1
<i>Tvetenia paucunca</i>	09021011065114	2.67			--	1.0	
<i>Micropsectra</i>	09021011070	1.33	1.46	7	CG	0.5	0.5
<i>Paratanytarsus</i>	09021011071	29.00	31.66	6	--	10.5	11.5
<i>Rheotanytarsus</i>	09021011072	4.00	4.37	6	CF	1.5	1.6
<i>Stempellinella</i>	09021011074		8.01	2	--		2.9
<i>Stempellinella fimbriatus</i>	09021011074002	7.33			--	2.7	
<i>Tanytarsus</i>	09021011076	18.00	19.65	6	CF	6.5	7.1
<i>Dicrotendipes</i>	09021011085	1.33	1.46	8	CG	0.5	0.5
<i>Microtendipes</i>	09021011094		1.46	6	CF		0.5
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	0.5	
<i>Nilothauma</i>	09021011095	0.67	0.73	2	--	0.2	0.3
<i>Polypedilum</i>	09021011102		1.46	6	SH		0.5
<i>Polypedilum aviceps</i>	09021011102181	0.67			--	0.2	
<i>Polypedilum illinoense group</i>	09021011102185	0.67			--	0.2	
<i>Helopelopia</i>	09021011114	7.33	8.01	6	PR	2.7	2.9
<i>Simulium</i>	09021012047	0.33	1.00	4	CF	0.1	0.4
<i>Simulium tuberosum</i>	09021012047067	0.67			--	0.2	
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.1	0.1
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.1	0.1



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<i>Neoporus</i>	09021103033	0.33	0.33		--	0.1	0.1
<i>Psephenus</i>	09021108058		0.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.1	
<i>Dubiraphia</i>	09021113064	20.00	20.00	6	--	7.3	7.3
<i>Optioservus</i>	09021113067	1.00	3.00	3	SC	0.4	1.1
<i>Optioservus fastiditus</i>	09021113067044	1.67			--	0.6	
<i>Optioservus trivittatus</i>	09021113067048	0.33			--	0.1	
<i>Promoresia</i>	09021113069		0.33		--		0.1
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.1	
<i>Stenelmis</i>	09021113070	1.00	1.67	5	SC	0.4	0.6
<i>Stenelmis crenata</i>	09021113070055	0.67			--	0.2	
<i>Amnicola</i>	10010104013		2.33		SC		0.8
<i>Amnicola limosa</i>	10010104013018	2.33			--	0.8	
<i>Physa</i>	10010202026	0.33	0.33		SC	0.1	0.1
<i>Gyraulus</i>	10010203029	0.33	0.33		SC	0.1	0.1
<i>Helisoma</i>	10010203030		0.33		SC		0.1
<i>Helisoma anceps</i>	10010203030058	0.33			--	0.1	
<i>Ferrissia</i>	10010204035		0.33		SC		0.1
<i>Ferrissia rivularis</i>	10010204035066	0.33			--	0.1	
<i>Pisidium</i>	10020201002	0.67	0.67		CF	0.2	0.2