



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

Station Information

Station Number: S-1031 River Basin: St. John
Waterbody: Williams Brook - Station 1031 HUC8 Name: Becaguimec Stream-Saint John Riv
Town: Presque Isle Latitude: 46° 36' 38.727" N
Directions: 20M DOWNSTREAM OF EGYPT ROAD Longitude: 67° 56' 1.635" W
Stream Order: 2

Sample Information

Log Number: 2281 Type of Sample: ROCK BAG Date Deployed: 7/23/2014
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/20/2014

Classification Attainment

Statutory Class: B **Final Determination: A** Date: 11/3/2014
Model Result with $P \geq 0.6$: A **Reason for Determination: Model**
Date Last Calculated: 11/3/2014 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.77	Class A, B, or C	1.00
Class B	0.23	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	0.99
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	212.00	18 Relative Abundance Ephemeroptera	0.12
02 Generic Richness	62.00	19 EPT Generic Richness	30.00
03 Plecoptera Mean Abundance	6.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.38
04 Ephemeroptera Mean Abundance	25.67	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	4.69	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	50.94
06 Hilsenhoff Biotic Index	4.92	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	3.02
07 Relative Abundance - Chironomidae	0.44	28 EP Generic Richness/14	1.36
08 Relative Generic Richness Diptera	0.37	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	20.79		
11 <i>Cheumatopsyche</i> Abundance	11.55		
12 EPT Generic Richness/ Diptera	1.30		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	3.33		
Functional Group)			
16 Tanypodinae Mean Abundance	4.15		
(Family Functional Group)			
17 Chironomini Abundance (Family	24.54		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	12.55
2	<i>Microtendipes</i>	10.60
3	<i>Hydropsyche</i>	9.80
4	<i>Polycentropus</i>	8.75
5	<i>Cricotopus</i>	6.03



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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:	8.4 mg/l
Specific Conductance:	404 uS/cm
Velocity:	7 cm/s
pH:	8.02
Wetted Width:	5.5 m
Bankfull Width:	5.9 m
Depth:	42 cm

Waterbody Information - Retrieval

Temperature:	16.3 deg C
Dissolved Oxygen:	9.4 mg/l
Specific Conductance:	425 uS/cm
Velocity:	1 cm/s
pH:	7.72
Wetted Width:	5.5 m
Bankfull Width:	5.9 m
Depth:	40 cm

Water Chemistry - 7/29/2014

Nitrate+nitrite As N	0.61 mg/l	Total Phosphorus	43 ug/l
Total Kjeldahl Nitrogen	0.5 mg/l	Orthophosphate As Phosphorus	8 ug/l
Total Alkalinity	184 mg/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Cultivated	Partly Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Agricultural Runoff	Below Road Crossing	Boulder	40 %
		Gravel	5 %
		Rubble/Cobble	50 %
		Silt	5 %

Landcover Summary - 2004 Data

Sample Comments

7/23 - MANY RECENT BLOW DOWNS, BELOW ROCK BAGS ENOUGH BLOW DOWNS TO ALTER STREAM CHANNEL (MIGHT HAVE BEEN DUE TO HURRICANE ARTHUR).

8/20 - NMRO METER USED FOR DO, TEMP AND SPC.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-1031	Waterbody: Williams Brook - Station 1031	Town: Presque Isle
Log Number: 2281	Subsample Factor: X1	Replicates: 3
		Calculated: 11/3/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Lumbriculidae	08020101	0.33	0.33		--	0.2	0.2
<i>Paracapnia</i>	09020203018	0.33	0.33	1	SH	0.2	0.2
<i>Leuctra</i>	09020204020	0.67	2.00	0	SH	0.3	0.9
<i>Leuctra truncata</i>	09020204020058	1.33			--	0.6	
<i>Pteronarcys</i>	09020205023		0.33	0	SH		0.2
<i>Pteronarcys biloba</i>	09020205023061	0.33			--	0.2	
Perlodidae	09020207	0.67	0.67		--	0.3	0.3
<i>Agnatina</i>	09020209050	0.33	3.33	2	PR	0.2	1.6
<i>Agnatina capitata</i>	09020209050152	3.00		2	PR	1.4	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.3
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.3	
Calopterygidae	09020307	2.00	2.00		--	0.9	0.9
<i>Baetis</i>	09020401001		0.67	4	CG		0.3
<i>Baetis flavistriga</i>	09020401001004	0.67			--	0.3	
<i>Acerpenna</i>	09020401007	1.33	4.67	5	CG	0.6	2.2
<i>Acerpenna macdunnoughi</i>	09020401007001	3.33			--	1.6	
<i>Proclleon</i>	09020401010	1.00	1.00		CG	0.5	0.5
<i>Anafroptilum (Centroptilum)</i>	09020401016	2.00	2.00	2	CG	0.9	0.9
Heptageniidae	09020402	0.67			--	0.3	
<i>Leucrocuta</i>	09020402011	1.67	1.89	1	SC	0.8	0.9
<i>Stenacron</i>	09020402014		0.76	7	SC		0.4
<i>Stenacron interpunctatum</i>	09020402014045	0.67			--	0.3	
<i>Maccaffertium</i>	09020402015	2.33	3.02	4	SC	1.1	1.4
<i>Maccaffertium luteum</i>	09020402015049	0.33			--	0.2	
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
<i>Paraleptophlebia</i>	09020406026	1.00	1.00	1	CG	0.5	0.5
<i>Ephemera</i>	09020407027	0.33	0.33	1	CG	0.2	0.2
<i>Litobranca</i>	09020407029		0.33		--		0.2
<i>Litobranca recurvata</i>	09020407029090	0.33			--	0.2	
<i>Ephemerella</i>	09020410035	7.00	7.00	1	CG	3.3	3.3
<i>Eurylophella</i>	09020410036	2.33	2.33	3	CG	1.1	1.1
<i>Tricorythodes</i>	09020411038	0.33	0.33	4	CG	0.2	0.2
Polycentropodidae	09020603	0.67			--	0.3	
<i>Cernotina</i>	09020603006	0.67	0.69		PR	0.3	0.3
<i>Nyctiophylax</i>	09020603009		3.43	5	PR		1.6
<i>Nyctiophylax moestus</i>	09020603009013	3.33			--	1.6	
<i>Polycentropus</i>	09020603010	18.00	18.55	6	PR	8.5	8.7
Hydropsychidae	09020604	4.33			--	2.0	



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		Actual	Adjusted			Actual	Adjusted
<i>Cheumatopsyche</i>	09020604015	10.00	11.55	5	CF	4.7	5.4
<i>Hydropsyche</i>	09020604016	10.33	20.79	4	CF	4.9	9.8
<i>Hydropsyche slossonae</i>	09020604016031	6.67			--	3.1	
<i>Hydropsyche sparna</i>	09020604016032	1.00			--	0.5	
<i>Rhyacophila</i>	09020605019	0.33	1.00	2	PR	0.2	0.5
<i>Rhyacophila fuscula</i>	09020605019060	0.33			PR	0.2	
<i>Rhyacophila minor</i>	09020605019063	0.33			PR	0.2	
<i>Oligostomis</i>	09020608039	1.00	1.00	2	PR	0.5	0.5
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Mystacides</i>	09020618075		2.33	4	CG		1.1
<i>Mystacides sepulchralis</i>	09020618075147	2.33			--	1.1	
<i>Oecetis</i>	09020618078	0.33	0.33	8	PR	0.2	0.2
<i>Goera</i>	09020620063		0.33	0	SC		0.2
<i>Goera fuscula</i>	09020620063125	0.33			--	0.2	
<i>Sialis</i>	09020702004	0.33	0.33	4	PR	0.2	0.2
<i>Antocha</i>	09021001004	3.67	3.67	3	CG	1.7	1.7
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.2	0.2
Chironomidae	09021011	3.33			--	1.6	
<i>Labrundinia</i>	09021011008		0.35	7	PR		0.2
<i>Labrundinia pilosella</i>	09021011008022	0.33			--	0.2	
<i>Meropelopia</i>	09021011010	0.67	0.69		--	0.3	0.3
<i>Paramerina</i>	09021011013	2.33	2.42		--	1.1	1.1
<i>Rheopelopia</i>	09021011017	0.67	0.69		PR	0.3	0.3
<i>Corynoneura</i>	09021011036	0.33	0.35	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037		12.79	7	SH		6.0
<i>Cricotopus bicinctus</i>	09021011037057	4.67			--	2.2	
<i>Cricotopus luciae</i>	09021011037073	3.33			--	1.6	
<i>Cricotopus annulator complex</i>	09021011037074	3.00			--	1.4	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	1.33			SH	0.6	
<i>Limnophyes</i>	09021011047	0.33	0.35	8	CG	0.2	0.2
<i>Nanocladius</i>	09021011049			3	CG		
<i>Orthocladius</i>	09021011050		3.11	6	CG		1.5
<i>Orthocladius annectens</i>	09021011050092	1.67			--	0.8	
<i>Orthocladius carlatus</i>	09021011050093	1.33			--	0.6	
<i>Parakiefferiella</i>	09021011052	0.67	0.69		CG	0.3	0.3
<i>Parametriocnemus</i>	09021011053	0.33	0.35	5	CG	0.2	0.2
<i>Synorthocladius</i>	09021011061	0.67	0.69	2	CG	0.3	0.3
<i>Thienemanniella</i>	09021011062		4.84	6	CG		2.3



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<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.6	
<i>Thienemanniella lobapodema</i>	09021011062114	0.67			--	0.3	
<i>Thienemanniella taurocapita</i>	09021011062115	2.67			--	1.3	
<i>Tvetenia paucunca</i>	09021011065114				--		
<i>Micropsectra</i>	09021011070	1.33	1.38	7	CG	0.6	0.7
<i>Rheotanytarsus</i>	09021011072		7.60	6	CF		3.6
<i>Rheotanytarsus exiguus</i>	09021011072127	1.33			CF	0.6	
<i>Rheotanytarsus pellucidus</i>	09021011072128	6.00			CF	2.8	
<i>Stempellinella</i>	09021011074		6.22	2	--		2.9
<i>Stempellinella leptocelloides</i>	09021011074001	1.67			--	0.8	
<i>Stempellinella fimbriata</i>	09021011074002	4.33			--	2.0	
<i>Sublettea</i>	09021011075		0.35		--		0.2
<i>Sublettea coffmani</i>	09021011075131	0.33			--	0.2	
<i>Tanytarsus</i>	09021011076	18.67	26.61	6	CF	8.8	12.6
<i>Tanytarsus buckleyi</i>	09021011076139	7.00			CF	3.3	
<i>Microtendipes</i>	09021011094		22.46	6	CF		10.6
<i>Microtendipes pedellus group</i>	09021011094166	5.00			--	2.4	
<i>Microtendipes rydalensis group</i>	09021011094168	16.67			--	7.9	
<i>Phaenopsectra</i>	09021011101		1.73	7	SC		0.8
<i>Phaenopsectra obediens</i>	09021011101182	1.67			SC	0.8	
<i>Polypedilum</i>	09021011102		0.35	6	SH		0.2
<i>Polypedilum albicorne</i>	09021011102195	0.33			--	0.2	
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.2	0.2
<i>Dubiraphia</i>	09021113064	1.67	11.00	6	--	0.8	5.2
<i>Dubiraphia minima</i>	09021113064036	0.33			--	0.2	
<i>Dubiraphia quadrinotata</i>	09021113064037	9.00			--	4.2	
<i>Optioservus</i>	09021113067	3.33	3.33	3	SC	1.6	1.6
<i>Promoresia</i>	09021113069		2.33		--		1.1
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.2	
<i>Promoresia tardella</i>	09021113069052	2.00			--	0.9	
<i>Physa</i>	10010202027	0.67	0.67		SC	0.3	0.3
<i>Helisoma</i>	10010203030		0.33		SC		0.2
<i>Helisoma trivolvis</i>	10010203030061	0.33			--	0.2	