



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

Station Information

Station Number:	S-1027	River Basin:	St. John
Waterbody:	Unnamed Brook (presque Isle) - Station 1027	HUC8 Name:	Aroostook
Town:	Presque Isle	Latitude:	46° 44' 52.270" N
Directions:	60M UPSTREAM OF ROUTE 205 CROSSING (PARKHURST SIDING RD)	Longitude:	67° 57' 23.112" W
		Stream Order:	2

Sample Information

Log Number:	2275	Type of Sample:	ROCK BAG	Date Deployed:	7/22/2014
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/19/2014

Classification Attainment

Statutory Class:	B	Final Determination:	B	Date:	3/12/2015
Model Result with $P \geq 0.6$:	B	Reason for Determination:	Best Professional Judgement		
Date Last Calculated:	3/12/2015	Comments:	Indeterminate for Class A (.55) not raised to Class A based on Generic Richness and EPT Generic Richness.		

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.56	Class C	0.01	Class A, B, or C	1.00
Class B	0.44	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B		1.00		Class A	0.55
Class C or Non-Attainment		0.00		Class B or C or Non-Attainment	0.45

Model Variables

01 Total Mean Abundance	248.33	18 Relative Abundance Ephemeroptera	0.73
02 Generic Richness	29.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	11.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	4.67
04 Ephemeroptera Mean Abundance	180.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	1.84	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	5.00
06 Hilsenhoff Biotic Index	3.80	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.06	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.45	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	2.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.92		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.67		
17 Chironomini Abundance (Family Functional Group)	1.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Baetis</i>	72.08
2	<i>Simulium</i>	6.58
3	<i>Sweltsa</i>	4.70
4	<i>Psychoglypha</i>	3.89
5	<i>Parapsyche</i>	3.22



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Station Number: S-1027	Town: Presque Isle	Date Deployed: 7/22/2014
Log Number: 2275	Waterbody: Unnamed Brook (presque Isle) - Station 1027	Date Retrieved: 8/19/2014

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	13.5 deg C
Dissolved Oxygen:	9.4 mg/l
Specific Conductance:	375 uS/cm
Velocity:	35 cm/s
pH:	7.04
Wetted Width:	2.55 m
Bankfull Width:	4.8 m
Depth:	27 cm

Waterbody Information - Retrieval

Temperature:	14 deg C
Dissolved Oxygen:	9.64 mg/l
Specific Conductance:	402 uS/cm
Velocity:	34 cm/s
pH:	7.57
Wetted Width:	2.5 m
Bankfull Width:	4.8 m
Depth:	27 cm

Water Chemistry - 7/8/2014

Nitrate+nitrite As N	3.3 mg/l	Total Phosphorus	36 ug/l
Total Kjeldahl Nitrogen	0.3 mg/l	Orthophosphate As Phosphorus	20 ug/l
Total Alkalinity	164 mg/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Partly Open	Rolling
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Agricultural Runoff	Above Road Crossing	Boulder 5 %
		Gravel 25 %
		Rubble/Cobble 70 %

Landcover Summary - 2004 Data

Sample Comments

7/22 - LOTS OF GRAVEL BARS.

8/19 - NMRO METER USED FOR DO, TEMP AND SPC.



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

Station Number: S-1027 Waterbody: Unnamed Brook (presque Isle) - Station 102 Town: Presque Isle
Log Number: 2275 Subsample Factor: X1 Replicates: 3 Calculated: 3/12/2015

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Nematoda	05	0.33	0.33		--	0.1	0.1
Lumbricidae	08020205	0.33	0.33		--	0.1	0.1
<i>Sweltsa</i>	09020208040	11.67	11.67		PR	4.7	4.7
Baetidae	09020401	0.33	0.33		--	0.1	0.1
<i>Baetis</i>	09020401001	3.00	179.00	4	CG	1.2	72.1
<i>Baetis flavistriga</i>	09020401001004	26.33			--	10.6	
<i>Baetis tricaudatus</i>	09020401001012	149.67			--	60.3	
<i>Ephemerella</i>	09020410035	1.00	1.00	1	CG	0.4	0.4
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.1	0.1
<i>Parapsyche</i>	09020604013		8.00	0	CF		3.2
<i>Parapsyche apicalis</i>	09020604013023	8.00			--	3.2	
<i>Diplectrona</i>	09020604014		0.67	0	CF		0.3
<i>Diplectrona modesta</i>	09020604014025	0.67			--	0.3	
<i>Hydropsyche</i>	09020604016		2.00	4	CF		0.8
<i>Hydropsyche bronta</i>	09020604016029	1.00			--	0.4	
<i>Hydropsyche sparna</i>	09020604016032	1.00			--	0.4	
<i>Rhyacophila</i>	09020605019	0.33	0.33	2	PR	0.1	0.1
<i>Glossosoma</i>	09020606020		0.33	0	SC		0.1
<i>Glossosoma nigrior</i>	09020606020068	0.33			SC	0.1	
<i>Hesperophylax</i>	09020610054		0.67	3	SH		0.3
<i>Hesperophylax designatus</i>	09020610054110	0.67			--	0.3	
<i>Psychoglypha</i>	09020610060		9.67	0	SH		3.9
<i>Psychoglypha subborealis</i>	09020610060120	9.67			--	3.9	
<i>Dicranota</i>	09021001005	0.67	0.67	3	PR	0.3	0.3
<i>Ablabesmyia</i>	09021011001		0.33	8	PR		0.1
<i>Ablabesmyia mallochii</i>	09021011001004	0.33			--	0.1	
<i>Meropelopia</i>	09021011010	0.33	0.33		--	0.1	0.1
<i>Pagastia</i>	09021011025		1.33	1	--		0.5
<i>Pagastia orthogonia</i>	09021011025001	1.33			--	0.5	
<i>Pseudodiamesa</i>	09021011028	0.33	0.33		CG	0.1	0.1
<i>Cricotopus</i>	09021011037		4.67	7	SH		1.9
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.5	
<i>Cricotopus trifascia</i>	09021011037070	3.00			--	1.2	
<i>Cricotopus annulator complex</i>	09021011037074	0.33			--	0.1	
<i>Diplocladius</i>	09021011038		0.33	8	CG		0.1
<i>Diplocladius cultriger</i>	09021011038001	0.33			--	0.1	
<i>Parametriocnemus</i>	09021011053	2.33	2.33	5	CG	0.9	0.9
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.1	0.1



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Micropsectra</i>	09021011070	4.67	4.67	7	CG	1.9	1.9
<i>Rheotanytarsus</i>	09021011072	0.33	0.33	6	CF	0.1	0.1
<i>Polypedilum</i>	09021011102		1.00	6	SH		0.4
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	0.4	
<i>Simulium</i>	09021012047	0.67	16.33	4	CF	0.3	6.6
<i>Simulium vittatum</i>	09021012047064	14.67			--	5.9	
<i>Simulium tuberosum</i>	09021012047067	1.00			--	0.4	
Curculionidae	09021115	0.33	0.33		--	0.1	0.1
<i>Musculium</i>	10020201001	0.33	0.33		CF	0.1	0.1