



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

Station Information

Station Number: S-197	River Basin: St. John
Waterbody: Presque Isle Stream - Station 197	HUC8 Name: Aroostook
Town: Presque Isle	Latitude: 46 41 51.01 N
Directions: BELOW PRESQUE ISLE POTW	Longitude: 68 1 1.93 W
	Stream Order: 3

Sample Information

Log Number: 2277	Type of Sample: ROCK BAG	Date Deployed: 7/22/2014
Subsample Factor: X4	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: Model	
Date Last Calculated: 3/12/2015	Comments:	

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.20	Class A, B, or C	1.00
Class B	0.65	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.97	Class A	0.30
Class C or Non-Attainment	0.03	Class B or C or Non-Attainment	0.70

Model Variables

01 Total Mean Abundance	608.00	18 Relative Abundance Ephemeroptera	0.22
02 Generic Richness	30.00	19 EPT Generic Richness	15.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	136.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	2.83	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	33.33
06 Hilsenhoff Biotic Index	4.14	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	21.33
07 Relative Abundance - Chironomidae	0.12	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	328.00		
11 <i>Cheumatopsyche</i> Abundance	13.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.50		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	2.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.67		
17 Chironomini Abundance (Family Functional Group)	13.33		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	53.95
2	<i>Baetis</i>	10.78
3	<i>Dubiraphia</i>	4.61
4	<i>Cricotopus</i>	3.29
5	<i>Maccaffertium</i>	3.07



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	25.3 deg C
Dissolved Oxygen:	9.7 mg/l
Specific Conductance:	167 uS/cm
Velocity:	58 cm/s
pH:	8.17
Wetted Width:	21 m
Bankfull Width:	24 m
Depth:	35 cm

Waterbody Information - Retrieval

Temperature:	21.3 deg C
Dissolved Oxygen:	9.48 mg/l
Specific Conductance:	167 uS/cm
Velocity:	44 cm/s
pH:	7.17
Wetted Width:	19 m
Bankfull Width:	24 m
Depth:	32 cm

Water Chemistry - 7/30/2014

Nitrate+nitrite As N	0.15 mg/l	Total Phosphorus	35 ug/l
Total Kjeldahl Nitrogen	0.4 mg/l	Orthophosphate As Phosphorus	3 ug/l
Total Alkalinity	61 mg/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Open	Rolling
Upland Conifer		
Upland Hardwood		
Urban		

<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Below Town	Boulder 5 %
Urban Runoff	Below Urban NPS	Gravel 10 %
		Rubble/Cobble 75 %
		Sand 10 %

Landcover Summary - 2004 Data

Total Area (ac)	123609	High Int. Dev. %	0.6	Water %	0.8	Non-vegetated %	0.1
		Med Int. Dev. %	0.3	Wetland %	10.0	Tilled Agriculture %	11.0
		Low Int. Dev. %	2.2	Upland Woody %	72.3	Grassland %	1.9
		Development %	3.1	Natural %	82.4	Human Altered %	16.8
						Impervious %	1.5

Sample Comments

7/22 - FISH PRESENT.

8/19 - FISH PRESENT, MONARCH SIGHTED. (LATER DETERMINED TO BE A VICEROOY) NMRO
METER USED FOR DO, TEMP AND SPC.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-197

Waterbody: Presque Isle Stream - Station 197

Town: Presque Isle

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Subsample Factor: X4

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
<i>Orconectes</i>	09010301008		4.00		CG		0.7
<i>Orconectes virilis</i>	09010301008016	4.00			--	0.7	
<i>Acroneuria</i>	09020209042		2.67	0	PR		0.4
<i>Acroneuria lycorias</i>	09020209042125	2.67			--	0.4	
Baetidae	09020401	5.33			--	0.9	
<i>Baetis</i>	09020401001	12.00	65.56	4	CG	2.0	10.8
<i>Baetis flavistriga</i>	09020401001004	8.00			--	1.3	
<i>Baetis intercalaris</i>	09020401001008	41.33			--	6.8	
<i>Acerpenna</i>	09020401007	4.00	14.25	5	CG	0.7	2.3
<i>Acerpenna pygmaea</i>	09020401007011	9.33			--	1.5	
<i>Plauditus</i>	09020401012	1.33	1.43		CG	0.2	0.2
<i>Iswaeon</i>	09020401015	1.33	1.43		--	0.2	0.2
<i>Epeorus</i>	09020402009	2.67	2.67	0	SC	0.4	0.4
<i>Leucrocuta</i>	09020402011	12.00	12.00	1	SC	2.0	2.0
<i>Maccaffertium</i>	09020402015	5.33	18.67	4	SC	0.9	3.1
<i>Maccaffertium luteum</i>	09020402015049	13.33			--	2.2	
<i>Isonychia</i>	09020404018	4.00	4.00	2	CF	0.7	0.7
<i>Ephemerella</i>	09020410035	8.00	8.00	1	CG	1.3	1.3
<i>Serratella</i>	09020410037		5.33	2	CG		0.9
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	5.33			--	0.9	
<i>Tricorythodes</i>	09020411038	2.67	2.67	4	CG	0.4	0.4
<i>Chimarra</i>	09020601003	13.33	17.33	2	CF	2.2	2.9
<i>Chimarra socia</i>	09020601003004	4.00			--	0.7	
<i>Cheumatopsyche</i>	09020604015	13.33	13.33	5	CF	2.2	2.2
<i>Hydropsyche</i>	09020604016	213.33	328.00	4	CF	35.1	53.9
<i>Hydropsyche bronta</i>	09020604016029	24.00			--	3.9	
<i>Hydropsyche morosa</i>	09020604016030	68.00			--	11.2	
<i>Hydropsyche sparna</i>	09020604016032	16.00			--	2.6	
<i>Hydropsyche placoda</i>	09020604016059	6.67			--	1.1	
<i>Rheopelopia</i>	09021011017		2.67		PR		0.4
<i>Rheopelopia acra group</i>	09021011017036	2.67			--	0.4	
<i>Pseudodiamesa</i>	09021011028	1.33	1.33		CG	0.2	0.2
<i>Cricotopus</i>	09021011037	5.33	20.00	7	SH	0.9	3.3
<i>Cricotopus bicinctus</i>	09021011037057	8.00			--	1.3	
<i>Cricotopus politus</i>	09021011037077	2.67			--	0.4	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	4.00			SH	0.7	
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062		2.67	6	CG		0.4



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		Actual	Adjusted			Actual	Adjusted
<i>Thienemanniella xena</i>	09021011062110	2.67			--	0.4	
<i>Tvetenia</i>	09021011065		13.33	5	CG		2.2
<i>Tvetenia vitracies</i>	09021011065113	13.33			--	2.2	
<i>Rheotanytarsus</i>	09021011072	16.00	16.00	6	CF	2.6	2.6
<i>Sublettea</i>	09021011075		1.33		--		0.2
<i>Sublettea coffmani</i>	09021011075131	1.33			--	0.2	
<i>Polypedilum</i>	09021011102	1.33	13.33	6	SH	0.2	2.2
<i>Polypedilum flavum</i>	09021011102182	12.00			--	2.0	
<i>Simulium</i>	09021012047		1.33	4	CF		0.2
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.2	
<i>Dubiraphia</i>	09021113064	1.33	28.00	6	--	0.2	4.6
<i>Dubiraphia minima</i>	09021113064036	25.33			--	4.2	
<i>Dubiraphia quadrinotata</i>	09021113064037	1.33			--	0.2	
<i>Macronychus</i>	09021113065		1.33	4	--		0.2
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.2	
<i>Optioservus</i>	09021113067	2.67	2.67	3	SC	0.4	0.4
<i>Promoresia</i>	09021113069		1.33		--		0.2
<i>Promoresia tardella</i>	09021113069052	1.33			--	0.2	