



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

Station Information

Station Number: S-594
Waterbody: Aroostook River - Station 594
Town: Presque Isle
Directions: UPSTREAM OF PRESQUE ISLE STREAM

DEP Drainage:
HUC8: 01010004
HUC8 Name: Aroostook
Latitude: 46 42 48.19 N
Longitude: 68 1 7.3 W
Stream Order: 5

Sample Information

Log Number: 2134 Type of Sample: ROCK BAG Date Deployed: 7/31/2012
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/27/2012

Classification Attainment

Statutory Class: B **Final Determination: A** Date: 1/16/2013
Model Result with P>.6: A **Reason for Determination: Model**
Date Last Calculated: 1/15/2013 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.70	Class A, B, or C	1.00
Class B	0.29	Non-Attainment	0.00
Class C		0.01	
NA		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	0.47
02 Generic Richness	36.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	5.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	98.67	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.82	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	13.83
06 Hilsenhoff Biotic Index	3.83	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	18.71
07 Relative Abundance - Chironomidae	0.36	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.28	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	20.27		
11 <i>Cheumatopsyche</i> Abundance	2.06		
12 EPT Generic Richness/ Diptera	2.10		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	5.67		
Functional Group)			
16 Tanypodinae Mean Abundance	0.67		
(Family Functional Group)			
17 Chironomini Abundance (Family	3.03		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	24.90
2	<i>Ephemerella</i>	11.16
3	<i>Epeorus</i>	9.74
4	<i>Hydropsyche</i>	9.56
5	<i>Acerpenna</i>	6.93



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Date Retrieved: 8/27/2012

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 25.6 deg C
Dissolved Oxygen: 8.6 mg/l
Specific Conductance: 102 uS/cm
Velocity: 38 cm/s
pH: 7.67
Wetted Width: 70 m
Bankfull Width: 86 m
Depth: 47 cm

Waterbody Information - Retrieval

Temperature: 27.7 deg C
Dissolved Oxygen: 8.5 mg/l
Specific Conductance: 95 uS/cm
Velocity: 30 cm/s
pH: 8.2
Wetted Width: 68 m
Bankfull Width: 86 m
Depth: 35 cm

Water Chemistry - 8/27/2012

Soluble Reactive Phosphorus	1 ug/l	Nitrate+nitrite As N	0.02 mg/l
Total Phosphorus	0.015 mg/l	Total Kjeldahl Nitrogen	0.3 mg/l
Total Alkalinity	39 mg/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Open	Rolling
Swamp Hardwood		
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Agricultural Runoff	Below Agriculture NPS	Boulder 40 %
	Main Stem	Gravel 10 %
		Rubble/Cobble 45 %
		Sand 5 %

Landcover Summary - 2004 Data

Sample Comments

7/31/12: FISH OBSERVED.



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

Station Number: S-594

Waterbody: Aroostook River - Station 594

Town: Presque Isle

Log Number: 2134

Subsample Factor: X1

Replicates: 3

Calculated: 1/15/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Acroneuria</i>	09020209042		5.67	0	PR		2.7
<i>Acroneuria lycorias</i>	09020209042125	5.67			--	2.7	
<i>Ophiogomphus</i>	09020302015		0.33	1	PR		0.2
<i>Ophiogomphus anomalus</i>	09020302015031	0.33			--	0.2	
<i>Neurocordulia</i>	09020305026		0.33	2	PR		0.2
<i>Neurocordulia michaeli</i>	09020305026054	0.33			--	0.2	
Baetidae	09020401	0.67			--	0.3	
<i>Baetis</i>	09020401001	0.33	3.42	4	CG	0.2	1.6
<i>Baetis intercalaris</i>	09020401001008	3.00			--	1.4	
<i>Acerpenna</i>	09020401007	2.33	14.69	5	CG	1.1	6.9
<i>Acerpenna pygmaea</i>	09020401007011	12.00			--	5.7	
<i>Labiobaetis</i>	09020401009		0.34		--		0.2
<i>Labiobaetis propinquus</i>	09020401009010	0.33			--	0.2	
<i>Procloeon</i>	09020401010	0.33	0.34		CG	0.2	0.2
<i>Plauditus</i>	09020401012	8.33	8.88		CG	3.9	4.2
<i>Plauditus virile</i>	09020401012002	0.33			--	0.2	
Heptageniidae	09020402	3.00			--	1.4	
<i>Epeorus</i>	09020402009	19.00	20.64	0	SC	9.0	9.7
<i>Leucrocuta</i>	09020402011	3.33	3.62	1	SC	1.6	1.7
<i>Stenacron</i>	09020402014	0.33	0.36	7	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	10.67	13.04	4	SC	5.0	6.2
<i>Maccaffertium luteum</i>	09020402015049	1.00			--	0.5	
<i>Maccaffertium mediopunctatum</i>	09020402015050	0.33			--	0.2	
<i>Isonychia</i>	09020404018	2.00	2.00	2	CF	0.9	0.9
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
<i>Ephemerella</i>	09020410035	23.67	23.67	1	CG	11.2	11.2
<i>Eurylophella</i>	09020410036	0.33	0.33	3	CG	0.2	0.2
<i>Serratella</i>	09020410037		7.00	2	CG		3.3
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	7.00			--	3.3	
<i>Chimarra</i>	09020601003	1.33	1.33	2	CF	0.6	0.6
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.2	0.2
Hydropsychidae	09020604	0.67			--	0.3	
<i>Cheumatopsyche</i>	09020604015	2.00	2.06	5	CF	0.9	1.0
<i>Hydropsyche</i>	09020604016	13.33	20.27	4	CF	6.3	9.6
<i>Hydropsyche morosa</i>	09020604016030	5.00			--	2.4	
<i>Hydropsyche placoda</i>	09020604016059	1.33			--	0.6	
<i>Hydroptila</i>	09020607026	2.00	2.00	6	P	0.9	0.9
<i>Oecetis</i>	09020618078		0.33	8	PR		0.2



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		Actual	Adjusted			Actual	Adjusted
<i>Oecetis avara</i>	09020618078153	0.33			--	0.2	
Chironomidae	09021011	0.67			--	0.3	
<i>Rheopelopia</i>	09021011017		0.67		PR		0.3
<i>Rheopelopia acra group</i>	09021011017036	0.67			--	0.3	
<i>Cricotopus</i>	09021011037		11.43	7	SH		5.4
<i>Cricotopus bicinctus</i>	09021011037057	11.33			--	5.3	
<i>Nanocladius</i>	09021011049		3.03	3	CG		1.4
<i>Nanocladius branchicolus</i>	09021011049091	0.33			--	0.2	
<i>Nanocladius downesi</i>	09021011049092	2.67			--	1.3	
<i>Tvetenia</i>	09021011065		4.04	5	CG		1.9
<i>Tvetenia vitracies</i>	09021011065113	4.00			--	1.9	
<i>Rheotanytarsus</i>	09021011072	52.33	52.80	6	CF	24.7	24.9
<i>Sublettea</i>	09021011075		0.67		--		0.3
<i>Sublettea coffmani</i>	09021011075131	0.67			--	0.3	
<i>Tanytarsus</i>	09021011076	0.33	0.34	6	CF	0.2	0.2
<i>Microtendipes</i>	09021011094			6	CF		
<i>Polypedilum</i>	09021011102		3.03	6	SH		1.4
<i>Polypedilum flavum</i>	09021011102182	2.67			--	1.3	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.2	
<i>Simulium</i>	09021012047		1.33	4	CF		0.6
<i>Simulium jenningsi complex</i>	09021012047070	1.33			CF	0.6	
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.2	0.2
<i>Dubiraphia</i>	09021113064		2.00	6	--		0.9
<i>Dubiraphia minima</i>	09021113064036	2.00			--	0.9	
<i>Promoresia</i>	09021113069		0.67		--		0.3
<i>Promoresia elegans</i>	09021113069051	0.67			--	0.3	
<i>Ferrissia</i>	10010204035		0.33		SC		0.2
<i>Ferrissia rivularis</i>	10010204035066	0.33			--	0.2	