



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

Station Information

Station Number: S-595
Waterbody: Aroostook River - Station 595
Town: Presque Isle
Directions: DOWNSTREAM OF PRESQUE ISLE STREAM -
UPSTREAM OF BURLOCK ROAD

DEP Drainage: St. John
HUC8: 01010004
HUC8 Name: Aroostook
Latitude: 46 42 3.23 N
Longitude: 67 57 57.4 W
Stream Order: 5

Sample Information

Log Number: 2135
Subsample Factor: X4
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/30/2012
Date Retrieved: 8/27/2012

Classification Attainment

Statutory Class: C
Model Result with P>.6: A
Date Last Calculated: 1/18/2013
Final Determination: A
Reason for Determination: Model
Comments:

Date: 1/22/2013

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	0.43	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	0.95
Class C or Non-Attainment		0.00		Class B or C or Non-Attainment	0.05

Model Variables

01 Total Mean Abundance	768.00	18 Relative Abundance Ephemeroptera	0.50
02 Generic Richness	43.00	19 EPT Generic Richness	23.00
03 Plecoptera Mean Abundance	9.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	386.67	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.92	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	132.43
06 Hilsenhoff Biotic Index	4.11	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	185.46
07 Relative Abundance - Chironomidae	0.07	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.21	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	111.83		
11 <i>Cheumatopsyche</i> Abundance	121.50		
12 EPT Generic Richness/ Diptera Generic Richness	2.56		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	9.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.37		
17 Chironomini Abundance (Family Functional Group)	34.15		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	23.28
2	<i>Cheumatopsyche</i>	15.82
3	<i>Hydropsyche</i>	14.56
4	<i>Acerpenna</i>	6.22
5	<i>Isonychia</i>	5.38



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Waterbody: Aroostook River - Station 595

Date Retrieved: 8/27/2012

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 29 deg C
Dissolved Oxygen: 12.1 mg/l
Specific Conductance: 156 uS/cm
Velocity: 42 cm/s
pH: 9.01
Wetted Width: 77 m
Bankfull Width: 79 m
Depth: 55 cm

Waterbody Information - Retrieval

Temperature: 26.9 deg C
Dissolved Oxygen: 10.2 mg/l
Specific Conductance: 122 uS/cm
Velocity: 24 cm/s
pH: 8.78
Wetted Width: 54 m
Bankfull Width: 79 m
Depth: 30 cm

Water Chemistry - 8/27/2012

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	1 ug/l
Nitrate+nitrite As N	0.09 mg/l	Total Phosphorus	0.02 mg/l
Total Kjeldahl Nitrogen	0.4 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	5.1 mg/l	Total Dissolved Solids	68 mg/l

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Cultivated

Open

Rolling

Upland Hardwood

Urban

Potential Stressor

Location

Substrate

Agricultural Runoff

Below Agriculture NPS

Boulder 10 %

Urban Runoff

Below Point Source

Gravel 35 %

Below Urban NPS

Rubble/Cobble 30 %

Main Stem

Sand 25 %

Landcover Summary - 2004 Data

Sample Comments

8/27/12: FISH (COMMON SHINER, FALLFISH, STICKLEBACK) AND MUSSELS OBSERVED.

7/30/12: FISH OBSERVED.



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

Station Number: S-595

Waterbody: Aroostook River - Station 595

Town: Presque Isle

Log Number: 2135

Subsample Factor: X4

Replicates: 3

Calculated: 1/18/2013

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		0.5
<i>Orconectes virilis</i>	09010301008016	4.00			--	0.5	
Perlidae	09020209	2.67	2.67		--	0.3	0.3
<i>Acroneuria</i>	09020209042		6.67	0	PR		0.9
<i>Acroneuria lyctorias</i>	09020209042125	6.67			--	0.9	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.2	
<i>Gomphus</i>	09020302012	1.33	1.33	5	PR	0.2	0.2
<i>Calopteryx</i>	09020307043		2.67	5	PR		0.3
<i>Calopteryx aequabilis</i>	09020307043085	2.67			--	0.3	
Baetidae	09020401	1.33			--	0.2	
<i>Baetis</i>	09020401001		2.73	4	CG		0.4
<i>Baetis intercalaris</i>	09020401001008	2.67			--	0.3	
<i>Acerpenna</i>	09020401007	28.00	47.78	5	CG	3.6	6.2
<i>Acerpenna pygmaea</i>	09020401007011	18.67			--	2.4	
<i>Labiobaetis</i>	09020401009		4.10		--		0.5
<i>Labiobaetis propinquus</i>	09020401009010	4.00			--	0.5	
<i>Plauditus</i>	09020401012	2.67	2.73		CG	0.3	0.4
Heptageniidae	09020402	37.33			--	4.9	
<i>Epeorus</i>	09020402009	6.67	7.91	0	SC	0.9	1.0
<i>Leucrocuta</i>	09020402011	24.00	28.48	1	SC	3.1	3.7
<i>Stenacron</i>	09020402014	9.33	22.15	7	SC	1.2	2.9
<i>Stenacron interpunctatum</i>	09020402014045	9.33			--	1.2	
<i>Maccaffertium</i>	09020402015	34.67	178.79	4	SC	4.5	23.3
<i>Maccaffertium luteum</i>	09020402015049	98.67			--	12.8	
<i>Maccaffertium mediopunctatum</i>	09020402015050	17.33			--	2.3	
<i>Isonychia</i>	09020404018	41.33	41.33	2	CF	5.4	5.4
<i>Ephemerella</i>	09020410035	28.00	28.00	1	CG	3.6	3.6
<i>Eurylophella</i>	09020410036	5.33	5.33	3	CG	0.7	0.7
<i>Serratella</i>	09020410037		13.33	2	CG		1.7
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	13.33			--	1.7	
<i>Caenis</i>	09020412040		4.00	7	CG		0.5
<i>Caenis tardella</i>	09020412040137	4.00			--	0.5	
Corixidae	09020501	1.33	1.33		--	0.2	0.2
<i>Chimarra</i>	09020601003		1.33	2	CF		0.2
<i>Chimarra socia</i>	09020601003004	1.33			--	0.2	
<i>Polycentropus</i>	09020603010	9.33	9.33	6	PR	1.2	1.2
Hydropsychidae	09020604	8.00			--	1.0	



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Town: Presque Isle

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Subsample Factor: X4

Replicates: 3

Calculated: 1/18/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Cheumatopsyche</i>	09020604015	117.33	121.50	5	CF	15.3	15.8
<i>Hydropsyche</i>	09020604016	22.67	111.83	4	CF	3.0	14.6
<i>Hydropsyche bronta</i>	09020604016029	26.67			--	3.5	
<i>Hydropsyche morosa</i>	09020604016030	36.00			--	4.7	
<i>Hydropsyche placoda</i>	09020604016059	22.67			--	3.0	
<i>Protoptila</i>	09020606022	4.00	4.00	1	SC	0.5	0.5
<i>Pycnopsyche</i>	09020610049	2.67	2.67	4	SH	0.3	0.3
<i>Ceraclea</i>	09020618072	2.67	2.67	3	CG	0.3	0.3
<i>Oecetis</i>	09020618078		5.33	8	PR		0.7
<i>Oecetis avara</i>	09020618078153	1.33			--	0.2	
<i>Oecetis persimilis</i>	09020618078157	4.00			--	0.5	
Chironomidae	09021011	1.33			--	0.2	
<i>Meropelopia</i>	09021011010	1.33	1.37		--	0.2	0.2
<i>Cricotopus</i>	09021011037	2.67	8.20	7	SH	0.3	1.1
<i>Cricotopus bicinctus</i>	09021011037057	2.67			--	0.3	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	2.67			SH	0.3	
<i>Thienemanniella</i>	09021011062	1.33	1.37	6	CG	0.2	0.2
<i>Rheotanytarsus</i>	09021011072	6.67	6.83	6	CF	0.9	0.9
<i>Sublettea</i>	09021011075		1.37		--		0.2
<i>Sublettea coffmani</i>	09021011075131	1.33			--	0.2	
<i>Tanytarsus</i>	09021011076	2.67	2.73	6	CF	0.3	0.4
<i>Microtendipes</i>	09021011094		4.10	6	CF		0.5
<i>Microtendipes pedellus group</i>	09021011094166	4.00			--	0.5	
<i>Phaenopsectra</i>	09021011101		8.20	7	SC		1.1
<i>Phaenopsectra obediens</i>	09021011101182	8.00			SC	1.0	
<i>Polypedilum</i>	09021011102		21.85	6	SH		2.8
<i>Polypedilum flavum</i>	09021011102182	18.67			--	2.4	
<i>Polypedilum illinoense group</i>	09021011102185	1.33			--	0.2	
<i>Polypedilum scalaenum group</i>	09021011102189	1.33			--	0.2	
<i>Psephenus</i>	09021108058		14.67	4	SC		1.9
<i>Psephenus herricki</i>	09021108058028	14.67			--	1.9	
<i>Dubiraphia</i>	09021113064		13.33	6	--		1.7
<i>Dubiraphia minima</i>	09021113064036	13.33			--	1.7	
<i>Stenelmis</i>	09021113070	1.33	1.33	5	SC	0.2	0.2
<i>Amnicola</i>	10010104013		1.33		SC		0.2
<i>Amnicola limosa</i>	10010104013018	1.33			--	0.2	
<i>Ferrissia</i>	10010204035		14.67		SC		1.9
<i>Ferrissia rivularis</i>	10010204035066	14.67			--	1.9	



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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>Pisidium</i>	10020201002	1.33	1.33		CF	0.2	0.2