



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

**Station Information**

<b>Station Number:</b> S-595	DEP Drainage: St. John
Waterbody: Aroostook River - Station 595	HUC8: 01010004
Town: Presque Isle	HUC8 Name: Aroostook River
Directions: DOWNSTREAM OF PRESQUE ISLE STREAM - UPSTREAM OF BURLOCK ROAD	Latitude: 46 42 3.23 N
	Longitude: 67 57 57.4 W
	Stream Order: 5

**Sample Information**

<b>Log Number:</b> 1858	Type of Sample: ROCK BASKET	Date Deployed: 7/22/2009
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/19/2009

**Classification Attainment**

<b>Statutory Class:</b> C	<b>Final Determination:</b> A	Date: 1/14/2010
Model Result with P>.6: A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 1/12/2010	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.36	Class A, B, or C	1.00
Class B	0.61	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.80
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.20

**Model Variables**

01 Total Mean Abundance	850.67	18 Relative Abundance Ephemeroptera	0.26
02 Generic Richness	37.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	14.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.33
04 Ephemeroptera Mean Abundance	225.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.22	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	130.42
06 Hilsenhoff Biotic Index	3.99	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	85.25
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	1.00
08 Relative Generic Richness Diptera	0.32	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	357.52		
11 <i>Cheumatopsyche</i> Abundance	122.42		
12 EPT Generic Richness/ Diptera Generic Richness	1.67		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	14.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.00		
17 Chironomini Abundance (Family Functional Group)	24.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	42.03
2	<i>Cheumatopsyche</i>	14.39
3	<i>Maccaffertium</i>	8.30
4	<i>Baetis</i>	6.87
5	<i>Tvetenia</i>	3.61



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Town: Presque Isle

Date Deployed: 7/22/2009

**Log Number: 1858**

Waterbody: Aroostook River - Station 595

Date Retrieved: 8/19/2009

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 21.7 deg C  
Dissolved Oxygen: 7.6 mg/l  
Specific Conductance: 111 uS/cm  
Velocity: 55 cm/s  
pH: 7.57  
Wetted Width:  
Bankfull Width:  
Depth: 96 cm

**Waterbody Information - Retrieval**

Temperature: 26.1 deg C  
Dissolved Oxygen: 8.3 mg/l  
Specific Conductance: 110 uS/cm  
Velocity: 48 cm/s  
pH: 7.74  
Wetted Width:  
Bankfull Width:  
Depth: 80 cm

**Water Chemistry - 7/22/2009**

Soluble Reactive Phosphorus	2 ug/l	Nitrate+nitrite As N	0.15 mg/l
Total Phosphorus	0.022 mg/l	Total Kjeldahl Nitrogen	0.3 mg/l
Dissolved Organic Carbon	6.4 mg/l	Total Alkalinity	46 mg/l

**Summary of Habitat Characteristics**

Landuse Name

Cultivated

Upland Hardwood

Urban

Canopy Cover

Open

Terrain

Rolling

Potential Stressor

Agricultural Runoff

Urban Runoff

Location

Below Agriculture NPS

Below Urban NPS

Main Stem

Substrate

Boulder 40 %

Gravel 20 %

Rubble/Cobble 40 %

**Landcover Summary - 2004 Data**

**Sample Comments**

BELOW POINT SOURCE?



**Maine Department of Environmental Protection**  
**Biological Monitoring Program**  
**Aquatic Life Taxonomic Inventory Report**

**Station Number: S-595**

Waterbody: Aroostook River - Station 595

Town: Presque Isle

**Log Number: 1858**

Subsample Factor: X4

Replicates: 3

Calculated: 1/12/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Orconectes</i>	09010301008		2.67		CG		0.3
<i>Orconectes virilis</i>	09010301008016	2.67			--	0.3	
<i>Acroneuria</i>	09020209042		14.67	0	PR		1.7
<i>Acroneuria lycorias</i>	09020209042125	14.67			--	1.7	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.2	
Baetidae	09020401	16.00			--	1.9	
<i>Baetis</i>	09020401001	8.00	58.47	4	CG	0.9	6.9
<i>Baetis intercalaris</i>	09020401001008	40.00			--	4.7	
<i>Acerpenna</i>	09020401007	5.33	8.12	5	CG	0.6	1.0
<i>Acerpenna pygmaea</i>	09020401007011	1.33			--	0.2	
<i>Acentrella</i>	09020401008	2.67	4.87	3	CG	0.3	0.6
<i>Acentrella ampla</i>	09020401008001	1.33			--	0.2	
<i>Plauditus</i>	09020401012	14.67	17.87		CG	1.7	2.1
Heptageniidae	09020402	81.33			--	9.6	
<i>Epeorus</i>	09020402009	4.00	19.25	0	SC	0.5	2.3
<i>Heptagenia</i>	09020402010	1.33	6.42	2	SC	0.2	0.8
<i>Leucrocota</i>	09020402011	1.33	6.42	1	SC	0.2	0.8
<i>Maccaffertium</i>	09020402015	10.67	70.58	4	SC	1.3	8.3
<i>Maccaffertium luteum</i>	09020402015049	4.00			--	0.5	
<i>Isonychia</i>	09020404018	24.00	24.00	2	CF	2.8	2.8
Leptophlebiidae	09020406	1.33	1.33		--	0.2	0.2
Ephemerellidae	09020410	1.33			--	0.2	
<i>Ephemerella</i>	09020410035	1.33	1.67	1	CG	0.2	0.2
<i>Serratella</i>	09020410037		5.00	2	CG		0.6
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	4.00			--	0.5	
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.2	0.2
<i>Chimarra</i>	09020601003	22.67	22.67	2	CF	2.7	2.7
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	0.2	0.2
Hydropsychidae	09020604	20.00			--	2.4	
<i>Cheumatopsyche</i>	09020604015	117.33	122.42	5	CF	13.8	14.4
<i>Hydropsyche</i>	09020604016	125.33	357.52	4	CF	14.7	42.0
<i>Hydropsyche bronta</i>	09020604016029	42.67			--	5.0	
<i>Hydropsyche morosa</i>	09020604016030	98.67			--	11.6	
<i>Hydropsyche sparna</i>	09020604016032	4.00			--	0.5	
<i>Hydropsyche scalaris group</i>	09020604016048	72.00			--	8.5	
<i>Macrostemum</i>	09020604018		1.39	3	CF		0.2
<i>Macrostemum zebratum</i>	09020604018054	1.33			--	0.2	



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		Actual	Adjusted			Actual	Adjusted
<i>Brachycentrus</i>	09020609043		2.67	0	CF		0.3
<i>Brachycentrus appalachia</i>	09020609043096	1.33			--	0.2	
<i>Brachycentrus lateralis</i>	09020609043097	1.33			--	0.2	
<i>Rheopelopia</i>	09021011017	2.67	2.67		PR	0.3	0.3
<i>Zavreliomyia</i>	09021011022	1.33	1.33	8	PR	0.2	0.2
<i>Cardiocladius</i>	09021011034	2.67	2.67	5	PR	0.3	0.3
<i>Cricotopus</i>	09021011037		8.00	7	SH		0.9
<i>Cricotopus bicinctus</i>	09021011037057	8.00			--	0.9	
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	0.2	0.2
<i>Rheocricotopus</i>	09021011057		1.33	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	1.33			--	0.2	
<i>Thienemanniella</i>	09021011062		1.33	6	CG		0.2
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.2	
<i>Tvetenia</i>	09021011065		30.67	5	CG		3.6
<i>Tvetenia vitracies</i>	09021011065113	29.33			--	3.4	
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.2	
<i>Micropsectra</i>	09021011070	1.33	1.33	7	CG	0.2	0.2
<i>Rheotanytarsus</i>	09021011072	13.33	13.33	6	CF	1.6	1.6
<i>Polypedilum</i>	09021011102		24.00	6	SH		2.8
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	0.5	
<i>Polypedilum flavum</i>	09021011102182	20.00			--	2.4	
<i>Simulium</i>	09021012047	1.33	5.33	4	CF	0.2	0.6
<i>Simulium jenningsi</i>	09021012047060				--		
<i>Simulium jenningsi complex</i>	09021012047070	4.00			CF	0.5	
<i>Psephenus</i>	09021108058		2.67	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	2.67			--	0.3	
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	--	0.2	0.2
<i>Stenelmis</i>	09021113070	1.33	1.33	5	SC	0.2	0.2