



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

Station Information

Station Number: S-935
Waterbody: Caribou Stream - Station 935
Town: Caribou
Directions: 15 METER UPSTREAM OF SOUTH MAIN STREET (RT 1)
DEP Drainage: St. John
HUC8: 01010004
HUC8 Name: Aroostook River
Latitude: 46 51 33.25 N
Longitude: 68 0 41.33 W
Stream Order: 3

Sample Information

Log Number: 1861
Subsample Factor: X4
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/22/2009
Date Retrieved: 8/19/2009

Classification Attainment

Statutory Class: B
Model Result with P>.6: A
Date Last Calculated: 4/1/2010
Final Determination: A
Reason for Determination: Model
Comments: Low A (.68).

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.47	Class A, B, or C	1.00
Class B	0.52	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	0.68
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.32

Model Variables

01 Total Mean Abundance	554.67	18 Relative Abundance Ephemeroptera	0.52
02 Generic Richness	27.00	19 EPT Generic Richness	15.00
03 Plecoptera Mean Abundance	33.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	289.33	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	2.83	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	32.52
06 Hilsenhoff Biotic Index	3.85	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	36.90
07 Relative Abundance - Chironomidae	0.07	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.30	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	129.33		
11 <i>Cheumatopsyche</i> Abundance	14.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.88		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	33.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	4.87		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Baetis</i>	43.19
2	<i>Hydropsyche</i>	23.32
3	<i>Maccaffertium</i>	6.65
4	<i>Paragnetina</i>	4.57
5	<i>Cricotopus</i>	3.22



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

Station Number: S-935

Town: Caribou

Date Deployed: 7/22/2009

Log Number: 1861

Waterbody: Caribou Stream - Station 935

Date Retrieved: 8/19/2009

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 19.5 deg C
Dissolved Oxygen: 8.5 mg/l
Specific Conductance: 253 uS/cm
Velocity: 71 cm/s
pH: 7.85
Wetted Width: 11.9 m
Bankfull Width: 14.6 m
Depth: 28 cm

Waterbody Information - Retrieval

Temperature: 25.3 deg C
Dissolved Oxygen: 8.4 mg/l
Specific Conductance: 339 uS/cm
Velocity: 42 cm/s
pH: 8.1
Wetted Width: 10.9 m
Bankfull Width: 14.5 m
Depth: 29 cm

Water Chemistry - 7/22/2009

Soluble Reactive Phosphorus	2 ug/l	Nitrate+nitrite As N	0.2 mg/l
Total Phosphorus	0.018 mg/l	Total Kjeldahl Nitrogen	0.4 mg/l
Dissolved Organic Carbon	5 mg/l	Total Alkalinity	129 mg/l

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Urban	Open	Rolling
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Urban Runoff	Below Urban NPS	Boulder 5 %
		Gravel 30 %
		Rubble/Cobble 55 %
		Silt 10 %

Landcover Summary - 2004 Data

Sample Comments



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

Station Number: S-935

Waterbody: Caribou Stream - Station 935

Town: Caribou

Log Number: 1861

Subsample Factor: X4

Replicates: 3

Calculated: 4/1/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Erpobdella</i>	08030301002		1.33		--		0.2
<i>Erpobdella punctata</i>	08030301002001	1.33			--	0.2	
<i>Paragnetina</i>	09020209049		25.33	1	PR		4.6
<i>Paragnetina immarginata</i>	09020209049149	1.33			--	0.2	
<i>Paragnetina media</i>	09020209049151	24.00			--	4.3	
<i>Agnetina</i>	09020209050		8.00	2	PR		1.4
<i>Agnetina capitata</i>	09020209050152	8.00		2	PR	1.4	
Baetidae	09020401	18.67			--	3.4	
<i>Baetis</i>	09020401001	77.33	239.56	4	CG	13.9	43.2
<i>Baetis flavistriga</i>	09020401001004	10.67			--	1.9	
<i>Baetis intercalaris</i>	09020401001008	66.67			--	12.0	
<i>Baetis tricaudatus</i>	09020401001012	66.67			--	12.0	
<i>Plauditus</i>	09020401012	4.00	4.33		CG	0.7	0.8
<i>Diphetor</i>	09020401013		1.44		--		0.3
<i>Diphetor hageni</i>	09020401013001	1.33			--	0.2	
Heptageniidae	09020402	4.00			--	0.7	
<i>Epeorus</i>	09020402009	1.33	1.48	0	SC	0.2	0.3
<i>Leucrocuta</i>	09020402011	1.33	1.48	1	SC	0.2	0.3
<i>Rhithrogena</i>	09020402013	1.33	1.48	0	SC	0.2	0.3
<i>Maccaffertium</i>	09020402015	29.33	36.90	4	SC	5.3	6.7
<i>Maccaffertium luteum</i>	09020402015049	1.33			--	0.2	
<i>Maccaffertium mediopunctatum</i>	09020402015050	2.67			--	0.5	
<i>Isonychia</i>	09020404018	2.67	2.67	2	CF	0.5	0.5
<i>Dolophilodes</i>	09020601001	8.00	8.00	0	CF	1.4	1.4
<i>Chimarra</i>	09020601003	17.33	17.33	2	CF	3.1	3.1
<i>Cheumatopsyche</i>	09020604015	14.67	14.67	5	CF	2.6	2.6
<i>Hydropsyche</i>	09020604016	12.00	129.33	4	CF	2.2	23.3
<i>Hydropsyche bronta</i>	09020604016029	1.33			--	0.2	
<i>Hydropsyche morosa</i>	09020604016030	41.33			--	7.5	
<i>Hydropsyche slossonae</i>	09020604016031	26.67			--	4.8	
<i>Hydropsyche sparna</i>	09020604016032	48.00			--	8.7	
<i>Rhyacophila</i>	09020605019		2.67	2	PR		0.5
<i>Rhyacophila fuscula</i>	09020605019060	2.67			PR	0.5	
Chironomidae	09021011	6.67			--	1.2	
<i>Cricotopus</i>	09021011037	1.33	17.86	7	SH	0.2	3.2
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.2	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	12.00			SH	2.2	
<i>Eukiefferiella</i>	09021011041		1.62	8	CG		0.3



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

Station Number: S-935	Waterbody: Caribou Stream - Station 935	Town: Caribou
Log Number: 1861	Subsample Factor: X4	Replicates: 3
		Calculated: 4/1/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Eukiefferiella devonica group</i>	09021011041083	1.33			CG	0.2	
<i>Rheocricotopus</i>	09021011057		1.62	6	CG		0.3
<i>Rheocricotopus pauciseta</i>	09021011057111	1.33			--	0.2	
<i>Thienemanniella</i>	09021011062	1.33	1.62	6	CG	0.2	0.3
<i>Tvetenia</i>	09021011065		8.12	5	CG		1.5
<i>Tvetenia vitracies</i>	09021011065113	2.67			--	0.5	
<i>Tvetenia paucunca</i>	09021011065114	4.00			--	0.7	
<i>Rheotanytarsus</i>	09021011072	1.33	1.62	6	CF	0.2	0.3
<i>Polypedilum</i>	09021011102		4.87	6	SH		0.9
<i>Polypedilum aviceps</i>	09021011102181	2.67			--	0.5	
<i>Polypedilum flavum</i>	09021011102182	1.33			--	0.2	
<i>Simulium</i>	09021012047		12.00	4	CF		2.2
<i>Simulium tuberosum</i>	09021012047067	5.33			--	1.0	
<i>Simulium jenningsi complex</i>	09021012047070	6.67			CF	1.2	
<i>Psephenus</i>	09021108058		6.67	4	SC		1.2
<i>Psephenus herricki</i>	09021108058028	6.67			--	1.2	
<i>Ectopria</i>	09021109059	1.33	1.33	5	SC	0.2	0.2
<i>Stenelmis</i>	09021113070		1.33	5	SC		0.2
<i>Stenelmis crenata</i>	09021113070055	1.33			--	0.2	