



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

Station Information

**Station Number:** S-835  
**Waterbody:** Burgess Brook - Station 835  
**Town:** Lily Bay Twp  
**Directions:** MACROINVERTEBRATE SAMPLE 35M  
DOWNSTREAM OF CARLETON POINT ROAD AND  
ALGAL SAMPLE 18M UPSTREAM OF CARLETON

**DEP Drainage:** Kennebec  
**HUC8:** 01030001  
**HUC8 Name:** Upper Kennebec  
**Latitude:** 45 36 49.32 N  
**Longitude:** 69 32 0.34 W  
**Stream Order:** 2

Sample Information

**Log Number:** 2128  
**Subsample Factor:** X1

**Type of Sample:** ROCK BAG  
**Replicates:** 3

**Date Deployed:** 7/25/2012  
**Date Retrieved:** 8/23/2012

Classification Attainment

**Statutory Class:** A  
**Model Result with P>.6:** C  
**Date Last Calculated:** 1/11/2013

**Final Determination:** B  
**Reason for Determination:** Best Professional Judgement  
**Comments:** Indeterminate for class B (0.55). Raised to class B based on sensitive taxa present.

**Date:** 1/17/2013

Model Probabilities

First Stage Model				C or Better Model	
Class A	0.15	Class C	0.36	Class A, B, or C	1.00
Class B	0.50	NA	0.00	Non-Attainment	0.00
B or Better Model				A Model	
Class A or B		0.55		Class A	0.16
Class C or Non-Attainment		0.45		Class B or C or Non-Attainment	0.84

Model Variables

01 Total Mean Abundance	220.00	18 Relative Abundance Ephemeroptera	0.31
02 Generic Richness	34.00	19 EPT Generic Richness	15.00
03 Plecoptera Mean Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	20.13
04 Ephemeroptera Mean Abundance	69.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.73	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	6.96
06 Hilsenhoff Biotic Index	5.15	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	9.44
07 Relative Abundance - Chironomidae	0.42	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	38.98		
11 <i>Cheumatopsyche</i> Abundance	2.35		
12 EPT Generic Richness/ Diptera Generic Richness	1.15		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.19		
17 Chironomini Abundance (Family Functional Group)	9.22		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	19.06
2	<i>Hydropsyche</i>	17.72
3	Leptophlebiidae	11.82
4	<i>Micropsectra</i>	9.15
5	<i>Stenacron</i>	8.74



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**Date Retrieved:** 8/23/2012

**Sample Collection and Processing Information**

**Sampling Organization:** BIOMONITORING UNIT

**Taxonomist:** MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 21 deg C  
Dissolved Oxygen: 4.3 mg/l  
Specific Conductance: 64 uS/cm  
Velocity: 6.3 cm/s  
pH: 5.84  
Wetted Width: 1.9 m  
Bankfull Width: 3 m  
Depth: 22 cm

**Waterbody Information - Retrieval**

Temperature: 18.7 deg C  
Dissolved Oxygen: 5.5 mg/l  
Specific Conductance: 24 uS/cm  
Velocity: 14 cm/s  
pH: 5.97  
Wetted Width: 2.1 m  
Bankfull Width: 3 m  
Depth: 24 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Swamp Hardwood

Upland Conifer

Canopy Cover

Dense

Terrain

Rolling

Potential Stressor

Wetland Headwaters

Location

Below Road Crossing

Substrate

Boulder 55 %  
Gravel 5 %  
Rubble/Cobble 40 %

**Landcover Summary - 2004 Data**

Total Area (ac)	1422	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	2.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.0	Upland Woody %	98.0	Grassland %	0.0
		Development %	0.0	Natural %	100.0	Human Altered %	0.0
						Impervious %	0.0

**Sample Comments**



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Aquatic Life Taxonomic Inventory Report**

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Town: Lily Bay Twp

**Log Number: 2128**

Subsample Factor: X1

Replicates: 3

Calculated: 1/11/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Cura</i>	03010102001	4.33	4.33		--	2.0	2.0
<i>Nais</i>	08020202009		0.33		CG		0.2
<i>Nais variabilis</i>	08020202009009	0.33			--	0.2	
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	0.3	0.3
<i>Boyeria</i>	09020301004		1.67	2	PR		0.8
<i>Boyeria vinosa</i>	09020301004012	1.67			--	0.8	
Calopterygidae	09020307	0.33	0.33		--	0.2	0.2
<i>Calopteryx</i>	09020307043		0.67	5	PR		0.3
<i>Calopteryx maculata</i>	09020307043088	0.67			--	0.3	
Baetidae	09020401	0.33	0.33		--	0.2	0.2
Heptageniidae	09020402	0.33			--	0.2	
<i>Stenacron</i>	09020402014	12.67	19.22	7	SC	5.8	8.7
<i>Stenacron interpunctatum</i>	09020402014045	6.33			--	2.9	
<i>Maccaffertium</i>	09020402015	3.33	9.44	4	SC	1.5	4.3
<i>Maccaffertium luteum</i>	09020402015049	6.00			--	2.7	
Leptophlebiidae	09020406	26.00	26.00		--	11.8	11.8
<i>Paraleptophlebia</i>	09020406026	1.33	1.33	1	CG	0.6	0.6
<i>Eurylophella</i>	09020410036	12.67	12.67	3	CG	5.8	5.8
Hydropsychidae	09020604	0.33			--	0.2	
<i>Cheumatopsyche</i>	09020604015	2.33	2.35	5	CF	1.1	1.1
<i>Hydropsyche</i>	09020604016	18.33	38.98	4	CF	8.3	17.7
<i>Hydropsyche depravata complex</i>	09020604016041	20.33			CF	9.2	
<i>Rhyacophila</i>	09020605019	2.33	2.33	2	PR	1.1	1.1
Phryganeidae	09020608	0.33	0.33		--	0.2	0.2
<i>Oligostomis</i>	09020608039	1.33	1.33	2	PR	0.6	0.6
Limnephilidae	09020610	0.67	0.67		--	0.3	0.3
<i>Psilotreta</i>	09020614068	1.67	1.67	0	SC	0.8	0.8
Leptoceridae	09020618	0.67	0.67		--	0.3	0.3
Lepidoptera	090209	0.33	0.33		--	0.2	0.2
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.2	0.2
Chironomidae	09021011	19.00			--	8.6	
<i>Trissopelopia</i>	09021011021		2.94		PR		1.3
<i>Trissopelopia ogemawi</i>	09021011021042	2.33			--	1.1	
<i>Zavrelimyia</i>	09021011022		1.26	8	PR		0.6
<i>Zavrelimyia thryptica group</i>	09021011022045	1.00			PR	0.5	
<i>Nanocladius</i>	09021011049	0.33	0.84	3	CG	0.2	0.4
<i>Nanocladius spiniplenus</i>	09021011049090	0.33			--	0.2	
<i>Parametriocnemus</i>	09021011053	9.33	11.74	5	CG	4.2	5.3



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<i>Micropsectra</i>	09021011070	16.00	20.13	7	CG	7.3	9.1
<i>Rheotanytarsus</i>	09021011072	33.33	41.93	6	CF	15.2	19.1
<i>Tanytarsus</i>	09021011076	3.67	4.61	6	CF	1.7	2.1
<i>Microtendipes</i>	09021011094		1.68	6	CF		0.8
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	0.6	
<i>Polypedilum</i>	09021011102		7.13	6	SH		3.2
<i>Polypedilum aviceps</i>	09021011102181	5.67			--	2.6	
<i>Stenochironomus</i>	09021011105	0.33	0.42	5	CG	0.2	0.2
<i>Simulium</i>	09021012047		0.33	4	CF		0.2
<i>Simulium (Eusimulium)</i>	09021012047052	0.33			--	0.2	
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.5	0.5