



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

Station Information

Station Number: S-841

Waterbody: North Brook - Station 841

Town: Lily Bay Twp

Directions: ~35M UPSTREAM OF CASEY'S CAMP ROAD IN  
SOMEWHAT OPEN AREA

DEP Drainage:

HUC8: 01030001

HUC8 Name: Upper Kennebec

Latitude: 45 36 25.54 N

Longitude: 69 30 2.61 W

Stream Order: 1

Sample Information

Log Number: 2130

Type of Sample: ROCK BAG

Date Deployed: 7/25/2012

Subsample Factor: X1

Replicates: 3

Date Retrieved: 8/23/2012

Classification Attainment

Statutory Class: A

Final Determination: A

Date: 1/16/2013

Model Result with P>.6: A

Reason for Determination: Model

Date Last Calculated: 1/11/2013

Comments:

Model Probabilities

First Stage Model

Class A	0.95	Class C	0.00
Class B	0.05	NA	0.00

B or Better Model

Class A or B	1.00
Class C or Non-Attainment	0.00

C or Better Model

Class A, B, or C	1.00
Non-Attainment	0.00

A Model

Class A	1.00
Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	200.00	18 Relative Abundance Ephemeroptera	0.44																					
02 Generic Richness	63.00	19 EPT Generic Richness	32.00																					
03 Plecoptera Mean Abundance	17.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	3.69																					
04 Ephemeroptera Mean Abundance	88.33	23 Relative Generic Richness- Plecoptera	0.11																					
05 Shannon-Wiener Generic Diversity	4.63	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.68																					
06 Hilsenhoff Biotic Index	3.63	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	13.33																					
07 Relative Abundance - Chironomidae	0.28	28 EP Generic Richness/14	1.43																					
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.43																					
09 <i>Hydropsyche</i> Abundance	1.00	<table><tr><th colspan="3">Five Most Dominant Taxa</th></tr><tr><th>Rank</th><th>Taxon Name</th><th>Percent</th></tr><tr><td>1</td><td><i>Eurylophella</i></td><td>17.00</td></tr><tr><td>2</td><td><i>Polypedilum</i></td><td>13.25</td></tr><tr><td>3</td><td><i>Ephemerella</i></td><td>7.17</td></tr><tr><td>4</td><td><i>Maccaffertium</i></td><td>6.67</td></tr><tr><td>5</td><td><i>Promoresia</i></td><td>5.83</td></tr></table>		Five Most Dominant Taxa			Rank	Taxon Name	Percent	1	<i>Eurylophella</i>	17.00	2	<i>Polypedilum</i>	13.25	3	<i>Ephemerella</i>	7.17	4	<i>Maccaffertium</i>	6.67	5	<i>Promoresia</i>	5.83
Five Most Dominant Taxa																								
Rank	Taxon Name	Percent																						
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4	<i>Maccaffertium</i>	6.67																						
5	<i>Promoresia</i>	5.83																						
11 <i>Cheumatopsyche</i> Abundance	0.00																							
12 EPT Generic Richness/ Diptera	1.52																							
Generic Richness																								
13 Relative Abundance - Oligochaeta	0.00																							
15 Perlidae Mean Abundance (Family	1.00																							
Functional Group)																								
16 Tanypodinae Mean Abundance	1.34																							
(Family Functional Group)																								
17 Chironomini Abundance (Family	26.49																							
Functional Group)																								



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<b>Log Number: 2130</b>	Waterbody: North Brook - Station 841	Date Retrieved: 8/23/2012

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	17 deg C
Dissolved Oxygen:	8.9 mg/l
Specific Conductance:	70 uS/cm
Velocity:	21 cm/s
pH:	6.78
Wetted Width:	3 m
Bankfull Width:	4 m
Depth:	20 cm

**Waterbody Information - Retrieval**

Temperature:	15.7 deg C
Dissolved Oxygen:	8.9 mg/l
Specific Conductance:	62 uS/cm
Velocity:	20.2 cm/s
pH:	7.86
Wetted Width:	2.9 m
Bankfull Width:	4 m
Depth:	20 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Swamp Conifer

Swamp Hardwood

Canopy Cover

Partly Open

Terrain

Rolling

Potential Stressor

Altered Hydrology (beaver Activit

Location

Below Road Crossing

Substrate

Gravel	65 %
Sand	35 %

**Landcover Summary - 2004 Data**

Total Area (ac)	2183	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	0.7	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.3	Upland Woody %	98.9	Grassland %	0.0
		Development %	0.3	Natural %	99.7	Human Altered %	0.3
						Impervious %	0.3

**Sample Comments**

8/23/12: SCULPIN OBSERVED.

SAMPLED S-841 BECAUSE OF BEAVER ACTIVITY AT S-843. SEVERAL BEAVER DAMS AT S-841, BUT STREAM STILL HAS FLOW. 7/25/12: FISH OBSERVED.



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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>Paracapnia</i>	09020203018	0.67	0.67	1	SH	0.3	0.3
<i>Leuctra</i>	09020204020	1.33	1.67	0	SH	0.7	0.8
<i>Leuctra truncata</i>	09020204020058	0.33			--	0.2	
<i>Pteronarcys</i>	09020205023		0.33	0	SH		0.2
<i>Pteronarcys biloba</i>	09020205023061	0.33			--	0.2	
Perlodidae	09020207	4.00	4.00		--	2.0	2.0
<i>Isoperla</i>	09020207026	8.67	8.67	2	PR	4.3	4.3
<i>Sweltsa</i>	09020208040	0.67	0.67		PR	0.3	0.3
<i>Agnetina</i>	09020209050	0.33	1.00	2	PR	0.2	0.5
<i>Agnetina capitata</i>	09020209050152	0.67		2	PR	0.3	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.3
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.3	
<i>Cordulegaster</i>	09020303019		0.33	3	PR		0.2
<i>Cordulegaster maculata</i>	09020303019042	0.33			--	0.2	
Calopterygidae	09020307	0.33	0.33		--	0.2	0.2
<i>Baetis</i>	09020401001		2.33	4	CG		1.2
<i>Baetis flavistriga</i>	09020401001004	0.67			--	0.3	
<i>Baetis tricaudatus</i>	09020401001012	1.67			--	0.8	
<i>Acerpenna</i>	09020401007	1.33	4.33	5	CG	0.7	2.2
<i>Acerpenna macdunnoughi</i>	09020401007001	3.00			--	1.5	
<i>Procloeon</i>	09020401010	1.67	1.67		CG	0.8	0.8
<i>Plauditus</i>	09020401012	0.33	0.33		CG	0.2	0.2
<i>Diphetor</i>	09020401013		0.33		--		0.2
<i>Diphetor hageni</i>	09020401013001	0.33			--	0.2	
Heptageniidae	09020402	2.33	2.33		--	1.2	1.2
<i>Maccaffertium</i>	09020402015	10.33	13.33	4	SC	5.2	6.7
<i>Maccaffertium modestum</i>	09020402015051	3.00			--	1.5	
<i>Ameletus</i>	09020405019	0.33	0.33	0	CG	0.2	0.2
Leptophlebiidae	09020406	12.00			--	6.0	
<i>Habrophlebia</i>	09020406023		7.33		--		3.7
<i>Habrophlebia vibrans</i>	09020406023072	1.33			--	0.7	
<i>Paraleptophlebia</i>	09020406026	1.33	7.33	1	CG	0.7	3.7
Ephemeridae	09020407	0.33	0.33		--	0.2	0.2
<i>Ephemerella</i>	09020410035	9.00	14.33	1	CG	4.5	7.2
<i>Ephemerella invaria</i>	09020410035107	5.33			--	2.7	
<i>Eurylophella</i>	09020410036	34.00	34.00	3	CG	17.0	17.0
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	0.3	0.3
Hydropsychidae	09020604	0.67	0.67		--	0.3	0.3



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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>Hydropsyche</i>	09020604016	0.67	1.00	4	CF	0.3	0.5
<i>Hydropsyche sparna</i>	09020604016032	0.33			--	0.2	
<i>Rhyacophila</i>	09020605019	4.67	5.00	2	PR	2.3	2.5
<i>Rhyacophila fuscula</i>	09020605019060	0.33			PR	0.2	
<i>Glossosoma</i>	09020606020		0.67	0	SC		0.3
<i>Glossosoma lividum</i>	09020606020067	0.67			--	0.3	
<i>Agapetus</i>	09020606021	0.33	0.33	0	SC	0.2	0.2
<i>Hydroptila</i>	09020607026	0.67	0.67	6	P	0.3	0.3
<i>Oxyethira</i>	09020607028	0.33	0.33	3	P	0.2	0.2
Phryganeidae	09020608	0.33	0.33		--	0.2	0.2
<i>Psychoglypha</i>	09020610060		1.00	0	SH		0.5
<i>Psychoglypha subborealis</i>	09020610060120	1.00			--	0.5	
<i>Apatania</i>	09020610061	1.33	1.33		SC	0.7	0.7
<i>Psilotreta</i>	09020614068	2.67	4.00	0	SC	1.3	2.0
<i>Psilotreta frontalis</i>	09020614068134	1.33			--	0.7	
Lepidoptera	090209	0.33	0.33		--	0.2	0.2
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.2	0.2
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.7	0.7
<i>Nymphomyia</i>	09021004021	0.33	0.33		SC	0.2	0.2
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.2	0.2
Chironomidae	09021011	0.33			--	0.2	
<i>Paramerina</i>	09021011013	1.00	1.01		--	0.5	0.5
<i>Trissopelopia</i>	09021011021		0.34		PR		0.2
<i>Trissopelopia ogemawi</i>	09021011021042	0.33			--	0.2	
<i>Pagastia</i>	09021011025		0.34	1	--		0.2
<i>Pagastia orthogonia</i>	09021011025001	0.33			--	0.2	
<i>Brillia</i>	09021011033	0.33	0.34	5	SH	0.2	0.2
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037	1.00	1.68	7	SH	0.5	0.8
<i>Cricotopus bicinctus</i>	09021011037057	0.67			--	0.3	
<i>Orthocladius</i>	09021011050		0.67	6	CG		0.3
<i>Orthocladius annectens</i>	09021011050092	0.67			--	0.3	
<i>Parametriocnemus</i>	09021011053	4.33	4.36	5	CG	2.2	2.2
<i>Rheocricotopus</i>	09021011057		3.69	6	CG		1.8
<i>Rheocricotopus pauciseta</i>	09021011057111	3.67			--	1.8	
<i>Thienemanniella</i>	09021011062	0.33	1.01	6	CG	0.2	0.5
<i>Thienemanniella boltoni</i>	09021011062113	0.67			--	0.3	
<i>Tvetenia</i>	09021011065		1.34	5	CG		0.7



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		Actual	Adjusted			Actual	Adjusted
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.7	
<i>Micropsectra</i>	09021011070	3.67	3.69	7	CG	1.8	1.8
<i>Rheotanytarsus</i>	09021011072	9.00	9.05	6	CF	4.5	4.5
<i>Stempellinella</i>	09021011074		1.01	2	--		0.5
<i>Stempellinella leptocelloides</i>	09021011074001	0.67			--	0.3	
<i>Stempellinella fimbriata</i>	09021011074002	0.33			--	0.2	
<i>Polypedilum</i>	09021011102		26.49	6	SH		13.2
<i>Polypedilum aviceps</i>	09021011102181	26.00			--	13.0	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.2	
<i>Simulium</i>	09021012047	0.33	1.00	4	CF	0.2	0.5
<i>Simulium (Eusimulium)</i>	09021012047052	0.33			--	0.2	
<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072	0.33			CF	0.2	
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	0.7	0.7
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.2	0.2
<i>Oulimnius</i>	09021113068		2.67		--		1.3
<i>Oulimnius latiusculus</i>	09021113068049	2.67			--	1.3	
<i>Promoresia</i>	09021113069		11.67		--		5.8
<i>Promoresia tardella</i>	09021113069052	11.67			--	5.8	
Acariformes	090301	0.33	0.33		--	0.2	0.2
<i>Hygrobates</i>	09030102001	1.00	1.00		--	0.5	0.5
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.2	0.2
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.2	0.2