



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

Station Information

Station Number: S-834
Waterbody: Burgess Brook - Station 834
Town: Lily Bay Twp
Directions: ~35M UPSTREAM OF CASEY'S CAMP ROAD

DEP Drainage: Kennebec
HUC8: 01030001
HUC8 Name: Upper Kennebec
Latitude: 45 37 21.07 N
Longitude: 69 31 53.39 W
Stream Order: 2

Sample Information

Log Number: 2127
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: A
Date Last Calculated: 4/23/2013
Final Determination: A
Reason for Determination: Model
Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.88	Class A, B, or C	1.00
Class B	0.12	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	155.67	18 Relative Abundance Ephemeroptera	0.28
02 Generic Richness	53.00	19 EPT Generic Richness	18.00
03 Plecoptera Mean Abundance	7.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.80
04 Ephemeroptera Mean Abundance	43.33	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	4.74	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	2.20
06 Hilsenhoff Biotic Index	4.08	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	5.67
07 Relative Abundance - Chironomidae	0.40	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.45	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	0.67		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.75		
13 Relative Abundance - Oligochaeta	0.03		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	16.86		
17 Chironomini Abundance (Family Functional Group)	11.36		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	Leptophlebiidae	14.56
2	<i>Psilotreta</i>	8.99
3	<i>Eurylophella</i>	7.92
4	<i>Polypedilum</i>	7.06
5	<i>Rheotanytarsus</i>	6.36



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	17 deg C
Dissolved Oxygen:	8 mg/l
Specific Conductance:	59 uS/cm
Velocity:	
pH:	6.65
Wetted Width:	1.5 m
Bankfull Width:	3 m
Depth:	10 cm

Waterbody Information - Retrieval

Temperature:	16.2 deg C
Dissolved Oxygen:	8.5 mg/l
Specific Conductance:	31 uS/cm
Velocity:	5 cm/s
pH:	6.72
Wetted Width:	1.35 m
Bankfull Width:	3 m
Depth:	16 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Swamp Hardwood

Upland Conifer

Potential Stressor

Canopy Cover

Partly Open

Location

Above Road Crossing

Terrain

Rolling

Substrate

Boulder	20 %
Gravel	10 %
Rubble/Cobble	65 %
Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	1102	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.0	Upland Woody %	100.0	Grassland %	0.0
		Development %	0.0	Natural %	100.0	Human Altered %	0.0
						Impervious %	0.0

Sample Comments

8/23/12: FISH OBSERVED (CREEK CHUBB).

7/25/12: VISIBLE FLOW. 7/25/12: FISH OBSERVED, SEVERAL FALLEN TREES.



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

Station Number: S-834

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Log Number: 2127

Subsample Factor: X1

Replicates: 3

Calculated: 4/23/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Turbellaria	0301	0.33	0.33		--	0.2	0.2
<i>Stylodrilus</i>	08020101004		3.67		--		2.4
<i>Stylodrilus heringianus</i>	08020101004001	3.67			--	2.4	
Enchytraeidae	08020201	0.33	0.33		--	0.2	0.2
Naididae	08020202	0.67	0.67		--	0.4	0.4
<i>Helobdella</i>	08030101005		0.33		--		0.2
<i>Helobdella stagnalis</i>	08030101005004	0.33			--	0.2	
<i>Paracapnia</i>	09020203018	1.33	1.33	1	SH	0.9	0.9
<i>Leuctra</i>	09020204020	4.67	4.67	0	SH	3.0	3.0
Perlodidae	09020207	1.33	1.33		--	0.9	0.9
<i>Isoperla</i>	09020207026	0.33	0.33	2	PR	0.2	0.2
<i>Boyeria</i>	09020301004		0.33	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.2	
<i>Acerpenna</i>	09020401007		0.67	5	CG		0.4
<i>Acerpenna pygmaea</i>	09020401007011	0.67			--	0.4	
Heptageniidae	09020402	0.33	0.33		--	0.2	0.2
<i>Maccaffertium</i>	09020402015	3.00	5.67	4	SC	1.9	3.6
<i>Maccaffertium luteum</i>	09020402015049	2.67			--	1.7	
Leptophlebiidae	09020406	22.67	22.67		--	14.6	14.6
<i>Paraleptophlebia</i>	09020406026	1.67	1.67	1	CG	1.1	1.1
<i>Eurylophella</i>	09020410036	12.33	12.33	3	CG	7.9	7.9
<i>Lype</i>	09020602004		0.33	2	SC		0.2
<i>Lype diversa</i>	09020602004005	0.33			--	0.2	
Polycentropodidae	09020603	0.33	0.33		--	0.2	0.2
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	0.4	0.4
<i>Hydropsyche</i>	09020604016	0.67	0.67	4	CF	0.4	0.4
<i>Rhyacophila</i>	09020605019	0.67	4.33	2	PR	0.4	2.8
<i>Rhyacophila minor</i>	09020605019063	2.67			PR	1.7	
<i>Rhyacophila nigrita</i>	09020605019064	1.00			PR	0.6	
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.2	0.2
Limnephilidae	09020610	0.33	0.33		--	0.2	0.2
<i>Psilotreta</i>	09020614068	1.67	14.00	0	SC	1.1	9.0
<i>Psilotreta frontalis</i>	09020614068134	12.33			--	7.9	
<i>Sialis</i>	09020702004	0.67	0.67	4	PR	0.4	0.4
<i>Tipula</i>	09021001002	5.67	5.67	4	SH	3.6	3.6
<i>Dicranota</i>	09021001005	1.00	1.00	3	PR	0.6	0.6
<i>Hexatoma</i>	09021001008	0.67	0.67	2	PR	0.4	0.4
<i>Bezzia/palpomyia</i>	09021010043	3.00	3.00	6	PR	1.9	1.9



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<i>Mallochohelea</i>	09021010047	0.33	0.33		PR	0.2	0.2
Chironomidae	09021011	5.67			--	3.6	
<i>Natarsia</i>	09021011011	4.00	4.40	8	PR	2.6	2.8
<i>Nilotanyus</i>	09021011012		0.73	6	PR		0.5
<i>Nilotanyus fimbriatus</i>	09021011012027	0.67			--	0.4	
<i>Paramerina</i>	09021011013	4.33	4.76		--	2.8	3.1
<i>Trissopelopia</i>	09021011021		4.40		PR		2.8
<i>Trissopelopia ogemawi</i>	09021011021042	4.00			--	2.6	
<i>Zavreliomyia</i>	09021011022	2.00	2.57	8	PR	1.3	1.6
<i>Zavreliomyia sinuosa group</i>	09021011022046	0.33			--	0.2	
<i>Brillia</i>	09021011033		4.40	5	SH		2.8
<i>Brillia parva</i>	09021011033050	4.00			--	2.6	
<i>Chaetocladius</i>	09021011035	0.33	0.37	6	CG	0.2	0.2
<i>Corynoneura</i>	09021011036	4.00	4.40	7	CG	2.6	2.8
<i>Eukiefferiella</i>	09021011041	0.33	0.37	8	CG	0.2	0.2
<i>Heterotrissocladius</i>	09021011044		1.10	0	CG		0.7
<i>Heterotrissocladius marcidus</i>	09021011044083	1.00			--	0.6	
<i>Limnophyes</i>	09021011047	0.33	0.37	8	CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	4.00	4.40	5	CG	2.6	2.8
<i>Thienemanniella</i>	09021011062		2.20	6	CG		1.4
<i>Thienemanniella xena</i>	09021011062110	1.00			--	0.6	
<i>Thienemanniella boltoni</i>	09021011062113	1.00			--	0.6	
<i>Tvetenia</i>	09021011065		3.30	5	CG		2.1
<i>Tvetenia paucunca</i>	09021011065114	3.00			--	1.9	
<i>Micropsectra</i>	09021011070	1.33	1.47	7	CG	0.9	0.9
<i>Rheotanytarsus</i>	09021011072	9.00	9.89	6	CF	5.8	6.4
<i>Tanytarsus</i>	09021011076	2.00	2.20	6	CF	1.3	1.4
<i>Microtendipes</i>	09021011094		0.37	6	CF		0.2
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.2	
<i>Polypedilum</i>	09021011102		10.99	6	SH		7.1
<i>Polypedilum aviceps</i>	09021011102181	8.00			--	5.1	
<i>Polypedilum angulum</i>	09021011102198	2.00			--	1.3	
<i>Neoporus</i>	09021103033	0.33	0.33		--	0.2	0.2
<i>Hydrobius</i>	09021105047	0.67	1.00		--	0.4	0.6
<i>Hydrobius fuscipes</i>	09021105047001	0.33			--	0.2	
<i>Oulimnius</i>	09021113068		1.67		--		1.1
<i>Oulimnius latiusculus</i>	09021113068049	1.67			--	1.1	
Sphaeriidae	10020201	1.00	1.00		CF	0.6	0.6