



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

Station Information

**Station Number: S-844**  
Waterbody: Lily Bay Brook - Station 844  
Town: Lily Bay Twp  
Directions: 24M UPSTREAM OF UNNAMED CAMP ROAD OFF OF LILY BAY ROAD ACROSS FROM CASEY'S CAMP ROAD  
DEP Drainage:  
HUC8: 01030001  
HUC8 Name: Upper Kennebec  
Latitude: 45 36 20.54 N  
Longitude: 69 29 55.95 W  
Stream Order: 3

Sample Information

**Log Number: 2129** 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		C or Better Model	
Class A	0.82	Class A, B, or C	1.00
Class B	0.18	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	156.33	18 Relative Abundance Ephemeroptera	0.15
02 Generic Richness	39.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	16.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	3.33
04 Ephemeroptera Mean Abundance	23.33	23 Relative Generic Richness- Plecoptera	0.10
05 Shannon-Wiener Generic Diversity	4.12	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.33
06 Hilsenhoff Biotic Index	3.94	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	2.67
07 Relative Abundance - Chironomidae	0.29	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	11.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.62		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	4.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	21.32
2	<i>Promoresia</i>	16.63
3	<i>Hydropsyche</i>	7.04
4	<i>Isoperla</i>	6.18
5	<i>Simulium</i>	5.76



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 14.4 deg C  
Dissolved Oxygen: 9.3 mg/l  
Specific Conductance: 59 uS/cm  
Velocity: 62 cm/s  
pH: 7  
Wetted Width: 5 m  
Bankfull Width: 9.6 m  
Depth: 40 cm

**Waterbody Information - Retrieval**

Temperature: 15.6 deg C  
Dissolved Oxygen: 8.9 mg/l  
Specific Conductance: 27 uS/cm  
Velocity: 34 cm/s  
pH: 6.83  
Wetted Width: 5.05 m  
Bankfull Width: 9.6 m  
Depth: 37 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Canopy Cover

Terrain

Swamp Hardwood

Partly Open

Rolling

Upland Conifer

Upland Hardwood

Potential Stressor

Location

Substrate

Above Road Crossing

Boulder 5 %  
Gravel 40 %  
Rubble/Cobble 50 %  
Sand 5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	6216	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	1.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.4	Upland Woody %	98.6	Grassland %	0.0
		Development %	0.4	Natural %	99.6	Human Altered %	0.4
						Impervious %	0.4

**Sample Comments**



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Aquatic Life Taxonomic Inventory Report**

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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>Pteronarcys</i>	09020205023		2.33	0	SH		1.5
<i>Pteronarcys biloba</i>	09020205023061	2.33			--	1.5	
Perlodidae	09020207	3.67	3.67		--	2.3	2.3
<i>Isoperla</i>	09020207026	9.67	9.67	2	PR	6.2	6.2
<i>Sweltsa</i>	09020208040	0.67	0.67		PR	0.4	0.4
Aeshnidae	09020301	0.33	0.33		--	0.2	0.2
<i>Baetis</i>	09020401001		4.67	4	CG		3.0
<i>Baetis tricaudatus</i>	09020401001012	4.67			--	3.0	
<i>Acerpenna</i>	09020401007	0.33	0.33	5	CG	0.2	0.2
<i>Plauditus</i>	09020401012	2.00	2.00		CG	1.3	1.3
<i>Diphetor</i>	09020401013		0.33		--		0.2
<i>Diphetor hageni</i>	09020401013001	0.33			--	0.2	
<i>Heptagenia</i>	09020402010	0.67	0.67	2	SC	0.4	0.4
<i>Maccaffertium</i>	09020402015	0.33	2.67	4	SC	0.2	1.7
<i>Maccaffertium modestum</i>	09020402015051	2.33			--	1.5	
Leptophlebiidae	09020406	3.33	3.33		--	2.1	2.1
<i>Ephemerella</i>	09020410035	0.33	6.00	1	CG	0.2	3.8
<i>Ephemerella invaria</i>	09020410035107	5.67			--	3.6	
<i>Eurylophella</i>	09020410036	3.33	3.33	3	CG	2.1	2.1
<i>Dolophilodes</i>	09020601001	0.33	0.33	0	CF	0.2	0.2
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.2	0.2
Hydropsychidae	09020604	0.33	0.33		--	0.2	0.2
<i>Hydropsyche</i>	09020604016	5.67	11.00	4	CF	3.6	7.0
<i>Hydropsyche slossonae</i>	09020604016031	1.00			--	0.6	
<i>Hydropsyche sparna</i>	09020604016032	4.33			--	2.8	
<i>Rhyacophila</i>	09020605019	2.33	4.33	2	PR	1.5	2.8
<i>Rhyacophila fuscula</i>	09020605019060	2.00			PR	1.3	
<i>Brachycentrus</i>	09020609043		3.00	0	CF		1.9
<i>Brachycentrus americanus</i>	09020609043095	3.00			--	1.9	
<i>Apatania</i>	09020610061	0.67	0.67		SC	0.4	0.4
<i>Lepidostoma</i>	09020611064	3.00	3.00	1	SH	1.9	1.9
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	0.6	0.6
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.2	0.2
<i>Nymphomyia</i>	09021004021	0.33	0.33		SC	0.2	0.2
<i>Eukiefferiella</i>	09021011041		0.33	8	CG		0.2
<i>Eukiefferiella claripennis group</i>	09021011041075	0.33			--	0.2	
<i>Parakiefferiella</i>	09021011052	0.67	0.67		CG	0.4	0.4
<i>Parametriocnemus</i>	09021011053	2.67	2.67	5	CG	1.7	1.7



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<i>Tvetenia</i>	09021011065		1.33	5	CG		0.9
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.9	
<i>Micropsectra</i>	09021011070	3.33	3.33	7	CG	2.1	2.1
<i>Rheotanytarsus</i>	09021011072	33.33	33.33	6	CF	21.3	21.3
<i>Tanytarsus</i>	09021011076	0.33	0.33	6	CF	0.2	0.2
<i>Polypedilum</i>	09021011102		4.00	6	SH		2.6
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	2.6	
<i>Simulium</i>	09021012047	9.00	9.00	4	CF	5.8	5.8
<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072				CF		
<i>Atherix</i>	09021015055	8.00	8.00	2	PR	5.1	5.1
<i>Roederiodes</i>	09021016058			3	PR		
<i>Neoplasta</i>	09021016064				PR		
<i>Promoresia</i>	09021113069		26.00		--		16.6
<i>Promoresia tardella</i>	09021113069052	26.00			--	16.6	
<i>Hygrobates</i>	09030102001	0.33	0.33		--	0.2	0.2
<i>Atractides</i>	09030102002	1.00	1.00		--	0.6	0.6
<i>Ferrissia</i>	10010204035		1.33		SC		0.9
<i>Ferrissia rivularis</i>	10010204035066	1.33			--	0.9	