



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

Station Information

Station Number: S-863
Waterbody: Lord's Brook - Station 863
Town: Lyman
Directions: DOWNSTREAM OF DAM, NEAR END OF LORD'S LANE
DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8: 01060003
HUC8 Name: Piscataqua - Salmon Falls
Latitude: 43 29 31.89 N
Longitude: 70 37 21.45 W
Stream Order: 2

Sample Information

Log Number: 1709
Subsample Factor: X4
Type of Sample: ROCK BAG
Replicates: 2
Date Deployed: 7/11/2008
Date Retrieved: 8/8/2008

Classification Attainment

Statutory Class: B
Model Result with P>.6: C
Date Last Calculated: 3/18/2009
Final Determination: C
Reason for Determination: Model
Comments:

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.01	Class C	0.65	Class A, B, or C	1.00
Class B	0.32	NA	0.01	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B		0.00		Class A	0.00
Class C or Non-Attainment		1.00		Class B or C or Non-Attainment	1.00

Model Variables

01 Total Mean Abundance	1712.00	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	38.00	19 EPT Generic Richness	9.00
03 Plecoptera Mean Abundance	2.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	180.00
04 Ephemeroptera Mean Abundance	10.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	2.74	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	34.33
06 Hilsenhoff Biotic Index	5.41	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	2.00
07 Relative Abundance - Chironomidae	0.64	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.45	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	377.67		
11 <i>Cheumatopsyche</i> Abundance	34.33		
12 EPT Generic Richness/ Diptera Generic Richness	0.53		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	26.00		
17 Chironomini Abundance (Family Functional Group)	838.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Polypedilum</i>	46.26
2	<i>Hydropsyche</i>	22.06
3	<i>Micropsectra</i>	9.81
4	<i>Simulium</i>	2.92
5	Planariidae	2.10



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: LOTIC INC.

Waterbody Information - Deployment

Temperature: 22 deg C
Dissolved Oxygen: 5.8 mg/l
Specific Conductance: 84 uS/cm
Velocity: 24 cm/s
pH: 6.21
Wetted Width: 4.1 m
Bankfull Width: 5.1 m
Depth: 32 cm

Waterbody Information - Retrieval

Temperature: 17.3 deg C
Dissolved Oxygen: 7.9 mg/l
Specific Conductance: 83 uS/cm
Velocity: 102 cm/s
pH: 6.11
Wetted Width: 5.1 m
Bankfull Width: 5.1 m
Depth: 40 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Pasture

Canopy Dense

Rolling Terrain

Upland Conifer

Upland Hardwood

Stressor

Location

Substrate

Boulder 40 %

Gravel 10 %

Rubble/Cobble 40 %

Sand 10 %

Landcover Summary - 2004 Data

Sample Comments

LORD'S BROOK POND 85M UPSTREAM FROM SAMPLERS

HIGH WATER ON 8/8 WHEN BAG 1 WAS RETRIEVED, NORMAL FLOW ON 8/26 WHEN BAG 2 WAS RETRIEVED, BAG 3 LOST; FRESH WATER SPONGES FOUND ON 8/26 BUT NO ODOR, FUNGUS, OR ANOMALOUS GROWTHS; 8/26 HABITAT DATA: DEPTH 25 CM, VELOCITY 27 CM/S, DO 8.2 MG/L, TEMPERATURE 18.2 DEG C, SPC 71 US/CM, PH 6.30



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

Station Number: S-863

Waterbody: Lord's Brook - Station 863

Town: Lyman

Log Number: 1709

Subsample Factor: X4

Replicates: 2

Calculated: 3/18/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Planariidae	03010101	36.00	36.00		--	2.1	2.1
Nematoda	05	2.00	2.00		--	0.1	0.1
<i>Lumbriculus</i>	08020101002	4.00	4.00		CG	0.2	0.2
<i>Glossiphonia</i>	08030101004		2.00		--		0.1
<i>Glossiphonia complanata</i>	08030101004001	2.00			--	0.1	
<i>Helobdella</i>	08030101005		12.00		--		0.7
<i>Helobdella stagnalis</i>	08030101005004	12.00			--	0.7	
<i>Erpobdella</i>	08030301002	2.00	2.00		--	0.1	0.1
<i>Hyaella</i>	09010203006	2.00	2.00	8	CG	0.1	0.1
Leuctridae	09020204	2.00	2.00		--	0.1	0.1
<i>Boyeria</i>	09020301004		4.00	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	4.00			--	0.2	
<i>Baetis</i>	09020401001		4.00	4	CG		0.2
<i>Baetis pluto</i>	09020401001009	4.00			--	0.2	
<i>Acerpenna</i>	09020401007		4.00	5	CG		0.2
<i>Acerpenna pygmaea</i>	09020401007011	4.00			--	0.2	
<i>Maccaffertium</i>	09020402015	2.00	2.00	4	SC	0.1	0.1
<i>Chimarra</i>	09020601003		16.00	2	CF		0.9
<i>Chimarra aterrima</i>	09020601003002	16.00			--	0.9	
<i>Nyctiophylax</i>	09020603009	2.00	2.00	5	PR	0.1	0.1
Hydropsychidae	09020604	28.00			--	1.6	
<i>Cheumatopsyche</i>	09020604015	32.00	34.33	5	CF	1.9	2.0
<i>Hydropsyche</i>	09020604016	352.00	377.67	4	CF	20.6	22.1
<i>Ceraclea</i>	09020618072	4.00	4.00	3	CG	0.2	0.2
<i>Sialis</i>	09020702004	2.00	2.00	4	PR	0.1	0.1
Tipulidae	09021001	2.00	2.00		--	0.1	0.1
<i>Dicranota</i>	09021001005	6.00	6.00	3	PR	0.4	0.4
<i>Nilotanypus</i>	09021011012		4.00	6	PR		0.2
<i>Nilotanypus fimbriatus</i>	09021011012027	4.00			--	0.2	
<i>Thienemannimyia</i>	09021011020		22.00	3	PR		1.3
<i>Thienemannimyia/arctopelopia</i> group	09021011020041	22.00			--	1.3	
<i>Parametriocnemus</i>	09021011053	34.00	34.00	5	CG	2.0	2.0
<i>Tvetenia</i>	09021011065		4.00	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	4.00			--	0.2	
<i>Micropsectra</i>	09021011070	168.00	168.00	7	CG	9.8	9.8
<i>Rheotanytarsus</i>	09021011072	30.00	30.00	6	CF	1.8	1.8
<i>Glyptotendipes</i>	09021011088	4.00	4.00	10	SH	0.2	0.2



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<i>Nilothauma</i>	09021011095	2.00	2.00	2	--	0.1	0.1
<i>Paratendipes</i>	09021011100	10.00	10.00	8	CG	0.6	0.6
<i>Phaenopsectra</i>	09021011101	30.00	30.00	7	SC	1.8	1.8
<i>Polypedilum</i>	09021011102		792.00	6	SH		46.3
<i>Polypedilum aviceps</i>	09021011102181	220.00			--	12.9	
<i>Polypedilum flavum</i>	09021011102182	532.00			--	31.1	
<i>Polypedilum illinoense-grp.</i>	09021011102185	40.00			--	2.3	
<i>Simulium</i>	09021012047	50.00	50.00	4	CF	2.9	2.9
Tabanidae	09021014	2.00	2.00		--	0.1	0.1
<i>Atherix</i>	09021015055	18.00	18.00	2	PR	1.1	1.1
Empididae	09021016	2.00	2.00	6	--	0.1	0.1
Physidae	10010202	2.00	2.00		SC	0.1	0.1
<i>Gyraulus</i>	10010203029	2.00	2.00		SC	0.1	0.1
Sphaeriidae	10020201	16.00	16.00		CF	0.9	0.9