



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

Station Information

Station Number: S-856
Waterbody: Unnamed Stream (lewiston) - Station 856
Town: Lewiston
Directions: UPSTREAM OF THE LEWISTON MUNICIPAL LANDFILL
DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 44 3 25.53 N
Longitude: 70 11 7.66 W
Stream Order: 1

Sample Information

Log Number: 1748
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/24/2008
Date Retrieved: 8/21/2008

Classification Attainment

Statutory Class: B
Model Result with P>.6: C
Date Last Calculated: 4/6/2009
Final Determination: C
Reason for Determination: Model
Comments:

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.19	Class A, B, or C	0.96
Class B	0.37	Non-Attainment	0.04
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.07	Class A	0.04
Class C or Non-Attainment	0.93	Class B or C or Non-Attainment	0.96

Model Variables

01 Total Mean Abundance	192.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	52.00	19 EPT Generic Richness	13.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	17.55
04 Ephemeroptera Mean Abundance	0.67	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	3.62	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	40.01
06 Hilsenhoff Biotic Index	5.40	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.83	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.60	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	2.12		
11 <i>Cheumatopsyche</i> Abundance	0.71		
12 EPT Generic Richness/ Diptera Generic Richness	0.42		
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	8.42		
17 Chironomini Abundance (Family Functional Group)	71.24		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	36.19
2	<i>Tanytarsus</i>	19.56
3	<i>Micropsectra</i>	8.96
4	<i>Parametriocnemus</i>	3.84
5	<i>Paramerina</i>	2.38



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Waterbody: Unnamed Stream (Lewiston) - Station 85

Date Retrieved: 8/21/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 18.5 deg C
Dissolved Oxygen: 7.7 mg/l
Specific Conductance: 200 uS/cm
Velocity: 51 cm/s
pH: 7.35
Wetted Width: 2.2 m
Bankfull Width: 2.2 m
Depth: 32 cm

Waterbody Information - Retrieval

Temperature: 14.6 deg C
Dissolved Oxygen: 8.5 mg/l
Specific Conductance: 248 uS/cm
Velocity: 12 cm/s
pH: 7.66
Wetted Width: 1.95 m
Bankfull Width: 2.2 m
Depth: 27 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Swamp Hardwood
Upland Conifer
Upland Hardwood
Urban

Canopy Cover

Canopy Partly Open

Terrain

Rolling Terrain

Stressor

Location

Above Landfill
Above Road Crossing
Below Urban NPS

Substrate

Detritus 15 %
Rubble/Cobble 25 %
Sand 60 %

Landcover Summary - 2004 Data

Sample Comments

7/24/08: ABOVE LANDFILL; WATER VERY CLOUDY



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Aquatic Life Taxonomic Inventory Report

Station Number: S-856 Waterbody: Unnamed Stream (lewiston) - Station 856 Town: Lewiston
Log Number: 1748 Subsample Factor: X1 Replicates: 3 Calculated: 4/6/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Enchytraeidae	08020201	1.67	1.67		--	0.9	0.9
<i>Stylodrilus</i>	08020203011		1.33		--		0.7
<i>Stylodrilus heringianus</i>	08020203011001	1.33			--	0.7	
Lumbricidae	08020205	0.67	0.67		--	0.3	0.3
<i>Synurella</i>	09010202006		1.00		--		0.5
<i>Synurella chamberlaini</i>	09010202006001	1.00			--	0.5	
<i>Sweltsa</i>	09020208040	0.33	0.33		PR	0.2	0.2
<i>Boyeria</i>	09020301004		0.67	2	PR		0.3
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.3	
<i>Acerpenna</i>	09020401007	0.33	0.33	5	CG	0.2	0.2
Heptageniidae	09020402	0.33	0.33		--	0.2	0.2
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.2	0.2
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.2	0.2
Hydropsychidae	09020604	0.33			--	0.2	
<i>Diplectrona</i>	09020604014		3.18	0	CF		1.7
<i>Diplectrona modesta</i>	09020604014025	3.00			--	1.6	
<i>Cheumatopsyche</i>	09020604015	0.67	0.71	5	CF	0.3	0.4
<i>Hydropsyche</i>	09020604016	0.67	2.12	4	CF	0.3	1.1
<i>Hydropsyche depravata complex</i>	09020604016041	1.33			CF	0.7	
<i>Rhyacophila</i>	09020605019		1.67	2	PR		0.9
<i>Rhyacophila nigrita</i>	09020605019064	1.67			PR	0.9	
<i>Oligostomis</i>	09020608039	1.00	1.00	2	PR	0.5	0.5
<i>Limnephilus</i>	09020610055	2.33	2.33	3	SH	1.2	1.2
<i>Neophylax</i>	09020610062	0.33	0.33	3	SC	0.2	0.2
<i>Lepidostoma</i>	09020611064			1	SH		
<i>Psilotreta</i>	09020614068	1.00	3.67	0	SC	0.5	1.9
<i>Psilotreta frontalis</i>	09020614068134	2.67			--	1.4	
<i>Sialis</i>	09020702004	3.33	3.33	4	PR	1.7	1.7
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.2	0.2
<i>Antocha</i>	09021001004	1.67	1.67	3	CG	0.9	0.9
<i>Limnophila</i>	09021001009	0.33	0.33	3	PR	0.2	0.2
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.2	0.2
Chironomidae	09021011	8.00			--	4.2	
<i>Natarsia</i>	09021011011	0.33	1.75	8	PR	0.2	0.9
<i>Natarsia baltimorea</i>	09021011011026	1.33			--	0.7	
<i>Paramerina</i>	09021011013	4.33	4.56		--	2.3	2.4
<i>Trissopelopia</i>	09021011021		1.40		PR		0.7
<i>Trissopelopia ogemawi</i>	09021011021042	1.33			--	0.7	



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Zavrelimyia</i>	09021011022	0.33	0.70	8	PR	0.2	0.4
<i>Zavrelimyia thryptica group</i>	09021011022045	0.33			PR	0.2	
<i>Cricotopus</i>	09021011037	1.33	1.75	7	SH	0.7	0.9
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.2	
<i>Diplocladius</i>	09021011038	0.33	0.35	8	CG	0.2	0.2
<i>Heterotrissocladius</i>	09021011044		3.16	0	CG		1.6
<i>Heterotrissocladius marcidus</i>	09021011044083	3.00			--	1.6	
<i>Parachaetocladius</i>	09021011051	0.33	0.35		CG	0.2	0.2
<i>Parakiefferiella</i>	09021011052	0.33	0.35		CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	5.67	7.37	5	CG	3.0	3.8
<i>Parametriocnemus sp. f epler</i>	09021011053101	1.33			--	0.7	
<i>Synorthocladius</i>	09021011061	1.33	1.40	2	CG	0.7	0.7
<i>Thienemanniella</i>	09021011062		0.35	6	CG		0.2
<i>Thienemanniella xena</i>	09021011062110	0.33			--	0.2	
<i>Tvetenia</i>	09021011065		0.35	5	CG		0.2
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.2	
<i>Micropsectra</i>	09021011070	16.33	17.20	7	CG	8.5	9.0
<i>Paratanytarsus</i>	09021011071	2.00	2.11	6	--	1.0	1.1
<i>Rheotanytarsus</i>	09021011072	2.33	2.46	6	CF	1.2	1.3
<i>Stempellinella</i>	09021011074		3.51	2	--		1.8
<i>Stempellinella leptocelloides</i>	09021011074001	3.33			--	1.7	
<i>Tanytarsus</i>	09021011076	35.67	37.55	6	CF	18.6	19.6
<i>Dicrotendipes</i>	09021011085	0.33	0.35	8	CG	0.2	0.2
<i>Microtendipes</i>	09021011094		69.49	6	CF		36.2
<i>Microtendipes pedellus group</i>	09021011094166	66.00			--	34.4	
<i>Paracladopelma</i>	09021011098		0.70	7	--		0.4
<i>Paracladopelma undine</i>	09021011098177	0.67			--	0.3	
<i>Polypedilum</i>	09021011102		0.70	6	SH		0.4
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.3	
<i>Heleniella</i>	09021011126	1.33	1.40		--	0.7	0.7
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.2	0.2
<i>Chrysops</i>	09021014052	2.00	2.00	6	CG	1.0	1.0
Empididae	09021016			6	--		
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.5	0.5
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.2	0.2
<i>Oulimnius</i>	09021113068		0.33		--		0.2
<i>Oulimnius latiusculus</i>	09021113068049	0.33			--	0.2	
<i>Basommatophora</i>	100102	0.33	0.33		--	0.2	0.2



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<i>Pseudosuccinea</i>	10010201023		0.33		SC		0.2
<i>Pseudosuccinea columella</i>	10010201023038	0.33			--	0.2	