



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

Station Information

Station Number: S-285	DEP Drainage: Penobscot
Waterbody: Silver Lake Outlet Stream - Station 285	HUC8: 01020005
Town: Bucksport	HUC8 Name: Lower Penobscot
Directions: BELOW BUCKS MILL RD. BRIDGE	Latitude: 44 34 37.33 N
	Longitude: 68 47 26.81 W
	Stream Order: 1

Sample Information

Log Number: 2046	Type of Sample: ROCK BAG	Date Deployed: 7/19/2011
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/18/2011

Classification Attainment

Statutory Class: B	Final Determination: C	Date: 2/5/2013
Model Result with P>.6: C	Reason for Determination: Model	
Date Last Calculated: 2/1/2013	Comments:	

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.00	Class C	0.82	Class A, B, or C	0.91
Class B	0.02	NA	0.16	Non-Attainment	0.09
<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	1316.00	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	47.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	6.67	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.25	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	53.14
06 Hilsenhoff Biotic Index	4.54	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.38	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	309.78		
11 <i>Cheumatopsyche</i> Abundance	47.55		
12 EPT Generic Richness/ Diptera Generic Richness	0.56		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	13.96		
17 Chironomini Abundance (Family Functional Group)	411.80		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Polypedilum</i>	27.69
2	<i>Hydropsyche</i>	23.54
3	<i>Chimarra</i>	18.84
4	<i>Stenelmis</i>	4.96
5	<i>Parametriocnemus</i>	3.82



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Station Number: S-285	Town: Bucksport	Date Deployed: 7/19/2011
Log Number: 2046	Waterbody: Silver Lake Outlet Stream - Station 285	Date Retrieved: 8/18/2011

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	24.9 deg C
Dissolved Oxygen:	5.7 mg/l
Specific Conductance:	82 uS/cm
Velocity:	37 cm/s
pH:	6.64
Wetted Width:	1.4 m
Bankfull Width:	2.4 m
Depth:	23 cm

Waterbody Information - Retrieval

Temperature:	20.4 deg C
Dissolved Oxygen:	5.8 mg/l
Specific Conductance:	74 uS/cm
Velocity:	33 cm/s
pH:	6.64
Wetted Width:	2 m
Bankfull Width:	2.4 m
Depth:	25 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Swamp Hardwood
Upland Hardwood
Urban

Canopy Cover

Partly Open

Terrain

Rolling

Potential Stressor

Lake Outlet
Nps Pollution
Regulated Flows

Location

Lake Outlet

Substrate

Boulder	15 %
Gravel	15 %
Rubble/Cobble	25 %
Sand	45 %

Landcover Summary - 2004 Data

Sample Comments

JAPANESE KNOTWEED, GRAPEVINES AT SITE.
8/18/11: FISH OBSERVED.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-285

Waterbody: Silver Lake Outlet Stream - Station 285

Town: Bucksport

Log Number: 2046

Subsample Factor: X4

Replicates: 3

Calculated: 2/1/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Turbellaria	0301	24.00	24.00		--	1.8	1.8
<i>Prostoma</i>	04010101001	1.33	1.33		--	0.1	0.1
Nematoda	05	1.33	1.33		--	0.1	0.1
<i>Stylodrilus</i>	08020101004		2.67		--		0.2
<i>Stylodrilus heringianus</i>	08020101004001	2.67			--	0.2	
<i>Pristina</i>	08020202004	1.33	1.33		--	0.1	0.1
<i>Slavina</i>	08020202012		1.33		--		0.1
<i>Slavina appendiculata</i>	08020202012001	1.33			--	0.1	
<i>Orconectes</i>	09010301008		1.33		CG		0.1
<i>Orconectes limosus</i>	09010301008013	1.33			--	0.1	
<i>Boyeria</i>	09020301004		2.67	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	2.67			--	0.2	
Calopterygidae	09020307	1.33	1.33		--	0.1	0.1
<i>Calopteryx</i>	09020307043		1.33	5	PR		0.1
<i>Calopteryx maculata</i>	09020307043088	1.33			--	0.1	
<i>Baetis</i>	09020401001	1.33	2.67	4	CG	0.1	0.2
<i>Baetis pluto</i>	09020401001009	1.33			--	0.1	
<i>Acerpenna</i>	09020401007	1.33	2.67	5	CG	0.1	0.2
<i>Acerpenna macdunnoughi</i>	09020401007001	1.33			--	0.1	
<i>Iswaeon</i>	09020401015	1.33	1.33		--	0.1	0.1
<i>Rhagovelia</i>	09020510026	2.67	2.67		PR	0.2	0.2
Philopotamidae	09020601	2.67	2.67		--	0.2	0.2
<i>Chimarra</i>	09020601003	160.00	248.00	2	CF	12.2	18.8
<i>Chimarra aterrima</i>	09020601003002	88.00			--	6.7	
<i>Polycentropus</i>	09020603010	18.67	18.67	6	PR	1.4	1.4
Hydropsychidae	09020604	6.67			--	0.5	
<i>Cheumatopsyche</i>	09020604015	46.67	47.55	5	CF	3.5	3.6
<i>Hydropsyche</i>	09020604016	290.67	309.78	4	CF	22.1	23.5
<i>Hydropsyche depravata complex</i>	09020604016041	13.33			CF	1.0	
<i>Pycnopsyche</i>	09020610049	1.33	1.33	4	SH	0.1	0.1
<i>Oecetis</i>	09020618078	9.33	20.00	8	PR	0.7	1.5
<i>Oecetis persimilis</i>	09020618078157	10.67			--	0.8	
<i>Nigronia</i>	09020701003		6.67	0	PR		0.5
<i>Nigronia serricornis</i>	09020701003003	6.67			--	0.5	
<i>Bezzia/palpomyia</i>	09021010043	1.33	1.33	6	PR	0.1	0.1
Chironomidae	09021011	22.67			--	1.7	
<i>Conchapelopia</i>	09021011004	1.33	1.40	6	PR	0.1	0.1
<i>Nilotanytus</i>	09021011012		11.17	6	PR		0.8



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Log Number: 2046	Subsample Factor: X4	Replicates: 3
		Calculated: 2/1/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Nilotanytus fimbriatus</i>	09021011012027	10.67			--	0.8	
<i>Trissopelopia</i>	09021011021		1.40		PR		0.1
<i>Trissopelopia ogemawi</i>	09021011021042	1.33			--	0.1	
<i>Pagastia</i>	09021011025		2.79	1	--		0.2
<i>Pagastia orthogonia</i>	09021011025001	2.67			--	0.2	
<i>Corynoneura</i>	09021011036	8.00	8.38	7	CG	0.6	0.6
<i>Cricotopus</i>	09021011037		1.40	7	SH		0.1
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.1	
<i>Diplocladius</i>	09021011038		5.58	8	CG		0.4
<i>Diplocladius cultriger</i>	09021011038001	5.33			--	0.4	
<i>Parametriocnemus</i>	09021011053	48.00	50.25	5	CG	3.6	3.8
<i>Tvetenia</i>	09021011065		2.79	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	1.33			--	0.1	
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.1	
<i>Rheotanytarsus</i>	09021011072	4.00	4.19	6	CF	0.3	0.3
<i>Tanytarsus</i>	09021011076	4.00	4.19	6	CF	0.3	0.3
<i>Cryptochironomus</i>	09021011082	4.00	4.19	8	PR	0.3	0.3
<i>Microtendipes</i>	09021011094		43.27	6	CF		3.3
<i>Microtendipes rydalensis group</i>	09021011094168	41.33			--	3.1	
<i>Polypedilum</i>	09021011102		364.34	6	SH		27.7
<i>Polypedilum aviceps</i>	09021011102181	346.67			--	26.3	
<i>Polypedilum scalaenum group</i>	09021011102189	1.33			--	0.1	
<i>Simulium</i>	09021012047	4.00	10.67	4	CF	0.3	0.8
<i>Simulium (Eusimulium)</i>	09021012047052	1.33			--	0.1	
<i>Simulium tuberosum</i>	09021012047067	2.67			--	0.2	
<i>Simulium venustum/verecundum complex</i>	09021012047072	2.67			CF	0.2	
<i>Hemerodromia</i>	09021016057	2.67	2.67	3	PR	0.2	0.2
<i>Roederiodes</i>	09021016058	1.33	1.33	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058		4.00	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	4.00			--	0.3	
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	--	0.1	0.1
<i>Macronychus</i>	09021113065		9.33	4	--		0.7
<i>Macronychus glabratus</i>	09021113065040	9.33			--	0.7	
<i>Stenelmis</i>	09021113070	58.67	65.33	5	SC	4.5	5.0
<i>Stenelmis crenata</i>	09021113070055	6.67			--	0.5	
<i>Physa</i>	10010202026	1.33	1.33		SC	0.1	0.1
<i>Sphaeriidae</i>	10020201	4.00	4.00		CF	0.3	0.3



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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>Pisidium</i>	10020201002		6.67		CF		0.5
<i>Pisidium casertanum</i>	10020201002006	6.67			CF	0.5	