



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

Station Information

Station Number: S-816	DEP Drainage: Piscataqua - Presumpscot - Saco
Waterbody: Moose Brook - Station 816	HUC8: 01060001
Town: Auburn	HUC8 Name: Presumpscot
Directions: UPSTREAM OF TURKEY ROAD #1	Latitude: 44 1 21.46 N
	Longitude: 70 16 26.53 W
	Stream Order:

Sample Information

Log Number: 1562	Type of Sample: ROCK BAG	Date Deployed: 7/17/2006
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/14/2006

Classification Attainment

Statutory Class: B	Final Determination: C	Date: 3/30/2009
Model Result with P>.6: C	Reason for Determination: Model	
Date Last Calculated: 3/18/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.10	Class A, B, or C	1.00
Class B	0.48	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.27	Class A	0.01
Class C or Non-Attainment	0.73	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Mean Abundance	873.67	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	54.00	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>	0.00
04 Ephemeroptera Mean Abundance	7.67	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	3.19	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	273.52
06 Hilsenhoff Biotic Index	4.91	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	0.43
08 Relative Generic Richness Diptera	0.48	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	274.81		
11 <i>Cheumatopsyche</i> Abundance	200.19		
12 EPT Generic Richness/ Diptera Generic Richness	0.50		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	20.00		
17 Chironomini Abundance (Family Functional Group)	34.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	31.45
2	<i>Cheumatopsyche</i>	22.91
3	<i>Rheotanytarsus</i>	15.72
4	<i>Tanytarsus</i>	7.33
5	<i>Parametrioctenus</i>	3.82



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Date Retrieved: 8/14/2006

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: LOTIC INC.

Waterbody Information - Deployment

Temperature: 23.2 deg C
Dissolved Oxygen: 7.7 mg/l
Specific Conductance: 312 uS/cm
Velocity: 46 cm/s
pH:
Wetted Width: 2.6 m
Bankfull Width: 2.6 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 15.2 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 332 uS/cm
Velocity: 34 cm/s
pH: 7.21
Wetted Width: 2.6 m
Bankfull Width: 2.6 m
Depth: 25 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Swamp Hardwood	Canopy Open	Rolling Terrain
Urban		

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Urban NPS	Gravel	20 %
		Rubble/Cobble	40 %
		Sand	40 %

Landcover Summary - 2004 Data

Total Area (ac)	2626	High Int. Dev. %	5.2	Water %	0.0	Non-vegetated %	0.0
Total Land (ac)	2625	Med Int. Dev. %	4.8	Wetland %	1.6	Tilled Agriculture %	4.4
		Low Int. Dev. %	10.1	Upland Woody %	53.4	Human Altered %	45.0
		Development %	20.2	Natural %	55.0	Impervious %	13.3

Sample Comments



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

Station Number: S-816 Waterbody: Moose Brook - Station 816 Town: Auburn
Log Number: 1562 Subsample Factor: X1 Replicates: 3 Calculated: 3/18/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Lumbriculus</i>	08020101002	0.67	0.67		CG	0.1	0.1
Naididae	08020202	3.67	3.67		--	0.4	0.4
<i>Nais</i>	08020202009	1.33	1.33		CG	0.2	0.2
<i>Limnodrilus</i>	08020203005	0.33	0.33		CG	0.0	0.0
<i>Orconectes</i>	09010301008	0.67	0.67		CG	0.1	0.1
<i>Sweltsa</i>	09020208040	0.33	0.33		PR	0.0	0.0
<i>Boyeria</i>	09020301004	0.67	0.67	2	PR	0.1	0.1
<i>Calopteryx</i>	09020307043	1.00	1.00	5	PR	0.1	0.1
Coenagrionidae	09020309	0.67	0.67		--	0.1	0.1
<i>Baetis</i>	09020401001		0.67	4	CG		0.1
<i>Baetis brunneicolor</i>	09020401001003	0.33			--	0.0	
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.0	
<i>Acerpenna</i>	09020401007		5.00	5	CG		0.6
<i>Acerpenna macdunnoughi</i>	09020401007001	5.00			--	0.6	
Leptophlebiidae	09020406	0.33	0.33		--	0.0	0.0
<i>Tricorythodes</i>	09020411038	0.33	0.33	4	CG	0.0	0.0
<i>Caenis</i>	09020412040	1.33	1.33	7	CG	0.2	0.2
<i>Chimarra</i>	09020601003	6.67	6.67	2	CF	0.8	0.8
<i>Polycentropus</i>	09020603010	1.67	1.67	6	PR	0.2	0.2
Hydropsychidae	09020604	388.00			--	44.4	
<i>Cheumatopsyche</i>	09020604015	36.67	200.19	5	CF	4.2	22.9
<i>Hydropsyche</i>	09020604016	50.33	274.81	4	CF	5.8	31.5
<i>Ochrotrichia</i>	09020607027	0.67	0.67	4	CG	0.1	0.1
<i>Hydatophylax</i>	09020610048	0.67	0.67	2	SH	0.1	0.1
<i>Oecetis</i>	09020618078	1.00	1.00	8	PR	0.1	0.1
<i>Nigronia</i>	09020701003	1.00	1.00	0	PR	0.1	0.1
<i>Sialis</i>	09020702004	0.33	0.33	4	PR	0.0	0.0
<i>Antocha</i>	09021001004	1.00	1.00	3	CG	0.1	0.1
<i>Hexatoma</i>	09021001008	3.00	3.00	2	PR	0.3	0.3
<i>Bezzia/palpomyia</i>	09021010043	0.67	0.67	6	PR	0.1	0.1
<i>Ablabesmyia</i>	09021011001	6.67	6.67	8	PR	0.8	0.8
<i>Larsia</i>	09021011009	1.33	1.33	6	PR	0.2	0.2
<i>Procladius</i>	09021011015	1.33	1.33	9	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		10.67	3	PR		1.2
<i>Thienemannimyia/arctopelopia</i> group	09021011020041	10.67			--	1.2	
<i>Potthastia</i>	09021011026		4.00	2	CG		0.5
<i>Potthastia longimana</i>	09021011026046	4.00			--	0.5	



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		Actual	Adjusted			Actual	Adjusted
<i>Brillia</i>	09021011033	2.67	2.67	5	SH	0.3	0.3
<i>Corynoneura</i>	09021011036	2.67	2.67	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037	1.33	2.67	7	SH	0.2	0.3
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.2	
<i>Limnophyes</i>	09021011047	1.33	1.33	8	CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	33.33	33.33	5	CG	3.8	3.8
<i>Rheocricotopus</i>	09021011057		4.00	6	CG		0.5
<i>Rheocricotopus robacki</i>	09021011057105	4.00			--	0.5	
<i>Thienemanniella</i>	09021011062	1.33	1.33	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065	1.33	18.67	5	CG	0.2	2.1
<i>Tvetenia paucunca</i>	09021011065114	17.33			--	2.0	
<i>Rheotanytarsus</i>	09021011072	137.33	137.33	6	CF	15.7	15.7
<i>Stempellinella</i>	09021011074	2.67	2.67	2	--	0.3	0.3
<i>Tanytarsus</i>	09021011076	64.00	64.00	6	CF	7.3	7.3
<i>Microtendipes</i>	09021011094		5.33	6	CF		0.6
<i>Microtendipes rydalensis-grp.</i>	09021011094168	5.33			--	0.6	
<i>Nilothauma</i>	09021011095	5.33	5.33	2	--	0.6	0.6
<i>Polypedilum</i>	09021011102		24.00	6	SH		2.7
<i>Polypedilum aviceps</i>	09021011102181	22.67			--	2.6	
<i>Polypedilum scalaenum-grp.</i>	09021011102189	1.33			--	0.2	
<i>Simulium</i>	09021012047	2.00	2.00	4	CF	0.2	0.2
<i>Atherix</i>	09021015055	0.67	0.67	2	PR	0.1	0.1
Empididae	09021016	10.67	10.67	6	--	1.2	1.2
<i>Chelifera</i>	09021016060	0.33	0.33		PR	0.0	0.0
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	CG	0.2	0.2
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.0	0.0
<i>Stenelmis</i>	09021113070	19.67	19.67	5	SC	2.3	2.3
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.0	0.0
Ancylidae	10010204	0.33	0.33		SC	0.0	0.0