



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

Station Information

Station Number: S-411	DEP Drainage: Piscataqua - Presumpscot - Saco
Waterbody: Long Creek - Station 411	HUC8: 01060001
Town: Westbrook	HUC8 Name: Presumpscot
Directions: SABLE OAKS BRANCH - 40 M UPSTREAM OF GOODYEAR TRIB	Latitude: 43 38 50.55 N
	Longitude: 70 21 5.63 W
	Stream Order: 1

Sample Information

Log Number: 1942	Type of Sample: ROCK BAG	Date Deployed: 7/19/2010
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/18/2010

Classification Attainment

Statutory Class: B	Final Determination: NA	Date: 6/10/2011
Model Result with P>.6: NA	Reason for Determination: Model	
Date Last Calculated: 6/7/2011	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
<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	95.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	42.00	19 EPT Generic Richness	7.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes,</i> <i>Micropsectra, Parachironomus, Helobdella</i>	2.39
04 Ephemeroptera Mean Abundance	0.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.96	25 Sum of Abundances: <i>Cheumatopsyche,</i> <i>Cricotopus, Tanytarsus, Ablabesmyia</i>	12.18
06 Hilsenhoff Biotic Index	5.55	26 Sum of Abundances: <i>Acroneuria,</i> <i>Maccaffertium, Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.38	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.52	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	6.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.32		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	7.72		
17 Chironomini Abundance (Family Functional Group)	15.05		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stenelmis</i>	34.27
2	<i>Paratendipes</i>	10.12
3	<i>Tanytarsus</i>	6.48
4	<i>Cheumatopsyche</i>	6.29
5	<i>Conchapelopia</i>	4.86



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Sample Collection and Processing Information

Sampling Organization: DEP DWM
 Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 23.7 deg C
 Dissolved Oxygen: 6.52 mg/l
 Specific Conductance: 600 uS/cm
 Velocity: 2.1 cm/s
 pH: 7.48
 Wetted Width: 0.7 m
 Bankfull Width: 3.7 m
 Depth: 14 cm

Waterbody Information - Retrieval

Temperature: 20.7 deg C
 Dissolved Oxygen: 6.38 mg/l
 Specific Conductance: 209 uS/cm
 Velocity: 2 cm/s
 pH: 7.6
 Wetted Width: 1 m
 Bankfull Width: 1.5 m
 Depth: 8 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Hardwood	Partly Open	Flat	
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution	Below Urban NPS	Clay	20 %
Urban Runoff		Muck	50 %
		Sand	30 %

Landcover Summary - 2004 Data

Total Area (ac)	646	High Int. Dev. %	12.6	Water %	0.0	Non-vegetated %	0.1
		Med Int. Dev. %	2.3	Wetland %	12.0	Tilled Agriculture %	0.7
		Low Int. Dev. %	6.2	Upland Woody %	21.5	Grassland %	2.9
		Development %	21.2	Natural %	33.6	Human Altered %	66.4
						Impervious %	18.5

Sample Comments

7/19/2010 RIPARIAN AREA GROWN UP SINCE LAST VISIT. D.O. METER: HACH OPTICAL CALIBRATED IN THE OFFICE (DOES NOT NEED TO BE CALIBRATED DAILY), PH METER: YSI 85, CALIBRATED BEFORE EACH DAY OF SAMPLING.
 8/18/2010 BAG 3 WAS 3/4 BURIED IN SAND; SALAMANDER IN ONE BAG (TWO-LINED?). D.O. METER: HACH OPTICAL CALIBRATED IN THE OFFICE (DOES NOT NEED TO BE CALIBRATED DAILY), PH METER: YSI 85, CALIBRATED BEFORE EACH DAY OF SAMPLING



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

Station Number: S-411 Waterbody: Long Creek - Station 411 Town: Westbrook
Log Number: 1942 Subsample Factor: X1 Replicates: 3 Calculated: 6/7/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Naididae	08020202	0.33	0.33		--	0.3	0.3
<i>Pristina</i>	08020202004	0.33	1.00		--	0.3	1.0
<i>Pristina osborni</i>	08020202004007	0.67			--	0.7	
<i>Glossiphonia</i>	08030101004		0.67		--		0.7
<i>Glossiphonia complanata</i>	08030101004001	0.67			--	0.7	
<i>Helobdella</i>	08030101005		2.00		--		2.1
<i>Helobdella stagnalis</i>	08030101005004	2.00			--	2.1	
<i>Erpobdella</i>	08030203002		0.67		--		0.7
<i>Erpobdella punctata</i>	08030203002001	0.67			--	0.7	
<i>Caecidotea</i>	09010101001	1.33	1.33	8	SH	1.4	1.4
Amphipoda	090102	0.33	0.33	8	--	0.3	0.3
<i>Crangonyx</i>	09010202004	2.00	2.00	8	--	2.1	2.1
<i>Boyeria</i>	09020301004		2.33	2	PR		2.4
<i>Boyeria vinosa</i>	09020301004012	2.33			--	2.4	
<i>Maccaffertium</i>	09020402015		0.33	4	SC		0.3
<i>Maccaffertium modestum</i>	09020402015051	0.33			--	0.3	
<i>Cheumatopsyche</i>	09020604015	6.00	6.00	5	CF	6.3	6.3
<i>Hydropsyche</i>	09020604016		0.33	4	CF		0.3
<i>Hydropsyche depravata complex</i>	09020604016041	0.33			CF	0.3	
<i>Pycnopsyche</i>	09020610049	1.00	1.00	4	SH	1.0	1.0
<i>Frenesia</i>	09020610058		1.67	0	SH		1.7
<i>Frenesia difficilis</i>	09020610058117	1.67			--	1.7	
<i>Glyphopsyche</i>	09020610059		0.33	1	--		0.3
<i>Glyphopsyche irrorata</i>	09020610059119	0.33			--	0.3	
Leptoceridae	09020618	0.33	0.33		--	0.3	0.3
Chironomidae	09021011	5.00			--	5.2	
<i>Conchapelopia</i>	09021011004	4.00	4.63	6	PR	4.2	4.9
<i>Larsia</i>	09021011009	0.33	0.39	6	PR	0.3	0.4
<i>Meropelopia</i>	09021011010	0.33	0.39		--	0.3	0.4
<i>Natarsia</i>	09021011011	0.67	2.32	8	PR	0.7	2.4
<i>Natarsia baltimorea</i>	09021011011026	1.33			--	1.4	
<i>Corynoneura</i>	09021011036	0.33	0.39	7	CG	0.3	0.4
<i>Hydrobaenus</i>	09021011045	0.33	0.39	8	SC	0.3	0.4
<i>Nanocladius</i>	09021011049	0.33	0.39	3	CG	0.3	0.4
<i>Parakiefferiella</i>	09021011052	1.00	1.16		CG	1.0	1.2
<i>Parametriocnemus</i>	09021011053	1.33	1.54	5	CG	1.4	1.6
<i>Thienemanniella</i>	09021011062		0.39	6	CG		0.4
<i>Thienemanniella xena</i>	09021011062110	0.33			--	0.3	



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		Actual	Adjusted			Actual	Adjusted
<i>Cladotanytarsus</i>	09021011068	1.00	1.16	7	CG	1.0	1.2
<i>Paratanytarsus</i>	09021011071	0.33	0.39	6	--	0.3	0.4
<i>Stempellinella</i>	09021011074		1.93	2	--		2.0
<i>Stempellinella fimbriata</i>	09021011074002	1.67			--	1.7	
<i>Tanytarsus</i>	09021011076	5.33	6.18	6	CF	5.6	6.5
<i>Cryptotendipes</i>	09021011083	0.33	0.39	6	--	0.3	0.4
<i>Dicrotendipes</i>	09021011085	0.33	0.39	8	CG	0.3	0.4
<i>Microtendipes</i>	09021011094		0.39	6	CF		0.4
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.3	
<i>Paracladopelma</i>	09021011098		0.39	7	--		0.4
<i>Paracladopelma undine</i>	09021011098177	0.33			--	0.3	
<i>Paralauterborniella</i>	09021011099		0.39	8	CG		0.4
<i>Paralauterborniella nigrohalteralis</i>	09021011099175	0.33			--	0.3	
<i>Paratendipes</i>	09021011100		9.65	8	CG		10.1
<i>Paratendipes albimanus group</i>	09021011100176	8.00			--	8.4	
<i>Paratendipes subaequalis group</i>	09021011100178	0.33			--	0.3	
<i>Polypedilum</i>	09021011102		3.47	6	SH		3.6
<i>Polypedilum scalaenum group</i>	09021011102189	3.00			--	3.1	
<i>Chrysops</i>	09021014052	0.33	0.33	6	CG	0.3	0.3
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	--	0.3	0.3
<i>Stenelmis</i>	09021113070	32.67	32.67	5	SC	34.3	34.3
Basommatophora	100102	0.33	0.33		--	0.3	0.3
<i>Lymnaea</i>	10010201022		2.00		SC		2.1
<i>Lymnaea columella</i>	10010201022038	2.00			--	2.1	
<i>Physa</i>	10010202026	1.00	1.00		SC	1.0	1.0
<i>Sphaerium</i>	10020201003		1.33		CF		1.4
<i>Sphaerium striatinum</i>	10020201003024	1.33			--	1.4	