



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

Station Information

Station Number: S-797
Waterbody: West Brook - Station 797
Town: Biddeford
Directions: 65 M DOWNSTREAM OF WEST STREET

DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8: 01060002
HUC8 Name: Saco
Latitude: 43 28 20.52 N
Longitude: 70 27 18.56 W
Stream Order: 1

Sample Information

Log Number: 1957
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/22/2010
Date Retrieved: 8/24/2010

Classification Attainment

Statutory Class: B
Model Result with P>.6: C
Date Last Calculated: 3/2/2011
Final Determination: C
Reason for Determination: Model
Comments:

Date: 3/4/2011

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.07	Class A, B, or C	1.00
Class B	0.18	Non-Attainment	0.00
Class C			
0.75			
0.00			
B or Better Model		A Model	
Class A or B	0.18	Class A	0.06
Class C or Non-Attainment	0.82	Class B or C or Non-Attainment	0.94

Model Variables

01 Total Mean Abundance	372.67	18 Relative Abundance Ephemeroptera	0.48
02 Generic Richness	60.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	16.63
04 Ephemeroptera Mean Abundance	180.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.88	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	7.81
06 Hilsenhoff Biotic Index	4.63	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	111.33
07 Relative Abundance - Chironomidae	0.30	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	0.76		
11 <i>Cheumatopsyche</i> Abundance	4.19		
12 EPT Generic Richness/ Diptera	0.95		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	3.98		
(Family Functional Group)			
17 Chironomini Abundance (Family	72.80		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	29.87
2	<i>Microtendipes</i>	13.90
3	<i>Habrophlebia</i>	10.66
4	<i>Oecetis</i>	6.44
5	<i>Paraleptophlebia</i>	5.98



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Date Retrieved: 8/24/2010

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 25.1 deg C
Dissolved Oxygen: 7.1 mg/l
Specific Conductance: 148 uS/cm
Velocity: 51 cm/s
pH:
Wetted Width: 1.65 m
Bankfull Width: 1.65 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 18 deg C
Dissolved Oxygen: 7 mg/l
Specific Conductance: 201 uS/cm
Velocity: 10 cm/s
pH: 6.83
Wetted Width: 1.4 m
Bankfull Width: 1.65 m
Depth: 30 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Upland Hardwood
Urban

Partly Open

Rolling

Potential Stressor

Location

Substrate

Impounded
Nps Pollution
Urban Runoff

Below Urban NPS
Impoundment

Gravel 70 %
Rubble/Cobble 5 %
Sand 25 %

Landcover Summary - 2004 Data

Total Area (ac)	528	High Int. Dev. %	1.5	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	1.8	Wetland %	10.3	Tilled Agriculture %	0.1
		Low Int. Dev. %	16.2	Upland Woody %	55.6	Grassland %	0.6
		Development %	19.5	Natural %	65.9	Human Altered %	34.1
						Impervious %	12.4

Sample Comments

8/24/2010 FISH.

7/22/2010 BELOW POND/IMPONDMENT; WILCOX POND.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-797	Waterbody: West Brook - Station 797	Town: Biddeford
Log Number: 1957	Subsample Factor: X1	Replicates: 3
		Calculated: 3/2/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002		2.33		--		0.6
<i>Girardia tigrina</i>	03010102002001	2.33			--	0.6	
<i>Aulodrilus</i>	08020202018		0.67		--		0.2
<i>Aulodrilus pluriseta</i>	08020202018004	0.67			--	0.2	
<i>Helobdella</i>	08030101005		0.33		--		0.1
<i>Helobdella papillata</i>	08030101005003	0.33			--	0.1	
Isotomidae	09020102	0.33	0.33		--	0.1	0.1
<i>Boyeria</i>	09020301004		1.33	2	PR		0.4
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.4	
Gomphidae	09020302	0.33	0.33		--	0.1	0.1
<i>Stylogomphus</i>	09020302017		2.67	0	PR		0.7
<i>Stylogomphus albistylus</i>	09020302017037	2.67			--	0.7	
<i>Cordulegaster</i>	09020303019	0.33	0.33	3	PR	0.1	0.1
Calopterygidae	09020307	5.00	5.00		--	1.3	1.3
<i>Calopteryx</i>	09020307043		1.00	5	PR		0.3
<i>Calopteryx maculata</i>	09020307043088	1.00			--	0.3	
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.1	0.1
Heptageniidae	09020402	0.33	0.33		--	0.1	0.1
<i>Maccaffertium</i>	09020402015	111.33	111.33	4	SC	29.9	29.9
Leptophlebiidae	09020406	40.67			--	10.9	
<i>Habrophlebia</i>	09020406023	13.67	39.72		--	3.7	10.7
<i>Paraleptophlebia</i>	09020406026	7.67	22.28	1	CG	2.1	6.0
<i>Eurylophella</i>	09020410036	6.33	6.33	3	CG	1.7	1.7
Philopotamidae	09020601	0.33	0.33		--	0.1	0.1
<i>Chimarra</i>	09020601003	1.00	1.00	2	CF	0.3	0.3
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	0.4	0.4
Hydropsychidae	09020604	0.67			--	0.2	
<i>Cheumatopsyche</i>	09020604015	3.67	4.19	5	CF	1.0	1.1
<i>Hydropsyche</i>	09020604016	0.67	0.76	4	CF	0.2	0.2
<i>Macrostemum</i>	09020604018		0.38	3	CF		0.1
<i>Macrostemum zebratum</i>	09020604018054	0.33			--	0.1	
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.1	0.1
<i>Psilotreta</i>	09020614068	1.00	4.00	0	SC	0.3	1.1
<i>Psilotreta labida</i>	09020614068133	3.00			--	0.8	
<i>Molanna</i>	09020615069	0.33	0.33	6	SC	0.1	0.1
<i>Heteroplectron</i>	09020617071		0.67		SH		0.2
<i>Heteroplectron americanum</i>	09020617071138	0.67			--	0.2	
<i>Ceraclea</i>	09020618072	2.00	2.00	3	CG	0.5	0.5



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<i>Mystacides</i>	09020618075		1.00	4	CG		0.3
<i>Mystacides sepulchralis</i>	09020618075147	1.00			--	0.3	
<i>Triaenodes</i>	09020618077	1.00	1.00	6	SH	0.3	0.3
<i>Oecetis</i>	09020618078	1.67	24.00	8	PR	0.4	6.4
<i>Oecetis inconspicua complex</i>	09020618078156	0.33			--	0.1	
<i>Oecetis persimilis</i>	09020618078157	22.00			--	5.9	
<i>Nigronia</i>	09020701003		2.67	0	PR		0.7
<i>Nigronia serricornis</i>	09020701003003	2.67			--	0.7	
Chironomidae	09021011	9.00			--	2.4	
<i>Ablabesmyia</i>	09021011001		0.36	8	PR		0.1
<i>Ablabesmyia mallochi</i>	09021011001004	0.33			--	0.1	
<i>Nilotanyus</i>	09021011012		0.72	6	PR		0.2
<i>Nilotanyus fimbriatus</i>	09021011012027	0.67			--	0.2	
<i>Paramerina</i>	09021011013	0.33	0.36		--	0.1	0.1
<i>Trissopelopia</i>	09021011021		2.17		PR		0.6
<i>Trissopelopia ogemawi</i>	09021011021042	2.00			--	0.5	
<i>Zavrelimyia</i>	09021011022		0.36	8	PR		0.1
<i>Zavrelimyia thryptica group</i>	09021011022045	0.33			PR	0.1	
<i>Brillia</i>	09021011033		0.36	5	SH		0.1
<i>Brillia flavifrons</i>	09021011033049	0.33			--	0.1	
<i>Nanocladius</i>	09021011049		0.36	3	CG		0.1
<i>Nanocladius alternantherae</i>	09021011049095	0.33			--	0.1	
<i>Parametriocnemus</i>	09021011053	0.67	0.72	5	CG	0.2	0.2
<i>Micropsectra</i>	09021011070	15.00	16.30	7	CG	4.0	4.4
<i>Rheotanytarsus</i>	09021011072	3.33	3.62	6	CF	0.9	1.0
<i>Stempellinella</i>	09021011074		10.50	2	--		2.8
<i>Stempellinella fimbriata</i>	09021011074002	9.67			--	2.6	
<i>Tanytarsus</i>	09021011076	3.00	3.26	6	CF	0.8	0.9
<i>Microtendipes</i>	09021011094		51.79	6	CF		13.9
<i>Microtendipes pedellus group</i>	09021011094166	3.33			--	0.9	
<i>Microtendipes rydalensis group</i>	09021011094168	44.33			--	11.9	
<i>Phaenopsectra</i>	09021011101		11.95	7	SC		3.2
<i>Phaenopsectra flavipes</i>	09021011101179	1.00			SC	0.3	
<i>Phaenopsectra obediens</i>	09021011101182	10.00			SC	2.7	
<i>Polypedilum</i>	09021011102		2.90	6	SH		0.8
<i>Polypedilum aviceps</i>	09021011102181	2.00			--	0.5	
<i>Polypedilum fallax group</i>	09021011102183				--		
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.2	



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<i>Stenochironomus</i>	09021011105	0.67	0.72	5	CG	0.2	0.2
<i>Tribelos</i>	09021011107	0.33	5.43	5	CG	0.1	1.5
<i>Tribelos jucundum</i>	09021011107198	4.67			--	1.3	
<i>Helopelopia</i>	09021011114	0.67	0.72	6	PR	0.2	0.2
<i>Pseudorthocladius</i>	09021011125	0.33	0.36	0	CG	0.1	0.1
<i>Simulium</i>	09021012047		0.33	4	CF		0.1
<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072	0.33			CF	0.1	
<i>Ancyronyx</i>	09021113063		0.33	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	0.33			CG	0.1	
<i>Macronychus</i>	09021113065		4.67	4	--		1.3
<i>Macronychus glabratus</i>	09021113065040	4.67			--	1.3	
<i>Stenelmis</i>	09021113070	2.00	7.67	5	SC	0.5	2.1
<i>Stenelmis crenata</i>	09021113070055	5.67			--	1.5	
<i>Amnicola</i>	10010104013		2.00		SC		0.5
<i>Amnicola limosa</i>	10010104013018	2.00			--	0.5	
<i>Physa</i>	10010202026	0.33	0.33		SC	0.1	0.1
Planorbidae	10010203	0.33	0.33		--	0.1	0.1
<i>Gyraulus</i>	10010203029		0.33		SC		0.1
<i>Gyraulus deflectus</i>	10010203029056	0.33			--	0.1	
Sphaeriidae	10020201	1.67			CF	0.4	
<i>Musculium</i>	10020201001		0.50		CF		0.1
<i>Musculium securis</i>	10020201001003	0.33			CF	0.1	
<i>Pisidium</i>	10020201002	3.00	4.50		CF	0.8	1.2