



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

Station Information

**Station Number: S-446**  
Waterbody: Little Ossipee River - Station 446  
Town: Limington  
Directions: 200YDS UPSTRM OF MILL TURN RD

DEP Drainage: Piscataqua - Presumpscot - Saco  
HUC8: 01060002  
HUC8 Name: Saco  
Latitude: 43 41 19.65 N  
Longitude: 70 40 9.03 W  
Stream Order: 3

Sample Information

**Log Number: 1964**  
Subsample Factor: X1  
Type of Sample: ROCK BASKET  
Replicates: 3  
Date Deployed: 7/26/2010  
Date Retrieved: 8/25/2010

Classification Attainment

**Statutory Class: B**  
Model Result with P>.6: B  
Date Last Calculated: 1/25/2011  
**Final Determination: B**  
**Reason for Determination: Model**  
Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.56	Class A, B, or C	1.00
Class B	0.41	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
Class A or B	1.00	Class A	0.25
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.75

Model Variables

01 Total Mean Abundance	158.67	18 Relative Abundance Ephemeroptera	0.53
02 Generic Richness	44.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	84.67	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.27	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	14.00
06 Hilsenhoff Biotic Index	4.73	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	77.29
07 Relative Abundance - Chironomidae	0.11	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.27	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	2.67		
11 <i>Cheumatopsyche</i> Abundance	9.00		
12 EPT Generic Richness/ Diptera	1.67		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	1.67		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	3.33		
(Family Functional Group)			
17 Chironomini Abundance (Family	8.00		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	47.87
2	<i>Neureclipsis</i>	12.37
3	<i>Cheumatopsyche</i>	5.67
4	<i>Polypedilum</i>	2.94
5	<i>Isonychia</i>	2.73
6	<i>Oecetis</i>	2.73



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Date Retrieved: 8/25/2010

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 25.2 deg C  
Dissolved Oxygen: 7.5 mg/l  
Specific Conductance: 71 uS/cm  
Velocity: 46 cm/s  
pH:  
Wetted Width: 34 m  
Bankfull Width: 34 m  
Depth: 45 cm

**Waterbody Information - Retrieval**

Temperature: 21.1 deg C  
Dissolved Oxygen: 6.5 mg/l  
Specific Conductance: 59 uS/cm  
Velocity: 50 cm/s  
pH: 6.7  
Wetted Width: 34 m  
Bankfull Width: 34 m  
Depth: 40 cm

**Water Chemistry - 8/25/2010**

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	<1 ug/l
Nitrate+nitrite As N	<0.01 mg/l	Total Phosphorus	0.013 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	3.7 mg/l	Total Dissolved Solids	65 mg/l

**Summary of Habitat Characteristics**

Landuse Name

Upland Conifer

Upland Hardwood

Potential Stressor

Canopy Cover

Open

Location

Above Road Crossing

Below Dam

Terrain

Rolling

Substrate

Boulder 50 %

Gravel 15 %

Rubble/Cobble 25 %

Sand 10 %

**Landcover Summary - 2004 Data**

Total Area (ac)	72192	High Int. Dev. %	0.3	Water %	2.9	Non-vegetated %	0.4
		Med Int. Dev. %	0.2	Wetland %	6.0	Tilled Agriculture %	0.6
		Low Int. Dev. %	2.1	Upland Woody %	81.8	Grassland %	4.2
		Development %	2.6	Natural %	88.1	Human Altered %	9.0
						Impervious %	2.3

**Sample Comments**

8/25/2010 HEAVY RAIN.

7/26/2010 FISH, ARROWHEAD DAM.



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Calculated: 1/25/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Stylaria</i>	08020202014		0.33		CG		0.2
<i>Stylaria lacustris</i>	08020202014002	0.33			--	0.2	
<i>Acroneuria</i>	09020209042		1.33	0	PR		0.8
<i>Acroneuria abnormis</i>	09020209042121	1.33		0	PR	0.8	
<i>Attaneuria</i>	09020209043		0.33	1	--		0.2
<i>Attaneuria ruralis</i>	09020209043128	0.33			--	0.2	
<i>Boyeria</i>	09020301004		2.33	2	PR		1.5
<i>Boyeria vinosa</i>	09020301004012	2.33			--	1.5	
Corduliidae	09020305	1.00	1.00		--	0.6	0.6
<i>Neurocordulia</i>	09020305026	0.33	0.33	2	PR	0.2	0.2
Calopterygidae	09020307	0.33	0.33		--	0.2	0.2
<i>Calopteryx</i>	09020307043		2.00	5	PR		1.3
<i>Calopteryx maculata</i>	09020307043088	2.00			--	1.3	
Coenagrionidae	09020309	0.67	0.67		--	0.4	0.4
<i>Argia</i>	09020309048	1.00	1.00	7	PR	0.6	0.6
<i>Acerpenna</i>	09020401007	0.33	3.67	5	CG	0.2	2.3
<i>Acerpenna pygmaea</i>	09020401007011	3.33			--	2.1	
Heptageniidae	09020402	8.00			--	5.0	
<i>Stenacron</i>	09020402014	0.33	0.37	7	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	52.00	75.96	4	SC	32.8	47.9
<i>Maccaffertium modestum</i>	09020402015051	16.00			--	10.1	
<i>Isonychia</i>	09020404018	4.33	4.33	2	CF	2.7	2.7
<i>Habrophlebia</i>	09020406023		0.33		--		0.2
<i>Habrophlebia vibrans</i>	09020406023072	0.33			--	0.2	
Trichoptera	090206				--		
<i>Chimarra</i>	09020601003	0.67	0.67	2	CF	0.4	0.4
Polycentropodidae	09020603	0.67			--	0.4	
<i>Neureclipsis</i>	09020603008	19.00	19.62	7	CF	12.0	12.4
<i>Nyctiophylax</i>	09020603009		0.34	5	PR		0.2
<i>Nyctiophylax celta</i>	09020603009012	0.33			--	0.2	
<i>Polycentropus</i>	09020603010	1.00	1.03	6	PR	0.6	0.7
<i>Cheumatopsyche</i>	09020604015	9.00	9.00	5	CF	5.7	5.7
<i>Hydropsyche</i>	09020604016	0.33	2.67	4	CF	0.2	1.7
<i>Hydropsyche depravata complex</i>	09020604016041	2.33			CF	1.5	
<i>Macrostemum</i>	09020604018		2.67	3	CF		1.7
<i>Macrostemum zebratum</i>	09020604018054	2.67			--	1.7	
<i>Hydroptila</i>	09020607026	1.00	1.00	6	P	0.6	0.6
<i>Oxyethira</i>	09020607028	0.33	0.33	3	P	0.2	0.2



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<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.2	0.2
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.2	0.2
<i>Nectopsyche</i>	09020618074		0.33	3	SH		0.2
<i>Nectopsyche exquisita</i>	09020618074147	0.33			--	0.2	
<i>Oecetis</i>	09020618078	0.33	4.33	8	PR	0.2	2.7
<i>Oecetis persimilis</i>	09020618078157	4.00			--	2.5	
<i>Chaoborus</i>	09021007025		0.33	8	PR		0.2
<i>Chaoborus punctipennis</i>	09021007025007	0.33			--	0.2	
<i>Ablabesmyia</i>	09021011001		1.00	8	PR		0.6
<i>Ablabesmyia mallochi</i>	09021011001004	1.00			--	0.6	
<i>Pentaneura</i>	09021011014		2.33	6	PR		1.5
<i>Pentaneura inconspicua</i>	09021011014028	2.33			--	1.5	
<i>Cricotopus</i>	09021011037		0.33	7	SH		0.2
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.2	
<i>Nanocladius</i>	09021011049		0.33	3	CG		0.2
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.2	
<i>Psectrocladius</i>	09021011056		1.00	8	CG		0.6
<i>Psectrocladius simulans</i>	09021011056110	1.00			--	0.6	
<i>Rheotanytarsus</i>	09021011072	0.33	0.33	6	CF	0.2	0.2
<i>Tanytarsus</i>	09021011076	3.67	3.67	6	CF	2.3	2.3
<i>Microtendipes</i>	09021011094		2.33	6	CF		1.5
<i>Microtendipes rydalensis group</i>	09021011094168	2.33			--	1.5	
<i>Polypedilum</i>	09021011102		4.67	6	SH		2.9
<i>Polypedilum illinoense group</i>	09021011102185	4.67			--	2.9	
<i>Stenochironomus</i>	09021011105	1.00	1.00	5	CG	0.6	0.6
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.2	0.2
<i>Macronychus</i>	09021113065		0.67	4	--		0.4
<i>Macronychus glabratus</i>	09021113065040	0.67			--	0.4	
<i>Hydrozetes</i>	09030115001	0.33	0.33		--	0.2	0.2
<i>Amnicola</i>	10010104013	0.67	2.33		SC	0.4	1.5
<i>Amnicola limosa</i>	10010104013018	1.67			--	1.1	
<i>Physa</i>	10010202026	0.67	0.67		SC	0.4	0.4