



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

Station Information

Station Number: S-170
Waterbody: Sabattus River - Station 170
Town: Lisbon
Directions: BELOW MAINE ELECTRONICS, 40 M BELOW DAM

DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 44 1 56.52 N
Longitude: 70 6 11.98 W
Stream Order: 3

Sample Information

Log Number: 1726
Subsample Factor: X4

Type of Sample: ROCK BASKET
Replicates: 2

Date Deployed: 7/18/2008
Date Retrieved: 8/14/2008

Classification Attainment

Statutory Class: C
Model Result with P>.6: I
Date Last Calculated: 3/18/2009

Final Determination: NA
Reason for Determination: Best Professional Judgement
Comments: Very low Generic Richness.

Date: 3/23/2009

Model Probabilities

First Stage Model				C or Better Model	
Class A	0.00	Class C	0.20	Class A, B, or C	0.00
Class B	0.00	NA	0.80	Non-Attainment	1.00

B or Better Model		A Model	
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	688.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	12.00	19 EPT Generic Richness	5.00
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	2.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.13	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	53.53
06 Hilsenhoff Biotic Index	4.35	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.15	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.42	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	296.47		
11 <i>Cheumatopsyche</i> Abundance	53.53		
12 EPT Generic Richness/ Diptera Generic Richness	1.00		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	46.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	43.09
2	<i>Simulium</i>	32.56
3	<i>Cheumatopsyche</i>	7.78
4	<i>Polypedilum</i>	6.69
5	<i>Rheotanytarsus</i>	5.23



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Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Number: S-170

Town: Lisbon

Date Deployed: 7/18/2008

Log Number: 1726

Waterbody: Sabattus River - Station 170

Date Retrieved: 8/14/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 25.7 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 142 uS/cm
Velocity: 40 cm/s
pH: 7.28
Wetted Width: 26 m
Bankfull Width: 26 m
Depth: 36 cm

Waterbody Information - Retrieval

Temperature: 20.9 deg C
Dissolved Oxygen: 7.8 mg/l
Specific Conductance: 101 uS/cm
Velocity: 102 cm/s
pH: 6.99
Wetted Width: 26 m
Bankfull Width: 26 m
Depth: 52 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	1 ug/l
Nitrate+nitrite As N	0.03 mg/l	Total Phosphorus	0.074 mg/l
Total Kjeldahl Nitrogen	0.7 mg/l	Total Suspended Solids	14 mg/l
Dissolved Organic Carbon	6.8 mg/l	Total Dissolved Solids	65 mg/l

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Altered Hydrology Stressor	Above Road Crossing	Bedrock	25 %
Impounded Stressor	Below Dam	Boulder	20 %
Metals Stressor	Below Urban NPS	Gravel	5 %
Urban Runoff Stressor		Rubble/Cobble	40 %
		Silt	10 %

Landcover Summary - 2004 Data

Sample Comments

7/18/08: LOTS OF CRAYFISH AND BLACKFLY LARVAE

8/14/08: FLOW NOT MEASURED WHERE SAMPLERS WERE DUE TO HIGH FLOW; BASKET 3 LOST;
HIGH WATER



Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report

Station Number: S-170	Waterbody: Sabattus River - Station 170	Town: Lisbon
Log Number: 1726	Subsample Factor: X4	Replicates: 2
		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>Caecidotea</i>	09010101001	2.00	2.00	8	SH	0.3	0.3
<i>Baetis</i>	09020401001	2.00	2.00	4	CG	0.3	0.3
<i>Chimarra</i>	09020601003	2.00	2.00	2	CF	0.3	0.3
Hydropsychidae	09020604	10.00			--	1.5	
<i>Cheumatopsyche</i>	09020604015	52.00	53.53	5	CF	7.6	7.8
<i>Hydropsyche</i>	09020604016	94.00	296.47	4	CF	13.7	43.1
<i>Hydropsyche morosa</i>	09020604016030	166.00			--	24.1	
<i>Hydropsyche sparna</i>	09020604016032	2.00			--	0.3	
<i>Hydropsyche depravata-complex</i>	09020604016041	24.00			CF	3.5	
<i>Hydropsyche phalerata</i>	09020604016047	2.00			--	0.3	
<i>Ceraclea</i>	09020618072	2.00	2.00	3	CG	0.3	0.3
<i>Cardiocladius</i>	09021011034		6.00	5	PR		0.9
<i>Cardiocladius obscurus</i>	09021011034053	6.00			--	0.9	
<i>Tvetenia</i>	09021011065		16.00	5	CG		2.3
<i>Tvetenia vitracies</i>	09021011065113	16.00			--	2.3	
<i>Rheotanytarsus</i>	09021011072	36.00	36.00	6	CF	5.2	5.2
<i>Polypedilum</i>	09021011102		46.00	6	SH		6.7
<i>Polypedilum flavum</i>	09021011102182	46.00			--	6.7	
<i>Simulium</i>	09021012047		224.00	4	CF		32.6
<i>Simulium fibrinflatum</i>	09021012047059	12.00			--	1.7	
<i>Simulium decorum</i>	09021012047065	6.00			--	0.9	
<i>Simulium jenningsi complex</i>	09021012047070	4.00			CF	0.6	
<i>Simulium tuberosum complex</i>	09021012047071	166.00			CF	24.1	
<i>Simulium vittatum complex</i>	09021012047073	36.00			CF	5.2	
<i>Pisidium</i>	10020201002	2.00	2.00		CF	0.3	0.3