



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

Station Information

Station Number: S-357	DEP Drainage: Androscoggin
Waterbody: Bobbin Mill Brook - Station 357	HUC8: 01040002
Town: Auburn	HUC8 Name: Lower Androscoggin
Directions: ABOVE RIVER RD. CROSSING	Latitude: 44 7 13.51 N
	Longitude: 70 12 54.65 W
	Stream Order: 2

Sample Information

Log Number: 1746	Type of Sample: ROCK BAG	Date Deployed: 7/24/2008
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/21/2008

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 4/6/2009
Model Result with P>.6: B	Reason for Determination: Model	
Date Last Calculated: 4/6/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.32	Class C	0.12	Class A, B, or C	1.00
Class B	0.56	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B			0.93	Class A	0.07
Class C or Non-Attainment			0.07	Class B or C or Non-Attainment	0.93

Model Variables

01 Total Mean Abundance	201.67	18 Relative Abundance Ephemeroptera	0.07
02 Generic Richness	29.00	19 EPT Generic Richness	9.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	14.33	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	3.07	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	55.00
06 Hilsenhoff Biotic Index	4.56	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	1.90
07 Relative Abundance - Chironomidae	0.32	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	48.33		
11 <i>Cheumatopsyche</i> Abundance	5.33		
12 EPT Generic Richness/ Diptera Generic Richness	0.90		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	2.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	0.67		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	24.13
2	<i>Hydropsyche</i>	23.97
3	<i>Simulium</i>	18.18
4	<i>Chimarra</i>	9.59
5	<i>Baetis</i>	6.94



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Waterbody: Bobbin Mill Brook - Station 357

Date Retrieved: 8/21/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.1 deg C
Dissolved Oxygen: 8.4 mg/l
Specific Conductance: 220 uS/cm
Velocity: 39 cm/s
pH: 7.67
Wetted Width: 8 m
Bankfull Width: 8 m
Depth: 25 cm

Waterbody Information - Retrieval

Temperature: 22.6 deg C
Dissolved Oxygen: 8.4 mg/l
Specific Conductance: 68 uS/cm
Velocity: 103 cm/s
pH: 6.76
Wetted Width: 8 m
Bankfull Width: 8 m
Depth: 44 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>
Lake Outlet Stressor	Above Confluence	Boulder 5 %
Urban Runoff Stressor	Below Urban NPS	Gravel 20 %
		Rubble/Cobble 50 %
		Sand 20 %
		Silt 5 %

Landcover Summary - 2004 Data

Total Area (ac)	976	High Int. Dev. %	12.0	Water %	0.0	Non-vegetated %	0.0
Total Land (ac)	976	Med Int. Dev. %	3.8	Wetland %	4.9	Tilled Agriculture %	6.3
		Low Int. Dev. %	4.5	Upland Woody %	45.8	Human Altered %	49.3
		Development %	20.3	Natural %	50.7	Impervious %	20.1

Sample Comments

8/21/08: 2 BAGS MOVED A LITTLE

7/24/08: SILT COVERS THE BOTTOM OF THE BROOK



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Aquatic Life Taxonomic Inventory Report

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Subsample Factor: X1

Replicates: 3

Calculated: 4/6/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Prostoma</i>	04010101001	0.33	0.33		--	0.2	0.2
Nematoda	05	0.67	0.67		--	0.3	0.3
<i>Nais</i>	08020202009		0.67		CG		0.3
<i>Nais communis</i>	08020202009005	0.67			--	0.3	
<i>Stylodrilus</i>	08020203011		1.67		--		0.8
<i>Stylodrilus heringianus</i>	08020203011001	1.67			--	0.8	
Perlidae	09020209	0.33			--	0.2	
<i>Acroneuria</i>	09020209042		1.90	0	PR		0.9
<i>Acroneuria abnormis</i>	09020209042121	1.67		0	PR	0.8	
<i>Attaneuria</i>	09020209043		0.76	1	--		0.4
<i>Attaneuria ruralis</i>	09020209043128	0.67			--	0.3	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.7
<i>Boyeria grafiana</i>	09020301004011	0.67			--	0.3	
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.3	
<i>Baetis</i>	09020401001	1.67	14.00	4	CG	0.8	6.9
<i>Baetis flavistriga</i>	09020401001004	6.00			--	3.0	
<i>Baetis pluto</i>	09020401001009	6.33			--	3.1	
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
<i>Chimarra</i>	09020601003	19.33	19.33	2	CF	9.6	9.6
<i>Cheumatopsyche</i>	09020604015	5.33	5.33	5	CF	2.6	2.6
<i>Hydropsyche</i>	09020604016	4.67	48.33	4	CF	2.3	24.0
<i>Hydropsyche morosa</i>	09020604016030	4.00			--	2.0	
<i>Hydropsyche sparna</i>	09020604016032	13.33			--	6.6	
<i>Hydropsyche depravata complex</i>	09020604016041	26.33			CF	13.1	
<i>Glossosoma</i>	09020606020	2.33	2.33	0	SC	1.2	1.2
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.2	0.2
<i>Nigronia</i>	09020701003		0.67	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	0.67			--	0.3	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.2	0.2
<i>Cardiocladius</i>	09021011034		12.00	5	PR		6.0
<i>Cardiocladius obscurus</i>	09021011034053	12.00			--	6.0	
<i>Cricotopus</i>	09021011037		48.67	7	SH		24.1
<i>Cricotopus bicinctus</i>	09021011037057	1.67			--	0.8	
<i>Cricotopus fugax</i>	09021011037062	1.00			--	0.5	
<i>Cricotopus vierriensis</i>	09021011037071	2.33			--	1.2	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	43.67			SH	21.7	
<i>Eukiefferiella</i>	09021011041		1.00	8	CG		0.5
<i>Eukiefferiella claripennis group</i>	09021011041075	1.00			--	0.5	



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<i>Parametriocnemus</i>	09021011053	0.67	0.67	5	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.3
<i>Tvetenia paucunca</i>	09021011065114	0.67			--	0.3	
<i>Rheotanytarsus</i>	09021011072	0.67	0.67	6	CF	0.3	0.3
<i>Tanytarsus</i>	09021011076	1.00	1.00	6	CF	0.5	0.5
<i>Polypedilum</i>	09021011102		0.67	6	SH		0.3
<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.3	
<i>Simulium</i>	09021012047	0.67	36.67	4	CF	0.3	18.2
<i>Simulium aureum</i>	09021012047052	1.00			--	0.5	
<i>Simulium fibrinflatum</i>	09021012047059	2.33			--	1.2	
<i>Simulium jenningsi</i>	09021012047060	12.00			--	6.0	
<i>Simulium tuberosum</i>	09021012047067	6.00			--	3.0	
<i>Simulium jenningsi complex</i>	09021012047070	14.00			CF	6.9	
<i>Simulium vittatum complex</i>	09021012047073	0.67			CF	0.3	
<i>Psephenus</i>	09021108058		0.33	4	SC		0.2
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.2	
<i>Optioservus</i>	09021113067		0.33	3	SC		0.2
<i>Optioservus ovalis</i>	09021113067046	0.33			--	0.2	
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.2	0.2
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.2	0.2