



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

Station Information

Station Number: S-444	DEP Drainage: Androscoggin
Waterbody: Sunday River - Station 444	HUC8: 01040002
Town: Newry	HUC8 Name: Lower Androscoggin
Directions: COVERED BRIDGE OFF OF SUNDAY RIVER RD - 100YDS UPSTRM	Latitude: 44 29 30.32 N
	Longitude: 70 50 40.74 W
	Stream Order: 4

Sample Information

Log Number: 1714	Type of Sample: ROCK BAG	Date Deployed: 7/9/2008
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/6/2008

Classification Attainment

Statutory Class: A	Final Determination: A	Date: 4/6/2009
Model Result with P>.6: A	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	0.75	Class C	0.00	Class A, B, or C	1.00
Class B	0.24	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B			1.00	Class A	0.99
Class C or Non-Attainment			0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	367.67	18 Relative Abundance Ephemeroptera	0.03
02 Generic Richness	42.00	19 EPT Generic Richness	26.00
03 Plecoptera Mean Abundance	6.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	7.39
04 Ephemeroptera Mean Abundance	10.33	23 Relative Generic Richness- Plecoptera	0.19
05 Shannon-Wiener Generic Diversity	2.78	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.01
06 Hilsenhoff Biotic Index	3.35	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.67
07 Relative Abundance - Chironomidae	0.12	28 EP Generic Richness/14	1.21
08 Relative Generic Richness Diptera	0.29	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	146.66		
11 <i>Cheumatopsyche</i> Abundance	0.67		
12 EPT Generic Richness/ Diptera Generic Richness	2.17		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.03		
17 Chironomini Abundance (Family Functional Group)	5.37		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	39.89
2	<i>Simulium</i>	22.03
3	<i>Brachycentrus</i>	17.86
4	<i>Tvetenia</i>	4.66
5	<i>Micropsectra</i>	2.01



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Date Retrieved: 8/6/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 19.6 deg C
Dissolved Oxygen:
Specific Conductance: 14 uS/cm
Velocity: 112 cm/s
pH: 5.75
Wetted Width: 22 m
Bankfull Width: 22 m
Depth: 38 cm

Waterbody Information - Retrieval

Temperature: 14.9 deg C
Dissolved Oxygen: 8.8 mg/l
Specific Conductance: 9 uS/cm
Velocity: 184 cm/s
pH: 6
Wetted Width: 22 m
Bankfull Width: 22 m
Depth: 65 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Upland Hardwood

Canopy Cover

Canopy Open

Terrain

Mountainous Terrain

Stressor

Location

Above Road Crossing
Main Stem

Substrate

Boulder 40 %
Gravel 10 %
Rubble/Cobble 40 %
Sand 10 %

Landcover Summary - 2004 Data

Total Area (ac)	26827	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
Total Land (ac)	26825	Med Int. Dev. %	0.0	Wetland %	0.2	Tilled Agriculture %	0.2
		Low Int. Dev. %	0.3	Upland Woody %	97.4	Human Altered %	0.5
		Development %	0.3	Natural %	99.5	Impervious %	0.1

Sample Comments

8/6/2008: HEAVY RAIN AND HIGH WATER LEVELS; BAG 1 DISTURBED

7/9/2008: DO METER (#3) DID NOT CALIBRATE, NO MEASUREMENT WAS TAKEN



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Aquatic Life Taxonomic Inventory Report**

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Log Number: 1714

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>Leuctra</i>	09020204020		0.33	0	SH		0.1
<i>Leuctra truncata</i>	09020204020058	0.33			--	0.1	
<i>Pteronarcys</i>	09020205023		2.33	0	SH		0.6
<i>Pteronarcys biloba</i>	09020205023061	2.33			--	0.6	
<i>Tallaperla</i>	09020206025	0.33	0.33		SH	0.1	0.1
Perlodidae	09020207	1.67	1.67		--	0.5	0.5
<i>Isoperla</i>	09020207026	0.33	0.33	2	PR	0.1	0.1
<i>Sweltsa</i>	09020208040	0.33	0.33		PR	0.1	0.1
Perlidae	09020209	0.33	0.33		--	0.1	0.1
<i>Perlesta</i>	09020209046	1.00	1.00	5	PR	0.3	0.3
<i>Baetis</i>	09020401001		2.33	4	CG		0.6
<i>Baetis tricaudatus</i>	09020401001012	2.33			--	0.6	
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.1
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.1	
<i>Acentrella</i>	09020401008		0.67	3	CG		0.2
<i>Acentrella turbida</i>	09020401008021	0.67			--	0.2	
<i>Plauditus</i>	09020401012	2.33	2.33		CG	0.6	0.6
<i>Maccaffertium</i>	09020402015	0.67	0.67	4	SC	0.2	0.2
<i>Paraleptophlebia</i>	09020406026	2.00	2.00	1	CG	0.5	0.5
Ephemerellidae	09020410	0.33			--	0.1	
<i>Attenella</i>	09020410032		0.40	3	CG		0.1
<i>Attenella margarita</i>	09020410032096	0.33			--	0.1	
<i>Drunella</i>	09020410034		0.80	0	SC		0.2
<i>Drunella lata</i>	09020410034100	0.67			--	0.2	
<i>Ephemerella</i>	09020410035		0.80	1	CG		0.2
<i>Ephemerella invaria</i>	09020410035107	0.67			--	0.2	
<i>Dolophilodes</i>	09020601001	2.00	2.00	0	CF	0.5	0.5
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.1	0.1
<i>Nyctiophylax</i>	09020603009		0.33	5	PR		0.1
<i>Nyctiophylax moestus</i>	09020603009013	0.33			--	0.1	
Hydropsychidae	09020604	1.33			--	0.4	
<i>Arctopsyche</i>	09020604012		0.34		CF		0.1
<i>Arctopsyche ladogensis</i>	09020604012022	0.33			--	0.1	
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	0.2	0.2
<i>Hydropsyche</i>	09020604016	34.00	146.66	4	CF	9.2	39.9
<i>Hydropsyche alhedra</i>	09020604016028	6.33			--	1.7	
<i>Hydropsyche bronta</i>	09020604016029	1.33			--	0.4	
<i>Hydropsyche morosa</i>	09020604016030	35.00			--	9.5	



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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche sparna</i>	09020604016032	66.67			--	18.1	
<i>Hydropsyche ventura</i>	09020604016033	0.67			--	0.2	
<i>Hydropsyche depravata complex</i>	09020604016041	1.00			CF	0.3	
<i>Hydropsyche scalaris group</i>	09020604016048	0.33			--	0.1	
<i>Rhyacophila</i>	09020605019		1.67	2	PR		0.5
<i>Rhyacophila fuscula</i>	09020605019060	1.00			PR	0.3	
<i>Rhyacophila minor</i>	09020605019063	0.67			PR	0.2	
<i>Glossosoma</i>	09020606020			0	SC		
<i>Brachycentrus</i>	09020609043		65.67	0	CF		17.9
<i>Brachycentrus appalachia</i>	09020609043096	65.67			--	17.9	
<i>Lepidostoma</i>	09020611064	0.67	0.67	1	SH	0.2	0.2
<i>Nigronia</i>	09020701003		0.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.1	
<i>Hexatoma</i>	09021001008	1.00	1.00	2	PR	0.3	0.3
Chironomidae	09021011	0.33			--	0.1	
<i>Labrundinia</i>	09021011008			7	PR		
<i>Rheopelopia</i>	09021011017		4.03		PR		1.1
<i>Rheopelopia acra group</i>	09021011017036	4.00			--	1.1	
<i>Pagastia</i>	09021011025		0.67	1	--		0.2
<i>Pagastia orthogonia</i>	09021011025001	0.67			--	0.2	
<i>Cardiocladius</i>	09021011034		0.34	5	PR		0.1
<i>Cardiocladius obscurus</i>	09021011034053	0.33			--	0.1	
<i>Eukiefferiella</i>	09021011041		3.69	8	CG		1.0
<i>Eukiefferiella claripennis group</i>	09021011041075	3.33			--	0.9	
<i>Eukiefferiella devonica group</i>	09021011041083	0.33			CG	0.1	
<i>Parametriocnemus</i>	09021011053	0.33	0.34	5	CG	0.1	0.1
<i>Tvetenia</i>	09021011065		17.13	5	CG		4.7
<i>Tvetenia vitracies</i>	09021011065113	10.00			--	2.7	
<i>Tvetenia paucunca</i>	09021011065114	7.00			--	1.9	
<i>Micropsectra</i>	09021011070	7.33	7.39	7	CG	2.0	2.0
<i>Rheotanytarsus</i>	09021011072	4.33	4.37	6	CF	1.2	1.2
<i>Tanytarsus</i>	09021011076	0.33	0.34	6	CF	0.1	0.1
<i>Pseudochironomus</i>	09021011078			5	CG		
<i>Polypedilum</i>	09021011102		5.37	6	SH		1.5
<i>Polypedilum aviceps</i>	09021011102181	4.33			--	1.2	
<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.2	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.1	
<i>Simulium</i>	09021012047	0.33	81.00	4	CF	0.1	22.0



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		Actual	Adjusted			Actual	Adjusted
<i>Simulium fibrinflatum</i>	09021012047059	0.33			--	0.1	
<i>Simulium tuberosum</i>	09021012047067	80.00			--	21.8	
<i>Simulium jenningsi complex</i>	09021012047070	0.33			CF	0.1	
<i>Psephenus</i>	09021108058		0.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.1	
<i>Optioservus</i>	09021113067		0.67	3	SC		0.2
<i>Optioservus trivittatus</i>	09021113067048	0.67			--	0.2	
<i>Promoresia</i>	09021113069		5.33		--		1.5
<i>Promoresia tardella</i>	09021113069052	5.33			--	1.5	