



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

Station Information

Station Number: S-43
Waterbody: Little Androscoggin River - Station 43
Town: Paris
Directions: 45 M ABOVE POTW

DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 44 12 43.12 N
Longitude: 70 30 58.75 W
Stream Order: 4

Sample Information

Log Number: 1727
Subsample Factor: X4

Type of Sample: ROCK BASKET
Replicates: 3

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

Classification Attainment

Statutory Class: C
Model Result with P>.6: B
Date Last Calculated: 4/6/2009

Final Determination: B
Reason for Determination: Model
Comments:

Date: 4/6/2009

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.31	Class C	0.05	Class A, B, or C	1.00
Class B	0.64	NA	0.00	Non-Attainment	0.00

<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.98	Class A	0.17
Class C or Non-Attainment	0.02	Class B or C or Non-Attainment	0.83

Model Variables

01 Total Mean Abundance	1242.67	18 Relative Abundance Ephemeroptera	0.08
02 Generic Richness	41.00	19 EPT Generic Richness	17.00
03 Plecoptera Mean Abundance	5.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.36
04 Ephemeroptera Mean Abundance	97.33	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	2.87	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	18.96
06 Hilsenhoff Biotic Index	3.84	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	45.33
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	379.65		
11 <i>Cheumatopsyche</i> Abundance	13.51		
12 EPT Generic Richness/ Diptera Generic Richness	1.06		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	5.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.09		
17 Chironomini Abundance (Family Functional Group)	53.16		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Simulium</i>	38.41
2	<i>Hydropsyche</i>	30.55
3	<i>Chimarra</i>	4.94
4	<i>Polypedilum</i>	4.28
5	<i>Maccaffertium</i>	3.33



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Date Retrieved: 8/18/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.7 deg C
Dissolved Oxygen: 7.6 mg/l
Specific Conductance: 87 uS/cm
Velocity: 65 cm/s
pH: 6.55
Wetted Width: 10.3 m
Bankfull Width: 12.2 m
Depth: 40 cm

Waterbody Information - Retrieval

Temperature: 18.2 deg C
Dissolved Oxygen: 8.9 mg/l
Specific Conductance: 54 uS/cm
Velocity: 145 cm/s
pH: 6.38
Wetted Width: 12.2 m
Bankfull Width: 12.2 m
Depth: 125 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Above Point Source	Gravel 40 %
	Above POTW	Rubble/Cobble 40 %
	Main Stem	Sand 20 %

Landcover Summary - 2004 Data

Total Area (ac)	21148	High Int. Dev. %	1.0	Water %	0.6	Non-vegetated %	0.3
Total Land (ac)	21025	Med Int. Dev. %	1.1	Wetland %	1.5	Tilled Agriculture %	1.3
		Low Int. Dev. %	3.7	Upland Woody %	83.0	Human Altered %	15.4
		Development %	5.8	Natural %	84.6	Impervious %	4.7

Sample Comments

ABOVE DISCHARGE

INITIAL RETRIEVAL SCHEDULED 8/11, BUT WATER LEVEL TOO HIGH; SECOND RETRIEVAL 8/18, FOUND BASKETS 1 AND 2; THIRD RETRIEVAL 8/22, FOUND BASKET 3



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Aquatic Life Taxonomic Inventory Report

Station Number: S-43

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Subsample Factor: X4

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	1.33	1.33		--	0.1	0.1
<i>Orconectes</i>	09010301008		1.33		CG		0.1
<i>Orconectes limosus</i>	09010301008013	1.33			--	0.1	
<i>Acroneuria</i>	09020209042		4.00	0	PR		0.3
<i>Acroneuria abnormis</i>	09020209042121	1.33		0	PR	0.1	
<i>Acroneuria lycorias</i>	09020209042125	2.67			--	0.2	
<i>Attaneuria</i>	09020209043		1.33	1	--		0.1
<i>Attaneuria ruralis</i>	09020209043128	1.33			--	0.1	
Gomphidae	09020302	1.33	1.33		--	0.1	0.1
<i>Baetis</i>	09020401001	4.00	14.67	4	CG	0.3	1.2
<i>Baetis intercalaris</i>	09020401001008	2.67			--	0.2	
<i>Baetis pluto</i>	09020401001009	8.00			--	0.6	
<i>Acerpenna</i>	09020401007	2.67	2.67	5	CG	0.2	0.2
<i>Plauditus</i>	09020401012	2.67	2.67		CG	0.2	0.2
<i>Maccaffertium</i>	09020402015	33.33	41.33	4	SC	2.7	3.3
<i>Maccaffertium luteum</i>	09020402015049	8.00			--	0.6	
<i>Isonychia</i>	09020404018	29.33	29.33	2	CF	2.4	2.4
<i>Ephemerella</i>	09020410035	5.33	5.33	1	CG	0.4	0.4
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.1	0.1
<i>Dolophilodes</i>	09020601001	29.33	29.33	0	CF	2.4	2.4
<i>Chimarra</i>	09020601003	61.33	61.33	2	CF	4.9	4.9
Hydropsychidae	09020604	5.33			--	0.4	
<i>Cheumatopsyche</i>	09020604015	13.33	13.51	5	CF	1.1	1.1
<i>Hydropsyche</i>	09020604016	108.00	379.65	4	CF	8.7	30.6
<i>Hydropsyche bronta</i>	09020604016029	17.33			--	1.4	
<i>Hydropsyche morosa</i>	09020604016030	121.33			--	9.8	
<i>Hydropsyche sparna</i>	09020604016032	45.33			--	3.6	
<i>Hydropsyche depravata complex</i>	09020604016041	82.67			CF	6.7	
<i>Macrostemum</i>	09020604018		13.51	3	CF		1.1
<i>Macrostemum zebratum</i>	09020604018054	13.33			--	1.1	
<i>Rhyacophila</i>	09020605019		17.33	2	PR		1.4
<i>Rhyacophila nigrita</i>	09020605019064	17.33			PR	1.4	
<i>Brachycentrus</i>	09020609043		6.67	0	CF		0.5
<i>Brachycentrus appalachia</i>	09020609043096	4.00			--	0.3	
<i>Brachycentrus numerosus</i>	09020609043098	2.67			--	0.2	
<i>Pycnopsyche</i>	09020610049	2.67	2.67	4	SH	0.2	0.2
<i>Corydalus</i>	09020701002		2.67	6	PR		0.2
<i>Corydalus cornutus</i>	09020701002002	2.67			--	0.2	



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<i>Nigronia</i>	09020701003		4.00	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	4.00			--	0.3	
Chironomidae	09021011	2.67			--	0.2	
<i>Ablabesmyia</i>	09021011001		1.36	8	PR		0.1
<i>Ablabesmyia mallochi</i>	09021011001004	1.33			--	0.1	
<i>Pentaneura</i>	09021011014		1.36	6	PR		0.1
<i>Pentaneura inconspicua</i>	09021011014028	1.33			--	0.1	
<i>Rheopelopia</i>	09021011017		1.36		PR		0.1
<i>Rheopelopia acra group</i>	09021011017036	1.33			--	0.1	
<i>Cardiocladius</i>	09021011034		2.73	5	PR		0.2
<i>Cardiocladius obscurus</i>	09021011034053	2.67			--	0.2	
<i>Corynoneura</i>	09021011036	1.33	1.36	7	CG	0.1	0.1
<i>Nanocladius</i>	09021011049		1.36	3	CG		0.1
<i>Nanocladius branchicollis</i>	09021011049091	1.33			--	0.1	
<i>Parametriocneme</i>	09021011053	5.33	5.45	5	CG	0.4	0.4
<i>Rheocricotopus</i>	09021011057		1.36	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	1.33			--	0.1	
<i>Thienemanniella</i>	09021011062	2.67	2.73	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065		27.26	5	CG		2.2
<i>Tvetenia vitracies</i>	09021011065113	26.67			--	2.1	
<i>Micropsectra</i>	09021011070	1.33	1.36	7	CG	0.1	0.1
<i>Rheotanytarsus</i>	09021011072	17.33	17.72	6	CF	1.4	1.4
<i>Tanytarsus</i>	09021011076	4.00	4.09	6	CF	0.3	0.3
<i>Polypedilum</i>	09021011102		53.16	6	SH		4.3
<i>Polypedilum aviceps</i>	09021011102181	38.67			--	3.1	
<i>Polypedilum flavum</i>	09021011102182	13.33			--	1.1	
<i>Simulium</i>	09021012047	2.67	477.33	4	CF	0.2	38.4
<i>Simulium aureum</i>	09021012047052	1.33			--	0.1	
<i>Simulium fibrinflatum</i>	09021012047059	94.67			--	7.6	
<i>Simulium jenningsi</i>	09021012047060	10.67			--	0.9	
<i>Simulium tuberosum</i>	09021012047067	169.33			--	13.6	
<i>Simulium jenningsi complex</i>	09021012047070	198.67			CF	16.0	
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	0.1	0.1
Empididae	09021016			6	--		
<i>Psephenus</i>	09021108058		1.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	1.33			--	0.1	
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	--	0.1	0.1
<i>Stenelmis</i>	09021113070	1.33	1.33	5	SC	0.1	0.1