



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

Station Information

Station Number: S-79
Waterbody: Little Androscoggin River - Station 79
Town: Paris
Directions: 70 M BELOW SO. PARIS POTW

DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 44 12 39.95 N
Longitude: 70 31 4.66 W
Stream Order: 4

Sample Information

Log Number: 1728
Subsample Factor: X4

Type of Sample: ROCK BASKET
Replicates: 3

Date Deployed: 7/14/2008
Date Retrieved: 8/11/2008

Classification Attainment

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

Final Determination: A
Reason for Determination: Model
Comments:

Date: 4/6/2009

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.59	Class C	0.01	Class A, B, or C	1.00
Class B	0.40	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	0.98
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.02

Model Variables

01 Total Mean Abundance	1121.33	18 Relative Abundance Ephemeroptera	0.18
02 Generic Richness	49.00	19 EPT Generic Richness	23.00
03 Plecoptera Mean Abundance	13.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	2.82
04 Ephemeroptera Mean Abundance	197.33	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	4.07	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	161.46
06 Hilsenhoff Biotic Index	3.83	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	130.39
07 Relative Abundance - Chironomidae	0.20	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.29	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	216.47		
11 <i>Cheumatopsyche</i> Abundance	115.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.64		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	13.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	5.63		
17 Chironomini Abundance (Family Functional Group)	114.04		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	19.30
2	<i>Chimarra</i>	13.44
3	<i>Maccaffertium</i>	10.68
4	<i>Cheumatopsyche</i>	10.26
5	<i>Polypedilum</i>	9.79



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.7 deg C
Dissolved Oxygen: 8.3 mg/l
Specific Conductance: 100 uS/cm
Velocity: 36 cm/s
pH: 6.57
Wetted Width: 19 m
Bankfull Width: 20 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 17.7 deg C
Dissolved Oxygen: 8.6 mg/l
Specific Conductance: 39 uS/cm
Velocity: 110 cm/s
pH: 6.16
Wetted Width: 20 m
Bankfull Width: 20 m
Depth: 100 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.03 mg/l	Total Phosphorus	0.012 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	7.8 mg/l	Total Dissolved Solids	45 mg/l

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>	
	Below Point Source	Gravel	50 %
	Below POTW	Rubble/Cobble	20 %
	Main Stem	Sand	30 %

Landcover Summary - 2004 Data

Total Area (ac)	21197	High Int. Dev. %	1.1	Water %	0.6	Non-vegetated %	0.3
Total Land (ac)	21074	Med Int. Dev. %	1.1	Wetland %	1.6	Tilled Agriculture %	1.3
		Low Int. Dev. %	3.7	Upland Woody %	82.8	Human Altered %	15.5
		Development %	5.9	Natural %	84.5	Impervious %	4.7

Sample Comments

~215 M BELOW DISCHARGE

8/11/2008: HIGH WATER FLOW, DEPTH ESTIMATED; FLOW VELOCITY MEASURED NEAR THE BANK



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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>Acroneuria</i>	09020209042	1.33	10.67	0	PR	0.1	1.0
<i>Acroneuria abnormis</i>	09020209042121	8.00		0	PR	0.7	
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	0.1	
<i>Perlesta</i>	09020209046	1.33	1.33	5	PR	0.1	0.1
<i>Agnetina</i>	09020209050	1.33	1.33	2	PR	0.1	0.1
<i>Boyeria</i>	09020301004		1.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.1	
Gomphidae	09020302	1.33	1.33		--	0.1	0.1
<i>Argia</i>	09020309048	1.33	1.33	7	PR	0.1	0.1
Baetidae	09020401	1.33			--	0.1	
<i>Baetis</i>	09020401001	8.00	18.49	4	CG	0.7	1.6
<i>Baetis intercalaris</i>	09020401001008	2.67			--	0.2	
<i>Baetis pluto</i>	09020401001009	6.67			--	0.6	
<i>Plauditus</i>	09020401012	2.67	2.84		CG	0.2	0.3
Heptageniidae	09020402	8.00			--	0.7	
<i>Epeorus</i>	09020402009	1.33	1.43	0	SC	0.1	0.1
<i>Leucrocota</i>	09020402011	2.67	2.85	1	SC	0.2	0.3
<i>Maccaffertium</i>	09020402015	104.00	119.72	4	SC	9.3	10.7
<i>Maccaffertium luteum</i>	09020402015049	6.67			--	0.6	
<i>Maccaffertium modestum</i>	09020402015051	1.33			--	0.1	
<i>Isonychia</i>	09020404018	22.67	22.67	2	CF	2.0	2.0
<i>Ephemerella</i>	09020410035	8.00	8.00	1	CG	0.7	0.7
<i>Eurylophella</i>	09020410036	1.33	1.33	3	CG	0.1	0.1
<i>Serratella</i>	09020410037		5.33	2	CG		0.5
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	1.33			--	0.1	
<i>Serratella serratoides</i>	09020410037124	4.00			--	0.4	
<i>Tricorythodes</i>	09020411038	14.67	14.67	4	CG	1.3	1.3
<i>Dolophilodes</i>	09020601001	28.00	28.00	0	CF	2.5	2.5
<i>Chimarra</i>	09020601003	150.67	150.67	2	CF	13.4	13.4
Hydropsychidae	09020604	5.33			--	0.5	
<i>Cheumatopsyche</i>	09020604015	113.33	115.00	5	CF	10.1	10.3
<i>Hydropsyche</i>	09020604016	37.33	216.47	4	CF	3.3	19.3
<i>Hydropsyche bronta</i>	09020604016029	28.00			--	2.5	
<i>Hydropsyche morosa</i>	09020604016030	50.67			--	4.5	
<i>Hydropsyche sparna</i>	09020604016032	16.00			--	1.4	
<i>Hydropsyche depravata complex</i>	09020604016041	57.33			CF	5.1	
<i>Hydropsyche scalaris group</i>	09020604016048	24.00			--	2.1	
<i>Macrostemum</i>	09020604018		36.53	3	CF		3.3



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		Actual	Adjusted			Actual	Adjusted
<i>Macrostemum zebratum</i>	09020604018054	36.00			--	3.2	
<i>Rhyacophila</i>	09020605019		21.33	2	PR		1.9
<i>Rhyacophila nigrita</i>	09020605019064	21.33			PR	1.9	
<i>Hydroptila</i>	09020607026	1.33	1.33	6	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		10.67	0	CF		1.0
<i>Brachycentrus appalachia</i>	09020609043096	2.67			--	0.2	
<i>Brachycentrus numerosus</i>	09020609043098	8.00			--	0.7	
<i>Oecetis</i>	09020618078		1.33	8	PR		0.1
<i>Oecetis persimilis</i>	09020618078157	1.33			--	0.1	
<i>Goera</i>	09020620063	2.67	2.67	0	SC	0.2	0.2
<i>Corydalus</i>	09020701002		2.67	6	PR		0.2
<i>Corydalus cornutus</i>	09020701002002	2.67			--	0.2	
<i>Nigronia</i>	09020701003		8.00	0	PR		0.7
<i>Nigronia serricornis</i>	09020701003003	8.00			--	0.7	
Chironomidae	09021011	12.00			--	1.1	
<i>Rheopelopia</i>	09021011017		5.63		PR		0.5
<i>Rheopelopia acra group</i>	09021011017036	5.33			--	0.5	
<i>Cricotopus</i>	09021011037			7	SH		
<i>Nanocladius</i>	09021011049	1.33	8.45	3	CG	0.1	0.8
<i>Nanocladius branchicollis</i>	09021011049091	4.00			--	0.4	
<i>Nanocladius downesi</i>	09021011049092	2.67			--	0.2	
<i>Parametriocnemus</i>	09021011053	5.33	5.63	5	CG	0.5	0.5
<i>Rheocricotopus</i>	09021011057		1.41	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	1.33			--	0.1	
<i>Tvetenia</i>	09021011065		7.04	5	CG		0.6
<i>Tvetenia vitracies</i>	09021011065113	6.67			--	0.6	
<i>Micropsectra</i>	09021011070	2.67	2.82	7	CG	0.2	0.3
<i>Rheotanytarsus</i>	09021011072	33.33	35.20	6	CF	3.0	3.1
<i>Tanytarsus</i>	09021011076	44.00	46.46	6	CF	3.9	4.1
<i>Microtendipes</i>	09021011094		2.82	6	CF		0.3
<i>Microtendipes rydalensis group</i>	09021011094168	2.67			--	0.2	
<i>Nilothauma</i>	09021011095	1.33	1.41	2	--	0.1	0.1
<i>Polypedilum</i>	09021011102		109.81	6	SH		9.8
<i>Polypedilum aviceps</i>	09021011102181	81.33			--	7.3	
<i>Polypedilum flavum</i>	09021011102182	21.33			--	1.9	
<i>Polypedilum illinoense group</i>	09021011102185	1.33			--	0.1	
<i>Simulium</i>	09021012047		29.33	4	CF		2.6
<i>Simulium fibrinflatum</i>	09021012047059	1.33			--	0.1	



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<i>Simulium jenningsi</i>	09021012047060	1.33			--	0.1	
<i>Simulium tuberosum</i>	09021012047067	12.00			--	1.1	
<i>Simulium jenningsi complex</i>	09021012047070	14.67			CF	1.3	
<i>Atherix</i>	09021015055	2.67	2.67	2	PR	0.2	0.2
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.1	0.1
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	--	0.1	0.1
<i>Optioservus</i>	09021113067	2.67	2.67	3	SC	0.2	0.2
<i>Promoresia</i>	09021113069		2.67		--		0.2
<i>Promoresia tardella</i>	09021113069052	2.67			--	0.2	
<i>Stenelmis</i>	09021113070	12.00	12.00	5	SC	1.1	1.1
<i>Helisoma</i>	10010203030		4.00		SC		0.4
<i>Helisoma anceps</i>	10010203030058	4.00			--	0.4	
<i>Ferrissia</i>	10010204035		28.00		SC		2.5
<i>Ferrissia rivularis</i>	10010204035066	28.00			--	2.5	
<i>Pisidium</i>	10020201002	1.33	1.33		CF	0.1	0.1