



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

Station Information

Station Number: S-872 River Basin: Androscoggin  
Waterbody: West Branch Ellis River - Station 872 HUC8 Name: Lower Androscoggin  
Town: Andover Latitude: 44 38 8.07 N  
Directions: 215 M DOWNSTREAM OF ROUTE 120 BRIDGE Longitude: 70 44 25.8 W  
Stream Order: 4

Sample Information

Log Number: 2222 Type of Sample: ROCK BAG Date Deployed: 7/25/2013  
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/26/2013

Classification Attainment

Statutory Class: A Final Determination: A Date: 5/1/2014  
Model Result with  $P \geq 0.6$ : A Reason for Determination: Model  
Date Last Calculated: 4/30/2014 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.60	Class A, B, or C	1.00
Class B	0.39	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
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	1476.00	18 Relative Abundance Ephemeroptera	0.11
02 Generic Richness	70.00	19 EPT Generic Richness	27.00
03 Plecoptera Mean Abundance	118.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	45.60
04 Ephemeroptera Mean Abundance	164.00	23 Relative Generic Richness- Plecoptera	0.09
05 Shannon-Wiener Generic Diversity	4.61	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	212.34
06 Hilsenhoff Biotic Index	5.04	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	24.00
07 Relative Abundance - Chironomidae	0.63	28 EP Generic Richness/14	1.21
08 Relative Generic Richness Diptera	0.46	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	52.54		
11 <i>Cheumatopsyche</i> Abundance	59.46		
12 EPT Generic Richness/ Diptera	0.84		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family	1.33		
Functional Group)			
16 Tanypodinae Mean Abundance	59.01		
(Family Functional Group)			
17 Chironomini Abundance (Family	205.18		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	19.35
2	<i>Tvetenia</i>	8.00
3	<i>Polypedilum</i>	8.00
4	<i>Isoperla</i>	7.23
5	<i>Tanytarsus</i>	6.54



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<b>Log Number: 2222</b>	Waterbody: West Branch Ellis River - Station 872	Date Retrieved: 8/26/2013

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	17.3 deg C
Dissolved Oxygen:	9.3 mg/l
Specific Conductance:	26 uS/cm
Velocity:	52.2 cm/s
pH:	6.56
Wetted Width:	16 m
Bankfull Width:	18 m
Depth:	50 cm

**Waterbody Information - Retrieval**

Temperature:	16.1 deg C
Dissolved Oxygen:	8.6 mg/l
Specific Conductance:	55 uS/cm
Velocity:	19.97 cm/s
pH:	6.35
Wetted Width:	13.6 m
Bankfull Width:	18 m
Depth:	29 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Pasture

Upland Hardwood

Canopy Cover

Open

Terrain

Hilly

Potential Stressor

Location

Below Road Crossing

Main Stem

Substrate

Gravel 30 %

Rubble/Cobble 40 %

Sand 30 %

**Landcover Summary - 2004 Data**

Total Area (ac)	33019	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	1.5	Tilled Agriculture %	0.3
		Low Int. Dev. %	0.6	Upland Woody %	96.2	Grassland %	1.0
		Development %	0.7	Natural %	97.8	Human Altered %	2.1
						Impervious %	0.6

**Sample Comments**

8/26/2013 - FOUR SCULPIN IN THE SAMPLES AND ONE DACE

7/25/2013 - FISH AND ALGAE OBSERVED



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Replicates: 3

Calculated: 4/30/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Stylodrilus</i>	08020101004		2.67		--		0.2
<i>Stylodrilus heringianus</i>	08020101004001	2.67			--	0.2	
Naididae	08020202	1.33	1.33		--	0.1	0.1
<i>Nais</i>	08020202009		29.33		CG		2.0
<i>Nais behningi</i>	08020202009003	29.33			--	2.0	
<i>Pteronarcys</i>	09020205023		5.33	0	SH		0.4
<i>Pteronarcys biloba</i>	09020205023061	5.33			--	0.4	
Perlodidae	09020207	1.33	1.33		--	0.1	0.1
<i>Isoperla</i>	09020207026	106.67	106.67	2	PR	7.2	7.2
<i>Haploperla</i>	09020208037		1.33	1	PR		0.1
<i>Haploperla brevis</i>	09020208037112	1.33			--	0.1	
<i>Sweltsa</i>	09020208040	2.67	2.67		PR	0.2	0.2
Perlidae	09020209	1.33	1.33		--	0.1	0.1
<i>Boyeria</i>	09020301004		4.00	2	PR		0.3
<i>Boyeria vinosa</i>	09020301004012	4.00			--	0.3	
Gomphidae	09020302	4.00	4.00		--	0.3	0.3
<i>Cordulegaster</i>	09020303019	1.33	1.33	3	PR	0.1	0.1
Corduliidae	09020305	1.33	1.33		--	0.1	0.1
Calopterygidae	09020307	2.67	2.67		--	0.2	0.2
<i>Baetis</i>	09020401001		2.67	4	CG		0.2
<i>Baetis flavistriga</i>	09020401001004	2.67			--	0.2	
<i>Acerpenna</i>	09020401007	1.33	1.33	5	CG	0.1	0.1
<i>Iswaeon</i>	09020401015	4.00	4.00		--	0.3	0.3
Heptageniidae	09020402	1.33	1.33		--	0.1	0.1
<i>Maccaffertium</i>	09020402015	16.00	24.00	4	SC	1.1	1.6
<i>Maccaffertium luteum</i>	09020402015049	8.00			--	0.5	
Leptophlebiidae	09020406	49.33	49.33		--	3.3	3.3
<i>Ephemerella</i>	09020410035	42.67	42.67	1	CG	2.9	2.9
<i>Eurylophella</i>	09020410036	8.00	8.00	3	CG	0.5	0.5
<i>Serratella</i>	09020410037		2.67	2	CG		0.2
<i>Serratella serratoides</i>	09020410037124	2.67			--	0.2	
<i>Tricorythodes</i>	09020411038	26.67	26.67	4	CG	1.8	1.8
<i>Baetisca</i>	09020413041	1.33	1.33	4	CG	0.1	0.1
Polycentropodidae	09020603	1.33			--	0.1	
<i>Neureclipsis</i>	09020603008	13.33	14.07	7	CF	0.9	1.0
<i>Polycentropus</i>	09020603010	10.67	11.26	6	PR	0.7	0.8
Hydropsychidae	09020604	4.00			--	0.3	
<i>Cheumatopsyche</i>	09020604015	57.33	59.46	5	CF	3.9	4.0



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Subsample Factor: X4

Replicates: 3

Calculated: 4/30/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche</i>	09020604016	32.00	52.54	4	CF	2.2	3.6
<i>Hydropsyche bronta</i>	09020604016029	4.00			--	0.3	
<i>Hydropsyche slossonae</i>	09020604016031	10.67			--	0.7	
<i>Hydropsyche sparna</i>	09020604016032	4.00			--	0.3	
<i>Oxyethira</i>	09020607028	1.33	1.33	3	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		28.00	0	CF		1.9
<i>Brachycentrus appalachia</i>	09020609043096	28.00			--	1.9	
<i>Pycnopsyche</i>	09020610049	2.67	2.67	4	SH	0.2	0.2
<i>Apatania</i>	09020610061	1.33	1.33		SC	0.1	0.1
<i>Lepidostoma</i>	09020611064	8.00	8.00	1	SH	0.5	0.5
<i>Mystacides</i>	09020618075		6.67	4	CG		0.5
<i>Mystacides sepulchralis</i>	09020618075147	6.67			--	0.5	
<i>Nigronia</i>	09020701003		2.67	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	2.67			--	0.2	
<i>Hexatoma</i>	09021001008	8.00	8.00	2	PR	0.5	0.5
<i>Bezzia/palpomyia</i>	09021010043	2.67	2.67	6	PR	0.2	0.2
Chironomidae	09021011	5.33			--	0.4	
<i>Ablabesmyia</i>	09021011001	2.67	9.39	8	PR	0.2	0.6
<i>Ablabesmyia mallochii</i>	09021011001004	5.33			--	0.4	
<i>Ablabesmyia monilis</i>	09021011001009	1.33			--	0.1	
<i>Conchapelopia</i>	09021011004	20.00	20.12	6	PR	1.4	1.4
<i>Meropelopia</i>	09021011010	5.33	5.36		--	0.4	0.4
<i>Nilotanyus</i>	09021011012		5.36	6	PR		0.4
<i>Nilotanyus fimbriatus</i>	09021011012027	5.33			--	0.4	
<i>Paramerina</i>	09021011013	9.33	9.39		--	0.6	0.6
<i>Rheopelopia acra group</i>	09021011017036				--		
<i>Trissopelopia</i>	09021011021		8.05		PR		0.5
<i>Trissopelopia ogemawi</i>	09021011021042	8.00			--	0.5	
<i>Zavrelimyia</i>	09021011022	1.33	1.34	8	PR	0.1	0.1
<i>Brillia</i>	09021011033		1.34	5	SH		0.1
<i>Brillia flavifrons</i>	09021011033049	1.33			--	0.1	
<i>Corynoneura</i>	09021011036	13.33	13.41	7	CG	0.9	0.9
<i>Cricotopus</i>	09021011037		46.94	7	SH		3.2
<i>Cricotopus bicinctus</i>	09021011037057	46.67			--	3.2	
<i>Eukiefferiella</i>	09021011041		2.68	8	CG		0.2
<i>Eukiefferiella brehmi group</i>	09021011041073	2.67			--	0.2	
<i>Parametriocnemus</i>	09021011053	32.00	37.55	5	CG	2.2	2.5
<i>Parametriocnemus sp. F Epler</i>	09021011053101	5.33			--	0.4	



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<i>Rheocricotopus</i>	09021011057	2.67	9.39	6	CG	0.2	0.6
<i>Rheocricotopus eminellobus</i>	09021011057109	1.33			--	0.1	
<i>Rheocricotopus pauciseta</i>	09021011057111	5.33			--	0.4	
<i>Thienemanniella</i>	09021011062		1.34	6	CG		0.1
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.1	
<i>Tvetenia</i>	09021011065		118.01	5	CG		8.0
<i>Tvetenia vitracies</i>	09021011065113	18.67			--	1.3	
<i>Tvetenia paucunca</i>	09021011065114	98.67			--	6.7	
<i>Micropsectra</i>	09021011070	45.33	45.60	7	CG	3.1	3.1
<i>Paratanytarsus</i>	09021011071		2.68	6	--		0.2
<i>Paratanytarsus longistylus</i>	09021011071126	2.67		6	--	0.2	
<i>Rheotanytarsus</i>	09021011072	284.00	285.64	6	CF	19.2	19.4
<i>Stempellinella</i>	09021011074		2.68	2	--		0.2
<i>Stempellinella leptocelloides</i>	09021011074001	1.33			--	0.1	
<i>Stempellinella fimbriata</i>	09021011074002	1.33			--	0.1	
<i>Tanytarsus</i>	09021011076	96.00	96.55	6	CF	6.5	6.5
<i>Cryptochironomus</i>	09021011082	1.33	1.34	8	PR	0.1	0.1
<i>Microtendipes</i>	09021011094		21.46	6	CF		1.5
<i>Microtendipes pedellus group</i>	09021011094166	16.00			--	1.1	
<i>Microtendipes rydalsensis group</i>	09021011094168	5.33			--	0.4	
<i>Nilothauma</i>	09021011095	4.00	4.02	2	--	0.3	0.3
<i>Paratendipes</i>	09021011100		1.34	8	CG		0.1
<i>Paratendipes albimanus group</i>	09021011100176	1.33			--	0.1	
<i>Phaenopsectra</i>	09021011101		59.01	7	SC		4.0
<i>Phaenopsectra obediens</i>	09021011101182	58.67			SC	4.0	
<i>Polypedilum</i>	09021011102		118.01	6	SH		8.0
<i>Polypedilum aviceps</i>	09021011102181	85.33			--	5.8	
<i>Polypedilum flavum</i>	09021011102182	8.00			--	0.5	
<i>Polypedilum scalaenum group</i>	09021011102189	13.33			--	0.9	
<i>Polypedilum halterale group</i>	09021011102193	2.67			--	0.2	
<i>Polypedilum albicorne</i>	09021011102195	8.00			--	0.5	
<i>Simulium</i>	09021012047		2.67	4	CF		0.2
<i>Simulium tuberosum</i>	09021012047067	2.67			--	0.2	
<i>Atherix</i>	09021015055	2.67	2.67	2	PR	0.2	0.2
<i>Roederiodes</i>	09021016058	1.33	1.33	3	PR	0.1	0.1
<i>Neoplasia</i>	09021016064	6.67	6.67		PR	0.5	0.5
<i>Promoresia</i>	09021113069		5.33		--		0.4
<i>Promoresia tardella</i>	09021113069052	5.33			--	0.4	



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Physa</i>	10010202026	1.33	1.33		SC	0.1	0.1