



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

Station Information

Station Number: S-137	River Basin: Androscoggin
Waterbody: Rangeley River - Station 137	HUC8 Name: Upper Androscoggin
Town: Rangeley	Latitude: 44 58 30.09 N
Directions: APPROX 750M BELOW HATCHERY	Longitude: 70 46 49.97 W
	Stream Order: 3

Sample Information

Log Number: 2200	Type of Sample: ROCK BAG	Date Deployed: 7/17/2013
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/14/2013

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.02	Class A, B, or C	1.00
Class B	0.59	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.61	Class A	0.01
Class C or Non-Attainment	0.39	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Mean Abundance	3361.33	18 Relative Abundance Ephemeroptera	0.09
02 Generic Richness	43.00	19 EPT Generic Richness	18.00
03 Plecoptera Mean Abundance	29.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	290.67	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	2.61	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1229.91
06 Hilsenhoff Biotic Index	4.51	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	10.59
07 Relative Abundance - Chironomidae	0.14	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.40	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	1332.03		
11 <i>Cheumatopsyche</i> Abundance	1022.64		
12 EPT Generic Richness/ Diptera Generic Richness	1.06		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	28.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	6.69		
17 Chironomini Abundance (Family Functional Group)	141.75		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	39.63
2	<i>Cheumatopsyche</i>	30.42
3	<i>Baetis</i>	7.46
4	<i>Cricotopus</i>	6.17
5	<i>Polypedilum</i>	4.14



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Station Number: S-137	Town: Rangeley	Date Deployed: 7/17/2013
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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	22.2 deg C
Dissolved Oxygen:	8.5 mg/l
Specific Conductance:	32 uS/cm
Velocity:	101.3 cm/s
pH:	6.56
Wetted Width:	12.8 m
Bankfull Width:	17 m
Depth:	50 cm

Waterbody Information - Retrieval

Temperature:	19.4 deg C
Dissolved Oxygen:	9 mg/l
Specific Conductance:	25 uS/cm
Velocity:	118.5 cm/s
pH:	6.29
Wetted Width:	17 m
Bankfull Width:	17 m
Depth:	55 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Conifer

Upland Hardwood

Canopy Cover

Open

Terrain

Hilly

Potential Stressor

Lake Outlet

Location

Lake Outlet

Main Stem

Minimally Disturbed

Substrate

Boulder 70 %

Gravel 5 %

Rubble/Cobble 25 %

Landcover Summary - 2004 Data

Total Area (ac)	63871	High Int. Dev. %	0.2	Water %	12.6	Non-vegetated %	0.4
		Med Int. Dev. %	0.3	Wetland %	3.2	Tilled Agriculture %	0.0
		Low Int. Dev. %	1.4	Upland Woody %	79.3	Grassland %	0.6
		Development %	1.9	Natural %	83.1	Human Altered %	4.3
						Impervious %	1.5

Sample Comments

7/17/2013 - SOME ALGAE, FISH OBSERVED



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Aquatic Life Taxonomic Inventory Report**

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Waterbody: Rangeley River - Station 137

Town: Rangeley

Log Number: 2200

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>Girardia</i>	03010102002		40.00		--		1.2
<i>Girardia tigrina</i>	03010102002001	40.00			--	1.2	
Nematoda	05	1.33	1.33		--	0.0	0.0
<i>Nais</i>	08020202009		22.67		CG		0.7
<i>Nais behningi</i>	08020202009003	22.67			--	0.7	
Perlodidae	09020207	1.33	1.33		--	0.0	0.0
Perlidae	09020209	5.33			--	0.2	
<i>Acroneuria</i>	09020209042		6.59	0	PR		0.2
<i>Acroneuria abnormis</i>	09020209042121	5.33		0	PR	0.2	
<i>Paragnetina</i>	09020209049	5.33	21.41	1	PR	0.2	0.6
<i>Paragnetina immarginata</i>	09020209049149	12.00			--	0.4	
Baetidae	09020401	21.33	21.33		--	0.6	0.6
<i>Baetis</i>	09020401001	53.33	250.67	4	CG	1.6	7.5
<i>Baetis flavistriga</i>	09020401001004	34.67			--	1.0	
<i>Baetis intercalaris</i>	09020401001008	4.00			--	0.1	
<i>Baetis pluto</i>	09020401001009	13.33			--	0.4	
<i>Baetis tricaudatus</i>	09020401001012	145.33			--	4.3	
<i>Epeorus</i>	09020402009	6.67	6.67	0	SC	0.2	0.2
<i>Heptagenia</i>	09020402010	2.67	2.67	2	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	2.67	4.00	4	SC	0.1	0.1
<i>Maccaffertium mediopunctatum</i>	09020402015050	1.33			--	0.0	
Ephemerellidae	09020410	2.67	2.67		--	0.1	0.1
<i>Ephemerella</i>	09020410035	2.67	2.67	1	CG	0.1	0.1
Philopotamidae	09020601	9.33	9.33		--	0.3	0.3
<i>Chimarra</i>	09020601003		126.67	2	CF		3.8
<i>Chimarra obscura</i>	09020601003003	126.67			--	3.8	
<i>Neureclipsis</i>	09020603008	9.33	9.33	7	CF	0.3	0.3
Hydropsychidae	09020604	294.67			--	8.8	
<i>Cheumatopsyche</i>	09020604015	894.67	1022.64	5	CF	26.6	30.4
<i>Hydropsyche</i>	09020604016	686.67	1332.03	4	CF	20.4	39.6
<i>Hydropsyche morosa</i>	09020604016030	369.33			--	11.0	
<i>Hydropsyche slossonae</i>	09020604016031	2.67			--	0.1	
<i>Hydropsyche sparna</i>	09020604016032	106.67			--	3.2	
<i>Rhyacophila</i>	09020605019	2.67	2.67	2	PR	0.1	0.1
<i>Leucotrichia</i>	09020607032		1.33	2	SC		0.0
<i>Leucotrichia pictipes</i>	09020607032084	1.33			--	0.0	
<i>Micrasema</i>	09020609044		1.33	2	SH		0.0
<i>Micrasema wataga</i>	09020609044101	1.33			--	0.0	



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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>Nigronia</i>	09020701003		1.33	0	PR		0.0
<i>Nigronia serricornis</i>	09020701003003	1.33			--	0.0	
Chironomidae	09021011	1.33			--	0.0	
<i>Nilotanytus</i>	09021011012		5.35	6	PR		0.2
<i>Nilotanytus fimbriatus</i>	09021011012027	5.33			--	0.2	
<i>Rheopelopia</i>	09021011017		1.34		PR		0.0
<i>Rheopelopia acra group</i>	09021011017036	1.33			--	0.0	
<i>Pagastia</i>	09021011025		1.34	1	--		0.0
<i>Pagastia orthogonia</i>	09021011025001	1.33			--	0.0	
<i>Potthastia</i>	09021011026		1.34	2	CG		0.0
<i>Potthastia longimana</i>	09021011026046	1.33			--	0.0	
<i>Corynoneura</i>	09021011036	2.67	2.67	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037	38.67	207.27	7	SH	1.2	6.2
<i>Cricotopus bicinctus</i>	09021011037057	70.67			--	2.1	
<i>Cricotopus trifascia</i>	09021011037070	29.33			--	0.9	
<i>Cricotopus luciae</i>	09021011037073	50.67			--	1.5	
<i>Cricotopus annulator complex</i>	09021011037074	2.67			--	0.1	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	14.67			SH	0.4	
<i>Eukiefferiella</i>	09021011041	1.33	14.71	8	CG	0.0	0.4
<i>Eukiefferiella brehmi group</i>	09021011041073	8.00			--	0.2	
<i>Eukiefferiella devonica group</i>	09021011041083	5.33			CG	0.2	
<i>Nanocladius</i>	09021011049		12.04	3	CG		0.4
<i>Nanocladius spiniplenus</i>	09021011049090	12.00			--	0.4	
<i>Orthocladius mallochii</i>	09021011050102				--		
<i>Parametriocnemus</i>	09021011053	4.00	4.01	5	CG	0.1	0.1
<i>Synorthocladius</i>	09021011061	9.33	9.36	2	CG	0.3	0.3
<i>Thienemanniella</i>	09021011062		1.34	6	CG		0.0
<i>Thienemanniella taurocapita</i>	09021011062115	1.33			--	0.0	
<i>Tvetenia</i>	09021011065		40.12	5	CG		1.2
<i>Tvetenia vitracies</i>	09021011065113	32.00			--	1.0	
<i>Tvetenia paucunca</i>	09021011065114	8.00			--	0.2	
<i>Rheotanytarsus</i>	09021011072	14.67	14.71	6	CF	0.4	0.4
<i>Polypedilum</i>	09021011102		139.07	6	SH		4.1
<i>Polypedilum flavum</i>	09021011102182	138.67			--	4.1	
<i>Xenochironomus</i>	09021011108		2.67	0	PR		0.1
<i>Xenochironomus xenolabis</i>	09021011108200	2.67			--	0.1	
<i>Simulium</i>	09021012047		2.67	4	CF		0.1
<i>Simulium tuberosum</i>	09021012047067	2.67			--	0.1	



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<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.0	0.0
<i>Psephenus</i>	09021108058		4.00	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	4.00			--	0.1	
Acariformes	090301	1.33	1.33		--	0.0	0.0
<i>Aturus</i>	09030120001	1.33	1.33		--	0.0	0.0
<i>Ferrissia</i>	10010204035		1.33		SC		0.0
<i>Ferrissia rivularis</i>	10010204035066	1.33			--	0.0	
<i>Sphaerium</i>	10020201003	1.33	1.33		CF	0.0	0.0