



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

Station Information

Station Number: S-1003
Waterbody: Bowley Brook - Station 1003
Town: Weld
Directions: 50 METERS ABOUT ROUTE 142 CROSSING

DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 44 41 25.17 N
Longitude: 70 25 28.83 W
Stream Order: 3

Sample Information

Log Number: 2213 Type of Sample: ROCK BAG Date Deployed: 7/22/2013
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/20/2013

Classification Attainment

Statutory Class: B **Final Determination: A** Date: 1/30/2014
Model Result with P>.6: A **Reason for Determination: Model**
Date Last Calculated: 1/29/2014 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.81	Class A, B, or C	1.00
Class B	0.19	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	342.67	18 Relative Abundance Ephemeroptera	0.13
02 Generic Richness	57.00	19 EPT Generic Richness	30.00
03 Plecoptera Mean Abundance	34.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.00
04 Ephemeroptera Mean Abundance	44.33	23 Relative Generic Richness- Plecoptera	0.14
05 Shannon-Wiener Generic Diversity	3.45	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	43.33
06 Hilsenhoff Biotic Index	4.04	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	12.81
07 Relative Abundance - Chironomidae	0.20	28 EP Generic Richness/14	1.64
08 Relative Generic Richness Diptera	0.37	30 Presence of Class A Indicator Taxa/7	0.71
09 <i>Hydropsyche</i> Abundance	155.67		
11 <i>Cheumatopsyche</i> Abundance	18.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.43		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	29.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.33		
17 Chironomini Abundance (Family Functional Group)	16.33		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	45.43
2	<i>Cricotopus</i>	7.20
3	<i>Agnetina</i>	6.77
4	<i>Cheumatopsyche</i>	5.45
5	<i>Polypedilum</i>	4.67



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	18.6 deg C
Dissolved Oxygen:	8.4 mg/l
Specific Conductance:	28 uS/cm
Velocity:	85.7 cm/s
pH:	6.4
Wetted Width:	10 m
Bankfull Width:	13 m
Depth:	52 cm

Waterbody Information - Retrieval

Temperature:	18.5 deg C
Dissolved Oxygen:	9 mg/l
Specific Conductance:	28 uS/cm
Velocity:	39.5 cm/s
pH:	6.35
Wetted Width:	8.5 m
Bankfull Width:	13 m
Depth:	40 cm

Water Chemistry - 8/20/2013

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	3 ug/l
Nitrate+nitrite As N	0.01 mg/l	Total Phosphorus	0.01 mg/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	3.6 mg/l	Total Dissolved Solids	43 mg/l

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Partly Open	Mountainous
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Above Road Crossing	Boulder 65 %
	Pristine Landscape	Gravel 5 %
		Rubble/Cobble 30 %

Landcover Summary - 2004 Data

Sample Comments

7/22/2013-ERODING BANK



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

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Town: Weld

Log Number: 2213

Subsample Factor: X1

Replicates: 3

Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Leuctra</i>	09020204020	1.00	1.00	0	SH	0.3	0.3
<i>Pteronarcys</i>	09020205023		2.33	0	SH		0.7
<i>Pteronarcys biloba</i>	09020205023061	2.33			--	0.7	
<i>Tallaperla</i>	09020206025	0.67	0.67		SH	0.2	0.2
Perlodidae	09020207	1.33	1.33		--	0.4	0.4
<i>Sweltsa</i>	09020208040	0.33	0.33		PR	0.1	0.1
Perlidae	09020209	14.00			--	4.1	
<i>Acroneuria</i>	09020209042		1.29	0	PR		0.4
<i>Acroneuria abnormis</i>	09020209042121	0.33		0	PR	0.1	
<i>Acroneuria lycorias</i>	09020209042125	0.33			--	0.1	
<i>Paragnetina</i>	09020209049		4.51	1	PR		1.3
<i>Paragnetina immarginata</i>	09020209049149	2.33			--	0.7	
<i>Agnatina</i>	09020209050		23.20	2	PR		6.8
<i>Agnatina capitata</i>	09020209050152	12.00		2	PR	3.5	
<i>Boyeria</i>	09020301004		0.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.1	
Baetidae	09020401	2.00			--	0.6	
<i>Baetis</i>	09020401001	1.67	10.10	4	CG	0.5	2.9
<i>Baetis flavistriga</i>	09020401001004	2.33			--	0.7	
<i>Baetis intercalaris</i>	09020401001008	1.00			--	0.3	
<i>Baetis pluto</i>	09020401001009	0.67			--	0.2	
<i>Baetis tricaudatus</i>	09020401001012	3.33			--	1.0	
<i>Acentrella</i>	09020401008		0.37	3	CG		0.1
<i>Acentrella turbida</i>	09020401008021	0.33			--	0.1	
<i>Plauditus</i>	09020401012	4.00	4.49		CG	1.2	1.3
<i>Diphetor</i>	09020401013		3.37		--		1.0
<i>Diphetor hageni</i>	09020401013001	3.00			--	0.9	
Heptageniidae	09020402	0.67			--	0.2	
<i>Epeorus</i>	09020402009	2.00	2.10	0	SC	0.6	0.6
<i>Leucrocota</i>	09020402011	0.67	0.70	1	SC	0.2	0.2
<i>Stenacron</i>	09020402014	0.33	0.35	7	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	7.33	11.52	4	SC	2.1	3.4
<i>Maccaffertium luteum</i>	09020402015049	2.33			--	0.7	
<i>Maccaffertium modestum</i>	09020402015051	1.33			--	0.4	
<i>Isonychia</i>	09020404018	0.33	0.33	2	CF	0.1	0.1
Leptophlebiidae	09020406	1.33	1.33		--	0.4	0.4
<i>Paraleptophlebia</i>	09020406026	0.67	0.67	1	CG	0.2	0.2
<i>Ephemerella</i>	09020410035	4.67	4.67	1	CG	1.4	1.4



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		Actual	Adjusted			Actual	Adjusted
<i>Eurylophella</i>	09020410036	3.67	3.67	3	CG	1.1	1.1
<i>Serratella</i>	09020410037		0.33	2	CG		0.1
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	0.33			--	0.1	
<i>Caenis</i>	09020412040	0.33	0.33	7	CG	0.1	0.1
<i>Dolophilodes</i>	09020601001	0.67	0.67	0	CF	0.2	0.2
Hydropsychidae	09020604	9.33			--	2.7	
<i>Cheumatopsyche</i>	09020604015	17.67	18.67	5	CF	5.2	5.4
<i>Hydropsyche</i>	09020604016	104.33	155.67	4	CF	30.4	45.4
<i>Hydropsyche morosa</i>	09020604016030	1.00			--	0.3	
<i>Hydropsyche slossonae</i>	09020604016031	30.67			--	8.9	
<i>Hydropsyche sparna</i>	09020604016032	11.33			--	3.3	
<i>Rhyacophila</i>	09020605019		2.67	2	PR		0.8
<i>Rhyacophila fuscula</i>	09020605019060	1.67			PR	0.5	
<i>Rhyacophila minor</i>	09020605019063	1.00			PR	0.3	
<i>Brachycentrus</i>	09020609043		7.67	0	CF		2.2
<i>Brachycentrus appalachia</i>	09020609043096	7.33			--	2.1	
<i>Brachycentrus numerosus</i>	09020609043098	0.33			--	0.1	
<i>Apatania</i>	09020610061	0.33	0.33		SC	0.1	0.1
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.1	0.1
<i>Nigronia</i>	09020701003		0.67	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	0.67			--	0.2	
Lepidoptera	090209	0.33	0.33		--	0.1	0.1
<i>Nymphomyia</i>	09021004021				SC		
Chironomidae	09021011				--		
<i>Conchapelopia</i>	09021011004	1.00	1.00	6	PR	0.3	0.3
<i>Rheopelopia</i>	09021011017		0.33		PR		0.1
<i>Rheopelopia acra group</i>	09021011017036	0.33			--	0.1	
<i>Pagastia</i>	09021011025		1.00	1	--		0.3
<i>Pagastia orthogonia</i>	09021011025001	1.00			--	0.3	
<i>Potthastia</i>	09021011026		0.67	2	CG		0.2
<i>Potthastia gaedii</i>	09021011026045	0.67			--	0.2	
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037	2.00	24.67	7	SH	0.6	7.2
<i>Cricotopus bicinctus</i>	09021011037057	17.67			--	5.2	
<i>Cricotopus vierriensis</i>	09021011037071	4.67			--	1.4	
<i>Cricotopus annulator complex</i>	09021011037074	0.33			--	0.1	
<i>Nanocladius</i>	09021011049	0.33	0.67	3	CG	0.1	0.2
<i>Nanocladius branchicolus</i>	09021011049091	0.33			--	0.1	



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<i>Orthocladus</i>	09021011050	0.33	0.33	6	CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	3.00	3.00	5	CG	0.9	0.9
<i>Rheocricotopus</i>	09021011057		0.67	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	0.67			--	0.2	
<i>Thienemanniella</i>	09021011062		1.00	6	CG		0.3
<i>Thienemanniella xena</i>	09021011062110	1.00			--	0.3	
<i>Tvetenia</i>	09021011065		3.00	5	CG		0.9
<i>Tvetenia paucunca</i>	09021011065114	3.00			--	0.9	
<i>Micropsectra</i>	09021011070	1.00	1.00	7	CG	0.3	0.3
<i>Rheotanytarsus</i>	09021011072	14.33	14.33	6	CF	4.2	4.2
<i>Stempellinella</i>	09021011074		0.33	2	--		0.1
<i>Stempellinella fimbriata</i>	09021011074002	0.33			--	0.1	
<i>Sublettea</i>	09021011075	0.33	0.33		--	0.1	0.1
<i>Microtendipes</i>	09021011094		0.33	6	CF		0.1
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.1	
<i>Polypedilum</i>	09021011102		16.00	6	SH		4.7
<i>Polypedilum aviceps</i>	09021011102181	9.33			--	2.7	
<i>Polypedilum flavum</i>	09021011102182	6.67			--	1.9	
<i>Simulium</i>	09021012047	0.33	1.67	4	CF	0.1	0.5
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.4	
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.1	0.1
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.1	0.1
<i>Optioservus</i>	09021113067		0.33	3	SC		0.1
<i>Optioservus ovalis</i>	09021113067046	0.33			--	0.1	
<i>Promoresia</i>	09021113069		3.33		--		1.0
<i>Promoresia tardella</i>	09021113069052	3.33			--	1.0	
<i>Stenelmis</i>	09021113070		1.00	5	SC		0.3
<i>Stenelmis crenata</i>	09021113070055	1.00			--	0.3	