



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

Station Information

Station Number: S-1002	River Basin: Androscoggin
Waterbody: East Brook - Station 1002	HUC8 Name: Lower Androscoggin
Town: Weld	Latitude: 44 43 29.49 N
Directions: 25 METERS BELOW 142 ROAD CROSSING. NEAR MAILBOX #495	Longitude: 70 27 30.37 W
	Stream Order: 3

Sample Information

Log Number: 2672	Type of Sample: ROCK BAG	Date Deployed: 7/24/2018
Subsample Factor: X8	Replicates: 3	Date Retrieved: 8/22/2018

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 2/8/2019
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 2/5/2019	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.15	Class A, B, or C	1.00
Class B	0.77	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.86
Class A or B	1.00	Class B or C or Non-Attainment	0.14
Class C or Non-Attainment	0.00		

Model Variables

01 Total Mean Abundance	2165.33	18 Relative Abundance Ephemeroptera	0.18
02 Generic Richness	45.00	19 EPT Generic Richness	25.00
03 Plecoptera Mean Abundance	61.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	10.67
04 Ephemeroptera Mean Abundance	397.33	23 Relative Generic Richness- Plecoptera	0.11
05 Shannon-Wiener Generic Diversity	2.93	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	40.00
06 Hilsenhoff Biotic Index	3.83	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	34.67
07 Relative Abundance - Chironomidae	0.11	28 EP Generic Richness/14	1.21
08 Relative Generic Richness Diptera	0.40	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	1200.00		
11 <i>Cheumatopsyche</i> Abundance	8.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.39		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	18.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	8.00		
17 Chironomini Abundance (Family Functional Group)	101.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	55.42
2	<i>Baetis</i>	8.25
3	<i>Polypedilum</i>	4.68
4	<i>Dolophilodes</i>	4.06
5	<i>Simulium</i>	3.82



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment		Waterbody Information - Retrieval	
Temperature:	19.4 deg C	Temperature:	16.9 deg C
Dissolved Oxygen:	9.93 mg/l	Dissolved Oxygen:	10.23 mg/l
Dissolved Oxygen Saturation:	107.8 %	Dissolved Oxygen Saturation:	107.7 %
Specific Conductance:	47.2 uS/cm	Specific Conductance:	45.9 uS/cm
Velocity:	45.7 cm/s	Velocity:	57.9 cm/s
pH:	7.05	pH:	7.05
Wetted Width:	6.8 m	Wetted Width:	7.2 m
Bankfull Width:	9.6 m	Bankfull Width:	9.6 m
Depth:	25 cm	Depth:	27 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Open	Mountainous
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Above Road Crossing	Boulder 50 %
		Gravel 5 %
		Rubble/Cobble 40 %
		Sand 5 %

Landcover Summary - 2004 Data

Sample Comments



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-1002

Waterbody: East Brook - Station 1002

Town: Weld

Log Number: 2672

Subsample Factor: X8

Replicates: 3

Calculated: 2/5/2019

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Leuctra</i>	09020204020	2.67	2.67	0	SH	0.1	0.1
Perlodidae	09020207	37.33	37.33		--	1.7	1.7
<i>Isoperla</i>	09020207026	2.67	2.67	2	PR	0.1	0.1
Perlidae	09020209	2.67			--	0.1	
<i>Paragnetina</i>	09020209049	2.67	3.11	1	PR	0.1	0.1
<i>Agnetina</i>	09020209050		15.56	2	PR		0.7
<i>Agnetina capitata</i>	09020209050152	13.33		2	PR	0.6	
<i>Boyeria</i>	09020301004		2.67	2	PR		0.1
<i>Boyeria grafiana</i>	09020301004011	2.67			--	0.1	
<i>Baetis</i>	09020401001	53.33	178.67	4	CG	2.5	8.3
<i>Baetis flavistriga</i>	09020401001004	21.33			--	1.0	
<i>Baetis intercalaris</i>	09020401001008	69.33			--	3.2	
<i>Baetis pluto</i>	09020401001009	34.67			--	1.6	
<i>Plauditus</i>	09020401012	26.67	26.67		CG	1.2	1.2
<i>Dipheter</i>	09020401013		2.67		--		0.1
<i>Dipheter hageni</i>	09020401013001	2.67			--	0.1	
<i>Iswaeon</i>	09020401015		2.67		--		0.1
<i>Iswaeon anoka</i>	09020401015001	2.67			--	0.1	
<i>Epeorus</i>	09020402009	18.67	21.33	0	SC	0.9	1.0
<i>Epeorus vitreus</i>	09020402009033	2.67			--	0.1	
<i>Rhithrogena</i>	09020402013	5.33	5.33	0	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	32.00	34.67	4	SC	1.5	1.6
<i>Maccaffertium modestum</i>	09020402015051	2.67			--	0.1	
Leptophlebiidae	09020406	5.33	5.33		--	0.2	0.2
<i>Neoleptophlebia</i>	09020406027	32.00	32.00		--	1.5	1.5
<i>Ephemerella</i>	09020410035	80.00	80.00	1	CG	3.7	3.7
<i>Eurylophella</i>	09020410036	2.67	2.67	3	CG	0.1	0.1
<i>Serratella</i>	09020410037		5.33	2	CG		0.2
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	2.67			--	0.1	
<i>Serratella serratoides</i>	09020410037124	2.67			--	0.1	
<i>Dolophilodes</i>	09020601001		88.00	0	CF		4.1
<i>Dolophilodes distincta</i>	09020601001001	88.00			--	4.1	
<i>Cheumatopsyche</i>	09020604015	8.00	8.00	5	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016	597.33	1200.00	4	CF	27.6	55.4
<i>Hydropsyche morosa</i>	09020604016030	2.67			--	0.1	
<i>Hydropsyche slossonae</i>	09020604016031	210.67			--	9.7	
<i>Hydropsyche sparna</i>	09020604016032	370.67			--	17.1	



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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>Hydropsyche betteni</i>	09020604016037	16.00			--	0.7	
<i>Hydropsyche scalaris species group</i>	09020604016048	2.67			--	0.1	
<i>Rhyacophila</i>	09020605019	5.33	13.33	2	PR	0.2	0.6
<i>Rhyacophila acutiloba</i>	09020605019056	5.33			PR	0.2	
<i>Rhyacophila fuscula</i>	09020605019060	2.67			PR	0.1	
<i>Hydroptila</i>	09020607026	5.33	5.33	6	P	0.2	0.2
<i>Brachycentrus</i>	09020609043		2.67	0	CF		0.1
<i>Brachycentrus appalachia</i>	09020609043096	2.67			--	0.1	
<i>Micrasema</i>	09020609044	2.67	2.67	2	SH	0.1	0.1
<i>Apatania</i>	09020619061	5.33	5.33		SC	0.2	0.2
<i>Dicranota</i>	09021001005	5.33	5.33	3	PR	0.2	0.2
Ceratopogonidae	09021010	2.67	2.67		--	0.1	0.1
Chironomidae	09021011				--		
<i>Thienemannimyia</i>	09021011020		8.00	3	PR		0.4
<i>Thienemannimyia group</i>	09021011020041	8.00			--	0.4	
<i>Corynoneura</i>	09021011036	2.67	2.67	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037	8.00	26.67	7	SH	0.4	1.2
<i>Cricotopus bicinctus</i>	09021011037057	18.67			--	0.9	
<i>Eukiefferiella</i>	09021011041		5.33	8	CG		0.2
<i>Eukiefferiella brehmi group</i>	09021011041073	5.33			--	0.2	
<i>Orthocladius</i>	09021011050		5.33	6	CG		0.2
<i>Orthocladius annectens</i>	09021011050092	5.33			--	0.2	
<i>Parametriocnemus</i>	09021011053	24.00	24.00	5	CG	1.1	1.1
<i>Rheocricotopus</i>	09021011057	10.67	10.67	6	CG	0.5	0.5
<i>Thienemanniella</i>	09021011062	5.33	5.33	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065		10.67	5	CG		0.5
<i>Tvetenia vitracies</i>	09021011065113	2.67			--	0.1	
<i>Tvetenia paucunca</i>	09021011065114	8.00			--	0.4	
<i>Micropsectra</i>	09021011070	10.67	10.67	7	CG	0.5	0.5
<i>Rheotanytarsus</i>	09021011072		21.33	6	CF		1.0
<i>Rheotanytarsus exiguus group</i>	09021011072127	5.33			CF	0.2	
<i>Rheotanytarsus pellucidus</i>	09021011072128	16.00			CF	0.7	
<i>Stempellinella</i>	09021011074	5.33	5.33	2	--	0.2	0.2
<i>Tanytarsus</i>	09021011076	5.33	5.33	6	CF	0.2	0.2
<i>Polypedilum</i>	09021011102		101.33	6	SH		4.7
<i>Polypedilum aviceps</i>	09021011102181	96.00			--	4.4	
<i>Polypedilum flavum</i>	09021011102182	2.67			--	0.1	
<i>Polypedilum illinoense group</i>	09021011102185	2.67			--	0.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Simulium</i>	09021012047	82.67	82.67	4	CF	3.8	3.8
<i>Roederiodes</i>	09021016058	2.67	2.67	3	PR	0.1	0.1
<i>Promoesia</i>	09021113069		42.67		--		2.0
<i>Promoesia tardella</i>	09021113069052	42.67			--	2.0	