



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

**Station Information**

<b>Station Number:</b> S-356	River Basin: Androscoggin
Waterbody: Stetson Brook - Station 356	HUC8 Name: Lower Androscoggin
Town: Lewiston	Latitude: 44 7 41.68 N
Directions: 65 M BELOW STETSON RD. CROSSING	Longitude: 70 10 56.56 W
	Stream Order: 1

**Sample Information**

<b>Log Number:</b> 2676	Type of Sample: ROCK BAG	Date Deployed: 7/26/2018
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/23/2018

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> A	Date: 2/21/2019
Model Result with $P \geq 0.6$ : A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 2/19/2019	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.51	Class A, B, or C	1.00
Class B	0.42	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.97	Class A	0.84
Class C or Non-Attainment	0.03	Class B or C or Non-Attainment	0.16

**Model Variables**

01 Total Mean Abundance	114.00	18 Relative Abundance Ephemeroptera	0.09
02 Generic Richness	39.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	10.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	4.09	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	9.37
06 Hilsenhoff Biotic Index	4.95	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	8.00
07 Relative Abundance - Chironomidae	0.55	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.36	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	1.67		
11 <i>Cheumatopsyche</i> Abundance	2.67		
12 EPT Generic Richness/ Diptera Generic Richness	0.86		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	2.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.02		
17 Chironomini Abundance (Family Functional Group)	8.04		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	30.57
2	<i>Paratanytarsus</i>	8.23
3	<i>Polypedilum</i>	6.17
4	<i>Promoresia</i>	6.14
5	<i>Psephenus</i>	5.26



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

Waterbody Information - Deployment		Waterbody Information - Retrieval	
Temperature:	21.8 deg C	Temperature:	17.6 deg C
Dissolved Oxygen:	8.99 mg/l	Dissolved Oxygen:	10.1 mg/l
Dissolved Oxygen Saturation:	101.9 %	Dissolved Oxygen Saturation:	105.2 %
Specific Conductance:	190.4 uS/cm	Specific Conductance:	157.5 uS/cm
Velocity:	33.5 cm/s	Velocity:	24.4 cm/s
pH:	7.5	pH:	7.44
Wetted Width:	3 m	Wetted Width:	2 m
Bankfull Width:	3 m	Bankfull Width:	3 m
Depth:	24 cm	Depth:	16 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Swamp Hardwood	Partly Open	Rolling	
Upland Conifer			
Upland Hardwood			
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Urban Runoff	Below Road Crossing	Boulder	10 %
		Gravel	20 %
		Rubble/Cobble	50 %
		Sand	15 %
		Silt	5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	1554	High Int. Dev. %	0.3	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.4	Wetland %	4.5	Tilled Agriculture %	4.9
		Low Int. Dev. %	4.0	Upland Woody %	67.7	Grassland %	16.6
		Development %	4.8	Natural %	72.3	Human Altered %	27.7
						Impervious %	4.6

**Sample Comments**

Crayfish, fish.



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Subsample Factor: X1

Replicates: 3

Calculated: 2/19/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Prostoma</i>	04010101001	1.00	1.00		--	0.9	0.9
<i>Acroneuria</i>	09020209042		2.67	0	PR		2.3
<i>Acroneuria lycorias</i>	09020209042125	2.67			--	2.3	
<i>Boyeria</i>	09020301004	0.33	2.00	2	PR	0.3	1.8
<i>Boyeria vinosa</i>	09020301004012	1.67			--	1.5	
Calopterygidae	09020307	0.33	0.33		--	0.3	0.3
<i>Calopteryx</i>	09020307043	0.33	0.33	5	PR	0.3	0.3
<i>Leucrocuta</i>	09020402011	1.00	1.00	1	SC	0.9	0.9
<i>Maccaffertium</i>	09020402015	4.67	5.33	4	SC	4.1	4.7
<i>Maccaffertium vicarium</i>	09020402015055	0.67			--	0.6	
<i>Eurylophella</i>	09020410036	3.00	3.00	3	CG	2.6	2.6
<i>Serratella</i>	09020410037		0.67	2	CG		0.6
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	0.67			--	0.6	
Polycentropodidae	09020603				--		
<i>Polycentropus</i>	09020603010	2.33	2.33	6	PR	2.0	2.0
<i>Cheumatopsyche</i>	09020604015	2.67	2.67	5	CF	2.3	2.3
<i>Hydropsyche</i>	09020604016	0.33	1.67	4	CF	0.3	1.5
<i>Hydropsyche slossonae</i>	09020604016031	0.33			--	0.3	
<i>Hydropsyche sparna</i>	09020604016032	0.33			--	0.3	
<i>Hydropsyche betteni</i>	09020604016037	0.67			--	0.6	
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.3	0.3
Limnephilidae	09020610	0.33	0.33		--	0.3	0.3
<i>Pycnopsyche</i>	09020610049	2.00	2.00	4	SH	1.8	1.8
<i>Helicopsyche</i>	09020616070	0.33	0.33	3	SC	0.3	0.3
<i>Nigronia</i>	09020701003		1.67	0	PR		1.5
<i>Nigronia serricornis</i>	09020701003003	1.67			--	1.5	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.3	0.3
Chironomidae	09021011	0.33			--	0.3	
<i>Ablabesmyia</i>	09021011001	2.00	2.01	8	PR	1.8	1.8
<i>Thienemannimyia</i>	09021011020		2.01	3	PR		1.8
<i>Thienemannimyia group</i>	09021011020041	2.00			--	1.8	
<i>Corynoneura</i>	09021011036			7	CG		
<i>Cricotopus</i>	09021011037	0.67	2.35	7	SH	0.6	2.1
<i>Cricotopus bicinctus</i>	09021011037057	1.67			--	1.5	
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	0.6	0.6
<i>Orthocladius</i>	09021011050	1.33	1.34	6	CG	1.2	1.2
<i>Paratanytarsus</i>	09021011071	9.33	9.38	6	--	8.2	8.2



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<i>Rheotanytarsus</i>	09021011072		34.85	6	CF		30.6
<i>Rheotanytarsus exiguus group</i>	09021011072127	27.67			CF	24.3	
<i>Rheotanytarsus pellucidus</i>	09021011072128	7.00			CF	6.1	
<i>Tanytarsus</i>	09021011076	2.33	2.35	6	CF	2.0	2.1
<i>Microtendipes</i>	09021011094		0.67	6	CF		0.6
<i>Microtendipes rydalensis group</i>	09021011094168	0.67			--	0.6	
<i>Phaenopsectra</i>	09021011101	0.33	0.34	7	SC	0.3	0.3
<i>Polypedilum</i>	09021011102		7.04	6	SH		6.2
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	3.5	
<i>Polypedilum illinoense group</i>	09021011102185	2.67			--	2.3	
<i>Polypedilum tritum</i>	09021011102191	0.33			--	0.3	
<i>Simulium</i>	09021012047	2.33	2.33	4	CF	2.0	2.0
<i>Hemerodromia</i>	09021016057	2.00	2.00	3	PR	1.8	1.8
<i>Psephenus</i>	09021108058		6.00	4	SC		5.3
<i>Psephenus herricki</i>	09021108058028	6.00			--	5.3	
<i>Ectopria</i>	09021109059		0.33	5	SC		0.3
<i>Ectopria nervosa</i>	09021109059029	0.33			--	0.3	
<i>Microcyloepus</i>	09021113066		3.33	3	--		2.9
<i>Microcyloepus pusillus</i>	09021113066041	3.33			--	2.9	
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.3	0.3
<i>Promoesia</i>	09021113069		7.00		--		6.1
<i>Promoesia tardella</i>	09021113069052	7.00			--	6.1	
<i>Stenelmis</i>	09021113070	0.67	0.67	5	SC	0.6	0.6
<i>Ferrissia</i>	10010204035		0.33		SC		0.3
<i>Ferrissia rivularis</i>	10010204035066	0.33			--	0.3	
Sphaeriidae	10020201	0.67	0.67		CF	0.6	0.6