



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

Station Information

Station Number: S-355	River Basin: Androscoggin
Waterbody: Androscoggin River - Station 355	HUC8 Name: Lower Androscoggin
Town: Bethel	Latitude: 44 28 0.02 N
Directions: RT.2 ; 1.6 KM BELOW CONFLUENCE W/ SUNDAY RIVER	Longitude: 70 47 52.23 W
	Stream Order: 6

Sample Information

Log Number: 2655	Type of Sample: ROCK BASKET	Date Deployed: 7/16/2018
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/13/2018

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 12/11/2018
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 12/10/2018	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.68	Class A, B, or C	1.00
Class B	0.30	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.92
Class A or B	1.00	Class B or C or Non-Attainment	0.08
Class C or Non-Attainment	0.00		

Model Variables

01 Total Mean Abundance	213.67	18 Relative Abundance Ephemeroptera	0.65
02 Generic Richness	49.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	1.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	139.33	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.12	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	19.67
06 Hilsenhoff Biotic Index	4.48	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	47.59
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	14.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.40		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	7.00		
17 Chironomini Abundance (Family Functional Group)	9.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	21.81
2	<i>Procloeon</i>	12.95
3	<i>Stenacron</i>	8.38
4	<i>Acerpenna</i>	8.11
5	<i>Cheumatopsyche</i>	6.71



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Station Number: S-355 Town: Bethel Date Deployed: 7/16/2018
Log Number: 2655 Waterbody: Androscoggin River - Station 355 Date Retrieved: 8/13/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 24 deg C
Dissolved Oxygen: 8.75 mg/l
Dissolved Oxygen Saturation: 104.4 %
Specific Conductance: 35.8 uS/cm
Velocity: 18.3 cm/s
pH: 6.91
Wetted Width: 103 m
Bankfull Width: 106 m
Depth: 100 cm

Waterbody Information - Retrieval

Temperature: 22.4 deg C
Dissolved Oxygen: 9.26 mg/l
Dissolved Oxygen Saturation: 106.5 %
Specific Conductance: 35.4 uS/cm
Velocity: 24.4 cm/s
pH: 6.63
Wetted Width: 105 m
Bankfull Width: 106 m
Depth: 100 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Rolling
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Below Point Source	Gravel 70 %
	Below Town	Rubble/Cobble 10 %
	Main Stem	Sand 20 %

Landcover Summary - 2004 Data

Sample Comments

SMALL FISH, POTAMOGETON SP



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

Station Number: S-355

Waterbody: Androscoggin River - Station 355

Town: Bethel

Log Number: 2655

Subsample Factor: X1

Replicates: 3

Calculated: 12/10/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002	3.00	3.00		--	1.4	1.4
<i>Stylaria</i>	08020202014	3.00	3.00		CG	1.4	1.4
Cambaridae	09010301	0.67	0.67		--	0.3	0.3
Perlidae	09020209	0.33	0.33		--	0.2	0.2
<i>Acroneuria</i>	09020209042		1.00	0	PR		0.5
<i>Acroneuria lycorias</i>	09020209042125	1.00			--	0.5	
<i>Boyeria</i>	09020301004		0.33	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.2	
<i>Macromia</i>	09020304021	0.33	0.33	2	PR	0.2	0.2
<i>Calopteryx</i>	09020307043	0.33	0.33	5	PR	0.2	0.2
Coenagrionidae	09020309	0.67	0.67		--	0.3	0.3
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.2	0.2
<i>Acerpenna</i>	09020401007		17.33	5	CG		8.1
<i>Acerpenna macdunnoughi</i>	09020401007001	1.00			--	0.5	
<i>Acerpenna pygmaea</i>	09020401007011	16.33			--	7.6	
<i>Labiobaetis</i>	09020401009	4.00	4.00		--	1.9	1.9
<i>Procloeon</i>	09020401010	27.67	27.67		CG	12.9	12.9
<i>Plauditus</i>	09020401012	0.67	0.67		CG	0.3	0.3
<i>Isxaeon</i>	09020401015		1.33		--		0.6
<i>Isxaeon anoka</i>	09020401015001	1.33			--	0.6	
<i>Anafroptilum (Centroptilum)</i>	09020401016	3.00	3.00	2	CG	1.4	1.4
Heptageniidae	09020402	1.00			--	0.5	
<i>Leucrocota</i>	09020402011	13.67	13.84	1	SC	6.4	6.5
<i>Stenacron</i>	09020402014		17.90	7	SC		8.4
<i>Stenacron interpunctatum</i>	09020402014045	17.67			--	8.3	
<i>Maccaffertium</i>	09020402015	39.00	46.59	4	SC	18.3	21.8
<i>Maccaffertium modestum</i>	09020402015051	6.33			--	3.0	
<i>Maccaffertium vicarium</i>	09020402015055	0.67			--	0.3	
<i>Isonychia</i>	09020404018		0.67	2	CF		0.3
<i>Isonychia bicolor</i>	09020404018059	0.67			--	0.3	
Leptophlebiidae	09020406	1.33	1.33		--	0.6	0.6
<i>Paraleptophlebia</i>	09020406026	3.67	3.67	1	CG	1.7	1.7
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.6	0.6
Trichoptera	090206				--		
<i>Chimarra</i>	09020601003	1.00	1.00	2	CF	0.5	0.5
Polycentropodidae	09020603	10.00	10.00		--	4.7	4.7
<i>Nyctiophylax</i>	09020603009	0.67	0.67	5	PR	0.3	0.3



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
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<i>Cheumatopsyche</i>	09020604015	14.33	14.33	5	CF	6.7	6.7
Leptoceridae	09020618	0.33	0.33		--	0.2	0.2
<i>Oecetis</i>	09020618078		1.00	8	PR		0.5
<i>Oecetis persimilis</i>	09020618078157	1.00			--	0.5	
<i>Sialis</i>	09020702004	0.33	0.33	4	PR	0.2	0.2
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	4.67	4.67	8	PR	2.2	2.2
<i>Labrundinia</i>	09021011008	1.33	1.33	7	PR	0.6	0.6
<i>Pentaneura</i>	09021011014	0.33	0.33	6	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		0.67	3	PR		0.3
<i>Thienemannimyia group</i>	09021011020041	0.67			--	0.3	
<i>Brillia</i>	09021011033	0.67	0.67	5	SH	0.3	0.3
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	0.3	0.3
<i>Synorthocladius</i>	09021011061	0.67	0.67	2	CG	0.3	0.3
<i>Thienemanniella</i>	09021011062	1.33	1.33	6	CG	0.6	0.6
<i>Tvetenia</i>	09021011065		0.33	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	0.33			--	0.2	
<i>Rheotanytarsus</i>	09021011072		0.67	6	CF		0.3
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.33			CF	0.2	
<i>Rheotanytarsus pellucidus</i>	09021011072128	0.33			CF	0.2	
<i>Tanytarsus</i>	09021011076	0.67	0.67	6	CF	0.3	0.3
<i>Microtendipes</i>	09021011094		7.67	6	CF		3.6
<i>Microtendipes rydalensis group</i>	09021011094168	7.67			--	3.6	
<i>Phaenopsectra</i>	09021011101	0.33	0.33	7	SC	0.2	0.2
<i>Polypedilum</i>	09021011102		1.33	6	SH		0.6
<i>Polypedilum illinoense group</i>	09021011102185	1.33			--	0.6	
<i>Simulium</i>	09021012047	2.00	2.00	4	CF	0.9	0.9
<i>Macronychus</i>	09021113065		0.33	4	--		0.2
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.2	
<i>Amnicola</i>	10010104013	11.33	11.33		SC	5.3	5.3
Sphaeriidae	10020201	0.33			CF	0.2	
<i>Pisidium</i>	10020201002	0.33	0.42		CF	0.2	0.2
<i>Sphaerium</i>	10020201003	1.00	1.25		CF	0.5	0.6