



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

Station Information

Station Number:	S-355	DEP Drainage:	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:	2218	Type of Sample:	ROCK BASKET	Date Deployed:	7/24/2013
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/21/2013

Classification Attainment

Statutory Class:	B	Final Determination:	A	Date:	3/18/2014
Model Result with P>.6:	A	Reason for Determination:	Model		
Date Last Calculated:	3/17/2014	Comments:			

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.65	Class A, B, or C	1.00
Class B	0.32	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.81
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.19

Model Variables

01 Total Mean Abundance	144.33	18 Relative Abundance Ephemeroptera	0.58
02 Generic Richness	39.00	19 EPT Generic Richness	17.00
03 Plecoptera Mean Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.37
04 Ephemeroptera Mean Abundance	83.67	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.31	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	11.13
06 Hilsenhoff Biotic Index	4.16	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	55.73
07 Relative Abundance - Chironomidae	0.05	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.28	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	9.67		
12 EPT Generic Richness/ Diptera	1.55		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	0.67		
Functional Group)			
16 Tanypodinae Mean Abundance	1.10		
(Family Functional Group)			
17 Chironomini Abundance (Family	2.93		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	38.15
2	<i>Amnicola</i>	18.01
3	<i>Leucrocuta</i>	8.42
4	<i>Cheumatopsyche</i>	6.70
5	<i>Stenacron</i>	4.47



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Station Number: S-355	Town: Bethel	Date Deployed: 7/24/2013
Log Number: 2218	Waterbody: Androscoggin River - Station 355	Date Retrieved: 8/21/2013

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	21.5 deg C
Dissolved Oxygen:	7.9 mg/l
Specific Conductance:	31 uS/cm
Velocity:	23.3 cm/s
pH:	6.14
Wetted Width:	103 m
Bankfull Width:	105 m
Depth:	75 cm

Waterbody Information - Retrieval

Temperature:	22.3 deg C
Dissolved Oxygen:	8 mg/l
Specific Conductance:	37 uS/cm
Velocity:	6.93 cm/s
pH:	6.32
Wetted Width:	101 m
Bankfull Width:	105 m
Depth:	58 cm

Water Chemistry - 8/21/2013

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.06 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 mg/l	Total Dissolved Solids	41 mg/l

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

8/21/2013 - MANY FISH OBSERVED

7/24/2013 - POTAMEGETON AND VALISNERIA OBSERVED



**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: 2218

Subsample Factor: X1

Replicates: 3

Calculated: 3/17/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Dugesidae	03010102	2.00	2.00		--	1.4	1.4
<i>Orconectes</i>	09010301008		0.67		CG		0.5
<i>Orconectes limosus</i>	09010301008013	0.67			--	0.5	
<i>Acroneuria</i>	09020209042		0.67	0	PR		0.5
<i>Acroneuria lycorias</i>	09020209042125	0.67			--	0.5	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.5
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.2	
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.2	
<i>Neurocordulia</i>	09020305026	0.33	0.33	2	PR	0.2	0.2
<i>Calopteryx</i>	09020307043		0.33	5	PR		0.2
<i>Calopteryx aequabilis</i>	09020307043085	0.33			--	0.2	
<i>Centropilum</i>	09020401003	2.67	2.67	2	CG	1.8	1.8
<i>Acerpenna</i>	09020401007	0.33	0.67	5	CG	0.2	0.5
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.2	
<i>Labiobaetis</i>	09020401009		1.67		--		1.2
<i>Labiobaetis propinquus</i>	09020401009010	1.67			--	1.2	
<i>Iswaeon</i>	09020401015	0.33	0.33		--	0.2	0.2
Heptageniidae	09020402	9.00			--	6.2	
<i>Leucrocuta</i>	09020402011	10.67	12.15	1	SC	7.4	8.4
<i>Stenacron</i>	09020402014	4.00	6.46	7	SC	2.8	4.5
<i>Stenacron interpunctatum</i>	09020402014045	1.67			--	1.2	
<i>Maccaffertium</i>	09020402015	36.67	55.06	4	SC	25.4	38.1
<i>Maccaffertium luteum</i>	09020402015049	6.33			--	4.4	
<i>Maccaffertium modestum</i>	09020402015051	5.33			--	3.7	
Leptophlebiidae	09020406	1.00	1.00		--	0.7	0.7
<i>Tricorythodes</i>	09020411038	3.67	3.67	4	CG	2.5	2.5
Polycentropodidae	09020603	0.33			--	0.2	
<i>Neureclipsis</i>	09020603008	1.00	1.05	7	CF	0.7	0.7
<i>Polycentropus</i>	09020603010	6.00	6.29	6	PR	4.2	4.4
<i>Cheumatopsyche</i>	09020604015	9.67	9.67	5	CF	6.7	6.7
<i>Hydropsyche</i>	09020604016		0.33	4	CF		0.2
<i>Hydropsyche morosa</i>	09020604016030	0.33			--	0.2	
<i>Rhyacophila</i>	09020605019		0.33	2	PR		0.2
<i>Rhyacophila minor</i>	09020605019063	0.33			PR	0.2	
Limnephilidae	09020610				--		
<i>Helicopsyche</i>	09020616070		0.33	3	SC		0.2
<i>Helicopsyche borealis</i>	09020616070137	0.33			--	0.2	
<i>Oecetis</i>	09020618078		0.67	8	PR		0.5



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		Actual	Adjusted			Actual	Adjusted
<i>Oecetis persimilis</i>	09020618078157	0.67			--	0.5	
Chironomidae	09021011	0.67			--	0.5	
<i>Ablabesmyia</i>	09021011001		0.37	8	PR		0.3
<i>Ablabesmyia mallochi</i>	09021011001004	0.33			--	0.2	
<i>Conchapelopia</i>	09021011004	0.33	0.37	6	PR	0.2	0.3
<i>Rheopelopia</i>	09021011017		0.37		PR		0.3
<i>Rheopelopia acra group</i>	09021011017036	0.33			--	0.2	
<i>Cricotopus</i>	09021011037		0.73	7	SH		0.5
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.2	
<i>Cricotopus vierriensis</i>	09021011037071	0.33			--	0.2	
<i>Nanocladius</i>	09021011049	0.33	0.37	3	CG	0.2	0.3
<i>Rheocricotopus</i>	09021011057	0.33	0.37	6	CG	0.2	0.3
<i>Micropsectra</i>	09021011070	0.33	0.37	7	CG	0.2	0.3
<i>Rheotanytarsus</i>	09021011072	1.00	1.10	6	CF	0.7	0.8
<i>Tanytarsus</i>	09021011076	0.33	0.37	6	CF	0.2	0.3
<i>Microtendipes</i>	09021011094	0.33	2.57	6	CF	0.2	1.8
<i>Microtendipes rydalensis group</i>	09021011094168	2.00			--	1.4	
<i>Polypedilum</i>	09021011102		0.37	6	SH		0.3
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.2	
<i>Ancyronyx</i>	09021113063		0.67	6	--		0.5
<i>Ancyronyx variegatus</i>	09021113063034	0.67			CG	0.5	
<i>Macronychus</i>	09021113065		1.00	4	--		0.7
<i>Macronychus glabratus</i>	09021113065040	1.00			--	0.7	
<i>Stenelmis</i>	09021113070	0.33	1.33	5	SC	0.2	0.9
<i>Stenelmis crenata</i>	09021113070055	1.00			--	0.7	
<i>Amnicola</i>	10010104013		26.00		SC		18.0
<i>Amnicola limosa</i>	10010104013018	26.00			--	18.0	
Sphaeriidae	10020201	0.67	0.67		CF	0.5	0.5
<i>Musculium</i>	10020201001		0.33		CF		0.2
<i>Musculium securis</i>	10020201001003	0.33			CF	0.2	