



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

Station Information

Station Number: S-354	River Basin:	Androscoggin
Waterbody: Sunday River - Station 354	HUC8 Name:	Lower Androscoggin
Town: Bethel	Latitude:	44 27 9.91 N
Directions: 60 M ABOVE MARTIN RD.	Longitude:	70 48 42.4 W
	Stream Order:	4

Sample Information

Log Number: 2654	Type of Sample:	ROCK BAG	Date Deployed:	7/16/2018
Subsample Factor: X1	Replicates:	3	Date Retrieved:	8/13/2018

Classification Attainment

Statutory Class: A	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

First Stage Model		C or Better Model	
Class A	0.78	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	0.00
Class C			
	0.00		
NA			
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	254.33	18 Relative Abundance Ephemeroptera	0.15
02 Generic Richness	48.00	19 EPT Generic Richness	22.00
03 Plecoptera Mean Abundance	18.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	1.33
04 Ephemeroptera Mean Abundance	38.67	<i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	
05 Shannon-Wiener Generic Diversity	4.42	23 Relative Generic Richness- Plecoptera	0.13
06 Hilsenhoff Biotic Index	4.21	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	14.33
07 Relative Abundance - Chironomidae	0.40	<i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	
08 Relative Generic Richness Diptera	0.42	26 Sum of Abundances: <i>Acroneuria</i> ,	3.33
09 <i>Hydropsyche</i> Abundance	23.33	<i>Maccaffertium</i> , <i>Stenonema</i>	
11 <i>Cheumatopsyche</i> Abundance	3.00	28 EP Generic Richness/14	1.14
12 EPT Generic Richness/ Diptera	1.10	30 Presence of Class A Indicator Taxa/7	0.43
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	1.00		
Functional Group)			
16 Tanypodinae Mean Abundance	12.00		
(Family Functional Group)			
17 Chironomini Abundance (Family	27.67		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	10.62
2	<i>Polypedilum</i>	10.48
3	<i>Hydropsyche</i>	9.17
4	<i>Rhyacophila</i>	8.52
5	<i>Isoperla</i>	6.29



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Station Number: S-354	Town: Bethel	Date Deployed: 7/16/2018
Log Number: 2654	Waterbody: Sunday River - Station 354	Date Retrieved: 8/13/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	20.3 deg C
Dissolved Oxygen:	8.57 mg/l
Dissolved Oxygen Saturation:	95.3 %
Specific Conductance:	35.9 uS/cm
Velocity:	12.2 cm/s
pH:	6.31
Wetted Width:	9.5 m
Bankfull Width:	27 m
Depth:	50 cm

Waterbody Information - Retrieval

Temperature:	18.5 deg C
Dissolved Oxygen:	9.52 mg/l
Dissolved Oxygen Saturation:	101.5 %
Specific Conductance:	35.1 uS/cm
Velocity:	18.3 cm/s
pH:	6.27
Wetted Width:	11.5 m
Bankfull Width:	27 m
Depth:	47 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Hilly
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Hydrology	Above Town	Gravel 30 %
		Rubble/Cobble 40 %
		Sand 30 %

Landcover Summary - 2004 Data

Sample Comments

FISH, BLOWDOWNS
FROG



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

Station Number: S-354

Waterbody: Sunday River - Station 354

Town: Bethel

Log Number: 2654

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
Lumbriculidae	08020101	0.33	0.33		--	0.1	0.1
<i>Placobdella</i>	08030101006	0.33	0.33		--	0.1	0.1
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	0.3	0.3
<i>Tallaperla</i>	09020206025	0.33	0.33		SH	0.1	0.1
<i>Isoperla</i>	09020207026	16.00	16.00	2	PR	6.3	6.3
<i>Sweltsa</i>	09020208040	0.67	0.67		PR	0.3	0.3
<i>Perlesta</i>	09020209046	0.33	0.33	5	PR	0.1	0.1
<i>Agnetina</i>	09020209050		0.67	2	PR		0.3
<i>Agnetina capitata</i>	09020209050152	0.67		2	PR	0.3	
Baetidae	09020401	1.33			--	0.5	
<i>Acerpenna</i>	09020401007		8.71	5	CG		3.4
<i>Acerpenna macdunnoughi</i>	09020401007001	8.33			--	3.3	
<i>Plauditus</i>	09020401012	6.00	6.27		CG	2.4	2.5
<i>Iswaeon</i>	09020401015		15.68		--		6.2
<i>Iswaeon anoka</i>	09020401015001	15.00			--	5.9	
<i>Maccaffertium</i>	09020402015	3.33	3.33	4	SC	1.3	1.3
Leptophlebiidae	09020406	0.67	0.67		--	0.3	0.3
<i>Neoleptophlebia</i>	09020406027	0.33	0.33		--	0.1	0.1
<i>Ephemerella</i>	09020410035	0.67	0.67	1	CG	0.3	0.3
<i>Eurylophella</i>	09020410036	0.67	0.67	3	CG	0.3	0.3
<i>Serratella</i>	09020410037		0.33	2	CG		0.1
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.1	
<i>Tricorythodes</i>	09020411038	2.00	2.00	4	CG	0.8	0.8
<i>Cheumatopsyche</i>	09020604015	3.00	3.00	5	CF	1.2	1.2
<i>Hydropsyche</i>	09020604016	18.67	23.33	4	CF	7.3	9.2
<i>Hydropsyche bronta</i>	09020604016029	1.33			--	0.5	
<i>Hydropsyche morosa</i>	09020604016030	0.33			--	0.1	
<i>Hydropsyche sparna</i>	09020604016032	2.67			--	1.0	
<i>Hydropsyche scalaris species group</i>	09020604016048	0.33			--	0.1	
<i>Rhyacophila</i>	09020605019		21.67	2	PR		8.5
<i>Rhyacophila minora</i>	09020605019063	21.67			PR	8.5	
<i>Hydroptila</i>	09020607026	0.67	0.67	6	P	0.3	0.3
<i>Brachycentrus</i>	09020609043		14.33	0	CF		5.6
<i>Brachycentrus appalachia</i>	09020609043096	14.00			--	5.5	
<i>Brachycentrus numerosus</i>	09020609043098	0.33			--	0.1	
Limnephilidae	09020610				--		
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.1	0.1



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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>Nigronia</i>	09020701003		0.67	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	0.67			--	0.3	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.1	0.1
<i>Hexatoma</i>	09021001008	0.33	0.33	2	PR	0.1	0.1
Ceratopogonidae	09021010	0.33	0.33		--	0.1	0.1
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	0.33	0.33	8	PR	0.1	0.1
<i>Nilotanytus</i>	09021011012		1.33	6	PR		0.5
<i>Nilotanytus fimbriatus</i>	09021011012027	1.33			--	0.5	
<i>Thienemannimyia</i>	09021011020		10.33	3	PR		4.1
<i>Thienemannimyia group</i>	09021011020041	10.33			--	4.1	
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037		4.67	7	SH		1.8
<i>Cricotopus bicinctus</i>	09021011037057	4.67			--	1.8	
<i>Orthocladius</i>	09021011050		13.67	6	CG		5.4
<i>Orthocladius annectens</i>	09021011050092	13.67			--	5.4	
<i>Parametriocnemus</i>	09021011053	2.33	2.33	5	CG	0.9	0.9
<i>Thienemanniella</i>	09021011062	0.67	0.67	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		5.67	5	CG		2.2
<i>Tvetenia vitracies</i>	09021011065113	5.67			--	2.2	
<i>Micropsectra</i>	09021011070	0.67	0.67	7	CG	0.3	0.3
<i>Rheotanytarsus</i>	09021011072		27.00	6	CF		10.6
<i>Rheotanytarsus exiguus group</i>	09021011072127	26.00			CF	10.2	
<i>Rheotanytarsus pellucidus</i>	09021011072128	1.00			CF	0.4	
<i>Tanytarsus</i>	09021011076	6.33	6.33	6	CF	2.5	2.5
<i>Dicrotendipes</i>	09021011085	0.67	0.67	8	CG	0.3	0.3
<i>Microtendipes</i>	09021011094		0.33	6	CF		0.1
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.1	
<i>Polypedilum</i>	09021011102		26.67	6	SH		10.5
<i>Polypedilum aviceps</i>	09021011102181	25.00			--	9.8	
<i>Polypedilum illinoense group</i>	09021011102185	1.00			--	0.4	
<i>Polypedilum laetum</i>	09021011102186	0.67			--	0.3	
<i>Simulium</i>	09021012047	9.33	9.33	4	CF	3.7	3.7
<i>Atherix</i>	09021015055	1.00	1.00	2	PR	0.4	0.4
<i>Dubiraphia</i>	09021113064	1.00	1.00	6	--	0.4	0.4
<i>Promoresia</i>	09021113069		14.00		--		5.5
<i>Promoresia tardella</i>	09021113069052	14.00			--	5.5	
<i>Stenelmis</i>	09021113070	4.67	4.67	5	SC	1.8	1.8