



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

Station Information

Station Number: S-346	River Basin: Androscoggin
Waterbody: Swift River - Station 346	HUC8 Name: Lower Androscoggin
Town: Roxbury	Latitude: 44 40 57.34 N
Directions: RT. 17	Longitude: 70 36 12.68 W
	Stream Order: 4

Sample Information

Log Number: 2669	Type of Sample: ROCK BAG	Date Deployed: 7/23/2018
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/20/2018

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.51	Class C	0.05
Class B	0.44	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.99
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	190.33	18 Relative Abundance Ephemeroptera	0.20
02 Generic Richness	59.00	19 EPT Generic Richness	31.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	2.67
04 Ephemeroptera Mean Abundance	38.67	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	4.42	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	59.33
06 Hilsenhoff Biotic Index	5.42	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	17.00
07 Relative Abundance - Chironomidae	0.67	28 EP Generic Richness/14	1.29
08 Relative Generic Richness Diptera	0.41	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	0.67		
11 <i>Cheumatopsyche</i> Abundance	2.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.29		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	12.33		
17 Chironomini Abundance (Family Functional Group)	21.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	22.07
2	<i>Orthocladius</i>	13.31
3	<i>Maccaffertium</i>	8.76
4	<i>Polypedilum</i>	8.41
5	<i>Tanytarsus</i>	5.25



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Log Number: 2669 Waterbody: Swift River - Station 346 Date Retrieved: 8/20/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 19.8 deg C
Dissolved Oxygen: 9.77 mg/l
Dissolved Oxygen Saturation: 106.9 %
Specific Conductance: 43 uS/cm
Velocity:
pH: 6.38
Wetted Width: 23 m
Bankfull Width: 35 m
Depth: 83 cm

Waterbody Information - Retrieval

Temperature: 18.5 deg C
Dissolved Oxygen: 10.81 mg/l
Dissolved Oxygen Saturation: 115.2 %
Specific Conductance: 32.2 uS/cm
Velocity:
pH: 6.89
Wetted Width: 24.8 m
Bankfull Width: 35 m
Depth: 68 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Pasture	Open	Hilly	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Main Stem	Boulder	20 %
		Gravel	10 %
		Rubble/Cobble	65 %
		Sand	5 %

Landcover Summary - 2004 Data

Sample Comments

7/23: VISIBLE FLOW
8/20: VISIBLE FLOW, LOTS OF ALGAE ON BAGS



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-346

Waterbody: Swift River - Station 346

Town: Roxbury

Log Number: 2669

Subsample Factor: X1

Replicates: 3

Calculated: 12/12/2018

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Caecidotea</i>	09010101001	0.33	0.33	8	SH	0.2	0.2
<i>Pteronarcys</i>	09020205023	0.33	0.33	0	SH	0.2	0.2
Perlodidae	09020207	0.33	0.33		--	0.2	0.2
<i>Isoperla</i>	09020207026	0.67	0.67	2	PR	0.4	0.4
<i>Acroncuria</i>	09020209042	0.33	0.33	0	PR	0.2	0.2
<i>Acerpenna</i>	09020401007		5.00	5	CG		2.6
<i>Acerpenna macdunnoughi</i>	09020401007001	4.67			--	2.5	
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.2	
<i>Procladius</i>	09020401010	0.33	0.33		CG	0.2	0.2
<i>Plautidius</i>	09020401012	3.00	3.00		CG	1.6	1.6
<i>Iswaeon</i>	09020401015		0.67		--		0.4
<i>Iswaeon anoka</i>	09020401015001	0.67			--	0.4	
<i>Anafroptilum (Centroptilum)</i>	09020401016	0.67	0.67	2	CG	0.4	0.4
<i>Leucrocota</i>	09020402011	1.00	1.00	1	SC	0.5	0.5
<i>Stenacron</i>	09020402014		3.67	7	SC		1.9
<i>Stenacron interpunctatum</i>	09020402014045	3.67			--	1.9	
<i>Maccaffertium</i>	09020402015	7.00	16.67	4	SC	3.7	8.8
<i>Maccaffertium vicarium</i>	09020402015055	9.67			--	5.1	
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
<i>Paraleptophlebia</i>	09020406026	1.00	1.00	1	CG	0.5	0.5
<i>Ephemera</i>	09020407027	0.33	0.33	1	CG	0.2	0.2
<i>Ephemerella</i>	09020410035	1.33	1.33	1	CG	0.7	0.7
<i>Eurylophella</i>	09020410036		0.67	3	CG		0.4
<i>Eurylophella funeralis</i>	09020410036115	0.67			SH	0.4	
<i>Tricorythodes</i>	09020411038	4.00	4.00	4	CG	2.1	2.1
<i>Chimarra</i>	09020601003	2.67	2.67	2	CF	1.4	1.4
Polycentropodidae	09020603	0.67			--	0.4	
<i>Cernotina</i>	09020603006	0.67	1.00		PR	0.4	0.5
<i>Polycentropus</i>	09020603010	0.67	1.00	6	PR	0.4	0.5
<i>Cheumatopsyche</i>	09020604015	2.00	2.00	5	CF	1.1	1.1
<i>Hydropsyche</i>	09020604016	0.33	0.67	4	CF	0.2	0.4
<i>Hydropsyche morosa</i>	09020604016030	0.33			--	0.2	
<i>Macrostemum</i>	09020604018	0.67	0.67	3	CF	0.4	0.4
<i>Rhyacophila</i>	09020605019	0.33	0.33	2	PR	0.2	0.2
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.2	0.2
<i>Oxyethira</i>	09020607028	1.33	1.33	3	P	0.7	0.7
<i>Brachycentrus</i>	09020609043		5.00	0	CF		2.6



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		Actual	Adjusted			Actual	Adjusted
<i>Brachycentrus appalachia</i>	09020609043096	5.00			--	2.6	
<i>Psilotreta</i>	09020614068		2.67	0	SC		1.4
<i>Psilotreta labida</i>	09020614068133	2.67			--	1.4	
<i>Molanna</i>	09020615069	0.33	0.33	6	SC	0.2	0.2
<i>Mystacides</i>	09020618075		0.33	4	CG		0.2
<i>Mystacides sepulchralis</i>	09020618075147	0.33			--	0.2	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.2	
<i>Bezzia/palpomyia</i>	09021010043	0.67	0.67	6	PR	0.4	0.4
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	5.33	5.33	8	PR	2.8	2.8
<i>Nilotanytus</i>	09021011012	0.67	0.67	6	PR	0.4	0.4
<i>Paramerina</i>	09021011013	2.67	2.67		--	1.4	1.4
<i>Thienemannimyia</i>	09021011020		2.00	3	PR		1.1
<i>Thienemannimyia group</i>	09021011020041	2.00			--	1.1	
<i>Trissopelopia</i>	09021011021	1.67	1.67		PR	0.9	0.9
<i>Pagastia</i>	09021011025	0.33	0.33	1	--	0.2	0.2
<i>Potthastia</i>	09021011026		2.67	2	CG		1.4
<i>Potthastia gaedii</i>	09021011026045	2.67			--	1.4	
<i>Corynoneura</i>	09021011036	2.67	2.67	7	CG	1.4	1.4
<i>Cricotopus</i>	09021011037	2.00	42.00	7	SH	1.1	22.1
<i>Cricotopus bicinctus</i>	09021011037057	40.00			--	21.0	
<i>Heterotrissocladius</i>	09021011044		0.67	0	CG		0.4
<i>Heterotrissocladius marcidus</i>	09021011044083	0.67			--	0.4	
<i>Orthocladius</i>	09021011050	0.67	25.33	6	CG	0.4	13.3
<i>Orthocladius annectens</i>	09021011050092	24.67			--	13.0	
<i>Parametriocnemus</i>	09021011053	0.67	0.67	5	CG	0.4	0.4
<i>Psectrocladius</i>	09021011056	0.67	0.67	8	CG	0.4	0.4
<i>Thienemanniella</i>	09021011062	0.67	0.67	6	CG	0.4	0.4
<i>Micropsectra</i>	09021011070	1.33	1.33	7	CG	0.7	0.7
<i>Paratanytarsus</i>	09021011071	2.00	2.00	6	--	1.1	1.1
<i>Rheotanytarsus</i>	09021011072		5.33	6	CF		2.8
<i>Rheotanytarsus exiguus group</i>	09021011072127	3.33			CF	1.8	
<i>Rheotanytarsus pellucidus</i>	09021011072128	2.00			CF	1.1	
<i>Tanytarsus</i>	09021011076	10.00	10.00	6	CF	5.3	5.3
<i>Dicrotendipes</i>	09021011085	1.33	1.33	8	CG	0.7	0.7
<i>Microtendipes</i>	09021011094	0.67	3.67	6	CF	0.4	1.9
<i>Microtendipes pedellus group</i>	09021011094166	1.00			--	0.5	



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		Actual	Adjusted			Actual	Adjusted
<i>Microtendipes rydalensis group</i>	09021011094168	2.00			--	1.1	
<i>Phaenopsectra</i>	090210111101	0.67	0.67	7	SC	0.4	0.4
<i>Polypedilum</i>	090210111102		16.00	6	SH		8.4
<i>Polypedilum aviceps</i>	09021011102181	15.33			--	8.1	
<i>Polypedilum illinoense group</i>	09021011102185	0.67			--	0.4	
Empididae	09021016	0.33	0.33	6	--	0.2	0.2
<i>Dubiraphia</i>	09021113064	1.00	1.00	6	--	0.5	0.5
<i>Stenelmis</i>	09021113070	0.67	0.67	5	SC	0.4	0.4