



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

Station Information

Station Number: S-343	River Basin:	Androscoggin
Waterbody: Aunt Hannah Brook - Station 343	HUC8 Name:	Lower Androscoggin
Town: Dixfield	Latitude:	44 33 32.02 N
Directions: 15 M BELOW RT. 142 CROSSING	Longitude:	70 27 7.63 W
	Stream Order:	2

Sample Information

Log Number: 2673	Type of Sample: ROCK BAG	Date Deployed: 7/24/2018
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/22/2018

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.89	Class A, B, or C	1.00
Class B	0.11	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
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	457.67	18 Relative Abundance Ephemeroptera	0.41
02 Generic Richness	66.00	19 EPT Generic Richness	28.00
03 Plecoptera Mean Abundance	6.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	40.55
04 Ephemeroptera Mean Abundance	188.67	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	4.11	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	39.53
06 Hilsenhoff Biotic Index	3.58	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	6.67
07 Relative Abundance - Chironomidae	0.43	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.33		
12 EPT Generic Richness/ Diptera	1.27		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	2.00		
Functional Group)			
16 Tanypodinae Mean Abundance	66.23		
(Family Functional Group)			
17 Chironomini Abundance (Family	42.58		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Paraleptophlebia</i>	28.09
2	<i>Thienemannimyia</i>	10.48
3	<i>Micropsectra</i>	8.86
4	<i>Tanytarsus</i>	7.53
5	<i>Habrophlebia</i>	5.03



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	19 deg C
Dissolved Oxygen:	9.92 mg/l
Dissolved Oxygen Saturation:	105.4 %
Specific Conductance:	49.3 uS/cm
Velocity:	9.1 cm/s
pH:	6.97
Wetted Width:	6.5 m
Bankfull Width:	9.4 m
Depth:	25 cm

Waterbody Information - Retrieval

Temperature:	16.3 deg C
Dissolved Oxygen:	9.72 mg/l
Dissolved Oxygen Saturation:	99.7 %
Specific Conductance:	52.9 uS/cm
Velocity:	
pH:	6.72
Wetted Width:	5.9 m
Bankfull Width:	9.4 m
Depth:	18 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Pasture

Swamp Hardwood

Upland Hardwood

Potential Stressor

Canopy Cover

Dense

Terrain

Hilly

Location

Below Road Crossing

Substrate

Boulder	10 %
Gravel	30 %
Rubble/Cobble	40 %
Sand	20 %

Landcover Summary - 2004 Data

Sample Comments

Banks undercut. 8/22 : Flow visible.



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Town: Dixfield

Log Number: 2673

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
Hydridae	02010101	0.33	0.33		--	0.1	0.1
Lumbriculidae	08020101	0.67	0.67		--	0.1	0.1
<i>Nais</i>	08020202009	0.33	0.33		CG	0.1	0.1
<i>Leuctra</i>	09020204020	1.33	1.33	0	SH	0.3	0.3
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Isoperla</i>	09020207026	2.33	2.33	2	PR	0.5	0.5
Chloroperlidae	09020208	0.33	0.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042	1.67	2.00	0	PR	0.4	0.4
<i>Acroneuria carolinensis</i>	09020209042123	0.33			--	0.1	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.1
<i>Boyeria grafiana</i>	09020301004011	0.67			--	0.1	
<i>Lanthus</i>	09020302014		0.33		PR		0.1
<i>Lanthus parvulus</i>	09020302014030	0.33			--	0.1	
<i>Cordulegaster</i>	09020303019	2.00	2.00	3	PR	0.4	0.4
Corduliidae	09020305	2.33	2.33		--	0.5	0.5
<i>Calopteryx</i>	09020307043	0.67	0.67	5	PR	0.1	0.1
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.1
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.1	
<i>Leucrocota</i>	09020402011	3.33	3.33	1	SC	0.7	0.7
<i>Stenacron</i>	09020402014	0.33	0.33	7	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	1.33	4.67	4	SC	0.3	1.0
<i>Maccaffertium pudicum</i>	09020402015052	3.33			--	0.7	
Leptophlebiidae	09020406	79.67			--	17.4	
<i>Habrophlebia</i>	09020406023		23.01		--		5.0
<i>Habrophlebia vibrans</i>	09020406023072	11.33			--	2.5	
<i>Habrophlebiodes</i>	09020406024		2.71	6	SC		0.6
<i>Habrophlebiodes americana</i>	09020406024073	1.33			--	0.3	
<i>Paraleptophlebia</i>	09020406026	63.33	128.58	1	CG	13.8	28.1
<i>Neoleptophlebia</i>	09020406027	1.33	2.71		--	0.3	0.6
<i>Ephemerella</i>	09020410035	1.33	1.33	1	CG	0.3	0.3
<i>Eurylophella</i>	09020410036	7.00	21.67	3	CG	1.5	4.7
<i>Eurylophella funeralis</i>	09020410036115	14.67			SH	3.2	
Polycentropodidae	09020603	3.33			--	0.7	
<i>Nyctiophylax</i>	09020603009	0.33	0.67	5	PR	0.1	0.1
<i>Polycentropus</i>	09020603010	3.00	6.00	6	PR	0.7	1.3
<i>Cheumatopsyche</i>	09020604015	0.33	0.33	5	CF	0.1	0.1
<i>Rhyacophila</i>	09020605019		0.33	2	PR		0.1



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		Actual	Adjusted			Actual	Adjusted
<i>Rhyacophila acutiloba</i>	09020605019056	0.33			PR	0.1	
<i>Oxyethira</i>	09020607028			3	P		
<i>Oligostomis</i>	09020608039	0.67	0.67	2	PR	0.1	0.1
<i>Micrasema</i>	09020609044	0.33	0.33	2	SH	0.1	0.1
Limnephilidae	09020610	0.33	0.33		--	0.1	0.1
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	12.67	12.67	1	SH	2.8	2.8
<i>Psilotreta</i>	09020614068	0.67	0.67	0	SC	0.1	0.1
<i>Molanna</i>	09020615069	8.67	8.67	6	SC	1.9	1.9
<i>Mystacides</i>	09020618075		13.33	4	CG		2.9
<i>Mystacides sepulchralis</i>	09020618075147	13.33			--	2.9	
<i>Apatania</i>	09020619061	0.33	0.33		SC	0.1	0.1
<i>Nigronia</i>	09020701003		0.67	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.67			--	0.1	
<i>Sialis</i>	09020702004	1.33	1.33	4	PR	0.3	0.3
Ceratopogonidae	09021010	0.67	0.67		--	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.1	0.1
Chironomidae	09021011	2.67			--	0.6	
<i>Labrundinia</i>	09021011008		1.35	7	PR		0.3
<i>Labrundinia pilosella</i>	09021011008022	1.33			--	0.3	
<i>Paramerina</i>	09021011013	8.67	8.79		--	1.9	1.9
<i>Pentaneura</i>	09021011014	0.67	0.68	6	PR	0.1	0.1
<i>Thienemannimyia</i>	09021011020		47.98	3	PR		10.5
<i>Thienemannimyia group</i>	09021011020041	47.33			--	10.3	
<i>Trissopelopia</i>	09021011021	2.67	2.70		PR	0.6	0.6
<i>Zavrelimyia</i>	09021011022	4.67	4.73	8	PR	1.0	1.0
<i>Cricotopus</i>	09021011037		4.73	7	SH		1.0
<i>Cricotopus bicinctus</i>	09021011037057	4.67			--	1.0	
<i>Heterotrissocladius</i>	09021011044	1.33	1.35	0	CG	0.3	0.3
<i>Orthocladius</i>	09021011050		2.37	6	CG		0.5
<i>Orthocladius lignicola</i>	09021011050100	2.33			--	0.5	
<i>Parametriocnemus</i>	09021011053	2.00	2.03	5	CG	0.4	0.4
<i>Micropsectra</i>	09021011070	40.00	40.55	7	CG	8.7	8.9
<i>Stempellinella</i>	09021011074	2.67	2.70	2	--	0.6	0.6
<i>Tanytarsus</i>	09021011076	34.00	34.47	6	CF	7.4	7.5
<i>Microtendipes</i>	09021011094		16.22	6	CF		3.5
<i>Microtendipes pedellus group</i>	09021011094166	6.00			--	1.3	
<i>Microtendipes rydalensis group</i>	09021011094168	10.00			--	2.2	



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<i>Phaenopsectra</i>	09021011101	16.67	16.90	7	SC	3.6	3.7
<i>Polypedilum</i>	09021011102		9.46	6	SH		2.1
<i>Polypedilum aviceps</i>	09021011102181	2.67			--	0.6	
<i>Polypedilum laetum</i>	09021011102186	1.33			--	0.3	
<i>Polypedilum tritum</i>	09021011102191	5.33			--	1.2	
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.1	0.1
Tabanidae	09021014	0.33	0.33		--	0.1	0.1
Empididae	09021016			6	--		
<i>Roederiodes</i>	09021016058	0.67	0.67	3	PR	0.1	0.1
<i>Neoplasia</i>	09021016064	0.33	0.33		PR	0.1	0.1
<i>Ectopria</i>	09021109059		0.33	5	SC		0.1
<i>Ectopria nervosa</i>	09021109059029	0.33			--	0.1	
<i>Optioservus</i>	09021113067	0.67	0.67	3	SC	0.1	0.1
<i>Promoresia</i>	09021113069		5.00		--		1.1
<i>Promoresia tardella</i>	09021113069052	5.00			--	1.1	
<i>Gyraulius</i>	10010203029	0.33	0.33		SC	0.1	0.1
<i>Ferrissia</i>	10010204035	0.67	0.67		SC	0.1	0.1
<i>Pisidium</i>	10020201002	2.00	2.00		CF	0.4	0.4