

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

**Station Information**

<b>Station Number:</b> S343	DEP Drainage: Androscoggin
Waterbody: Aunt Hanna Brook	HUC Code: 01040002
Town: DIXFIELD	HUC Name: Lower Androscoggin
Directions: 15 m below Rt. 142 crossing	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 1262	Type of Sample: Riffle Bags	Date Deployed: 29-JUL-03
Subsample Factor: X4	Replicates: 3	Date Retrieved: 26-AUG-03

**Classification Attainment**

Statutory Class: B	<b>Final Determination:</b> A	
Model Result with P > .6: A	Reason for Determination: Model	
Date Last Calculated:		

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.70	Class A, B, or C	1.00
Class B	0.29	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.96
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.04

**Model Variables**

01 Total Abundance of Individuals	600.00	18 Relative Abundance - Ephemeroptera	0.24
02 Generic Richness	65.00	19 EPT Generic Richness	23.00
03 Plecoptera Abundance	29.33	21 Sum of Abundances: <i>Dicrotendipes</i> ,	90.17
04 Ephemeroptera Abundance	142.67	<i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	
05 Shannon - Wiener Diversity	4.75	23 Relative Generic Richness- Plecoptera	0.09
06 Hilsenhoff Biotic Index	4.91	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	17.48
07 Relative Abundance - Chironomidae	0.46	<i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.43	26 Sum of Abundances: <i>Acroneuria</i> , <i>Stenonema</i>	8.00
09 <i>Hydropsyche</i> Abundance	1.33	28 EP Generic Richness/14	0.79
11 <i>Cheumatopsyche</i> Abundance	14.67	30 Presence of Class A Indicator Taxa/7	0.29
12 EPT Generic Richness/ Diptera Generic Richness	0.82		

**Five Most Dominant Taxa**

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.02	1	Leptophlebiidae	15.78
15 Perlidae Abundance (Family Functional Group)	2.67	2	Micropsectra	15.03
16 Tanypodinae Abundance (Family Functional Group)	23.95	3	Polypedilum	11.74
17 Chironomini Abundance (Family Functional Group)	92.99	4	Eurylophella	5.56
		5	Rheotanytarsus	3.76

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**Sample Collection and Processing Information**

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Sampling Organization:  
Taxonomist: Michael Winnell

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**Waterbody Information**

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Water Temperature:	16.3 °C	Specific Conductance	37.0 uS/cm	Channel Width:	6.8 m
Velocity:	10 cm/s	Dissolved Oxygen:	8.0 ppm	Channel Depth:	20.0 cm

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**Summary of Habitat Characteristics**

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<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Pasture	Dense		Below Road Crossing
Swamp Hardwood			
Upland Hardwood			

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**Substrate**

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

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**Comments about the Station or Sample**

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8/26/03 Data:  
Flow: 12.1cm/s; Depth: 18cm; Temp: 15.5C; SPC: 33uS/cm; DO: 8.5mg/L; pH: 7.35

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**Comments about the Final Determination**

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**BioME Aquatic Life Taxonomic Inventory Report**

Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Nematoda</i>	05	1.33	1.33		--	0.2	0.2
<i>Nais</i>	08020202009	0.00	5.33		CG	0.0	0.9
<i>Nais behningi</i>	08020202009003	2.67	0.00		--	0.4	0.0
<i>Nais communis</i>	08020202009005	2.67	0.00		--	0.4	0.0
<i>Stylodrilus</i>	08020203011	0.00	9.33		--	0.0	1.6
<i>Stylodrilus heringianus</i>	08020203011001	9.33	0.00		--	1.6	0.0
<i>Gloiobdella</i>	08030101009	0.00	5.33		--	0.0	0.9
<i>Gloiobdella elongata</i>	08030101009001	5.33	0.00		--	0.9	0.0
<i>Leuctra</i>	09020204020	2.67	6.67	0	SH	0.4	1.1
<i>Leuctra truncata</i>	09020204020058	4.00	0.00		--	0.7	0.0
<i>Pteronarcys</i>	09020205023	0.00	12.00	0	SH	0.0	2.0
<i>Pteronarcys biloba</i>	09020205023061	12.00	0.00		--	2.0	0.0
<i>Perlodidae</i>	09020207	2.67	2.67		--	0.4	0.4
<i>Isoperla</i>	09020207026	4.00	4.00	2	PR	0.7	0.7
<i>Sweltsa</i>	09020208040	1.33	1.33		PR	0.2	0.2
<i>Acroneturia</i>	09020209042	2.67	2.67	0	PR	0.4	0.4
<i>Boyeria</i>	09020301004	2.67	2.67	2	PR	0.4	0.4
<i>Cordulegaster</i>	09020303019	0.00	8.00	3	PR	0.0	1.3
<i>Cordulegaster maculata</i>	09020303019042	8.00	0.00		--	1.3	0.0
<i>Stenacron</i>	09020402014	1.33	1.33	7	SC	0.2	0.2
<i>Stenonema</i>	09020402015	1.33	5.33	4	SC	0.2	0.9
<i>Stenonema luteum</i>	09020402015049	4.00	0.00		--	0.7	0.0
<i>Leptophlebiidae</i>	09020406	94.67	94.67		--	15.8	15.8
<i>Ephemerellidae</i>	09020410	8.00	8.00		--	1.3	1.3
<i>Eurylophella</i>	09020410036	33.33	33.33	3	CG	5.6	5.6
<i>Lype</i>	09020602004	0.00	1.33	2	SC	0.0	0.2
<i>Lype diversa</i>	09020602004005	1.33	0.00		--	0.2	0.0
<i>Polycentropus</i>	09020603010	10.67	10.67	6	PR	1.8	1.8
<i>Cheumatopsyche</i>	09020604015	14.67	14.67	5	CF	2.4	2.4
<i>Hydropsyche</i>	09020604016	1.33	1.33	4	CF	0.2	0.2
<i>Rhyacophila</i>	09020605019	0.00	2.67	2	PR	0.0	0.4
<i>Rhyacophila acutiloba</i>	09020605019056	1.33	0.00		PR	0.2	0.0
<i>Rhyacophila carolina</i>	09020605019057	1.33	0.00		PR	0.2	0.0
<i>Micrasema</i>	09020609044	0.00	6.67	2	SH	0.0	1.1
<i>Micrasema rusticum-grp.</i>	09020609044100	6.67	0.00		--	1.1	0.0
<i>Limnephilidae</i>	09020610	6.67	6.67		--	1.1	1.1
<i>Neophylax</i>	09020610062	1.33	1.33	3	SC	0.2	0.2
<i>Lepidostoma</i>	09020611064	10.67	10.67	1	SH	1.8	1.8

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		Actual	Adjusted			Actual	Adjusted
<i>Psilotreta</i>	09020614068	1.33	1.33	0	SC	0.2	0.2
<i>Mystacides</i>	09020618075	0.00	5.33	4	CG	0.0	0.9
<i>Mystacides sepulchralis</i>	09020618075147	5.33	0.00		--	0.9	0.0
<i>Goera</i>	09020620063	0.00	1.33	0	SC	0.0	0.2
<i>Goera fuscula</i>	09020620063125	1.33	0.00		--	0.2	0.0
<i>Nigronia</i>	09020701003	0.00	4.00	0	PR	0.0	0.7
<i>Nigronia serricornis</i>	09020701003003	4.00	0.00		--	0.7	0.0
<i>Sialis</i>	09020702004	2.67	2.67	4	PR	0.4	0.4
<i>Tipulidae</i>	09021001	1.33	1.33		--	0.2	0.2
<i>Bezzia/Palpomyia</i>	09021010043	14.67	14.67	6	PR	2.4	2.4
<i>Chironomidae</i>	09021011	14.67	0.00		--	2.4	0.0
<i>Meropelopia</i>	09021011010	5.33	5.64		--	0.9	0.9
<i>Paramerina</i>	09021011013	4.00	4.23		--	0.7	0.7
<i>Rheopelopia</i>	09021011017	1.33	1.41		PR	0.2	0.2
<i>Trissopelopia</i>	09021011021	0.00	11.27		PR	0.0	1.9
<i>Trissopelopia ogemawi</i>	09021011021042	10.67	0.00		--	1.8	0.0
<i>Zavreliomyia</i>	09021011022	1.33	1.41	8	PR	0.2	0.2
<i>Pagastia</i>	09021011025	0.00	4.23	1	--	0.0	0.7
<i>Pagastia orthogonia</i>	09021011025001	4.00	0.00		--	0.7	0.0
<i>Brillia</i>	09021011033	1.33	2.82	5	SH	0.2	0.5
<i>Brillia flavifrons</i>	09021011033049	1.33	0.00		--	0.2	0.0
<i>Corynoneura</i>	09021011036	2.67	2.82	7	CG	0.4	0.5
<i>Eukiefferiella</i>	09021011041	0.00	1.41	8	CG	0.0	0.2
<i>Eukiefferiella devonica</i>	09021011041078	1.33	0.00		--	0.2	0.0
<i>Nanocladius</i>	09021011049	4.00	4.23	3	CG	0.7	0.7
<i>Orthocladius</i>	09021011050	1.33	1.41	6	CG	0.2	0.2
<i>Parachaetocladius</i>	09021011051	1.33	1.41		CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	10.67	11.27	5	CG	1.8	1.9
<i>Rheocricotopus</i>	09021011057	0.00	7.04	6	CG	0.0	1.2
<i>Rheocricotopus eminellobus</i>	09021011057109	6.67	0.00		--	1.1	0.0
<i>Synorthocladius</i>	09021011061	1.33	1.41	2	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	1.33	1.41	6	CG	0.2	0.2
<i>Micropsectra</i>	09021011070	85.33	90.17	7	CG	14.2	15.0
<i>Rheotanytarsus</i>	09021011072	21.33	22.54	6	CF	3.6	3.8
<i>Stempellinella</i>	09021011074	1.33	1.41	2	--	0.2	0.2
<i>Tanytarsus</i>	09021011076	2.67	2.82	6	CF	0.4	0.5
<i>Microtendipes</i>	09021011094	0.00	14.09	6	CF	0.0	2.3
<i>Microtendipes pedellus-grp.</i>	09021011094166	12.00	0.00		--	2.0	0.0

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<i>Microtendipes rydalensis-grp.</i>	09021011094168	1.33	0.00		--	0.2	0.0
<i>Nilothauma</i>	09021011095	1.33	1.41	2	--	0.2	0.2
<i>Phaenopsectra</i>	09021011101	0.00	5.64	7	SC	0.0	0.9
<i>Phaenopsectra obediens-grp.</i>	09021011101180	5.33	0.00		--	0.9	0.0
<i>Polypedilum</i>	09021011102	0.00	70.45	6	SH	0.0	11.7
<i>Polypedilum aviceps</i>	09021011102181	60.00	0.00		--	10.0	0.0
<i>Polypedilum illinoense-grp.</i>	09021011102185	6.67	0.00		--	1.1	0.0
<i>Stenochironomus</i>	09021011105	1.33	1.41	5	CG	0.2	0.2
<i>Wiedemannia</i>	09021016059	2.67	2.67	3	PR	0.4	0.4
<i>Ectopria</i>	09021109059	4.00	4.00	5	SC	0.7	0.7
<i>Optioservus</i>	09021113067	6.67	6.67	3	SC	1.1	1.1
<i>Promoresia</i>	09021113069	0.00	14.67		--	0.0	2.4
<i>Promoresia tardella</i>	09021113069052	14.67	0.00		--	2.4	0.0
<i>Physa</i>	10010202026	2.67	2.67		SC	0.4	0.4
<i>Sphaeriidae</i>	10020201	1.33	1.33		SC	0.2	0.2
<i>Pisidium</i>	10020201002	2.67	4.00		CF	0.4	0.7
<i>Pisidium walkeri</i>	10020201002017	1.33	0.00		--	0.2	0.0