

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

Station Information

Station Number: S633	DEP Drainage: Androscoggin
Waterbody: Unnamed Stream (Topsham 2)	HUC Code: 01040002
Town: TOPSHAM	HUC Name: Lower Androscoggin
Directions: dwnstrm of Rt 24 crossing	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

Sample Information

Log Number: 1564	Type of Sample: Riffle Bags	Date Deployed: 17-JUL-06
Subsample Factor: X1	Replicates: 3	Date Retrieved: 14-AUG-06

Classification Attainment

Statutory Class: B	Final Determination: 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	0.67	Class A, B, or C	1.00
Class B	0.32	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.84
Class A or B	1.00	Class B or C or Non-Attainment	0.16
Class C or Non-Attainment	0.00		

Model Variables

01 Total Abundance of Individuals	342.67	18 Relative Abundance - Ephemeroptera	0.06
02 Generic Richness	56.00	19 EPT Generic Richness	17.00
03 Plecoptera Abundance	12.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	28.80
04 Ephemeroptera Abundance	22.00	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	4.33	23 Relative Generic Richness- Plecoptera	0.07
06 Hilsenhoff Biotic Index	4.80	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	0.67
07 Relative Abundance - Chironomidae	0.42	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.46	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	0.00	28 EP Generic Richness/14	0.71
11 <i>Cheumatopsyche</i> Abundance	0.00	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.65		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.03	1	Caecidotea	18.00
15 Perlidae Abundance (Family Functional Group)	0.00	2	Parametriocnemus	14.07
16 Tanypodinae Abundance (Family Functional Group)	9.71	3	Parapsyche	10.50
17 Chironomini Abundance (Family Functional Group)	19.76	4	Micropsectra	8.40
		5	Synurella	4.86

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Log Number: 1564 Waterbody: Unnamed Stream (Topsham 2) Date Retrieved: 14-AUG-06

Sample Collection and Processing Information

Sampling Organization: DEP
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 15.6 °C	Specific Conductance 233.0 uS/cm	Channel Width: 2.3 m
Velocity: 24 cm/s	Dissolved Oxygen: 7.8 ppm	Channel Depth: 19.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Upland Hardwood Urban	Dense		Not Designated

Substrate

Sand	Detritus
90%	10%

Comments about the Station or Sample

8/14/06: Width: 2.46m; Flow: 28cm/s; Depth: 17cm; T: 13.6C; SPC: 228uS/cm; DO: 10.17mg/L; pH: 6.76.

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>Enchytraeidae</i>	08020201	0.67	0.67		--	0.2	0.2
<i>Nais</i>	08020202009	0.00	3.33		CG	0.0	1.0
<i>Nais behningi</i>	08020202009003	2.00	0.00		--	0.6	0.0
<i>Nais communis</i>	08020202009005	1.33	0.00		--	0.4	0.0
<i>Pristinella</i>	08020202016	0.00	0.33		--	0.0	0.1
<i>Pristinella jenkiniae</i>	08020202016002	0.33	0.00		--	0.1	0.0
<i>Tubificidae</i>	08020203	1.67	0.00		--	0.5	0.0
<i>Ilyodrilus</i>	08020203003	0.00	0.54		--	0.0	0.2
<i>Ilyodrilus templetoni</i>	08020203003001	0.33	0.00		--	0.1	0.0
<i>Stylodrilus</i>	08020203011	0.00	3.79		--	0.0	1.1
<i>Stylodrilus heringianus</i>	08020203011001	2.33	0.00		--	0.7	0.0
<i>Lumbricidae</i>	08020205	1.00	1.00		--	0.3	0.3
<i>Caecidotea</i>	09010101001	49.67	61.67	8	SH	14.5	18.0
<i>Caecidotea racovitzai</i>	09010101001002	12.00	0.00		--	3.5	0.0
<i>Gammarus</i>	09010201003	0.00	0.67	4	--	0.0	0.2
<i>Gammarus fasciatus</i>	09010201003003	0.67	0.00		--	0.2	0.0
<i>Synurella</i>	09010202006	0.00	16.67		--	0.0	4.9
<i>Synurella chamberlaini</i>	09010202006001	16.67	0.00		--	4.9	0.0
<i>Nemoura</i>	09020201002	6.33	6.33	1	SH	1.8	1.8
<i>Capniidae</i>	09020203	0.33	0.33		--	0.1	0.1
<i>Leuctra</i>	09020204020	1.33	5.00	0	SH	0.4	1.5
<i>Leuctra truncata</i>	09020204020058	3.67	0.00		--	1.1	0.0
<i>Perlodidae</i>	09020207	0.33	0.33		--	0.1	0.1
<i>Baetidae</i>	09020401	1.33	1.33		--	0.4	0.4
<i>Baetis</i>	09020401001	0.67	15.67	4	CG	0.2	4.6
<i>Baetis pluto</i>	09020401001009	15.00	0.00		--	4.4	0.0
<i>Leptophlebiidae</i>	09020406	1.67	1.67		--	0.5	0.5
<i>Paraleptophlebia</i>	09020406026	1.33	1.33	1	CG	0.4	0.4
<i>Ephemerellidae</i>	09020410	0.33	0.33		--	0.1	0.1
<i>Ephemerella</i>	09020410035	1.67	1.67	1	CG	0.5	0.5
<i>Hydropsychidae</i>	09020604	8.00	0.00		--	2.3	0.0
<i>Parapsyche</i>	09020604013	0.00	35.97	0	CF	0.0	10.5
<i>Parapsyche apicalis</i>	09020604013023	29.33	0.00		--	8.6	0.0
<i>Diplectrona</i>	09020604014	0.00	7.36	0	CF	0.0	2.1
<i>Diplectrona modesta</i>	09020604014025	6.00	0.00		--	1.8	0.0
<i>Rhyacophila</i>	09020605019	1.00	1.33	2	PR	0.3	0.4

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		Actual	Adjusted			Actual	Adjusted
<i>Rhyacophila nigrita</i>	09020605019064	0.33	0.00		PR	0.1	0.0
<i>Oligostomis</i>	09020608039	0.33	0.33	2	PR	0.1	0.1
<i>Limnephilidae</i>	09020610	1.00	1.00		--	0.3	0.3
<i>Limnephilus</i>	09020610055	0.33	0.33	3	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	0.67	0.67	1	SH	0.2	0.2
<i>Chauliodes</i>	09020701001	0.00	0.33	4	PR	0.0	0.1
<i>Chauliodes rastricornis</i>	09020701001002	0.33	0.00		--	0.1	0.0
<i>Tipula</i>	09021001002	5.67	5.67	4	SH	1.7	1.7
<i>Dicranota</i>	09021001005	12.33	12.33	3	PR	3.6	3.6
<i>Limnophila</i>	09021001009	1.67	1.67	3	PR	0.5	0.5
<i>Chironomidae</i>	09021011	0.67	0.00		--	0.2	0.0
<i>Meropelopia</i>	09021011010	8.33	8.37		--	2.4	2.4
<i>Natarsia</i>	09021011011	0.00	1.34	8	PR	0.0	0.4
<i>Natarsia baltimorea</i>	09021011011026	1.33	0.00		--	0.4	0.0
<i>Prodiamesa</i>	09021011031	0.00	7.70	3	CG	0.0	2.2
<i>Prodiamesa olivacea</i>	09021011031048	7.67	0.00		--	2.2	0.0
<i>Brillia</i>	09021011033	0.33	12.39	5	SH	0.1	3.6
<i>Brillia flavifrons</i>	09021011033049	3.33	0.00		--	1.0	0.0
<i>Brillia parva</i>	09021011033050	8.67	0.00		--	2.5	0.0
<i>Chaetocladius</i>	09021011035	0.67	0.67	6	CG	0.2	0.2
<i>Eukiefferiella</i>	09021011041	0.00	0.67	8	CG	0.0	0.2
<i>Eukiefferiella claripennis-grp.</i>	09021011041075	0.67	0.00		--	0.2	0.0
<i>Heterotrissocladius</i>	09021011044	0.00	3.01	0	CG	0.0	0.9
<i>Heterotrissocladius marcidus</i>	09021011044083	3.00	0.00		--	0.9	0.0
<i>Parametriocnemus</i>	09021011053	48.00	48.22	5	CG	14.0	14.1
<i>Rheocricotopus</i>	09021011057	0.67	0.67	6	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	0.00	0.67	6	CG	0.0	0.2
<i>Thienemanniella xena</i>	09021011062110	0.67	0.00		--	0.2	0.0
<i>Tvetenia</i>	09021011065	0.00	0.67	5	CG	0.0	0.2
<i>Tvetenia paucunca</i>	09021011065114	0.67	0.00		--	0.2	0.0
<i>Micropsectra</i>	09021011070	28.67	28.80	7	CG	8.4	8.4
<i>Rheotanytarsus</i>	09021011072	6.00	6.03	6	CF	1.8	1.8
<i>Tanytarsus</i>	09021011076	0.67	0.67	6	CF	0.2	0.2
<i>Polypedilum</i>	09021011102	0.00	6.03	6	SH	0.0	1.8
<i>Polypedilum aviceps</i>	09021011102181	2.00	0.00		--	0.6	0.0
<i>Polypedilum fallax-grp.</i>	09021011102183	0.67	0.00		--	0.2	0.0
<i>Polypedilum illinoense-grp.</i>	09021011102185	0.67	0.00		--	0.2	0.0

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		<i>Polypedilum scalaenum-grp.</i>	09021011102189			2.67	0.00
<i>Stictochironomus</i>	090210111106	12.33	12.39	9	CG	3.6	3.6
<i>Tribelos</i>	090210111107	0.00	1.34	5	CG	0.0	0.4
<i>Tribelos jucundum</i>	09021011107198	1.33	0.00		--	0.4	0.0
<i>Macropelopia</i>	090210111111	0.00	0.67		P	0.0	0.2
<i>Macropelopia decedens</i>	090210111111002	0.67	0.00		--	0.2	0.0
<i>Brundiniella</i>	090210111115	0.00	5.02		--	0.0	1.5
<i>Brundiniella eumorpha</i>	09021011115001	5.00	0.00		--	1.5	0.0
<i>Simulium</i>	09021012047	1.33	2.33	4	CF	0.4	0.7
<i>Simulium tuberosum</i>	09021012047067	1.00	0.00		--	0.3	0.0
<i>Odontomyia</i>	09021013051	0.00	2.67		CG	0.0	0.8
<i>Odontomyia fulva</i>	09021013051001	2.67	0.00		--	0.8	0.0
<i>Chrysops</i>	09021014052	0.33	0.33	6	CG	0.1	0.1
<i>Neoplasta</i>	09021016064	0.33	0.33		PR	0.1	0.1
<i>Agabus</i>	09021103016	1.00	1.00		PR	0.3	0.3
<i>Hydrozetes</i>	09030115001	0.67	0.67		--	0.2	0.2
<i>Pseudosuccinea</i>	10010201023	0.00	0.33		SC	0.0	0.1
<i>Pseudosuccinea columella</i>	10010201023038	0.33	0.00		--	0.1	0.0