

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

Station Information

Station Number: S695	DEP Drainage: Androscoggin
Waterbody: Gully Brook	HUC Code: 01040002
Town: AUBURN	HUC Name: Lower Androscoggin
Directions: Pettengill Park	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 1

Sample Information

Log Number: 1229	Type of Sample: Riffle Bags	Date Deployed: 16-JUL-03
Subsample Factor: X1	Replicates: 3	Date Retrieved: 13-AUG-03

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	0.74	Class A, B, or C	1.00
Class B	0.24	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.91
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.09

Model Variables

01 Total Abundance of Individuals	299.33	18 Relative Abundance - Ephemeroptera	0.02
02 Generic Richness	69.00	19 EPT Generic Richness	17.00
03 Plecoptera Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	26.62
04 Ephemeroptera Abundance	5.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	4.48	23 Relative Generic Richness- Plecoptera	0.03
06 Hilsenhoff Biotic Index	4.61	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	1.71
07 Relative Abundance - Chironomidae	0.52	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.54	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.33
09 <i>Hydropsyche</i> Abundance	2.06	28 EP Generic Richness/14	0.43
11 <i>Cheumatopsyche</i> Abundance	0.00	30 Presence of Class A Indicator Taxa/7	0.14
12 EPT Generic Richness/ Diptera Generic Richness	0.46		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.20	1	Tubifex	14.57
15 Perlidae Abundance (Family Functional Group)	0.33	2	Prodiamesa	13.46
16 Tanypodinae Abundance (Family Functional Group)	7.51	3	Parametriocnemus	12.31
17 Chironomini Abundance (Family Functional Group)	11.95	4	Micropsectra	8.89
		5	Simulium	6.35

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Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature:	13.8 °C	Specific Conductance	420.0 uS/cm	Channel Width:	2.0 m
Velocity:	28 cm/s	Dissolved Oxygen:	8.4 ppm	Channel Depth:	20.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Upland Conifer	Partly Open		Not Designated
Upland Hardwood			
Urban			

Substrate

Rubble	Sand
50%	50%

Comments about the Station or Sample

8/13/03 Data:
Flow: 56.7cm/s; Depth: 20cm; Temp: 18.9C; SPC: 457uS/cm; DO: 7.1mg/L; pH: 7.28

Comments about the Final Determination

Not your typical A community. Small sandy stream with fairly cool temperature may influence taxa assemblage..

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Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Enchytraeidae</i>	08020201	1.33	1.33		--	0.4	0.4
<i>Chaetogaster</i>	08020202002	0.00	0.33		--	0.0	0.1
<i>Chaetogaster diastrophus</i>	08020202002002	0.33	0.00		--	0.1	0.0
<i>Nais</i>	08020202009	0.00	0.33		CG	0.0	0.1
<i>Nais behningi</i>	08020202009003	0.33	0.00		--	0.1	0.0
<i>Tubificidae</i>	08020203	44.33	0.00		--	14.8	0.0
<i>Limnodrilus</i>	08020203005	0.00	3.35		CG	0.0	1.1
<i>Limnodrilus hoffmeisteri</i>	08020203005003	0.67	0.00		--	0.2	0.0
<i>Tubifex</i>	08020203008	0.00	43.60		CG	0.0	14.6
<i>Tubifex tubifex</i>	08020203008002	8.67	0.00		--	2.9	0.0
<i>Stylodrilus</i>	08020203011	0.00	8.38		--	0.0	2.8
<i>Stylodrilus heringianus</i>	08020203011001	1.67	0.00		--	0.6	0.0
<i>Lumbricidae</i>	08020205	1.33	1.33		--	0.4	0.4
<i>Caecidotea</i>	09010101001	6.00	12.67	8	SH	2.0	4.2
<i>Caecidotea racovitzai</i>	09010101001002	6.67	0.00		--	2.2	0.0
<i>racovitzai</i>							
<i>Sminthuridae</i>	09020104	0.33	0.33		--	0.1	0.1
<i>Leuctridae</i>	09020204	0.33	0.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042	0.33	0.33	0	PR	0.1	0.1
<i>Baetidae</i>	09020401	1.33	1.33		--	0.4	0.4
<i>Baetis</i>	09020401001	1.33	2.33	4	CG	0.4	0.8
<i>Baetis pluto</i>	09020401001009	1.00	0.00		--	0.3	0.0
<i>Heptageniidae</i>	09020402	0.33	0.33		--	0.1	0.1
<i>Leptophlebiidae</i>	09020406	1.33	1.33		--	0.4	0.4
<i>Chimarra</i>	09020601003	2.67	2.67	2	CF	0.9	0.9
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.1	0.1
<i>Hydropsychidae</i>	09020604	0.33	0.00		--	0.1	0.0
<i>Parapsyche</i>	09020604013	0.00	1.03	0	CF	0.0	0.3
<i>Parapsyche apicalis</i>	09020604013023	1.00	0.00		--	0.3	0.0
<i>Diplectrona</i>	09020604014	0.00	7.89	0	CF	0.0	2.6
<i>Diplectrona modesta</i>	09020604014025	7.67	0.00		--	2.6	0.0
<i>Hydropsyche</i>	09020604016	1.67	2.06	4	CF	0.6	0.7
<i>Hydropsyche morosa</i>	09020604016030	0.33	0.00		--	0.1	0.0
<i>Macrostemum</i>	09020604018	0.00	1.03	3	CF	0.0	0.3
<i>Macrostemum zebratum</i>	09020604018054	1.00	0.00		--	0.3	0.0
<i>Rhyacophila</i>	09020605019	1.67	2.00	2	PR	0.6	0.7
<i>Rhyacophila invaria-grp</i>	09020605019066	0.33	0.00		--	0.1	0.0
<i>Glossosoma</i>	09020606020	0.67	0.67	0	SC	0.2	0.2

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		Actual	Adjusted			Actual	Adjusted
<i>Oligostomis</i>	09020608039	0.33	0.33	2	PR	0.1	0.1
<i>Psychoglypha</i>	09020610060	0.00	10.00	0	CG	0.0	3.3
<i>Psychoglypha subborealis</i>	09020610060120	10.00	0.00		--	3.3	0.0
<i>Lepidostoma</i>	09020611064	4.00	4.00	1	SH	1.3	1.3
<i>Tipulidae</i>	09021001	0.33	0.00		--	0.1	0.0
<i>Tipula</i>	09021001002	1.67	1.73	4	SH	0.6	0.6
<i>Antocha</i>	09021001004	0.33	0.35	3	CG	0.1	0.1
<i>Dicranota</i>	09021001005	5.67	5.88	3	PR	1.9	2.0
<i>Limnophila</i>	09021001009	0.33	0.35	3	PR	0.1	0.1
<i>Pilaria</i>	09021001013	0.67	0.69	7	PR	0.2	0.2
<i>Ceratopogonidae</i>	09021010	0.33	0.33		--	0.1	0.1
<i>Chironomidae</i>	09021011	3.67	0.00		--	1.2	0.0
<i>Conchapelopia</i>	09021011004	0.33	0.34	6	PR	0.1	0.1
<i>Meropelopia</i>	09021011010	3.67	3.75		--	1.2	1.3
<i>Natarsia</i>	09021011011	1.00	3.41	8	PR	0.3	1.1
<i>Natarsia baltimorea</i>	09021011011026	2.33	0.00		--	0.8	0.0
<i>Diamesa</i>	09021011024	0.67	0.68	5	CG	0.2	0.2
<i>Pagastia</i>	09021011025	0.00	1.71	1	--	0.0	0.6
<i>Pagastia orthogonia</i>	09021011025001	1.67	0.00		--	0.6	0.0
<i>Prodiamesa</i>	09021011031	0.00	40.28	3	CG	0.0	13.5
<i>Prodiamesa olivacea</i>	09021011031048	39.33	0.00		--	13.1	0.0
<i>Brillia</i>	09021011033	0.00	0.34	5	SH	0.0	0.1
<i>Brillia parva</i>	09021011033050	0.33	0.00		--	0.1	0.0
<i>Corynoneura</i>	09021011036	0.33	0.34	7	CG	0.1	0.1
<i>Diplocladius</i>	09021011038	1.33	1.37	8	CG	0.4	0.5
<i>Eukiefferiella</i>	09021011041	0.00	0.68	8	CG	0.0	0.2
<i>Eukiefferiella claripennis-grp.</i>	09021011041075	0.67	0.00		--	0.2	0.0
<i>Limnophyes</i>	09021011047	1.00	1.02	8	CG	0.3	0.3
<i>Parakiefferiella</i>	09021011052	0.67	0.68		CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	36.00	36.86	5	CG	12.0	12.3
<i>Paraphaenocladus</i>	09021011054	0.33	0.34	4	CG	0.1	0.1
<i>Rheocricotopus</i>	09021011057	1.67	1.71	6	CG	0.6	0.6
<i>Thienemanniella</i>	09021011062	0.33	6.14	6	CG	0.1	2.1
<i>Thienemanniella boltoni</i>	09021011062113	5.67	0.00		--	1.9	0.0
<i>Tvetenia</i>	09021011065	0.00	11.26	5	CG	0.0	3.8
<i>Tvetenia bavarica grp.</i>	09021011065111	11.00	0.00		--	3.7	0.0
<i>Micropsectra</i>	09021011070	26.00	26.62	7	CG	8.7	8.9
<i>Paratanytarsus</i>	09021011071	2.33	2.39	6	--	0.8	0.8

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<i>Rheotanytarsus</i>	09021011072	1.67	1.71	6	CF	0.6	0.6
<i>Stempellinella</i>	09021011074	0.67	0.68	2	--	0.2	0.2
<i>Tanytarsus</i>	09021011076	1.33	1.71	6	CF	0.4	0.6
<i>Tanytarsus glabrescens</i>	09021011076134	0.33	0.00		--	0.1	0.0
<i>Chironomus</i>	09021011080	0.33	0.34	10	CG	0.1	0.1
<i>Polypedilum</i>	09021011102	0.00	1.37	6	SH	0.0	0.5
<i>Polypedilum aviceps</i>	09021011102181	1.33	0.00		--	0.4	0.0
<i>Stictochironomus</i>	09021011106	0.00	10.24	9	CG	0.0	3.4
<i>Stictochironomus annulicrus</i>	09021011106198	10.00	0.00		CG	3.3	0.0
<i>Xylotopus</i>	09021011117	0.00	0.34	2	--	0.0	0.1
<i>Xylotopus par</i>	09021011117001	0.33	0.00		--	0.1	0.0
<i>Simuliidae</i>	09021012	0.67	0.67		--	0.2	0.2
<i>Simulium</i>	09021012047	0.00	19.00	4	CF	0.0	6.3
<i>Simulium vittatum</i>	09021012047064	2.33	0.00		--	0.8	0.0
<i>Simulium tuberosum</i>	09021012047067	16.67	0.00		--	5.6	0.0
<i>Chrysops</i>	09021014052	1.00	1.00	6	CG	0.3	0.3
<i>Empididae</i>	09021016	0.33	0.33	6	--	0.1	0.1
<i>Chelifera</i>	09021016060	0.67	0.67		--	0.2	0.2
<i>Agabus</i>	09021103016	0.33	0.33		PR	0.1	0.1
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	CG	0.1	0.1
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.1	0.1
<i>Sperchon</i>	09030107001	0.67	0.67		--	0.2	0.2
<i>Amnicola</i>	10010104013	0.00	0.33		SC	0.0	0.1
<i>Amnicola limosa</i>	10010104013018	0.33	0.00		--	0.1	0.0
<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