



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

Station Information

Station Number: S-695	DEP Drainage: Androscoggin
Waterbody: Gully Brook - Station 695	HUC8: 01040002
Town: Auburn	HUC8 Name: Lower Androscoggin
Directions: PETTENGILL PARK	Latitude: 44 6 29.24 N
	Longitude: 70 14 7.8 W
	Stream Order: 1

Sample Information

Log Number: 1745	Type of Sample: ROCK BAG	Date Deployed: 7/24/2008
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/21/2008

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 4/6/2009
Model Result with P>.6: B	Reason for Determination: Model	
Date Last Calculated: 4/6/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.24	Class A, B, or C	1.00
Class B	0.68	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.81	Class A	0.04
Class C or Non-Attainment	0.19	Class B or C or Non-Attainment	0.96

Model Variables

01 Total Mean Abundance	825.33	18 Relative Abundance Ephemeroptera	0.02
02 Generic Richness	54.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	10.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	199.14
04 Ephemeroptera Mean Abundance	14.67	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	4.02	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	35.96
06 Hilsenhoff Biotic Index	5.59	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.72	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.50	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	14.42		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.44		
13 Relative Abundance - Oligochaeta	0.09		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	13.83		
17 Chironomini Abundance (Family Functional Group)	24.89		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Micropsectra</i>	24.13
2	<i>Parametriocnemus</i>	23.96
3	<i>Rheotanytarsus</i>	7.04
4	Tubificidae	4.36
5	<i>Simulium</i>	4.20



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Date Retrieved: 8/21/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 17.9 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 344 uS/cm
Velocity: 49 cm/s
pH: 7.13
Wetted Width: 2.6 m
Bankfull Width: 2.6 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 13.8 deg C
Dissolved Oxygen: 8.7 mg/l
Specific Conductance: 490 uS/cm
Velocity: 26 cm/s
pH: 7.43
Wetted Width: 1.95 m
Bankfull Width: 2.5 m
Depth: 23 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Swamp Hardwood

Canopy Dense

Rolling Terrain

Upland Conifer

Upland Hardwood

Urban

Stressor

Location

Substrate

Urban Runoff Stressor

Below Urban NPS

Rubble/Cobble

50 %

Sand

50 %

Landcover Summary - 2004 Data

Total Area (ac)	1048	High Int. Dev. %	12.2	Water %	0.0	Non-vegetated %	3.8
Total Land (ac)	1048	Med Int. Dev. %	6.6	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	14.4	Upland Woody %	43.6	Human Altered %	55.6
		Development %	33.2	Natural %	44.4	Impervious %	27.7

Sample Comments

8/21/08: SCULPINS

7/24/08: THUNDERSTORMS; WATER CLOUDY



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Waterbody: Gully Brook - Station 695

Town: Auburn

Log Number: 1745

Subsample Factor: X4

Replicates: 3

Calculated: 4/6/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002	1.33	1.33		--	0.2	0.2
Enchytraeidae	08020201	17.33	17.33		--	2.1	2.1
<i>Pristina</i>	08020202004	1.33	1.33		--	0.2	0.2
<i>Nais</i>	08020202009		9.33		CG		1.1
<i>Nais behningi</i>	08020202009003	1.33			--	0.2	
<i>Nais communis</i>	08020202009005	8.00			--	1.0	
<i>Pristinella</i>	08020202016		1.33		--		0.2
<i>Pristinella jenkiniae</i>	08020202016002	1.33			--	0.2	
Tubificidae	08020203	36.00	36.00		--	4.4	4.4
<i>Stylodrilus</i>	08020203011		5.33		--		0.6
<i>Stylodrilus heringianus</i>	08020203011001	5.33			--	0.6	
Lumbricidae	08020205	2.67	2.67		--	0.3	0.3
<i>Caecidotea</i>	09010101001	12.00	13.33	8	SH	1.5	1.6
<i>Caecidotea racovitzai racovitzai</i>	09010101001002	1.33			--	0.2	
<i>Nemoura</i>	09020201002		1.33	1	SH		0.2
<i>Nemoura trispinosa</i>	09020201002004	1.33			--	0.2	
<i>Paracapnia</i>	09020203018	1.33	1.33	1	SH	0.2	0.2
<i>Leuctra</i>	09020204020	2.67	2.67	0	SH	0.3	0.3
Perlodidae	09020207	5.33	5.33		--	0.6	0.6
Baetidae	09020401	4.00	4.00		--	0.5	0.5
<i>Baetis</i>	09020401001	1.33	1.33	4	CG	0.2	0.2
Leptophlebiidae	09020406	9.33	9.33		--	1.1	1.1
Hydropsychidae	09020604	8.00			--	1.0	
<i>Diplectrona</i>	09020604014		8.24	0	CF		1.0
<i>Diplectrona modesta</i>	09020604014025	5.33			--	0.6	
<i>Hydropsyche</i>	09020604016	8.00	14.42	4	CF	1.0	1.7
<i>Hydropsyche depravata complex</i>	09020604016041	1.33			CF	0.2	
<i>Rhyacophila</i>	09020605019		8.00	2	PR		1.0
<i>Rhyacophila nigrita</i>	09020605019064	8.00			PR	1.0	
<i>Oligostomis</i>	09020608039	1.33	1.33	2	PR	0.2	0.2
<i>Psychoglypha</i>	09020610060		4.00	0	SH		0.5
<i>Psychoglypha subborealis</i>	09020610060120	4.00			--	0.5	
<i>Lepidostoma</i>	09020611064			1	SH		
<i>Sialis</i>	09020702004	1.33	1.33	4	PR	0.2	0.2
<i>Tipula</i>	09021001002	2.67	2.67	4	SH	0.3	0.3
<i>Dicranota</i>	09021001005	13.33	13.33	3	PR	1.6	1.6
<i>Limnophila</i>	09021001009	5.33	5.33	3	PR	0.6	0.6
<i>Bezzia/palpomyia</i>	09021010043	6.67	6.67	6	PR	0.8	0.8



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		Actual	Adjusted			Actual	Adjusted
Chironomidae	09021011	21.33			--	2.6	
<i>Natarsia</i>	09021011011	5.33	11.06	8	PR	0.6	1.3
<i>Natarsia baltimorea</i>	09021011011026	5.33			--	0.6	
<i>Trissopelopia</i>	09021011021		2.77		PR		0.3
<i>Trissopelopia ogemawi</i>	09021011021042	2.67			--	0.3	
<i>Pagastia</i>	09021011025		2.77	1	--		0.3
<i>Pagastia orthogonia</i>	09021011025001	2.67			--	0.3	
<i>Prodiamesa</i>	09021011031		16.60	3	CG		2.0
<i>Prodiamesa olivacea</i>	09021011031048	16.00			--	1.9	
<i>Brillia</i>	09021011033			5	SH		
<i>Corynoneura</i>	09021011036	5.33	5.53	7	CG	0.6	0.7
<i>Cricotopus</i>	09021011037		2.77	7	SH		0.3
<i>Cricotopus annulator complex</i>	09021011037074	2.67			--	0.3	
<i>Diplocladius</i>	09021011038	5.33	5.53	8	CG	0.6	0.7
<i>Heterotrissocladius</i>	09021011044		2.77	0	CG		0.3
<i>Heterotrissocladius marcidus</i>	09021011044083	2.67			--	0.3	
<i>Parakiefferiella</i>	09021011052	5.33	5.53		CG	0.6	0.7
<i>Parametriocnemus</i>	09021011053	189.33	197.76	5	CG	22.9	24.0
<i>Parametriocnemus sp. f epler</i>	09021011053101	1.33			--	0.2	
<i>Rheocricotopus</i>	09021011057	5.33	5.53	6	CG	0.6	0.7
<i>Thienemanniella</i>	09021011062		5.53	6	CG		0.7
<i>Thienemanniella boltoni</i>	09021011062113	5.33			--	0.6	
<i>Tvetenia</i>	09021011065		15.21	5	CG		1.8
<i>Tvetenia paucunca</i>	09021011065114	14.67			--	1.8	
<i>Micropsectra</i>	09021011070	192.00	199.14	7	CG	23.3	24.1
<i>Rheotanytarsus</i>	09021011072	56.00	58.08	6	CF	6.8	7.0
<i>Tanytarsus</i>	09021011076	32.00	33.19	6	CF	3.9	4.0
<i>Paracladopelma</i>	09021011098		2.77	7	--		0.3
<i>Paracladopelma undine</i>	09021011098177	2.67			--	0.3	
<i>Polypedilum</i>	09021011102		8.30	6	SH		1.0
<i>Polypedilum aviceps</i>	09021011102181	5.33			--	0.6	
<i>Polypedilum flavum</i>	09021011102182	2.67			--	0.3	
<i>Stictochironomus</i>	09021011106	13.33	13.83	9	CG	1.6	1.7
<i>Simulium</i>	09021012047		34.67	4	CF		4.2
<i>Simulium aureum</i>	09021012047052	26.67			--	3.2	
<i>Simulium tuberosum</i>	09021012047067	8.00			--	1.0	
<i>Chrysops</i>	09021014052	2.67	2.67	6	CG	0.3	0.3
Empididae	09021016			6	--		



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<i>Roederiodes</i>	09021016058	2.67	2.67	3	PR	0.3	0.3
<i>Neoplasta</i>	09021016064	2.67	2.67		PR	0.3	0.3
<i>Neoporus</i>	09021103033	1.33	1.33		--	0.2	0.2
<i>Lebertia</i>	09030105001	2.67	2.67		--	0.3	0.3
Lymnaeidae	10010201	2.67	2.67		--	0.3	0.3
<i>Physa</i>	10010202026	1.33	1.33		SC	0.2	0.2
Sphaeriidae	10020201	1.33	1.33		CF	0.2	0.2