



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

Station Information

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

Sample Information

Log Number: 2677	Type of Sample: ROCK BAG	Date Deployed: 7/26/2018
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/23/2018

Classification Attainment

Statutory Class: B	Final Determination: NA	Date: 3/11/2019
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 3/8/2019	Comments:	

Model Probabilities

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

Model Variables

01 Total Mean Abundance	1033.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	27.00	19 EPT Generic Richness	4.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	2.67	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.40	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	101.33
06 Hilsenhoff Biotic Index	7.75	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.86	28 EP Generic Richness/14	0.14
08 Relative Generic Richness Diptera	0.48	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.31		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stictochironomus</i>	60.65
2	<i>Tanytarsus</i>	9.81
3	<i>Caecidotea</i>	5.81
4	<i>Parametriocnemus</i>	4.39
5	<i>Macropelopia</i>	3.61



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Station Number: S-695 Town: Auburn Date Deployed: 7/26/2018
Log Number: 2677 Waterbody: Gully Brook - Station 695 Date Retrieved: 8/23/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 19 deg C
Dissolved Oxygen: 8.16 mg/l
Dissolved Oxygen Saturation: 87.5 %
Specific Conductance: 618 uS/cm
Velocity: 21.3 cm/s
pH: 7.55
Wetted Width: 3.5 m
Bankfull Width: 3.5 m
Depth: 57 cm

Waterbody Information - Retrieval

Temperature: 15.5 deg C
Dissolved Oxygen: 9.5 mg/l
Dissolved Oxygen Saturation: 94.5 %
Specific Conductance: 537 uS/cm
Velocity: 6.1 cm/s
pH: 7.72
Wetted Width: 3 m
Bankfull Width: 3.5 m
Depth: 52 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Swamp Hardwood	Dense	Rolling
Upland Conifer		
Upland Hardwood		
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Urban Runoff	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
	Med Int. Dev. % 6.6	Wetland % 0.0	Tilled Agriculture % 0.0
	Low Int. Dev. % 14.4	Upland Woody % 43.6	Grassland % 2.3
	Development % 33.2	Natural % 44.4	Human Altered % 55.6
			Impervious % 27.7

Sample Comments



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-695

Waterbody: Gully Brook - Station 695

Town: Auburn

Log Number: 2677

Subsample Factor: X4

Replicates: 3

Calculated: 3/8/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
DugesIIDae	03010102	1.33	1.33		--	0.1	0.1
Lumbriculidae	08020101	6.67	6.67		--	0.6	0.6
Naididae	08020202	4.00			--	0.4	
<i>Aulodrilus</i>	08020202018		10.18		--		1.0
<i>Aulodrilus limnobius</i>	08020202018002	8.00			--	0.8	
<i>Ilyodrilus</i>	08020202020		8.48		--		0.8
<i>Ilyodrilus templetoni</i>	08020202020001	6.67			--	0.6	
<i>Caecidotea</i>	09010101001	60.00	60.00	8	SH	5.8	5.8
Leptophlebiidae	09020406	1.33	1.33		--	0.1	0.1
<i>Paraleptophlebia</i>	09020406026	1.33	1.33	1	CG	0.1	0.1
<i>Rhyacophila</i>	09020605019	1.33	1.33	2	PR	0.1	0.1
<i>Psychoglypha</i>	09020610060		14.67	0	SH		1.4
<i>Psychoglypha subborealis</i>	09020610060120	14.67			--	1.4	
<i>Sialis</i>	09020702004	1.33	1.33	4	PR	0.1	0.1
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.1	0.1
Ceratopogonidae	09021010	18.67	18.67		--	1.8	1.8
Chironomidae	09021011				--		
<i>Paramerina</i>	09021011013	13.33	13.33		--	1.3	1.3
<i>Thienemannimyia</i>	09021011020		10.67	3	PR		1.0
<i>Thienemannimyia group</i>	09021011020041	10.67			--	1.0	
<i>Prodiamesa</i>	09021011031	29.33	29.33	3	CG	2.8	2.8
<i>Heterotrissocladius</i>	09021011044		18.67	0	CG		1.8
<i>Heterotrissocladius marcidus</i>	09021011044083	18.67			--	1.8	
<i>Parametriocnemus</i>	09021011053	45.33	45.33	5	CG	4.4	4.4
<i>Rheotanytarsus</i>	09021011072		2.67	6	CF		0.3
<i>Rheotanytarsus exiguus group</i>	09021011072127	2.67			CF	0.3	
<i>Tanytarsus</i>	09021011076	101.33	101.33	6	CF	9.8	9.8
<i>Polypedilum</i>	09021011102		5.33	6	SH		0.5
<i>Polypedilum aviceps</i>	09021011102181	5.33			--	0.5	
<i>Stictochironomus</i>	09021011106	626.67	626.67	9	CG	60.6	60.6
<i>Macropelopia</i>	09021011111	37.33	37.33		P	3.6	3.6
Simuliidae	09021012				--		
<i>Simulium</i>	09021012047	1.33	1.33	4	CF	0.1	0.1
Dytiscidae	09021103	2.67	2.67		--	0.3	0.3
<i>Agabus</i>	09021103016	2.67	2.67		PR	0.3	0.3
Physidae	10010202	8.00	8.00		SC	0.8	0.8
Sphaeriidae	10020201	1.33	1.33		CF	0.1	0.1