



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

Station Information

Station Number: S-643 River Basin: Androscoggin
Waterbody: Unnamed Stream (brunswick4) - Station 643 HUC8 Name: Lower Androscoggin
Town: Brunswick Latitude: 43 54 38.76 N
Directions: 15 M DOWNSTREAM OF JORDAN AVE Longitude: 69 56 28.7 W
Stream Order: 1

Sample Information

Log Number: 2659 Type of Sample: ROCK BAG Date Deployed: 7/17/2018
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/14/2018

Classification Attainment

Statutory Class: B Final Determination: NA Date: 2/8/2019
Model Result with $P \geq 0.6$: NA Reason for Determination: Model
Date Last Calculated: 2/5/2019 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.03	Class A, B, or C	0.05
Class B	0.06	Non-Attainment	0.95
B or Better Model		A Model	
Class A or B	0.00	Class A	0.01
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Mean Abundance	157.00	18 Relative Abundance Ephemeroptera	0.03
02 Generic Richness	36.00	19 EPT Generic Richness	9.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	4.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.14	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.67
06 Hilsenhoff Biotic Index	3.88	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.09	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	1.33		
11 <i>Cheumatopsyche</i> Abundance	0.67		
12 EPT Generic Richness/ Diptera Generic Richness	0.53		
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.00		
17 Chironomini Abundance (Family Functional Group)	3.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Gammarus</i>	45.65
2	<i>Frenesia</i>	13.59
3	<i>Caecidotea</i>	9.77
4	<i>Stenelmis</i>	4.88
5	<i>Parametriocnemus</i>	3.40



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	15.7 deg C
Dissolved Oxygen:	10 mg/l
Dissolved Oxygen Saturation:	99.3 %
Specific Conductance:	350.2 uS/cm
Velocity:	42.7 cm/s
pH:	7.09
Wetted Width:	2.2 m
Bankfull Width:	2.7 m
Depth:	17 cm

Waterbody Information - Retrieval

Temperature:	16 deg C
Dissolved Oxygen:	10.33 mg/l
Dissolved Oxygen Saturation:	102.8 %
Specific Conductance:	351.1 uS/cm
Velocity:	18.3 cm/s
pH:	7.03
Wetted Width:	2 m
Bankfull Width:	2.7 m
Depth:	21 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Dense	Rolling
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Below Road Crossing	Gravel 15 %
Urban Runoff	Below Urban NPS	Rubble/Cobble 5 %
		Sand 75 %
		Silt 5 %

Landcover Summary - 2004 Data

Total Area (ac)	479	High Int. Dev. %	10.8	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	16.9	Wetland %	3.3	Tilled Agriculture %	0.0
		Low Int. Dev. %	22.6	Upland Woody %	27.0	Grassland %	1.6
		Development %	50.3	Natural %	30.3	Human Altered %	69.7
						Impervious %	28.7

Sample Comments

Fish Present



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Aquatic Life Taxonomic Inventory Report

Station Number: S-643

Waterbody: Unnamed Stream (brunswick4) - Station 643 Town: Brunswick

Log Number: 2659

Subsample Factor: X1

Replicates: 3

Calculated: 2/5/2019

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		--	0.8	0.8
Lumbriculidae	08020101	2.33	2.33		--	1.5	1.5
Enchytraeidae	08020201	1.00	1.00		--	0.6	0.6
Naididae	08020202	0.33	0.33		--	0.2	0.2
<i>Caecidotea</i>	09010101001	15.33	15.33	8	SH	9.8	9.8
<i>Gammarus</i>	09010201003	71.67	71.67	4	--	45.6	45.6
<i>Synurella</i>	09010202006	1.67	1.67		--	1.1	1.1
Isotomidae	09020102	0.33	0.33		--	0.2	0.2
<i>Baetis</i>	09020401001	4.33	4.33	4	CG	2.8	2.8
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.2	0.2
Hydropsychidae	09020604				--		
<i>Diplectrona</i>	09020604014		2.33	0	CF		1.5
<i>Diplectrona modesta</i>	09020604014025	2.33			--	1.5	
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016	0.33	1.33	4	CF	0.2	0.8
<i>Hydropsyche betteni</i>	09020604016037	1.00			--	0.6	
<i>Oligostomis</i>	09020608039	0.67	0.67	2	PR	0.4	0.4
<i>Pycnopsyche</i>	09020610049	2.00	2.00	4	SH	1.3	1.3
<i>Frenesia</i>	09020610058		21.33	0	SH		13.6
<i>Frenesia difficilis</i>	09020610058117	21.33			--	13.6	
<i>Lepidostoma</i>	09020611064	1.00	1.00	1	SH	0.6	0.6
<i>Dicranota</i>	09021001005	1.67	1.67	3	PR	1.1	1.1
<i>Hexatoma</i>	09021001008	1.00	1.00	2	PR	0.6	0.6
<i>Limnophila</i>	09021001009	2.00	2.00	3	PR	1.3	1.3
<i>Natarsia</i>	09021011011	0.33	0.33	8	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		0.67	3	PR		0.4
<i>Thienemannimyia group</i>	09021011020041	0.67			--	0.4	
<i>Prodiamesa</i>	09021011031	0.33	0.33	3	CG	0.2	0.2
<i>Brillia</i>	09021011033	1.33	1.33	5	SH	0.8	0.8
<i>Corynoneura</i>	09021011036	0.33	0.33	7	CG	0.2	0.2
<i>Parachaetocladius</i>	09021011051	0.67	0.67		CG	0.4	0.4
<i>Parametriocnemus</i>	09021011053	5.33	5.33	5	CG	3.4	3.4
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065		0.33	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	0.33			--	0.2	
<i>Polypedilum</i>	09021011102		2.33	6	SH		1.5
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	0.6	



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<i>Polypedilum laetum</i>	09021011102186	0.67			--	0.4	
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.4	
<i>Stictochironomus</i>	090210111106	0.67	0.67	9	CG	0.4	0.4
<i>Odontomesa</i>	090210111121	0.33	0.33	4	--	0.2	0.2
<i>Rheosmittia</i>	090210111122	1.00	1.00		--	0.6	0.6
<i>Simulium</i>	09021012047	2.00	2.00	4	CF	1.3	1.3
<i>Stenelmis</i>	09021113070	7.67	7.67	5	SC	4.9	4.9
Sphaeriidae	10020201	0.67	0.67		CF	0.4	0.4