



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

Station Information

Station Number: S-641
Waterbody: Unnamed Stream (Brunswick 2) - Station 641
Town: Brunswick
Directions: 17M DWNSTRM OF RIVER RD
DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 43 54 55.38 N
Longitude: 69 59 6.32 W
Stream Order: 1

Sample Information

Log Number: 2190
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/10/2013
Date Retrieved: 8/7/2013

Classification Attainment

Statutory Class: B
Model Result with P>.6: NA
Date Last Calculated: 4/10/2014
Final Determination: NA
Reason for Determination: Model
Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
B or Better Model		A Model	
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	117.67	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	26.00	19 EPT Generic Richness	7.00
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	0.67	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>	12.00
06 Hilsenhoff Biotic Index	5.99	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.22	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.42	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	0.64		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.18		
15 Perlidae Mean Abundance (Family	0.00		
Functional Group)			
16 Tanypodinae Mean Abundance	2.00		
(Family Functional Group)			
17 Chironomini Abundance (Family	3.67		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Caecidotea</i>	39.66
2	<i>Limnodrilus</i>	15.58
3	<i>Tanytarsus</i>	10.20
4	<i>Gammarus</i>	5.67
5	<i>Prodiamesa</i>	5.38



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Station Number: S-641	Town: Brunswick	Date Deployed: 7/10/2013
Log Number: 2190	Waterbody: Unnamed Stream (brunswick 2) - Station 641	Date Retrieved: 8/7/2013

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: LOTIC INC.

Waterbody Information - Deployment

Temperature:	15.8 deg C
Dissolved Oxygen:	8.1 mg/l
Specific Conductance:	393 uS/cm
Velocity:	27.3 cm/s
pH:	6.65
Wetted Width:	2.8 m
Bankfull Width:	4.6 m
Depth:	20 cm

Waterbody Information - Retrieval

Temperature:	16.3 deg C
Dissolved Oxygen:	8.8 mg/l
Specific Conductance:	345 uS/cm
Velocity:	24 cm/s
pH:	6.18
Wetted Width:	2.7 m
Bankfull Width:	4.6 m
Depth:	17 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Swamp Hardwood
Upland Hardwood
Urban

Canopy Cover

Dense

Terrain

Rolling

Potential Stressor

Altered Hydrology
Urban Runoff

Location

Below Road Crossing
Below Urban NPS

Substrate

Clay	5 %
Detritus	5 %
Gravel	5 %
Rubble/Cobble	5 %
Sand	80 %

Landcover Summary - 2004 Data

Total Area (ac)	810	High Int. Dev. %	16.1	Water %	0.1	Non-vegetated %	0.0
		Med Int. Dev. %	12.0	Wetland %	2.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	26.7	Upland Woody %	20.6	Grassland %	0.0
		Development %	54.8	Natural %	22.6	Human Altered %	77.3
						Impervious %	31.6

Sample Comments

7/10/2013 - IRON BACTERIA OBSERVED, STREAM IS WIDENED



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

Station Number: S-641 Waterbody: Unnamed Stream (brunswick 2) - Station 64 Town: Brunswick
Log Number: 2190 Subsample Factor: X1 Replicates: 3 Calculated: 4/10/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Lumbriculida	080201	2.33	2.33		--	2.0	2.0
Enchytraeidae	08020201	0.33	0.33		--	0.3	0.3
<i>Limnodrilus</i>	08020202022	18.33	18.33		CG	15.6	15.6
<i>Caecidotea</i>	09010101001	46.67	46.67	8	SH	39.7	39.7
<i>Gammarus</i>	09010201003	6.67	6.67	4	--	5.7	5.7
<i>Boyeria</i>	09020301004	1.33	1.33	2	PR	1.1	1.1
<i>Baetis</i>	09020401001		0.67	4	CG		0.6
<i>Baetis brunneicolor</i>	09020401001003	0.67			--	0.6	
Hydropsychidae	09020604	1.00	1.00		--	0.8	0.8
<i>Diplectrona</i>	09020604014	0.33	0.33	0	CF	0.3	0.3
<i>Agrypnia</i>	09020608035	1.67	1.67	7	SH	1.4	1.4
<i>Hydatophylax</i>	09020610048	0.33	0.33	2	SH	0.3	0.3
<i>Limnephilus</i>	09020610055	0.67	0.67	3	SH	0.6	0.6
<i>Psychoglypha</i>	09020610060	5.00	5.00	0	SH	4.2	4.2
Lepidoptera	090209	0.33	0.33		--	0.3	0.3
<i>Tipula</i>	09021001002	0.67	0.67	4	SH	0.6	0.6
<i>Dicranota</i>	09021001005	4.33	4.33	3	PR	3.7	3.7
<i>Thienemannimyia</i>	09021011020		2.00	3	PR		1.7
<i>Thienemannimyia/arctopelopia</i> group	09021011020041	2.00			--	1.7	
<i>Prodiamesa</i>	09021011031	6.33	6.33	3	CG	5.4	5.4
<i>Brillia</i>	09021011033	0.33	0.33	5	SH	0.3	0.3
<i>Parametriocnemus</i>	09021011053	0.67	0.67	5	CG	0.6	0.6
<i>Paratanytarsus</i>	09021011071	1.00	1.00	6	--	0.8	0.8
<i>Tanytarsus</i>	09021011076	12.00	12.00	6	CF	10.2	10.2
<i>Polypedilum</i>	09021011102		3.00	6	SH		2.5
<i>Polypedilum aviceps</i>	09021011102181	2.67			--	2.3	
<i>Polypedilum laetum</i>	09021011102186	0.33			--	0.3	
<i>Tribelos</i>	09021011107	0.67	0.67	5	CG	0.6	0.6
<i>Macropelopia</i>	09021011111	0.33	0.33		P	0.3	0.3
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	0.6	0.6