



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

Station Information

Station Number: S-634 River Basin: Androscoggin
Waterbody: Unnamed Stream (topsham 4) - Station 634 HUC8 Name: Lower Androscoggin
Town: Topsham Latitude: 43 55 54.77 N
Directions: DRAINS TOPSHAM FAIR MALL, NEAR THE TARGET Longitude: 69 58 58.68 W
STORE Stream Order: 2

Sample Information

Log Number: 2658 Type of Sample: ROCK BAG Date Deployed: 7/17/2018
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/13/2018

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	0.21	Class A, B, or C	0.00
Class B	0.05	Non-Attainment	1.00
B or Better Model		A Model	
Class A or B	0.00	Class A	0.03
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.97

Model Variables

01 Total Mean Abundance	187.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	33.00	19 EPT Generic Richness	5.00
03 Plecoptera Mean Abundance	1.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	8.33
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.75	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.00
06 Hilsenhoff Biotic Index	3.28	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.54	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.61	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	1.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.25		
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	6.67		
17 Chironomini Abundance (Family Functional Group)	13.33		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Prodiamesa</i>	23.71
2	<i>Diplectrona</i>	13.19
3	<i>Synurella</i>	12.48
4	<i>Frenesia</i>	8.20
5	<i>Parametriocnemus</i>	7.84



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Station Number: S-634	Town: Topsham	Date Deployed: 7/17/2018
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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	15.2 deg C
Dissolved Oxygen:	9.61 mg/l
Dissolved Oxygen Saturation:	94.7 %
Specific Conductance:	941 uS/cm
Velocity:	21.3 cm/s
pH:	6.73
Wetted Width:	1.9 m
Bankfull Width:	2.6 m
Depth:	24 cm

Waterbody Information - Retrieval

Temperature:	16.1 deg C
Dissolved Oxygen:	9.81 mg/l
Dissolved Oxygen Saturation:	98.2 %
Specific Conductance:	1082 uS/cm
Velocity:	3.1 cm/s
pH:	6.82
Wetted Width:	2 m
Bankfull Width:	2.6 m
Depth:	14 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Dense	Rolling
Upland Hardwood		
Urban		

<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Urban Runoff	Below Road Crossing	Detritus 20 %
		Sand 80 %

Landcover Summary - 2004 Data

Total Area (ac)	356	High Int. Dev. %	24.4	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	12.1	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	18.4	Upland Woody %	19.0	Grassland %	0.0
		Development %	54.9	Natural %	19.0	Human Altered %	81.0
						Impervious %	30.3

Sample Comments



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-634

Waterbody: Unnamed Stream (topsham 4) - Station 634 Town: Topsham

Log Number: 2658

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
Lumbriculidae	08020101	0.67	0.67		--	0.4	0.4
Enchytraeidae	08020201	0.67	0.67		--	0.4	0.4
Naididae	08020202	0.33	0.33		--	0.2	0.2
<i>Ilyodrilus</i>	08020202020		1.33		--		0.7
<i>Ilyodrilus templetoni</i>	08020202020001	1.33			--	0.7	
Amphipoda	090102	0.33	0.33	8	--	0.2	0.2
<i>Synurella</i>	09010202006	23.33	23.33		--	12.5	12.5
<i>Leuctra</i>	09020204020	1.33	1.33	0	SH	0.7	0.7
<i>Cordulegaster</i>	09020303019	0.33	0.33	3	PR	0.2	0.2
<i>Diplectrona</i>	09020604014		24.67	0	CF		13.2
<i>Diplectrona modesta</i>	09020604014025	24.67			--	13.2	
<i>Hydropsyche</i>	09020604016	1.33	1.33	4	CF	0.7	0.7
<i>Oligostomis</i>	09020608039	2.33	2.33	2	PR	1.2	1.2
<i>Frenesia</i>	09020610058	15.33	15.33	0	SH	8.2	8.2
<i>Sialis</i>	09020702004	3.67	3.67	4	PR	2.0	2.0
<i>Tipula</i>	09021001002	0.67	0.67	4	SH	0.4	0.4
<i>Dicranota</i>	09021001005	2.00	2.00	3	PR	1.1	1.1
<i>Limnophila</i>	09021001009	2.33	2.33	3	PR	1.2	1.2
Ceratopogonidae	09021010	4.00	4.00		--	2.1	2.1
Chironomidae	09021011				--		
<i>Natarsia</i>	09021011011	2.33	2.33	8	PR	1.2	1.2
<i>Thienemannimyia</i>	09021011020		4.00	3	PR		2.1
<i>Thienemannimyia group</i>	09021011020041	4.00			--	2.1	
<i>Zavrelimyia</i>	09021011022	0.33	0.33	8	PR	0.2	0.2
<i>Pagastia</i>	09021011025	0.67	0.67	1	--	0.4	0.4
<i>Prodiamesa</i>	09021011031	44.33	44.33	3	CG	23.7	23.7
<i>Brillia</i>	09021011033	0.33	0.33	5	SH	0.2	0.2
<i>Parachaetocladius</i>	09021011051	2.33	2.33		CG	1.2	1.2
<i>Parametriocnemus</i>	09021011053	14.67	14.67	5	CG	7.8	7.8
<i>Tvetenia</i>	09021011065		1.00	5	CG		0.5
<i>Tvetenia paucunca</i>	09021011065114	1.00			--	0.5	
<i>Micropsectra</i>	09021011070	8.33	8.33	7	CG	4.5	4.5
<i>Tanytarsus</i>	09021011076	1.00	1.00	6	CF	0.5	0.5
<i>Polypedilum</i>	09021011102		0.33	6	SH		0.2
<i>Polypedilum aviceps</i>	09021011102181	0.33			--	0.2	
<i>Stictochironomus</i>	09021011106	13.00	13.00	9	CG	7.0	7.0
<i>Macropelopia</i>	09021011111	8.33	8.33		P	4.5	4.5



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.2	0.2
<i>Neoplasma</i>	09021016064	0.67	0.67		PR	0.4	0.4
Sphaeriidae	10020201	0.33	0.33		CF	0.2	0.2