



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: 2261 Type of Sample: ROCK BAG Date Deployed: 7/16/2014
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/11/2014

Classification Attainment

Statutory Class: B **Final Determination:** C Date: 12/9/2014
Model Result with $P \geq 0.6$: NA **Reason for Determination:** Best Professional Judgement
Date Last Calculated: 12/8/2014 **Comments:** Indeterminate for Class C (0.51) raised to Class C based on dominant taxa and and community structure.

Model Probabilities

First Stage Model			C or Better Model		
Class A	0.06	Class C	0.73	Class A, B, or C	0.51
Class B	0.08	NA	0.13	Non-Attainment	0.49
B or Better Model			A Model		
Class A or B		0.00	Class A		0.02
Class C or Non-Attainment		1.00	Class B or C or Non-Attainment		0.98

Model Variables

01 Total Mean Abundance	151.00	18 Relative Abundance Ephemeroptera	0.02
02 Generic Richness	38.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	16.11
04 Ephemeroptera Mean Abundance	3.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.68	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.34
06 Hilsenhoff Biotic Index	3.64	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.33	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.55	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.67		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.48		
13 Relative Abundance - Oligochaeta	0.09		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.34		
17 Chironomini Abundance (Family Functional Group)	3.36		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Diplectrona</i>	18.76
2	<i>Synurella</i>	16.78
3	<i>Parametriocnemus</i>	14.89
4	<i>Simulium</i>	11.26
5	<i>Micropsectra</i>	10.67



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Station Number: S-634	Town: Topsham	Date Deployed: 7/16/2014
Log Number: 2261	Waterbody: Unnamed Stream (topsham 4) - Station 634	Date Retrieved: 8/11/2014

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	16.6 deg C
Dissolved Oxygen:	8.53 mg/l
Specific Conductance:	775 uS/cm
Velocity:	
pH:	
Wetted Width:	2.07 m
Bankfull Width:	2.25 m
Depth:	26 cm

Waterbody Information - Retrieval

Temperature:	15 deg C
Dissolved Oxygen:	9.07 mg/l
Specific Conductance:	820 uS/cm
Velocity:	25 cm/s
pH:	
Wetted Width:	1.56 m
Bankfull Width:	2 m
Depth:	21 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 %
	Below Urban NPS	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



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-634 Waterbody: Unnamed Stream (topsham 4) - Station 634 Town: Topsham
Log Number: 2261 Subsample Factor: X1 Replicates: 3 Calculated: 12/8/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Naididae	08020202	1.67			--	1.1	
<i>Nais</i>	08020202009	0.67	1.90		CG	0.4	1.3
<i>Nais communis</i>	08020202009005	1.00			--	0.7	
<i>Aulodrilus</i>	08020202018		11.43		--		7.6
<i>Aulodrilus pluriseta</i>	08020202018004	10.00			--	6.6	
<i>Placobdella</i>	08030101006		0.33		--		0.2
<i>Placobdella papillifera</i>	08030101006003	0.33			--	0.2	
<i>Erpobdella</i>	08030203002		0.33		--		0.2
<i>Erpobdella fervida</i>	08030203002002	0.33			--	0.2	
<i>Synurella</i>	09010202006		25.33		--		16.8
<i>Synurella chamberlaini</i>	09010202006001	25.33			--	16.8	
<i>Baetis</i>	09020401001	2.33	2.33	4	CG	1.5	1.5
<i>Acerpenna</i>	09020401007	0.33	0.33	5	CG	0.2	0.2
<i>Tricorythodes</i>	09020411038	0.67	0.67	4	CG	0.4	0.4
Trichoptera	090206	0.33	0.33		--	0.2	0.2
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.2	0.2
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.2	0.2
<i>Diplectrona</i>	09020604014		28.33	0	CF		18.8
<i>Diplectrona modesta</i>	09020604014025	28.33			--	18.8	
<i>Hydropsyche</i>	09020604016	0.33	0.67	4	CF	0.2	0.4
<i>Hydropsyche morosa</i>	09020604016030	0.33			--	0.2	
<i>Oligostomis</i>	09020608039	1.33	1.33	2	PR	0.9	0.9
<i>Frenesia</i>	09020610058		3.00	0	SH		2.0
<i>Frenesia difficilis</i>	09020610058117	3.00			--	2.0	
<i>Psychoglypha</i>	09020610060		0.33	0	SH		0.2
<i>Psychoglypha subborealis</i>	09020610060120	0.33			--	0.2	
<i>Sialis</i>	09020702004	1.67	1.67	4	PR	1.1	1.1
Lepidoptera	090209	0.33	0.33		--	0.2	0.2
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	0.7	0.7
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.9	0.9
<i>Limnophila</i>	09021001009	0.67	0.67	3	PR	0.4	0.4
<i>Bezzia/palpomyia</i>	09021010043	1.33	1.33	6	PR	0.9	0.9
Chironomidae	09021011	0.33			--	0.2	
<i>Rheopelopia</i>	09021011017	0.33	0.34		PR	0.2	0.2
<i>Prodiamesa</i>	09021011031		1.01	3	CG		0.7
<i>Prodiamesa olivacea</i>	09021011031048	1.00			--	0.7	
<i>Brillia</i>	09021011033	1.00	2.01	5	SH	0.7	1.3
<i>Brillia parva</i>	09021011033050	1.00			--	0.7	



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		Actual	Adjusted			Actual	Adjusted
<i>Limnophyes</i>	09021011047	0.33	0.34	8	CG	0.2	0.2
<i>Parakiefferiella</i>	09021011052	0.33	0.34		CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	22.33	22.49	5	CG	14.8	14.9
<i>Thienemanniella</i>	09021011062		0.34	6	CG		0.2
<i>Thienemanniella boltoni</i>	09021011062113	0.33			--	0.2	
<i>Tvetenia</i>	09021011065		1.01	5	CG		0.7
<i>Tvetenia paucunca</i>	09021011065114	1.00			--	0.7	
<i>Micropsectra</i>	09021011070	16.00	16.11	7	CG	10.6	10.7
<i>Paratanytarsus</i>	09021011071		0.34	6	--		0.2
<i>Paratanytarsus longistylus</i>	09021011071126	0.33		6	--	0.2	
<i>Tanytarsus</i>	09021011076	0.33	0.34	6	CF	0.2	0.2
<i>Polypedilum</i>	09021011102		1.34	6	SH		0.9
<i>Polypedilum aviceps</i>	09021011102181	1.33			--	0.9	
<i>Stictochironomus</i>	09021011106	2.00	2.01	9	CG	1.3	1.3
<i>Macropelopia</i>	09021011111		1.34		P		0.9
<i>Macropelopia decedens</i>	09021011111002	1.33			--	0.9	
<i>Simulium</i>	09021012047		17.00	4	CF		11.3
<i>Simulium (Eusimulium)</i>	09021012047052	1.33			--	0.9	
<i>Simulium jenningsi</i>	09021012047060				--		
<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072	15.67			CF	10.4	
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.2	0.2
<i>Neoplasta</i>	09021016064	0.67	0.67		PR	0.4	0.4