



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

Station Information

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

Sample Information

Log Number: 2192
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: A
Date Last Calculated: 1/28/2014
Final Determination: I
Reason for Determination: Best Professional Judgement
Comments: Unusual Taxa Assemblage
Date: 2/4/2014

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.78	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	0.00
Class C		0.01	
NA		0.00	
B or Better Model		A Model	
Class A or B	0.97	Class A	0.96
Class C or Non-Attainment	0.03	Class B or C or Non-Attainment	0.04

Model Variables

01 Total Mean Abundance	345.67	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	35.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	1.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	68.33
04 Ephemeroptera Mean Abundance	2.33	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	2.73	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	2.60	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	0.29
08 Relative Generic Richness Diptera	0.54	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	0.53		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family	0.00		
Functional Group)			
16 Tanypodinae Mean Abundance	4.33		
(Family Functional Group)			
17 Chironomini Abundance (Family	2.33		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Diplectrona</i>	47.06
2	<i>Micropsectra</i>	19.77
3	<i>Parametriocnemus</i>	9.35
4	<i>Synurella</i>	6.17
5	<i>Simulium</i>	2.89



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	15.6 deg C
Dissolved Oxygen:	7.8 mg/l
Specific Conductance:	786 uS/cm
Velocity:	29.3 cm/s
pH:	6.29
Wetted Width:	1.5 m
Bankfull Width:	2.4 m
Depth:	15 cm

Waterbody Information - Retrieval

Temperature:	14.7 deg C
Dissolved Oxygen:	7.1 mg/l
Specific Conductance:	705 uS/cm
Velocity:	30.3 cm/s
pH:	6.4
Wetted Width:	1.9 m
Bankfull Width:	2.4 m
Depth:	15 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	10 %
	Below Urban NPS	Sand	90 %

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: 2192 Subsample Factor: X1 Replicates: 3 Calculated: 1/28/2014

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		--	0.2	0.2
<i>Nais</i>	08020202009		0.33		CG		0.1
<i>Nais communis</i>	08020202009005	0.33			--	0.1	
<i>Aulodrilus</i>	08020202018		2.67		--		0.8
<i>Aulodrilus pluriset</i>	08020202018004	2.67			--	0.8	
<i>Synurella</i>	09010202006		21.33		--		6.2
<i>Synurella chamberlaini</i>	09010202006001	21.33			--	6.2	
Leuctridae	09020204	0.67	0.67		--	0.2	0.2
<i>Leuctra</i>	09020204020		0.33	0	SH		0.1
<i>Leuctra truncata</i>	09020204020058	0.33			--	0.1	
Baetidae	09020401	1.67	1.67		--	0.5	0.5
<i>Labiobaetis</i>	09020401009	0.67	0.67		--	0.2	0.2
<i>Lype</i>	09020602004		0.67	2	SC		0.2
<i>Lype diversa</i>	09020602004005	0.67			--	0.2	
Hydropsychidae	09020604	6.67	6.67		--	1.9	1.9
<i>Diplectrona</i>	09020604014		162.67	0	CF		47.1
<i>Diplectrona modesta</i>	09020604014025	162.67			--	47.1	
<i>Oligostomis</i>	09020608039	1.00	1.00	2	PR	0.3	0.3
Limnephilidae	09020610	0.33	0.33		--	0.1	0.1
<i>Frenesia</i>	09020610058		3.33	0	SH		1.0
<i>Frenesia difficilis</i>	09020610058117	3.33			--	1.0	
<i>Sialis</i>	09020702004	1.00	1.00	4	PR	0.3	0.3
<i>Tipula</i>	09021001002	5.67	5.67	4	SH	1.6	1.6
<i>Dicranota</i>	09021001005	6.33	6.33	3	PR	1.8	1.8
<i>Limnophila</i>	09021001009	0.67	0.67	3	PR	0.2	0.2
<i>Bezzia/palpomyia</i>	09021010043	1.67	1.67	6	PR	0.5	0.5
<i>Meropelopia</i>	09021011010	3.67	3.67		--	1.1	1.1
<i>Natarsia</i>	09021011011	0.33	0.67	8	PR	0.1	0.2
<i>Natarsia baltimorea</i>	09021011011026	0.33			--	0.1	
<i>Prodiamesa</i>	09021011031		0.33	3	CG		0.1
<i>Prodiamesa olivacea</i>	09021011031048	0.33			--	0.1	
<i>Brillia</i>	09021011033		2.00	5	SH		0.6
<i>Brillia parva</i>	09021011033050	2.00			--	0.6	
<i>Parachaetocladius</i>	09021011051	2.33	2.33		CG	0.7	0.7
<i>Parametriocnemus</i>	09021011053	32.33	32.33	5	CG	9.4	9.4
<i>Smittia</i>	09021011058	0.33	0.33	6	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.1	0.1
<i>Tvetenia</i>	09021011065		1.33	5	CG		0.4



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		Actual	Adjusted			Actual	Adjusted
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.4	
<i>Micropsectra</i>	09021011070	68.33	68.33	7	CG	19.8	19.8
<i>Polypedilum</i>	09021011102		2.33	6	SH		0.7
<i>Polypedilum aviceps</i>	09021011102181	0.67			--	0.2	
<i>Polypedilum fallax group</i>	09021011102183	1.33			--	0.4	
<i>Polypedilum laetum</i>	09021011102186	0.33			--	0.1	
<i>Macropelopia</i>	09021011111	1.33	1.33		P	0.4	0.4
<i>Platysmittia</i>	09021011140		0.33		CG		0.1
<i>Platysmittia bilyji</i>	09021011140001	0.33			--	0.1	
<i>Simulium</i>	09021012047		10.00	4	CF		2.9
<i>Simulium (Eusimulium)</i>	09021012047052	5.33			--	1.5	
<i>Simulium tuberosum</i>	09021012047067	4.67			--	1.4	
<i>Neoplasta</i>	09021016064	1.33	1.33		PR	0.4	0.4
<i>Lymnaea</i>	10010201022	0.33	0.33		SC	0.1	0.1