



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: DOWNSTREAM OF TOPSHAM FAIR MALL NEAR SITE OF NEW TARGET
DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 43 55 54.77 N
Longitude: 69 58 58.68 W
Stream Order: 2

Sample Information

Log Number: 1721
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/16/2008
Date Retrieved: 8/13/2008

Classification Attainment

Statutory Class: B
Model Result with P>.6: NA
Date Last Calculated: 5/19/2009
Final Determination: NA
Reason for Determination: Model
Date: 5/20/2009
Comments:

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
<u>B or Better Model</u>		<u>A Model</u>	
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	172.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	30.00	19 EPT Generic Richness	5.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	2.01
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	2.15	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	7.23	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.73	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.53	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	0.31		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.03		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.67		
(Family Functional Group)			
17 Chironomini Abundance (Family	118.31		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stictochironomus</i>	67.49
2	<i>Diplectrona</i>	7.16
3	<i>Simulium</i>	6.19
4	<i>Limnephilus</i>	3.87
5	<i>Parametriocnemus</i>	1.75



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Town: Topsham

Date Deployed: 7/16/2008

Log Number: 1721

Waterbody: Unnamed Stream (topsham 4) - Station 6

Date Retrieved: 8/13/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 14.9 deg C
Dissolved Oxygen: 8.5 mg/l
Specific Conductance: 706 uS/cm
Velocity: 22.5 cm/s
pH: 6.57
Wetted Width: 2.1 m
Bankfull Width: 2.4 m
Depth: 20 cm

Waterbody Information - Retrieval

Temperature: 15.2 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 608 uS/cm
Velocity: 31 cm/s
pH: 6.42
Wetted Width: 2.4 m
Bankfull Width: 2.4 m
Depth: 25 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	0.07 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.3 mg/l	Total Phosphorus	0.016 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	6.2 mg/l
Dissolved Organic Carbon	4.1 mg/l	Total Dissolved Solids	380 mg/l

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>
Urban Runoff Stressor	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
Total Land (ac)	356	Med Int. Dev. %	12.1	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	18.4	Upland Woody %	19.0	Human Altered %	81.0
		Development %	54.9	Natural %	19.0	Impervious %	30.3

Sample Comments

8/13/08: OIL SHEEN ON THE WATER

FLOW METER NOT WORKING, FLOW ESTIMATED AT 20-25 CM/S

7/16/08: FLOW METER NOT WORKING, FLOW ESTIMATED AT 20-25 CM/S



**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: 1721 Subsample Factor: X1 Replicates: 3 Calculated: 5/19/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Enchytraeidae	08020201	0.67	0.67		--	0.4	0.4
Tubificidae	08020203	2.33			--	1.4	
<i>Aulodrilus</i>	08020203001		1.11		--		0.6
<i>Aulodrilus pluriseta</i>	08020203001004	0.33			--	0.2	
<i>Stylodrilus</i>	08020203011		2.22		--		1.3
<i>Stylodrilus heringianus</i>	08020203011001	0.67			--	0.4	
Lumbricidae	08020205	0.33	0.33		--	0.2	0.2
<i>Caecidotea</i>	09010101001	0.33	0.33	8	SH	0.2	0.2
<i>Synurella</i>	09010202006		2.00		--		1.2
<i>Synurella chamberlaini</i>	09010202006001	2.00			--	1.2	
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.2	0.2
<i>Cordulegaster</i>	09020303019	0.33	0.33	3	PR	0.2	0.2
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.2	0.2
<i>Diplectrona</i>	09020604014		12.33	0	CF		7.2
<i>Diplectrona modesta</i>	09020604014025	12.33			--	7.2	
<i>Limnephilus</i>	09020610055	6.67	6.67	3	SH	3.9	3.9
<i>Psychoglypha</i>	09020610060		0.67	0	SH		0.4
<i>Psychoglypha subborealis</i>	09020610060120	0.67			--	0.4	
<i>Sialis</i>	09020702004	1.00	1.00	4	PR	0.6	0.6
Lepidoptera	090209	0.33	0.33		--	0.2	0.2
<i>Tipula</i>	09021001002	0.67	0.67	4	SH	0.4	0.4
<i>Dicranota</i>	09021001005	3.00	3.00	3	PR	1.7	1.7
<i>Limnophila</i>	09021001009	2.33	2.33	3	PR	1.4	1.4
<i>Probezzia</i>	09021010041	0.33	0.33	6	PR	0.2	0.2
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.2	0.2
Chironomidae	09021011	0.33			--	0.2	
<i>Natarsia</i>	09021011011		0.67	8	PR		0.4
<i>Natarsia baltimorea</i>	09021011011026	0.67			--	0.4	
<i>Prodiamesa</i>	09021011031		1.34	3	CG		0.8
<i>Prodiamesa olivacea</i>	09021011031048	1.33			--	0.8	
<i>Parachaetocladius</i>	09021011051	0.33	0.33		CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	3.00	3.01	5	CG	1.7	1.7
<i>Tvetenia</i>	09021011065		0.33	5	CG		0.2
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.2	
<i>Micropsectra</i>	09021011070	2.00	2.01	7	CG	1.2	1.2
<i>Polypedilum</i>	09021011102		1.67	6	SH		1.0
<i>Polypedilum scalaenum group</i>	09021011102189	1.67			--	1.0	
<i>Stictochironomus</i>	09021011106	116.00	116.31	9	CG	67.3	67.5



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		Actual	Adjusted			Actual	Adjusted
<i>Tribelos</i>	09021011107		0.33	5	CG		0.2
<i>Tribelos jucundum</i>	09021011107198	0.33			--	0.2	
<i>Simulium</i>	09021012047	1.00	10.67	4	CF	0.6	6.2
<i>Simulium aureum</i>	09021012047052	1.33			--	0.8	
<i>Simulium fibrinflatum</i>	09021012047059	0.33			--	0.2	
<i>Simulium jenningsi complex</i>	09021012047070	3.67			CF	2.1	
<i>Simulium venustum/verecundum complex</i>	09021012047072	4.33			CF	2.5	
<i>Neoplasta</i>	09021016064	0.33	0.33		PR	0.2	0.2