



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

Station Information

Station Number: S-633
Waterbody: Unnamed Stream (topsham 2) - Station 633
Town: Topsham
Directions: DWNSTRM OF RT 24 CROSSING

DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 43 55 28.44 N
Longitude: 69 57 1.43 W
Stream Order: 2

Sample Information

Log Number: 1720
Subsample Factor: X1

Type of Sample: ROCK BAG
Replicates: 1

Date Deployed: 7/16/2008
Date Retrieved: 8/13/2008

Classification Attainment

Statutory Class: B
Model Result with P>.6: I
Date Last Calculated: 5/19/2009

Final Determination: I
Reason for Determination: Best Professional Judgement
Comments: Minimum Provisions for Total Mean Abundance and Generic Richness not met. Two samplers lost due to heavy sediment transport.

Date: 5/20/2009

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	24.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	10.00	19 EPT Generic Richness	0.00
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	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.92	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	7.08	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.50	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.60	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 Generic Richness	0.00		
13 Relative Abundance - Oligochaeta	0.25		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	7.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Stictochironomus</i>	29.17
2	<i>Stylodrilus</i>	20.83
3	<i>Diamesa</i>	12.50
4	<i>Ormosia</i>	8.33
5	<i>Parachaetocladius</i>	8.33



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

Station Number: S-633

Town: Topsham

Date Deployed: 7/16/2008

Log Number: 1720

Waterbody: Unnamed Stream (topsham 2) - Station 6

Date Retrieved: 8/13/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 13.8 deg C
Dissolved Oxygen: 9.2 mg/l
Specific Conductance: 230 uS/cm
Velocity: 31 cm/s
pH: 6.59
Wetted Width: 3.4 m
Bankfull Width: 4.5 m
Depth: 15 cm

Waterbody Information - Retrieval

Temperature: 14.7 deg C
Dissolved Oxygen: 9.1 mg/l
Specific Conductance: 274 uS/cm
Velocity: 46 cm/s
pH: 6.67
Wetted Width: 4.5 m
Bankfull Width: 4.5 m
Depth: 9 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	0.03 mg/l	Soluble Reactive Phosphorus	5 ug/l
Nitrate+nitrite As N	0.61 mg/l	Total Phosphorus	0.056 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	9.2 mg/l
Dissolved Organic Carbon	5.1 mg/l	Total Dissolved Solids	160 mg/l

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Canopy Dense	Rolling Terrain
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)	610	High Int. Dev. %	11.1	Water %	0.0	Non-vegetated %	0.0
Total Land (ac)	610	Med Int. Dev. %	14.2	Wetland %	0.3	Tilled Agriculture %	0.0
		Low Int. Dev. %	32.5	Upland Woody %	30.9	Human Altered %	68.1
		Development %	57.8	Natural %	31.9	Impervious %	31.7

Sample Comments

BAGS 2 AND 3 LOST (PROBABLY BURIED - EVIDENCE OF MASSIVE SEDIMENT TRANSPORT)



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

Station Number: S-633 Waterbody: Unnamed Stream (topsham 2) - Station 633 Town: Topsham
Log Number: 1720 Subsample Factor: X1 Replicates: 1 Calculated: 5/19/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Tubificidae	08020203	1.00	1.00		--	4.2	4.2
<i>Stylodrilus</i>	08020203011		5.00		--		20.8
<i>Stylodrilus heringianus</i>	08020203011001	5.00			--	20.8	
Lepidoptera	090209	1.00	1.00		--	4.2	4.2
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	4.2	4.2
<i>Limnophila</i>	09021001009	1.00	1.00	3	PR	4.2	4.2
<i>Ormosia</i>	09021001011	2.00	2.00		CG	8.3	8.3
<i>Diamesa</i>	09021011024	3.00	3.00	5	CG	12.5	12.5
<i>Parachaetocladius</i>	09021011051	2.00	2.00		CG	8.3	8.3
<i>Stictochironomus</i>	09021011106	7.00	7.00	9	CG	29.2	29.2
Lymnaeidae	10010201	1.00	1.00		--	4.2	4.2