



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

Station Information

Station Number:	S-634	DEP Drainage:	Androscoggin
Waterbody:	Unnamed Stream (topsham 4) - Station 634	HUC8:	01040002
Town:	Topsham	HUC8 Name:	Lower Androscoggin
Directions:	DOWNSTREAM OF TOPSHAM FAIR MALL NEAR SITE OF NEW TARGET	Latitude:	43 55 54.77 N
		Longitude:	69 58 58.68 W
		Stream Order:	2

Sample Information

Log Number:	1563	Type of Sample:	ROCK BAG	Date Deployed:	7/17/2006
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/14/2006

Classification Attainment

Statutory Class:	B	Final Determination:	A	Date:	7/9/2007
Model Result with P>.6:	A	Reason for Determination:	Model		
Date Last Calculated:	3/13/2009	Comments:			

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.88	Class C	0.00	Class A, B, or C	1.00
Class B	0.12	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B			0.98	Class A	0.95
Class C or Non-Attainment			0.02	Class B or C or Non-Attainment	0.05

Model Variables

01 Total Mean Abundance	551.33	18 Relative Abundance Ephemeroptera	0.06
02 Generic Richness	36.00	19 EPT Generic Richness	7.00
03 Plecoptera Mean Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	17.33
04 Ephemeroptera Mean Abundance	34.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	1.95	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.33
06 Hilsenhoff Biotic Index	1.45	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.13	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.56	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	7.61		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.35		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.33		
17 Chironomini Abundance (Family Functional Group)	8.33		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Diplectrona</i>	71.17
2	<i>Parametriocnemus</i>	6.65
3	<i>Baetis</i>	4.85
4	<i>Micropsectra</i>	3.14
5	<i>Crangonyx</i>	3.08



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Town: Topsham

Date Deployed: 7/17/2006

Log Number: 1563

Waterbody: Unnamed Stream (topsham 4) - Station 6

Date Retrieved: 8/14/2006

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: LOTIC INC.

Waterbody Information - Deployment

Temperature: 16.6 deg C
Dissolved Oxygen: 7.1 mg/l
Specific Conductance: 535 uS/cm
Velocity: 32 cm/s
pH:
Wetted Width: 1.9 m
Bankfull Width: 1.9 m
Depth: 17 cm

Waterbody Information - Retrieval

Temperature: 13.6 deg C
Dissolved Oxygen: 9.6 mg/l
Specific Conductance: 575 uS/cm
Velocity: 14 cm/s
pH: 6.02
Wetted Width: 1.91 m
Bankfull Width:
Depth: 22 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	0.08 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.45 mg/l	Total Phosphorus	0.015 mg/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	8 mg/l
Dissolved Organic Carbon	2.2 mg/l	Total Dissolved Solids	370 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>
	Not Designated	Detritus 10 %
		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



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Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report

Station Number: S-634 Waterbody: Unnamed Stream (topsham 4) - Station 634 Town: Topsham
Log Number: 1563 Subsample Factor: X1 Replicates: 3 Calculated: 3/13/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Lumbriculus</i>	08020101002	3.33	3.33		CG	0.6	0.6
Enchytraeidae	08020201	0.33	0.33		--	0.1	0.1
<i>Nais</i>	08020202009	2.00	2.00		CG	0.4	0.4
Tubificidae	08020203	0.67	0.67		--	0.1	0.1
<i>Crangonyx</i>	09010202004	17.00	17.00	8	--	3.1	3.1
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	0.1	0.1
<i>Cordulegaster</i>	09020303019		0.67	3	PR		0.1
<i>Cordulegaster maculata</i>	09020303019042	0.67			--	0.1	
Baetidae	09020401	4.33			--	0.8	
<i>Baetis</i>	09020401001	23.00	26.74	4	CG	4.2	4.9
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.1	
<i>Pseudocloeon</i>	09020401006	6.33	7.26	4	SC	1.1	1.3
Hydropsychidae	09020604	32.00			--	5.8	
<i>Diplectrona</i>	09020604014	361.00	392.39	0	CF	65.5	71.2
<i>Hydropsyche</i>	09020604016	7.00	7.61	4	CF	1.3	1.4
<i>Oligostomis</i>	09020608039	0.33	0.33	2	PR	0.1	0.1
<i>Limnephilus</i>	09020610055	5.33	5.33	3	SH	1.0	1.0
<i>Sialis</i>	09020702004	1.33	1.33	4	PR	0.2	0.2
Tipulidae	09021001	3.33			--	0.6	
<i>Tipula</i>	09021001002	1.33	2.12	4	SH	0.2	0.4
<i>Dicranota</i>	09021001005	4.33	6.88	3	PR	0.8	1.2
<i>Bezzia/palpomyia</i>	09021010043	0.67	0.67	6	PR	0.1	0.1
<i>Thienemannimyia</i>	09021011020		1.33	3	PR		0.2
<i>Thienemannimyia/arctopolopia</i> group	09021011020041	1.33			--	0.2	
<i>Diamesa</i>	09021011024	0.67	0.67	5	CG	0.1	0.1
<i>Prodiamesa</i>	09021011031	0.33	0.33	3	CG	0.1	0.1
<i>Brillia</i>	09021011033	1.00	1.00	5	SH	0.2	0.2
<i>Eukiefferiella</i>	09021011041		0.67	8	CG		0.1
<i>Eukiefferiella claripennis</i> group	09021011041075	0.67			--	0.1	
<i>Heterotrissocladius</i>	09021011044		0.33	0	CG		0.1
<i>Heterotrissocladius marcidus</i>	09021011044083	0.33			--	0.1	
<i>Parachaetocladius</i>	09021011051	1.00	1.00		CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	36.67	36.67	5	CG	6.7	6.7
<i>Rheocricotopus</i>	09021011057		0.67	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	0.67			--	0.1	
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.1
<i>Tvetenia paucunca</i>	09021011065114	0.67			--	0.1	



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<i>Micropsectra</i>	09021011070	17.33	17.33	7	CG	3.1	3.1
<i>Tanytarsus</i>	09021011076	0.33	0.33	6	CF	0.1	0.1
<i>Polypedilum</i>	09021011102		3.00	6	SH		0.5
<i>Polypedilum aviceps</i>	09021011102181	3.00			--	0.5	
<i>Stictochironomus</i>	09021011106	5.33	5.33	9	CG	1.0	1.0
<i>Odontomesa</i>	09021011121		0.33	4	--		0.1
<i>Odontomesa fulva</i>	09021011121001	0.33			--	0.1	
<i>Simulium</i>	09021012047	4.00	4.00	4	CF	0.7	0.7
Empididae	09021016	1.33	1.33	6	--	0.2	0.2
<i>Stenelmis</i>	09021113070	0.33	0.33	5	SC	0.1	0.1
Lymnaeidae	10010201	0.67	0.67		--	0.1	0.1