



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: DOWNSTREAM OF RT 24 CROSSING
DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 43 55 28.44 N
Longitude: 69 57 1.43 W
Stream Order: 2

Sample Information

Log Number: 2191
Type of Sample: ROCK BAG
Date Deployed: 7/10/2013
Subsample Factor: X1
Replicates: 3
Date Retrieved: 8/7/2013

Classification Attainment

Statutory Class: B
Final Determination: B
Date: 1/30/2014
Model Result with P>.6: B
Reason for Determination: Model
Date Last Calculated: 1/28/2014
Comments:

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.31	Class A, B, or C	1.00
Class B	0.55	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.73	Class A	0.07
Class C or Non-Attainment	0.27	Class B or C or Non-Attainment	0.93

Model Variables

01 Total Mean Abundance	218.33	18 Relative Abundance Ephemeroptera	0.03
02 Generic Richness	38.00	19 EPT Generic Richness	8.00
03 Plecoptera Mean Abundance	3.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	17.00
04 Ephemeroptera Mean Abundance	7.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.62	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.67
06 Hilsenhoff Biotic Index	5.16	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.30	28 EP Generic Richness/14	0.21
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	0.40		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family	0.00		
Functional Group)			
16 Tanypodinae Mean Abundance	0.00		
(Family Functional Group)			
17 Chironomini Abundance (Family	27.00		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Caecidotea</i>	28.85
2	<i>Diplectrona</i>	13.71
3	<i>Gammarus</i>	12.37
4	<i>Polypedilum</i>	9.31
5	<i>Micropsectra</i>	7.79



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	15.2 deg C
Dissolved Oxygen:	8.1 mg/l
Specific Conductance:	334 uS/cm
Velocity:	41 cm/s
pH:	6.19
Wetted Width:	2.4 m
Bankfull Width:	3.8 m
Depth:	14 cm

Waterbody Information - Retrieval

Temperature:	14 deg C
Dissolved Oxygen:	8.3 mg/l
Specific Conductance:	289 uS/cm
Velocity:	28.8 cm/s
pH:	6.67
Wetted Width:	2.8 m
Bankfull Width:	3.8 m
Depth:	14 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Dense	Rolling
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Urban Runoff	Below Road Crossing	Detritus 5 %
	Below Urban NPS	Sand 95 %

Landcover Summary - 2004 Data

Total Area (ac)	610	High Int. Dev. %	11.1	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	14.2	Wetland %	0.3	Tilled Agriculture %	0.0
		Low Int. Dev. %	32.5	Upland Woody %	30.9	Grassland %	0.8
		Development %	57.8	Natural %	31.9	Human Altered %	68.1
						Impervious %	31.7

Sample Comments

7/10/2013 - NO WOODY DEBRIS, CHANNEL APPEARS ALTERED (CHANNELIZED)



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

Station Number: S-633 Waterbody: Unnamed Stream (topsham 2) - Station 633 Town: Topsham
Log Number: 2191 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
<i>Lumbriculus</i>	08020101002		0.67		CG		0.3
<i>Lumbriculus variegatus</i>	08020101002001	0.67			--	0.3	
Naididae	08020202	2.00			--	0.9	
<i>Nais</i>	08020202009		2.20		CG		1.0
<i>Nais communis</i>	08020202009005	0.67			--	0.3	
<i>Nais variabilis</i>	08020202009009	0.33			--	0.2	
<i>Limnodrilus</i>	08020202022		1.47		CG		0.7
<i>Limnodrilus hoffmeisteri</i>	08020202022003	0.33			--	0.2	
<i>Limnodrilus udekemianus</i>	08020202022006	0.33			--	0.2	
<i>Caecidotea</i>	09010101001	52.67	63.00	8	SH	24.1	28.9
<i>Caecidotea racovitzai racovitzai</i>	09010101001002	10.33			--	4.7	
Amphipoda	090102	0.67	0.67	8	--	0.3	0.3
<i>Gammarus</i>	09010201003		27.00	4	--		12.4
<i>Gammarus fasciatus</i>	09010201003003	27.00			--	12.4	
<i>Synurella</i>	09010202006		0.67		--		0.3
<i>Synurella chamberlaini</i>	09010202006001	0.67			--	0.3	
Collembola	090201	0.33	0.33		--	0.2	0.2
<i>Nemoura</i>	09020201002	3.67	3.67	1	SH	1.7	1.7
Baetidae	09020401	6.67	6.67		--	3.1	3.1
<i>Ephemerella</i>	09020410035	0.67	0.67	1	CG	0.3	0.3
Hydropsychidae	09020604	7.00			--	3.2	
<i>Parapsyche</i>	09020604013		5.40	0	CF		2.5
<i>Parapsyche apicalis</i>	09020604013023	4.33			--	2.0	
<i>Diplectrona</i>	09020604014		29.93	0	CF		13.7
<i>Diplectrona modesta</i>	09020604014025	24.00			--	11.0	
<i>Rhyacophila</i>	09020605019	1.33	1.33	2	PR	0.6	0.6
<i>Frenesia</i>	09020610058		0.33	0	SH		0.2
<i>Frenesia difficilis</i>	09020610058117	0.33			--	0.2	
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Sialis</i>	09020702004	0.67	0.67	4	PR	0.3	0.3
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.2	0.2
<i>Dicranota</i>	09021001005	1.67	1.67	3	PR	0.8	0.8
<i>Limnophila</i>	09021001009	1.00	1.00	3	PR	0.5	0.5
Ceratopogonidae	09021010	0.33	0.33		--	0.2	0.2
<i>Prodiamesa</i>	09021011031		3.67	3	CG		1.7
<i>Prodiamesa olivacea</i>	09021011031048	3.67			--	1.7	
<i>Brillia</i>	09021011033	0.33	0.67	5	SH	0.2	0.3
<i>Brillia parva</i>	09021011033050	0.33			--	0.2	



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<i>Cricotopus</i>	09021011037		0.67	7	SH		0.3
<i>Cricotopus annulator complex</i>	09021011037074	0.33			--	0.2	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	0.33			SH	0.2	
<i>Eukiefferiella</i>	09021011041	0.33	0.67	8	CG	0.2	0.3
<i>Eukiefferiella claripennis group</i>	09021011041075	0.33			--	0.2	
<i>Limnophyes</i>	09021011047	0.33	0.33	8	CG	0.2	0.2
<i>Parametriocnemus</i>	09021011053	7.67	7.67	5	CG	3.5	3.5
<i>Thienemanniella</i>	09021011062		0.33	6	CG		0.2
<i>Thienemanniella boltoni</i>	09021011062113	0.33			--	0.2	
<i>Tvetenia</i>	09021011065		1.00	5	CG		0.5
<i>Tvetenia paucunca</i>	09021011065114	1.00			--	0.5	
<i>Micropsectra</i>	09021011070	17.00	17.00	7	CG	7.8	7.8
<i>Paratanytarsus</i>	09021011071		1.67	6	--		0.8
<i>Paratanytarsus dissimilis</i>	09021011071125	0.33			--	0.2	
<i>Paratanytarsus longistylus</i>	09021011071126	1.33		6	--	0.6	
<i>Rheotanytarsus</i>	09021011072	1.33	1.33	6	CF	0.6	0.6
<i>Tanytarsus</i>	09021011076	1.00	1.00	6	CF	0.5	0.5
<i>Polypedilum</i>	09021011102		20.33	6	SH		9.3
<i>Polypedilum aviceps</i>	09021011102181	20.33			--	9.3	
<i>Stictochironomus</i>	09021011106	6.67	6.67	9	CG	3.1	3.1
<i>Odontomesa</i>	09021011121		2.67	4	--		1.2
<i>Odontomesa fulva</i>	09021011121001	2.67			--	1.2	
<i>Simulium</i>	09021012047	3.67	3.67	4	CF	1.7	1.7
<i>Neoplasta</i>	09021016064				PR		
<i>Hydrobius</i>	09021105047	0.33	0.33		--	0.2	0.2
<i>Basommatophora</i>	100102	0.33	0.33		--	0.2	0.2