



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

Station Information

Station Number: S-1000
Waterbody: Frye Brook - Station 1000
Town: Andover West Surplus Twp
Directions: ROUTE 5 TO NEWTON STREET TO UPTON ROAD.
FOLLOW UPTON UNTIL HIKING TRAIL IN STATE
PRESERVE

DEP Drainage: Androscoggin
HUC8: 01040002
HUC8 Name: Lower Androscoggin
Latitude: 44 38 27.82 N
Longitude: 70 51 24.98 W
Stream Order: 2

Sample Information

Log Number: 2224 Type of Sample: ROCK BAG Date Deployed: 7/25/2013
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/26/2013

Classification Attainment

Statutory Class: A **Final Determination: A** Date: 11/21/2013
Model Result with P>.6: A **Reason for Determination: Model**
Date Last Calculated: 11/18/2013 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.95	Class A, B, or C	1.00
Class B	0.05	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	157.67	18 Relative Abundance Ephemeroptera	0.57
02 Generic Richness	40.00	19 EPT Generic Richness	23.00
03 Plecoptera Mean Abundance	29.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.36
04 Ephemeroptera Mean Abundance	90.00	23 Relative Generic Richness- Plecoptera	0.20
05 Shannon-Wiener Generic Diversity	3.88	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.34
06 Hilsenhoff Biotic Index	2.86	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	6.01
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.35	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	2.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.64		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	3.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	2.38		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Baetis</i>	27.06
2	<i>Ephemerella</i>	15.01
3	<i>Isoperla</i>	11.28
4	<i>Heptagenia</i>	9.06
5	<i>Maccaffertium</i>	3.81



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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:	10.4 mg/l
Specific Conductance:	13 uS/cm
Velocity:	53.1 cm/s
pH:	6.3
Wetted Width:	10.5 m
Bankfull Width:	13 m
Depth:	40 cm

Waterbody Information - Retrieval

Temperature:	16.3 deg C
Dissolved Oxygen:	8.8 mg/l
Specific Conductance:	13 uS/cm
Velocity:	16.5 cm/s
pH:	5.86
Wetted Width:	9.9 m
Bankfull Width:	13 m
Depth:	25 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Conifer

Upland Hardwood

Potential Stressor

Canopy Cover

Partly Open

Location

Above Road Crossing

Pristine Landscape

Terrain

Mountainous

Substrate

Boulder	60 %
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Gravel	10 %
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Rubble/Cobble	30 %
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Landcover Summary - 2004 Data

Sample Comments



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

Station Number: S-1000	Waterbody: Frye Brook - Station 1000	Town: Andover West Surplus Twp
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		Calculated: 11/18/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.2	0.2
<i>Pteronarcys</i>	09020205023		0.33	0	SH		0.2
<i>Pteronarcys dorsata</i>	09020205023063	0.33			--	0.2	
<i>Tallaperla</i>	09020206025	0.67	0.67		SH	0.4	0.4
Perlodidae	09020207	7.33			--	4.7	
<i>Isoperla</i>	09020207026	11.67	17.78	2	PR	7.4	11.3
<i>Malirekus</i>	09020207034		3.56		PR		2.3
<i>Malirekus iroquois</i>	09020207034101	2.33			--	1.5	
<i>Sweltsa</i>	09020208040	3.00	3.00		PR	1.9	1.9
Perlidae	09020209	1.33	1.33		--	0.8	0.8
<i>Agnatina</i>	09020209050		2.33	2	PR		1.5
<i>Agnatina capitata</i>	09020209050152	2.33		2	PR	1.5	
<i>Baetis</i>	09020401001	5.33	42.67	4	CG	3.4	27.1
<i>Baetis flavistriga</i>	09020401001004	13.67			--	8.7	
<i>Baetis pluto</i>	09020401001009	3.67			--	2.3	
<i>Baetis tricaudatus</i>	09020401001012	20.00			--	12.7	
Heptageniidae	09020402	2.33			--	1.5	
<i>Epeorus</i>	09020402009	0.33	0.38	0	SC	0.2	0.2
<i>Heptagenia</i>	09020402010	12.67	14.28	2	SC	8.0	9.1
<i>Maccaffertium</i>	09020402015	3.33	6.01	4	SC	2.1	3.8
<i>Maccaffertium luteum</i>	09020402015049	2.00			--	1.3	
Leptophlebiidae	09020406	1.33	1.33		--	0.8	0.8
<i>Ephemerella</i>	09020410035	9.33	23.67	1	CG	5.9	15.0
<i>Ephemerella invaria</i>	09020410035107	14.33			--	9.1	
<i>Eurylophella</i>	09020410036	1.67	1.67	3	CG	1.1	1.1
Gerridae	09020506	0.33	0.33		--	0.2	0.2
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.2	0.2
<i>Hydropsyche</i>	09020604016	0.33	2.00	4	CF	0.2	1.3
<i>Hydropsyche slossonae</i>	09020604016031	1.33			--	0.8	
<i>Hydropsyche sparna</i>	09020604016032	0.33			--	0.2	
<i>Rhyacophila</i>	09020605019	3.67	4.33	2	PR	2.3	2.7
<i>Rhyacophila fuscula</i>	09020605019060	0.67			PR	0.4	
<i>Glossosoma</i>	09020606020	0.67	3.00	0	SC	0.4	1.9
<i>Glossosoma nigrior</i>	09020606020068	2.33			SC	1.5	
<i>Brachycentrus</i>	09020609043		3.00	0	CF		1.9
<i>Brachycentrus solomoni</i>	09020609043102	3.00			--	1.9	
<i>Apatania</i>	09020610061	0.33	0.33		SC	0.2	0.2
<i>Neophylax</i>	09020610062	1.00	1.00	3	SC	0.6	0.6



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<i>Lepidostoma</i>	09020611064	3.33	3.33	1	SH	2.1	2.1
<i>Hexatoma</i>	09021001008	0.33	0.33	2	PR	0.2	0.2
Chironomidae	09021011	0.33			--	0.2	
<i>Rheopelopia acra group</i>	09021011017036				--		
<i>Pagastia</i>	09021011025		0.68	1	--		0.4
<i>Pagastia orthogonia</i>	09021011025001	0.67			--	0.4	
<i>Brillia</i>	09021011033	0.33	0.34	5	SH	0.2	0.2
<i>Corynoneura</i>	09021011036	1.00	1.02	7	CG	0.6	0.6
<i>Cricotopus</i>	09021011037		0.34	7	SH		0.2
<i>Cricotopus patens</i>	09021011037075	0.33			--	0.2	
<i>Eukiefferiella</i>	09021011041	0.33	0.34	8	CG	0.2	0.2
<i>Orthocladius</i>	09021011050		1.70	6	CG		1.1
<i>Orthocladius carlatus</i>	09021011050093	1.67			--	1.1	
<i>Parametriocnemus</i>	09021011053	1.33	1.36	5	CG	0.8	0.9
<i>Thienemanniella</i>	09021011062			6	CG		
<i>Tvetenia</i>	09021011065		2.04	5	CG		1.3
<i>Tvetenia paucunca</i>	09021011065114	2.00			--	1.3	
<i>Micropsectra</i>	09021011070	1.33	1.36	7	CG	0.8	0.9
<i>Rheotanytarsus</i>	09021011072	4.67	4.76	6	CF	3.0	3.0
<i>Polypedilum</i>	09021011102		2.38	6	SH		1.5
<i>Polypedilum aviceps</i>	09021011102181	2.00			--	1.3	
<i>Polypedilum albicorne</i>	09021011102195	0.33			--	0.2	
<i>Simulium tuberosum</i>	09021012047067				--		
<i>Simulium venustum/verecundum</i> <i>complex</i>	09021012047072				CF		
<i>Atherix</i>	09021015055	2.00	2.00	2	PR	1.3	1.3
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.2	0.2
<i>Oulimnius</i>	09021113068		0.33		--		0.2
<i>Oulimnius latiusculus</i>	09021113068049	0.33			--	0.2	
<i>Promoresia</i>	09021113069		1.33		--		0.8
<i>Promoresia tardella</i>	09021113069052	1.33			--	0.8	