



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

Station Information

Station Number: S-870

Waterbody: Unnamed Stream (big Moose Twp) - Station 870

Town: Big Moose Twp

Directions: 34 M ABOVE ROAD CROSSING

DEP Drainage:

HUC8: 01030001

HUC8 Name: Upper Kennebec

Latitude: 45 31 52.17 N

Longitude: 69 43 56.92 W

Stream Order: 1

Sample Information

Log Number: 2131

Type of Sample: ROCK BAG

Date Deployed: 7/25/2012

Subsample Factor: X1

Replicates: 2

Date Retrieved: 8/23/2012

Classification Attainment

Statutory Class: A

Final Determination: I

Date: 1/16/2013

Model Result with P>.6: I

Reason for Determination: Best Professional Judgement

Date Last Calculated: 1/15/2013

Comments: Low numbers due to beaver activity

Model Probabilities

First Stage Model

Class A	0.93	Class C	0.00
Class B	0.07	NA	0.00

B or Better Model

Class A or B	1.00
Class C or Non-Attainment	0.00

C or Better Model

Class A, B, or C	1.00
Non-Attainment	0.00

A Model

Class A	0.99
Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	36.50	18 Relative Abundance Ephemeroptera	0.32																					
02 Generic Richness	31.00	19 EPT Generic Richness	10.00																					
03 Plecoptera Mean Abundance	1.50	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.62																					
04 Ephemeroptera Mean Abundance	11.50	23 Relative Generic Richness- Plecoptera	0.06																					
05 Shannon-Wiener Generic Diversity	4.18	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.54																					
06 Hilsenhoff Biotic Index	3.25	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00																					
07 Relative Abundance - Chironomidae	0.19	28 EP Generic Richness/14	0.36																					
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.14																					
09 <i>Hydropsyche</i> Abundance	0.50	<table><tr><th colspan="3">Five Most Dominant Taxa</th></tr><tr><th>Rank</th><th>Taxon Name</th><th>Percent</th></tr><tr><td>1</td><td>Leptophlebiidae</td><td>27.40</td></tr><tr><td>2</td><td><i>Psychoglypha</i></td><td>9.59</td></tr><tr><td>3</td><td><i>Sialis</i></td><td>6.85</td></tr><tr><td>4</td><td><i>Cordulegaster</i></td><td>5.48</td></tr><tr><td>5</td><td><i>Micropsectra</i></td><td>4.43</td></tr></table>		Five Most Dominant Taxa			Rank	Taxon Name	Percent	1	Leptophlebiidae	27.40	2	<i>Psychoglypha</i>	9.59	3	<i>Sialis</i>	6.85	4	<i>Cordulegaster</i>	5.48	5	<i>Micropsectra</i>	4.43
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1	Leptophlebiidae	27.40																						
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5	<i>Micropsectra</i>	4.43																						
11 <i>Cheumatopsyche</i> Abundance	0.00																							
12 EPT Generic Richness/ Diptera	0.83																							
Generic Richness																								
13 Relative Abundance - Oligochaeta	0.03																							
15 Perlidae Mean Abundance (Family	0.00																							
Functional Group)																								
16 Tanypodinae Mean Abundance	1.08																							
(Family Functional Group)																								
17 Chironomini Abundance (Family	0.00																							
Functional Group)																								



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Station Number: S-870 Town: Big Moose Twp Date Deployed: 7/25/2012
Log Number: 2131 Waterbody: Unnamed Stream (big Moose Twp) - Station 870 Date Retrieved: 8/23/2012

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 18.1 deg C
Dissolved Oxygen: 7.3 mg/l
Specific Conductance: 66 uS/cm
Velocity:
pH: 7.23
Wetted Width: 1.2 m
Bankfull Width: 3.3 m
Depth: 20 cm

Waterbody Information - Retrieval

Temperature: 16.1 deg C
Dissolved Oxygen: 8.6 mg/l
Specific Conductance: 74 uS/cm
Velocity:
pH: 6.85
Wetted Width:
Bankfull Width:
Depth: 70 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Swamp Hardwood	Partly Open	Rolling
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Hydrology (beaver Activit	Above Road Crossing	Gravel 65 %
		Sand 20 %
		Silt 15 %

Landcover Summary - 2004 Data

Total Area (ac)	1000	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.0	Upland Woody %	100.0	Grassland %	0.0
		Development %	0.0	Natural %	100.0	Human Altered %	0.0
						Impervious %	0.0

Sample Comments

7/25/12: VISIBLE FLOW. 7/25/12: FISH OBSERVED. 7/25/12: BEAVER ACTIVITY - MULTIPLE CHANNEL NETWORK LIKELY DUE TO BEAVER ACTIVITY, MANY CHANNELS HAVE GONE DRY.
8/23/12: BACKED UP BY BEAVER DAM, CREATING A LARGE POOL; LITTLE TO NO FLOW PRESENT.



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

Station Number: S-870 Waterbody: Unnamed Stream (big Moose Twp) - Station Town: Big Moose Twp
Log Number: 2131 Subsample Factor: X1 Replicates: 2 Calculated: 1/15/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	0.50	0.50		PR	1.4	1.4
<i>Cura</i>	03010102001	0.50	0.50		--	1.4	1.4
Lumbricidae	08020205	1.00	1.00		--	2.7	2.7
<i>Nemoura</i>	09020201002	0.50	0.50	1	SH	1.4	1.4
<i>Sweltsa</i>	09020208040	1.00	1.00		PR	2.7	2.7
<i>Cordulegaster</i>	09020303019	2.00	2.00	3	PR	5.5	5.5
Leptophlebiidae	09020406	10.00	10.00		--	27.4	27.4
Ephemeridae	09020407	0.50	0.50		--	1.4	1.4
<i>Eurylophella</i>	09020410036	1.00	1.00	3	CG	2.7	2.7
<i>Hydropsyche</i>	09020604016		0.50	4	CF		1.4
<i>Hydropsyche ventura</i>	09020604016033	0.50			--	1.4	
<i>Rhyacophila</i>	09020605019	0.50	1.00	2	PR	1.4	2.7
<i>Rhyacophila nigrita</i>	09020605019064	0.50			PR	1.4	
Phryganeidae	09020608	1.00	1.00		--	2.7	2.7
<i>Oligostomis</i>	09020608039	1.00	1.00	2	PR	2.7	2.7
Limnephilidae	09020610				--		
<i>Psychoglypha</i>	09020610060		3.50	0	SH		9.6
<i>Psychoglypha subborealis</i>	09020610060120	3.50			--	9.6	
<i>Sialis</i>	09020702004	2.50	2.50	4	PR	6.8	6.8
<i>Tipula</i>	09021001002	0.50	0.50	4	SH	1.4	1.4
Ceratopogonidae	09021010	0.50	0.50		--	1.4	1.4
Chironomidae	09021011	0.50			--	1.4	
<i>Paramerina</i>	09021011013	0.50	0.54		--	1.4	1.5
<i>Trissopelopia</i>	09021011021		0.54		PR		1.5
<i>Trissopelopia ogemawi</i>	09021011021042	0.50			--	1.4	
<i>Brillia</i>	09021011033		0.54	5	SH		1.5
<i>Brillia parva</i>	09021011033050	0.50			--	1.4	
<i>Heterotrissocladius</i>	09021011044		0.54	0	CG		1.5
<i>Heterotrissocladius marcidus</i>	09021011044083	0.50			--	1.4	
<i>Parametriocnemus</i>	09021011053	1.00	1.08	5	CG	2.7	3.0
<i>Rheocricotopus</i>	09021011057		0.54	6	CG		1.5
<i>Rheocricotopus robacki</i>	09021011057105	0.50			--	1.4	
<i>Micropsectra</i>	09021011070	1.50	1.62	7	CG	4.1	4.4
<i>Paratanytarsus</i>	09021011071		0.54	6	--		1.5
<i>Paratanytarsus dissimilis</i>	09021011071125	0.50			--	1.4	
<i>Rheotanytarsus</i>	09021011072	0.50	0.54	6	CF	1.4	1.5
<i>Tanytarsus</i>	09021011076	0.50	0.54	6	CF	1.4	1.5
<i>Neoporos</i>	09021103033	0.50	0.50		--	1.4	1.4



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		Actual	Adjusted			Actual	Adjusted
Acariformes	090301	0.50	0.50		--	1.4	1.4
<i>Physa</i>	10010202026	0.50	0.50		SC	1.4	1.4
<i>Pisidium</i>	10020201002	0.50	0.50		CF	1.4	1.4