



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

Station Information

Station Number: S-1030	River Basin:	St. John
Waterbody: Unnamed Brook (madawaska) - Station 1030	HUC8 Name:	Fish
Town: Madawaska	Latitude:	47° 13' 0.029" N
Directions: 50M UPSTREAM OF LAKE SHORE DRIVE. FIRST STREAM CROSSING NORTHWEST OF THE GOLF COURSE (150M FROM GOLF COURSE ROAD)	Longitude:	68° 14' 4.162" W
	Stream Order:	1

Sample Information

Log Number: 2747	Type of Sample:	ROCK BAG	Date Deployed:	7/10/2019
Subsample Factor: X1	Replicates:	3	Date Retrieved:	8/6/2019

Classification Attainment

Statutory Class: B	Final Determination: A	Date:	11/12/2019
Model Result with $P \geq 0.6$: A	Reason for Determination: Model		
Date Last Calculated: 11/5/2019	Comments:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.75	Class C	0.02
Class B	0.23	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.98	Class A	0.91
Class C or Non-Attainment	0.02	Class B or C or Non-Attainment	0.09

Model Variables

01 Total Mean Abundance	60.33	18 Relative Abundance Ephemeroptera	0.20
02 Generic Richness	32.00	19 EPT Generic Richness	9.00
03 Plecoptera Mean Abundance	1.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	4.33
04 Ephemeroptera Mean Abundance	12.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.96	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	5.00
06 Hilsenhoff Biotic Index	4.00	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.39	28 EP Generic Richness/14	0.43
08 Relative Generic Richness Diptera	0.44	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.64		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.33		
17 Chironomini Abundance (Family Functional Group)	7.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Physa</i>	22.65
2	<i>Paraleptophlebia</i>	14.92
3	<i>Tanytarsus</i>	8.29
4	<i>Micropsectra</i>	7.18
5	<i>Microtendipes</i>	6.63



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 14.4 deg C
Dissolved Oxygen: 9.39 mg/l
Dissolved Oxygen Saturation: 92.1 %
Specific Conductance: 290 uS/cm
Velocity: 16.5 cm/s
pH: 7.92
Wetted Width: 2.5 m
Bankfull Width: 3.6 m
Depth: 44 cm

Waterbody Information - Retrieval

Temperature: 15.7 deg C
Dissolved Oxygen: 9.25 mg/l
Dissolved Oxygen Saturation: 93.8 %
Specific Conductance: 329 uS/cm
Velocity: 12.2 cm/s
pH: 8.09
Wetted Width: 2.5 m
Bankfull Width: 3.2 m
Depth: 28 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Cultivated	Dense	Rolling	
Pasture			
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nutrients	Below Agriculture NPS	Gravel	55 %
Sedimentation		Rubble/Cobble	25 %
		Sand	10 %
		Silt	10 %

Landcover Summary - 2004 Data

Sample Comments

TWO MERLINS OBSERVED.



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

Station Number: S-1030 Waterbody: Unnamed Brook (madawaska) - Station 1030 Town: Madawaska
Log Number: 2747 Subsample Factor: X1 Replicates: 3 Calculated: 11/5/2019

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Chaetogaster</i>	08020202002	0.33	0.33		--	0.6	0.6
<i>Leuctra</i>	09020204020	1.33	1.33	0	SH	2.2	2.2
Aeshnidae	09020301	0.33			--	0.6	
<i>Aeshna</i>	09020301001	0.33	0.50	5	PR	0.6	0.8
<i>Boyeria</i>	09020301004		0.50	2	PR		0.8
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.6	
<i>Baetis</i>	09020401001		1.67	4	CG		2.8
<i>Baetis flavistriga</i>	09020401001004	1.33			--	2.2	
<i>Baetis tricaudatus</i>	09020401001012	0.33			--	0.6	
<i>Centroptilum</i>	09020401003	0.67	0.67	2	CG	1.1	1.1
Heptageniidae	09020402	0.33	0.33		--	0.6	0.6
<i>Paraleptophlebia</i>	09020406026	9.00	9.00	1	CG	14.9	14.9
<i>Ephemerella</i>	09020410035		0.33	1	CG		0.6
<i>Ephemerella aurivillii</i>	09020410035104	0.33			--	0.6	
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.6	0.6
<i>Psychoglypha</i>	09020610060	0.67	0.67	0	SH	1.1	1.1
<i>Psilotreta</i>	09020614068	2.67	3.67	0	SC	4.4	6.1
<i>Psilotreta frontalis</i>	09020614068134	1.00			--	1.7	
<i>Tipula</i>	09021001002	2.00	2.00	4	SH	3.3	3.3
Chironomidae	09021011				--		
<i>Paramerina</i>	09021011013	0.67	0.67		--	1.1	1.1
<i>Thienemannimyia</i>	09021011020		0.67	3	PR		1.1
<i>Thienemannimyia group</i>	09021011020041	0.67			--	1.1	
<i>Zavrelimyia</i>	09021011022	3.00	3.00	8	PR	5.0	5.0
<i>Brillia</i>	09021011033	1.67	1.67	5	SH	2.8	2.8
<i>Corynoneura</i>	09021011036	0.33	0.33	7	CG	0.6	0.6
<i>Parametriocnemus</i>	09021011053	0.67	0.67	5	CG	1.1	1.1
<i>Micropsectra</i>	09021011070	4.33	4.33	7	CG	7.2	7.2
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	0.6	0.6
<i>Tanytarsus</i>	09021011076	5.00	5.00	6	CF	8.3	8.3
<i>Microtendipes</i>	09021011094		4.00	6	CF		6.6
<i>Microtendipes pedellus group</i>	09021011094166	4.00			--	6.6	
<i>Paracladopelma</i>	09021011098	0.33	0.33	7	--	0.6	0.6
<i>Phaenopsectra</i>	09021011101	0.67	0.67	7	SC	1.1	1.1
<i>Polypedilum</i>	09021011102		2.00	6	SH		3.3
<i>Polypedilum aviceps</i>	09021011102181	1.33			--	2.2	
<i>Polypedilum illinoense group</i>	09021011102185	0.67			--	1.1	



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	--	0.6	0.6
<i>Oulimnius</i>	09021113068		0.33		--		0.6
<i>Oulimnius latiusculus</i>	09021113068049	0.33			--	0.6	
<i>Promoresia</i>	09021113069		0.33		--		0.6
<i>Promoresia tardella</i>	09021113069052	0.33			--	0.6	
Acariformes	090301	0.33	0.33		--	0.6	0.6
<i>Physa</i>	10010202027	13.67	13.67		SC	22.7	22.7
<i>Gyraulus</i>	10010203029	0.33	0.33		SC	0.6	0.6