



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

Station Information

Station Number: S-818
Waterbody: West Sebobeis Stream - Station 818
Town: T04 R09 Nwp
Directions: ~46M DWNSTRM OF BRIDGE

DEP Drainage: Penobscot
HUC8: 01020004
HUC8 Name: Piscataquis
Latitude: 45 31 22.23 N
Longitude: 68 52 50.03 W
Stream Order: 3

Sample Information

Log Number: 2053 Type of Sample: ROCK BAG Date Deployed: 7/21/2011
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/23/2011

Classification Attainment

Statutory Class: A **Final Determination: A** Date: 1/27/2012
Model Result with P>.6: A **Reason for Determination: Model**
Date Last Calculated: 1/24/2012 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.71	Class A, B, or C	1.00
Class B	0.28	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	0.89
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.11

Model Variables

01 Total Mean Abundance	148.67	18 Relative Abundance Ephemeroptera	0.24
02 Generic Richness	44.00	19 EPT Generic Richness	22.00
03 Plecoptera Mean Abundance	9.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	35.33	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	4.44	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	26.86
06 Hilsenhoff Biotic Index	4.71	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	21.67
07 Relative Abundance - Chironomidae	0.29	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	9.67		
11 <i>Cheumatopsyche</i> Abundance	1.67		
12 EPT Generic Richness/ Diptera	1.47		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	8.67		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	0.67		
(Family Functional Group)			
17 Chironomini Abundance (Family	7.39		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	16.72
2	<i>Maccaffertium</i>	11.88
3	<i>Promoresia</i>	6.95
4	<i>Hydropsyche</i>	6.50
5	<i>Iswaeon</i>	6.28



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 22.7 deg C
Dissolved Oxygen: 8.4 mg/l
Specific Conductance: 30 uS/cm
Velocity: 12 cm/s
pH: 6.66
Wetted Width: 5.7 m
Bankfull Width: 8.6 m
Depth: 24 cm

Waterbody Information - Retrieval

Temperature: 18.6 deg C
Dissolved Oxygen: 8.7 mg/l
Specific Conductance: 15 uS/cm
Velocity: 91 cm/s
pH: 6.42
Wetted Width: 8.6 m
Bankfull Width: 8.6 m
Depth: 50 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Swamp Hardwood

Upland Conifer

Upland Hardwood

Potential Stressor

Logging

Canopy Cover

Open

Location

Minimally Disturbed

Terrain

Rolling

Substrate

Boulder 65 %
Gravel 5 %
Rubble/Cobble 30 %

Landcover Summary - 2004 Data

Total Area (ac)	12342	High Int. Dev. %	0.0	Water %	0.2	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	7.4	Tilled Agriculture %	0.0
		Low Int. Dev. %	1.9	Upland Woody %	89.9	Grassland %	0.5
		Development %	1.9	Natural %	97.4	Human Altered %	2.4
						Impervious %	0.3

Sample Comments

SIGNIFICANT RAIN ON 8/21/11. 8/23/11: FLOW ELEVATED, FISH OBSERVED.
7/21/11: ALGAE OBSERVED.



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Aquatic Life Taxonomic Inventory Report

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Log Number: 2053

Subsample Factor: X1

Replicates: 3

Calculated: 1/24/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Pteronarcys</i>	09020205023		1.00	0	SH		0.7
<i>Pteronarcys biloba</i>	09020205023061	1.00			--	0.7	
<i>Acroneuria</i>	09020209042	1.33	4.00	0	PR	0.9	2.7
<i>Acroneuria abnormis</i>	09020209042121	0.67		0	PR	0.4	
<i>Acroneuria lycorias</i>	09020209042125	2.00			--	1.3	
<i>Attaneuria</i>	09020209043		4.67	1	--		3.1
<i>Attaneuria ruralis</i>	09020209043128	4.67			--	3.1	
<i>Boyeria</i>	09020301004		2.67	2	PR		1.8
<i>Boyeria vinosa</i>	09020301004012	2.67			--	1.8	
<i>Baetis</i>	09020401001	0.67	4.00	4	CG	0.4	2.7
<i>Baetis brunneicolor</i>	09020401001003	1.33			--	0.9	
<i>Baetis flavistriga</i>	09020401001004	2.00			--	1.3	
<i>Acerpenna</i>	09020401007	0.67	2.33	5	CG	0.4	1.6
<i>Acerpenna macdunnoughi</i>	09020401007001	1.33			--	0.9	
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.2	
<i>Plauditus</i>	09020401012	0.33	0.33		CG	0.2	0.2
<i>Iswaeon</i>	09020401015	9.33	9.33		--	6.3	6.3
Heptageniidae	09020402	0.67	0.67		--	0.4	0.4
<i>Maccaffertium</i>	09020402015	1.33	17.67	4	SC	0.9	11.9
<i>Maccaffertium luteum</i>	09020402015049	16.33			--	11.0	
<i>Isonychia</i>	09020404018	0.33	0.33	2	CF	0.2	0.2
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
Ephemerellidae	09020410	0.33	0.33		--	0.2	0.2
<i>Neureclipsis</i>	09020603008	6.00	6.00	7	CF	4.0	4.0
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.2	0.2
<i>Cheumatopsyche</i>	09020604015	1.67	1.67	5	CF	1.1	1.1
<i>Hydropsyche</i>	09020604016	2.33	9.67	4	CF	1.6	6.5
<i>Hydropsyche morosa</i>	09020604016030	0.67			--	0.4	
<i>Hydropsyche sparna</i>	09020604016032	6.67			--	4.5	
<i>Rhyacophila</i>	09020605019	0.67	1.00	2	PR	0.4	0.7
<i>Rhyacophila fuscula</i>	09020605019060	0.33			PR	0.2	
<i>Hydroptila</i>	09020607026	5.67	5.67	6	P	3.8	3.8
<i>Brachycentrus</i>	09020609043		6.33	0	CF		4.3
<i>Brachycentrus appalachia</i>	09020609043096	6.33			--	4.3	
Limnephilidae	09020610				--		
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Helicopsyche</i>	09020616070		0.33	3	SC		0.2
<i>Helicopsyche borealis</i>	09020616070137	0.33			--	0.2	



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		Actual	Adjusted			Actual	Adjusted
<i>Oecetis</i>	09020618078		2.33	8	PR		1.6
<i>Oecetis persimilis</i>	09020618078157	2.33			--	1.6	
<i>Nigronia</i>	09020701003		1.00	0	PR		0.7
<i>Nigronia serricornis</i>	09020701003003	1.00			--	0.7	
Lepidoptera	090209	0.33	0.33		--	0.2	0.2
<i>Parapoynx</i>	09020901002	0.33	0.33	5	SH	0.2	0.2
Chironomidae	09021011	0.33			--	0.2	
<i>Rheopelopia</i>	09021011017		0.67		PR		0.5
<i>Rheopelopia acra group</i>	09021011017036	0.67			--	0.4	
<i>Cricotopus</i>	09021011037		24.86	7	SH		16.7
<i>Cricotopus bicinctus</i>	09021011037057	23.67			--	15.9	
<i>Cricotopus trifascia</i>	09021011037070	0.33			--	0.2	
<i>Cricotopus annulator complex</i>	09021011037074	0.67			--	0.4	
<i>Eukiefferiella</i>	09021011041	0.33	0.67	8	CG	0.2	0.5
<i>Eukiefferiella brehmi group</i>	09021011041073	0.33			--	0.2	
<i>Nanocladius</i>	09021011049		0.34	3	CG		0.2
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.2	
<i>Orthocladius</i>	09021011050		0.34	6	CG		0.2
<i>Orthocladius annectens</i>	09021011050092	0.33			--	0.2	
<i>Parametriocnemus</i>	09021011053	0.67	0.67	5	CG	0.4	0.5
<i>Psectrocladius</i>	09021011056		0.34	8	CG		0.2
<i>Psectrocladius elatus</i>	09021011056105	0.33			--	0.2	
<i>Rheocricotopus</i>	09021011057		0.34	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.2	
<i>Tvetenia</i>	09021011065		1.01	5	CG		0.7
<i>Tvetenia vitracies</i>	09021011065113	0.67			--	0.4	
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.2	
<i>Rheotanytarsus</i>	09021011072	6.00	6.05	6	CF	4.0	4.1
<i>Tanytarsus</i>	09021011076	0.33	0.34	6	CF	0.2	0.2
<i>Microtendipes</i>	09021011094		0.67	6	CF		0.5
<i>Microtendipes rydalensis group</i>	09021011094168	0.67			--	0.4	
<i>Polypedilum</i>	09021011102		6.72	6	SH		4.5
<i>Polypedilum aviceps</i>	09021011102181	6.33			--	4.3	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.2	
<i>Simulium</i>	09021012047	0.33	1.67	4	CF	0.2	1.1
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.9	
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.9	0.9
<i>Psephenus</i>	09021108058		1.00	4	SC		0.7



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<i>Psephenus herricki</i>	09021108058028	1.00			--	0.7	
<i>Dubiraphia</i>	09021113064	2.67	2.67	6	--	1.8	1.8
<i>Promoresia</i>	09021113069		10.33		--		7.0
<i>Promoresia elegans</i>	09021113069051	1.33			--	0.9	
<i>Promoresia tardella</i>	09021113069052	9.00			--	6.1	
<i>Stenelmis</i>	09021113070		5.67	5	SC		3.8
<i>Stenelmis crenata</i>	09021113070055	5.67			--	3.8	