



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

Station Information

Station Number: S-665
Waterbody: Seboeis Stream - Station 665
Town: Howland
Directions: UPSTREAM OF HOWLAND RD.

DEP Drainage: Penobscot
HUC8: 01020004
HUC8 Name: Piscataquis
Latitude: 45 16 15.13 N
Longitude: 68 41 24.06 W
Stream Order: 4

Sample Information

Log Number: 2045
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/18/2011
Date Retrieved: 8/17/2011

Classification Attainment

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

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.56	Class A, B, or C	1.00
Class B	0.42	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	0.97
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.03

Model Variables

01 Total Mean Abundance	320.33	18 Relative Abundance Ephemeroptera	0.38
02 Generic Richness	59.00	19 EPT Generic Richness	26.00
03 Plecoptera Mean Abundance	4.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.35
04 Ephemeroptera Mean Abundance	120.67	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	4.24	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	31.20
06 Hilsenhoff Biotic Index	5.21	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	40.66
07 Relative Abundance - Chironomidae	0.30	28 EP Generic Richness/14	1.14
08 Relative Generic Richness Diptera	0.32	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	8.60		
11 <i>Cheumatopsyche</i> Abundance	25.45		
12 EPT Generic Richness/ Diptera	1.37		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance	4.67		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	17.58		
(Family Functional Group)			
17 Chironomini Abundance (Family	8.79		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Acerpenna</i>	21.29
2	<i>Psectrocladius</i>	14.56
3	<i>Maccaffertium</i>	11.34
4	<i>Cheumatopsyche</i>	7.95
5	<i>Chimarra</i>	4.89



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Date Retrieved: 8/17/2011

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 27.4 deg C
Dissolved Oxygen: 8 mg/l
Specific Conductance: 18 uS/cm
Velocity: 38 cm/s
pH: 7.06
Wetted Width: 27 m
Bankfull Width: 33 m
Depth: 45 cm

Waterbody Information - Retrieval

Temperature: 21.4 deg C
Dissolved Oxygen: 8.1 mg/l
Specific Conductance: 18 uS/cm
Velocity: 57 cm/s
pH: 7.01
Wetted Width: 32 m
Bankfull Width: 33 m
Depth: 60 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Conifer

Upland Hardwood

Potential Stressor

Canopy Cover

Open

Location

Above Confluence

Below Wetland

Terrain

Rolling

Substrate

Boulder 5 %

Gravel 25 %

Rubble/Cobble 65 %

Sand 5 %

Landcover Summary - 2004 Data

Total Area (ac)	103141	High Int. Dev. %	0.0	Water %	9.7	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	8.0	Tilled Agriculture %	0.1
		Low Int. Dev. %	1.6	Upland Woody %	80.6	Grassland %	0.1
		Development %	1.6	Natural %	88.6	Human Altered %	1.7
						Impervious %	0.2

Sample Comments

7/18/11: ALGAE, MACROPHYTES, AND FISH OBSERVED.

8/17/11: FISH OBSERVED.



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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
DugesIIDae	03010102	0.33	0.33		--	0.1	0.1
<i>Girardia</i>	03010102002		0.33		--		0.1
<i>Girardia tigrina</i>	03010102002001	0.33			--	0.1	
<i>Slavina</i>	08020202012		0.33		--		0.1
<i>Slavina appendiculata</i>	08020202012001	0.33			--	0.1	
<i>Stylaria</i>	08020202014		3.67		CG		1.1
<i>Stylaria lacustris</i>	08020202014002	3.67			--	1.1	
<i>Hyalella</i>	09010203006		1.33	8	CG		0.4
<i>Hyalella azteca</i>	09010203006011	1.33			--	0.4	
<i>Acroneuria</i>	09020209042	0.67	4.33	0	PR	0.2	1.4
<i>Acroneuria lycorias</i>	09020209042125	3.67			--	1.1	
<i>Paragnetina</i>	09020209049		0.33	1	PR		0.1
<i>Paragnetina media</i>	09020209049151	0.33			--	0.1	
<i>Boyeria</i>	09020301004		0.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.1	
<i>Stylogomphus</i>	09020302017		0.33	0	PR		0.1
<i>Stylogomphus albistylus</i>	09020302017037	0.33			--	0.1	
Calopterygidae	09020307	0.67	0.67		--	0.2	0.2
<i>Argia</i>	09020309048	1.67	1.67	7	PR	0.5	0.5
Baetidae	09020401	2.00			--	0.6	
<i>Acerpenna</i>	09020401007	1.00	68.19	5	CG	0.3	21.3
<i>Acerpenna pygmaea</i>	09020401007011	65.33			--	20.4	
<i>Labiobaetis</i>	09020401009		0.34		--		0.1
<i>Labiobaetis propinquus</i>	09020401009010	0.33			--	0.1	
<i>Procloeon</i>	09020401010	0.67	0.69		CG	0.2	0.2
<i>Plauditus</i>	09020401012	0.33	0.34		CG	0.1	0.1
<i>Iswaeon</i>	09020401015	3.67	3.77		--	1.1	1.2
Heptageniidae	09020402	5.00			--	1.6	
<i>Leucrocuta</i>	09020402011	1.67	1.91	1	SC	0.5	0.6
<i>Stenacron</i>	09020402014		0.76	7	SC		0.2
<i>Stenacron interpunctatum</i>	09020402014045	0.67			--	0.2	
<i>Maccaffertium</i>	09020402015	10.67	36.32	4	SC	3.3	11.3
<i>Maccaffertium luteum</i>	09020402015049	21.00			--	6.6	
<i>Isonychia</i>	09020404018	0.33	0.33	2	CF	0.1	0.1
Leptophlebiidae	09020406	1.00	1.00		--	0.3	0.3
<i>Paraleptophlebia</i>	09020406026	0.33	0.33	1	CG	0.1	0.1
Ephemerellidae	09020410	0.33			--	0.1	
<i>Ephemerella</i>	09020410035	0.67	0.83	1	CG	0.2	0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Serratella</i>	09020410037		0.83	2	CG		0.3
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	0.67			--	0.2	
<i>Tricorythodes</i>	09020411038	5.00	5.00	4	CG	1.6	1.6
<i>Chimarra</i>	09020601003	6.67	15.67	2	CF	2.1	4.9
<i>Chimarra obscura</i>	09020601003003	2.00			--	0.6	
<i>Chimarra socia</i>	09020601003004	7.00			--	2.2	
Polycentropodidae	09020603				--		
<i>Neureclipsis</i>	09020603008	5.00	5.00	7	CF	1.6	1.6
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.1	0.1
Hydropsychidae	09020604	2.67			--	0.8	
<i>Cheumatopsyche</i>	09020604015	23.67	25.45	5	CF	7.4	7.9
<i>Hydropsyche</i>	09020604016	3.00	8.60	4	CF	0.9	2.7
<i>Hydropsyche morosa</i>	09020604016030	4.33			--	1.4	
<i>Hydropsyche sparna</i>	09020604016032	0.67			--	0.2	
<i>Macrostemum</i>	09020604018		3.94	3	CF		1.2
<i>Macrostemum zebratum</i>	09020604018054	3.67			--	1.1	
<i>Hydroptila</i>	09020607026	12.33	12.33	6	P	3.9	3.9
<i>Lepidostoma</i>	09020611064	3.33	3.33	1	SH	1.0	1.0
<i>Molanna</i>	09020615069		0.67	6	SC		0.2
<i>Molanna blenda</i>	09020615069133	0.67			--	0.2	
<i>Oecetis</i>	09020618078	1.33	3.33	8	PR	0.4	1.0
<i>Oecetis avara</i>	09020618078153	0.33			--	0.1	
<i>Oecetis persimilis</i>	09020618078157	1.67			--	0.5	
<i>Sialis</i>	09020702004	0.33	0.33	4	PR	0.1	0.1
<i>Tipula</i>	09021001002	1.67	1.67	4	SH	0.5	0.5
<i>Bezzia/palpomyia</i>	09021010043	1.00	1.00	6	PR	0.3	0.3
Chironomidae	09021011	1.33			--	0.4	
<i>Ablabesmyia</i>	09021011001		0.34	8	PR		0.1
<i>Ablabesmyia mallochii</i>	09021011001004	0.33			--	0.1	
<i>Conchapelopia</i>	09021011004	0.67	0.68	6	PR	0.2	0.2
<i>Pentaneura</i>	09021011014		15.21	6	PR		4.7
<i>Pentaneura inconspicua</i>	09021011014028	15.00			--	4.7	
<i>Rheopelopia</i>	09021011017	1.33	1.35		PR	0.4	0.4
<i>Potthastia</i>	09021011026		0.34	2	CG		0.1
<i>Potthastia longimana</i>	09021011026046	0.33			--	0.1	
<i>Cricotopus</i>	09021011037		1.01	7	SH		0.3
<i>Cricotopus bicinctus</i>	09021011037057	1.00			--	0.3	
<i>Nanocladius</i>	09021011049		0.68	3	CG		0.2



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<i>Nanocladius branchicolus</i>	09021011049091	0.33			--	0.1	
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.1	
<i>Psectrocladius</i>	09021011056		46.65	8	CG		14.6
<i>Psectrocladius elatus</i>	09021011056105	46.00			--	14.4	
<i>Rheocricotopus</i>	09021011057		5.75	6	CG		1.8
<i>Rheocricotopus robacki</i>	09021011057105	5.67			--	1.8	
<i>Tvetenia</i>	09021011065		3.38	5	CG		1.1
<i>Tvetenia vitracies</i>	09021011065113	3.33			--	1.0	
<i>Rheotanytarsus</i>	09021011072	6.67	6.76	6	CF	2.1	2.1
<i>Tanytarsus</i>	09021011076	4.33	4.39	6	CF	1.4	1.4
<i>Pseudochironomus</i>	09021011078	0.67	0.68	5	CG	0.2	0.2
<i>Dicrotendipes</i>	09021011085		1.35	8	CG		0.4
<i>Dicrotendipes neomodestus</i>	09021011085152	1.33			--	0.4	
<i>Microtendipes</i>	09021011094		4.73	6	CF		1.5
<i>Microtendipes rydalensis group</i>	09021011094168	4.67			--	1.5	
<i>Polypedilum</i>	09021011102		2.03	6	SH		0.6
<i>Polypedilum flavum</i>	09021011102182	2.00			--	0.6	
<i>Simulium</i>	09021012047		3.67	4	CF		1.1
<i>Simulium fibrinflatum</i>	09021012047059	0.67			--	0.2	
<i>Simulium jenningsi</i>	09021012047060				--		
<i>Simulium tuberosum</i>	09021012047067				--		
<i>Simulium jenningsi complex</i>	09021012047070	3.00			CF	0.9	
<i>Dubiraphia</i>	09021113064	1.00	1.00	6	--	0.3	0.3
<i>Promoresia</i>	09021113069		2.00		--		0.6
<i>Promoresia elegans</i>	09021113069051	2.00			--	0.6	
<i>Stenelmis</i>	09021113070	1.33	1.67	5	SC	0.4	0.5
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.1	
Sphaeriidae	10020201	0.67	0.67		CF	0.2	0.2