



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

Station Information

Station Number: S-665	DEP Drainage: Penobscot
Waterbody: Seboeis Stream - Station 665	HUC8: 01020004
Town: Howland	HUC8 Name: Piscataquis
Directions: UPSTREAM OF HOWLAND RD.	Latitude: 45 16 15.13 N
	Longitude: 68 41 24.06 W
	Stream Order: 4

Sample Information

Log Number: 1575	Type of Sample: ROCK BAG	Date Deployed: 7/20/2006
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/17/2006

Classification Attainment

Statutory Class: A	Final Determination: A	Date:
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 3/13/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.54	Class A, B, or C	1.00
Class B	0.44	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.98
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.02

Model Variables

01 Total Mean Abundance	335.33	18 Relative Abundance Ephemeroptera	0.26
02 Generic Richness	57.00	19 EPT Generic Richness	24.00
03 Plecoptera Mean Abundance	6.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	6.10
04 Ephemeroptera Mean Abundance	88.33	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.17	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	30.53
06 Hilsenhoff Biotic Index	5.13	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	30.99
07 Relative Abundance - Chironomidae	0.43	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.37	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	7.93		
11 <i>Cheumatopsyche</i> Abundance	21.72		
12 EPT Generic Richness/ Diptera Generic Richness	1.14		
13 Relative Abundance - Oligochaeta	0.03		
15 Perlidae Mean Abundance (Family Functional Group)	6.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	34.90		
17 Chironomini Abundance (Family Functional Group)	22.02		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Psectrocladius</i>	19.20
2	<i>Acerpenna</i>	15.30
3	<i>Chimarra</i>	11.03
4	<i>Maccaffertium</i>	7.45
5	<i>Pentaneura</i>	6.97



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 24.7 deg C
Dissolved Oxygen: 8.4 mg/l
Specific Conductance: 18 uS/cm
Velocity: 50 cm/s
pH:
Wetted Width: 33 m
Bankfull Width:
Depth: 70 cm

Waterbody Information - Retrieval

Temperature: 22.9 deg C
Dissolved Oxygen: 8.6 mg/l
Specific Conductance: 21 uS/cm
Velocity: 48 cm/s
pH: 6.76
Wetted Width:
Bankfull Width:
Depth: 60 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	1 ug/l
Nitrate+nitrite As N	<0.01 mg/l	Total Phosphorus	0.009 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	0.8 mg/l
Dissolved Organic Carbon	7 mg/l	Total Dissolved Solids	<20 mg/l

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Canopy Open	Flat Terrain
Upland Hardwood		

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above Road Crossing	Boulder	5 %
		Gravel	25 %
		Rubble/Cobble	65 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	103141	High Int. Dev. %	0.0	Water %	10.7	Non-vegetated %	0.0
Total Land (ac)	93136	Med Int. Dev. %	0.0	Wetland %	8.8	Tilled Agriculture %	0.1
		Low Int. Dev. %	1.7	Upland Woody %	89.3	Human Altered %	1.9
		Development %	1.8	Natural %	98.1	Impervious %	0.2

Sample Comments



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Station Number: S-665		Waterbody: Sebobeis Stream - Station 665			Town: Howland		
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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>Pristina</i>	08020202004		0.33		--		0.1
<i>Pristina proboscidea</i>	08020202004009	0.33			--	0.1	
<i>Nais</i>	08020202009		5.33		CG		1.6
<i>Nais behningi</i>	08020202009003	0.33			--	0.1	
<i>Nais communis</i>	08020202009005	5.00			--	1.5	
<i>Stylaria</i>	08020202014		3.67		CG		1.1
<i>Stylaria lacustris</i>	08020202014002	3.67			--	1.1	
<i>Hyaella</i>	09010203006		1.00	8	CG		0.3
<i>Hyaella azteca</i>	09010203006011	1.00			--	0.3	
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042	1.33	6.00	0	PR	0.4	1.8
<i>Acroneuria lycorias</i>	09020209042125	4.67			--	1.4	
Ephemeroptera	090204	0.33	0.33		--	0.1	0.1
Baetidae	09020401	1.33			--	0.4	
<i>Centropilum</i>	09020401003	0.33	0.34	2	CG	0.1	0.1
<i>Heterocloeon</i>	09020401005	0.33	0.34	2	SC	0.1	0.1
<i>Acerpenna</i>	09020401007	2.00	51.32	5	CG	0.6	15.3
<i>Acerpenna pygmaea</i>	09020401007011	48.00			--	14.3	
Heptageniidae	09020402	4.00			--	1.2	
<i>Epeorus</i>	09020402009	0.33	0.39	0	SC	0.1	0.1
<i>Leucrocuta</i>	09020402011	1.67	1.95	1	SC	0.5	0.6
<i>Maccaffertium</i>	09020402015	12.00	24.99	4	SC	3.6	7.5
<i>Maccaffertium luteum</i>	09020402015049	7.67			--	2.3	
<i>Maccaffertium modestum</i>	09020402015051	1.67			--	0.5	
<i>Isonychia</i>	09020404018	1.33	1.33	2	CF	0.4	0.4
Leptophlebiidae	09020406	2.67	2.67		--	0.8	0.8
<i>Paraleptophlebia</i>	09020406026	0.33	0.33	1	CG	0.1	0.1
<i>Serratella</i>	09020410037		1.00	2	CG		0.3
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	1.00			--	0.3	
<i>Tricorythodes</i>	09020411038	3.33	3.33	4	CG	1.0	1.0
<i>Chimarra</i>	09020601003	37.00	37.00	2	CF	11.0	11.0
Hydropsychidae	09020604	1.00			--	0.3	
<i>Cheumatopsyche</i>	09020604015	21.00	21.72	5	CF	6.3	6.5
<i>Hydropsyche</i>	09020604016		7.93	4	CF		2.4
<i>Hydropsyche bronta</i>	09020604016029	0.33			--	0.1	
<i>Hydropsyche morosa</i>	09020604016030	6.67			--	2.0	
<i>Hydropsyche depravata-complex</i>	09020604016041	0.33			CF	0.1	
<i>Hydropsyche scalaris-group</i>	09020604016048	0.33			--	0.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Macrostemum</i>	09020604018		0.34	3	CF		0.1
<i>Macrostemum zebratum</i>	09020604018054	0.33			--	0.1	
Hydroptilidae	09020607				--		
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		0.33	0	CF		0.1
<i>Brachycentrus appalachia</i>	09020609043096	0.33			--	0.1	
Limnephilidae	09020610	0.33	0.33		--	0.1	0.1
<i>Lepidostoma</i>	09020611064	8.67	8.67	1	SH	2.6	2.6
<i>Psilotreta</i>	09020614068		0.33	0	SC		0.1
<i>Psilotreta indecisa</i>	09020614068132	0.33			--	0.1	
Leptoceridae	09020618	0.33	0.33		--	0.1	0.1
<i>Oecetis</i>	09020618078	0.33	1.33	8	PR	0.1	0.4
<i>Oecetis avara</i>	09020618078153	0.67			--	0.2	
<i>Oecetis persimilis</i>	09020618078157	0.33			--	0.1	
Chironomidae	09021011	2.33			--	0.7	
<i>Ablabesmyia</i>	09021011001	0.67	3.73	8	PR	0.2	1.1
<i>Ablabesmyia mallochi</i>	09021011001004	3.00			--	0.9	
<i>Labrundinia</i>	09021011008	0.67	0.68	7	PR	0.2	0.2
<i>Nilotanytus</i>	09021011012		5.42	6	PR		1.6
<i>Nilotanytus fimbriatus</i>	09021011012027	5.33			--	1.6	
<i>Paramerina</i>	09021011013	1.00	1.02		--	0.3	0.3
<i>Pentaneura</i>	09021011014		23.38	6	PR		7.0
<i>Pentaneura inconspicua</i>	09021011014028	23.00			--	6.9	
<i>Rheopelopia</i>	09021011017		0.68		PR		0.2
<i>Rheopelopia acra-grp.</i>	09021011017036	0.67			--	0.2	
<i>Potthastia</i>	09021011026		1.36	2	CG		0.4
<i>Potthastia longimana</i>	09021011026046	1.33			--	0.4	
<i>Nanocladius</i>	09021011049	0.67	1.36	3	CG	0.2	0.4
<i>Nanocladius branchicolus</i>	09021011049091	0.67			--	0.2	
<i>Parametricnemus</i>	09021011053	0.67	0.68	5	CG	0.2	0.2
<i>Psectrocladius</i>	09021011056	63.33	64.37	8	CG	18.9	19.2
<i>Rheocricotopus</i>	09021011057		3.39	6	CG		1.0
<i>Rheocricotopus robacki</i>	09021011057105	3.33			--	1.0	
<i>Tvetenia</i>	09021011065		0.68	5	CG		0.2
<i>Tvetenia paucunca</i>	09021011065114	0.67			--	0.2	
<i>Micropsectra</i>	09021011070	6.00	6.10	7	CG	1.8	1.8
<i>Rheotanytarsus</i>	09021011072	4.33	4.40	6	CF	1.3	1.3
<i>Tanytarsus</i>	09021011076	5.00	5.08	6	CF	1.5	1.5



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<i>Demicryptochironomus</i>	09021011084	0.33	0.34	8	CG	0.1	0.1
<i>Microtendipes</i>	09021011094		14.23	6	CF		4.2
<i>Microtendipes rydalensis-grp.</i>	09021011094168	14.00			--	4.2	
<i>Nilothauma</i>	09021011095	0.67	0.68	2	--	0.2	0.2
<i>Polypedilum</i>	09021011102	0.67	6.78	6	SH	0.2	2.0
<i>Polypedilum flavum</i>	09021011102182	6.00			--	1.8	
<i>Simulium</i>	09021012047		1.00	4	CF		0.3
<i>Simulium fibrinflatum</i>	09021012047059	0.33			--	0.1	
<i>Simulium jenningsi</i>	09021012047060	0.33			--	0.1	
<i>Simulium tuberosum</i>	09021012047067	0.33			--	0.1	
<i>Hemerodromia</i>	09021016057	0.67	0.67	3	PR	0.2	0.2
<i>Dineutus</i>	09021104032	0.33	0.33	2	--	0.1	0.1
<i>Ectopria</i>	09021109059	0.33	0.33	5	SC	0.1	0.1
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.1	0.1
<i>Promoresia</i>	09021113069		2.00		--		0.6
<i>Promoresia elegans</i>	09021113069051	2.00			--	0.6	
<i>Stenelmis</i>	09021113070	1.00	1.33	5	SC	0.3	0.4
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.1	
<i>Physa</i>	10010202026	0.33	0.33		SC	0.1	0.1
Sphaeriidae	10020201	0.33	0.33		CF	0.1	0.1
<i>Musculium</i>	10020201001		0.67		CF		0.2
<i>Musculium securis</i>	10020201001003	0.67			CF	0.2	