



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

Station Information

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

Sample Information

Log Number: 2486	Type of Sample: ROCK BAG	Date Deployed: 7/19/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/16/2016

Classification Attainment

Statutory Class: A	Final Determination: A	Date: 5/10/2017
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 5/9/2017	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.40	Class C	0.04
Class B	0.57	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.95
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.05

Model Variables

01 Total Mean Abundance	431.67	18 Relative Abundance Ephemeroptera	0.38
02 Generic Richness	49.00	19 EPT Generic Richness	23.00
03 Plecoptera Mean Abundance	6.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	2.00
04 Ephemeroptera Mean Abundance	163.33	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.07	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	17.33
06 Hilsenhoff Biotic Index	5.16	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	18.33
07 Relative Abundance - Chironomidae	0.29	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	16.33		
11 <i>Cheumatopsyche</i> Abundance	11.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.44		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	6.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	34.67		
17 Chironomini Abundance (Family Functional Group)	12.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Acerpenna</i>	26.87
2	<i>Psectrocladius</i>	12.20
3	<i>Hydroptila</i>	7.95
4	<i>Chimarra</i>	7.34
5	<i>Pentaneura</i>	6.49



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Station Number: S-665 Town: Howland Date Deployed: 7/19/2016
Log Number: 2486 Waterbody: Sebobeis Stream - Station 665 Date Retrieved: 8/16/2016

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 24.4 deg C
Dissolved Oxygen: 9.62 mg/l
Dissolved Oxygen Saturation: 115.4 %
Specific Conductance: 27.4 uS/cm
Velocity: 27.4 cm/s
pH: 7.42
Wetted Width: 28 m
Bankfull Width: 33 m
Depth: 52 cm

Waterbody Information - Retrieval

Temperature: 21.7 deg C
Dissolved Oxygen: 10.17 mg/l
Dissolved Oxygen Saturation: 115 %
Specific Conductance: 28.9 uS/cm
Velocity: 18.288 cm/s
pH: 7.43
Wetted Width: 26 m
Bankfull Width: 33 m
Depth: 44 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Below Wetland	Above Confluence	Boulder	5 %
	Below Wetland	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

7/19/16: ABUNDANT ALGAE ON BOTTOM; MACROPHYTES, FISH PRESENT.
8/16/16: FISH AND ALGAE PRESENT.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-665

Waterbody: Seboeis Stream - Station 665

Town: Howland

Log Number: 2486

Subsample Factor: X1

Replicates: 3

Calculated: 5/9/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	0.33	0.33		PR	0.1	0.1
<i>Hyalella</i>	09010203006	1.33	1.33	8	CG	0.3	0.3
<i>Acroneuria</i>	09020209042	1.33	6.67	0	PR	0.3	1.5
<i>Acroneuria arenosa</i>	09020209042122	5.33			--	1.2	
Corduliidae	09020305	0.33	0.33		--	0.1	0.1
<i>Argia</i>	09020309048	0.67	0.67	7	PR	0.2	0.2
<i>Acerpenna</i>	09020401007		116.00	5	CG		26.9
<i>Acerpenna pygmaea</i>	09020401007011	116.00			--	26.9	
<i>Plauditus</i>	09020401012	0.33	0.33		CG	0.1	0.1
<i>Iswaeon</i>	09020401015		13.00		--		3.0
<i>Iswaeon anoka</i>	09020401015001	13.00			--	3.0	
<i>Leucrocuta</i>	09020402011	8.33	8.33	1	SC	1.9	1.9
<i>Maccaffertium</i>	09020402015	6.67	11.67	4	SC	1.5	2.7
<i>Maccaffertium vicarium</i>	09020402015055	5.00			--	1.2	
<i>Isonychia</i>	09020404018	3.67	3.67	2	CF	0.8	0.8
Leptophlebiidae	09020406	0.67	0.67		--	0.2	0.2
<i>Paraleptophlebia</i>	09020406026	1.33	1.33	1	CG	0.3	0.3
<i>Serratella</i>	09020410037		2.67	2	CG		0.6
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	2.33			--	0.5	
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.1	
<i>Tricorythodes</i>	09020411038	4.00	4.00	4	CG	0.9	0.9
<i>Caenis</i>	09020412040	1.67	1.67	7	CG	0.4	0.4
<i>Chimarra</i>	09020601003		31.67	2	CF		7.3
<i>Chimarra obscura</i>	09020601003003	1.67			--	0.4	
<i>Chimarra socia</i>	09020601003004	30.00			--	6.9	
<i>Neureclipsis</i>	09020603008	9.00	9.00	7	CF	2.1	2.1
<i>Cheumatopsyche</i>	09020604015	11.33	11.33	5	CF	2.6	2.6
<i>Hydropsyche</i>	09020604016	7.00	16.33	4	CF	1.6	3.8
<i>Hydropsyche bronta</i>	09020604016029	0.67			--	0.2	
<i>Hydropsyche morosa</i>	09020604016030	6.00			--	1.4	
<i>Hydropsyche sparna</i>	09020604016032	1.33			--	0.3	
<i>Hydropsyche scalaris species group</i>	09020604016048	1.33			--	0.3	
<i>Protoptila</i>	09020606022	0.33	0.33	1	SC	0.1	0.1
<i>Hydroptila</i>	09020607026	34.33	34.33	6	P	8.0	8.0
<i>Oxyethira</i>	09020607028	0.33	0.33	3	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		0.33	0	CF		0.1
<i>Brachycentrus americanus</i>	09020609043095	0.33			--	0.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Lepidostoma</i>	09020611064	2.33	2.33	1	SH	0.5	0.5
<i>Psilotreta</i>	09020614068		0.67	0	SC		0.2
<i>Psilotreta labida</i>	09020614068133	0.67			--	0.2	
<i>Oecetis</i>	09020618078	1.33	7.33	8	PR	0.3	1.7
<i>Oecetis persimilis</i>	09020618078157	6.00			--	1.4	
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	0.2	0.2
<i>Ablabesmyia</i>	09021011001	1.33	1.33	8	PR	0.3	0.3
<i>Pentaneura</i>	09021011014	28.00	28.00	6	PR	6.5	6.5
<i>Thienemannimyia</i>	09021011020		5.33	3	PR		1.2
<i>Thienemannimyia group</i>	09021011020041	5.33			--	1.2	
<i>Cricotopus</i>	09021011037		2.67	7	SH		0.6
<i>Cricotopus bicinctus</i>	09021011037057	2.67			--	0.6	
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	0.2	0.2
<i>Psectrocladius</i>	09021011056	52.67	52.67	8	CG	12.2	12.2
<i>Rheocricotopus</i>	09021011057	7.33	7.33	6	CG	1.7	1.7
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	0.67			--	0.2	
<i>Paratanytarsus</i>	09021011071	0.67	0.67	6	--	0.2	0.2
<i>Rheotanytarsus</i>	09021011072		11.33	6	CF		2.6
<i>Rheotanytarsus exiguus group</i>	09021011072127	8.00			CF	1.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	3.33			CF	0.8	
<i>Tanytarsus</i>	09021011076	2.00	2.00	6	CF	0.5	0.5
<i>Dicrotendipes</i>	09021011085	2.00	2.00	8	CG	0.5	0.5
<i>Microtendipes</i>	09021011094		4.00	6	CF		0.9
<i>Microtendipes pedellus group</i>	09021011094166	2.00			--	0.5	
<i>Microtendipes rydalensis group</i>	09021011094168	2.00			--	0.5	
<i>Polypedilum</i>	09021011102		6.67	6	SH		1.5
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	0.9	
<i>Polypedilum flavum</i>	09021011102182	2.67			--	0.6	
<i>Simulium</i>	09021012047	2.67	2.67	4	CF	0.6	0.6
<i>Simulium fibrinflatum</i>	09021012047059				--		
<i>Dineutus</i>	09021104032	0.33	0.33	2	--	0.1	0.1
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	--	0.3	0.3
<i>Macronychus</i>	09021113065		0.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.1	
<i>Promoesia</i>	09021113069	0.67	8.00		--	0.2	1.9
<i>Promoesia elegans</i>	09021113069051	7.00			--	1.6	
<i>Promoesia tardella</i>	09021113069052	0.33			--	0.1	



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<i>Stenelmis</i>	09021113070	1.67	5.67	5	SC	0.4	1.3
<i>Stenelmis concinna</i>	09021113070054	1.67			--	0.4	
<i>Stenelmis crenata</i>	09021113070055	2.33			--	0.5	
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.1	0.1