



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

Station Information

Station Number: S-817	DEP Drainage: Penobscot
Waterbody: Garland Pond Outlet - Station 817	HUC8: 01020004
Town: Sebec	HUC8 Name: Piscataquis
Directions: ~60M UPSTRM OF RIVER ROAD	Latitude: 45 12 26.87 N
	Longitude: 69 6 47.26 W
	Stream Order: 2

Sample Information

Log Number: 1568	Type of Sample: ROCK BAG	Date Deployed: 7/18/2006
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/15/2006

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 6/22/2007
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	0.78	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	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	65.00	18 Relative Abundance Ephemeroptera	0.63
02 Generic Richness	35.00	19 EPT Generic Richness	13.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.74
04 Ephemeroptera Mean Abundance	40.67	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	3.59	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.77
06 Hilsenhoff Biotic Index	4.18	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	26.67
07 Relative Abundance - Chironomidae	0.11	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	0.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.08		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	2.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.74		
17 Chironomini Abundance (Family Functional Group)	0.74		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	37.95
2	<i>Acerpenna</i>	14.36
3	<i>Boyeria</i>	5.64
4	<i>Rheotanytarsus</i>	4.53
5	<i>Stenacron</i>	4.10



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Date Retrieved: 8/15/2006

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 24.3 deg C
Dissolved Oxygen: 7.9 mg/l
Specific Conductance: 128 uS/cm
Velocity: 24 cm/s
pH:
Wetted Width: 3.5 m
Bankfull Width: 4.75 m
Depth: 32 cm

Waterbody Information - Retrieval

Temperature: 18.6 deg C
Dissolved Oxygen: 7.8 mg/l
Specific Conductance: 172 uS/cm
Velocity: 12 cm/s
pH: 7.5
Wetted Width: 3.2 m
Bankfull Width: 4.75 m
Depth: 25 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Canopy Partly Open	Rolling Terrain
Upland Hardwood		

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above Road Crossing	Bedrock	5 %
		Boulder	5 %
		Gravel	45 %
		Rubble/Cobble	40 %
		Silt	5 %

Landcover Summary - 2004 Data

Total Area (ac)	2368	High Int. Dev. %	0.0	Water %	1.1	Non-vegetated %	0.0
Total Land (ac)	2343	Med Int. Dev. %	0.1	Wetland %	0.8	Tilled Agriculture %	2.4
		Low Int. Dev. %	7.3	Upland Woody %	88.3	Human Altered %	10.9
		Development %	7.5	Natural %	89.1	Impervious %	2.3

Sample Comments



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

Station Number: S-817

Waterbody: Garland Pond Outlet - Station 817

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Subsample Factor: X1

Replicates: 3

Calculated: 3/13/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009		0.33		CG		0.5
<i>Nais behningi</i>	08020202009003	0.33			--	0.5	
<i>Gloiobdella</i>	08030101009		2.00		--		3.1
<i>Gloiobdella elongata</i>	08030101009001	2.00			--	3.1	
<i>Orconectes</i>	09010301008	0.67	0.67		CG	1.0	1.0
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	1.0	1.0
<i>Acroneuria</i>	09020209042		2.00	0	PR		3.1
<i>Acroneuria abnormis</i>	09020209042121	1.67		0	PR	2.6	
<i>Acroneuria lycorias</i>	09020209042125	0.33			--	0.5	
<i>Boyeria</i>	09020301004		3.67	2	PR		5.6
<i>Boyeria grafiana</i>	09020301004011	3.67			--	5.6	
<i>Baetis</i>	09020401001		0.33	4	CG		0.5
<i>Baetis intercalaris</i>	09020401001008	0.33			--	0.5	
<i>Pseudocloeon</i>	09020401006		0.33	4	SC		0.5
<i>Pseudocloeon frondale</i>	09020401006029	0.33			--	0.5	
<i>Acerpenna</i>	09020401007	1.33	9.33	5	CG	2.1	14.4
<i>Acerpenna macdunnoughi</i>	09020401007001	8.00			--	12.3	
<i>Leucrocuta</i>	09020402011	2.33	2.33	1	SC	3.6	3.6
<i>Stenacron</i>	09020402014		2.67	7	SC		4.1
<i>Stenacron interpunctatum</i>	09020402014045	2.67			--	4.1	
<i>Maccaffertium</i>	09020402015	18.33	24.67	4	SC	28.2	37.9
<i>Maccaffertium luteum</i>	09020402015049	4.67			--	7.2	
<i>Maccaffertium modestum</i>	09020402015051	1.67			--	2.6	
Leptophlebiidae	09020406	1.00	1.00		--	1.5	1.5
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	1.5	1.5
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	1.0	1.0
<i>Hydropsyche</i>	09020604016		0.33	4	CF		0.5
<i>Hydropsyche sparna</i>	09020604016032	0.33			--	0.5	
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.5	0.5
<i>Nigronia</i>	09020701003		0.33	0	PR		0.5
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.5	
<i>Antocha</i>	09021001004	0.33	0.33	3	CG	0.5	0.5
Chironomidae	09021011	0.67			--	1.0	
<i>Nilotanyus</i>	09021011012		0.37	6	PR		0.6
<i>Nilotanyus fimbriatus</i>	09021011012027	0.33			--	0.5	
<i>Paramerina</i>	09021011013	0.33	0.37		--	0.5	0.6
<i>Cricotopus</i>	09021011037		0.37	7	SH		0.6
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.5	



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<i>Tvetenia</i>	09021011065		0.37	5	CG		0.6
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.5	
<i>Micropsectra</i>	09021011070	0.67	0.74	7	CG	1.0	1.1
<i>Rheotanytarsus</i>	09021011072	2.67	2.95	6	CF	4.1	4.5
<i>Stempellinella</i>	09021011074		0.37	2	--		0.6
<i>Stempellinella sp. a epler</i>	09021011074002	0.33			--	0.5	
<i>Tanytarsus</i>	09021011076	0.33	0.74	6	CF	0.5	1.1
<i>Tanytarsus glabrescens</i>	09021011076134	0.33			--	0.5	
<i>Microtendipes</i>	09021011094		0.37	6	CF		0.6
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.5	
<i>Polypedilum</i>	09021011102		0.37	6	SH		0.6
<i>Polypedilum flavum</i>	09021011102182	0.33			--	0.5	
<i>Simulium</i>	09021012047		0.33	4	CF		0.5
<i>Simulium tuberosum</i>	09021012047067	0.33			--	0.5	
<i>Psephenus</i>	09021108058		1.00	4	SC		1.5
<i>Psephenus herricki</i>	09021108058028	1.00			--	1.5	
<i>Dubiraphia</i>	09021113064	2.33	2.33	6	--	3.6	3.6
<i>Macronychus</i>	09021113065		0.33	4	--		0.5
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.5	
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.5	0.5
<i>Stenelmis</i>	09021113070	0.33	0.67	5	SC	0.5	1.0
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.5	