



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

Station Information

Station Number: S-135	DEP Drainage: Penobscot
Waterbody: Piscataquis River - Station 135	HUC8: 01020004
Town: Sangerville	HUC8 Name: Piscataquis
Directions: 0.48 KM BELOW GUILFORD / SANGERVILLE POTW	Latitude: 45 10 19.13 N
	Longitude: 69 20 52.31 W
	Stream Order: 4

Sample Information

Log Number: 1566	Type of Sample: ROCK BAG	Date Deployed: 7/18/2006
Subsample Factor: X4	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	0.47	Class A, B, or C	1.00
Class B	0.52	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.81
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.19

Model Variables

01 Total Mean Abundance	1925.33	18 Relative Abundance Ephemeroptera	0.32
02 Generic Richness	52.00	19 EPT Generic Richness	25.00
03 Plecoptera Mean Abundance	18.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.38
04 Ephemeroptera Mean Abundance	606.67	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	4.04	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	113.20
06 Hilsenhoff Biotic Index	3.80	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	84.98
07 Relative Abundance - Chironomidae	0.20	28 EP Generic Richness/14	1.14
08 Relative Generic Richness Diptera	0.29	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	426.58		
11 <i>Cheumatopsyche</i> Abundance	104.94		
12 EPT Generic Richness/ Diptera Generic Richness	1.67		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	14.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	9.63		
17 Chironomini Abundance (Family Functional Group)	100.42		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	22.16
2	<i>Isonychia</i>	11.43
3	<i>Rheotanytarsus</i>	9.57
4	<i>Chimarra</i>	8.59
5	<i>Cheumatopsyche</i>	5.45



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

Station Number: S-135
Log Number: 1566

Town: Sangerville
Waterbody: Piscataquis River - Station 135

Date Deployed: 7/18/2006
Date Retrieved: 8/15/2006

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 27.5 deg C
Dissolved Oxygen: 8.8 mg/l
Specific Conductance: 36 uS/cm
Velocity: 49 cm/s
pH:
Wetted Width: 48 m
Bankfull Width: 48 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 21 deg C
Dissolved Oxygen:
Specific Conductance: 37 uS/cm
Velocity: 45 cm/s
pH: 7.13
Wetted Width: 48 m
Bankfull Width:
Depth: 26 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	4 ug/l
Nitrate+nitrite As N	0.05 mg/l	Total Phosphorus	0.016 mg/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	1.4 mg/l
Dissolved Organic Carbon	5.1 mg/l	Total Dissolved Solids	27 mg/l

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Canopy Open	Hilly Terrain
<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Below POTW	Gravel 20 %
		Rubble/Cobble 60 %
		Sand 20 %

Landcover Summary - 2004 Data

Total Area (ac)	172352	High Int. Dev. %	0.1	Water %	2.1	Non-vegetated %	0.0
Total Land (ac)	168864	Med Int. Dev. %	0.1	Wetland %	2.9	Tilled Agriculture %	0.7
		Low Int. Dev. %	2.9	Upland Woody %	92.5	Human Altered %	4.6
		Development %	3.1	Natural %	95.4	Impervious %	0.8

Sample Comments



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-135

Waterbody: Piscataquis River - Station 135

Town: Sangerville

Log Number: 1566

Subsample Factor: X4

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>Orconectes</i>	09010301008		1.33		CG		0.1
<i>Orconectes virilis</i>	09010301008016	1.33			--	0.1	
Perlodidae	09020207	4.00	4.00		--	0.2	0.2
Perlidae	09020209	9.33			--	0.5	
<i>Acroneuria</i>	09020209042		11.00	0	PR		0.6
<i>Acroneuria abnormis</i>	09020209042121	2.67		0	PR	0.1	
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	0.1	
<i>Agnetina</i>	09020209050		3.67	2	PR		0.2
<i>Agnetina capitata</i>	09020209050152	1.33		2	PR	0.1	
<i>Boyeria</i>	09020301004		2.67	2	PR		0.1
<i>Boyeria grafiana</i>	09020301004011	2.67			--	0.1	
<i>Ophiogomphus</i>	09020302015	4.00	5.33	1	PR	0.2	0.3
<i>Ophiogomphus anomalus</i>	09020302015031	1.33			--	0.1	
<i>Stylogomphus</i>	09020302017		1.33	0	PR		0.1
<i>Stylogomphus albistylus</i>	09020302017037	1.33			--	0.1	
<i>Neurocordulia</i>	09020305026		1.33	2	PR		0.1
<i>Neurocordulia michaeli</i>	09020305026054	1.33			--	0.1	
Baetidae	09020401	6.67			--	0.3	
<i>Baetis</i>	09020401001	10.67	71.70	4	CG	0.6	3.7
<i>Baetis flavistriga</i>	09020401001004	10.67			--	0.6	
<i>Baetis intercalaris</i>	09020401001008	46.67			--	2.4	
<i>Heterocloeon</i>	09020401005	1.33	1.41	2	SC	0.1	0.1
<i>Acerpenna</i>	09020401007	2.67	14.06	5	CG	0.1	0.7
<i>Acerpenna pygmaea</i>	09020401007011	10.67			--	0.6	
<i>Acentrella</i>	09020401008		1.41	3	CG		0.1
<i>Acentrella turbida</i>	09020401008021	1.33			--	0.1	
<i>Plauditus</i>	09020401012	38.67	40.77		CG	2.0	2.1
Heptageniidae	09020402	10.67			--	0.6	
<i>Epeorus</i>	09020402009	13.33	14.51	0	SC	0.7	0.8
<i>Leucrocuta</i>	09020402011	40.00	43.52	1	SC	2.1	2.3
<i>Maccaffertium</i>	09020402015	32.00	73.98	4	SC	1.7	3.8
<i>Maccaffertium luteum</i>	09020402015049	25.33			--	1.3	
<i>Maccaffertium mediopunctatum</i>	09020402015050	10.67			--	0.6	
<i>Isonychia</i>	09020404018	220.00	220.00	2	CF	11.4	11.4
<i>Ephemerella</i>	09020410035	25.33	25.33	1	CG	1.3	1.3
<i>Serratella</i>	09020410037		2.67	2	CG		0.1
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	2.67			--	0.1	
<i>Tricorythodes</i>	09020411038	96.00	96.00	4	CG	5.0	5.0



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-135 Waterbody: Piscataquis River - Station 135 Town: Sangerville
Log Number: 1566 Subsample Factor: X4 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>Caenis</i>	09020412040		1.33	7	CG		0.1
<i>Caenis macafferti</i>	09020412040132	1.33			--	0.1	
<i>Chimarra</i>	09020601003	165.33	165.33	2	CF	8.6	8.6
Hydropsychidae	09020604	12.00			--	0.6	
<i>Cheumatopsyche</i>	09020604015	102.67	104.94	5	CF	5.3	5.5
<i>Hydropsyche</i>	09020604016	157.33	426.58	4	CF	8.2	22.2
<i>Hydropsyche bronta</i>	09020604016029	2.67			--	0.1	
<i>Hydropsyche morosa</i>	09020604016030	44.00			--	2.3	
<i>Hydropsyche sparna</i>	09020604016032	6.67			--	0.3	
<i>Hydropsyche depravata complex</i>	09020604016041	2.67			CF	0.1	
<i>Hydropsyche phalerata</i>	09020604016047	2.67			--	0.1	
<i>Hydropsyche scalaris group</i>	09020604016048	201.33			--	10.5	
<i>Macrostemum</i>	09020604018		21.81	3	CF		1.1
<i>Macrostemum zebratum</i>	09020604018054	21.33			--	1.1	
<i>Rhyacophila</i>	09020605019	1.33	1.33	2	PR	0.1	0.1
<i>Protoptila</i>	09020606022	6.67	6.67	1	SC	0.3	0.3
<i>Hydroptila</i>	09020607026	1.33	1.33	6	P	0.1	0.1
<i>Lepidostoma</i>	09020611064	6.67	6.67	1	SH	0.3	0.3
<i>Helicopsyche</i>	09020616070		1.33	3	SC		0.1
<i>Helicopsyche borealis</i>	09020616070137	1.33			--	0.1	
Leptoceridae	09020618				--		
<i>Nigronia</i>	09020701003	1.33	2.67	0	PR	0.1	0.1
<i>Nigronia serricornis</i>	09020701003003	1.33			--	0.1	
Lepidoptera	090209	1.33	1.33		--	0.1	0.1
Chironomidae	09021011	12.00			--	0.6	
<i>Nilotanytus</i>	09021011012		1.38	6	PR		0.1
<i>Nilotanytus fimbriatus</i>	09021011012027	1.33			--	0.1	
<i>Pentaneura</i>	09021011014		1.38	6	PR		0.1
<i>Pentaneura inconspicua</i>	09021011014028	1.33			--	0.1	
<i>Rheopelopia</i>	09021011017	1.33	6.88		PR	0.1	0.4
<i>Rheopelopia acra group</i>	09021011017036	5.33			--	0.3	
<i>Corynoneura</i>	09021011036	1.33	1.38	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037	1.33	6.88	7	SH	0.1	0.4
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.1	
<i>Cricotopus luciae</i>	09021011037073	4.00			--	0.2	
<i>Orthocladius</i>	09021011050	1.33	1.38	6	CG	0.1	0.1
<i>Rheocricotopus</i>	09021011057		13.76	6	CG		0.7
<i>Rheocricotopus robacki</i>	09021011057105	13.33			--	0.7	



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-135
Log Number: 1566

Waterbody: Piscataquis River - Station 135
Subsample Factor: X4

Town: Sangerville
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>Thienemanniella</i>	09021011062		2.75	6	CG		0.1
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.1	
<i>Thienemanniella taurocapita</i>	09021011062115	1.33			--	0.1	
<i>Tvetenia</i>	09021011065	2.67	67.40	5	CG	0.1	3.5
<i>Tvetenia vitracies</i>	09021011065113	62.67			--	3.3	
<i>Micropsectra</i>	09021011070	1.33	1.38	7	CG	0.1	0.1
<i>Rheotanytarsus</i>	09021011072	178.67	184.33	6	CF	9.3	9.6
<i>Tanytarsus</i>	09021011076	1.33	1.38	6	CF	0.1	0.1
<i>Microtendipes</i>	09021011094		13.76	6	CF		0.7
<i>Microtendipes rydalensis group</i>	09021011094168	13.33			--	0.7	
<i>Polypedilum</i>	09021011102		86.66	6	SH		4.5
<i>Polypedilum aviceps</i>	09021011102181	1.33			--	0.1	
<i>Polypedilum flavum</i>	09021011102182	78.67			--	4.1	
<i>Polypedilum fallax group</i>	09021011102183	2.67			--	0.1	
<i>Polypedilum ontario</i>	09021011102194	1.33			--	0.1	
<i>Simulium</i>	09021012047	2.67	93.33	4	CF	0.1	4.8
<i>Simulium fibrinflatum</i>	09021012047059	4.00			--	0.2	
<i>Simulium jenningsi</i>	09021012047060	86.67			--	4.5	
<i>Psephenus</i>	09021108058		5.33	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	5.33			--	0.3	
<i>Ectopria</i>	09021109059	1.33	1.33	5	SC	0.1	0.1
<i>Promoresia</i>	09021113069		53.33		--		2.8
<i>Promoresia elegans</i>	09021113069051	42.67			--	2.2	
<i>Promoresia tardella</i>	09021113069052	10.67			--	0.6	
<i>Stenelmis</i>	09021113070	2.67	2.67	5	SC	0.1	0.1
<i>Atractides</i>	09030102002	1.33	1.33		--	0.1	0.1