



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

Station Information

Station Number: S-361	DEP Drainage: St. Croix - Coastal
Waterbody: Heath Brook - Station 361	HUC8: 01050002
Town: Tremont	HUC8 Name: Maine Coastal
Directions: BELOW SEAL COVE RD. CROSSING	Latitude: 44 16 34.06 N
	Longitude: 68 21 59.94 W
	Stream Order: 1

Sample Information

Log Number: 1755	Type of Sample: ROCK BAG	Date Deployed: 8/7/2008
Subsample Factor: X1	Replicates: 3	Date Retrieved: 9/8/2008

Classification Attainment

Statutory Class: AA	Final Determination: A	Date: 7/9/2009
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 7/8/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.59	Class A, B, or C	1.00
Class B	0.30	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.96	Class A	0.89
Class C or Non-Attainment	0.04	Class B or C or Non-Attainment	0.11

Model Variables

01 Total Mean Abundance	53.00	18 Relative Abundance Ephemeroptera	0.06
02 Generic Richness	32.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	3.33	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	4.05	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.00
06 Hilsenhoff Biotic Index	4.56	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.31	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	10.33		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.00		
13 Relative Abundance - Oligochaeta	0.03		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.40		
17 Chironomini Abundance (Family Functional Group)	2.04		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	19.50
2	<i>Stenelmis</i>	13.84
3	<i>Rheocricotopus</i>	11.56
4	<i>Simulium</i>	6.92
5	<i>Meropelopia</i>	6.42
6	<i>Orthocladius</i>	6.42



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Waterbody: Heath Brook - Station 361

Date Retrieved: 9/8/2008

Sample Collection and Processing Information

Sampling Organization: ACADIA NATIONAL PARK

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 17.2 deg C
Dissolved Oxygen: 5.55 mg/l
Specific Conductance: 40 uS/cm
Velocity: 21.2 cm/s
pH: 4.84
Wetted Width: 1.83 m
Bankfull Width: 1.89 m
Depth: 17 cm

Waterbody Information - Retrieval

Temperature: 17.3 deg C
Dissolved Oxygen: 5.79 mg/l
Specific Conductance: 35 uS/cm
Velocity: 39.32 cm/s
pH: 4.6
Wetted Width: 1.74 m
Bankfull Width: 1.74 m
Depth: 13 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Altered Hydrology Stressor	Below Dam	Boulder	15 %
BOD (Low DO) Stressor	Below Road Crossing	Gravel	5 %
Low pH Stressor		Rubble/Cobble	80 %
Nutrients Stressor			

Landcover Summary - 2004 Data

Sample Comments

BEAVER DECEIVER AND GUARD REGULATES FLOW THROUGH THE CULVERT. MUCH BEAVER ACTIVITY UPSTREAM OF SITE.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-361

Waterbody: Heath Brook - Station 361

Town: Tremont

Log Number: 1755

Subsample Factor: X1

Replicates: 3

Calculated: 7/8/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Enchytraeidae	08020201	0.33	0.33		--	0.6	0.6
<i>Nais</i>	08020202009		1.00		CG		1.9
<i>Nais variabilis</i>	08020202009009	1.00			--	1.9	
Lumbricidae	08020205	0.33	0.33		--	0.6	0.6
<i>Paracapnia</i>	09020203018	0.33	0.33	1	SH	0.6	0.6
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.6	0.6
<i>Boyeria</i>	09020301004		0.67	2	PR		1.3
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.6	
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.6	
Leptophlebiidae	09020406	1.67	1.67		--	3.1	3.1
<i>Paraleptophlebia</i>	09020406026	0.33	0.33	1	CG	0.6	0.6
<i>Eurylophella</i>	09020410036		1.33	3	CG		2.5
<i>Eurylophella funeralis</i>	09020410036115	1.33			SH	2.5	
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.6	0.6
<i>Diplectrona</i>	09020604014		1.00	0	CF		1.9
<i>Diplectrona modesta</i>	09020604014025	1.00			--	1.9	
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	1.9	1.9
<i>Hydropsyche</i>	09020604016	3.00	10.33	4	CF	5.7	19.5
<i>Hydropsyche depravata complex</i>	09020604016041	7.33			CF	13.8	
<i>Rhyacophila</i>	09020605019	0.67	1.00	2	PR	1.3	1.9
<i>Rhyacophila nigrita</i>	09020605019064	0.33			PR	0.6	
<i>Limnephilus</i>	09020610055	0.33	0.33	3	SH	0.6	0.6
<i>Psilotreta</i>	09020614068		0.33	0	SC		0.6
<i>Psilotreta indecisa</i>	09020614068132	0.33			--	0.6	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.6
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.6	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.6	0.6
<i>Pseudolimnophila</i>	09021001014	0.33	0.33	2	--	0.6	0.6
<i>Chaoborus</i>	09021007025		0.33	8	PR		0.6
<i>Chaoborus flavicans</i>	09021007025001	0.33			--	0.6	
Chironomidae	09021011	8.33			--	15.7	
<i>Meropelopia</i>	09021011010	1.67	3.40		--	3.1	6.4
<i>Corynoneura</i>	09021011036	0.33	0.68	7	CG	0.6	1.3
<i>Orthocladius</i>	09021011050		3.40	6	CG		6.4
<i>Orthocladius annectens</i>	09021011050092	1.67			--	3.1	
<i>Rheocricotopus</i>	09021011057		6.13	6	CG		11.6
<i>Rheocricotopus tuberculatus</i>	09021011057106	3.00			--	5.7	
<i>Rheotanytarsus</i>	09021011072	0.33	0.68	6	CF	0.6	1.3



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		Actual	Adjusted			Actual	Adjusted
<i>Chironomus</i>	09021011080	0.33	0.68	10	CG	0.6	1.3
<i>Polypedilum</i>	09021011102		1.36	6	SH		2.6
<i>Polypedilum illinoense group</i>	09021011102185	0.67			--	1.3	
<i>Simulium</i>	09021012047	3.33	3.67	4	CF	6.3	6.9
<i>Simulium jenningsi complex</i>	09021012047070	0.33			CF	0.6	
<i>Brachycera</i>	09021016062	0.33	0.33		PR	0.6	0.6
<i>Neoporus</i>	09021103033	0.33	0.33		--	0.6	0.6
<i>Promoresia</i>	09021113069		3.00		--		5.7
<i>Promoresia tardella</i>	09021113069052	3.00			--	5.7	
<i>Stenelmis</i>	09021113070	5.00	7.33	5	SC	9.4	13.8
<i>Stenelmis crenata</i>	09021113070055	2.33			--	4.4	