



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

Station Information

Station Number: S-361	DEP Drainage: Maine 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: 2160	Type of Sample: ROCK BAG	Date Deployed: 8/14/2012
Subsample Factor: X4	Replicates: 3	Date Retrieved: 9/13/2012

Classification Attainment

Statutory Class: AA	Final Determination: B	Date: 8/28/2013
Model Result with P>.6: B	Reason for Determination: Model	
Date Last Calculated: 7/17/2013	Comments: Class A (0.32)	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.34	Class C	0.07
Class B	0.59	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.92	Class A	0.32
Class C or Non-Attainment	0.08	Class B or C or Non-Attainment	0.68

Model Variables

01 Total Mean Abundance	746.67	18 Relative Abundance Ephemeroptera	0.02
02 Generic Richness	27.00	19 EPT Generic Richness	11.00
03 Plecoptera Mean Abundance	4.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	6.51
04 Ephemeroptera Mean Abundance	16.00	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	2.63	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	10.02
06 Hilsenhoff Biotic Index	3.45	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	9.33
07 Relative Abundance - Chironomidae	0.13	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.41	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	255.97		
11 <i>Cheumatopsyche</i> Abundance	1.34		
12 EPT Generic Richness/ Diptera Generic Richness	1.00		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	0.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Chimarra</i>	38.57
2	<i>Hydropsyche</i>	34.28
3	<i>Stenelmis</i>	5.71
4	<i>Rheotanytarsus</i>	4.36
5	<i>Rheocricotopus</i>	2.91



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

Station Number: S-361 Town: Tremont Date Deployed: 8/14/2012
Log Number: 2160 Waterbody: Heath Brook - Station 361 Date Retrieved: 9/13/2012

Sample Collection and Processing Information

Sampling Organization: ACADIA NATIONAL PARK
 Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 27.43 deg C
 Dissolved Oxygen: 6.08 mg/l
 Specific Conductance: 42 uS/cm
 Velocity: 4.05 cm/s
 pH: 5.41
 Wetted Width: 1.99 m
 Bankfull Width: 3 m
 Depth: 8.23 cm

Waterbody Information - Retrieval

Temperature: 20.26 deg C
 Dissolved Oxygen: 8.27 mg/l
 Specific Conductance: 38 uS/cm
 Velocity: 6.65 cm/s
 pH: 5.4
 Wetted Width: 2.8 m
 Bankfull Width: 3 m
 Depth: 11.69 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
BOD (Low DO)	Below Road Crossing	Bedrock	45 %
Low pH		Boulder	5 %
		Detritus	2 %
		Gravel	30 %
		Muck	2 %
		Rubble/Cobble	16 %

Landcover Summary - 2004 Data

Total Area (ac)	628	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	4.2	Tilled Agriculture %	0.0
		Low Int. Dev. %	3.8	Upland Woody %	92.0	Grassland %	0.0
		Development %	3.8	Natural %	96.2	Human Altered %	3.8
						Impervious %	3.2

Sample Comments

BAG #1 AND #2 PICKED 9/14/12 @0945, ALREADY PULLED, BUCKETS KEPT IN WATER OVERNIGHT WITH LIDS ON. AT TAKEOUT, BAG #1 (FURTHEST UPSTREAM) WAS UNDER ~1FT DEBRIS (BRANCHES, LEAF LITTER, DETRITUS). HAD TO KICK/PUSH DEBRIS OFF TO REMOVE BAG, POSSIBLY DISTURB



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

Station Number: S-361
Log Number: 2160

Waterbody: Heath Brook - Station 361
Subsample Factor: X4

Town: Tremont
Calculated: 7/17/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002		14.67		--		2.0
<i>Girardia tigrina</i>	03010102002001	14.67			--	2.0	
<i>Hyaella</i>	09010203006	1.33	1.33	8	CG	0.2	0.2
<i>Paracapnia</i>	09020203018	1.33	1.33	1	SH	0.2	0.2
Perlodidae	09020207	2.67	2.67		--	0.4	0.4
<i>Boyeria</i>	09020301004		2.67	2	PR		0.4
<i>Boyeria vinosa</i>	09020301004012	2.67			--	0.4	
<i>Maccaffertium</i>	09020402015	9.33	9.33	4	SC	1.3	1.3
Leptophlebiidae	09020406	5.33	5.33		--	0.7	0.7
<i>Eurylophella</i>	09020410036	1.33	1.33	3	CG	0.2	0.2
<i>Chimarra</i>	09020601003	288.00	288.00	2	CF	38.6	38.6
Hydropsychidae	09020604	1.33			--	0.2	
<i>Diplectrona</i>	09020604014		4.02	0	CF		0.5
<i>Diplectrona modesta</i>	09020604014025	4.00			--	0.5	
<i>Cheumatopsyche</i>	09020604015	1.33	1.34	5	CF	0.2	0.2
<i>Hydropsyche</i>	09020604016	1.33	255.97	4	CF	0.2	34.3
<i>Hydropsyche depravata complex</i>	09020604016041	253.33			CF	33.9	
<i>Rhyacophila</i>	09020605019	2.67	5.33	2	PR	0.4	0.7
<i>Rhyacophila carolina</i>	09020605019057	2.67			PR	0.4	
<i>Psilotreta</i>	09020614068		1.33	0	SC		0.2
<i>Psilotreta labida</i>	09020614068133	1.33			--	0.2	
<i>Tipula</i>	09021001002	5.33	5.33	4	SH	0.7	0.7
Chironomidae	09021011	36.00			--	4.8	
<i>Corynoneura</i>	09021011036	5.33	8.68	7	CG	0.7	1.2
<i>Parametriocnemus</i>	09021011053	4.00	6.51	5	CG	0.5	0.9
<i>Rheocricotopus</i>	09021011057		21.71	6	CG		2.9
<i>Rheocricotopus tuberculatus</i>	09021011057106	13.33			--	1.8	
<i>Tvetenia</i>	09021011065		2.17	5	CG		0.3
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.2	
<i>Unniella</i>	09021011066		6.51		--		0.9
<i>Unniella multivirga</i>	09021011066114	4.00			--	0.5	
<i>Micropsectra</i>	09021011070	4.00	6.51	7	CG	0.5	0.9
<i>Rheotanytarsus</i>	09021011072	20.00	32.56	6	CF	2.7	4.4
<i>Tanytarsus</i>	09021011076	5.33	8.68	6	CF	0.7	1.2
<i>Simulium</i>	09021012047		2.67	4	CF		0.4
<i>Simulium tuberosum</i>	09021012047067	2.67			--	0.4	
<i>Hemerodromia</i>	09021016057	5.33	5.33	3	PR	0.7	0.7
<i>Roederiodes</i>	09021016058			3	PR		



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

Station Number: S-361 Waterbody: Heath Brook - Station 361 Town: Tremont
Log Number: 2160 Subsample Factor: X4 Replicates: 3 Calculated: 7/17/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Promoresia</i>	09021113069		2.67		--		0.4
<i>Promoresia elegans</i>	09021113069051	1.33			--	0.2	
<i>Promoresia tardella</i>	09021113069052	1.33			--	0.2	
<i>Stenelmis</i>	09021113070	8.00	42.67	5	SC	1.1	5.7
<i>Stenelmis crenata</i>	09021113070055	34.67			--	4.6	