



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

Station Information

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

Sample Information

Log Number: 2512	Type of Sample: ROCK BAG	Date Deployed: 8/1/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 9/1/2016

Classification Attainment

Statutory Class: AA	Final Determination: B	Date: 6/19/2017
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 6/15/2017	Comments: Below Wetland. Low DO.	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.32	Class A, B, or C	1.00
Class B	0.58	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.91	Class A	0.13
Class C or Non-Attainment	0.09	Class B or C or Non-Attainment	0.87

Model Variables

01 Total Mean Abundance	368.33	18 Relative Abundance Ephemeroptera	0.13
02 Generic Richness	39.00	19 EPT Generic Richness	13.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	14.46
04 Ephemeroptera Mean Abundance	48.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	2.95	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	7.34
06 Hilsenhoff Biotic Index	4.41	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	30.00
07 Relative Abundance - Chironomidae	0.15	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.41	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	158.46		
11 <i>Cheumatopsyche</i> Abundance	2.85		
12 EPT Generic Richness/ Diptera Generic Richness	0.81		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.50		
17 Chironomini Abundance (Family Functional Group)	1.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	43.02
2	<i>Stenelmis</i>	20.18
3	<i>Maccaffertium</i>	8.14
4	<i>Rheotanytarsus</i>	6.77
5	<i>Micropsectra</i>	3.93



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Station Number: S-361 Town: Tremont Date Deployed: 8/1/2016
Log Number: 2512 Waterbody: Heath Brook - Station 361 Date Retrieved: 9/1/2016

Sample Collection and Processing Information

Sampling Organization: ACADIA NATIONAL PARK Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.589 deg C
Dissolved Oxygen: 6.09 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 44.3 uS/cm
Velocity: 26.67 cm/s
pH: 5.72
Wetted Width: 1.25 m
Bankfull Width: 1.98 m
Depth: 11.48 cm

Waterbody Information - Retrieval

Temperature: 22.76 deg C
Dissolved Oxygen: 6.88 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 44.7 uS/cm
Velocity: 18.3 cm/s
pH: 5.61
Wetted Width: 1.37 m
Bankfull Width: 2.13 m
Depth: 11.38 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Marsh	Partly Open	Rolling	
Upland Conifer			
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
BOD (Low DO)	Below Road Crossing	Boulder	30 %
	Below Wetland	Detritus	1 %
		Gravel	25 %
		Rubble/Cobble	40 %
		Sand	4 %

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

9/1/16: OCCASIONAL BLUE/GREEN UPSTREAM OF BAG 1; MOSS; TEMP. PROBE NUMBER 1037931
RETRIEVED AT 14:20H.
TEA COLORED, PLENTIFUL HEAVY COATING BROWN AND GREEN ALGAE, MOSS.



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

Station Number: S-361
Log Number: 2512

Waterbody: Heath Brook - Station 361
Subsample Factor: X1

Town: Tremont

Replicates: 3

Calculated: 6/15/2017

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>Girardia</i>	03010102002		1.67		--		0.5
<i>Girardia tigrina</i>	03010102002001	1.67			--	0.5	
<i>Lumbriculus</i>	08020101002		0.33		CG		0.1
<i>Lumbriculus variegatus</i>	08020101002001	0.33			--	0.1	
<i>Hyaella</i>	09010203006	1.33	1.33	8	CG	0.4	0.4
<i>Paracapnia</i>	09020203018		1.67	1	SH		0.5
<i>Paracapnia opis</i>	09020203018045	1.67			--	0.5	
<i>Boyeria</i>	09020301004		0.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.1	
Calopterygidae	09020307	6.33	6.33		--	1.7	1.7
<i>Calopteryx</i>	09020307043		0.33	5	PR		0.1
<i>Calopteryx maculata</i>	09020307043088	0.33			--	0.1	
Heptageniidae	09020402	0.33	0.33		--	0.1	0.1
<i>Maccaffertium</i>	09020402015	25.00	30.00	4	SC	6.8	8.1
<i>Maccaffertium modestum</i>	09020402015051	5.00			--	1.4	
Leptophlebiidae	09020406	4.00	4.00		--	1.1	1.1
<i>Paraleptophlebia</i>	09020406026	13.67	13.67	1	CG	3.7	3.7
<i>Chimarra</i>	09020601003	0.33	3.67	2	CF	0.1	1.0
<i>Chimarra aterrima</i>	09020601003002	3.33			--	0.9	
<i>Plectrocnemia</i>	09020603012	0.33	0.33	6	PR	0.1	0.1
Hydropsychidae	09020604	10.33			--	2.8	
<i>Diplectrona</i>	09020604014		0.36	0	CF		0.1
<i>Diplectrona modesta</i>	09020604014025	0.33			--	0.1	
<i>Cheumatopsyche</i>	09020604015	2.67	2.85	5	CF	0.7	0.8
<i>Hydropsyche</i>	09020604016	131.33	158.46	4	CF	35.7	43.0
<i>Hydropsyche depravata species group</i>	09020604016041	17.00			CF	4.6	
<i>Rhyacophila</i>	09020605019	0.33	0.33	2	PR	0.1	0.1
<i>Psilotreta</i>	09020614068	0.67	0.67	0	SC	0.2	0.2
<i>Molanna</i>	09020615069		0.67	6	SC		0.2
<i>Molanna blenda</i>	09020615069133	0.67			--	0.2	
<i>Nigronia</i>	09020701003		0.67	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	0.67			--	0.2	
Chironomidae	09021011	18.67			--	5.1	
<i>Trissopelopia</i>	09021011021		1.00		PR		0.3
<i>Trissopelopia ogemawi</i>	09021011021042	0.67			--	0.2	
<i>Zavrelimyia</i>	09021011022	0.33	0.50	8	PR	0.1	0.1



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<i>Corynoneura</i>	09021011036	1.33	1.99	7	CG	0.4	0.5
<i>Nanocladius</i>	09021011049	0.33	0.50	3	CG	0.1	0.1
<i>Orthocladius</i>	09021011050		1.50	6	CG		0.4
<i>Orthocladius annectens</i>	09021011050092	1.00			--	0.3	
<i>Parametriocnemus</i>	09021011053	1.00	1.50	5	CG	0.3	0.4
<i>Psectrocladius</i>	09021011056		1.50	8	CG		0.4
<i>Psectrocladius simulans</i>	09021011056110	1.00			--	0.3	
<i>Rheocricotopus</i>	09021011057		2.49	6	CG		0.7
<i>Rheocricotopus tuberculatus</i>	09021011057106	1.67			--	0.5	
<i>Thienemanniella</i>	09021011062		0.50	6	CG		0.1
<i>Thienemanniella xena</i>	09021011062110	0.33			--	0.1	
<i>Micropsectra</i>	09021011070	9.67	14.46	7	CG	2.6	3.9
<i>Rheotanytarsus</i>	09021011072		24.93	6	CF		6.8
<i>Rheotanytarsus exiguus group</i>	09021011072127	13.33			CF	3.6	
<i>Rheotanytarsus pellucidus</i>	09021011072128	3.33			CF	0.9	
<i>Tanytarsus</i>	09021011076	3.00	4.49	6	CF	0.8	1.2
<i>Nilothauma</i>	09021011095	0.33	0.50	2	--	0.1	0.1
<i>Polypedilum</i>	09021011102		0.50	6	SH		0.1
<i>Polypedilum aviceps</i>	09021011102181	0.33			--	0.1	
<i>Simulium</i>	09021012047		2.33	4	CF		0.6
<i>Simulium venustum/verecundum complex</i>	09021012047072	2.33			CF	0.6	
<i>Hemerodromia</i>	09021016057	4.33	4.33	3	PR	1.2	1.2
<i>Promoresia</i>	09021113069		2.67		--		0.7
<i>Promoresia tardella</i>	09021113069052	2.67			--	0.7	
<i>Stenelmis</i>	09021113070	7.00	74.33	5	SC	1.9	20.2
<i>Stenelmis crenata</i>	09021113070055	67.33			--	18.3	