



**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: 2856	Type of Sample: ROCK BAG	Date Deployed: 8/13/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 9/9/2020

Classification Attainment

Statutory Class: AA	Final Determination:	Date:
Model Result with P \geq 0.6: C	Reason for Determination:	
Date Last Calculated: 11/5/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.91
Class B	0.02	Non-Attainment	0.09
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.00	Class A	0.01
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Mean Abundance	54.00	18 Relative Abundance Ephemeroptera	0.31
02 Generic Richness	23.00	19 EPT Generic Richness	7.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.40
04 Ephemeroptera Mean Abundance	17.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.63	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.05
06 Hilsenhoff Biotic Index	4.76	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	8.67
07 Relative Abundance - Chironomidae	0.25	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	1.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.78		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.05		
17 Chironomini Abundance (Family Functional Group)	1.75		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stenelmis</i>	23.46
2	<i>Maccaffertium</i>	16.05
3	Leptophlebiidae	14.81
4	<i>Rheotanytarsus</i>	9.10
5	<i>Tvetenia</i>	3.90



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Station Number: S-361 Town: Tremont Date Deployed: 8/13/2020
Log Number: 2856 Waterbody: Heath Brook - Station 361 Date Retrieved: 9/9/2020

Sample Collection and Processing Information

Sampling Organization: ACADIA NATIONAL PARK

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 25.765 deg C
Dissolved Oxygen: 5.19 mg/l
Dissolved Oxygen Saturation: 63.8 %
Specific Conductance: 45.5 uS/cm
Velocity: 13 cm/s
pH: 5.89
Wetted Width: 1.35 m
Bankfull Width: 6.15 m
Depth: 8 cm

Waterbody Information - Retrieval

Temperature: 20.358 deg C
Dissolved Oxygen: 7.1 mg/l
Dissolved Oxygen Saturation: 78.7 %
Specific Conductance: 47.9 uS/cm
Velocity: 21.6 cm/s
pH: 5.62
Wetted Width: 2.3 m
Bankfull Width: 6.15 m
Depth: 9 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Swamp Conifer	Dense	Flat	
Swamp Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Below Wetland	Below Road Crossing	Bedrock	33 %
		Boulder	5 %
		Clay	0 %
		Detritus	2 %
		Gravel	8 %
		Muck	0 %
		Rubble/Cobble	50 %
		Sand	2 %
		Silt	0 %

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

FROGS, SMALL FISH AND WATERSTRIDERS.



**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: 2856 Subsample Factor: X1 Replicates: 3 Calculated: 11/5/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Aeolosoma</i>	08020301001	0.33	0.33		--	0.6	0.6
<i>Boyeria</i>	09020301004	1.33	2.00	2	PR	2.5	3.7
<i>Boyeria vinosa</i>	09020301004012	0.67			--	1.2	
<i>Calopteryx</i>	09020307043	1.67	1.67	5	PR	3.1	3.1
<i>Acerpenna</i>	09020401007	0.33	0.33	5	CG	0.6	0.6
<i>Maccaffertium</i>	09020402015	8.67	8.67	4	SC	16.0	16.0
Leptophlebiidae	09020406	8.00	8.00		--	14.8	14.8
<i>Polycentropus</i>	09020603010	1.67	1.67	6	PR	3.1	3.1
<i>Diplectrona</i>	09020604014		0.33	0	CF		0.6
<i>Diplectrona modesta</i>	09020604014025	0.33			--	0.6	
<i>Hydropsyche</i>	09020604016	0.67	1.00	4	CF	1.2	1.9
<i>Hydropsyche betteni</i>	09020604016037	0.33			--	0.6	
<i>Hydatophylax</i>	09020610048	0.33	0.33	2	SH	0.6	0.6
Chironomidae	09021011	0.67			--	1.2	
<i>Thienemannimyia</i>	09021011020		1.05	3	PR		1.9
<i>Thienemannimyia group</i>	09021011020041	1.00			--	1.9	
<i>Corynoneura</i>	09021011036	0.67	0.70	7	CG	1.2	1.3
<i>Heterotrissocladius</i>	09021011044			0	CG		
<i>Psectrocladius</i>	09021011056	0.33	0.35	8	CG	0.6	0.6
<i>Tvetenia</i>	09021011065		2.11	5	CG		3.9
<i>Tvetenia paucunca</i>	09021011065114	2.00			--	3.7	
<i>Micropsectra</i>	09021011070	1.33	1.40	7	CG	2.5	2.6
<i>Rheotanytarsus</i>	09021011072		4.91	6	CF		9.1
<i>Rheotanytarsus exiguus group</i>	09021011072127	1.00			CF	1.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	3.67			CF	6.8	
<i>Tanytarsus</i>	09021011076	1.00	1.05	6	CF	1.9	1.9
<i>Microtendipes</i>	09021011094		1.75	6	CF		3.2
<i>Microtendipes pedellus group</i>	09021011094166	1.67			--	3.1	
<i>Hemerodromia</i>	09021016057	0.67	0.67	3	PR	1.2	1.2
<i>Psephenus</i>	09021108058		0.33	4	SC		0.6
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.6	
<i>Optioservus</i>	09021113067		1.67	3	SC		3.1
<i>Optioservus tardella</i>	09021113067052	1.67			--	3.1	
<i>Promoresia</i>	09021113069	1.00	1.00		--	1.9	1.9
<i>Stenelmis</i>	09021113070		12.67	5	SC		23.5
<i>Stenelmis crenata</i>	09021113070055	12.67			--	23.5	