



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

**Station Information**

<b>Station Number:</b> S-953	River Basin: Saco
Waterbody: Phillips Brook - Station 953	HUC8 Name: Presumpscot
Town: Scarborough	Latitude: 43 34 27.62 N
Directions: PAYNE ROAD, NEAR ROUTE 1, BEHIND TOWN OF SCARBOROUGH ASPHALT/GRAVEL PILE-WALK BEHIND PILE (TRAIL)	Longitude: 70 23 10.86 W
	Stream Order: 1

**Sample Information**

<b>Log Number:</b> 2517	Type of Sample: ROCK BAG	Date Deployed: 8/9/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 9/8/2016

**Classification Attainment**

<b>Statutory Class:</b> C	<b>Final Determination:</b> I	Date: 4/7/2017
Model Result with $P \geq 0.6$ : I	<b>Reason for Determination: Best Professional Judgement</b>	
Date Last Calculated: 4/4/2017	Comments: Minimum Provision for Total Mean Abundance not met. Resample.	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.02	Class A, B, or C	0.02
Class B	0.04	Non-Attainment	0.98
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.00	Class A	0.04
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.96

**Model Variables**

01 Total Mean Abundance	25.00	18 Relative Abundance Ephemeroptera	0.48
02 Generic Richness	15.00	19 EPT Generic Richness	3.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.67
04 Ephemeroptera Mean Abundance	12.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.78	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	3.73	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	0.07
08 Relative Generic Richness Diptera	0.53	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	0.38		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Paraleptophlebia</i>	48.00
2	<i>Aulodrilus</i>	9.33
3	<i>Chironomus</i>	9.33
4	<i>Procladius</i>	8.00
5	<i>Hydropsyche</i>	4.00
6	<i>Microtendipes</i>	4.00



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

**Waterbody Information - Deployment**

Temperature: 16.5 deg C  
Dissolved Oxygen: 6.53 mg/l  
Dissolved Oxygen Saturation: 66.5 %  
Specific Conductance: 401 uS/cm  
Velocity:  
pH:  
Wetted Width: 2.5 m  
Bankfull Width: 4.4 m  
Depth: 41 cm

**Waterbody Information - Retrieval**

Temperature: 17.9 deg C  
Dissolved Oxygen: 6.97 mg/l  
Dissolved Oxygen Saturation: 73.2 %  
Specific Conductance: 382.2 uS/cm  
Velocity:  
pH:  
Wetted Width: 1.9 m  
Bankfull Width: 4.4 m  
Depth: 44 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Dense	Rolling
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Hydrology		Gravel 20 %
Nps Pollution		Sand 80 %
Sedimentation		

**Landcover Summary - 2004 Data**

**Sample Comments**

FLOW BARELY VISIBLE AT DEPLOYMENT, FISH VISIBLE.  
FLOW BARELY VISIBLE AT RETRIEVAL, FISH PRESENT.



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Aquatic Life Taxonomic Inventory Report**

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Waterbody: Phillips Brook - Station 953

Town: Scarborough

**Log Number: 2517**

Subsample Factor: X1

Replicates: 3

Calculated: 4/4/2017

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Aulodrilus</i>	08020202018		2.33		--		9.3
<i>Aulodrilus pluriseta</i>	08020202018004	2.33			--	9.3	
<i>Aeshna</i>	09020301001	0.67	0.67	5	PR	2.7	2.7
<i>Paraleptophlebia</i>	09020406026	12.00	12.00	1	CG	48.0	48.0
<i>Hydropsyche</i>	09020604016	1.00	1.00	4	CF	4.0	4.0
<i>Mystacides</i>	09020618075		0.33	4	CG		1.3
<i>Mystacides sepulchralis</i>	09020618075147	0.33			--	1.3	
<i>Procladius</i>	09021011015	2.00	2.00	9	PR	8.0	8.0
<i>Thienemannimyia</i>	09021011020		0.67	3	PR		2.7
<i>Thienemannimyia group</i>	09021011020041	0.67			--	2.7	
<i>Parakiefferiella</i>	09021011052	0.33	0.33		CG	1.3	1.3
<i>Micropsectra</i>	09021011070			7	CG		
<i>Rheotanytarsus</i>	09021011072		0.33	6	CF		1.3
<i>Rheotanytarsus pellucidus</i>	09021011072128	0.33			CF	1.3	
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	1.3	1.3
<i>Chironomus</i>	09021011080	2.33	2.33	10	CG	9.3	9.3
<i>Dicrotendipes</i>	09021011085		0.67	8	CG		2.7
<i>Dicrotendipes neomodestus</i>	09021011085152	0.67			--	2.7	
<i>Microtendipes</i>	09021011094		1.00	6	CF		4.0
<i>Microtendipes pedellus group</i>	09021011094166	1.00			--	4.0	
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	2.7	2.7
Acariformes	090301	0.33	0.33		--	1.3	1.3