



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

Station Information

Station Number: 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

Log Number: 2820	Type of Sample:	ROCK BAG	Date Deployed:	7/7/2020	
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/5/2020

Classification Attainment

Statutory Class: C	Final Determination: NA	Date:	2/17/2021
Model Result with $P \geq 0.6$:	NA	Reason for Determination:	Model
Date Last Calculated:	1/29/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class C	0.17
Class B	0.00	Class A, B, or C	0.00
		Non-Attainment	1.00
<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	161.33	18 Relative Abundance Ephemeroptera	0.02
02 Generic Richness	31.00	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>	2.00
04 Ephemeroptera Mean Abundance	3.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.16	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	38.00
06 Hilsenhoff Biotic Index	5.89	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.31	28 EP Generic Richness/14	0.21
08 Relative Generic Richness Diptera	0.52	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.44		

Five Most Dominant Taxa

	Rank	Taxon Name	Percent
13 Relative Abundance - Oligochaeta	1	<i>Dubiraphia</i>	58.68
15 Perlidae Mean Abundance (Family Functional Group)	2	<i>Tanytarsus</i>	23.55
16 Tanypodinae Mean Abundance (Family Functional Group)	3	<i>Physella</i>	2.69
17 Chironomini Abundance (Family Functional Group)	4	<i>Microtendipes</i>	2.27
	5	<i>Stempellinella</i>	1.45



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Waterbody: Phillips Brook - Station 953

Date Retrieved: 8/5/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature:	18.4 deg C
Dissolved Oxygen:	8.85 mg/l
Dissolved Oxygen Saturation:	93.3 %
Specific Conductance:	328.6 uS/cm
Velocity:	0.1 cm/s
pH:	7.38
Wetted Width:	3 m
Bankfull Width:	4.3 m
Depth:	20 cm

Waterbody Information - Retrieval

Temperature:	19.1 deg C
Dissolved Oxygen:	7.23 mg/l
Dissolved Oxygen Saturation:	77.8 %
Specific Conductance:	288.9 uS/cm
Velocity:	0.1 cm/s
pH:	7.28
Wetted Width:	2.6 m
Bankfull Width:	4.3 m
Depth:	16.3 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Upland Hardwood

Dense

Rolling

Urban

Potential Stressor

Location

Substrate

Nps Pollution

Below Road Crossing

Bedrock 25 %

Urban Runoff

Boulder 15 %

Gravel 15 %

Rubble/Cobble 30 %

Sand 10 %

Silt 5 %

Landcover Summary - 2004 Data

Sample Comments

VISIBLE FLOW.



Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report

Station Number: S-953	Waterbody: Phillips Brook - Station 953	Town: Scarborough
Log Number: 2820	Subsample Factor: X1	Replicates: 3
		Calculated: 1/29/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Prostoma</i>	04010101001	0.67	0.67		--	0.4	0.4
<i>Helobdella</i>	08030101005		1.00		--		0.6
<i>Helobdella stagnalis complex</i>	08030101005004	1.00			--	0.6	
<i>Erpobdella</i>	08030203002	1.00	1.00		--	0.6	0.6
Heptageniidae	09020402	1.67	1.67		--	1.0	1.0
<i>Maccaffertium</i>	09020402015	0.33	0.33	4	SC	0.2	0.2
Leptophlebiidae	09020406	1.33	1.33		--	0.8	0.8
Corixidae	09020501	0.67	0.67		--	0.4	0.4
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	0.6	0.6
<i>Limnephilus</i>	09020610055	0.67	0.67	3	SH	0.4	0.4
<i>Psilotreta</i>	09020614068	0.67	0.67	0	SC	0.4	0.4
<i>Mystacides</i>	09020618075		2.00	4	CG		1.2
<i>Mystacides sepulchralis</i>	09020618075147	2.00			--	1.2	
Corydalidae	09020701	0.67	0.67		--	0.4	0.4
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.2	0.2
<i>Dixa</i>	09021006023	0.33	0.33		CG	0.2	0.2
<i>Nilotanytus</i>	09021011012	0.33	0.33	6	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		0.33	3	PR		0.2
<i>Thienemannimyia group</i>	09021011020041	0.33			--	0.2	
<i>Zavrelimyia</i>	09021011022	1.33	1.33	8	PR	0.8	0.8
<i>Chaetocladius</i>	09021011035	0.33	0.33	6	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.2	0.2
<i>Micropsectra</i>	09021011070	0.33	0.33	7	CG	0.2	0.2
<i>Paratanytarsus</i>	09021011071	0.33	0.33	6	--	0.2	0.2
<i>Stempellinella</i>	09021011074	2.33	2.33	2	--	1.4	1.4
<i>Tanytarsus</i>	09021011076	38.00	38.00	6	CF	23.6	23.6
<i>Cladopelma</i>	09021011081			9	CG		
<i>Dicrotendipes</i>	09021011085		0.33	8	CG		0.2
<i>Dicrotendipes neomodestus</i>	09021011085152	0.33			--	0.2	
<i>Microtendipes</i>	09021011094		3.67	6	CF		2.3
<i>Microtendipes pedellus group</i>	09021011094166	2.33			--	1.4	
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	0.8	
<i>Parachironomus</i>	09021011097	0.33	0.33	10	PR	0.2	0.2
<i>Phaenopsectra</i>	09021011101	0.67	0.67	7	SC	0.4	0.4
<i>Polypedilum</i>	09021011102		1.00	6	SH		0.6
<i>Polypedilum scalaenum group</i>	09021011102189	1.00			--	0.6	
<i>Dubiraphia</i>	09021113064	94.67	94.67	6	--	58.7	58.7



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Torrenticola</i>	09030104001	0.33	0.33		--	0.2	0.2
<i>Physella</i>	10010202027	4.33	4.33		SC	2.7	2.7