



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

Station Information

Station Number: S-1040	River Basin:	Saco
Waterbody: Trout Brook - Station 1040	HUC8 Name:	Presumpscot
Town: Cape Elizabeth	Latitude:	43 37 11.21 N
Directions: BACK CORNER LDS CHURCH PARKING LOT	Longitude:	70 14 57.01 W
	Stream Order:	2

Sample Information

Log Number: 2819	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 $P \geq 0.6$: I	Reason for Determination: Best Professional Judgement	
Date Last Calculated: 1/29/2021	Comments: Indeterminate model result because generic richness <15 assigned to Non-attainment because of predominance of tolerant taxa and non-insect taxa.	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.00
Class B	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	325.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	12.00	19 EPT Generic Richness	2.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.33
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	0.96	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.67
06 Hilsenhoff Biotic Index	3.91	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.01	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.25	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.67		
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)	2.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	80.72
2	<i>Limnephilus</i>	15.28
3	<i>Stenelmis</i>	1.44
4	<i>Stictochironomus</i>	0.82
5	<i>Lepidostoma</i>	0.62



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Station Number: S-1040 Town: Cape Elizabeth Date Deployed: 7/7/2020
Log Number: 2819 Waterbody: Trout Brook - Station 1040 Date Retrieved: 8/5/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 18.1 deg C
Dissolved Oxygen: 8.37 mg/l
Dissolved Oxygen Saturation: 87.6 %
Specific Conductance: 344.4 uS/cm
Velocity: 0.1 cm/s
pH: 7.23
Wetted Width: 3.1 m
Bankfull Width: 5.2 m
Depth: 19 cm

Waterbody Information - Retrieval

Temperature: 20.1 deg C
Dissolved Oxygen: 2.92 mg/l
Dissolved Oxygen Saturation: 32.1 %
Specific Conductance: 432.3 uS/cm
Velocity: 0.1 cm/s
pH: 6.95
Wetted Width: 3.1 m
Bankfull Width: 5.2 m
Depth: 20 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Urban	Dense	Flat	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Urban Runoff	Above Road Crossing	Boulder	20 %
		Gravel	35 %
		Rubble/Cobble	35 %
		Sand	10 %

Landcover Summary - 2004 Data

Sample Comments

VISIBLE FLOW.



Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report

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Waterbody: Trout Brook - Station 1040

Town: Cape Elizabeth

Log Number: 2819

Subsample Factor: X1

Replicates: 3

Calculated: 1/29/2021

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Limnodrilus</i>	08020202022		0.33		CG		0.1
<i>Limnodrilus hoffmeisteri</i>	08020202022003	0.33			--	0.1	
<i>Erpobdella</i>	08030203002	0.33	0.33		--	0.1	0.1
<i>Caecidotea</i>	09010101001	1.00	1.00	8	SH	0.3	0.3
<i>Gammarus</i>	09010201003	262.33	262.33	4	--	80.7	80.7
<i>Notonecta</i>	09020505015	0.33	0.33		PR	0.1	0.1
<i>Limnephilus</i>	09020610055	49.67	49.67	3	SH	15.3	15.3
<i>Lepidostoma</i>	09020611064	2.00	2.00	1	SH	0.6	0.6
<i>Micropsectra</i>	09021011070	0.33	0.33	7	CG	0.1	0.1
<i>Tanytarsus</i>	09021011076	0.67	0.67	6	CF	0.2	0.2
<i>Stictochironomus</i>	09021011106	2.67	2.67	9	CG	0.8	0.8
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	0.2	0.2
<i>Stenelmis</i>	09021113070	4.67	4.67	5	SC	1.4	1.4