



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

Station Information

Station Number: S-675	River Basin: Saco
Waterbody: Trout Brook - Station 675	HUC8 Name: Presumpscot
Town: South Portland	Latitude: 43 37 46.07 N
Directions: APPROX 125 M UPSTREAM OF BOOTHBY AVE	Longitude: 70 14 45.17 W
	Stream Order: 2

Sample Information

Log Number: 2818	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: 2/22/2021
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 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	113.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	18.00	19 EPT Generic Richness	4.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	3.67
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	1.95	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	1.33
06 Hilsenhoff Biotic Index	4.36	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.57		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.00		
17 Chironomini Abundance (Family Functional Group)	0.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	68.14
2	<i>Caecidotea</i>	9.44
3	<i>Lepidostoma</i>	4.72
4	<i>Limnephilus</i>	3.54
5	<i>Micropsectra</i>	3.24



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Station Number: S-675	Town: South Portland	Date Deployed: 7/7/2020
Log Number: 2818	Waterbody: Trout Brook - Station 675	Date Retrieved: 8/5/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature:	15.2 deg C
Dissolved Oxygen:	8.46 mg/l
Dissolved Oxygen Saturation:	83.4 %
Specific Conductance:	435.5 uS/cm
Velocity:	18.3 cm/s
pH:	6.94
Wetted Width:	3.9 m
Bankfull Width:	6 m
Depth:	22 cm

Waterbody Information - Retrieval

Temperature:	15.2 deg C
Dissolved Oxygen:	6.04 mg/l
Dissolved Oxygen Saturation:	59.8 %
Specific Conductance:	744 uS/cm
Velocity:	0.1 cm/s
pH:	6.63
Wetted Width:	2.9 m
Bankfull Width:	6 m
Depth:	19 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	Above Road Crossing	Boulder 20 %
Urban Runoff		Gravel 20 %
		Rubble/Cobble 50 %
		Sand 10 %

Landcover Summary - 2004 Data

Total Area (ac)	1182	High Int. Dev. %	0.1	Water %	0.3	Non-vegetated %	0.1
		Med Int. Dev. %	2.7	Wetland %	6.8	Tilled Agriculture %	4.2
		Low Int. Dev. %	24.0	Upland Woody %	43.6	Grassland %	1.6
		Development %	26.9	Natural %	50.9	Human Altered %	48.8
						Impervious %	15.5

Sample Comments

VISIBLE FLOW. 9-SPINED STICKLEBACK AND BROOK TROUT.



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

Station Number: S-675	Waterbody: Trout Brook - Station 675	Town: South Portland
Log Number: 2818	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>Hydra</i>	02010101001	0.33	0.33		PR	0.3	0.3
<i>Nais</i>	08020202009	1.00	1.00		CG	0.9	0.9
<i>Caecidotea</i>	09010101001	10.67	10.67	8	SH	9.4	9.4
<i>Gammarus</i>	09010201003	77.00	77.00	4	--	68.1	68.1
<i>Diplectrona</i>	09020604014		0.33	0	CF		0.3
<i>Diplectrona modesta</i>	09020604014025	0.33			--	0.3	
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.3	0.3
<i>Limnephilus</i>	09020610055	4.00	4.00	3	SH	3.5	3.5
<i>Lepidostoma</i>	09020611064	5.33	5.33	1	SH	4.7	4.7
<i>Thienemannimyia</i>	09021011020		2.00	3	PR		1.8
<i>Thienemannimyia group</i>	09021011020041	2.00			--	1.8	
<i>Nanocladius</i>	09021011049	0.33	0.33	3	CG	0.3	0.3
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	1.2	1.2
<i>Rheocricotopus</i>	09021011057			6	CG		
<i>Tvetenia</i>	09021011065		2.00	5	CG		1.8
<i>Tvetenia bavarica group</i>	09021011065111	2.00			--	1.8	
<i>Micropsectra</i>	09021011070	3.67	3.67	7	CG	3.2	3.2
<i>Tanytarsus</i>	09021011076	1.33	1.33	6	CF	1.2	1.2
<i>Phaenopsectra</i>	09021011101	0.33	0.33	7	SC	0.3	0.3
Empididae	09021016			6	--		
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	--	0.3	0.3
<i>Stenelmis</i>	09021113070	1.67	1.67	5	SC	1.5	1.5
<i>Lebertia</i>	09030105001	1.00	1.00		--	0.9	0.9