



**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: 2394	Type of Sample: ROCK BAG	Date Deployed: 7/29/2015
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/26/2015

Classification Attainment

Statutory Class: C	Final Determination: NA	Date: 9/7/2016
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 9/6/2016	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	0.00
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	1.00

Model Variables

01 Total Mean Abundance	178.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	27.00	19 EPT Generic Richness	3.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	10.43
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.11	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	6.09
06 Hilsenhoff Biotic Index	4.31	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.13	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.48	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	0.23		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	69.10
2	Tubificida	6.93
3	<i>Micropsectra</i>	3.99
4	<i>Tanytarsus</i>	3.42
5	<i>Helobdella</i>	1.87



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 14.3 deg C
Dissolved Oxygen: 6.23 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 777 uS/cm
Velocity: 9.1 cm/s
pH: 6.79
Wetted Width: 2.8 m
Bankfull Width: 6.2 m
Depth: 19 cm

Waterbody Information - Retrieval

Temperature: 14.9 deg C
Dissolved Oxygen: 6.25 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 398.8 uS/cm
Velocity: 6.1 cm/s
pH: 6.88
Wetted Width: 3.05 m
Bankfull Width: 6.25 m
Depth: 20 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>
Nps Pollution	Below Urban NPS	Boulder 5 %
Urban Runoff		Gravel 15 %
		Rubble/Cobble 75 %
		Sand 5 %

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

7/29/2015: SILT AND FISH PRESENT. 60.8% DO.
8/26/2015: SILT AND STICKLEBACK PRESENT. 61.9% DO.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-675
Log Number: 2394

Waterbody: Trout Brook - Station 675
Subsample Factor: X1

Town: South Portland
Calculated: 9/6/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Phagocata</i>	03010101004	0.33	0.33		--	0.2	0.2
<i>Tubificida</i>	080202	12.33	12.33		--	6.9	6.9
<i>Aulodrilus</i>	08020202018		1.00		--		0.6
<i>Aulodrilus plurisetus</i>	08020202018004	1.00			--	0.6	
<i>Ilyodrilus</i>	08020202020		1.67		--		0.9
<i>Ilyodrilus templetoni</i>	08020202020001	1.67			--	0.9	
<i>Limnodrilus</i>	08020202022		2.33		CG		1.3
<i>Limnodrilus hoffmeisteri</i>	08020202022003	2.33			--	1.3	
<i>Glossiphonia</i>	08030101004		1.33		--		0.7
<i>Glossiphonia elegans</i>	08030101004001	1.33			--	0.7	
<i>Helobdella</i>	08030101005		3.33		--		1.9
<i>Helobdella elongata</i>	08030101005001	0.33			--	0.2	
<i>Helobdella modesta</i>	08030101005004	3.00			--	1.7	
<i>Caecidotea</i>	09010101001	1.00	1.67	8	SH	0.6	0.9
<i>Caecidotea communis</i>	09010101001001	0.67			--	0.4	
<i>Gammarus</i>	09010201003		123.00	4	--		69.1
<i>Gammarus fasciatus</i>	09010201003003	123.00			--	69.1	
<i>Hydatophylax</i>	09020610048		0.33	2	SH		0.2
<i>Hydatophylax argus</i>	09020610048103	0.33			--	0.2	
<i>Frenesia</i>	09020610058		2.67	0	SH		1.5
<i>Frenesia difficilis</i>	09020610058117	2.67			--	1.5	
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Antocha</i>	09021001004	0.67	0.67	3	CG	0.4	0.4
Chironomidae	09021011	0.33			--	0.2	
<i>Conchapelopia</i>	09021011004	0.33	0.34	6	PR	0.2	0.2
<i>Meropelopia</i>	09021011010	0.33	0.34		--	0.2	0.2
<i>Prodiamesa</i>	09021011031		1.35	3	CG		0.8
<i>Prodiamesa olivacea</i>	09021011031048	1.33			--	0.7	
<i>Corynoneura</i>	09021011036	0.33	0.34	7	CG	0.2	0.2
<i>Heterotrissocladius</i>	09021011044		0.68	0	CG		0.4
<i>Heterotrissocladius marcidus</i>	09021011044083	0.67			--	0.4	
<i>Parametrioconemus</i>	09021011053	1.67	1.69	5	CG	0.9	0.9
<i>Tvetenia</i>	09021011065		0.34	5	CG		0.2
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.2	
<i>Micropsectra</i>	09021011070	2.00	7.10	7	CG	1.1	4.0
<i>Micropsectra polita</i>	09021011070124	5.00		7	--	2.8	
<i>Tanytarsus</i>	09021011076	6.00	6.09	6	CF	3.4	3.4



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<i>Cryptochironomus</i>	09021011082	0.33	0.34	8	PR	0.2	0.2
<i>Stictochironomus</i>	09021011106	2.67	2.70	9	CG	1.5	1.5
<i>Tribelos</i>	09021011107		2.37	5	CG		1.3
<i>Tribelos jucundus</i>	09021011107198	2.33			--	1.3	
<i>Dubiraphia</i>	09021113064	0.67	1.33	6	--	0.4	0.7
<i>Dubiraphia quadrinotata</i>	09021113064037	0.67			--	0.4	
<i>Stenelmis</i>	09021113070	1.00	1.67	5	SC	0.6	0.9
<i>Stenelmis crenata</i>	09021113070055	0.67			--	0.4	
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.2	0.2