



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

**Station Information**

<b>Station Number:</b> S-638	River Basin: Saco
Waterbody: Nason's Brook - Station 638	HUC8 Name: Presumpscot
Town: Portland	Latitude: 43 40 14.56 N
Directions: 10M DWNSTRM OF ROWE RD CROSSING	Longitude: 70 19 9.18 W
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 2827	Type of Sample: ROCK BAG	Date Deployed: 7/16/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/17/2020

**Classification Attainment**

<b>Statutory Class:</b> C	<b>Final Determination:</b> NA	Date: 5/18/2021
Model Result with P $\geq$ 0.6: NA	<b>Reason for Determination:</b> Model	
Date Last Calculated: 5/17/2021	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>A Model</u>	
<u>B or Better Model</u>		Class A	0.01
Class A or B	0.00	Class B or C or Non-Attainment	0.99
Class C or Non-Attainment	1.00		

**Model Variables**

01 Total Mean Abundance	81.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	21.00	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>	15.00
04 Ephemeroptera Mean Abundance	0.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.49	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.67
06 Hilsenhoff Biotic Index	5.29	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.08	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.38	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	0.38		
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.33		
17 Chironomini Abundance (Family Functional Group)	5.00		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	49.18
2	<i>Caecidotea</i>	16.39
3	<i>Helobdella</i>	15.57
4	<i>Dubiraphia</i>	4.10
5	<i>Dicrotendipes</i>	2.87



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**Station Number: S-638**      Town: Portland      Date Deployed: 7/16/2020  
**Log Number: 2827**      Waterbody: Nason's Brook - Station 638      Date Retrieved: 8/17/2020

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: LOTIC INC.

**Waterbody Information - Deployment**

Temperature: 18.7 deg C  
Dissolved Oxygen: 8.41 mg/l  
Dissolved Oxygen Saturation: 88.8 %  
Specific Conductance: 957 uS/cm  
Velocity: 0.1 cm/s  
pH: 7.51  
Wetted Width: 4.35 m  
Bankfull Width: 5.25 m  
Depth: 46 cm

**Waterbody Information - Retrieval**

Temperature: 18.5 deg C  
Dissolved Oxygen: 6.27 mg/l  
Dissolved Oxygen Saturation: 66.8 %  
Specific Conductance: 1595 uS/cm  
Velocity: 0.1 cm/s  
pH: 7.61  
Wetted Width: 3.35 m  
Bankfull Width: 5.25 m  
Depth: 38 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Hardwood	Partly Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution	Below Road Crossing	Bedrock	30 %
Urban Runoff	Below Urban NPS	Clay	5 %
		Detritus	5 %
		Rubble/Cobble	25 %
		Sand	25 %
		Silt	10 %

**Landcover Summary - 2004 Data**

Total Area (ac)	761	High Int. Dev. %	27.3	Water %	0.1	Non-vegetated %	0.2
		Med Int. Dev. %	9.0	Wetland %	3.0	Tilled Agriculture %	0.8
		Low Int. Dev. %	9.3	Upland Woody %	7.0	Grassland %	18.3
		Development %	45.6	Natural %	10.0	Human Altered %	89.9
						Impervious %	44.9

**Sample Comments**

NO VISIBLE FLOW.  
VISIBLE FLOW



**Maine Department of Environmental Protection  
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Aquatic Life Taxonomic Inventory Report**

<b>Station Number: S-638</b>	Waterbody: Nason's Brook - Station 638	Town: Portland
<b>Log Number: 2827</b>	Subsample Factor: X1	Replicates: 3
		Calculated: 5/17/2021

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
Tricladida	030101	0.67	0.67		--	0.8	0.8
Naididae	08020202	1.00	1.00		--	1.2	1.2
<i>Pristina</i>	08020202004	0.33	0.33		--	0.4	0.4
<i>Glossiphonia</i>	08030101004	1.67	1.67		--	2.0	2.0
<i>Helobdella</i>	08030101005		12.67		--		15.6
<i>Helobdella stagnalis complex</i>	08030101005004	12.67			--	15.6	
<i>Caecidotea</i>	09010101001	13.33	13.33	8	SH	16.4	16.4
<i>Gammarus</i>	09010201003	40.00	40.00	4	--	49.2	49.2
<i>Aeshna</i>	09020301001	0.33	0.33	5	PR	0.4	0.4
<i>Maccaffertium</i>	09020402015		0.33	4	SC		0.4
<i>Maccaffertium modestum</i>	09020402015051	0.33			--	0.4	
<i>Chimarra</i>	09020601003		0.33	2	CF		0.4
<i>Chimarra aterrima</i>	09020601003002	0.33			--	0.4	
<i>Mystacides</i>	09020618075	0.33	0.33	4	CG	0.4	0.4
<i>Ablabesmyia</i>	09021011001		0.33	8	PR		0.4
<i>Ablabesmyia mallochi</i>	09021011001004	0.33			--	0.4	
<i>Paratanytarsus</i>	09021011071	1.00	1.00	6	--	1.2	1.2
<i>Tanytarsus</i>	09021011076	0.33	0.33	6	CF	0.4	0.4
<i>Chironomus</i>	09021011080	1.00	1.00	10	CG	1.2	1.2
<i>Dicrotendipes</i>	09021011085	2.33	2.33	8	CG	2.9	2.9
<i>Microtendipes</i>	09021011094		0.33	6	CF		0.4
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.4	
<i>Phaenopsectra</i>	09021011101	1.00	1.00	7	SC	1.2	1.2
<i>Polypedilum</i>	09021011102		0.33	6	SH		0.4
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.4	
<i>Dubiraphia</i>	09021113064	3.33	3.33	6	--	4.1	4.1
<i>Stenelmis</i>	09021113070	0.33	0.33	5	SC	0.4	0.4