



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

Station Information

Station Number: S-257	River Basin: Saco
Waterbody: Capisic Brook - Station 257	HUC8 Name: Presumpscot
Town: Portland	Latitude: 43 40 13.27 N
Directions: 50 M BELOW LUCAS ST. BRIDGE CROSSING	Longitude: 70 18 30.4 W
	Stream Order: 2

Sample Information

Log Number: 2373	Type of Sample: ROCK BAG	Date Deployed: 7/20/2015
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/17/2015

Classification Attainment

Statutory Class: C	Final Determination: NA	Date: 3/22/2016
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 3/22/2016	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	0.03
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.97

Model Variables

01 Total Mean Abundance	582.67	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	16.00	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>	2.67
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	0.51	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	4.04	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.02	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	1.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.33		
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)	4.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	94.51
2	<i>Phagocata</i>	0.69
3	<i>Parakiefferiella</i>	0.69
4	<i>Glossiphonia</i>	0.46
5	<i>Helobdella</i>	0.46
6	<i>Caecidotea</i>	0.46
7	<i>Frenesia</i>	0.46
8	<i>Stictochironomus</i>	0.46



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Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Number: S-257 Town: Portland Date Deployed: 7/20/2015
Log Number: 2373 Waterbody: Capisic Brook - Station 257 Date Retrieved: 8/17/2015

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.4 deg C
Dissolved Oxygen: 7.01 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 246.6 uS/cm
Velocity: 15.2 cm/s
pH: 7.13
Wetted Width: 4.7 m
Bankfull Width: 4.7 m
Depth: 22 cm

Waterbody Information - Retrieval

Temperature: 21.7 deg C
Dissolved Oxygen: 6.61 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 368.5 uS/cm
Velocity: 3 cm/s
pH: 7.27
Wetted Width: 4.8 m
Bankfull Width: 5.3 m
Depth: 18 cm

Water Chemistry - 8/17/2015

Nitrate+nitrite As N	0.39 mg/l	Total Phosphorus	100 ug/l
Total Kjeldahl Nitrogen	1 mg/l	Total Suspended Solids	32 mg/l
Dissolved Organic Carbon	2.6 mg/l	Total Dissolved Solids	560 mg/l
Orthophosphate As Phosphorus	10 ug/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Hardwood	Partly Open	Flat	
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Road Crossing	Detritus	3 %
		Gravel	40 %
		Rubble/Cobble	30 %
		Sand	20 %
		Silt	7 %

Landcover Summary - 2004 Data

Total Area (ac)	1487	High Int. Dev. %	19.2	Water %	0.2	Non-vegetated %	0.1
		Med Int. Dev. %	10.2	Wetland %	0.0	Tilled Agriculture %	0.1
		Low Int. Dev. %	24.2	Upland Woody %	14.9	Grassland %	0.0
		Development %	53.6	Natural %	15.0	Human Altered %	84.9
						Impervious %	34.5

Sample Comments

7/20/2015: 78.3% DO. CLOUDY, SILTED WATER. RAINED DAY BEFORE.
8/17/2015: 75% DO.



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

Station Number: S-257

Waterbody: Capisic Brook - Station 257

Town: Portland

Log Number: 2373

Subsample Factor: X4

Replicates: 3

Calculated: 3/22/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Phagocata</i>	03010101004	4.00	4.00		--	0.7	0.7
<i>Glossiphonia</i>	08030101004		2.67		--		0.5
<i>Glossiphonia elegans</i>	08030101004001	2.67			--	0.5	
<i>Helobdella</i>	08030101005		2.67		--		0.5
<i>Helobdella modesta</i>	08030101005004	2.67			--	0.5	
<i>Erpobdella</i>	08030203002	1.33	1.33		--	0.2	0.2
<i>Caecidotea</i>	09010101001		2.67	8	SH		0.5
<i>Caecidotea communis</i>	09010101001001	2.67			--	0.5	
<i>Gammarus</i>	09010201003		550.67	4	--		94.5
<i>Gammarus fasciatus</i>	09010201003003	550.67			--	94.5	
<i>Hydropsyche</i>	09020604016	1.33	1.33	4	CF	0.2	0.2
<i>Frenesia</i>	09020610058		2.67	0	SH		0.5
<i>Frenesia difficilis</i>	09020610058117	2.67			--	0.5	
<i>Nanocladius</i>	09021011049	1.33	1.33	3	CG	0.2	0.2
<i>Parakiefferiella</i>	09021011052	4.00	4.00		CG	0.7	0.7
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	0.2	0.2
<i>Paratanytarsus</i>	09021011071		1.33	6	--		0.2
<i>Paratanytarsus dissimilis</i>	09021011071125	1.33			--	0.2	
<i>Polypedilum</i>	09021011102		1.33	6	SH		0.2
<i>Polypedilum flavum</i>	09021011102182	1.33			--	0.2	
<i>Stictochironomus</i>	09021011106	2.67	2.67	9	CG	0.5	0.5
<i>Dubiraphia</i>	09021113064		1.33	6	--		0.2
<i>Dubiraphia quadrinotata</i>	09021113064037	1.33			--	0.2	
<i>Lymnaea</i>	10010201022	1.33	1.33		SC	0.2	0.2