



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

Station Information

Station Number: S-462	River Basin: Saco
Waterbody: Presumpscot River - Station 462	HUC8 Name: Presumpscot
Town: Standish	Latitude: 43 49 51.92 N
Directions: BELOW EEL WEIR, ~150M UPSTRM OF RTE 35 BRIDGE	Longitude: 70 27 4.05 W
	Stream Order: 4

Sample Information

Log Number: 2903	Type of Sample: ROCK BAG	Date Deployed: 7/13/2021
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/13/2021

Classification Attainment

Statutory Class: A	Final Determination: C	Date: 1/13/2023
Model Result with $P \geq 0.6$: C	Reason for Determination: Model	
Date Last Calculated: 5/3/2022	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.01	Class A, B, or C	1.00
Class B	0.06	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.02	Class A	0.01
Class C or Non-Attainment	0.98	Class B or C or Non-Attainment	0.99

Model Variables

01 Total Mean Abundance	794.67	18 Relative Abundance Ephemeroptera	0.49
02 Generic Richness	30.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	389.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.12	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	12.00
06 Hilsenhoff Biotic Index	4.08	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	114.67
07 Relative Abundance - Chironomidae	0.07	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.27	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	16.00		
11 <i>Cheumatopsyche</i> Abundance	9.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.50		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	25.33		
17 Chironomini Abundance (Family Functional Group)	0.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Isonychia</i>	33.39
2	<i>Neureclipsis</i>	18.96
3	<i>Maccaffertium</i>	14.43
4	<i>Chimarra</i>	9.90
5	<i>Oecetis</i>	3.69



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Station Number: S-462 Town: Standish Date Deployed: 7/13/2021
Log Number: 2903 Waterbody: Presumpscot River - Station 462 Date Retrieved: 8/13/2021

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 22.9 deg C
Dissolved Oxygen: 9.95 mg/l
Dissolved Oxygen Saturation: 115.1 %
Specific Conductance: 57.5 uS/cm
Velocity: 17.27 cm/s
pH: 8.09
Wetted Width: 28 m
Bankfull Width: 30 m
Depth: 31 cm

Waterbody Information - Retrieval

Temperature: 26.8 deg C
Dissolved Oxygen: 119.4 mg/l
Dissolved Oxygen Saturation: 9.53 %
Specific Conductance: 56.9 uS/cm
Velocity: 18.29 cm/s
pH: 6.73
Wetted Width: 28.2 m
Bankfull Width: 29.3 m
Depth: 34 cm

Water Chemistry - 7/13/2021

Nitrate + Nitrite As Nitrogen	0.03 mg/l	Nitrate As Nitrogen	0.03 mg/l
Nitrite As Nitrogen	<0.01 mg/l	Orthophosphate As Phosphorus	1 ug/l
Total Alkalinity	7.5 mg/l	Total Kjeldahl Nitrogen (organic A	<0.3 mg/l
Total Phosphorus Mixed Forms (po	4 ug/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Swamp Hardwood	Partly Open	Flat	
Upland Hardwood			
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Chloride	Above Road Crossing	Boulder	5 %
Lake Outlet	Below Dam	Gravel	20 %
Nps Pollution	Lake Outlet	Rubble/Cobble	70 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac) 282551	High Int. Dev. %	2.3	Water %	16.6	Non-vegetated %	0.1
	Med Int. Dev. %	0.3	Wetland %	3.8	Tilled Agriculture %	0.7
	Low Int. Dev. %	0.7	Upland Woody %	71.9	Grassland %	2.7
	Development %	3.4	Natural %	78.6	Human Altered %	7.3
					Impervious %	2.9
Total Land (ac) 235627	High Int. Dev. %	2.8	Water %	N/A	Non-vegetated %	N/A
	Med Int. Dev. %	0.4	Wetland %	4.6	Tilled Agriculture %	0.8
	Low Int. Dev. %	0.4	Upland Woody %	86.3	Grassland %	3.3
	Development %	4.1	Natural %	94.3	Human Altered %	8.8
					Impervious %	3.4

Sample Comments



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

Station Number: S-462

Waterbody: Presumpscot River - Station 462

Town: Standish

Log Number: 2903

Subsample Factor: X4

Replicates: 3

Calculated: 5/3/2022

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Stylaria</i>	08020202014	2.67	2.67		CG	0.3	0.3
<i>Erpobdella</i>	08030203002		1.33		--		0.2
<i>Erpobdella punctata</i>	08030203002001	1.33			--	0.2	
<i>Crangonyx</i>	09010202004	1.33	1.33	8	--	0.2	0.2
<i>Hyaella</i>	09010203006	6.67	6.67	8	CG	0.8	0.8
<i>Hagenius</i>	09020302008		1.33	1	PR		0.2
<i>Hagenius brevistylus</i>	09020302008015	1.33			PR	0.2	
<i>Calopteryx</i>	09020307043	2.67	2.67	5	PR	0.3	0.3
<i>Argia</i>	09020309048	10.67	10.67	7	PR	1.3	1.3
<i>Plauditus</i>	09020401012	6.67	6.67		CG	0.8	0.8
<i>Maccaffertium</i>	09020402015	76.00	114.67	4	SC	9.6	14.4
<i>Maccaffertium modestum</i>	09020402015051	38.67			--	4.9	
<i>Isonychia</i>	09020404018	265.33	265.33	2	CF	33.4	33.4
<i>Serratella</i>	09020410037		1.33	2	CG		0.2
<i>Serratella serratoides</i>	09020410037124	1.33			--	0.2	
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.2	0.2
<i>Chimarra</i>	09020601003	1.33	78.67	2	CF	0.2	9.9
<i>Chimarra aterrima</i>	09020601003002	6.67			--	0.8	
<i>Chimarra obscura</i>	09020601003003	70.67			--	8.9	
<i>Neureclipsis</i>	09020603008	150.67	150.67	7	CF	19.0	19.0
<i>Cheumatopsyche</i>	09020604015	9.33	9.33	5	CF	1.2	1.2
<i>Hydropsyche</i>	09020604016		16.00	4	CF		2.0
<i>Hydropsyche morosa</i>	09020604016030	16.00			--	2.0	
<i>Hydroptila</i>	09020607026	1.33	1.33	6	P	0.2	0.2
<i>Oxyethira</i>	09020607028	12.00	12.00	3	P	1.5	1.5
<i>Oecetis</i>	09020618078	29.33	29.33	8	PR	3.7	3.7
<i>Nigronia</i>	09020701003		2.67	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	2.67			--	0.3	
<i>Pentaneura</i>	09021011014	21.33	21.33	6	PR	2.7	2.7
<i>Thienemannimyia</i>	09021011020		4.00	3	PR		0.5
<i>Thienemannimyia group</i>	09021011020041	4.00			--	0.5	
<i>Cricotopus</i>	09021011037	1.33	2.67	7	SH	0.2	0.3
<i>Cricotopus bicinctus</i>	09021011037057	1.33			--	0.2	
<i>Psectrocladius</i>	09021011056	21.33	21.33	8	CG	2.7	2.7
<i>Rheocricotopus</i>	09021011057	1.33	1.33	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065		1.33	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	1.33			--	0.2	



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		Actual	Adjusted			Actual	Adjusted
<i>Simulium</i>	09021012047	22.67	22.67	4	CF	2.9	2.9
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.2	0.2
<i>Microcylloepus</i>	09021113066		1.33	3	--		0.2
<i>Microcylloepus pusillus</i>	09021113066041	1.33			--	0.2	
<i>Amnicola</i>	10010104013	1.33	1.33		SC	0.2	0.2