



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

Station Information

Station Number: S-394	River Basin:	Saco
Waterbody: Pleasant River (presumpscot) - Station 394	HUC8 Name:	Presumpscot
Town: Gray	Latitude:	43 51 50.87 N
Directions: DOWNSTREAM OF TOTTEN RD CROSSING	Longitude:	70 20 40.03 W
	Stream Order:	2

Sample Information

Log Number: 2822	Type of Sample:	ROCK BAG	Date Deployed:	7/8/2020
Subsample Factor: X1	Replicates:	3	Date Retrieved:	8/3/2020

Classification Attainment

Statutory Class: B	Final Determination: B	Date:	4/23/2021
Model Result with $P \geq 0.6$: B	Reason for Determination: Model		
Date Last Calculated: 4/22/2021	Comments:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.44	Class C	0.15
Class B	0.41	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.97	Class A	0.09
Class C or Non-Attainment	0.03	Class B or C or Non-Attainment	0.91

Model Variables

01 Total Mean Abundance	156.67	18 Relative Abundance Ephemeroptera	0.28
02 Generic Richness	32.00	19 EPT Generic Richness	11.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	43.67	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.76	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	33.00
06 Hilsenhoff Biotic Index	4.16	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	29.00
07 Relative Abundance - Chironomidae	0.19	28 EP Generic Richness/14	0.43
08 Relative Generic Richness Diptera	0.44	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	1.00		
11 <i>Cheumatopsyche</i> Abundance	30.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.79		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	7.67		
17 Chironomini Abundance (Family Functional Group)	11.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cheumatopsyche</i>	19.15
2	<i>Maccaffertium</i>	18.51
3	<i>Chimarra</i>	12.77
4	<i>Pycnopsyche</i>	8.51
5	<i>Acerpenna</i>	7.02



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 19.6 deg C
 Dissolved Oxygen: 7.9 mg/l
 Dissolved Oxygen Saturation: 86.4 %
 Specific Conductance: 226 uS/cm
 Velocity: 21.3 cm/s
 pH: 6.85
 Wetted Width: 5.2 m
 Bankfull Width: 6 m
 Depth: 30.7 cm

Waterbody Information - Retrieval

Temperature: 23.5 deg C
 Dissolved Oxygen: 6.12 mg/l
 Dissolved Oxygen Saturation: 72.5 %
 Specific Conductance: 240.9 uS/cm
 Velocity: 3 cm/s
 pH: 6.87
 Wetted Width: 3.6 m
 Bankfull Width: 6 m
 Depth: 25.3 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution	Above Road Crossing	Boulder	80 %
		Gravel	5 %
		Rubble/Cobble	10 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	3634	High Int. Dev. %	1.3	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	3.7	Wetland %	3.9	Tilled Agriculture %	4.7
		Low Int. Dev. %	6.6	Upland Woody %	68.3	Grassland %	10.1
		Development %	11.6	Natural %	72.3	Human Altered %	27.7
						Impervious %	6.9

Sample Comments



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

Station Number: S-394

Waterbody: Pleasant River (presumpscot) - Station 394 Town: Gray

Log Number: 2822

Subsample Factor: X1

Replicates: 3

Calculated: 4/22/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Platyhelminthes	03	3.67	3.67		--	2.3	2.3
<i>Prostoma</i>	04010101001	0.67	0.67		--	0.4	0.4
<i>Nais</i>	08020202009		0.67		CG		0.4
<i>Nais behningi</i>	08020202009003	0.67			--	0.4	
Plecoptera	090202	0.33	0.33		--	0.2	0.2
<i>Boyeria</i>	09020301004		3.67	2	PR		2.3
<i>Boyeria vinosa</i>	09020301004012	3.67			--	2.3	
<i>Acerpenna</i>	09020401007	0.67	11.00	5	CG	0.4	7.0
<i>Acerpenna pygmaea</i>	09020401007011	10.33			--	6.6	
<i>Acentrella</i>	09020401008	0.33	0.33	3	CG	0.2	0.2
<i>Labiobaetis</i>	09020401009	2.33	2.33		--	1.5	1.5
<i>Maccaffertium</i>	09020402015	1.33	29.00	4	SC	0.9	18.5
<i>Maccaffertium modestum</i>	09020402015051	27.67			--	17.7	
<i>Isonychia</i>	09020404018	1.00	1.00	2	CF	0.6	0.6
<i>Chimarra</i>	09020601003		20.00	2	CF		12.8
<i>Chimarra aterrima</i>	09020601003002	20.00			--	12.8	
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	0.9	0.9
<i>Cheumatopsyche</i>	09020604015	30.00	30.00	5	CF	19.1	19.1
<i>Hydropsyche</i>	09020604016	1.00	1.00	4	CF	0.6	0.6
<i>Pycnopsyche</i>	09020610049	13.33	13.33	4	SH	8.5	8.5
<i>Nigronia</i>	09020701003	4.33	4.33	0	PR	2.8	2.8
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.2	0.2
<i>Nilotanytus</i>	09021011012		3.67	6	PR		2.3
<i>Nilotanytus fimbriatus</i>	09021011012027	3.67			--	2.3	
<i>Thienemannimyia</i>	09021011020		3.00	3	PR		1.9
<i>Thienemannimyia group</i>	09021011020041	3.00			--	1.9	
<i>Trissopelopia</i>	09021011021	0.67	0.67		PR	0.4	0.4
<i>Zavrelimyia</i>	09021011022	0.33	0.33	8	PR	0.2	0.2
<i>Rheocricotopus</i>	09021011057	0.33	0.33	6	CG	0.2	0.2
<i>Tvetenia bavarica group</i>	09021011065111				--		
<i>Paratanytarsus</i>	09021011071	0.33	2.00	6	--	0.2	1.3
<i>Paratanytarsus longistylus</i>	09021011071126	1.67		6	--	1.1	
<i>Rheotanytarsus</i>	09021011072		6.00	6	CF		3.8
<i>Rheotanytarsus exiguus group</i>	09021011072127	4.00			CF	2.6	
<i>Rheotanytarsus pellucidus</i>	09021011072128	2.00			CF	1.3	
<i>Tanytarsus</i>	09021011076	3.00	3.00	6	CF	1.9	1.9
<i>Microtendipes</i>	09021011094		0.33	6	CF		0.2



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		Actual	Adjusted			Actual	Adjusted
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.2	
<i>Polypedilum</i>	090210111102		10.33	6	SH		6.6
<i>Polypedilum aviceps</i>	090210111102181	9.67			--	6.2	
<i>Polypedilum flavum</i>	090210111102182	0.67			--	0.4	
<i>Xenochironomus</i>	090210111108		0.33	0	PR		0.2
<i>Xenochironomus xenolabis</i>	090210111108200	0.33			--	0.2	
<i>Simulium</i>	09021012047	2.33	2.33	4	CF	1.5	1.5
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.2	0.2
<i>Optioservus</i>	09021113067		0.33	3	SC		0.2
<i>Optioservus tardella</i>	09021113067052	0.33			--	0.2	
Sphaeriidae	10020201	0.67	0.67		CF	0.4	0.4