



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

Station Information

Station Number: S-548	River Basin: Saco
Waterbody: Pleasant River (presumpscot) - Station 548	HUC8 Name: Presumpscot
Town: Windham	Latitude: 43 48 19.9 N
Directions: RIFFLES BELOW RTE 302 CROSSING	Longitude: 70 24 40.27 W
	Stream Order: 3

Sample Information

Log Number: 2843	Type of Sample: ROCK BAG	Date Deployed: 7/31/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/25/2020

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 2/17/2021
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 2/16/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.37	Class A, B, or C	1.00
Class B	0.53	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.35
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.65

Model Variables

01 Total Mean Abundance	342.33	18 Relative Abundance Ephemeroptera	0.07
02 Generic Richness	53.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	1.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	22.67	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.97	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	108.86
06 Hilsenhoff Biotic Index	5.17	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	13.00
07 Relative Abundance - Chironomidae	0.27	28 EP Generic Richness/14	0.57
08 Relative Generic Richness Diptera	0.32	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	36.52		
11 <i>Cheumatopsyche</i> Abundance	90.13		
12 EPT Generic Richness/ Diptera Generic Richness	1.18		

Five Most Dominant Taxa

	Rank	Taxon Name	Percent
13 Relative Abundance - Oligochaeta	1	<i>Cheumatopsyche</i>	26.33
15 Perlidae Mean Abundance (Family Functional Group)	2	<i>Rheotanytarsus</i>	12.41
16 Tanypodinae Mean Abundance (Family Functional Group)	3	<i>Hydropsyche</i>	10.67
17 Chironomini Abundance (Family Functional Group)	4	<i>Hydroptila</i>	7.98
	5	<i>Phaenopsectra</i>	5.28



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Town: Windham

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Waterbody: Pleasant River (presumpscot) - Station 548

Date Retrieved: 8/25/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	23.8 deg C
Dissolved Oxygen:	9.45 mg/l
Dissolved Oxygen Saturation:	112.5 %
Specific Conductance:	201.5 uS/cm
Velocity:	18.3 cm/s
pH:	7.66
Wetted Width:	11.3 m
Bankfull Width:	11.6 m
Depth:	56.3 cm

Waterbody Information - Retrieval

Temperature:	21.4 deg C
Dissolved Oxygen:	8.26 mg/l
Dissolved Oxygen Saturation:	94.6 %
Specific Conductance:	282.3 uS/cm
Velocity:	14 cm/s
pH:	7.35
Wetted Width:	11.5 m
Bankfull Width:	11.6 m
Depth:	53 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Cultivated

Pasture

Urban

Canopy Cover

Dense

Terrain

Flat

Potential Stressor

Agricultural Runoff

Urban Runoff

Location

Below Urban NPS

Substrate

Boulder 5 %

Gravel 10 %

Rubble/Cobble 80 %

Sand 5 %

Landcover Summary - 2004 Data

Total Area (ac)	29255	High Int. Dev. %	0.7	Water %	6.9	Non-vegetated %	0.3
		Med Int. Dev. %	1.1	Wetland %	5.3	Tilled Agriculture %	1.6
		Low Int. Dev. %	4.4	Upland Woody %	70.7	Grassland %	6.2
		Development %	6.2	Natural %	75.3	Human Altered %	17.8
						Impervious %	5.5

Sample Comments

BLACKNOSE DACE OBSERVED.

DACE SP. AND POTAMOGETON EPIHYDRUS OBSERVED. SLIGHT COW MANURE ODOR.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-548 Waterbody: Pleasant River (presumpscot) - Station 548 Town: Windham
Log Number: 2843 Subsample Factor: X1 Replicates: 3 Calculated: 2/16/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002	1.33	1.33		--	0.4	0.4
<i>Prostoma</i>	04010101001	0.67	0.67		--	0.2	0.2
Lumbriculidae	08020101	0.33	0.33		--	0.1	0.1
<i>Nais</i>	08020202009	1.00	1.00		CG	0.3	0.3
<i>Crangonyx</i>	09010202004	1.00	1.00	8	--	0.3	0.3
<i>Orconectes</i>	09010301008	0.67	0.67		CG	0.2	0.2
<i>Taeniopteryx</i>	09020202014	0.33	0.33	2	SH	0.1	0.1
<i>Acroneuria</i>	09020209042	0.33	0.67	0	PR	0.1	0.2
<i>Acroneuria lycorias</i>	09020209042125	0.33			--	0.1	
<i>Boyeria</i>	09020301004		2.33	2	PR		0.7
<i>Boyeria vinosa</i>	09020301004012	2.33			--	0.7	
<i>Hagenius</i>	09020302008		0.33	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	0.33			PR	0.1	
Calopterygidae	09020307	1.33	1.33		--	0.4	0.4
<i>Calopteryx</i>	09020307043	1.33	1.33	5	PR	0.4	0.4
<i>Baetis</i>	09020401001		3.00	4	CG		0.9
<i>Baetis flavistriga</i>	09020401001004	2.00			--	0.6	
<i>Baetis intercalaris</i>	09020401001008	1.00			--	0.3	
<i>Acerpenna</i>	09020401007		1.00	5	CG		0.3
<i>Acerpenna macdunnoughi</i>	09020401007001	1.00			--	0.3	
<i>Leucrocota</i>	09020402011	1.33	1.33	1	SC	0.4	0.4
<i>Maccaffertium</i>	09020402015	5.33	12.33	4	SC	1.6	3.6
<i>Maccaffertium modestum</i>	09020402015051	7.00			--	2.0	
<i>Isonychia</i>	09020404018	3.33	3.33	2	CF	1.0	1.0
<i>Serratella</i>	09020410037		1.67	2	CG		0.5
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	1.67			--	0.5	
Philopotamidae	09020601	0.33	0.33		--	0.1	0.1
<i>Chimarra</i>	09020601003		2.00	2	CF		0.6
<i>Chimarra aterrima</i>	09020601003002	1.00			--	0.3	
<i>Chimarra obscura</i>	09020601003003	1.00			--	0.3	
<i>Neureclipsis</i>	09020603008	1.67	1.67	7	CF	0.5	0.5
<i>Polycentropus</i>	09020603010	2.67	2.67	6	PR	0.8	0.8
Hydropsychidae	09020604	0.67			--	0.2	
<i>Cheumatopsyche</i>	09020604015	89.67	90.13	5	CF	26.2	26.3
<i>Hydropsyche</i>	09020604016	6.67	36.52	4	CF	1.9	10.7
<i>Hydropsyche bronta</i>	09020604016029	8.67			--	2.5	
<i>Hydropsyche morosa</i>	09020604016030	7.67			--	2.2	



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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche sparna</i>	09020604016032	3.00			--	0.9	
<i>Hydropsyche betteni</i>	09020604016037	10.33			--	3.0	
<i>Macrostemum</i>	09020604018	4.00	4.02	3	CF	1.2	1.2
Hydroptilidae	09020607	0.33	0.33		--	0.1	0.1
<i>Hydroptila</i>	09020607026	27.33	27.33	6	P	8.0	8.0
<i>Micrasema</i>	09020609044	0.33	0.33	2	SH	0.1	0.1
<i>Pycnopsyche</i>	09020610049	0.67	0.67	4	SH	0.2	0.2
Leptoceridae	09020618				--		
<i>Oecetis</i>	09020618078	14.33	14.33	8	PR	4.2	4.2
<i>Nigronia</i>	09020701003		0.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.1	
<i>Antocha</i>	09021001004			3	CG		
Chironomidae	09021011	0.33			--	0.1	
<i>Ablabesmyia</i>	09021011001	0.67	0.67	8	PR	0.2	0.2
<i>Nilotanyus</i>	09021011012		2.01	6	PR		0.6
<i>Nilotanyus fimbriatus</i>	09021011012027	2.00			--	0.6	
<i>Pentaneura</i>	09021011014	0.67	0.67	6	PR	0.2	0.2
<i>Cricotopus</i>	09021011037	5.33	12.38	7	SH	1.6	3.6
<i>Cricotopus bicinctus</i>	09021011037057	7.00			--	2.0	
<i>Nanocladius</i>	09021011049	0.33	0.33	3	CG	0.1	0.1
<i>Orthocladius</i>	09021011050		0.67	6	CG		0.2
<i>Orthocladius dubitatus</i>	09021011050103	0.67			--	0.2	
<i>Thienemanniella</i>	09021011062	1.33	1.34	6	CG	0.4	0.4
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	0.67			--	0.2	
<i>Cladotanytarsus</i>	09021011068	0.33	0.33	7	CG	0.1	0.1
<i>Rheotanytarsus</i>	09021011072		42.48	6	CF		12.4
<i>Rheotanytarsus exiguus group</i>	09021011072127	37.33			CF	10.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	5.00			CF	1.5	
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	0.1	0.1
<i>Tanytarsus</i>	09021011076	5.67	5.69	6	CF	1.7	1.7
<i>Microtendipes</i>	09021011094		4.01	6	CF		1.2
<i>Microtendipes pedellus group</i>	09021011094166	0.67			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	3.33			--	1.0	
<i>Phaenopsectra</i>	09021011101		18.06	7	SC		5.3
<i>Phaenopsectra obediens group</i>	09021011101180	18.00			--	5.3	
<i>Polypedilum</i>	09021011102		4.35	6	SH		1.3
<i>Polypedilum aviceps</i>	09021011102181	1.67			--	0.5	



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<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.2	
<i>Polypedilum illinoense group</i>	09021011102185	2.00			--	0.6	
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.1	0.1
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.4	0.4
<i>Ancyronyx</i>	09021113063		1.00	6	--		0.3
<i>Ancyronyx variegatus</i>	09021113063034	1.00			CG	0.3	
<i>Dubiraphia</i>	09021113064	1.67	1.67	6	--	0.5	0.5
<i>Macronychus</i>	09021113065		13.67	4	--		4.0
<i>Macronychus glabratus</i>	09021113065040	13.67			--	4.0	
<i>Optioservus</i>	09021113067	1.33	15.00	3	SC	0.4	4.4
<i>Optioservus tardella</i>	09021113067052	13.67			--	4.0	
<i>Stenelmis</i>	09021113070	0.33	0.67	5	SC	0.1	0.2
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.1	