



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

Station Information

Station Number: S-155	River Basin: Saco
Waterbody: Pleasant River (presumpscot) - Station 155	HUC8 Name: Presumpscot
Town: Windham	Latitude: 43 47 12.22 N
Directions: ABOVE POPE RD. BRIDGE	Longitude: 70 25 14.32 W
	Stream Order: 3

Sample Information

Log Number: 2842	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: A	Date: 3/18/2021
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 3/18/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.58	Class A, B, or C	1.00
Class B	0.41	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.91
Class A or B	1.00	Class B or C or Non-Attainment	0.09
Class C or Non-Attainment	0.00		

Model Variables

01 Total Mean Abundance	593.33	18 Relative Abundance Ephemeroptera	0.31
02 Generic Richness	54.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	23.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	182.33	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.65	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	84.67
06 Hilsenhoff Biotic Index	4.50	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	75.67
07 Relative Abundance - Chironomidae	0.30	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.44	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	99.67		
11 <i>Cheumatopsyche</i> Abundance	65.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.83		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	23.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.67		
17 Chironomini Abundance (Family Functional Group)	19.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	20.56
2	<i>Hydropsyche</i>	16.80
3	<i>Baetis</i>	16.07
4	<i>Cheumatopsyche</i>	10.96
5	<i>Maccaffertium</i>	10.51



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Station Number: S-155 Town: Windham Date Deployed: 7/31/2020
Log Number: 2842 Waterbody: Pleasant River (presumpscot) - Station 155 Date Retrieved: 8/25/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 22.4 deg C
Dissolved Oxygen: 9.62 mg/l
Dissolved Oxygen Saturation: 111.5 %
Specific Conductance: 224.5 uS/cm
Velocity: 1 cm/s
pH: 7.67
Wetted Width: 13.9 m
Bankfull Width: 17.1 m
Depth: 37.3 cm

Waterbody Information - Retrieval

Temperature: 20.6 deg C
Dissolved Oxygen: 9.2 mg/l
Dissolved Oxygen Saturation: 103.6 %
Specific Conductance: 272.6 uS/cm
Velocity: 1.33 cm/s
pH: 7.47
Wetted Width: 14.45 m
Bankfull Width: 17.1 m
Depth: 41 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Pasture	Partly Open	Rolling	
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution	Below Agriculture NPS	Bedrock	85 %
		Boulder	2.5 %
		Gravel	2.5 %
		Rubble/Cobble	5 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	29908	High Int. Dev. %	0.7	Water %	6.7	Non-vegetated %	0.3
		Med Int. Dev. %	1.1	Wetland %	5.2	Tilled Agriculture %	1.7
		Low Int. Dev. %	4.6	Upland Woody %	70.2	Grassland %	6.2
		Development %	6.4	Natural %	74.8	Human Altered %	18.5
						Impervious %	5.6

Sample Comments

CRAYFISH OBSERVED.



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

Station Number: S-155 Waterbody: Pleasant River (presumpscot) - Station 155 Town: Windham
Log Number: 2842 Subsample Factor: X1 Replicates: 3 Calculated: 3/18/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009	0.33	2.00		CG	0.1	0.3
<i>Nais behningi</i>	08020202009003	1.67			--	0.3	
<i>Gammarus</i>	09010201003	0.67	0.67	4	--	0.1	0.1
<i>Acroneuria</i>	09020209042		13.33	0	PR		2.2
<i>Acroneuria abnormis</i>	09020209042121	13.33		0	PR	2.2	
<i>Paragnetina</i>	09020209049		10.33	1	PR		1.7
<i>Paragnetina media</i>	09020209049151	10.33			--	1.7	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.2	
<i>Hagenius</i>	09020302008		0.33	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	0.33			PR	0.1	
Calopterygidae	09020307	0.33	0.33		--	0.1	0.1
<i>Baetis</i>	09020401001		95.33	4	CG		16.1
<i>Baetis flavistriga</i>	09020401001004	39.00			--	6.6	
<i>Baetis intercalaris</i>	09020401001008	45.00			--	7.6	
<i>Baetis pluto</i>	09020401001009	11.33			--	1.9	
<i>Acerpenna</i>	09020401007	0.67	4.67	5	CG	0.1	0.8
<i>Acerpenna pygmaea</i>	09020401007011	4.00			--	0.7	
<i>Procladius</i>	09020401010	0.67	0.67		CG	0.1	0.1
<i>Maccaffertium</i>	09020402015	15.67	62.33	4	SC	2.6	10.5
<i>Maccaffertium modestum</i>	09020402015051	46.67			--	7.9	
<i>Isonychia</i>	09020404018	15.67	15.67	2	CF	2.6	2.6
<i>Ephemerella</i>	09020410035	1.00	1.00	1	CG	0.2	0.2
<i>Serratella</i>	09020410037		2.67	2	CG		0.4
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	2.00			--	0.3	
<i>Serratella serrata</i>	09020410037123	0.67			--	0.1	
<i>Chimarra</i>	09020601003		1.67	2	CF		0.3
<i>Chimarra aterrima</i>	09020601003002	1.00			--	0.2	
<i>Chimarra obscura</i>	09020601003003	0.67			--	0.1	
<i>Neureclipsis</i>	09020603008	1.00	1.00	7	CF	0.2	0.2
<i>Nyctiophylax</i>	09020603009	0.33	0.33	5	PR	0.1	0.1
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	0.2	0.2
<i>Cheumatopsyche</i>	09020604015	65.00	65.00	5	CF	11.0	11.0
<i>Hydropsyche</i>	09020604016		99.67	4	CF		16.8
<i>Hydropsyche bronta</i>	09020604016029	5.00			--	0.8	
<i>Hydropsyche morosa</i>	09020604016030	0.67			--	0.1	
<i>Hydropsyche sparna</i>	09020604016032	44.67			--	7.5	



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Station Number: S-155 Waterbody: Pleasant River (presumpscot) - Station 155 Town: Windham
Log Number: 2842 Subsample Factor: X1 Replicates: 3 Calculated: 3/18/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
		<i>Hydropsyche betteni</i>	09020604016037			49.33	
<i>Rhyacophila</i>	09020605019		13.33	2	PR		2.2
<i>Rhyacophila fuscula</i>	09020605019060	13.33			PR	2.2	
<i>Glossosoma</i>	09020606020	1.00	1.00	0	SC	0.2	0.2
<i>Leucotrichia</i>	09020607032		0.33	2	SC		0.1
<i>Leucotrichia pictipes</i>	09020607032084	0.33			--	0.1	
<i>Micrasema</i>	09020609044	0.33	0.33	2	SH	0.1	0.1
Limnephilidae	09020610				--		
<i>Oecetis</i>	09020618078	4.33	4.33	8	PR	0.7	0.7
<i>Tipula</i>	09021001002	0.67	0.67	4	SH	0.1	0.1
<i>Antocha</i>	09021001004	1.00	1.00	3	CG	0.2	0.2
<i>Ablabesmyia</i>	09021011001		0.67	8	PR		0.1
<i>Ablabesmyia mallochi</i>	09021011001004	0.67			--	0.1	
<i>Nilotanytus</i>	09021011012		0.33	6	PR		0.1
<i>Nilotanytus fimbriatus</i>	09021011012027	0.33			--	0.1	
<i>Thienemannimyia</i>	09021011020		0.33	3	PR		0.1
<i>Thienemannimyia group</i>	09021011020041	0.33			--	0.1	
<i>Zavrelimyia</i>	09021011022	0.33	0.33	8	PR	0.1	0.1
<i>Pagastia</i>	09021011025	1.33	1.33	1	--	0.2	0.2
<i>Brillia</i>	09021011033	0.67	0.67	5	SH	0.1	0.1
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037	11.33	17.67	7	SH	1.9	3.0
<i>Cricotopus bicinctus</i>	09021011037057	6.33			--	1.1	
<i>Eukiefferiella</i>	09021011041		3.00	8	CG		0.5
<i>Eukiefferiella gracei group</i>	09021011041079	0.67			--	0.1	
<i>Eukiefferiella discoloripes</i>	09021011041085	2.33			--	0.4	
<i>Rheocricotopus</i>	09021011057	4.67	4.67	6	CG	0.8	0.8
<i>Thienemanniella</i>	09021011062	1.67	1.67	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.1
<i>Tvetenia bavarica group</i>	09021011065111	0.67			--	0.1	
<i>Cladotanytarsus</i>	09021011068	2.00	2.00	7	CG	0.3	0.3
<i>Rheotanytarsus</i>	09021011072		122.00	6	CF		20.6
<i>Rheotanytarsus exiguus group</i>	09021011072127	110.33			CF	18.6	
<i>Rheotanytarsus pellucidus</i>	09021011072128	11.67			CF	2.0	
<i>Stempellina</i>	09021011073	0.33	0.33	2	CG	0.1	0.1
<i>Sublettea</i>	09021011075	3.00	3.00		--	0.5	0.5
<i>Tanytarsus</i>	09021011076	1.33	1.33	6	CF	0.2	0.2
<i>Microtendipes</i>	09021011094		16.33	6	CF		2.8



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Microtendipes rydalensis group</i>	09021011094168	16.33			--	2.8	
<i>Phaenopsectra</i>	09021011101	0.67	0.67	7	SC	0.1	0.1
<i>Polypedilum</i>	09021011102		2.67	6	SH		0.4
<i>Polypedilum aviceps</i>	09021011102181	1.67			--	0.3	
<i>Polypedilum fallax group</i>	09021011102183	1.00			--	0.2	
<i>Simulium</i>	09021012047	3.33	3.33	4	CF	0.6	0.6
<i>Hemerodromia</i>	09021016057	0.67	0.67	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058		0.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.1	
Elmidae	09021113	0.33			--	0.1	
<i>Ancyronyx</i>	09021113063		0.35	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	0.33			CG	0.1	
<i>Dubiraphia</i>	09021113064	0.67	0.70	6	--	0.1	0.1
<i>Optioservus</i>	09021113067	0.67	6.96	3	SC	0.1	1.2
<i>Optioservus ovalis</i>	09021113067046	0.33			--	0.1	
<i>Optioservus tardella</i>	09021113067052	5.67			--	1.0	
<i>Physella</i>	10010202027	0.33	0.33		SC	0.1	0.1