



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

Station Information

Station Number: S-1167	River Basin: Saco
Waterbody: Mill Creek - Station 1167	HUC8 Name: Presumpscot
Town: Falmouth	Latitude: 43 44 16.41 N
Directions: DOWNSTREAM OF MIDDLE ROAD, ADJACENT TO 311 MIDDLE ROAD	Longitude: 70 14 0.36 W
	Stream Order: 2

Sample Information

Log Number: 2769	Type of Sample: ROCK BAG	Date Deployed: 8/6/2019
Subsample Factor: X1	Replicates: 3	Date Retrieved: 9/3/2019

Classification Attainment

Statutory Class: B	Final Determination: C	Date: 1/14/2021
Model Result with P \geq 0.6: C	Reason for Determination: Model	
Date Last Calculated: 12/23/2020	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.01	Class A, B, or C	0.98
Class B	0.04	Non-Attainment	0.02
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.00	Class A	0.02
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.98

Model Variables

01 Total Mean Abundance	100.00	18 Relative Abundance Ephemeroptera	0.08
02 Generic Richness	39.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.67
04 Ephemeroptera Mean Abundance	8.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.26	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	5.03
06 Hilsenhoff Biotic Index	4.74	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.60	28 EP Generic Richness/14	0.14
08 Relative Generic Richness Diptera	0.44	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.59		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	11.40		
17 Chironomini Abundance (Family Functional Group)	43.24		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	24.47
2	<i>Tribelos</i>	9.05
3	<i>Psilotreta</i>	8.00
4	<i>Paraleptophlebia</i>	7.00
5	<i>Frenesia</i>	4.55



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 17.2 deg C
Dissolved Oxygen: 8.07 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 326 uS/cm
Velocity: 0.5 cm/s
pH:
Wetted Width: 2.3 m
Bankfull Width: 5.8 m
Depth: 26 cm

Waterbody Information - Retrieval

Temperature: 17.4 deg C
Dissolved Oxygen: 9.93 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 175 uS/cm
Velocity:
pH:
Wetted Width:
Bankfull Width:
Depth: 28 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Dense	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Road Crossing	Bedrock	20 %
		Boulder	15 %
		Gravel	10 %
		Rubble/Cobble	55 %

Landcover Summary - 2004 Data

Sample Comments

VERY LOW FLOW.
VERY LOW FLOW. 1 SALAMANDER RELEASED FROM SIEVE BUCKET.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-1167 Waterbody: Mill Creek - Station 1167 Town: Falmouth
Log Number: 2769 Subsample Factor: X1 Replicates: 3 Calculated: 12/23/2020

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Naididae	08020202	0.67	0.67		--	0.7	0.7
<i>Aulodrilus</i>	08020202018		0.33		--		0.3
<i>Aulodrilus pluriset</i>	08020202018004	0.33			--	0.3	
<i>Helobdella</i>	08030101005		0.33		--		0.3
<i>Helobdella stagnalis complex</i>	08030101005004	0.33			--	0.3	
<i>Placobdella</i>	08030101006	0.67	0.67		--	0.7	0.7
<i>Gammarus</i>	09010201003	0.67	0.67	4	--	0.7	0.7
Aeshnidae	09020301	1.00	1.00		--	1.0	1.0
Leptophlebiidae	09020406	1.00	1.00		--	1.0	1.0
<i>Paraleptophlebia</i>	09020406026	7.00	7.00	1	CG	7.0	7.0
<i>Nyctiophylax</i>	09020603009	4.33	4.33	5	PR	4.3	4.3
Phryganeidae	09020608	2.00	2.00		--	2.0	2.0
<i>Oligostomis</i>	09020608039	1.00	1.00	2	PR	1.0	1.0
Limnephilidae	09020610	1.33			--	1.3	
<i>Pycnopsyche</i>	09020610049	0.33	0.45	4	SH	0.3	0.5
<i>Frenesia</i>	09020610058	3.33	4.55	0	SH	3.3	4.5
<i>Psilotreta</i>	09020614068	0.67	8.00	0	SC	0.7	8.0
<i>Psilotreta frontalis</i>	09020614068134	7.33			--	7.3	
<i>Molanna</i>	09020615069	2.33	2.33	6	SC	2.3	2.3
<i>Mystacides</i>	09020618075		0.33	4	CG		0.3
<i>Mystacides sepulchralis</i>	09020618075147	0.33			--	0.3	
<i>Sialis</i>	09020702004	0.67	0.67	4	PR	0.7	0.7
<i>Tipula</i>	09021001002	0.67	0.67	4	SH	0.7	0.7
Chironomidae	09021011	0.33			--	0.3	
<i>Ablabesmyia</i>	09021011001	1.33	1.34	8	PR	1.3	1.3
<i>Procladius</i>	09021011015	3.33	3.35	9	PR	3.3	3.4
<i>Thienemannimyia</i>	09021011020		3.02	3	PR		3.0
<i>Thienemannimyia group</i>	09021011020041	3.00			--	3.0	
<i>Trissopelopia</i>	09021011021	0.67	0.67		PR	0.7	0.7
<i>Zavrelimyia</i>	09021011022	3.00	3.02	8	PR	3.0	3.0
<i>Limnophyes</i>	09021011047	0.33	0.34	8	CG	0.3	0.3
<i>Orthocladius</i>	09021011050		0.67	6	CG		0.7
<i>Orthocladius lignicola</i>	09021011050100	0.67			--	0.7	
<i>Tanytarsus</i>	09021011076	3.67	3.69	6	CF	3.7	3.7
<i>Dicrotendipes</i>	09021011085		1.34	8	CG		1.3
<i>Dicrotendipes neomodestus</i>	09021011085152	1.33			--	1.3	
<i>Microtendipes</i>	09021011094		24.47	6	CF		24.5



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		Actual	Adjusted			Actual	Adjusted
<i>Microtendipes pedellus group</i>	09021011094166	24.33			--	24.3	
<i>Paratendipes</i>	09021011100	2.67	2.68	8	CG	2.7	2.7
<i>Phaenopsectra</i>	09021011101		2.68	7	SC		2.7
<i>Phaenopsectra punctipes group</i>	09021011101181	2.67			--	2.7	
<i>Polypedilum</i>	09021011102		3.02	6	SH		3.0
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	1.0	
<i>Polypedilum tritum</i>	09021011102191	2.00			--	2.0	
<i>Tribelos</i>	09021011107		9.05	5	CG		9.1
<i>Tribelos jucundus</i>	09021011107198	9.00			--	9.0	
<i>Alotanypus</i>	09021011136	0.33	0.34		--	0.3	0.3
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.3	0.3
<i>Ectopria</i>	09021109059	0.33	0.33	5	SC	0.3	0.3
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	0.7	0.7
<i>Physella</i>	10010202027	0.67	0.67		SC	0.7	0.7
Sphaeriidae	10020201	1.33	1.33		CF	1.3	1.3
<i>Pisidium</i>	10020201002	1.00	1.00		CF	1.0	1.0