



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

**Station Information**

<b>Station Number:</b> S-759	River Basin: Saco
Waterbody: Piscataqua River - Station 759	HUC8 Name: Presumpscot
Town: Falmouth	Latitude: 43 44 15.5 N
Directions: ~65 M DOWNSTREAM OF LEIGHTON ROAD	Longitude: 70 17 33.83 W
	Stream Order: 3

**Sample Information**

<b>Log Number:</b> 2360	Type of Sample: ROCK BAG	Date Deployed: 7/14/2015
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/11/2015

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> B	Date: 3/9/2016
Model Result with $P \geq 0.6$ : B	<b>Reason for Determination:</b> Model	
Date Last Calculated: 3/11/2016	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.17	Class C	0.14
Class B	0.69	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.96	Class A	0.05
Class C or Non-Attainment	0.04	Class B or C or Non-Attainment	0.95

**Model Variables**

01 Total Mean Abundance	590.67	18 Relative Abundance Ephemeroptera	0.06
02 Generic Richness	43.00	19 EPT Generic Richness	17.00
03 Plecoptera Mean Abundance	8.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	37.33	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.84	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	73.88
06 Hilsenhoff Biotic Index	5.48	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	28.00
07 Relative Abundance - Chironomidae	0.61	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	30.12		
11 <i>Cheumatopsyche</i> Abundance	51.21		
12 EPT Generic Richness/ Diptera Generic Richness	0.85		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	6.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	15.59		
17 Chironomini Abundance (Family Functional Group)	206.88		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Polypedilum</i>	26.87
2	<i>Rheotanytarsus</i>	15.35
3	<i>Cheumatopsyche</i>	8.67
4	<i>Promoresia</i>	7.67
5	<i>Microtendipes</i>	6.48



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**Station Number: S-759**  
**Log Number: 2360**

Town: Falmouth  
Waterbody: Piscataqua River - Station 759

Date Deployed: 7/14/2015  
Date Retrieved: 8/11/2015

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 21.7 deg C  
Dissolved Oxygen: 9.34 mg/l  
Dissolved Oxygen Saturation:  
Specific Conductance: 326.5 uS/cm  
Velocity: 27.4 cm/s  
pH: 7.68  
Wetted Width: 7.15 m  
Bankfull Width: 10.2 m  
Depth: 25 cm

**Waterbody Information - Retrieval**

Temperature: 17.9 deg C  
Dissolved Oxygen: 8.81 mg/l  
Dissolved Oxygen Saturation:  
Specific Conductance: 367 uS/cm  
Velocity: 36.6 cm/s  
pH: 7.27  
Wetted Width: 7.4 m  
Bankfull Width: 10.2 m  
Depth: 20 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		
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Below Road Crossing	Boulder 10 %
		Rubble/Cobble 30 %
		Sand 60 %

**Landcover Summary - 2004 Data**

Total Area (ac)	7950	High Int. Dev. %	1.6	Water %	0.0	Non-vegetated %	0.7
		Med Int. Dev. %	1.2	Wetland %	1.1	Tilled Agriculture %	0.8
		Low Int. Dev. %	6.7	Upland Woody %	74.7	Grassland %	12.1
		Development %	9.5	Natural %	75.8	Human Altered %	24.2
						Impervious %	9.0

**Sample Comments**

7/14/2015: SILT ON ROCKS. 106.6% DO.

8/11/2015: BLACKNOSE DACE PRESENT. 97.6% DO.



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**Station Number: S-759**

Waterbody: Piscataqua River - Station 759

Town: Falmouth

**Log Number: 2360**

Subsample Factor: X4

Replicates: 3

Calculated: 3/11/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Rhabditophora	0301	1.33	1.33		--	0.2	0.2
Perlodidae	09020207	1.33	1.33		--	0.2	0.2
<i>Acroneuria</i>	09020209042	2.67	6.67	0	PR	0.5	1.1
<i>Acroneuria abnormis</i>	09020209042121	1.33		0	PR	0.2	
<i>Acroneuria lycorias</i>	09020209042125	2.67			--	0.5	
<i>Baetis</i>	09020401001	1.33	2.67	4	CG	0.2	0.5
<i>Baetis flavistriga</i>	09020401001004	1.33			--	0.2	
<i>Acerpenna</i>	09020401007	2.67	2.67	5	CG	0.5	0.5
<i>Maccaffertium</i>	09020402015	18.67	21.33	4	SC	3.2	3.6
<i>Maccaffertium modestum</i>	09020402015051	2.67			--	0.5	
<i>Isonychia</i>	09020404018	6.67	6.67	2	CF	1.1	1.1
<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>Caenis</i>	09020412040	1.33	1.33	7	CG	0.2	0.2
<i>Ceratotina</i>	09020603006	13.33	13.33		PR	2.3	2.3
<i>Neureclipsis</i>	09020603008	21.33	21.33	7	CF	3.6	3.6
Hydropsychidae	09020604	9.33			--	1.6	
<i>Cheumatopsyche</i>	09020604015	45.33	51.21	5	CF	7.7	8.7
<i>Hydropsyche</i>	09020604016	9.33	30.12	4	CF	1.6	5.1
<i>Hydropsyche bronta</i>	09020604016029	6.67			--	1.1	
<i>Hydropsyche morosa</i>	09020604016030	1.33			--	0.2	
<i>Hydropsyche sparna</i>	09020604016032	5.33			--	0.9	
<i>Hydropsyche depravata species group</i>	09020604016041	4.00			CF	0.7	
<i>Rhyacophila</i>	09020605019		1.33	2	PR		0.2
<i>Rhyacophila fuscula</i>	09020605019060	1.33			PR	0.2	
<i>Pycnopsyche</i>	09020610049	1.33	1.33	4	SH	0.2	0.2
<i>Ceraclea</i>	09020618072	1.33	1.33	3	CG	0.2	0.2
<i>Oecetis</i>	09020618078	2.67	2.67	8	PR	0.5	0.5
<i>Nigronia</i>	09020701003		1.33	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	1.33			--	0.2	
Chironomidae	09021011	21.33			--	3.6	
<i>Ablabesmyia</i>	09021011001		4.25	8	PR		0.7
<i>Ablabesmyia mallochi</i>	09021011001004	4.00			--	0.7	
<i>Nilotanypus</i>	09021011012		4.25	6	PR		0.7
<i>Nilotanypus fimbriatus</i>	09021011012027	4.00			--	0.7	
<i>Paramerina</i>	09021011013	1.33	1.42		--	0.2	0.2



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**Log Number: 2360**      Subsample Factor: X4      Replicates: 3      Calculated: 3/11/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Rheopelopia</i>	09021011017		1.42		PR		0.2
<i>Rheopelopia acra group</i>	09021011017036	1.33			--	0.2	
<i>Thienemannimyia</i>	09021011020		4.25	3	PR		0.7
<i>Thienemannimyia senata</i>	09021011020040	4.00			--	0.7	
<i>Brillia</i>	09021011033	1.33	1.42	5	SH	0.2	0.2
<i>Cricotopus</i>	09021011037		4.25	7	SH		0.7
<i>Cricotopus bicinctus</i>	09021011037057	4.00			--	0.7	
<i>Nanocladius</i>	09021011049	2.67	2.83	3	CG	0.5	0.5
<i>Parametriocnemus</i>	09021011053	1.33	1.42	5	CG	0.2	0.2
<i>Rheocricotopus</i>	09021011057		21.25	6	CG		3.6
<i>Rheocricotopus robacki</i>	09021011057105	20.00			--	3.4	
<i>Thienemanniella</i>	09021011062			6	CG		
<i>Tvetenia</i>	09021011065		2.83	5	CG		0.5
<i>Tvetenia paucunca</i>	09021011065114	2.67			--	0.5	
<i>Rheotanytarsus</i>	09021011072		90.69	6	CF		15.4
<i>Rheotanytarsus exiguus group</i>	09021011072127	40.00			CF	6.8	
<i>Rheotanytarsus pellucidus</i>	09021011072128	45.33			CF	7.7	
<i>Tanytarsus</i>	09021011076		14.17	6	CF		2.4
<i>Tanytarsus buckleyi</i>	09021011076139	1.33			CF	0.2	
<i>Tanytarsus sepp</i>	09021011076141	12.00			--	2.0	
<i>Microtendipes</i>	09021011094		38.26	6	CF		6.5
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	34.67			--	5.9	
<i>Nilothauma</i>	09021011095	1.33	1.42	2	--	0.2	0.2
<i>Phaenopsectra</i>	09021011101		7.08	7	SC		1.2
<i>Phaenopsectra obediens</i>	09021011101182	6.67			SC	1.1	
<i>Polypedilum</i>	09021011102		158.70	6	SH		26.9
<i>Polypedilum aviceps</i>	09021011102181	145.33			--	24.6	
<i>Polypedilum flavum</i>	09021011102182	1.33			--	0.2	
<i>Polypedilum illinoense</i>	09021011102204	2.67			--	0.5	
<i>Stenochironomus</i>	09021011105	1.33	1.42	5	CG	0.2	0.2
<i>Simulium</i>	09021012047		5.33	4	CF		0.9
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.2	
<i>Simulium jenningsi species group</i>	09021012047070	4.00			CF	0.7	
<i>Atherix</i>	09021015055	2.67	2.67	2	PR	0.5	0.5
<i>Psephenus</i>	09021108058		1.33	4	SC		0.2
<i>Psephenus herricki</i>	09021108058028	1.33			--	0.2	
<i>Macronychus</i>	09021113065		1.33	4	--		0.2



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		Actual	Adjusted			Actual	Adjusted
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.2	
<i>Promoresia</i>	09021113069		45.33		--		7.7
<i>Promoresia tardella</i>	09021113069052	45.33			--	7.7	
<i>Stenelmis</i>	09021113070		2.67	5	SC		0.5
<i>Stenelmis crenata</i>	09021113070055	2.67			--	0.5	