



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

**Station Information**

<b>Station Number:</b> S-74	River Basin: Maine Coastal
Waterbody: Sheepscot River - Station 74	HUC8 Name: St. George-Sheepscot
Town: Whitefield	Latitude: 44 13 23.47 N
Directions: ABOVE RT. 126 BRIDGE AT USGS GAGE	Longitude: 69 35 36.03 W
	Stream Order: 4

**Sample Information**

<b>Log Number:</b> 2463	Type of Sample: ROCK BASKET	Date Deployed: 7/6/2016
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/2/2016

**Classification Attainment**

<b>Statutory Class:</b> AA	<b>Final Determination:</b> A	Date: 12/14/2016
Model Result with $P \geq 0.6$ : A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 10/13/2016	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.56	Class A, B, or C	1.00
Class B	0.44	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.93
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.07

**Model Variables**

01 Total Mean Abundance	1521.33	18 Relative Abundance Ephemeroptera	0.16
02 Generic Richness	55.00	19 EPT Generic Richness	29.00
03 Plecoptera Mean Abundance	21.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.33
04 Ephemeroptera Mean Abundance	246.67	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.44	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	166.69
06 Hilsenhoff Biotic Index	4.14	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	67.11
07 Relative Abundance - Chironomidae	0.20	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	255.64		
11 <i>Cheumatopsyche</i> Abundance	157.32		
12 EPT Generic Richness/ Diptera Generic Richness	1.61		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	21.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	28.13		
17 Chironomini Abundance (Family Functional Group)	61.61		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	16.80
2	<i>Cheumatopsyche</i>	10.34
3	<i>Macrostemum</i>	9.75
4	<i>Neureclipsis</i>	7.26
5	<i>Rheotanytarsus</i>	6.69



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**Log Number: 2463**      Waterbody: Sheepscot River - Station 74      Date Retrieved: 8/2/2016

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:                      23.4 deg C  
Dissolved Oxygen:                8.42 mg/l  
Dissolved Oxygen Saturation:    99.6 %  
Specific Conductance:            82.8 uS/cm  
Velocity:                            45.7 cm/s  
pH:                                    7.54  
Wetted Width:                      27 m  
Bankfull Width:                    30 m  
Depth:                                35 cm

**Waterbody Information - Retrieval**

Temperature:                      23.1 deg C  
Dissolved Oxygen:                8.49 mg/l  
Dissolved Oxygen Saturation:    98.7 %  
Specific Conductance:            70 uS/cm  
Velocity:                            27.4 cm/s  
pH:                                    7.3  
Wetted Width:                      27 m  
Bankfull Width:                    30 m  
Depth:                                35 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Open	Rolling
Pasture		
Swamp Hardwood		
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Agricultural Runoff	Above Road Crossing	Boulder                      60 %
	Main Stem	Gravel                        5 %
		Rubble/Cobble                30 %
		Sand                            5 %

**Landcover Summary - 2004 Data**

Total Area (ac)      89648	High Int. Dev. %      0.2	Water %                4.2	Non-vegetated %      0.3
	Med Int. Dev. %      0.4	Wetland %             8.7	Tilled Agriculture %    2.3
	Low Int. Dev. %      3.1	Upland Woody %      76.1	Grassland %            4.7
	Development %      3.7	Natural %              84.0	Human Altered %      11.8
			Impervious %        3.0

**Sample Comments**

LOW WATER ON DEPLOYMENT.  
LOW WATER ON RETRIEVAL.



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Town: Whitefield

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Subsample Factor: X4

Replicates: 3

Calculated: 10/13/2016

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Helobdella</i>	08030101005		1.33		--		0.1
<i>Helobdella modesta</i>	08030101005004	1.33			--	0.1	
<i>Acroneuria</i>	09020209042	10.67	20.00	0	PR	0.7	1.3
<i>Acroneuria abnormis</i>	09020209042121	9.33		0	PR	0.6	
<i>Perlesta</i>	09020209046	1.33	1.33	5	PR	0.1	0.1
Baetidae	09020401	8.00			--	0.5	
<i>Baetis</i>	09020401001	18.67	32.53	4	CG	1.2	2.1
<i>Baetis flavistriga</i>	09020401001004	10.67			--	0.7	
<i>Acerpenna</i>	09020401007	16.00	35.49	5	CG	1.1	2.3
<i>Acerpenna pygmaea</i>	09020401007011	16.00			--	1.1	
<i>Procloeon</i>	09020401010	1.33	1.48		CG	0.1	0.1
<i>Plauditus</i>	09020401012	8.00	8.87		CG	0.5	0.6
<i>Iswaeon</i>	09020401015	2.67	2.96		--	0.2	0.2
Heptageniidae	09020402	33.33			--	2.2	
<i>Epeorus</i>	09020402009	6.67	8.72	0	SC	0.4	0.6
<i>Leucrocuta</i>	09020402011	65.33	85.50	1	SC	4.3	5.6
<i>Maccaffertium</i>	09020402015	26.67	47.11	4	SC	1.8	3.1
<i>Maccaffertium luteum</i>	09020402015049	1.33			--	0.1	
<i>Maccaffertium modestum</i>	09020402015051	8.00			--	0.5	
<i>Isonychia</i>	09020404018	5.33	5.33	2	CF	0.4	0.4
<i>Serratella</i>	09020410037		17.33	2	CG		1.1
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	1.33			--	0.1	
<i>Serratella serratoides</i>	09020410037124	16.00			--	1.1	
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.1	0.1
Philopotamidae	09020601	4.00	4.00		--	0.3	0.3
<i>Chimarra</i>	09020601003	40.00	96.00	2	CF	2.6	6.3
<i>Chimarra aterrima</i>	09020601003002	2.67			--	0.2	
<i>Chimarra obscura</i>	09020601003003	22.67			--	1.5	
<i>Chimarra socia</i>	09020601003004	30.67			--	2.0	
Polycentropodidae	09020603	6.67			--	0.4	
<i>Cernotina</i>	09020603006	2.67	2.83		PR	0.2	0.2
<i>Neureclipsis</i>	09020603008	104.00	110.50	7	CF	6.8	7.3
Hydropsychidae	09020604	142.67			--	9.4	
<i>Cheumatopsyche</i>	09020604015	117.33	157.32	5	CF	7.7	10.3
<i>Hydropsyche</i>	09020604016	157.33	255.64	4	CF	10.3	16.8
<i>Hydropsyche morosa</i>	09020604016030	13.33			--	0.9	
<i>Hydropsyche sparna</i>	09020604016032	13.33			--	0.9	



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Replicates: 3

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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche depravata species group</i>	09020604016041	1.33			CF	0.1	
<i>Hydropsyche placoda</i>	09020604016059	5.33			--	0.4	
<i>Macrostemum</i>	09020604018		148.38	3	CF		9.8
<i>Macrostemum zebratum</i>	09020604018054	110.67			--	7.3	
Glossosomatidae	09020606				--		
<i>Protoptila</i>	09020606022	1.33	1.33	1	SC	0.1	0.1
Hydroptilidae	09020607	5.33			--	0.4	
<i>Hydroptila</i>	09020607026	32.00	36.74	6	P	2.1	2.4
<i>Oxyethira</i>	09020607028	2.67	3.06	3	P	0.2	0.2
<i>Mayatrichia</i>	09020607033		1.53		SC		0.1
<i>Mayatrichia ayama</i>	09020607033085	1.33			--	0.1	
<i>Brachycentrus</i>	09020609043		21.33	0	CF		1.4
<i>Brachycentrus appalachia</i>	09020609043096	21.33			--	1.4	
<i>Micrasema</i>	09020609044		2.67	2	SH		0.2
<i>Micrasema wataga</i>	09020609044101	2.67			--	0.2	
<i>Lepidostoma</i>	09020611064	26.67	26.67	1	SH	1.8	1.8
<i>Helicopsyche</i>	09020616070		4.00	3	SC		0.3
<i>Helicopsyche borealis</i>	09020616070137	4.00			--	0.3	
Leptoceridae	09020618				--		
<i>Oecetis</i>	09020618078	2.67	4.00	8	PR	0.2	0.3
<i>Oecetis persimilis</i>	09020618078157	1.33			--	0.1	
Chironomidae	09021011	1.33			--	0.1	
<i>Nilotanytus</i>	09021011012		2.68	6	PR		0.2
<i>Nilotanytus fimbriatus</i>	09021011012027	2.67			--	0.2	
<i>Pentaneura</i>	09021011014		20.09	6	PR		1.3
<i>Pentaneura inconspicua</i>	09021011014028	20.00			--	1.3	
<i>Rheopelopia</i>	09021011017		5.36		PR		0.4
<i>Rheopelopia acra group</i>	09021011017036	5.33			--	0.4	
<i>Potthastia</i>	09021011026		1.34	2	CG		0.1
<i>Potthastia gaedii</i>	09021011026045	1.33			--	0.1	
<i>Corynoneura</i>	09021011036	1.33	1.34	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037	1.33	9.38	7	SH	0.1	0.6
<i>Cricotopus bicinctus</i>	09021011037057	5.33			--	0.4	
<i>Cricotopus vierriensis</i>	09021011037071	1.33			--	0.1	
<i>Cricotopus politus</i>	09021011037077	1.33			--	0.1	
<i>Nanocladius</i>	09021011049	1.33	6.70	3	CG	0.1	0.4
<i>Nanocladius downesi</i>	09021011049092	5.33			--	0.4	



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<i>Orthocladius</i>	09021011050	1.33	26.79	6	CG	0.1	1.8
<i>Orthocladius carlatus</i>	09021011050093	16.00			--	1.1	
<i>Orthocladius dubitatus</i>	09021011050103	9.33			--	0.6	
<i>Psectrocladius</i>	09021011056	1.33	1.34	8	CG	0.1	0.1
<i>Rheocricotopus</i>	09021011057		18.75	6	CG		1.2
<i>Rheocricotopus robacki</i>	09021011057105	18.67			--	1.2	
<i>Synorthocladius</i>	09021011061	1.33	1.34	2	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062		2.68	6	CG		0.2
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.1	
<i>Thienemanniella sp. B</i>	09021011062116	1.33			--	0.1	
<i>Tvetenia</i>	09021011065		36.16	5	CG		2.4
<i>Tvetenia vitracies</i>	09021011065113	36.00			--	2.4	
<i>Rheotanytarsus</i>	09021011072		101.79	6	CF		6.7
<i>Rheotanytarsus exiguus group</i>	09021011072127	92.00			CF	6.0	
<i>Rheotanytarsus pellucidus</i>	09021011072128	9.33			CF	0.6	
<i>Microtendipes</i>	09021011094		18.75	6	CF		1.2
<i>Microtendipes rydalensis group</i>	09021011094168	18.67			--	1.2	
<i>Polypedilum</i>	09021011102		41.52	6	SH		2.7
<i>Polypedilum aviceps</i>	09021011102181	2.67			--	0.2	
<i>Polypedilum flavum</i>	09021011102182	38.67			--	2.5	
<i>Xenochironomus</i>	09021011108		1.34	0	PR		0.1
<i>Xenochironomus xenolabis</i>	09021011108200	1.33			--	0.1	
<i>Simulium</i>	09021012047		22.67	4	CF		1.5
<i>Simulium jenningsi</i>	09021012047060	2.67			--	0.2	
<i>Simulium jenningsi species group</i>	09021012047070	20.00			CF	1.3	
<i>Dineutus</i>	09021104032	1.33	1.33	2	--	0.1	0.1
Elmidae	09021113	1.33			--	0.1	
<i>Promoresia</i>	09021113069		8.67		--		0.6
<i>Promoresia elegans</i>	09021113069051	8.00			--	0.5	
<i>Stenelmis</i>	09021113070	1.33	8.67	5	SC	0.1	0.6
<i>Stenelmis concinna</i>	09021113070054	6.67			--	0.4	
<i>Atractides</i>	09030102002	1.33	1.33		--	0.1	0.1
<i>Hydrozetes</i>	09030115001	1.33	1.33		--	0.1	0.1
<i>Amnicola</i>	10010104013		22.67		SC		1.5
<i>Amnicola limosus</i>	10010104013018	22.67			--	1.5	
<i>Ferrissia</i>	10010204035		12.00		SC		0.8
<i>Ferrissia rivularis</i>	10010204035066	12.00			--	0.8	