



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

Station Information

Station Number: 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

Log Number: 2823	Type of Sample: ROCK BAG	Date Deployed: 7/2/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 7/30/2020

Classification Attainment

Statutory Class: AA	Final Determination: A	Date: 4/23/2021
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 4/22/2021	Comments:	

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.89	Class A, B, or C	1.00
Class B	0.11	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	1211.67	18 Relative Abundance Ephemeroptera	0.11
02 Generic Richness	76.00	19 EPT Generic Richness	30.00
03 Plecoptera Mean Abundance	12.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.67
04 Ephemeroptera Mean Abundance	133.33	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.71	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	103.87
06 Hilsenhoff Biotic Index	3.77	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	41.00
07 Relative Abundance - Chironomidae	0.31	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.30	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	15.75		
11 <i>Cheumatopsyche</i> Abundance	36.54		
12 EPT Generic Richness/ Diptera Generic Richness	1.30		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	11.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	12.33		
17 Chironomini Abundance (Family Functional Group)	171.33		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Brachycentrus</i>	15.60
2	<i>Protoptila</i>	8.06
3	<i>Rheotanytarsus</i>	7.10
4	<i>Polypedilum</i>	7.02
5	<i>Microtendipes</i>	6.24



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature:	22.7 deg C
Dissolved Oxygen:	8.81 mg/l
Dissolved Oxygen Saturation:	102.7 %
Specific Conductance:	132.1 uS/cm
Velocity:	33.5 cm/s
pH:	132.1
Wetted Width:	27 m
Bankfull Width:	27 m
Depth:	38 cm

Waterbody Information - Retrieval

Temperature:	27.8 deg C
Dissolved Oxygen:	8.14 mg/l
Dissolved Oxygen Saturation:	104.1 %
Specific Conductance:	85.4 uS/cm
Velocity:	42.7 cm/s
pH:	7.09
Wetted Width:	25 m
Bankfull Width:	27 m
Depth:	33 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Rolling
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Above Road Crossing	Boulder 40 %
		Gravel 20 %
		Rubble/Cobble 30 %
		Sand 10 %

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



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Town: Whitefield

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Subsample Factor: X1

Replicates: 3

Calculated: 4/22/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	0.33	0.33		PR	0.0	0.0
Platyhelminthes	03	7.33	7.33		--	0.6	0.6
<i>Prostoma</i>	04010101001	0.67	0.67		--	0.1	0.1
Nematoda	05	1.00	1.00		--	0.1	0.1
<i>Hyaella</i>	09010203006	0.67	0.67	8	CG	0.1	0.1
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	0.1	0.1
Perlidae	09020209	0.67			--	0.1	
<i>Acroneuria</i>	09020209042	1.33	5.67	0	PR	0.1	0.5
<i>Acroneuria abnormis</i>	09020209042121	4.00		0	PR	0.3	
<i>Perlesta</i>	09020209046	5.33	5.67	5	PR	0.4	0.5
Odonata	090203	0.33	0.33		--	0.0	0.0
<i>Boyeria</i>	09020301004	2.00	2.00	2	PR	0.2	0.2
Gomphidae	09020302	0.67	0.67		--	0.1	0.1
<i>Calopteryx</i>	09020307043	0.67	0.67	5	PR	0.1	0.1
<i>Argia</i>	09020309048	9.67	9.67	7	PR	0.8	0.8
<i>Baetis</i>	09020401001		1.33	4	CG		0.1
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.0	
<i>Baetis intercalaris</i>	09020401001008	1.00			--	0.1	
<i>Acerpenna</i>	09020401007		25.67	5	CG		2.1
<i>Acerpenna pygmaea</i>	09020401007011	25.67			--	2.1	
<i>Procladius</i>	09020401010	0.67	0.67		CG	0.1	0.1
<i>Plautidius</i>	09020401012	6.33	6.33		CG	0.5	0.5
<i>Isonychia</i>	09020401015	1.67	1.67		--	0.1	0.1
<i>Epeorus</i>	09020402009		1.00	0	SC		0.1
<i>Epeorus vitreus</i>	09020402009033	1.00			--	0.1	
<i>Leucrocuta</i>	09020402011	47.00	47.00	1	SC	3.9	3.9
<i>Stenacron</i>	09020402014	0.33	0.33	7	SC	0.0	0.0
<i>Maccaffertium</i>	09020402015	19.67	35.33	4	SC	1.6	2.9
<i>Maccaffertium mediopunctatum</i>	09020402015050	0.67			--	0.1	
<i>Maccaffertium modestum</i>	09020402015051	15.00			--	1.2	
Leptophlebiidae	09020406	0.33	0.33		--	0.0	0.0
<i>Serratella</i>	09020410037		7.00	2	CG		0.6
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	0.67			--	0.1	
<i>Serratella serratoidea</i>	09020410037124	6.33			--	0.5	
<i>Tricorythodes</i>	09020411038	6.67	6.67	4	CG	0.6	0.6
<i>Chimarra</i>	09020601003		9.00	2	CF		0.7
<i>Chimarra aterrima</i>	09020601003002	0.33			--	0.0	



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		Actual	Adjusted			Actual	Adjusted
<i>Chimarra obscura</i>	09020601003003	4.33			--	0.4	
<i>Chimarra socia</i>	09020601003004	4.33			--	0.4	
Polycentropodidae	09020603	0.33			--	0.0	
<i>Neureclipsis</i>	09020603008	39.33	39.54	7	CF	3.2	3.3
<i>Nyctiophylax</i>	09020603009	0.33	0.34	5	PR	0.0	0.0
<i>Polycentropus</i>	09020603010	25.33	25.46	6	PR	2.1	2.1
Hydropsychidae	09020604	0.33			--	0.0	
<i>Cheumatopsyche</i>	09020604015	36.33	36.54	5	CF	3.0	3.0
<i>Hydropsyche</i>	09020604016	5.67	15.75	4	CF	0.5	1.3
<i>Hydropsyche morosa</i>	09020604016030	4.33			--	0.4	
<i>Hydropsyche sparna</i>	09020604016032	2.67			--	0.2	
<i>Hydropsyche betteni</i>	09020604016037	3.00			--	0.2	
<i>Macrostemum</i>	09020604018	7.67	7.71	3	CF	0.6	0.6
<i>Protoptila</i>	09020606022	97.67	97.67	1	SC	8.1	8.1
<i>Culoptila</i>	09020606023	12.00	12.00		--	1.0	1.0
Hydroptilidae	09020607				--		
<i>Hydroptila</i>	09020607026	0.67	0.67	6	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		189.00	0	CF		15.6
<i>Brachycentrus appalachia</i>	09020609043096	189.00			--	15.6	
<i>Micrasema</i>	09020609044	4.00	4.00	2	SH	0.3	0.3
<i>Lepidostoma</i>	09020611064	48.67	48.67	1	SH	4.0	4.0
<i>Helicopsyche</i>	09020616070		22.00	3	SC		1.8
<i>Helicopsyche borealis</i>	09020616070137	22.00			--	1.8	
<i>Nectopsyche</i>	09020618074			3	SH		
<i>Oecetis</i>	09020618078	5.67	15.67	8	PR	0.5	1.3
<i>Oecetis persimilis</i>	09020618078157	10.00			--	0.8	
<i>Sialis</i>	09020702004	0.33	0.33	4	PR	0.0	0.0
<i>Ablabesmyia</i>	09021011001		1.33	8	PR		0.1
<i>Ablabesmyia mallochii</i>	09021011001004	1.33			--	0.1	
<i>Labrundinia</i>	09021011008	0.33	0.33	7	PR	0.0	0.0
<i>Nilotanyus</i>	09021011012		1.33	6	PR		0.1
<i>Nilotanyus fimbriatus</i>	09021011012027	1.33			--	0.1	
<i>Pentaneura</i>	09021011014	6.00	6.00	6	PR	0.5	0.5
<i>Thienemannimyia</i>	09021011020		3.33	3	PR		0.3
<i>Thienemannimyia group</i>	09021011020041	3.33			--	0.3	
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037	53.33	58.67	7	SH	4.4	4.8
<i>Cricotopus bicinctus</i>	09021011037057	4.67			--	0.4	



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<i>Cricotopus nostocicola</i>	09021011037081	0.67			--	0.1	
<i>Eukiefferiella</i>	09021011041		37.67	8	CG		3.1
<i>Eukiefferiella discoloripes</i>	09021011041085	37.67			--	3.1	
<i>Nanocladius</i>	09021011049	2.67	2.67	3	CG	0.2	0.2
<i>Rheocricotopus</i>	09021011057	0.33	0.33	6	CG	0.0	0.0
<i>Synorthocladius</i>	09021011061	1.00	1.00	2	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	2.00	2.00	6	CG	0.2	0.2
<i>Rheotanytarsus</i>	09021011072		86.00	6	CF		7.1
<i>Rheotanytarsus exiguus group</i>	09021011072127	85.67			CF	7.1	
<i>Rheotanytarsus pellucidus</i>	09021011072128	0.33			CF	0.0	
<i>Stempellina</i>	09021011073	1.33	1.33	2	CG	0.1	0.1
<i>Tanytarsus</i>	09021011076	7.33	7.33	6	CF	0.6	0.6
<i>Dicrotendipes</i>	09021011085	0.33	1.67	8	CG	0.0	0.1
<i>Dicrotendipes neomodestus</i>	09021011085152	1.33			--	0.1	
<i>Lauterborniella</i>	09021011092		8.67		CG		0.7
<i>Lauterborniella agrayloides</i>	09021011092001	8.67			--	0.7	
<i>Microtendipes</i>	09021011094		75.67	6	CF		6.2
<i>Microtendipes rydalensis group</i>	09021011094168	75.67			--	6.2	
<i>Polypedilum</i>	09021011102		85.00	6	SH		7.0
<i>Polypedilum aviceps</i>	09021011102181	0.33			--	0.0	
<i>Polypedilum flavum</i>	09021011102182	84.67			--	7.0	
<i>Xenochironomus</i>	09021011108		0.33	0	PR		0.0
<i>Xenochironomus xenolabis</i>	09021011108200	0.33			--	0.0	
<i>Simulium</i>	09021012047	1.00	1.00	4	CF	0.1	0.1
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.0	0.0
<i>Hemerodromia</i>	09021016057	4.33	4.33	3	PR	0.4	0.4
<i>Dineutus</i>	09021104032	0.33	0.33	2	--	0.0	0.0
<i>Psephenus</i>	09021108058		3.67	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	3.67			--	0.3	
<i>Dubiraphia</i>	09021113064	2.00	2.00	6	--	0.2	0.2
<i>Macronychus</i>	09021113065		1.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.1	
<i>Microcylloepus</i>	09021113066	4.00	4.00	3	--	0.3	0.3
<i>Optioservus</i>	09021113067		17.67	3	SC		1.5
<i>Optioservus trivittatus</i>	09021113067048	0.33			--	0.0	
<i>Optioservus elegans</i>	09021113067051	17.33			--	1.4	
<i>Stenelmis</i>	09021113070	17.33	17.33	5	SC	1.4	1.4
<i>Atractides</i>	09030102002	0.33	0.33		--	0.0	0.0



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<i>Hydrodroma</i>	09030113001	12.67	12.67		--	1.0	1.0
<i>Clathrosperschon</i>	09030118001	3.00	3.00		--	0.2	0.2
<i>Amnicola</i>	10010104013		67.00		SC		5.5
<i>Amnicola limosus</i>	10010104013018	67.00			--	5.5	
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.0	0.0
<i>Pisidium</i>	10020201002	2.00	2.00		CF	0.2	0.2