



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

Station Information

Station Number: S-550	River Basin:	Maine Coastal
Waterbody: West Branch Sheepscot River - Station 550	HUC8 Name:	St. George-Sheepscot
Town: Whitefield	Latitude:	44 14 36.42 N
Directions: BELOW HOWE ROAD	Longitude:	69 34 30.98 W
	Stream Order:	3

Sample Information

Log Number: 2548	Type of Sample:	ROCK BAG	Date Deployed:	7/5/2017
Subsample Factor: X4	Replicates:	3	Date Retrieved:	8/1/2017

Classification Attainment

Statutory Class: AA	Final Determination: A	Date:	10/4/2017
Model Result with $P \geq 0.6$: A	Reason for Determination: Model		
Date Last Calculated: 10/4/2017	Comments:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.63	Class A, B, or C	1.00
Class B	0.35	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.97
Class A or B	1.00	Class B or C or Non-Attainment	0.03
Class C or Non-Attainment	0.00		

Model Variables

01 Total Mean Abundance	430.67	18 Relative Abundance Ephemeroptera	0.34
02 Generic Richness	39.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	1.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	145.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	4.15	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	9.09
06 Hilsenhoff Biotic Index	3.78	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	8.10
07 Relative Abundance - Chironomidae	0.15	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.18	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	7.27		
11 <i>Cheumatopsyche</i> Abundance	9.09		
12 EPT Generic Richness/ Diptera Generic Richness	2.71		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.33		
17 Chironomini Abundance (Family Functional Group)	5.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Amnicola</i>	15.79
2	<i>Brachycentrus</i>	12.38
3	<i>Rheotanytarsus</i>	12.07
4	<i>Iswaeon</i>	10.22
5	<i>Acerpenna</i>	9.60



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Station Number: S-550 Town: Whitefield Date Deployed: 7/5/2017
Log Number: 2548 Waterbody: West Branch Sheepscot River - Station 550 Date Retrieved: 8/1/2017

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 23.8 deg C
Dissolved Oxygen: 9.82 mg/l
Dissolved Oxygen Saturation: 114.3 %
Specific Conductance: 136.7 uS/cm
Velocity: 39.6 cm/s
pH: 7.84
Wetted Width: 20 m
Bankfull Width: 20 m
Depth: 38 cm

Waterbody Information - Retrieval

Temperature: 22.7 deg C
Dissolved Oxygen: 10.29 mg/l
Dissolved Oxygen Saturation: 118 %
Specific Conductance: 163.8 uS/cm
Velocity: 9.1 cm/s
pH: 8.18
Wetted Width: 16 m
Bankfull Width: 20 m
Depth: 25 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Pasture	Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution		Bedrock	45 %
		Boulder	25 %
		Gravel	10 %
		Rubble/Cobble	20 %

Landcover Summary - 2004 Data

Total Area (ac)	32348	High Int. Dev. %	0.5	Water %	1.6	Non-vegetated %	0.3
		Med Int. Dev. %	0.7	Wetland %	6.3	Tilled Agriculture %	3.1
		Low Int. Dev. %	4.3	Upland Woody %	74.1	Grassland %	9.0
		Development %	5.4	Natural %	79.7	Human Altered %	18.7
						Impervious %	4.2

Sample Comments

7/5/17: BRIDGE GONE, FISH PRESENT.



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-550 Waterbody: West Branch Sheepscot River - Station 550 Town: Whitefield
Log Number: 2548 Subsample Factor: X4 Replicates: 3 Calculated: 10/4/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009		1.33		CG		0.3
<i>Nais behningi</i>	08020202009003	1.33			--	0.3	
<i>Perlesta</i>	09020209046		1.33	5	PR		0.3
<i>Perlesta decipiens</i>	09020209046141	1.33			--	0.3	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.3
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.3	
Calopterygidae	09020307	1.33	1.33		--	0.3	0.3
<i>Baetis</i>	09020401001		5.33	4	CG		1.2
<i>Baetis flavistriga</i>	09020401001004	5.33			--	1.2	
<i>Acerpenna</i>	09020401007	13.33	41.33	5	CG	3.1	9.6
<i>Acerpenna pygmaea</i>	09020401007011	28.00			--	6.5	
<i>Procloeon</i>	09020401010	5.33	5.33		CG	1.2	1.2
<i>Iswaeon</i>	09020401015		44.00		--		10.2
<i>Iswaeon anoka</i>	09020401015001	44.00			--	10.2	
Heptageniidae	09020402	4.00			--	0.9	
<i>Leucrocuta</i>	09020402011	12.00	14.57	1	SC	2.8	3.4
<i>Maccaffertium</i>	09020402015	5.33	8.10	4	SC	1.2	1.9
<i>Maccaffertium luteum</i>	09020402015049	1.33			--	0.3	
Ephemerellidae	09020410	1.33	1.33		--	0.3	0.3
<i>Serratella</i>	09020410037		10.67	2	CG		2.5
<i>Serratella serratoides</i>	09020410037124	10.67			--	2.5	
<i>Tricorythodes</i>	09020411038	14.67	14.67	4	CG	3.4	3.4
Polycentropodidae	09020603				--		
<i>Cernotina</i>	09020603006	1.33	1.33		PR	0.3	0.3
<i>Neureclipsis</i>	09020603008	6.67	6.67	7	CF	1.5	1.5
<i>Nyctiophylax</i>	09020603009		2.67	5	PR		0.6
<i>Nyctiophylax celta</i>	09020603009012	2.67			--	0.6	
Hydropsychidae	09020604	5.33			--	1.2	
<i>Cheumatopsyche</i>	09020604015	6.67	9.09	5	CF	1.5	2.1
<i>Hydropsyche</i>	09020604016	2.67	7.27	4	CF	0.6	1.7
<i>Hydropsyche morosa</i>	09020604016030	2.67			--	0.6	
<i>Macrostemum</i>	09020604018		3.64	3	CF		0.8
<i>Macrostemum zebratum</i>	09020604018054	2.67			--	0.6	
<i>Brachycentrus</i>	09020609043		53.33	0	CF		12.4
<i>Brachycentrus appalachia</i>	09020609043096	53.33			--	12.4	
<i>Helicopsyche</i>	09020616070		8.00	3	SC		1.9
<i>Helicopsyche borealis</i>	09020616070137	8.00			--	1.9	



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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>Mystacides</i>	09020618075		1.33	4	CG		0.3
<i>Mystacides sepulchralis</i>	09020618075147	1.33			--	0.3	
<i>Pentaneura</i>	09021011014		1.33	6	PR		0.3
<i>Pentaneura inconspicua</i>	09021011014028	1.33			--	0.3	
<i>Corynoneura</i>	09021011036	1.33	1.33	7	CG	0.3	0.3
<i>Nanocladius</i>	09021011049	1.33	1.33	3	CG	0.3	0.3
<i>Synorthocladius</i>	09021011061	1.33	1.33	2	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		4.00	5	CG		0.9
<i>Tvetenia vitracies</i>	09021011065113	4.00			--	0.9	
<i>Rheotanytarsus</i>	09021011072		52.00	6	CF		12.1
<i>Rheotanytarsus exiguus group</i>	09021011072127	25.33			CF	5.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	26.67			CF	6.2	
<i>Polypedilum</i>	09021011102		5.33	6	SH		1.2
<i>Polypedilum aviceps</i>	09021011102181	1.33			--	0.3	
<i>Polypedilum flavum</i>	09021011102182	4.00			--	0.9	
<i>Psephenus</i>	09021108058		1.33	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	1.33			--	0.3	
<i>Ectopria</i>	09021109059	2.67	2.67	5	SC	0.6	0.6
<i>Ancyronyx</i>	09021113063		1.33	6	--		0.3
<i>Ancyronyx variegatus</i>	09021113063034	1.33			CG	0.3	
<i>Dubiraphia</i>	09021113064		5.33	6	--		1.2
<i>Dubiraphia minima</i>	09021113064036	5.33			--	1.2	
<i>Macronychus</i>	09021113065		1.33	4	--		0.3
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.3	
<i>Promoesia</i>	09021113069		18.67		--		4.3
<i>Promoesia elegans</i>	09021113069051	18.67			--	4.3	
<i>Stenelmis</i>	09021113070	17.33	17.33	5	SC	4.0	4.0
<i>Sperchon</i>	09030107001	2.67	2.67		--	0.6	0.6
<i>Amnicola</i>	10010104013		68.00		SC		15.8
<i>Amnicola limosus</i>	10010104013018	68.00			--	15.8	
<i>Pisidium</i>	10020201002	1.33	1.33		CF	0.3	0.3