



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

**Station Information**

<b>Station Number:</b> S-268	River Basin:	Maine Coastal
Waterbody: West Branch Sheepscot River - Station 268	HUC8 Name:	St. George-Sheepscot
Town: China	Latitude:	44 22 4.48 N
Directions: WEEKS MILLS - 100 FT UPSTREAM OF DIRIGO RD CROSSING	Longitude:	69 31 52.65 W
	Stream Order:	3

**Sample Information**

<b>Log Number:</b> 2643	Type of Sample:	ROCK BAG	Date Deployed:	7/9/2018
Subsample Factor: X4	Replicates:	3	Date Retrieved:	8/6/2018

**Classification Attainment**

<b>Statutory Class:</b> AA	<b>Final Determination:</b> B	Date:	10/24/2018
Model Result with $P \geq 0.6$ : B	<b>Reason for Determination:</b> Model		
Date Last Calculated: 10/23/2018	Comments:	Probability Class A (.12).	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.32	Class C	0.04
Class B	0.64	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.12
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.88

**Model Variables**

01 Total Mean Abundance	690.67	18 Relative Abundance Ephemeroptera	0.25
02 Generic Richness	52.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	8.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	10.74
04 Ephemeroptera Mean Abundance	176.00	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.14	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	232.15
06 Hilsenhoff Biotic Index	5.21	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	5.33
07 Relative Abundance - Chironomidae	0.60	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.42	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	1.33		
11 <i>Cheumatopsyche</i> Abundance	2.67		
12 EPT Generic Richness/ Diptera Generic Richness	0.91		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	40.26		
17 Chironomini Abundance (Family Functional Group)	72.47		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	27.98
2	<i>Tricorythodes</i>	15.25
3	<i>Microtendipes</i>	6.02
4	<i>Cricotopus</i>	5.05
5	<i>Caenis</i>	4.44



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**Log Number: 2643**      Waterbody: West Branch Sheepscot River - Station 268      Date Retrieved: 8/6/2018

**Sample Collection and Processing Information**

Sampling Organization: BBIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 19 deg C  
Dissolved Oxygen: 8.61 mg/l  
Dissolved Oxygen Saturation: 91.6 %  
Specific Conductance: 104.3 uS/cm  
Velocity: 3.048 cm/s  
pH: 7.4  
Wetted Width: 4.4 m  
Bankfull Width: 7.4 m  
Depth: 18 cm

**Waterbody Information - Retrieval**

Temperature: 20.4 deg C  
Dissolved Oxygen: 8.84 mg/l  
Dissolved Oxygen Saturation: 97 %  
Specific Conductance: 145.8 uS/cm  
Velocity: 6.096 cm/s  
pH: 7.47  
Wetted Width: 3.9 m  
Bankfull Width: 7.4 m  
Depth: 12 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Pasture	Partly Open	Rolling	
Swamp Hardwood			
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Agricultural Runoff	Above Road Crossing	Boulder	15 %
		Detritus	5 %
		Gravel	20 %
		Rubble/Cobble	60 %

**Landcover Summary - 2004 Data**

Total Area (ac)	9414	High Int. Dev. %	0.1	Water %	3.6	Non-vegetated %	0.4
		Med Int. Dev. %	0.3	Wetland %	8.4	Tilled Agriculture %	2.6
		Low Int. Dev. %	3.9	Upland Woody %	74.9	Grassland %	5.8
		Development %	4.3	Natural %	82.6	Human Altered %	13.8
						Impervious %	3.3

**Sample Comments**

BLACKNOSED DACE, CRAYFISH



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Aquatic Life Taxonomic Inventory Report**

**Station Number: S-268**

Waterbody: West Branch Sheepscot River - Station 268 Town: China

**Log Number: 2643**

Subsample Factor: X4

Replicates: 3

Calculated: 10/23/2018

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Leuctra</i>	09020204020	6.67	6.67	0	SH	1.0	1.0
<i>Acroneuria</i>	09020209042	1.33	1.33	0	PR	0.2	0.2
Coenagrionidae	09020309	1.33	1.33		--	0.2	0.2
<i>Acerpenna</i>	09020401007		2.67	5	CG		0.4
<i>Acerpenna pygmaea</i>	09020401007011	2.67			--	0.4	
<i>Procloeon</i>	09020401010	5.33	5.33		CG	0.8	0.8
<i>Maccaffertium</i>	09020402015	4.00	4.00	4	SC	0.6	0.6
<i>Paraleptophlebia</i>	09020406026	26.67	26.67	1	CG	3.9	3.9
<i>Eurylophella</i>	09020410036	1.33	1.33	3	CG	0.2	0.2
<i>Tricorythodes</i>	09020411038	105.33	105.33	4	CG	15.3	15.3
<i>Caenis</i>	09020412040	30.67	30.67	7	CG	4.4	4.4
Polycentropodidae	09020603	5.33	5.33		--	0.8	0.8
<i>Polycentropus</i>	09020603010	2.67	2.67	6	PR	0.4	0.4
<i>Cheumatopsyche</i>	09020604015	2.67	2.67	5	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016		1.33	4	CF		0.2
<i>Hydropsyche sparna</i>	09020604016032	1.33			--	0.2	
<i>Hydroptila</i>	09020607026	1.33	1.33	6	P	0.2	0.2
<i>Oxyethira</i>	09020607028	6.67	6.67	3	P	1.0	1.0
<i>Pycnopsyche</i>	09020610049	1.33	1.33	4	SH	0.2	0.2
<i>Neophylax</i>	09020610062	1.33	1.33	3	SC	0.2	0.2
<i>Helicopsyche</i>	09020616070		18.67	3	SC		2.7
<i>Helicopsyche borealis</i>	09020616070137	18.67			--	2.7	
Leptoceridae	09020618				--		
<i>Mystacides</i>	09020618075		2.67	4	CG		0.4
<i>Mystacides sepulchralis</i>	09020618075147	2.67			--	0.4	
<i>Oecetis</i>	09020618078	2.67	4.00	8	PR	0.4	0.6
<i>Oecetis avara</i>	09020618078153	1.33			--	0.2	
Chironomidae	09021011	2.67			--	0.4	
<i>Ablabesmyia</i>	09021011001	1.33	1.34	8	PR	0.2	0.2
<i>Labrundinia</i>	09021011008	6.67	6.71	7	PR	1.0	1.0
<i>Paramerina</i>	09021011013	6.67	6.71		--	1.0	1.0
<i>Procladius</i>	09021011015	1.33	1.34	9	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		24.16	3	PR		3.5
<i>Thienemannimyia group</i>	09021011020041	24.00			--	3.5	
<i>Corynoneura</i>	09021011036	1.33	1.34	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037	13.33	34.89	7	SH	1.9	5.1
<i>Cricotopus bicinctus</i>	09021011037057	21.33			--	3.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Orthocladius</i>	09021011050		12.08	6	CG		1.7
<i>Orthocladius annectens</i>	09021011050092	12.00			--	1.7	
<i>Cladotanytarsus</i>	09021011068	5.33	5.37	7	CG	0.8	0.8
<i>Paratanytarsus</i>	09021011071	24.00	24.16	6	--	3.5	3.5
<i>Rheotanytarsus</i>	09021011072		22.81	6	CF		3.3
<i>Rheotanytarsus pellucidus</i>	09021011072128	22.67			CF	3.3	
<i>Stempellina</i>	09021011073	1.33	1.34	2	CG	0.2	0.2
<i>Stempellinella</i>	09021011074	5.33	5.37	2	--	0.8	0.8
<i>Tanytarsus</i>	09021011076	192.00	193.25	6	CF	27.8	28.0
<i>Pseudochironomus</i>	09021011078	6.67	6.71	5	CG	1.0	1.0
<i>Dicrotendipes</i>	09021011085	10.67	10.74	8	CG	1.5	1.6
<i>Lauterborniella</i>	09021011092	1.33	1.34		CG	0.2	0.2
<i>Microtendipes</i>	09021011094		41.60	6	CF		6.0
<i>Microtendipes pedellus group</i>	09021011094166	9.33			--	1.4	
<i>Microtendipes rydalensis group</i>	09021011094168	32.00			--	4.6	
<i>Nilothauma</i>	09021011095	4.00	4.03	2	--	0.6	0.6
<i>Paratendipes</i>	09021011100	4.00	4.03	8	CG	0.6	0.6
<i>Phaenopsectra</i>	09021011101	2.67	2.68	7	SC	0.4	0.4
<i>Polypedilum</i>	09021011102		1.34	6	SH		0.2
<i>Polypedilum flavum</i>	09021011102182	1.33			--	0.2	
<i>Psephenus</i>	09021108058		2.67	4	SC		0.4
<i>Psephenus herricki</i>	09021108058028	2.67			--	0.4	
<i>Dubiraphia</i>	09021113064	10.67	10.67	6	--	1.5	1.5
<i>Macronychus</i>	09021113065		1.33	4	--		0.2
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.2	
<i>Optioservus</i>	09021113067	1.33	1.33	3	SC	0.2	0.2
<i>Stenelmis</i>	09021113070	5.33	5.33	5	SC	0.8	0.8
Physidae	10010202	4.00	4.00		SC	0.6	0.6
<i>Gyraulus</i>	10010203029	2.67	2.67		SC	0.4	0.4
<i>Helisoma</i>	10010203030	9.33	9.33		SC	1.4	1.4
<i>Ferrissia</i>	10010204035	6.67	6.67		SC	1.0	1.0