



**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> 2755	Type of Sample: ROCK BAG	Date Deployed: 7/22/2019
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/20/2019

**Classification Attainment**

<b>Statutory Class:</b> AA	<b>Final Determination:</b> A	Date: 3/10/2020
Model Result with P $\geq$ 0.6: A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 3/10/2020	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.54	Class A, B, or C	1.00
Class B	0.40	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.84
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.16

**Model Variables**

01 Total Mean Abundance	253.00	18 Relative Abundance Ephemeroptera	0.39
02 Generic Richness	58.00	19 EPT Generic Richness	25.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	98.00	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.54	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	32.45
06 Hilsenhoff Biotic Index	4.89	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	30.00
07 Relative Abundance - Chironomidae	0.36	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	6.67		
11 <i>Cheumatopsyche</i> Abundance	2.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.39		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.37		
17 Chironomini Abundance (Family Functional Group)	30.11		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Tricorythodes</i>	17.65
2	<i>Maccaffertium</i>	11.73
3	<i>Microtendipes</i>	7.76
4	<i>Tanytarsus</i>	7.09
5	<i>Rheotanytarsus</i>	5.75



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**Station Number: S-268**      Town: China      Date Deployed: 7/22/2019  
**Log Number: 2755**      Waterbody: West Branch Sheepscot River - Station 268      Date Retrieved: 8/20/2019

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 22.6 deg C  
Dissolved Oxygen: 9.08 mg/l  
Dissolved Oxygen Saturation: 104.2 %  
Specific Conductance: 102.2 uS/cm  
Velocity: 12.2 cm/s  
pH: 7.61  
Wetted Width: 4.7 m  
Bankfull Width: 6.5 m  
Depth: 25 cm

**Waterbody Information - Retrieval**

Temperature: 20.8 deg C  
Dissolved Oxygen: 9.02 mg/l  
Dissolved Oxygen Saturation: 99.6 %  
Specific Conductance: 99.6 uS/cm  
Velocity: 33.5 cm/s  
pH: 7.56  
Wetted Width: 6.1 m  
Bankfull Width: 6.5 m  
Depth: 22 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**

BLACKNOSE DACE PRESENT.



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

**Log Number: 2755**

Subsample Factor: X1

Replicates: 3

Calculated: 3/10/2020

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Erpobdella</i>	08030203002	0.33	0.33		--	0.1	0.1
<i>Gammarus</i>	09010201003	2.67	2.67	4	--	1.1	1.1
<i>Orconectes</i>	09010301008	0.33	0.33		CG	0.1	0.1
<i>Acroneuria</i>	09020209042		0.33	0	PR		0.1
<i>Acroneuria lycorias</i>	09020209042125	0.33			--	0.1	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.5
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.1	
<i>Boyeria vinosa</i>	09020301004012	1.00			--	0.4	
Calopterygidae	09020307	3.67	3.67		--	1.4	1.4
Coenagrionidae	09020309	0.33	0.33		--	0.1	0.1
<i>Baetis</i>	09020401001		2.67	4	CG		1.1
<i>Baetis flavistriga</i>	09020401001004	1.33			--	0.5	
<i>Baetis intercalaris</i>	09020401001008	1.33			--	0.5	
<i>Acerpenna</i>	09020401007		4.00	5	CG		1.6
<i>Acerpenna macdunnoughi</i>	09020401007001	4.00			--	1.6	
<i>Proclleon</i>	09020401010	1.67	1.67		CG	0.7	0.7
<i>Dipheter</i>	09020401013		1.33		--		0.5
<i>Dipheter hageni</i>	09020401013001	1.33			--	0.5	
<i>Leucrocuta</i>	09020402011	2.33	2.33	1	SC	0.9	0.9
<i>Stenacron</i>	09020402014	0.67	0.67	7	SC	0.3	0.3
<i>Maccaffertium</i>	09020402015	14.67	29.67	4	SC	5.8	11.7
<i>Maccaffertium modestum</i>	09020402015051	0.33			--	0.1	
<i>Maccaffertium vicarium</i>	09020402015055	14.67			--	5.8	
<i>Paraleptophlebia</i>	09020406026	6.33	6.33	1	CG	2.5	2.5
<i>Eurylophella</i>	09020410036	0.67	1.33	3	CG	0.3	0.5
<i>Eurylophella funeralis</i>	09020410036115	0.67			SH	0.3	
<i>Tricorythodes</i>	09020411038	44.67	44.67	4	CG	17.7	17.7
<i>Caenis</i>	09020412040	3.33	3.33	7	CG	1.3	1.3
<i>Chimarra</i>	09020601003		0.33	2	CF		0.1
<i>Chimarra aterrima</i>	09020601003002	0.33			--	0.1	
<i>Polycentropus</i>	09020603010	2.67	2.67	6	PR	1.1	1.1
<i>Cheumatopsyche</i>	09020604015	2.00	2.00	5	CF	0.8	0.8
<i>Hydropsyche</i>	09020604016		6.67	4	CF		2.6
<i>Hydropsyche sparna</i>	09020604016032	0.33			--	0.1	
<i>Hydropsyche betteni</i>	09020604016037	6.33			--	2.5	
<i>Macrostemum</i>	09020604018	0.33	0.33	3	CF	0.1	0.1
<i>Hydroptila</i>	09020607026	3.00	3.00	6	P	1.2	1.2



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Subsample Factor: X1

Replicates: 3

Calculated: 3/10/2020

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Oxyethira</i>	09020607028	0.33	0.33	3	P	0.1	0.1
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.1	0.1
<i>Helicopsyche</i>	09020616070		1.00	3	SC		0.4
<i>Helicopsyche borealis</i>	09020616070137	1.00			--	0.4	
<i>Mystacides</i>	09020618075		4.00	4	CG		1.6
<i>Mystacides sepulchralis</i>	09020618075147	4.00			--	1.6	
<i>Triaenodes</i>	09020618077	0.33	0.33	6	SH	0.1	0.1
<i>Oecetis</i>	09020618078	4.33	4.33	8	PR	1.7	1.7
<i>Nigronia</i>	09020701003		1.67	0	PR		0.7
<i>Nigronia serricornis</i>	09020701003003	1.67			--	0.7	
<i>Sialis</i>	09020702004	0.67	0.67	4	PR	0.3	0.3
Chironomidae	09021011	1.33			--	0.5	
<i>Ablabesmyia</i>	09021011001	0.67	0.68	8	PR	0.3	0.3
<i>Nilotanytus</i>	09021011012		0.68	6	PR		0.3
<i>Nilotanytus fimbriatus</i>	09021011012027	0.67			--	0.3	
<i>Thienemannimyia</i>	09021011020		1.02	3	PR		0.4
<i>Thienemannimyia group</i>	09021011020041	1.00			--	0.4	
<i>Cricotopus</i>	09021011037	4.33	11.84	7	SH	1.7	4.7
<i>Cricotopus bicinctus</i>	09021011037057	7.33			--	2.9	
<i>Eukiefferiella</i>	09021011041		0.34	8	CG		0.1
<i>Eukiefferiella gracei group</i>	09021011041079	0.33			--	0.1	
<i>Orthocladius</i>	09021011050		0.68	6	CG		0.3
<i>Orthocladius annectens</i>	09021011050092	0.67			--	0.3	
<i>Parametriocnemus</i>	09021011053	0.33	0.34	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	0.33	0.34	6	CG	0.1	0.1
<i>Paratanytarsus</i>	09021011071	9.67	9.81	6	--	3.8	3.9
<i>Rheotanytarsus</i>	09021011072		14.55	6	CF		5.8
<i>Rheotanytarsus exiguus group</i>	09021011072127	12.33			CF	4.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	2.00			CF	0.8	
<i>Stempellinella</i>	09021011074	1.67	1.69	2	--	0.7	0.7
<i>Tanytarsus</i>	09021011076	17.67	17.93	6	CF	7.0	7.1
<i>Microtendipes</i>	09021011094		19.62	6	CF		7.8
<i>Microtendipes pedellus group</i>	09021011094166	0.67			--	0.3	
<i>Microtendipes rydalensis group</i>	09021011094168	18.67			--	7.4	
<i>Phaenopsectra</i>	09021011101	0.67	0.68	7	SC	0.3	0.3
<i>Polypedilum</i>	09021011102		9.81	6	SH		3.9
<i>Polypedilum aviceps</i>	09021011102181	8.67			--	3.4	



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		Actual	Adjusted			Actual	Adjusted
<i>Polypedilum illinoense group</i>	09021011102185	1.00			--	0.4	
<i>Simulium</i>	09021012047	0.67	0.67	4	CF	0.3	0.3
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.1	0.1
Empididae	09021016			6	--		
<i>Hemerodromia</i>	09021016057	3.33	3.33	3	PR	1.3	1.3
<i>Psephenus</i>	09021108058		4.00	4	SC		1.6
<i>Psephenus herricki</i>	09021108058028	4.00			--	1.6	
<i>Dubiraphia</i>	09021113064	13.33	13.33	6	--	5.3	5.3
<i>Macronychus</i>	09021113065		0.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.1	
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.1	0.1
<i>Stenelmis</i>	09021113070	3.67	3.67	5	SC	1.4	1.4
<i>Sperchonopsis</i>	09030107002	0.33	0.33		--	0.1	0.1
<i>Ferrissia</i>	10010204035		1.67		SC		0.7
<i>Ferrissia fragilis</i>	10010204035064	1.67			--	0.7	