

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

Station Information

Station Number: S268	DEP Drainage: Maine Coastal
Waterbody: West Branch Sheepscot River	HUC Code: 01050003
Town: CHINA	HUC Name: St. George-Sheepscot
Directions: Weeks Mills - 100ft upstrm of Dirigo Rd crossing	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 3

Sample Information

Log Number: 1221	Type of Sample: Riffle Bags	Date Deployed: 14-JUL-03
Subsample Factor: X4	Replicates: 3	Date Retrieved: 11-AUG-03

Classification Attainment

Statutory Class: AA	Final Determination: B	
Model Result with P > .6: B	Reason for Determination: Model	
Date Last Calculated:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.18	Class A, B, or C	1.00
Class B	0.72	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.24
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.76

Model Variables

01 Total Abundance of Individuals	649.33	18 Relative Abundance - Ephemeroptera	0.14
02 Generic Richness	44.00	19 EPT Generic Richness	19.00
03 Plecoptera Abundance	5.33	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Abundance	93.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.36	23 Relative Generic Richness- Plecoptera	0.02
06 Hilsenhoff Biotic Index	5.27	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	32.28
07 Relative Abundance - Chironomidae	0.57	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.32	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	34.27
09 <i>Hydropsyche</i> Abundance	54.55	28 EP Generic Richness/14	0.79
11 <i>Cheumatopsyche</i> Abundance	17.45	30 Presence of Class A Indicator Taxa/7	0.29
12 EPT Generic Richness/ Diptera Generic Richness	1.36		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.01	1	Rheotanytarsus	47.74
15 Perlidae Abundance (Family Functional Group)	5.33	2	Hydropsyche	8.40
16 Tanypodinae Abundance (Family Functional Group)	12.13	3	Stenonema	4.46
17 Chironomini Abundance (Family Functional Group)	24.26	4	Tricorythodes	3.70
		5	Oecetis	3.70

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Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature:	20.7 °C	Specific Conductance	68.0 uS/cm	Channel Width:	5.0 m
Velocity:	15 cm/s	Dissolved Oxygen:	8.5 ppm	Channel Depth:	30.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Swamp Hardwood	Partly Open		Not Designated
Upland Hardwood			

Substrate

Boulder	Rubble	Gravel	Sand
5%	55%	10%	30%

Comments about the Station or Sample

8/11/03 Data:
Flow: 17cm.s; Depth: 30cm; Temp: 23.4C; SPC: 67uS/cm; DO: 8.2mg/L; pH: 7.25

Comments about the Final Determination

Low A(.24).

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BioME Aquatic Life Taxonomic Inventory Report

Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Prostoma</i>	04010101001	1.33	1.33		--	0.2	0.2
<i>Nais</i>	08020202009	1.33	4.00		CG	0.2	0.6
<i>Nais simplex</i>	08020202009008	2.67	0.00		--	0.4	0.0
<i>Acroneuria</i>	09020209042	0.00	5.33	0	PR	0.0	0.8
<i>Acroneuria abnormis</i>	09020209042121	1.33	0.00	0	PR	0.2	0.0
<i>Acroneuria lycorias</i>	09020209042125	4.00	0.00		--	0.6	0.0
<i>Calopterygidae</i>	09020307	9.33	9.33		--	1.4	1.4
<i>Argia</i>	09020309048	1.33	2.67	7	PR	0.2	0.4
<i>Argia moesta</i>	09020309048096	1.33	0.00		--	0.2	0.0
<i>Baetidae</i>	09020401	1.33	1.33		--	0.2	0.2
<i>Acerpenna</i>	09020401007	2.67	12.00	5	CG	0.4	1.8
<i>Acerpenna macdunnoughi</i>	09020401007001	9.33	0.00		--	1.4	0.0
<i>Heptageniidae</i>	09020402	14.67	0.00		--	2.3	0.0
<i>Leucrocuta</i>	09020402011	8.00	12.40	1	SC	1.2	1.9
<i>Stenonema</i>	09020402015	13.33	28.93	4	SC	2.1	4.5
<i>Stenonema luteum</i>	09020402015049	4.00	0.00		--	0.6	0.0
<i>Stenonema modestum</i>	09020402015051	1.33	0.00		--	0.2	0.0
<i>Isonychia</i>	09020404018	1.33	1.33	2	CF	0.2	0.2
<i>Leptophlebiidae</i>	09020406	1.33	1.33		--	0.2	0.2
<i>Paraleptophlebia</i>	09020406026	1.33	1.33	1	CG	0.2	0.2
<i>Ephemerellidae</i>	09020410	9.33	9.33		--	1.4	1.4
<i>Serratella</i>	09020410037	0.00	1.33	2	CG	0.0	0.2
<i>Serratella serratoides</i>	09020410037124	1.33	0.00		--	0.2	0.0
<i>Tricorythodes</i>	09020411038	24.00	24.00	4	CG	3.7	3.7
<i>Polycentropodidae</i>	09020603	1.33	1.33		--	0.2	0.2
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	0.2	0.2
<i>Hydropsychidae</i>	09020604	28.00	0.00		--	4.3	0.0
<i>Cheumatopsyche</i>	09020604015	10.67	17.45	5	CF	1.6	2.7
<i>Hydropsyche</i>	09020604016	30.67	54.55	4	CF	4.7	8.4
<i>Hydropsyche morosa</i>	09020604016030	1.33	0.00		--	0.2	0.0
<i>Hydropsyche depravata-complex</i>	09020604016041	1.33	0.00		CF	0.2	0.0
<i>Oxyethira</i>	09020607028	17.33	17.33	3	P	2.7	2.7
<i>Pycnopsyche</i>	09020610049	1.33	1.33	4	SH	0.2	0.2
<i>Ceraclea</i>	09020618072	1.33	1.33	3	CG	0.2	0.2
<i>Oecetis</i>	09020618078	16.00	24.00	8	PR	2.5	3.7
<i>Oecetis persimilis</i>	09020618078157	8.00	0.00		--	1.2	0.0
<i>Nigronia</i>	09020701003	1.33	1.33	0	PR	0.2	0.2

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		Actual	Adjusted			Actual	Adjusted
<i>Chironomidae</i>	09021011	4.00	0.00		--	0.6	0.0
<i>Conchapelopia</i>	09021011004	12.00	12.13	6	PR	1.8	1.9
<i>Potthastia</i>	09021011026	0.00	1.35	2	CG	0.0	0.2
<i>Potthastia longimana</i>	09021011026046	1.33	0.00		--	0.2	0.0
<i>Cricotopus</i>	09021011037	8.00	12.13	7	SH	1.2	1.9
<i>Cricotopus bicinctus</i>	09021011037057	4.00	0.00		--	0.6	0.0
<i>Nanocladius</i>	09021011049	0.00	1.35	3	CG	0.0	0.2
<i>Nanocladius downesi</i>	09021011049092	1.33	0.00		--	0.2	0.0
<i>Rheocricotopus</i>	09021011057	0.00	1.35	6	CG	0.0	0.2
<i>Rheocricotopus robacki</i>	09021011057105	1.33	0.00		--	0.2	0.0
<i>Thienemanniella</i>	09021011062	1.33	2.70	6	CG	0.2	0.4
<i>Thienemanniella xena</i>	09021011062110	1.33	0.00		--	0.2	0.0
<i>Tvetenia</i>	09021011065	0.00	1.35	5	CG	0.0	0.2
<i>Tvetenia paucunca</i>	09021011065114	1.33	0.00		--	0.2	0.0
<i>Rheotanytarsus</i>	09021011072	306.67	310.02	6	CF	47.2	47.7
<i>Tanytarsus</i>	09021011076	1.33	2.70	6	CF	0.2	0.4
<i>Tanytarsus glabrescens</i>	09021011076134	1.33	0.00		--	0.2	0.0
<i>Lauterborniella</i>	09021011092	0.00	1.35		CG	0.0	0.2
<i>Lauterborniella agrayloides</i>	09021011092001	1.33	0.00		--	0.2	0.0
<i>Microtendipes</i>	09021011094	0.00	2.70	6	CF	0.0	0.4
<i>Microtendipes rydalensis-grp.</i>	09021011094168	2.67	0.00		--	0.4	0.0
<i>Nilothauma</i>	09021011095	2.67	2.70	2	--	0.4	0.4
<i>Polypedilum</i>	09021011102	0.00	17.52	6	SH	0.0	2.7
<i>Polypedilum aviceps</i>	09021011102181	16.00	0.00		--	2.5	0.0
<i>Polypedilum illinoense-grp.</i>	09021011102185	1.33	0.00		--	0.2	0.0
<i>Hemerodromia</i>	09021016057	17.33	17.33	3	PR	2.7	2.7
<i>Psephenus</i>	09021108058	0.00	1.33	4	SC	0.0	0.2
<i>Psephenus herricki</i>	09021108058028	1.33	0.00		--	0.2	0.0
<i>Dubiraphia</i>	09021113064	9.33	9.33	6	CG	1.4	1.4
<i>Promoresia</i>	09021113069	0.00	4.00		--	0.0	0.6
<i>Promoresia elegans</i>	09021113069051	1.33	0.00		--	0.2	0.0
<i>Promoresia tardella</i>	09021113069052	2.67	0.00		--	0.4	0.0
<i>Stenelmis</i>	09021113070	2.67	9.33	5	SC	0.4	1.4
<i>Stenelmis crenata</i>	09021113070055	6.67	0.00		--	1.0	0.0
<i>Sperchon</i>	09030107001	1.33	1.33		--	0.2	0.2
<i>Clathrosperchon</i>	09030118001	1.33	1.33		--	0.2	0.2