



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

Station Information

Station Number: S-268 DEP Drainage: St. Croix - Coastal
Waterbody: West Branch Sheepscot River - Station 268 HUC8: 01050003
Town: China HUC8 Name: Coastal Drainages East of Small Po
Directions: WEEKS MILLS - 100 FT UPSTREAM OF DIRIGO RD Latitude: 44 22 4.48 N
CROSSING Longitude: 69 31 52.65 W
Stream Order: 3

Sample Information

Log Number: 1876 Type of Sample: ROCK BAG Date Deployed: 8/3/2009
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/31/2009

Classification Attainment

Statutory Class: AA **Final Determination:** A Date: 4/1/2010
Model Result with P>.6: A **Reason for Determination:** Model
Date Last Calculated: 4/1/2010 **Comments:**

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.78	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
Class A or B	1.00	Class A	0.98
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.02

Model Variables

01 Total Mean Abundance	169.00	18 Relative Abundance Ephemeroptera	0.46
02 Generic Richness	51.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Mean Abundance	78.33	<i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	
05 Shannon-Wiener Generic Diversity	4.44	23 Relative Generic Richness- Plecoptera	0.04
06 Hilsenhoff Biotic Index	4.31	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	3.41
07 Relative Abundance - Chironomidae	0.18	<i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	
08 Relative Generic Richness Diptera	0.31	26 Sum of Abundances: <i>Acroneuria</i> ,	27.14
09 <i>Hydropsyche</i> Abundance	12.62	<i>Maccaffertium</i> , <i>Stenonema</i>	
11 <i>Cheumatopsyche</i> Abundance	2.05	28 EP Generic Richness/14	1.00
12 EPT Generic Richness/ Diptera	1.31	30 Presence of Class A Indicator Taxa/7	0.14
Generic Richness			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	15.27
2	<i>Rheotanytarsus</i>	10.68
3	<i>Tricorythodes</i>	9.27
4	<i>Hydropsyche</i>	7.47
5	<i>Dubiraphia</i>	6.90

13 Relative Abundance - Oligochaeta	0.00
15 Perlidae Mean Abundance	1.67
(Family Functional Group)	
16 Tanypodinae Mean Abundance	0.00
(Family Functional Group)	
17 Chironomini Abundance (Family	8.86
Functional Group)	



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Town: China

Date Deployed: 8/3/2009

Log Number: 1876

Waterbody: West Branch Sheepscot River - Station 2

Date Retrieved: 8/31/2009

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 21.4 deg C
Dissolved Oxygen: 8.2 mg/l
Specific Conductance: 60 uS/cm
Velocity: 73 cm/s
pH: 7.45
Wetted Width: 6.9 m
Bankfull Width: 6.9 m
Depth: 50 cm

Waterbody Information - Retrieval

Temperature: 16.2 deg C
Dissolved Oxygen: 9.2 mg/l
Specific Conductance: 72 uS/cm
Velocity: 31 cm/s
pH: 7.26
Wetted Width: 6.9 m
Bankfull Width: 6.9 m
Depth: 40 cm

Water Chemistry - 8/3/2009

Soluble Reactive Phosphorus	2 ug/l	Nitrate+nitrite As N	0.02 mg/l
Total Phosphorus	0.016 mg/l	Total Kjeldahl Nitrogen	0.4 mg/l
Dissolved Organic Carbon	5.9 mg/l	Total Alkalinity	23 mg/l

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Pasture

Partly Open

Rolling

Upland Hardwood

Potential Stressor

Location

Substrate

Above Road Crossing

Boulder	30 %
Gravel	20 %
Rubble/Cobble	30 %
Sand	10 %

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



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Aquatic Life Taxonomic Inventory Report

Station Number: S-268

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

Log Number: 1876

Subsample Factor: X1

Replicates: 3

Calculated: 4/1/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009	0.33	0.33		CG	0.2	0.2
Perlidae	09020209	0.33	0.33		--	0.2	0.2
<i>Acroneuria</i>	09020209042		1.33	0	PR		0.8
<i>Acroneuria lyctorias</i>	09020209042125	1.33			--	0.8	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.4
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.4	
Gomphidae	09020302	0.33	0.33		--	0.2	0.2
Calopterygidae	09020307	8.33	8.33		--	4.9	4.9
<i>Calopteryx</i>	09020307043		4.67	5	PR		2.8
<i>Calopteryx maculata</i>	09020307043088	4.67			--	2.8	
<i>Argia</i>	09020309048		0.67	7	PR		0.4
<i>Argia moesta</i>	09020309048096	0.67			--	0.4	
<i>Baetis</i>	09020401001	1.33	10.67	4	CG	0.8	6.3
<i>Baetis flavistriga</i>	09020401001004	0.67			--	0.4	
<i>Baetis intercalaris</i>	09020401001008	8.67			--	5.1	
<i>Acerpenna</i>	09020401007	1.33	4.33	5	CG	0.8	2.6
<i>Acerpenna macdunnoughi</i>	09020401007001	2.67			--	1.6	
<i>Acerpenna pygmaea</i>	09020401007011	0.33			--	0.2	
<i>Plauditus</i>	09020401012	0.67	0.67		CG	0.4	0.4
<i>Diphetor</i>	09020401013		1.00		--		0.6
<i>Diphetor hageni</i>	09020401013001	1.00			--	0.6	
Heptageniidae	09020402	3.00			--	1.8	
<i>Epeorus</i>	09020402009	0.33	0.37	0	SC	0.2	0.2
<i>Leucrocota</i>	09020402011	4.33	4.79	1	SC	2.6	2.8
<i>Stenacron</i>	09020402014	0.33	0.37	7	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	8.33	25.80	4	SC	4.9	15.3
<i>Maccaffertium luteum</i>	09020402015049	15.00			--	8.9	
<i>Isonychia</i>	09020404018	1.00	1.00	2	CF	0.6	0.6
Leptophlebiidae	09020406	2.33	2.33		--	1.4	1.4
<i>Ephemerella</i>	09020410035	11.33	11.33	1	CG	6.7	6.7
<i>Tricorythodes</i>	09020411038	15.67	15.67	4	CG	9.3	9.3
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.2	0.2
<i>Neureclipsis</i>	09020603008	1.00	1.00	7	CF	0.6	0.6
Hydropsychidae	09020604	0.33			--	0.2	
<i>Cheumatopsyche</i>	09020604015	2.00	2.05	5	CF	1.2	1.2
<i>Hydropsyche</i>	09020604016	5.33	12.62	4	CF	3.2	7.5
<i>Hydropsyche morosa</i>	09020604016030	2.67			--	1.6	
<i>Hydropsyche sparna</i>	09020604016032	2.33			--	1.4	



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Replicates: 3

Calculated: 4/1/2010

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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche depravata complex</i>	09020604016041	2.00			CF	1.2	
<i>Helicopsyche</i>	09020616070		0.67	3	SC		0.4
<i>Helicopsyche borealis</i>	09020616070137	0.67			--	0.4	
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.2	0.2
<i>Oecetis</i>	09020618078	0.67	3.67	8	PR	0.4	2.2
<i>Oecetis persimilis</i>	09020618078157	3.00			--	1.8	
<i>Nigronia</i>	09020701003		1.00	0	PR		0.6
<i>Nigronia serricornis</i>	09020701003003	1.00			--	0.6	
Chironomidae	09021011	0.67			--	0.4	
<i>Brillia</i>	09021011033	0.33	0.34	5	SH	0.2	0.2
<i>Corynoneura</i>	09021011036	0.33	0.34	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037		0.34	7	SH		0.2
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.2	
<i>Nanocladius</i>	09021011049	0.33	1.02	3	CG	0.2	0.6
<i>Nanocladius branchicolus</i>	09021011049091	0.33			--	0.2	
<i>Nanocladius sp. 5 epler</i>	09021011049094	0.33			--	0.2	
<i>Rheocricotopus</i>	09021011057		0.34	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.2	
<i>Thienemanniella</i>	09021011062	0.67	0.68	6	CG	0.4	0.4
<i>Rheotanytarsus</i>	09021011072	17.67	18.05	6	CF	10.5	10.7
<i>Tanytarsus</i>	09021011076	1.00	1.02	6	CF	0.6	0.6
<i>Microtendipes</i>	09021011094		3.41	6	CF		2.0
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	3.00			--	1.8	
<i>Phaenopsectra</i>	09021011101		1.70	7	SC		1.0
<i>Phaenopsectra obediens</i>	09021011101182	1.67			SC	1.0	
<i>Polypedilum</i>	09021011102		3.41	6	SH		2.0
<i>Polypedilum aviceps</i>	09021011102181	3.33			--	2.0	
<i>Stenochironomus</i>	09021011105	0.33	0.34	5	CG	0.2	0.2
<i>Simulium</i>	09021012047		0.67	4	CF		0.4
<i>Simulium tuberosum</i>	09021012047067	0.67			--	0.4	
<i>Atherix</i>	09021015055	0.67	0.67	2	PR	0.4	0.4
<i>Hemerodromia</i>	09021016057	3.67	3.67	3	PR	2.2	2.2
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.2	0.2
<i>Psephenus</i>	09021108058		1.33	4	SC		0.8
<i>Psephenus herricki</i>	09021108058028	1.33			--	0.8	
<i>Dubiraphia</i>	09021113064	11.67	11.67	6	--	6.9	6.9
<i>Macronychus</i>	09021113065		0.67	4	--		0.4



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<i>Macronychus glabratus</i>	09021113065040	0.67			--	0.4	
<i>Promoresia</i>	09021113069		0.33		--		0.2
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.2	
<i>Stenelmis</i>	09021113070	0.33	1.00	5	SC	0.2	0.6
<i>Stenelmis crenata</i>	09021113070055	0.67			--	0.4	
<i>Ferrissia</i>	10010204035		0.33		SC		0.2
<i>Ferrissia rivularis</i>	10010204035066	0.33			--	0.2	
<i>Pisidium</i>	10020201002	0.67	0.67		CF	0.4	0.4