



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

Station Information

**Station Number:** S-27  
**Waterbody:** West Branch Sebasticook River - Station 27  
**Town:** Pittsfield  
**Directions:** 2.1 KM BELOW RT. 100 CROSSING  
**DEP Drainage:**  
**HUC8:** 01030003  
**HUC8 Name:** Lower Kennebec  
**Latitude:** 44 46 36.85 N  
**Longitude:** 69 21 54.98 W  
**Stream Order:** 4

Sample Information

**Log Number:** 2109  
**Type of Sample:** ROCK BASKET  
**Date Deployed:** 7/16/2012  
**Subsample Factor:** X1  
**Replicates:** 2  
**Date Retrieved:** 8/14/2012

Classification Attainment

**Statutory Class:** C  
**Final Determination:** B  
**Date:** 1/16/2013  
**Model Result with P>.6:** B  
**Reason for Determination:** Model  
**Date Last Calculated:** 1/15/2013  
**Comments:** Water level fluctuation due to hydro.

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.22	Class A, B, or C	1.00
Class B	0.53	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.87	Class A	0.09
Class C or Non-Attainment	0.13	Class B or C or Non-Attainment	0.91

Model Variables

01 Total Mean Abundance	203.00	18 Relative Abundance Ephemeroptera	0.25
02 Generic Richness	39.00	19 EPT Generic Richness	17.00
03 Plecoptera Mean Abundance	0.50	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.51
04 Ephemeroptera Mean Abundance	51.00	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.64	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	31.93
06 Hilsenhoff Biotic Index	5.09	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	16.50
07 Relative Abundance - Chironomidae	0.46	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	1.12		
11 <i>Cheumatopsyche</i> Abundance	27.88		
12 EPT Generic Richness/ Diptera Generic Richness	1.42		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.50		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.55		
17 Chironomini Abundance (Family Functional Group)	50.04		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Polypedilum</i>	24.15
2	<i>Rheotanytarsus</i>	16.68
3	<i>Cheumatopsyche</i>	13.74
4	<i>Serratella</i>	9.11
5	<i>Maccaffertium</i>	7.88



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	27.6 deg C
Dissolved Oxygen:	7.6 mg/l
Specific Conductance:	88 uS/cm
Velocity:	91 cm/s
pH:	6.72
Wetted Width:	47 m
Bankfull Width:	52 m
Depth:	50 cm

**Waterbody Information - Retrieval**

Temperature:	26.9 deg C
Dissolved Oxygen:	11.3 mg/l
Specific Conductance:	129 uS/cm
Velocity:	
pH:	7.74
Wetted Width:	
Bankfull Width:	52 m
Depth:	15 cm

**Water Chemistry - 8/14/2012**

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.04 mg/l	Total Phosphorus	0.013 mg/l
Total Kjeldahl Nitrogen	0.4 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	5.3 mg/l	Total Dissolved Solids	59 mg/l

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Flat
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Below Dam	Boulder 15 %
Urban Runoff	Below Town	Gravel 30 %
	Below Urban NPS	Rubble/Cobble 55 %

**Landcover Summary - 2004 Data**

Total Area (ac)	199849	High Int. Dev. %	0.2	Water %	3.6	Non-vegetated %	0.1
		Med Int. Dev. %	0.2	Wetland %	5.2	Tilled Agriculture %	4.0
		Low Int. Dev. %	4.1	Upland Woody %	79.3	Grassland %	3.2
		Development %	4.5	Natural %	84.5	Human Altered %	12.0
						Impervious %	2.0

**Sample Comments**

8/14/12: WATER LEVEL LOW AT 11:30AM - 1 BASKET DRY, 2 HALF WATERED; AT 12PM WATER LEVEL AT BASKET LOCATION ROSE 15CM AND VELOCITY WENT FROM VISIBLE TO 46.9CM/SEC.  
7/16/12: HIGH WATER LEVEL.



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**Aquatic Life Taxonomic Inventory Report**

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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>Hyalella</i>	09010203006		1.00	8	CG		0.5
<i>Hyalella azteca</i>	09010203006011	1.00			--	0.5	
<i>Acroneuria</i>	09020209042		0.50	0	PR		0.2
<i>Acroneuria lycorias</i>	09020209042125	0.50			--	0.2	
<i>Boyeria</i>	09020301004		1.00	2	PR		0.5
<i>Boyeria vinosa</i>	09020301004012	1.00			--	0.5	
<i>Argia</i>	09020309048	0.50	0.50	7	PR	0.2	0.2
<i>Baetis</i>	09020401001		0.50	4	CG		0.2
<i>Baetis flavistriga</i>	09020401001004	0.50			--	0.2	
<i>Acerpenna</i>	09020401007	0.50	8.50	5	CG	0.2	4.2
<i>Acerpenna macdunnoughi</i>	09020401007001	0.50			--	0.2	
<i>Acerpenna pygmaea</i>	09020401007011	7.50			--	3.7	
<i>Procladius</i>	09020401010	0.50	0.50		CG	0.2	0.2
<i>Maccaffertium</i>	09020402015	6.50	16.00	4	SC	3.2	7.9
<i>Maccaffertium modestum</i>	09020402015051	9.50			--	4.7	
<i>Isonychia</i>	09020404018	3.00	3.00	2	CF	1.5	1.5
<i>Ephemerella</i>	09020410035	0.50	0.50	1	CG	0.2	0.2
<i>Serratella</i>	09020410037		18.50	2	CG		9.1
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	18.50			--	9.1	
<i>Tricorythodes</i>	09020411038	3.50	3.50	4	CG	1.7	1.7
<i>Chimarra</i>	09020601003	0.50	0.50	2	CF	0.2	0.2
<i>Neureclipsis</i>	09020603008	12.00	12.00	7	CF	5.9	5.9
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	0.5	0.5
Hydropsychidae	09020604	3.00			--	1.5	
<i>Cheumatopsyche</i>	09020604015	25.00	27.88	5	CF	12.3	13.7
<i>Hydropsyche</i>	09020604016		1.12	4	CF		0.5
<i>Hydropsyche morosa</i>	09020604016030	1.00			--	0.5	
<i>Hydroptila</i>	09020607026	1.00	1.00	6	P	0.5	0.5
<i>Micrasema</i>	09020609044		1.00	2	SH		0.5
<i>Micrasema wataga</i>	09020609044101	1.00			--	0.5	
<i>Oecetis</i>	09020618078	0.50	0.50	8	PR	0.2	0.2
<i>Climacia</i>	09020801001	0.50	0.50		PR	0.2	0.2
Chironomidae	09021011	1.00			--	0.5	
<i>Ablabesmyia</i>	09021011001		1.01	8	PR		0.5
<i>Ablabesmyia mallochii</i>	09021011001004	1.00			--	0.5	
<i>Pentaneura</i>	09021011014		3.54	6	PR		1.7
<i>Pentaneura inconspicua</i>	09021011014028	3.50			--	1.7	
<i>Cricotopus</i>	09021011037	1.50	2.02	7	SH	0.7	1.0



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		Actual	Adjusted			Actual	Adjusted
<i>Cricotopus bicinctus</i>	09021011037057	0.50			--	0.2	
<i>Rheocricotopus</i>	09021011057		0.51	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	0.50			--	0.2	
<i>Tvetenia</i>	09021011065		0.51	5	CG		0.2
<i>Tvetenia vitracies</i>	09021011065113	0.50			--	0.2	
<i>Rheotanytarsus</i>	09021011072	33.50	33.87	6	CF	16.5	16.7
<i>Tanytarsus</i>	09021011076	1.00	1.01	6	CF	0.5	0.5
<i>Dicrotendipes</i>	09021011085	0.50	0.51	8	CG	0.2	0.2
<i>Paratendipes</i>	09021011100		0.51	8	CG		0.2
<i>Paratendipes albimanus group</i>	09021011100176	0.50			--	0.2	
<i>Polypedilum</i>	09021011102		49.03	6	SH		24.2
<i>Polypedilum flavum</i>	09021011102182	12.00			--	5.9	
<i>Polypedilum illinoense group</i>	09021011102185	36.50			--	18.0	
<i>Simulium</i>	09021012047	0.50	0.50	4	CF	0.2	0.2
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.5	0.5
<i>Enochrus</i>	09021105044		0.50		CG		0.2
<i>Enochrus ochraceus</i>	09021105044001	0.50			--	0.2	
<i>Psephenus</i>	09021108058		0.50	4	SC		0.2
<i>Psephenus herricki</i>	09021108058028	0.50			--	0.2	
<i>Microcylloepus</i>	09021113066	4.50	4.50	3	--	2.2	2.2
<i>Optioservus</i>	09021113067	0.50	0.50	3	SC	0.2	0.2
<i>Promoresia</i>	09021113069		1.00		--		0.5
<i>Promoresia tardella</i>	09021113069052	1.00			--	0.5	
<i>Stenelmis</i>	09021113070	0.50	2.50	5	SC	0.2	1.2
<i>Stenelmis concinna</i>	09021113070054	2.00			--	1.0	