



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

Station Information

Station Number: S-617	DEP Drainage: Kennebec
Waterbody: Sandy River - Station 617	HUC8: 01030003
Town: New Sharon	HUC8 Name: Lower Kennebec
Directions: DWNSTRM OF RT 2/27 BRIDGE	Latitude: 44 38 19.97 N
	Longitude: 70 0 49.35 W
	Stream Order: 4

Sample Information

Log Number: 1660	Type of Sample: ROCK BAG	Date Deployed: 7/18/2007
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/15/2007

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 2/27/2008
Model Result with P>.6: B	Reason for Determination: Model	
Date Last Calculated: 3/18/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.31	Class A, B, or C	1.00
Class B	0.66	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.34
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.66

Model Variables

01 Total Mean Abundance	1914.67	18 Relative Abundance Ephemeroptera	0.20
02 Generic Richness	44.00	19 EPT Generic Richness	23.00
03 Plecoptera Mean Abundance	12.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	380.00	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.86	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	300.71
06 Hilsenhoff Biotic Index	4.01	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	78.67
07 Relative Abundance - Chironomidae	0.20	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	358.22		
11 <i>Cheumatopsyche</i> Abundance	281.36		
12 EPT Generic Richness/ Diptera Generic Richness	1.35		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	12.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	20.73		
17 Chironomini Abundance (Family Functional Group)	200.36		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	18.71
2	<i>Cheumatopsyche</i>	14.69
3	<i>Macrostemum</i>	12.97
4	<i>Polypedilum</i>	9.89
5	<i>Chimarra</i>	8.01



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Town: New Sharon
Waterbody: Sandy River - Station 617

Date Deployed: 7/18/2007
Date Retrieved: 8/15/2007

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 22.5 deg C
Dissolved Oxygen: 7.5 mg/l
Specific Conductance: 47 uS/cm
Velocity: 44 cm/s
pH: 6.55
Wetted Width: 48 m
Bankfull Width: 62 m
Depth: 50 cm

Waterbody Information - Retrieval

Temperature: 21.4 deg C
Dissolved Oxygen: 7.9 mg/l
Specific Conductance: 45 uS/cm
Velocity: 28 cm/s
pH: 6.62
Wetted Width:
Bankfull Width:
Depth: 44 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Canopy Open	Rolling Terrain

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Road Crossing	Boulder	70 %
		Gravel	5 %
		Rubble/Cobble	20 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	166583	High Int. Dev. %	0.4	Water %	2.2	Non-vegetated %	0.2
Total Land (ac)	163074	Med Int. Dev. %	0.4	Wetland %	3.5	Tilled Agriculture %	2.1
		Low Int. Dev. %	1.8	Upland Woody %	85.5	Human Altered %	10.9
		Development %	2.7	Natural %	89.1	Impervious %	2.8

Sample Comments



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Town: New Sharon

Log Number: 1660

Subsample Factor: X4

Replicates: 3

Calculated: 3/18/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Acroneuria</i>	09020209042	1.33	10.67	0	PR	0.1	0.6
<i>Acroneuria abnormis</i>	09020209042121	5.33		0	PR	0.3	
<i>Acroneuria lycorias</i>	09020209042125	4.00			--	0.2	
<i>Perlesta</i>	09020209046	1.33	1.33	5	PR	0.1	0.1
Baetidae	09020401	6.67			--	0.3	
<i>Baetis</i>	09020401001	8.00	48.07	4	CG	0.4	2.5
<i>Baetis flavistriga</i>	09020401001004	13.33			--	0.7	
<i>Baetis intercalaris</i>	09020401001008	20.00			--	1.0	
<i>Baetis pluto</i>	09020401001009	2.67			--	0.1	
<i>Acerpenna</i>	09020401007	4.00	17.48	5	CG	0.2	0.9
<i>Acerpenna pygmaea</i>	09020401007011	12.00			--	0.6	
<i>Plauditus</i>	09020401012	12.00	13.11		CG	0.6	0.7
<i>Epeorus</i>	09020402009	4.00	4.00	0	SC	0.2	0.2
<i>Leucrocuta</i>	09020402011	98.67	98.67	1	SC	5.2	5.2
<i>Maccaffertium</i>	09020402015	36.00	68.00	4	SC	1.9	3.6
<i>Maccaffertium luteum</i>	09020402015049	14.67			--	0.8	
<i>Maccaffertium mediopunctatum</i>	09020402015050	6.67			--	0.3	
<i>Maccaffertium modestum</i>	09020402015051	10.67			--	0.6	
<i>Isonychia</i>	09020404018	68.00	68.00	2	CF	3.6	3.6
EphemereLLidae	09020410	4.00	4.00		--	0.2	0.2
<i>Serratella</i>	09020410037		50.67	2	CG		2.6
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	30.67			--	1.6	
<i>Serratella serratoides</i>	09020410037124	20.00			--	1.0	
<i>Tricorythodes</i>	09020411038	8.00	8.00	4	CG	0.4	0.4
<i>Chimarra</i>	09020601003	153.33	153.33	2	CF	8.0	8.0
<i>Neureclipsis</i>	09020603008	34.67	34.67	7	CF	1.8	1.8
<i>Nyctiophylax</i>	09020603009		1.33	5	PR		0.1
<i>Nyctiophylax celta</i>	09020603009012	1.33			--	0.1	
Hydropsychidae	09020604	25.33			--	1.3	
<i>Cheumatopsyche</i>	09020604015	273.33	281.36	5	CF	14.3	14.7
<i>Hydropsyche</i>	09020604016	121.33	358.22	4	CF	6.3	18.7
<i>Hydropsyche morosa</i>	09020604016030	188.00			--	9.8	
<i>Hydropsyche slossonae</i>	09020604016031	1.33			--	0.1	
<i>Hydropsyche sparna</i>	09020604016032	20.00			--	1.0	
<i>Hydropsyche phalerata</i>	09020604016047	5.33			--	0.3	
<i>Hydropsyche scalaris group</i>	09020604016048	12.00			--	0.6	
<i>Macrostemum</i>	09020604018		248.42	3	CF		13.0
<i>Macrostemum zebratum</i>	09020604018054	241.33			--	12.6	



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Glossosomatidae	09020606	1.33	1.33		--	0.1	0.1
<i>Hydroptila</i>	09020607026	1.33	1.33	6	P	0.1	0.1
<i>Lepidostoma</i>	09020611064	2.67	2.67	1	SH	0.1	0.1
<i>Ceraclea</i>	09020618072	1.33	1.33	3	CG	0.1	0.1
<i>Oecetis</i>	09020618078	2.67	6.67	8	PR	0.1	0.3
<i>Oecetis avara</i>	09020618078153	4.00			--	0.2	
<i>Corydalus</i>	09020701002		1.33	6	PR		0.1
<i>Corydalus cornutus</i>	09020701002002	1.33			--	0.1	
<i>Antocha</i>	09021001004	1.33	1.33	3	CG	0.1	0.1
Chironomidae	09021011	13.33			--	0.7	
<i>Nilotanyus</i>	09021011012		1.38	6	PR		0.1
<i>Nilotanyus fimbriatus</i>	09021011012027	1.33			--	0.1	
<i>Pentaneura</i>	09021011014		8.29	6	PR		0.4
<i>Pentaneura inconspicua</i>	09021011014028	8.00			--	0.4	
<i>Rheopelopia</i>	09021011017	10.67	11.05		PR	0.6	0.6
<i>Cricotopus</i>	09021011037	1.33	13.82	7	SH	0.1	0.7
<i>Cricotopus bicinctus</i>	09021011037057	12.00			--	0.6	
<i>Nanocladius</i>	09021011049		1.38	3	CG		0.1
<i>Nanocladius distinctus</i>	09021011049087	1.33			--	0.1	
<i>Orthocladius</i>	09021011050		2.76	6	CG		0.1
<i>Orthocladius annectens</i>	09021011050092	2.67			--	0.1	
<i>Rheocricotopus</i>	09021011057		4.15	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	4.00			--	0.2	
<i>Thienemanniella</i>	09021011062	1.33	5.53	6	CG	0.1	0.3
<i>Thienemanniella similis</i>	09021011062111	1.33			--	0.1	
<i>Thienemanniella taurocapita</i>	09021011062115	2.67			--	0.1	
<i>Tvetenia</i>	09021011065		11.05	5	CG		0.6
<i>Tvetenia vitracies</i>	09021011065113	10.67			--	0.6	
<i>Rheotanytarsus</i>	09021011072	110.67	114.69	6	CF	5.8	6.0
<i>Tanytarsus</i>	09021011076	4.00	5.53	6	CF	0.2	0.3
<i>Tanytarsus glabrescens group sp. 1</i>	09021011076137	1.33			CF	0.1	
<i>Microtendipes</i>	09021011094		9.67	6	CF		0.5
<i>Microtendipes rydalensis group</i>	09021011094168	9.33			--	0.5	
<i>Nilothauma</i>	09021011095	1.33	1.38	2	--	0.1	0.1
<i>Polypedilum</i>	09021011102		189.31	6	SH		9.9
<i>Polypedilum flavum</i>	09021011102182	182.67			--	9.5	
<i>Simulium</i>	09021012047		25.33	4	CF		1.3
<i>Simulium fibrinflatum</i>	09021012047059	9.33			--	0.5	



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<i>Simulium jenningsi complex</i>	09021012047070	16.00			CF	0.8	
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	0.1	0.1
<i>Psephenus</i>	09021108058		1.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	1.33			--	0.1	
<i>Promoresia</i>	09021113069		13.33		--		0.7
<i>Promoresia elegans</i>	09021113069051	10.67			--	0.6	
<i>Promoresia tardella</i>	09021113069052	2.67			--	0.1	
<i>Stenelmis</i>	09021113070	4.00	8.00	5	SC	0.2	0.4
<i>Stenelmis crenata</i>	09021113070055	4.00			--	0.2	