



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

Station Information

Station Number: S-16	DEP Drainage: Kennebec
Waterbody: Carrabassett River - Station 16	HUC8: 01030003
Town: Kingfield	HUC8 Name: Lower Kennebec
Directions: 0.9 KM BELOW RT. 16 BRIDGE CROSSING	Latitude: 44 57 9.64 N
	Longitude: 70 8 51.08 W
	Stream Order: 4

Sample Information

Log Number: 1669	Type of Sample: ROCK BAG	Date Deployed: 7/24/2007
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/21/2007

Classification Attainment

Statutory Class: A	Final Determination: A	Date: 4/8/2008
Model Result with P>.6: A	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	0.37	Class A, B, or C	1.00
Class B	0.60	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.93
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.07

Model Variables

01 Total Mean Abundance	988.00	18 Relative Abundance Ephemeroptera	0.11
02 Generic Richness	56.00	19 EPT Generic Richness	28.00
03 Plecoptera Mean Abundance	14.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	142.57
04 Ephemeroptera Mean Abundance	109.33	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	4.16	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	150.64
06 Hilsenhoff Biotic Index	4.87	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	19.50
07 Relative Abundance - Chironomidae	0.47	28 EP Generic Richness/14	1.00
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	225.87		
11 <i>Cheumatopsyche</i> Abundance	91.46		
12 EPT Generic Richness/ Diptera Generic Richness	1.27		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	12.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	13.45		
17 Chironomini Abundance (Family Functional Group)	99.53		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	22.86
2	<i>Micropsectra</i>	14.43
3	<i>Cheumatopsyche</i>	9.26
4	<i>Rheotanytarsus</i>	7.35
5	<i>Polypedilum</i>	6.81



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Date Retrieved: 8/21/2007

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 22.4 deg C
Dissolved Oxygen: 8.9 mg/l
Specific Conductance: 46 uS/cm
Velocity: 26 cm/s
pH: 7.1
Wetted Width: 42 m
Bankfull Width: 46 m
Depth: 55 cm

Waterbody Information - Retrieval

Temperature: 18.2 deg C
Dissolved Oxygen: 10.1 mg/l
Specific Conductance: 42 uS/cm
Velocity: 25 cm/s
pH: 7.07
Wetted Width: 42 m
Bankfull Width: 46 m
Depth: 50 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Pasture

Canopy Open

Rolling Terrain

Upland Hardwood

Stressor

Location

Substrate

Below Point Source

Boulder 15 %

Below Town

Gravel 30 %

Rubble/Cobble 40 %

Sand 15 %

Landcover Summary - 2004 Data

Total Area (ac)	108109	High Int. Dev. %	0.2	Water %	0.4	Non-vegetated %	0.4
Total Land (ac)	107708	Med Int. Dev. %	0.2	Wetland %	2.2	Tilled Agriculture %	0.2
		Low Int. Dev. %	0.8	Upland Woody %	94.1	Human Altered %	2.9
		Development %	1.2	Natural %	97.1	Impervious %	0.8

Sample Comments

SAMPLES IN 4 JARS



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Aquatic Life Taxonomic Inventory Report**

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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>Haploperla</i>	09020208037	2.67	2.67	1	PR	0.3	0.3
Perlidae	09020209	1.33			--	0.1	
<i>Neoperla</i>	09020209048	4.00	4.50	1	PR	0.4	0.5
<i>Agnetina</i>	09020209050		7.50	2	PR		0.8
<i>Agnetina capitata</i>	09020209050152	6.67		2	PR	0.7	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.1
<i>Boyeria grafiana</i>	09020301004011	1.33			--	0.1	
Gomphidae	09020302	1.33	1.33		--	0.1	0.1
Baetidae	09020401	1.33			--	0.1	
<i>Baetis</i>	09020401001	1.33	3.33	4	CG	0.1	0.3
<i>Baetis intercalaris</i>	09020401001008	1.33			--	0.1	
<i>Acerpenna</i>	09020401007		1.67	5	CG		0.2
<i>Acerpenna macdunnoughi</i>	09020401007001	1.33			--	0.1	
<i>Plauditus</i>	09020401012	1.33	1.67		CG	0.1	0.2
Heptageniidae	09020402	2.67			--	0.3	
<i>Leucrocota</i>	09020402011	4.00	4.50	1	SC	0.4	0.5
<i>Maccaffertium</i>	09020402015	9.33	19.50	4	SC	0.9	2.0
<i>Maccaffertium luteum</i>	09020402015049	8.00			--	0.8	
<i>Isonychia</i>	09020404018	4.00	4.00	2	CF	0.4	0.4
Leptophlebiidae	09020406	2.67	2.67		--	0.3	0.3
<i>Ephemerella</i>	09020410035	36.00	36.00	1	CG	3.6	3.6
<i>Serratella</i>	09020410037		9.33	2	CG		0.9
<i>Serratella serratoides</i>	09020410037124	9.33			--	0.9	
<i>Tricorythodes</i>	09020411038	25.33	25.33	4	CG	2.6	2.6
<i>Caenis</i>	09020412040		1.33	7	CG		0.1
<i>Caenis maccafferti</i>	09020412040132	1.33			--	0.1	
Trichoptera	090206	2.67	2.67		--	0.3	0.3
<i>Chimarra</i>	09020601003	2.67	2.67	2	CF	0.3	0.3
Polycentropodidae	09020603	1.33			--	0.1	
<i>Cernotina</i>	09020603006	5.33	5.74		PR	0.5	0.6
<i>Neureclipsis</i>	09020603008	9.33	10.05	7	CF	0.9	1.0
<i>Polycentropus</i>	09020603010	2.67	2.87	6	PR	0.3	0.3
Hydropsychidae	09020604	12.00			--	1.2	
<i>Cheumatopsyche</i>	09020604015	88.00	91.46	5	CF	8.9	9.3
<i>Hydropsyche</i>	09020604016	106.67	225.87	4	CF	10.8	22.9
<i>Hydropsyche bronta</i>	09020604016029	49.33			--	5.0	
<i>Hydropsyche morosa</i>	09020604016030	57.33			--	5.8	
<i>Hydropsyche sparna</i>	09020604016032	4.00			--	0.4	



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		Actual	Adjusted			Actual	Adjusted
<i>Rhyacophila</i>	09020605019		4.00	2	PR		0.4
<i>Rhyacophila carolina group</i>	09020605019067	4.00			PR	0.4	
<i>Oxyethira</i>	09020607028			3	P		
<i>Brachycentrus</i>	09020609043		26.67	0	CF		2.7
<i>Brachycentrus appalachia</i>	09020609043096	26.67			--	2.7	
<i>Lepidostoma</i>	09020611064	4.00	4.00	1	SH	0.4	0.4
<i>Psilotreta</i>	09020614068	2.67	2.67	0	SC	0.3	0.3
<i>Helicopsyche</i>	09020616070		1.33	3	SC		0.1
<i>Helicopsyche borealis</i>	09020616070137	1.33			--	0.1	
Leptoceridae	09020618	2.67			--	0.3	
<i>Mystacides</i>	09020618075		2.00	4	CG		0.2
<i>Mystacides sepulchralis</i>	09020618075147	1.33			--	0.1	
<i>Setodes</i>	09020618076	1.33	2.00	2	CG	0.1	0.2
<i>Oecetis</i>	09020618078		4.00	8	PR		0.4
<i>Oecetis avara</i>	09020618078153	2.67			--	0.3	
<i>Hexatoma</i>	09021001008	1.33	1.33	2	PR	0.1	0.1
Chironomidae	09021011	4.00			--	0.4	
<i>Ablabesmyia</i>	09021011001		1.34	8	PR		0.1
<i>Ablabesmyia mallochii</i>	09021011001004	1.33			--	0.1	
<i>Pentaneura</i>	09021011014		8.07	6	PR		0.8
<i>Pentaneura inconspicua</i>	09021011014028	8.00			--	0.8	
<i>Rheopelopia</i>	09021011017	1.33	4.03		PR	0.1	0.4
<i>Rheopelopia acra group</i>	09021011017036	2.67			--	0.3	
<i>Pagastia</i>	09021011025		1.34	1	--		0.1
<i>Pagastia orthogonia</i>	09021011025001	1.33			--	0.1	
<i>Potthastia</i>	09021011026		1.34	2	CG		0.1
<i>Potthastia gaedii</i>	09021011026045	1.33			--	0.1	
<i>Cricotopus</i>	09021011037	2.67	20.17	7	SH	0.3	2.0
<i>Cricotopus bicinctus</i>	09021011037057	17.33			--	1.8	
<i>Nanocladius</i>	09021011049		1.34	3	CG		0.1
<i>Nanocladius spiniplenus</i>	09021011049090	1.33			--	0.1	
<i>Orthocladius</i>	09021011050		34.97	6	CG		3.5
<i>Orthocladius annectens</i>	09021011050092	34.67			--	3.5	
<i>Parametriocnemus</i>	09021011053	1.33	1.34	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	2.67	2.69	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065	1.33	22.86	5	CG	0.1	2.3
<i>Tvetenia vitracies</i>	09021011065113	21.33			--	2.2	
<i>Micropsectra</i>	09021011070	141.33	142.57	7	CG	14.3	14.4



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<i>Rheotanytarsus</i>	09021011072	72.00	72.63	6	CF	7.3	7.4
<i>Stempellinella</i>	09021011074		2.69	2	--		0.3
<i>Stempellinella sp. a epler</i>	09021011074002	2.67			--	0.3	
<i>Tanytarsus</i>	09021011076	32.00	37.66	6	CF	3.2	3.8
<i>Tanytarsus glabrescens group sp. 1</i>	09021011076137	5.33			CF	0.5	
<i>Microtendipes</i>	09021011094		24.21	6	CF		2.5
<i>Microtendipes pedellus group</i>	09021011094166	9.33			--	0.9	
<i>Microtendipes rydalensis group</i>	09021011094168	14.67			--	1.5	
<i>Nilothauma</i>	09021011095	1.33	1.34	2	--	0.1	0.1
<i>Phaenopsectra</i>	09021011101		6.72	7	SC		0.7
<i>Phaenopsectra obediens</i>	09021011101182	6.67			SC	0.7	
<i>Polypedilum</i>	09021011102		67.25	6	SH		6.8
<i>Polypedilum aviceps</i>	09021011102181	50.67			--	5.1	
<i>Polypedilum flavum</i>	09021011102182	16.00			--	1.6	
<i>Hayesomyia</i>	09021011112		6.72		--		0.7
<i>Hayesomyia senata</i>	09021011112001	6.67			--	0.7	
<i>Simulium tuberosum</i>	09021012047067				--		
<i>Neoplasta</i>	09021016064	1.33	1.33		PR	0.1	0.1
<i>Dubiraphia</i>	09021113064	4.00	4.00	6	--	0.4	0.4
<i>Optioservus</i>	09021113067	1.33	1.33	3	SC	0.1	0.1
<i>Promoresia</i>	09021113069		2.67		--		0.3
<i>Promoresia tardella</i>	09021113069052	2.67			--	0.3	
<i>Stenelmis</i>	09021113070	1.33	1.33	5	SC	0.1	0.1