



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

Station Information

Station Number: S-785	DEP Drainage: Kennebec
Waterbody: Kennebec River - Station 785	HUC8: 01030003
Town: Augusta	HUC8 Name: Lower Kennebec
Directions: 4.3 KM UPSTREAM OF OLD EDWARDS DAM	Latitude: 44 21 41.41 N
	Longitude: 69 44 45.08 W
	Stream Order: 6

Sample Information

Log Number: 1753	Type of Sample: CONE	Date Deployed: 7/28/2008
Subsample Factor: X1	Replicates: 2	Date Retrieved: 8/28/2008

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 5/20/2009
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 5/19/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.75	Class C	0.00
Class B	0.25	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
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	525.50	18 Relative Abundance Ephemeroptera	0.19
02 Generic Richness	39.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	21.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	100.00	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	3.75	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	22.21
06 Hilsenhoff Biotic Index	3.46	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	34.34
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.28	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	119.64		
11 <i>Cheumatopsyche</i> Abundance	22.21	Five Most Dominant Taxa	
12 EPT Generic Richness/ Diptera Generic Richness	1.91	Rank	Taxon Name
13 Relative Abundance - Oligochaeta	0.00	1	<i>Hydropsyche</i>
15 Perlidae Mean Abundance (Family Functional Group)	20.50	2	<i>Chimarra</i>
16 Tanypodinae Mean Abundance (Family Functional Group)	1.50	3	<i>Simulium</i>
17 Chironomini Abundance (Family Functional Group)	32.50	4	<i>Serratella</i>
		5	<i>Polypedilum</i>



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Date Retrieved: 8/28/2008

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 24.1 deg C

Dissolved Oxygen: 8.1 mg/l

Specific Conductance: 48 uS/cm

Velocity:

pH: 6.88

Wetted Width:

Bankfull Width:

Depth: 470 cm

Waterbody Information - Retrieval

Temperature: 22.7 deg C

Dissolved Oxygen:

Specific Conductance: 51 uS/cm

Velocity:

pH:

Wetted Width:

Bankfull Width:

Depth: 230 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Pasture

Canopy Open

Rolling Terrain

Upland Hardwood

Stressor

Location

Substrate

Bedrock 10 %

Boulder 10 %

Gravel 20 %

Rubble/Cobble 60 %

Landcover Summary - 2004 Data

Sample Comments

7/28/08: WATER FLOW IS FAST; DISCHARGES AT HINCKLEY AND WATERVILLE

8/28/08: DEPTH IS APPROXIMATE; FLOW IS FAST; CONE 3 LOST (NO SIGN OF ITS FLOAT)



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Station Number: S-785	Waterbody: Kennebec River - Station 785	Town: Augusta
Log Number: 1753	Subsample Factor: X1	Replicates: 2
		Calculated: 5/19/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Prostoma</i>	04010101001	0.50	0.50		--	0.1	0.1
<i>Lumbriculus</i>	08020101002		0.50		CG		0.1
<i>Lumbriculus variegatus</i>	08020101002001	0.50			--	0.1	
Perlodidae	09020207	0.50	0.50		--	0.1	0.1
Perlidae	09020209	1.00			--	0.2	
<i>Acroneuria</i>	09020209042	1.00	17.87	0	PR	0.2	3.4
<i>Acroneuria lycorias</i>	09020209042125	1.00			--	0.2	
<i>Acroneuria mela</i>	09020209042126	15.00			--	2.9	
<i>Agnatina</i>	09020209050		2.63	2	PR		0.5
<i>Agnatina capitata</i>	09020209050152	2.50		2	PR	0.5	
Baetidae	09020401	1.50			--	0.3	
<i>Baetis</i>	09020401001		3.29	4	CG		0.6
<i>Baetis flavistriga</i>	09020401001004	1.00			--	0.2	
<i>Baetis intercalaris</i>	09020401001008	1.00			--	0.2	
<i>Baetis tricaudatus</i>	09020401001012	1.00			--	0.2	
<i>Acerpenna</i>	09020401007	2.50	10.97	5	CG	0.5	2.1
<i>Acerpenna pygmaea</i>	09020401007011	7.50			--	1.4	
<i>Procloeon</i>	09020401010	0.50	0.55		CG	0.1	0.1
<i>Plautidus</i>	09020401012	2.00	2.19		CG	0.4	0.4
Heptageniidae	09020402	0.50			--	0.1	
<i>Leucrocota</i>	09020402011	1.00	1.03	1	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	13.00	16.47	4	SC	2.5	3.1
<i>Maccaffertium mediopunctatum</i>	09020402015050	1.00			--	0.2	
<i>Maccaffertium modestum</i>	09020402015051	2.00			--	0.4	
<i>Isonychia</i>	09020404018	4.50	4.50	2	CF	0.9	0.9
Ephemerellidae	09020410	5.50	5.50		--	1.0	1.0
<i>Serratella</i>	09020410037		30.00	2	CG		5.7
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	29.50			--	5.6	
<i>Serratella serratoides</i>	09020410037124	0.50			--	0.1	
<i>Tricorythodes</i>	09020411038	25.50	25.50	4	CG	4.9	4.9
<i>Dolophilodes</i>	09020601001			0	CF		
<i>Chimarra</i>	09020601003	119.50	119.50	2	CF	22.7	22.7
<i>Neureclipsis</i>	09020603008	0.50	0.50	7	CF	0.1	0.1
<i>Polycentropus</i>	09020603010	0.50	0.50	6	PR	0.1	0.1
Hydropsychidae	09020604	1.50			--	0.3	
<i>Cheumatopsyche</i>	09020604015	22.00	22.21	5	CF	4.2	4.2
<i>Hydropsyche</i>	09020604016	12.00	119.64	4	CF	2.3	22.8
<i>Hydropsyche morosa</i>	09020604016030	5.00			--	1.0	



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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>Hydropsyche phalerata</i>	09020604016047	76.50			--	14.6	
<i>Hydropsyche scalaris group</i>	09020604016048	3.00			--	0.6	
<i>Hydropsyche simulans</i>	09020604016049	22.00			--	4.2	
<i>Macrostemum</i>	09020604018		16.15	3	CF		3.1
<i>Macrostemum zebratum</i>	09020604018054	16.00			--	3.0	
<i>Lepidostoma</i>	09020611064	7.00	7.00	1	SH	1.3	1.3
Leptoceridae	09020618				--		
<i>Oecetis</i>	09020618078		0.50	8	PR		0.1
<i>Oecetis persimilis</i>	09020618078157	0.50			--	0.1	
<i>Nilotanypus</i>	09021011012		1.50	6	PR		0.3
<i>Nilotanypus fimbriatus</i>	09021011012027	1.50			--	0.3	
<i>Corynoneura</i>	09021011036	1.50	1.50	7	CG	0.3	0.3
<i>Rheocricotopus</i>	09021011057		1.00	6	CG		0.2
<i>Rheocricotopus robacki</i>	09021011057105	1.00			--	0.2	
<i>Tvetenia</i>	09021011065		12.50	5	CG		2.4
<i>Tvetenia vitracies</i>	09021011065113	12.50			--	2.4	
<i>Rheotanytarsus</i>	09021011072	4.50	4.50	6	CF	0.9	0.9
<i>Microtendipes</i>	09021011094		2.50	6	CF		0.5
<i>Microtendipes rydalensis group</i>	09021011094168	2.50			--	0.5	
<i>Polypedilum</i>	09021011102		29.00	6	SH		5.5
<i>Polypedilum flavum</i>	09021011102182	29.00			--	5.5	
<i>Stenochironomus</i>	09021011105	1.00	1.00	5	CG	0.2	0.2
<i>Hayesomyia</i>	09021011112		0.50		--		0.1
<i>Hayesomyia senata</i>	09021011112001	0.50			--	0.1	
<i>Xestochironomus</i>	09021011143	0.50	0.50		PR	0.1	0.1
<i>Simulium</i>	09021012047		35.00	4	CF		6.7
<i>Simulium fibrinflatum</i>	09021012047059	5.50			--	1.0	
<i>Simulium jenningsi</i>	09021012047060	4.00			--	0.8	
<i>Simulium jenningsi complex</i>	09021012047070	25.50			CF	4.9	
<i>Macronychus</i>	09021113065		2.00	4	--		0.4
<i>Macronychus glabratus</i>	09021113065040	2.00			--	0.4	
<i>Promoresia</i>	09021113069		5.00		--		1.0
<i>Promoresia elegans</i>	09021113069051	4.00			--	0.8	
<i>Promoresia tardella</i>	09021113069052	1.00			--	0.2	
<i>Stenelmis</i>	09021113070	13.50	17.50	5	SC	2.6	3.3
<i>Stenelmis concinna</i>	09021113070054	3.50			--	0.7	
<i>Stenelmis crenata</i>	09021113070055	0.50			--	0.1	
<i>Amnicola</i>	10010104013		3.00		SC		0.6



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<i>Amnicola limosa</i>	10010104013018	3.00			--	0.6	
<i>Musculium</i>	10020201001		0.50		CF		0.1
<i>Musculium securis</i>	10020201001003	0.50			CF	0.1	