



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

Station Information

Station Number: S-486
Waterbody: East Branch Wesserunsett Stream - Station 486
Town: Athens
Directions: (WES1) ABOVE RTE 150 NEAR REST AREA
DEP Drainage: Kennebec
HUC8: 01030003
HUC8 Name: Lower Kennebec
Latitude: 44 57 24.29 N
Longitude: 69 38 39.25 W
Stream Order: 3

Sample Information

Log Number: 2113
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/18/2012
Date Retrieved: 8/16/2012

Classification Attainment

Statutory Class: B
Model Result with P>.6: A
Date Last Calculated: 3/7/2013
Final Determination: A
Reason for Determination: Model
Date: 3/7/2013
Comments:

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.79	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	258.00	18 Relative Abundance Ephemeroptera	0.12
02 Generic Richness	49.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	12.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	31.00	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	3.30	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	2.37
06 Hilsenhoff Biotic Index	3.87	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	11.96
07 Relative Abundance - Chironomidae	0.17	28 EP Generic Richness/14	0.79
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	123.98		
11 <i>Cheumatopsyche</i> Abundance	1.68		
12 EPT Generic Richness/ Diptera Generic Richness	1.40		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	8.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.68		
17 Chironomini Abundance (Family Functional Group)	17.05		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	48.06
2	<i>Rheotanytarsus</i>	7.80
3	<i>Polypedilum</i>	6.34
4	<i>Ephemerella</i>	5.17
5	<i>Brachycentrus</i>	4.91



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	21.6 deg C
Dissolved Oxygen:	8 mg/l
Specific Conductance:	92 uS/cm
Velocity:	50 cm/s
pH:	7.67
Wetted Width:	10 m
Bankfull Width:	15 m
Depth:	45 cm

Waterbody Information - Retrieval

Temperature:	19.1 deg C
Dissolved Oxygen:	8.2 mg/l
Specific Conductance:	85 uS/cm
Velocity:	112 cm/s
pH:	8.24
Wetted Width:	15 m
Bankfull Width:	15 m
Depth:	70 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Conifer

Upland Hardwood

Potential Stressor

Canopy Cover

Partly Open

Location

Above Road Crossing

Terrain

Rolling

Substrate

Bedrock	5 %
Boulder	75 %
Gravel	5 %
Rubble/Cobble	15 %

Landcover Summary - 2004 Data

Total Area (ac)	11673	High Int. Dev. %	0.0	Water %	1.4	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	2.1	Tilled Agriculture %	1.2
		Low Int. Dev. %	3.0	Upland Woody %	91.7	Grassland %	0.6
		Development %	3.0	Natural %	93.8	Human Altered %	4.8
						Impervious %	0.9

Sample Comments

HEAVY RAIN DURING RETRIEVAL; WATER LEVEL VERY HIGH (STORM FLOW).
FISH OBSERVED DURING DEPLOYMENT AND RETRIEVAL.



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Aquatic Life Taxonomic Inventory Report**

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Log Number: 2113

Subsample Factor: X1

Replicates: 3

Calculated: 3/7/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Turbellaria	0301	0.33	0.33		--	0.1	0.1
<i>Girardia</i>	03010102002		0.33		--		0.1
<i>Girardia tigrina</i>	03010102002001	0.33			--	0.1	
<i>Pteronarcys</i>	09020205023		4.00	0	SH		1.6
<i>Pteronarcys biloba</i>	09020205023061	4.00			--	1.6	
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042	2.67	4.00	0	PR	1.0	1.6
<i>Acroneuria abnormis</i>	09020209042121	1.00		0	PR	0.4	
<i>Acroneuria lycorias</i>	09020209042125	0.33			--	0.1	
<i>Paragnetina</i>	09020209049	4.00	4.00	1	PR	1.6	1.6
Gomphidae	09020302	0.33	0.33		--	0.1	0.1
<i>Baetis</i>	09020401001	2.00	6.00	4	CG	0.8	2.3
<i>Baetis flavistriga</i>	09020401001004	1.33			--	0.5	
<i>Baetis intercalaris</i>	09020401001008	2.00			--	0.8	
<i>Baetis pluto</i>	09020401001009	0.67			--	0.3	
Heptageniidae	09020402	0.33			--	0.1	
<i>Epeorus</i>	09020402009	1.00	1.04	0	SC	0.4	0.4
<i>Maccaffertium</i>	09020402015	4.67	7.96	4	SC	1.8	3.1
<i>Maccaffertium luteum</i>	09020402015049	2.67			--	1.0	
<i>Maccaffertium modestum</i>	09020402015051	0.33			--	0.1	
<i>Isonychia</i>	09020404018	1.00	1.00	2	CF	0.4	0.4
<i>Ephemerella</i>	09020410035	13.33	13.33	1	CG	5.2	5.2
<i>Serratella</i>	09020410037		1.00	2	CG		0.4
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	1.00			--	0.4	
<i>Tricorythodes</i>	09020411038	0.67	0.67	4	CG	0.3	0.3
<i>Microvelia</i>	09020510025	0.33	0.33		PR	0.1	0.1
<i>Dolophilodes</i>	09020601001	0.67	0.67	0	CF	0.3	0.3
<i>Neureclipsis</i>	09020603008	6.67	6.67	7	CF	2.6	2.6
Hydropsychidae	09020604	1.33			--	0.5	
<i>Cheumatopsyche</i>	09020604015	1.67	1.68	5	CF	0.6	0.7
<i>Hydropsyche</i>	09020604016	99.00	123.98	4	CF	38.4	48.1
<i>Hydropsyche bronta</i>	09020604016029	7.00			--	2.7	
<i>Hydropsyche morosa</i>	09020604016030	6.33			--	2.5	
<i>Hydropsyche slossonae</i>	09020604016031	0.67			--	0.3	
<i>Hydropsyche sparna</i>	09020604016032	9.67			--	3.7	
Phryganeidae	09020608	0.67	0.67		--	0.3	0.3
<i>Brachycentrus</i>	09020609043		12.67	0	CF		4.9
<i>Brachycentrus appalachia</i>	09020609043096	12.67			--	4.9	



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		Actual	Adjusted			Actual	Adjusted
<i>Helicopsyche</i>	09020616070		1.67	3	SC		0.6
<i>Helicopsyche borealis</i>	09020616070137	1.67			--	0.6	
<i>Ceraclea</i>	09020618072	0.67	0.67	3	CG	0.3	0.3
<i>Triaenodes</i>	09020618077	0.33	0.33	6	SH	0.1	0.1
<i>Oecetis</i>	09020618078	0.33	2.33	8	PR	0.1	0.9
<i>Oecetis avara</i>	09020618078153	0.33			--	0.1	
<i>Oecetis persimilis</i>	09020618078157	1.67			--	0.6	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.1	
<i>Petrophila</i>	09020901004	0.33	0.33	5	SC	0.1	0.1
Chironomidae	09021011	1.00			--	0.4	
<i>Rheopelopia</i>	09021011017		0.34		PR		0.1
<i>Rheopelopia acra group</i>	09021011017036	0.33			--	0.1	
<i>Trissopelopia</i>	09021011021		0.34		PR		0.1
<i>Trissopelopia ogemawi</i>	09021011021042	0.33			--	0.1	
<i>Cricotopus</i>	09021011037		0.68	7	SH		0.3
<i>Cricotopus luciae</i>	09021011037073	0.67			--	0.3	
<i>Eukiefferiella</i>	09021011041		0.34	8	CG		0.1
<i>Eukiefferiella claripennis group</i>	09021011041075	0.33			--	0.1	
<i>Nanocladius</i>	09021011049	0.33	0.68	3	CG	0.1	0.3
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.1	
<i>Rheocricotopus</i>	09021011057		0.34	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.1	
<i>Tvetenia</i>	09021011065		4.77	5	CG		1.9
<i>Tvetenia vitracies</i>	09021011065113	4.67			--	1.8	
<i>Rheotanytarsus</i>	09021011072	19.67	20.12	6	CF	7.6	7.8
<i>Lauterborniella</i>	09021011092		0.34		CG		0.1
<i>Lauterborniella agrayloides</i>	09021011092001	0.33			--	0.1	
<i>Nilothauma</i>	09021011095	0.33	0.34	2	--	0.1	0.1
<i>Polypedilum</i>	09021011102		16.37	6	SH		6.3
<i>Polypedilum aviceps</i>	09021011102181	5.67			--	2.2	
<i>Polypedilum flavum</i>	09021011102182	9.67			--	3.7	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.1	
<i>Polypedilum angulum</i>	09021011102198	0.33			--	0.1	
<i>Simulium</i>	09021012047		2.67	4	CF		1.0
<i>Simulium tuberosum</i>	09021012047067	2.67			--	1.0	
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.1	0.1
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.4	0.4



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		Actual	Adjusted			Actual	Adjusted
<i>Roederiodes</i>	09021016058	1.00	1.00	3	PR	0.4	0.4
<i>Neoplasia</i>	09021016064				PR		
<i>Psephenus</i>	09021108058		3.00	4	SC		1.2
<i>Psephenus herricki</i>	09021108058028	3.00			--	1.2	
<i>Ectopria</i>	09021109059	1.00	1.00	5	SC	0.4	0.4
<i>Dubiraphia</i>	09021113064		2.33	6	--		0.9
<i>Dubiraphia minima</i>	09021113064036	2.33			--	0.9	
<i>Macronychus</i>	09021113065		0.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.1	
<i>Optioservus</i>	09021113067		0.33	3	SC		0.1
<i>Optioservus ovalis</i>	09021113067046	0.33			--	0.1	
<i>Promoresia</i>	09021113069		3.33		--		1.3
<i>Promoresia elegans</i>	09021113069051	1.33			--	0.5	
<i>Promoresia tardella</i>	09021113069052	2.00			--	0.8	
<i>Stenelmis</i>	09021113070	0.67	1.00	5	SC	0.3	0.4
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.1	
<i>Physa</i>	10010202026	0.33	0.33		SC	0.1	0.1