



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

Station Information

Station Number: S-488	DEP Drainage: Kennebec
Waterbody: Wesserunsett Stream - Station 488	HUC8: 01030003
Town: Cornville	HUC8 Name: Lower Kennebec
Directions: (WES3) BELOW HUFF RD	Latitude: 44 50 8.08 N
	Longitude: 69 39 9.62 W
	Stream Order: 4

Sample Information

Log Number: 1663	Type of Sample: ROCK BASKET	Date Deployed: 7/19/2007
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/16/2007

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 3/5/2008
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 3/4/2008	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.74	Class A, B, or C	1.00
Class B	0.26	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	318.83	18 Relative Abundance Ephemeroptera	0.19
02 Generic Richness	39.00	19 EPT Generic Richness	22.00
03 Plecoptera Mean Abundance	12.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	59.67	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	4.13	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	22.75
06 Hilsenhoff Biotic Index	3.80	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	23.21
07 Relative Abundance - Chironomidae	0.22	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.26	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	87.61		
11 <i>Cheumatopsyche</i> Abundance	4.73		
12 EPT Generic Richness/ Diptera Generic Richness	2.20		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	11.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	6.18		
17 Chironomini Abundance (Family Functional Group)	11.85		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	27.48
2	<i>Helicopsyche</i>	9.93
3	<i>Baetis</i>	6.17
4	<i>Brachycentrus</i>	6.17
5	<i>Rheotanytarsus</i>	5.06



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 19.9 deg C
Dissolved Oxygen: 8.8 mg/l
Specific Conductance: 78 uS/cm
Velocity: 24 cm/s
pH: 7.93
Wetted Width: 18 m
Bankfull Width: 28 m
Depth: 46 cm

Waterbody Information - Retrieval

Temperature: 19.9 deg C
Dissolved Oxygen: 8.8 mg/l
Specific Conductance: 82 uS/cm
Velocity: 31 cm/s
pH: 7.97
Wetted Width: 18 m
Bankfull Width: 28 m
Depth: 45 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Road Crossing	Bedrock	25 %
	Main Stem	Boulder	65 %
		Rubble/Cobble	10 %

Landcover Summary - 2004 Data

Total Area (ac)	43328	High Int. Dev. %	0.1	Water %	1.6	Non-vegetated %	0.0
Total Land (ac)	42640	Med Int. Dev. %	0.1	Wetland %	1.5	Tilled Agriculture %	2.9
		Low Int. Dev. %	3.7	Upland Woody %	89.0	Human Altered %	9.5
		Development %	4.0	Natural %	90.5	Impervious %	1.4

Sample Comments



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-488

Waterbody: Wesserunsett Stream - Station 488

Town: Cornville

Log Number: 1663

Subsample Factor: X1

Replicates: 3

Calculated: 3/4/2008

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Placobdella</i>	08030101006		1.00		--		0.3
<i>Placobdella ornata</i>	08030101006002	1.00			--	0.3	
Perlodidae	09020207	1.00	1.00		--	0.3	0.3
Perlidae	09020209	1.00			--	0.3	
<i>Acroneuria</i>	09020209042	2.00	10.57	0	PR	0.6	3.3
<i>Acroneuria abnormis</i>	09020209042121	5.33		0	PR	1.7	
<i>Acroneuria lycorias</i>	09020209042125	2.33			--	0.7	
<i>Paragnetina</i>	09020209049		1.09	1	PR		0.3
<i>Paragnetina immarginata</i>	09020209049149	1.00			--	0.3	
<i>Boyeria</i>	09020301004		3.67	2	PR		1.2
<i>Boyeria grafiana</i>	09020301004011	1.67			--	0.5	
<i>Boyeria vinosa</i>	09020301004012	2.00			--	0.6	
Baetidae	09020401	1.00			--	0.3	
<i>Baetis</i>	09020401001	5.00	19.69	4	CG	1.6	6.2
<i>Baetis flavistriga</i>	09020401001004	9.67			--	3.0	
<i>Baetis intercalaris</i>	09020401001008	4.33			--	1.4	
<i>Acerpenna</i>	09020401007	1.00	2.76	5	CG	0.3	0.9
<i>Acerpenna pygmaea</i>	09020401007011	1.67			--	0.5	
<i>Procloeon</i>	09020401010	2.00	2.07		CG	0.6	0.6
<i>Plauditus</i>	09020401012	4.00	4.14		CG	1.3	1.3
Heptageniidae	09020402	2.00			--	0.6	
<i>Epeorus</i>	09020402009	2.00	2.23	0	CG	0.6	0.7
<i>Leucrocuta</i>	09020402011	4.00	4.46	1	SC	1.3	1.4
<i>Maccaffertium</i>	09020402015	4.33	12.64	4	SC	1.4	4.0
<i>Maccaffertium luteum</i>	09020402015049	7.00			--	2.2	
<i>Isonychia</i>	09020404018	7.67	7.67	2	CF	2.4	2.4
<i>Ephemerella</i>	09020410035	2.00	2.00	1	CG	0.6	0.6
<i>Serratella</i>	09020410037		2.00	2	CG		0.6
<i>Serratella deficiens</i>	09020410037121	2.00			--	0.6	
<i>Chimarra</i>	09020601003	3.00	3.00	2	CF	0.9	0.9
<i>Neureclipsis</i>	09020603008	11.00	11.00	7	CF	3.5	3.5
Hydropsychidae	09020604	7.67			--	2.4	
<i>Cheumatopsyche</i>	09020604015	4.33	4.73	5	CF	1.4	1.5
<i>Hydropsyche</i>	09020604016	19.50	87.61	4	CF	6.1	27.5
<i>Hydropsyche bronta</i>	09020604016029	2.50			--	0.8	
<i>Hydropsyche morosa</i>	09020604016030	54.33			--	17.0	
<i>Hydropsyche sparna</i>	09020604016032	3.00			--	0.9	
<i>Hydropsyche scalaris-group</i>	09020604016048	1.00			--	0.3	
<i>Hydroptila</i>	09020607026	1.00	1.00	6	P	0.3	0.3
<i>Brachycentrus</i>	09020609043		19.67	0	CF		6.2
<i>Brachycentrus appalachia</i>	09020609043096	19.67			--	6.2	
<i>Lepidostoma</i>	09020611064	1.00	1.00	1	SH	0.3	0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Helicopsyche</i>	09020616070		31.67	3	SC		9.9
<i>Helicopsyche borealis</i>	09020616070137	31.67			--	9.9	
<i>Oecetis</i>	09020618078		2.00	8	PR		0.6
<i>Oecetis persimilis</i>	09020618078157	2.00			--	0.6	
Chironomidae	09021011	2.00			--	0.6	
<i>Nilotanytus</i>	09021011012		1.03	6	PR		0.3
<i>Nilotanytus fimbriatus</i>	09021011012027	1.00			--	0.3	
<i>Rheopelopia</i>	09021011017	2.00	5.15		PR	0.6	1.6
<i>Rheopelopia acra-grp.</i>	09021011017036	3.00			--	0.9	
<i>Cricotopus</i>	09021011037	3.00	14.94	7	SH	0.9	4.7
<i>Cricotopus bicinctus</i>	09021011037057	10.50			--	3.3	
<i>Cricotopus fugax</i>	09021011037062	1.00			--	0.3	
<i>Nanocladius</i>	09021011049	3.00	11.85	3	CG	0.9	3.7
<i>Nanocladius distinctus</i>	09021011049087	1.00			--	0.3	
<i>Nanocladius branchicolus</i>	09021011049091	2.00			--	0.6	
<i>Nanocladius downesi</i>	09021011049092	5.50			--	1.7	
<i>Thienemanniella</i>	09021011062	4.50	4.64	6	CG	1.4	1.5
<i>Rheotanytarsus</i>	09021011072	15.67	16.14	6	CF	4.9	5.1
<i>Tanytarsus</i>	09021011076	1.00	3.09	6	CF	0.3	1.0
<i>Tanytarsus glabrescens group sp. 1</i>	09021011076137	2.00			CF	0.6	
<i>Polypedilum</i>	09021011102		11.85	6	SH		3.7
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	1.3	
<i>Polypedilum flavum</i>	09021011102182	7.50			--	2.4	
<i>Simulium</i>	09021012047		2.00	4	CF		0.6
<i>Simulium fibrinflatum</i>	09021012047059	1.00			--	0.3	
<i>Simulium jenningsi complex</i>	09021012047070	1.00			CF	0.3	
<i>Atherix</i>	09021015055	1.00	1.00	2	PR	0.3	0.3
<i>Psephenus</i>	09021108058		1.00	4	SC		0.3
<i>Psephenus herricki</i>	09021108058028	1.00			--	0.3	
<i>Dubiraphia</i>	09021113064	1.50	1.50	6	CG	0.5	0.5
<i>Promoresia</i>	09021113069		3.00		--		0.9
<i>Promoresia elegans</i>	09021113069051	3.00			--	0.9	
<i>Stenelmis</i>	09021113070		1.00	5	SC		0.3
<i>Stenelmis crenata</i>	09021113070055	1.00			--	0.3	
<i>Physa</i>	10010202026	2.00	2.00		SC	0.6	0.6