



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

Station Information

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

Sample Information

Log Number: 2562	Type of Sample: ROCK BAG	Date Deployed: 7/12/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/9/2017

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 1/23/2018
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 1/22/2018	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.46	Class A, B, or C	1.00
Class B	0.52	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.99
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	634.00	18 Relative Abundance Ephemeroptera	0.24
02 Generic Richness	44.00	19 EPT Generic Richness	26.00
03 Plecoptera Mean Abundance	6.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	149.33	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	3.52	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	14.00
06 Hilsenhoff Biotic Index	4.19	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	28.67
07 Relative Abundance - Chironomidae	0.37	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.23	30 Presence of Class A Indicator Taxa/7	0.71
09 <i>Hydropsyche</i> Abundance	114.00		
11 <i>Cheumatopsyche</i> Abundance	10.67		
12 EPT Generic Richness/ Diptera Generic Richness	2.60		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	6.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	5.33		
17 Chironomini Abundance (Family Functional Group)	11.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	33.18
2	<i>Hydropsyche</i>	17.98
3	<i>Baetis</i>	7.98
4	<i>Brachycentrus</i>	7.57
5	<i>Leucrocota</i>	5.05



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Log Number: 2562 Waterbody: Wesserunsett Stream - Station 488 Date Retrieved: 8/9/2017

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 23.5 deg C
Dissolved Oxygen: 10.23 mg/l
Dissolved Oxygen Saturation: 119.6 %
Specific Conductance: 72.9 uS/cm
Velocity: 36.6 cm/s
pH: 8.42
Wetted Width: 18 m
Bankfull Width: 24 m
Depth: 46 cm

Waterbody Information - Retrieval

Temperature: 23.6 deg C
Dissolved Oxygen: 10.42 mg/l
Dissolved Oxygen Saturation: 121.8 %
Specific Conductance: 107 uS/cm
Velocity: 24.4 cm/s
pH: 8.54
Wetted Width: 15 m
Bankfull Width: 24 m
Depth: 48 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Hardwood	Open	Hilly	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Road Crossing	Bedrock	30 %
	Main Stem	Boulder	60 %
		Rubble/Cobble	10 %

Landcover Summary - 2004 Data

Total Area (ac)	43328	High Int. Dev. %	0.1	Water %	1.6	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	1.4	Tilled Agriculture %	2.8
		Low Int. Dev. %	3.6	Upland Woody %	87.6	Grassland %	2.6
		Development %	3.9	Natural %	89.1	Human Altered %	9.3
						Impervious %	1.4

Sample Comments

7/12/17: ALGAE ON ROCKS, FISH PRESENT.
8/9/17: FISH PRESENT, ROCKS SILTY AND COVERED IN ALGAE.



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Aquatic Life Taxonomic Inventory Report**

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Waterbody: Wesserunsett Stream - Station 488

Town: Cornville

Log Number: 2562

Subsample Factor: X1

Replicates: 3

Calculated: 1/22/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009	1.33	1.33		CG	0.2	0.2
<i>Acroneuria</i>	09020209042	2.00	2.67	0	PR	0.3	0.4
<i>Acroneuria abnormis</i>	09020209042121	0.67		0	PR	0.1	
<i>Perlesta</i>	09020209046	2.00	2.00	5	PR	0.3	0.3
<i>Paragnetina</i>	09020209049	1.33	1.33	1	PR	0.2	0.2
Baetidae	09020401	0.33			--	0.1	
<i>Baetis</i>	09020401001	6.00	50.60	4	CG	0.9	8.0
<i>Baetis flavistriga</i>	09020401001004	8.67			--	1.4	
<i>Baetis intercalaris</i>	09020401001008	35.67			--	5.6	
<i>Acerpenna</i>	09020401007		4.36	5	CG		0.7
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.1	
<i>Acerpenna pygmaea</i>	09020401007011	4.00			--	0.6	
<i>Plauditus</i>	09020401012	8.00	8.04		CG	1.3	1.3
<i>Iswaeon</i>	09020401015		0.34		--		0.1
<i>Iswaeon anoka</i>	09020401015001	0.33			--	0.1	
<i>Epeorus</i>	09020402009	7.33	7.67	0	SC	1.2	1.2
<i>Epeorus vitreus</i>	09020402009033	0.33			--	0.1	
<i>Leucrocuta</i>	09020402011	32.00	32.00	1	SC	5.0	5.0
<i>Maccaffertium</i>	09020402015	9.67	26.00	4	SC	1.5	4.1
<i>Maccaffertium vicarium</i>	09020402015055	16.33			--	2.6	
<i>Isonychia</i>	09020404018	8.33	8.33	2	CF	1.3	1.3
<i>Drunella</i>	09020410034		0.33	0	SC		0.1
<i>Drunella tuberculata</i>	09020410034101	0.33			--	0.1	
<i>Ephemerella</i>	09020410035	7.67	7.67	1	CG	1.2	1.2
<i>Serratella</i>	09020410037		1.33	2	CG		0.2
<i>Serratella serratoides</i>	09020410037124	1.33			--	0.2	
<i>Tricorythodes</i>	09020411038	2.67	2.67	4	CG	0.4	0.4
<i>Chimarra</i>	09020601003		0.33	2	CF		0.1
<i>Chimarra socia</i>	09020601003004	0.33			--	0.1	
<i>Neureclipsis</i>	09020603008	0.67	0.67	7	CF	0.1	0.1
<i>Cheumatopsyche</i>	09020604015	10.67	10.67	5	CF	1.7	1.7
<i>Hydropsyche</i>	09020604016	69.33	114.00	4	CF	10.9	18.0
<i>Hydropsyche bronta</i>	09020604016029	7.00			--	1.1	
<i>Hydropsyche morosa</i>	09020604016030	27.67			--	4.4	
<i>Hydropsyche sparna</i>	09020604016032	5.33			--	0.8	
<i>Hydropsyche scalaris species group</i>	09020604016048	4.67			--	0.7	
Hydroptilidae	09020607				--		



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		Actual	Adjusted			Actual	Adjusted
<i>Hydroptila</i>	09020607026	11.33	11.33	6	P	1.8	1.8
<i>Mayatrichia</i>	09020607033	0.33	0.33		SC	0.1	0.1
<i>Brachycentrus</i>	09020609043		48.00	0	CF		7.6
<i>Brachycentrus appalachia</i>	09020609043096	48.00			--	7.6	
<i>Micrasema</i>	09020609044			2	SH		
<i>Lepidostoma</i>	09020611064	2.67	2.67	1	SH	0.4	0.4
<i>Psilotreta</i>	09020614068		0.33	0	SC		0.1
<i>Psilotreta indecisa</i>	09020614068132	0.33			--	0.1	
<i>Helicopsyche</i>	09020616070	2.33	2.33	3	SC	0.4	0.4
<i>Oecetis</i>	09020618078	0.67	1.00	8	PR	0.1	0.2
<i>Oecetis avara</i>	09020618078153	0.33			--	0.1	
<i>Thienemannimyia</i>	09021011020		5.33	3	PR		0.8
<i>Thienemannimyia group</i>	09021011020041	5.33			--	0.8	
<i>Cricotopus</i>	09021011037	0.67	3.33	7	SH	0.1	0.5
<i>Cricotopus bicinctus</i>	09021011037057	2.67			--	0.4	
<i>Nanocladius</i>	09021011049	1.33	1.33	3	CG	0.2	0.2
<i>Rheocricotopus</i>	09021011057	1.67	1.67	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		3.33	5	CG		0.5
<i>Tvetenia vitracies</i>	09021011065113	2.67			--	0.4	
<i>Tvetenia paucunca</i>	09021011065114	0.67			--	0.1	
<i>Rheotanytarsus</i>	09021011072	14.67	210.33	6	CF	2.3	33.2
<i>Rheotanytarsus exiguus group</i>	09021011072127	191.00			CF	30.1	
<i>Rheotanytarsus pellucidus</i>	09021011072128	4.67			CF	0.7	
<i>Polypedilum</i>	09021011102		11.33	6	SH		1.8
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	0.6	
<i>Polypedilum flavum</i>	09021011102182	7.33			--	1.2	
<i>Simulium</i>	09021012047	2.33	2.33	4	CF	0.4	0.4
<i>Atherix</i>	09021015055	3.00	3.00	2	PR	0.5	0.5
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.2	0.2
<i>Ancyronyx</i>	09021113063		0.33	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	0.33			CG	0.1	
<i>Dubiraphia</i>	09021113064	5.00	5.00	6	--	0.8	0.8
<i>Macronychus</i>	09021113065		0.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.1	
<i>Microcyloepus</i>	09021113066		4.00	3	--		0.6
<i>Microcyloepus pusillus</i>	09021113066041	4.00			--	0.6	
<i>Promoesia</i>	09021113069		27.00		--		4.3
<i>Promoesia elegans</i>	09021113069051	26.67			--	4.2	



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<i>Promoresia tardella</i>	09021113069052	0.33			--	0.1	
<i>Stenelmis</i>	09021113070	5.67	5.67	5	SC	0.9	0.9
<i>Sperchonopsis</i>	09030107002	0.33	0.33		--	0.1	0.1