



# Maine Department of Environmental Protection

## Biological Monitoring Program

### Aquatic Life Classification Attainment Report

#### Station Information

<b>Station Number:</b> S-836 <b>Waterbody:</b> South Branch Carrabassett River - Station 836 <b>Town:</b> Carrabassett Valley <b>Directions:</b> 90 METERS UPSTREAM OF ROUTE 27	<b>River Basin:</b> Kennebec <b>HUC8 Name:</b> Lower Kennebec <b>Latitude:</b> 45 4 45.18 N <b>Longitude:</b> 70 18 59.81 W <b>Stream Order:</b> 2
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#### Sample Information

<b>Log Number:</b> 2564	Type of Sample: ROCK BAG	Date Deployed: 7/13/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/10/2017

#### Classification Attainment

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

#### Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.84	Class A, B, or C	1.00
Class B	0.16	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	255.00	18 Relative Abundance Ephemeroptera	0.07
02 Generic Richness	42.00	19 EPT Generic Richness	27.00
03 Plecoptera Mean Abundance	9.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	10.75
04 Ephemeroptera Mean Abundance	19.00	23 Relative Generic Richness- Plecoptera	0.17
05 Shannon-Wiener Generic Diversity	3.73	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	4.70
06 Hilsenhoff Biotic Index	3.37	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	1.00
07 Relative Abundance - Chironomidae	0.34	28 EP Generic Richness/14	1.36
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.86
09 <i>Hydropsyche</i> Abundance	49.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.08		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	4.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.03		
17 Chironomini Abundance (Family Functional Group)	28.22		

#### Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Brachycentrus</i>	24.31
2	<i>Hydropsyche</i>	19.22
3	<i>Polypedilum</i>	11.07
4	<i>Tvetenia</i>	10.67
5	<i>Simulium</i>	4.31



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<b>Station Number: S-836</b>	Town: Carrabassett Valley	Date Deployed: 7/13/2017
<b>Log Number: 2564</b>	Waterbody: South Branch Carrabassett River - Station 836	Date Retrieved: 8/10/2017

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature:	14.8 deg C
Dissolved Oxygen:	10.94 mg/l
Dissolved Oxygen Saturation:	111.1 %
Specific Conductance:	26.1 uS/cm
Velocity:	57.9 cm/s
pH:	7.25
Wetted Width:	11.6 m
Bankfull Width:	11.6 m
Depth:	27 cm

**Waterbody Information - Retrieval**

Temperature:	16.7 deg C
Dissolved Oxygen:	10.66 mg/l
Dissolved Oxygen Saturation:	112.3 %
Specific Conductance:	28.7 uS/cm
Velocity:	6.1 cm/s
pH:	7.33
Wetted Width:	11.5 m
Bankfull Width:	11.6 m
Depth:	24 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Partly Open	Hilly
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Above Road Crossing	Boulder 65 %
		Gravel 10 %
		Rubble/Cobble 25 %

**Landcover Summary - 2004 Data**

Total Area (ac)	9426	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.1
		Med Int. Dev. %	0.0	Wetland %	0.4	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.4	Upland Woody %	97.7	Grassland %	0.7
		Development %	0.4	Natural %	98.7	Human Altered %	1.3
						Impervious %	0.1

**Sample Comments**



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**Aquatic Life Taxonomic Inventory Report**

**Station Number: S-836**

Waterbody: South Branch Carrabassett River - Station 83 Town: Carrabassett Valley

**Log Number: 2564**

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>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.1	0.1
<i>Pteronarcys</i>	09020205023	2.33	2.33	0	SH	0.9	0.9
<i>Tallaperla</i>	09020206025	0.33	0.33		SH	0.1	0.1
Perlodidae	09020207	1.33	1.33		--	0.5	0.5
<i>Isoperla</i>	09020207026	0.33	0.33	2	PR	0.1	0.1
Perlidae	09020209	2.00			--	0.8	
<i>Paragnetina</i>	09020209049		0.62	1	PR		0.2
<i>Paragnetina immarginata</i>	09020209049149	0.33			--	0.1	
<i>Agnetina</i>	09020209050		3.71	2	PR		1.5
<i>Agnetina capitata</i>	09020209050152	2.00		2	PR	0.8	
<i>Baetis</i>	09020401001		1.67	4	CG		0.7
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.1	
<i>Baetis tricaudatus</i>	09020401001012	1.33			--	0.5	
<i>Acerpenna</i>	09020401007		2.33	5	CG		0.9
<i>Acerpenna macdunnoughi</i>	09020401007001	2.33			--	0.9	
<i>Acentrella</i>	09020401008		0.33	3	CG		0.1
<i>Acentrella turbida</i>	09020401008021	0.33			--	0.1	
<i>Plauditus</i>	09020401012	2.00	2.00		CG	0.8	0.8
<i>Heptagenia</i>	09020402010	1.67	1.67	2	SC	0.7	0.7
<i>Leucrocuta</i>	09020402011	1.00	1.00	1	SC	0.4	0.4
<i>Maccaffertium</i>	09020402015	1.00	1.00	4	SC	0.4	0.4
Leptophlebiidae	09020406	0.33	0.33		--	0.1	0.1
<i>Drunella</i>	09020410034		0.67	0	SC		0.3
<i>Drunella cornutella</i>	09020410034099	0.67			CG	0.3	
<i>Ephemerella</i>	09020410035	4.67	4.67	1	CG	1.8	1.8
<i>Eurylophella</i>	09020410036		0.67	3	CG		0.3
<i>Eurylophella funeralis</i>	09020410036115	0.67			SH	0.3	
<i>Serratella</i>	09020410037		2.67	2	CG		1.0
<i>Serratella serrata</i>	09020410037123	1.67			--	0.7	
<i>Serratella serratoides</i>	09020410037124	1.00			--	0.4	
<i>Neureclipsis</i>	09020603008	1.00	1.00	7	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016	39.00	49.00	4	CF	15.3	19.2
<i>Hydropsyche alhedra</i>	09020604016028	6.67			--	2.6	
<i>Hydropsyche morosa</i>	09020604016030	0.67			--	0.3	
<i>Hydropsyche sparna</i>	09020604016032	2.67			--	1.0	
<i>Rhyacophila</i>	09020605019	1.67	1.67	2	PR	0.7	0.7
<i>Glossosoma</i>	09020606020	0.67	0.67	0	SC	0.3	0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Brachycentrus</i>	09020609043		62.00	0	CF		24.3
<i>Brachycentrus appalachia</i>	09020609043096	62.00			--	24.3	
<i>Lepidostoma</i>	09020611064	1.33	1.33	1	SH	0.5	0.5
<i>Ceraclea</i>	09020618072	0.67	0.67	3	CG	0.3	0.3
<i>Apatania</i>	09020619061	0.33	0.33		SC	0.1	0.1
Tipulidae	09021001				--		
Chironomidae	09021011	0.67			--	0.3	
<i>Thienemannimyia</i>	09021011020		4.03	3	PR		1.6
<i>Thienemannimyia group</i>	09021011020041	4.00			--	1.6	
<i>Pagastia</i>	09021011025	0.67	0.67	1	--	0.3	0.3
<i>Brillia</i>	09021011033	0.33	0.34	5	SH	0.1	0.1
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037	1.33	4.70	7	SH	0.5	1.8
<i>Cricotopus bicinctus</i>	09021011037057	3.33			--	1.3	
<i>Thienemanniella</i>	09021011062	0.67	0.67	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		27.21	5	CG		10.7
<i>Tvetenia vitracies</i>	09021011065113	25.33			--	9.9	
<i>Tvetenia paucunca</i>	09021011065114	1.67			--	0.7	
<i>Micropsectra</i>	09021011070	10.67	10.75	7	CG	4.2	4.2
<i>Rheotanytarsus</i>	09021011072		9.07	6	CF		3.6
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.33			CF	0.1	
<i>Rheotanytarsus pellucidus</i>	09021011072128	8.67			CF	3.4	
<i>Polypedilum</i>	09021011102		28.22	6	SH		11.1
<i>Polypedilum aviceps</i>	09021011102181	28.00			--	11.0	
<i>Simulium</i>	09021012047	11.00	11.00	4	CF	4.3	4.3
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	0.5	0.5
<i>Neoplasta</i>	09021016064	0.67	0.67		PR	0.3	0.3
<i>Dubiraphia</i>	09021113064	3.33	3.33	6	--	1.3	1.3
<i>Promoresia</i>	09021113069		7.67		--		3.0
<i>Promoresia elegans</i>	09021113069051	0.67			--	0.3	
<i>Promoresia tardella</i>	09021113069052	7.00			--	2.7	