



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

Station Information

Station Number: S-836	DEP Drainage: Kennebec
Waterbody: South Branch Carrabassett River - Station 836	HUC8: 01030003
Town: Carrabassett Valley	HUC8 Name: Lower Kennebec
Directions: 90 METERS UPSTREAM OF ROUTE 27	Latitude: 45 4 45.18 N
	Longitude: 70 18 59.81 W
	Stream Order: 2

Sample Information

Log Number: 2116	Type of Sample: ROCK BAG	Date Deployed: 7/24/2012
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/20/2012

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.90	Class A, B, or C	1.00
Class B	0.10	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	446.00	18 Relative Abundance Ephemeroptera	0.31
02 Generic Richness	48.00	19 EPT Generic Richness	27.00
03 Plecoptera Mean Abundance	58.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	6.11
04 Ephemeroptera Mean Abundance	138.67	23 Relative Generic Richness- Plecoptera	0.17
05 Shannon-Wiener Generic Diversity	3.86	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	2.38
06 Hilsenhoff Biotic Index	3.08	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	2.28
07 Relative Abundance - Chironomidae	0.12	28 EP Generic Richness/14	1.21
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	131.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.69		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	14.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.68		
17 Chironomini Abundance (Family Functional Group)	24.11		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	29.45
2	<i>Ephemerella</i>	13.00
3	<i>Baetis</i>	8.11
4	<i>Simulium</i>	5.46
5	<i>Polypedilum</i>	5.33



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	19.7 deg C
Dissolved Oxygen:	8.3 mg/l
Specific Conductance:	54 uS/cm
Velocity:	68.5 cm/s
pH:	6.99
Wetted Width:	7 m
Bankfull Width:	13.2 m
Depth:	40 cm

Waterbody Information - Retrieval

Temperature:	17.8 deg C
Dissolved Oxygen:	8.4 mg/l
Specific Conductance:	56 uS/cm
Velocity:	89.7 cm/s
pH:	6.73
Wetted Width:	8.8 m
Bankfull Width:	13.2 m
Depth:	40 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Conifer

Upland Hardwood

Canopy Cover

Partly Open

Terrain

Hilly

Potential Stressor

Below Ski Area

Location

Above Road Crossing

Substrate

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

STREAM BANK DOWNSTREAM RECENTLY REROUTED AND RESTABILIZED WITH RIPRAP.
ERODED BANKS FROM RECENT FLOODING.



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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: 2116

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
<i>Nais</i>	08020202009		0.33		CG		0.1
<i>Nais behningi</i>	08020202009003	0.33			--	0.1	
<i>Gammarus</i>	09010201003	0.33	0.33	4	--	0.1	0.1
<i>Taeniopteryx</i>	09020202014	0.33	0.33	2	SH	0.1	0.1
<i>Paracapnia</i>	09020203018	0.67	0.67	1	SH	0.1	0.1
<i>Pteronarcys</i>	09020205023		2.67	0	SH		0.6
<i>Pteronarcys biloba</i>	09020205023061	2.00			--	0.4	
<i>Pteronarcys dorsata</i>	09020205023063	0.67			--	0.1	
Perlodidae	09020207	25.33			--	5.7	
<i>Isoperla</i>	09020207026	3.00	14.40	2	PR	0.7	3.2
<i>Isogenoides</i>	09020207033	3.67	17.60	0	PR	0.8	3.9
<i>Sweltsa</i>	09020208040	8.33	8.33		PR	1.9	1.9
Perlidae	09020209	0.33			--	0.1	
<i>Paragnetina</i>	09020209049	9.00	9.90	1	PR	2.0	2.2
<i>Paragnetina immarginata</i>	09020209049149	0.67			--	0.1	
<i>Aagnetina</i>	09020209050		4.10	2	PR		0.9
<i>Aagnetina capitata</i>	09020209050152	4.00		2	PR	0.9	
Baetidae	09020401	4.33			--	1.0	
<i>Baetis</i>	09020401001	5.00	36.16	4	CG	1.1	8.1
<i>Baetis flavistriga</i>	09020401001004	6.67			--	1.5	
<i>Baetis pluto</i>	09020401001009	5.33			--	1.2	
<i>Baetis tricaudatus</i>	09020401001012	15.00			--	3.4	
<i>Plauditus</i>	09020401012	1.33	1.51		CG	0.3	0.3
Heptageniidae	09020402	2.67			--	0.6	
<i>Epeorus</i>	09020402009	10.00	11.78	0	SC	2.2	2.6
<i>Epeorus vitreus</i>	09020402009033	0.33			--	0.1	
<i>Heptagenia</i>	09020402010	1.00	1.14	2	SC	0.2	0.3
<i>Rhithrogena</i>	09020402013	5.67	6.46	0	SC	1.3	1.4
<i>Maccaffertium</i>	09020402015	0.67	2.28	4	SC	0.1	0.5
<i>Maccaffertium luteum</i>	09020402015049	1.33			--	0.3	
<i>Ameletus</i>	09020405019	0.67	0.67	0	CG	0.1	0.1
Leptophlebiidae	09020406	20.67	20.67		--	4.6	4.6
<i>Ephemerella</i>	09020410035	54.33	58.00	1	CG	12.2	13.0
<i>Ephemerella invaria</i>	09020410035107	3.67			--	0.8	
<i>Dolophilodes</i>	09020601001	0.33	0.33	0	CF	0.1	0.1
<i>Lype</i>	09020602004		0.33	2	SC		0.1
<i>Lype diversa</i>	09020602004005	0.33			--	0.1	
Hydropsychidae	09020604	3.33	3.33		--	0.7	0.7



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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
<i>Hydropsyche</i>	09020604016	71.00	131.33	4	CF	15.9	29.4
<i>Hydropsyche slossonae</i>	09020604016031	44.33			--	9.9	
<i>Hydropsyche sparna</i>	09020604016032	16.00			--	3.6	
<i>Rhyacophila</i>	09020605019	0.33	3.67	2	PR	0.1	0.8
<i>Rhyacophila fuscula</i>	09020605019060	3.00			PR	0.7	
<i>Rhyacophila minor</i>	09020605019063	0.33			PR	0.1	
<i>Glossosoma</i>	09020606020	0.33	1.00	0	SC	0.1	0.2
<i>Glossosoma intermedium</i>	09020606020066	0.67			SC	0.1	
<i>Brachycentrus</i>	09020609043		1.33	0	CF		0.3
<i>Brachycentrus americanus</i>	09020609043095	0.33			--	0.1	
<i>Brachycentrus appalachia</i>	09020609043096	1.00			--	0.2	
<i>Micrasema</i>	09020609044	1.00	1.00	2	SH	0.2	0.2
<i>Lepidostoma</i>	09020611064	15.00	15.00	1	SH	3.4	3.4
<i>Psilotreta</i>	09020614068	0.33	0.33	0	SC	0.1	0.1
<i>Dicranota</i>	09021001005	0.67	0.67	3	PR	0.1	0.1
Chironomidae	09021011	1.00			--	0.2	
<i>Rheopelopia</i>	09021011017		0.68		PR		0.2
<i>Rheopelopia acra group</i>	09021011017036	0.67			--	0.1	
<i>Corynoneura</i>	09021011036	1.33	1.36	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037		2.38	7	SH		0.5
<i>Cricotopus bicinctus</i>	09021011037057	2.33			--	0.5	
<i>Nanocladius</i>	09021011049		0.34	3	CG		0.1
<i>Nanocladius downesi</i>	09021011049092	0.33			--	0.1	
<i>Orthocladius</i>	09021011050		0.34	6	CG		0.1
<i>Orthocladius annectens</i>	09021011050092	0.33			--	0.1	
<i>Parametriocnemus</i>	09021011053	0.33	0.34	5	CG	0.1	0.1
<i>Rheocricotopus</i>	09021011057		0.34	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.1	
<i>Thienemanniella</i>	09021011062	0.33	0.68	6	CG	0.1	0.2
<i>Thienemanniella xena</i>	09021011062110	0.33			--	0.1	
<i>Tvetenia</i>	09021011065		14.60	5	CG		3.3
<i>Tvetenia vitracies</i>	09021011065113	7.00			--	1.6	
<i>Tvetenia paucunca</i>	09021011065114	7.33			--	1.6	
<i>Micropsectra</i>	09021011070	6.00	6.11	7	CG	1.3	1.4
<i>Rheotanytarsus</i>	09021011072	2.67	2.72	6	CF	0.6	0.6
<i>Microtendipes</i>	09021011094		0.34	6	CF		0.1
<i>Microtendipes rydalensis group</i>	09021011094168	0.33			--	0.1	
<i>Polypedilum</i>	09021011102		23.77	6	SH		5.3



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		Actual	Adjusted			Actual	Adjusted
<i>Polypedilum aviceps</i>	09021011102181	22.67			--	5.1	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.1	
<i>Polypedilum angulum</i>	09021011102198	0.33			--	0.1	
<i>Simulium</i>	09021012047		24.33	4	CF		5.5
<i>Simulium tuberosum</i>	09021012047067	24.33			--	5.5	
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.1	0.1
<i>Dubiraphia</i>	09021113064		0.33	6	--		0.1
<i>Dubiraphia minima</i>	09021113064036	0.33			--	0.1	
<i>Promoresia</i>	09021113069		10.33		--		2.3
<i>Promoresia elegans</i>	09021113069051	0.67			--	0.1	
<i>Promoresia tardella</i>	09021113069052	9.67			--	2.2	
<i>Stenelmis</i>	09021113070		1.00	5	SC		0.2
<i>Stenelmis concinna</i>	09021113070054	0.33			--	0.1	
<i>Stenelmis crenata</i>	09021113070055	0.67			--	0.1	