



**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:
Town: Carrabassett Valley	HUC8 Name:
Directions: 90 METERS UPSTREAM OF ROUTE 27	Latitude: 45 4 45.18 N
	Longitude: 70 18 59.81 W
	Stream Order:

Sample Information

Log Number: 1664	Type of Sample: ROCK BAG	Date Deployed: 7/23/2007
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/20/2007

Classification Attainment

Statutory Class: AA	Final Determination: A	Date: 3/5/2008
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 3/18/2009	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.63	Class A, B, or C	1.00
Class B	0.36	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	346.67	18 Relative Abundance Ephemeroptera	0.11
02 Generic Richness	40.00	19 EPT Generic Richness	26.00
03 Plecoptera Mean Abundance	24.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	26.77
04 Ephemeroptera Mean Abundance	37.00	23 Relative Generic Richness- Plecoptera	0.20
05 Shannon-Wiener Generic Diversity	3.39	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	16.06
06 Hilsenhoff Biotic Index	4.06	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	1.04
07 Relative Abundance - Chironomidae	0.24	28 EP Generic Richness/14	1.21
08 Relative Generic Richness Diptera	0.30	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	147.65		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.17		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	16.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.00		
17 Chironomini Abundance (Family Functional Group)	15.39		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	42.59
2	<i>Baetis</i>	7.74
3	<i>Micropsectra</i>	7.72
4	<i>Cricotopus</i>	4.63
5	<i>Tvetenia</i>	4.44
6	<i>Polypedilum</i>	4.44



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

Station Number: S-836

Town: Carrabassett Valley

Date Deployed: 7/23/2007

Log Number: 1664

Waterbody: South Branch Carrabassett River - Statio

Date Retrieved: 8/20/2007

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 15.5 deg C
Dissolved Oxygen: 7.1 mg/l
Specific Conductance: 20 uS/cm
Velocity: 87 cm/s
pH: 6.45
Wetted Width: 10.2 m
Bankfull Width: 12.3 m
Depth: 35 cm

Waterbody Information - Retrieval

Temperature: 12.8 deg C
Dissolved Oxygen: 8.6 mg/l
Specific Conductance: 16 uS/cm
Velocity: 49 cm/s
pH: 6.55
Wetted Width: 9 m
Bankfull Width: 12.8 m
Depth: 35 cm

Water Chemistry - Retrieval

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	1 ug/l
Nitrate+nitrite As N	0.05 mg/l	Total Phosphorus	0.004 mg/l
Total Kjeldahl Nitrogen	0.1 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	2.3 mg/l	Total Dissolved Solids	51 mg/l

Summary of Habitat Characteristics

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>
	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
Total Land (ac)	9424	Med Int. Dev. %	0.0	Wetland %	0.4	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.4	Upland Woody %	97.7	Human Altered %	1.3
		Development %	0.4	Natural %	98.7	Impervious %	0.1

Sample Comments



Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report

Station Number: S-836

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

Log Number: 1664

Subsample Factor: X1

Replicates: 3

Calculated: 3/18/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Pteronarcys</i>	09020205023		2.33	0	SH		0.7
<i>Pteronarcys biloba</i>	09020205023061	2.33			--	0.7	
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Isoperla</i>	09020207026	1.00	1.00	2	PR	0.3	0.3
Chloroperlidae	09020208	1.00	1.00		--	0.3	0.3
<i>Sweltsa</i>	09020208040	3.67	3.67		PR	1.1	1.1
Perlidae	09020209	1.67			--	0.5	
<i>Acroneuria</i>	09020209042		0.37	0	PR		0.1
<i>Acroneuria abnormis</i>	09020209042121	0.33		0	PR	0.1	
<i>Paragnetina</i>	09020209049	6.00	11.14	1	PR	1.7	3.2
<i>Paragnetina immarginata</i>	09020209049149	4.00			--	1.2	
<i>Agneta</i>	09020209050		4.83	2	PR		1.4
<i>Agneta capitata</i>	09020209050152	4.33		2	PR	1.3	
Aeshnidae	09020301	0.33	0.33		--	0.1	0.1
Baetidae	09020401	1.00			--	0.3	
<i>Baetis</i>	09020401001	1.00	26.83	4	CG	0.3	7.7
<i>Baetis flavistriga</i>	09020401001004	3.00			--	0.9	
<i>Baetis intercalaris</i>	09020401001008	0.33			--	0.1	
<i>Baetis pluto</i>	09020401001009	21.67			--	6.3	
<i>Acentrella</i>	09020401008		0.34	3	CG		0.1
<i>Acentrella turbida</i>	09020401008021	0.33			--	0.1	
<i>Plauditus</i>	09020401012	5.00	5.16		CG	1.4	1.5
<i>Epeorus</i>	09020402009	0.33	0.33	0	SC	0.1	0.1
<i>Heptagenia</i>	09020402010	0.33	0.33	2	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	0.33	0.67	4	SC	0.1	0.2
<i>Maccaffertium luteum</i>	09020402015049	0.33			--	0.1	
Leptophlebiidae	09020406	0.33	0.33		--	0.1	0.1
Ephemerellidae	09020410	0.33	0.33		--	0.1	0.1
<i>Ephemerella</i>	09020410035	2.67	2.67	1	CG	0.8	0.8
<i>Dolophilodes</i>	09020601001	1.00	1.00	0	CF	0.3	0.3
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.1	0.1
Hydropsychidae	09020604	1.33			--	0.4	
<i>Arctopsyche</i>	09020604012		1.01		CF		0.3
<i>Arctopsyche ladogensis</i>	09020604012022	1.00			--	0.3	
<i>Diplectrona</i>	09020604014		0.34	0	CF		0.1
<i>Diplectrona modesta</i>	09020604014025	0.33			--	0.1	
<i>Hydropsyche</i>	09020604016	98.33	147.65	4	CF	28.4	42.6
<i>Hydropsyche morosa</i>	09020604016030	0.67			--	0.2	



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-836

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

Log Number: 1664

Subsample Factor: X1

Replicates: 3

Calculated: 3/18/2009

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche slossonae</i>	09020604016031	39.33			--	11.3	
<i>Hydropsyche sparna</i>	09020604016032	8.00			--	2.3	
<i>Rhyacophila</i>	09020605019	0.33	4.33	2	PR	0.1	1.3
<i>Rhyacophila fuscula</i>	09020605019060	4.00			PR	1.2	
<i>Glossosoma</i>	09020606020	6.00	6.00	0	SC	1.7	1.7
<i>Brachycentrus</i>	09020609043		12.33	0	CF		3.6
<i>Brachycentrus appalachia</i>	09020609043096	12.33			--	3.6	
<i>Lepidostoma</i>	09020611064	5.67	5.67	1	SH	1.6	1.6
<i>Hexatoma</i>	09021001008	0.67	0.67	2	PR	0.2	0.2
Chironomidae	09021011	0.33			--	0.1	
<i>Pagastia</i>	09021011025		0.33	1	--		0.1
<i>Pagastia orthogonia</i>	09021011025001	0.33			--	0.1	
<i>Cricotopus</i>	09021011037		16.06	7	SH		4.6
<i>Cricotopus bicinctus</i>	09021011037057	13.33			--	3.8	
<i>Cricotopus luciae</i>	09021011037073	1.33			--	0.4	
<i>Cricotopus patens</i>	09021011037075	0.33			--	0.1	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	1.00			SH	0.3	
<i>Eukiefferiella</i>	09021011041	0.33	1.34	8	CG	0.1	0.4
<i>Eukiefferiella devonica group</i>	09021011041083	1.00			CG	0.3	
<i>Nanocladius</i>	09021011049		0.67	3	CG		0.2
<i>Nanocladius branchiculus</i>	09021011049091	0.67			--	0.2	
<i>Parametriocnemus</i>	09021011053	0.33	0.33	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062			6	CG		
<i>Tvetenia</i>	09021011065		15.39	5	CG		4.4
<i>Tvetenia vitracies</i>	09021011065113	11.67			--	3.4	
<i>Tvetenia paucunca</i>	09021011065114	3.67			--	1.1	
<i>Micropsectra</i>	09021011070	26.67	26.77	7	CG	7.7	7.7
<i>Rheotanytarsus</i>	09021011072	8.33	8.37	6	CF	2.4	2.4
<i>Polypedilum</i>	09021011102		15.39	6	SH		4.4
<i>Polypedilum aviceps</i>	09021011102181	15.00			--	4.3	
<i>Polypedilum flavum</i>	09021011102182	0.33			--	0.1	
<i>Simulium</i>	09021012047		15.00	4	CF		4.3
<i>Simulium tuberosum</i>	09021012047067	15.00			--	4.3	
<i>Atherix</i>	09021015055	2.00	2.00	2	PR	0.6	0.6
<i>Promoresia</i>	09021113069		3.67		--		1.1
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.1	
<i>Promoresia tardella</i>	09021113069052	3.33			--	1.0	