



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

Station Information

Station Number: S-768	River Basin: Kennebec
Waterbody: Carrying Place Stream - Station 768	HUC8 Name: Lower Kennebec
Town: Carrying Place Twp	Latitude: 45 10 53.36 N
Directions: RT 16 TO RIDGE RD, TAKE CARRYING POND RD TO MILE-2 BRIDGE. STREAM ACCESSIBLE THROUGH CAMP SITE AT BRIDGE, WALK DOWN STREAM 500	Longitude: 70 0 59.33 W
	Stream Order: 2

Sample Information

Log Number: 2959	Type of Sample: ROCK BAG	Date Deployed: 7/27/2022
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/24/2022

Classification Attainment

Statutory Class: A	Final Determination: A	Date: 9/8/2023
Model Result with P \geq 0.6: A	Reason for Determination: Model	
Date Last Calculated: 7/27/2023	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.97	Class C	0.00
Class B	0.03	NA	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	118.33	18 Relative Abundance Ephemeroptera	0.56
02 Generic Richness	48.00	19 EPT Generic Richness	28.00
03 Plecoptera Mean Abundance	11.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.67
04 Ephemeroptera Mean Abundance	66.00	23 Relative Generic Richness- Plecoptera	0.15
05 Shannon-Wiener Generic Diversity	4.06	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	2.00
06 Hilsenhoff Biotic Index	2.75	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	10.00
07 Relative Abundance - Chironomidae	0.05	28 EP Generic Richness/14	1.36
08 Relative Generic Richness Diptera	0.27	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	18.67		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.15		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	5.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.67		
17 Chironomini Abundance (Family Functional Group)	0.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Ephemerella</i>	27.89
2	<i>Hydropsyche</i>	15.77
3	<i>Baetis</i>	9.86
4	<i>Maccaffertium</i>	6.48
5	<i>Boyeria</i>	2.82
6	Leptophlebiidae	2.82



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 18.5 deg C
Dissolved Oxygen: 9.9 mg/l
Dissolved Oxygen Saturation: 108.6 %
Specific Conductance: 45.2 uS/cm
Velocity: 14 cm/s
pH: 7.4
Wetted Width: 3.5 m
Bankfull Width: 8.9 m
Depth: 41 cm

Waterbody Information - Retrieval

Temperature: 18.2 deg C
Dissolved Oxygen: 10.17 mg/l
Dissolved Oxygen Saturation: 110.8 %
Specific Conductance: 44.5 uS/cm
Velocity: 6 cm/s
pH: 7.1
Wetted Width: 3.2 m
Bankfull Width:
Depth: 38 cm

Water Chemistry - 7/27/2022

Chloride	<1 mg/l	Nitrate + Nitrite As Nitrogen	0.1 mg/l
Nitrate As Nitrogen	0.1 mg/l	Nitrite As Nitrogen	<0.01 mg/l
Total Alkalinity	17 mg/l	Total Kjeldahl Nitrogen (organic A	<0.3 mg/l
Total Phosphorus Mixed Forms (po	10 ug/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Logging	Below Forestry NPS	Bedrock	40 %
		Boulder	40 %
		Gravel	5 %
		Rubble/Cobble	10 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	6557	High Int. Dev. %	0.0	Water %	4.9	Non-vegetated %	0.3
		Med Int. Dev. %	0.0	Wetland %	2.5	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.8	Upland Woody %	91.6	Grassland %	0.1
		Development %	0.8	Natural %	94.3	Human Altered %	0.8
						Impervious %	0.1
Total Land (ac)	6236	High Int. Dev. %	0.0	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	0.0	Wetland %	2.6	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.9	Upland Woody %	96.3	Grassland %	0.1
		Development %	0.9	Natural %	99.1	Human Altered %	0.9
						Impervious %	0.1

Sample Comments



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

Station Number: S-768

Waterbody: Carrying Place Stream - Station 768

Town: Carrying Place Twp

Log Number: 2959

Subsample Factor: X1

Replicates: 3

Calculated: 7/27/2023

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	0.6	0.6
<i>Pteronarcys</i>	09020205023	1.33	1.33	0	SH	1.1	1.1
<i>Tallaperla</i>	09020206025	1.67	1.67		SH	1.4	1.4
Perlodidae	09020207	1.67	1.67		--	1.4	1.4
<i>Acroneuria</i>	09020209042	2.33	2.33	0	PR	2.0	2.0
<i>Paragnetina</i>	09020209049	0.33	0.33	1	PR	0.3	0.3
<i>Agetina</i>	09020209050	3.00	3.00	2	PR	2.5	2.5
<i>Boyeria</i>	09020301004		3.33	2	PR		2.8
<i>Boyeria vinosa</i>	09020301004012	3.33			--	2.8	
Calopterygidae	09020307	0.33	0.33		--	0.3	0.3
<i>Calopteryx</i>	09020307043	0.67	0.67	5	PR	0.6	0.6
<i>Baetis</i>	09020401001		11.67	4	CG		9.9
<i>Baetis flavistriga</i>	09020401001004	2.00			--	1.7	
<i>Baetis pluto</i>	09020401001009	8.33			--	7.0	
<i>Baetis tricaudatus</i>	09020401001012	1.33			--	1.1	
<i>Plauditus</i>	09020401012	0.67	0.67		CG	0.6	0.6
<i>Dipheter</i>	09020401013		2.67		--		2.3
<i>Dipheter hageni</i>	09020401013001	2.67			--	2.3	
<i>Iswaeon</i>	09020401015		0.33		--		0.3
<i>Iswaeon anoka</i>	09020401015001	0.33			--	0.3	
<i>Epeorus</i>	09020402009		1.33	0	SC		1.1
<i>Epeorus vitreus</i>	09020402009033	1.33			--	1.1	
<i>Leucrocota</i>	09020402011	2.00	2.00	1	SC	1.7	1.7
<i>Stenacron</i>	09020402014	0.67	0.67	7	SC	0.6	0.6
<i>Maccaffertium</i>	09020402015	2.33	7.67	4	SC	2.0	6.5
<i>Maccaffertium pudicum</i>	09020402015052	5.00			--	4.2	
<i>Maccaffertium vicarium</i>	09020402015055	0.33			--	0.3	
Leptophlebiidae	09020406	3.33	3.33		--	2.8	2.8
<i>Ephemerella</i>	09020410035	33.00	33.00	1	CG	27.9	27.9
<i>Eurylophella</i>	09020410036	1.00	2.00	3	CG	0.8	1.7
<i>Eurylophella funeralis</i>	09020410036115	1.00			SH	0.8	
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	0.6	0.6
<i>Neureclipsis</i>	09020603008	2.00	2.00	7	CF	1.7	1.7
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	0.8	0.8
<i>Hydropsyche</i>	09020604016		18.67	4	CF		15.8
<i>Hydropsyche morosa</i>	09020604016030	2.33			--	2.0	
<i>Hydropsyche sparna</i>	09020604016032	15.33			--	13.0	



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche leonardi</i>	09020604016044	1.00			--	0.8	
<i>Rhyacophila</i>	09020605019		1.33	2	PR		1.1
<i>Rhyacophila fuscula</i>	09020605019060	0.33			PR	0.3	
<i>Rhyacophila minora</i>	09020605019063	1.00			PR	0.8	
<i>Oligostomis</i>	09020608039	0.33	0.33	2	PR	0.3	0.3
<i>Psilotreta</i>	09020614068	2.00	2.00	0	SC	1.7	1.7
<i>Oecetis</i>	09020618078	0.33	0.33	8	PR	0.3	0.3
<i>Apatania</i>	09020619061	0.33	0.33		SC	0.3	0.3
<i>Goera</i>	09020620063	0.67	0.67	0	SC	0.6	0.6
<i>Thienemannimyia</i>	09021011020		0.67	3	PR		0.6
<i>Thienemannimyia group</i>	09021011020041	0.67			--	0.6	
<i>Cricotopus</i>	09021011037	0.67	0.67	7	SH	0.6	0.6
<i>Eukiefferiella</i>	09021011041		0.33	8	CG		0.3
<i>Eukiefferiella brehmi group</i>	09021011041073	0.33			--	0.3	
<i>Orthocladius</i>	09021011050	0.33	0.33	6	CG	0.3	0.3
<i>Rheocricotopus</i>	09021011057	0.33	0.33	6	CG	0.3	0.3
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.6
<i>Tvetenia bavarica group</i>	09021011065111	0.67			--	0.6	
<i>Micropsectra</i>	09021011070	0.67	0.67	7	CG	0.6	0.6
<i>Rheotanytarsus</i>	09021011072		0.67	6	CF		0.6
<i>Rheotanytarsus pellucidus</i>	09021011072128	0.67			CF	0.6	
<i>Tanytarsus</i>	09021011076	0.33	0.33	6	CF	0.3	0.3
<i>Paratendipes</i>	09021011100	0.33	0.33	8	CG	0.3	0.3
<i>Simulium</i>	09021012047	0.67	0.67	4	CF	0.6	0.6
Empididae	09021016	0.33	0.33	6	--	0.3	0.3
<i>Ectopria</i>	09021109059	0.33	0.33	5	SC	0.3	0.3
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	0.6	0.6
<i>Optioservus</i>	09021113067		2.67	3	SC		2.3
<i>Optioservus tardella</i>	09021113067052	2.67			--	2.3	
Acariformes	090301	0.33	0.33		--	0.3	0.3