



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

Station Information

Station Number: S-1181	River Basin: Kennebec
Waterbody: Black Brook - Station 1181	HUC8 Name: Lower Kennebec
Town: Windham	Latitude: 44 56 53.92 N
Directions: UPSTREAM OF RIVER ROAD	Longitude: 69 31 6.16 W
	Stream Order: 2

Sample Information

Log Number: 2841	Type of Sample: ROCK BAG	Date Deployed: 7/31/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/25/2020

Classification Attainment

Statutory Class: B	Final Determination: NA	Date: 2/17/2021
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 2/16/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.01	Class A, B, or C	0.22
Class B	0.03	Non-Attainment	0.78
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.00	Class A	0.04
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	0.96

Model Variables

01 Total Mean Abundance	64.00	18 Relative Abundance Ephemeroptera	0.10
02 Generic Richness	32.00	19 EPT Generic Richness	9.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrondipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	6.67	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.83	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	4.00
06 Hilsenhoff Biotic Index	4.77	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.22	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.90		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.00		
17 Chironomini Abundance (Family Functional Group)	6.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	26.04
2	<i>Dubiraphia</i>	16.67
3	<i>Microtendipes</i>	8.85
4	<i>Psephenus</i>	6.25
5	<i>Tanytarsus</i>	5.73



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature:	20.2 deg C
Dissolved Oxygen:	7.98 mg/l
Dissolved Oxygen Saturation:	88 %
Specific Conductance:	328.9 uS/cm
Velocity:	0.1 cm/s
pH:	7.62
Wetted Width:	4.8 m
Bankfull Width:	7.1 m
Depth:	21.3 cm

Waterbody Information - Retrieval

Temperature:	20.6 deg C
Dissolved Oxygen:	6.62 mg/l
Dissolved Oxygen Saturation:	74.4 %
Specific Conductance:	186.3 uS/cm
Velocity:	0.1 cm/s
pH:	7.28
Wetted Width:	4.2 m
Bankfull Width:	7.1 m
Depth:	17 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Cultivated	Partly Open	Rolling
Pasture		
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Nps Pollution	Below Urban NPS	Boulder 2.5 %
		Detritus 12.5 %
		Gravel 5 %
		Rubble/Cobble 10 %
		Sand 10 %
		Silt 60 %

Landcover Summary - 2004 Data

Sample Comments

FLOW VISIBLE.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-1181	Waterbody: Black Brook - Station 1181	Town: Windham
Log Number: 2841	Subsample Factor: X1	Replicates: 3
		Calculated: 2/16/2021

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	0.33		CG	0.5	0.5
<i>Gammarus</i>	09010201003	16.67	16.67	4	--	26.0	26.0
<i>Hyalella</i>	09010203006	0.33	0.33	8	CG	0.5	0.5
<i>Cambaridae</i>	09010301	0.67	0.67		--	1.0	1.0
<i>Orconectes</i>	09010301008	2.33	2.33		CG	3.6	3.6
<i>Boyeria</i>	09020301004	0.33	0.33	2	PR	0.5	0.5
<i>Centroptilum</i>	09020401003	0.33	0.33	2	CG	0.5	0.5
<i>Acerpenna</i>	09020401007	0.33	0.33	5	CG	0.5	0.5
<i>Procloeon</i>	09020401010	1.67	1.67		CG	2.6	2.6
<i>Stenacron</i>	09020402014	0.67	0.67	7	SC	1.0	1.0
<i>Leptophlebiidae</i>	09020406	2.67	2.67		--	4.2	4.2
<i>Ephemera</i>	09020407027	0.33	0.33	1	CG	0.5	0.5
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	1.0	1.0
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.5	0.5
<i>Limnephilidae</i>	09020610				--		
<i>Psilotreta</i>	09020614068	0.33	0.33	0	SC	0.5	0.5
<i>Nigronia</i>	09020701003		1.33	0	PR		2.1
<i>Nigronia serricornis</i>	09020701003003	1.33			--	2.1	
<i>Thienemannimyia</i>	09021011020		0.33	3	PR		0.5
<i>Thienemannimyia group</i>	09021011020041	0.33			--	0.5	
<i>Zavrelimyia</i>	09021011022	0.67	0.67	8	PR	1.0	1.0
<i>Cricotopus</i>	09021011037		0.33	7	SH		0.5
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.5	
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	1.0	1.0
<i>Cladotanytarsus</i>	09021011068	0.33	0.33	7	CG	0.5	0.5
<i>Stempellinella</i>	09021011074	1.33	1.33	2	--	2.1	2.1
<i>Tanytarsus</i>	09021011076	3.67	3.67	6	CF	5.7	5.7
<i>Microtendipes</i>	09021011094		5.67	6	CF		8.9
<i>Microtendipes pedellus group</i>	09021011094166	5.67			--	8.9	
<i>Paratendipes</i>	09021011100	0.67	0.67	8	CG	1.0	1.0
<i>Polypedilum</i>	09021011102		0.33	6	SH		0.5
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.5	
<i>Psephenus</i>	09021108058		4.00	4	SC		6.3
<i>Psephenus herricki</i>	09021108058028	4.00			--	6.3	
<i>Dubiraphia</i>	09021113064	10.67	10.67	6	--	16.7	16.7
<i>Optioservus</i>	09021113067	1.67	1.67	3	SC	2.6	2.6
<i>Stenelmis</i>	09021113070	1.00	1.00	5	SC	1.6	1.6



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<i>Helisoma</i>	10010203030		0.33		SC		0.5
<i>Helisoma anceps</i>	10010203030058	0.33			--	0.5	
<i>Ferrissia</i>	10010204035	3.00	3.00		SC	4.7	4.7