



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

Station Information

Station Number: S-666	River Basin: Penobscot
Waterbody: Blood Brook - Station 666	HUC8 Name: Piscataquis
Town: Katahdin Iron Works Twp	Latitude: 45 26 41.06 N
Directions: DOWNSTREAM OF KIW ROAD	Longitude: 69 10 33.41 W
	Stream Order: 1

Sample Information

Log Number: 2828	Type of Sample: ROCK BAG	Date Deployed: 7/20/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/17/2020

Classification Attainment

Statutory Class: A	Final Determination: A	Date: 2/17/2021
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 2/15/2021	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	0.15	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.98
Class A or B	1.00	Class B or C or Non-Attainment	0.02
Class C or Non-Attainment	0.00		

Model Variables

01 Total Mean Abundance	55.00	18 Relative Abundance Ephemeroptera	0.10
02 Generic Richness	37.00	19 EPT Generic Richness	15.00
03 Plecoptera Mean Abundance	1.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	5.33	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	4.38	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	4.06
06 Hilsenhoff Biotic Index	3.91	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.38	28 EP Generic Richness/14	0.36
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	8.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.07		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	11.18		
17 Chironomini Abundance (Family Functional Group)	3.39		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	15.15
2	<i>Thienemannimyia</i>	14.78
3	<i>Paraleptophlebia</i>	8.48
4	<i>Chimarra</i>	8.48
5	<i>Polypedilum</i>	4.93



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Log Number: 2828

Town: Katahdin Iron Works Twp
Waterbody: Blood Brook - Station 666

Date Deployed: 7/20/2020
Date Retrieved: 8/17/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 23 deg C
Dissolved Oxygen: 8.06 mg/l
Dissolved Oxygen Saturation: 96.4 %
Specific Conductance: 131.1 uS/cm
Velocity:
pH: 6.86
Wetted Width: 8.6 m
Bankfull Width: 11.3 m
Depth: 16.3 cm

Waterbody Information - Retrieval

Temperature: 20.1 deg C
Dissolved Oxygen: 9.61 mg/l
Dissolved Oxygen Saturation: 109.2 %
Specific Conductance: 272.1 uS/cm
Velocity: 0.1 cm/s
pH: 7.07
Wetted Width: 8.4 m
Bankfull Width: 11.3 m
Depth: 18.3 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>	
Low pH	Above Road Crossing	Boulder	40 %
Metals		Gravel	10 %
		Rubble/Cobble	50 %

Landcover Summary - 2004 Data

Total Area (ac)	251	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	44.8	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.1	Upland Woody %	55.1	Grassland %	0.0
		Development %	0.1	Natural %	99.9	Human Altered %	0.1
						Impervious %	0.1

Sample Comments

VISIBLE FLOW.



Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report

Station Number: S-666 Waterbody: Blood Brook - Station 666 Town: Katahdin Iron Works Twp
Log Number: 2828 Subsample Factor: X1 Replicates: 3 Calculated: 2/15/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Stylaria</i>	08020202014	0.33	0.33		CG	0.6	0.6
<i>Paracapnia</i>	09020203018	0.67	0.67	1	SH	1.2	1.2
<i>Paragnetina</i>	09020209049	0.33	0.33	1	PR	0.6	0.6
<i>Boyeria</i>	09020301004	1.67	1.67	2	PR	3.0	3.0
Gomphidae	09020302	1.00	1.00		--	1.8	1.8
Corduliidae	09020305	1.00	1.00		--	1.8	1.8
Calopterygidae	09020307	0.33	0.33		--	0.6	0.6
<i>Maccaffertium</i>	09020402015		0.33	4	SC		0.6
<i>Maccaffertium vicarium</i>	09020402015055	0.33			--	0.6	
<i>Isonychia</i>	09020404018	0.33	0.33	2	CF	0.6	0.6
<i>Paraleptophlebia</i>	09020406026	4.67	4.67	1	CG	8.5	8.5
Philopotamidae	09020601	0.67	0.67		--	1.2	1.2
<i>Chimarra</i>	09020601003		4.67	2	CF		8.5
<i>Chimarra aterrima</i>	09020601003002	4.33			--	7.9	
<i>Chimarra socia</i>	09020601003004	0.33			--	0.6	
Polycentropodidae	09020603	0.33	0.33		--	0.6	0.6
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	2.4	2.4
<i>Diplectrona</i>	09020604014		0.33	0	CF		0.6
<i>Diplectrona modesta</i>	09020604014025	0.33			--	0.6	
<i>Hydropsyche</i>	09020604016	0.33	8.33	4	CF	0.6	15.2
<i>Hydropsyche betteni</i>	09020604016037	8.00			--	14.5	
<i>Ptilostomis</i>	09020608041	0.33	0.33	5	SH	0.6	0.6
<i>Brachycentrus</i>	09020609043		0.33	0	CF		0.6
<i>Brachycentrus appalachia</i>	09020609043096	0.33			--	0.6	
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.6	0.6
<i>Oecetis</i>	09020618078	2.33	2.33	8	PR	4.2	4.2
<i>Nigronia</i>	09020701003		1.33	0	PR		2.4
<i>Nigronia serricornis</i>	09020701003003	1.33			--	2.4	
Crambidae	09020905	0.33	0.33		SH	0.6	0.6
<i>Tipula</i>	09021001002	1.00	1.00	4	SH	1.8	1.8
Chironomidae	09021011	0.33			--	0.6	
<i>Ablabesmyia</i>	09021011001	0.67	0.68	8	PR	1.2	1.2
<i>Labrundinia</i>	09021011008		1.69	7	PR		3.1
<i>Labrundinia pilosella</i>	09021011008022	1.67			--	3.0	
<i>Paramerina</i>	09021011013	0.67	0.68		--	1.2	1.2
<i>Thienemannimyia</i>	09021011020		8.13	3	PR		14.8
<i>Thienemannimyia group</i>	09021011020041	8.00			--	14.5	



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<i>Cricotopus</i>	09021011037		0.68	7	SH		1.2
<i>Cricotopus bicinctus</i>	09021011037057	0.67			--	1.2	
<i>Psectrocladius</i>	09021011056	1.67	1.69	8	CG	3.0	3.1
<i>Tvetenia</i>	09021011065		0.34	5	CG		0.6
<i>Tvetenia vitracies</i>	09021011065113	0.33			--	0.6	
<i>Rheotanytarsus</i>	09021011072	0.67	0.68	6	CF	1.2	1.2
<i>Stempellinella</i>	09021011074	0.33	0.34	2	--	0.6	0.6
<i>Tanytarsus</i>	09021011076	2.67	2.71	6	CF	4.8	4.9
<i>Phaenopsectra</i>	09021011101		0.68	7	SC		1.2
<i>Phaenopsectra punctipes group</i>	09021011101181	0.67			--	1.2	
<i>Polypedilum</i>	09021011102		2.71	6	SH		4.9
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	1.8	
<i>Polypedilum tritum</i>	09021011102191	1.67			--	3.0	
<i>Simulium</i>	09021012047	1.33	1.33	4	CF	2.4	2.4
<i>Helisoma</i>	10010203030		0.33		SC		0.6
<i>Helisoma anceps</i>	10010203030058	0.33			--	0.6	