



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

Station Information

Station Number: S-286	River Basin: Penobscot
Waterbody: West Branch Pleasant River - Station 286	HUC8 Name: Piscataquis
Town: Katahdin Iron Works Twp	Latitude: 45 26 32.81 N
Directions: BELOW KI RD. CROSSING	Longitude: 69 10 18.16 W
	Stream Order: 3

Sample Information

Log Number: 2829	Type of Sample: ROCK BAG	Date Deployed: 7/20/2020
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/17/2020

Classification Attainment

Statutory Class: AA	Final Determination: A	Date: 4/6/2021
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 4/1/2021	Comments:	

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.37	Class A, B, or C	1.00
Class B	0.60	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	1.00	Class A	0.76
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.24

Model Variables

01 Total Mean Abundance	1257.33	18 Relative Abundance Ephemeroptera	0.08
02 Generic Richness	38.00	19 EPT Generic Richness	18.00
03 Plecoptera Mean Abundance	17.33	21 Sum of Abundances: <i>Dicrondipus</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	98.67	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.68	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	58.67
06 Hilsenhoff Biotic Index	3.88	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	47.56
07 Relative Abundance - Chironomidae	0.34	28 EP Generic Richness/14	0.79
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	218.67		
11 <i>Cheumatopsyche</i> Abundance	8.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.00		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	17.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	52.00		
17 Chironomini Abundance (Family Functional Group)	42.67		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Chimarra</i>	29.06
2	<i>Hydropsyche</i>	17.39
3	<i>Tvetenia</i>	10.07
4	<i>Simulium</i>	7.21
5	<i>Rheocricotopus</i>	6.04



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	25.7 deg C
Dissolved Oxygen:	8.77 mg/l
Dissolved Oxygen Saturation:	110.1 %
Specific Conductance:	26.7 uS/cm
Velocity:	
pH:	7.16
Wetted Width:	28 m
Bankfull Width:	31 m
Depth:	31 cm

Waterbody Information - Retrieval

Temperature:	23.7 deg C
Dissolved Oxygen:	8.78 mg/l
Dissolved Oxygen Saturation:	105.5 %
Specific Conductance:	28.5 uS/cm
Velocity:	64 cm/s
pH:	6.93
Wetted Width:	27 m
Bankfull Width:	31 m
Depth:	30 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Open	Hilly
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Logging	Below In-place Contamination	Boulder 60 %
	Below Road Crossing	Rubble/Cobble 40 %

Landcover Summary - 2004 Data

Total Area (ac)	71105	High Int. Dev. %	0.0	Water %	1.3	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	4.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.1	Upland Woody %	94.6	Grassland %	0.0
		Development %	0.1	Natural %	98.6	Human Altered %	0.1
						Impervious %	0.0

Sample Comments



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

Station Number: S-286	Waterbody: West Branch Pleasant River - Station 286	Town: Katahdin Iron Works Twp
Log Number: 2829	Subsample Factor: X4	Replicates: 3
		Calculated: 4/1/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009	1.33	1.33		CG	0.1	0.1
<i>Perlidae</i>	09020209	1.33			--	0.1	
<i>Acroneuria</i>	09020209042		11.56	0	PR		0.9
<i>Acroneuria abnormis</i>	09020209042121	10.67		0	PR	0.8	
<i>Paragnetina</i>	09020209049	1.33	5.78	1	PR	0.1	0.5
<i>Paragnetina immarginata</i>	09020209049149	1.33			--	0.1	
<i>Paragnetina media</i>	09020209049151	2.67			--	0.2	
<i>Baetidae</i>	09020401	1.33			--	0.1	
<i>Baetis</i>	09020401001	1.33	11.26	4	CG	0.1	0.9
<i>Baetis intercalaris</i>	09020401001008	2.67			--	0.2	
<i>Baetis pluto</i>	09020401001009	6.67			--	0.5	
<i>Heterocloeon</i>	09020401005		8.44	2	SC		0.7
<i>Heterocloeon curiosum</i>	09020401005020	8.00			--	0.6	
<i>Acerpenna</i>	09020401007	1.33	2.81	5	CG	0.1	0.2
<i>Acerpenna pygmaea</i>	09020401007011	1.33			--	0.1	
<i>Plauditus</i>	09020401012	2.67	2.81		CG	0.2	0.2
<i>Epeorus</i>	09020402009	14.67	14.67	0	SC	1.2	1.2
<i>Leucrocuta</i>	09020402011	6.67	6.67	1	SC	0.5	0.5
<i>Maccaffertium</i>	09020402015	20.00	36.00	4	SC	1.6	2.9
<i>Maccaffertium vicarium</i>	09020402015055	16.00			--	1.3	
<i>Isonychia</i>	09020404018	13.33	13.33	2	CF	1.1	1.1
<i>Tricorythodes</i>	09020411038	2.67	2.67	4	CG	0.2	0.2
<i>Chimarra</i>	09020601003	12.00	365.33	2	CF	1.0	29.1
<i>Chimarra socia</i>	09020601003004	353.33			--	28.1	
<i>Neureclipsis</i>	09020603008	10.67	10.67	7	CF	0.8	0.8
<i>Cheumatopsyche</i>	09020604015	8.00	8.00	5	CF	0.6	0.6
<i>Hydropsyche</i>	09020604016	25.33	218.67	4	CF	2.0	17.4
<i>Hydropsyche morosa</i>	09020604016030	8.00			--	0.6	
<i>Hydropsyche sparna</i>	09020604016032	185.33			--	14.7	
<i>Hydroptilidae</i>	09020607				--		
<i>Hydroptila</i>	09020607026	13.33	13.33	6	P	1.1	1.1
<i>Brachycentrus</i>	09020609043		1.33	0	CF		0.1
<i>Brachycentrus appalachia</i>	09020609043096	1.33			--	0.1	
<i>Ceraclea</i>	09020618072	1.33	1.33	3	CG	0.1	0.1
<i>Nilotanytus</i>	09021011012		26.67	6	PR		2.1
<i>Nilotanytus fimbriatus</i>	09021011012027	26.67			--	2.1	
<i>Pentaneura</i>	09021011014	6.67	6.67	6	PR	0.5	0.5



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<i>Thienemannimyia</i>	09021011020		18.67	3	PR		1.5
<i>Thienemannimyia group</i>	09021011020041	18.67			--	1.5	
<i>Cardiocladius</i>	09021011034	1.33	1.33	5	PR	0.1	0.1
<i>Corynoneura</i>	09021011036	12.00	12.00	7	CG	1.0	1.0
<i>Cricotopus</i>	09021011037	4.00	46.67	7	SH	0.3	3.7
<i>Cricotopus bicinctus</i>	09021011037057	42.67			--	3.4	
<i>Eukiefferiella</i>	09021011041		18.67	8	CG		1.5
<i>Eukiefferiella brehmi group</i>	09021011041073	18.67			--	1.5	
<i>Nanocladius</i>	09021011049	8.00	8.00	3	CG	0.6	0.6
<i>Parametriocnemus</i>	09021011053	9.33	9.33	5	CG	0.7	0.7
<i>Rheocricotopus</i>	09021011057	76.00	76.00	6	CG	6.0	6.0
<i>Tvetenia</i>	09021011065		126.67	5	CG		10.1
<i>Tvetenia vitracies</i>	09021011065113	126.67			--	10.1	
<i>Rheotanytarsus</i>	09021011072		24.00	6	CF		1.9
<i>Rheotanytarsus exiguus group</i>	09021011072127	24.00			CF	1.9	
<i>Tanytarsus</i>	09021011076	4.00	4.00	6	CF	0.3	0.3
<i>Microtendipes</i>	09021011094		4.00	6	CF		0.3
<i>Microtendipes rydalensis group</i>	09021011094168	4.00			--	0.3	
<i>Polypedilum</i>	09021011102		38.67	6	SH		3.1
<i>Polypedilum aviceps</i>	09021011102181	28.00			--	2.2	
<i>Polypedilum flavum</i>	09021011102182	10.67			--	0.8	
<i>Simulium</i>	09021012047	90.67	90.67	4	CF	7.2	7.2
<i>Atherix</i>	09021015055	4.00	4.00	2	PR	0.3	0.3
<i>Hemerodromia</i>	09021016057	4.00	4.00	3	PR	0.3	0.3
<i>Optioservus</i>	09021113067		1.33	3	SC		0.1
<i>Optioservus tardella</i>	09021113067052	1.33			--	0.1	