



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

Station Information

Station Number: S-686	River Basin: Penobscot
Waterbody: West Branch Pleasant River - Station 686	HUC8 Name: Piscataquis
Town: Katahdin Iron Works Twp	Latitude: 45 28 18.89 N
Directions: UPSTREAM OF KIW ROAD	Longitude: 69 13 52.17 W
	Stream Order: 3

Sample Information

Log Number: 2830	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: B	Date: 3/30/2021
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 3/30/2021	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.05	Class A, B, or C	1.00
Class B	0.85	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.42
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.58

Model Variables

01 Total Mean Abundance	1868.00	18 Relative Abundance Ephemeroptera	0.03
02 Generic Richness	40.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	26.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	52.00	23 Relative Generic Richness- Plecoptera	0.18
05 Shannon-Wiener Generic Diversity	1.61	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	20.00
06 Hilsenhoff Biotic Index	5.42	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	8.00
07 Relative Abundance - Chironomidae	0.80	28 EP Generic Richness/14	1.00
08 Relative Generic Richness Diptera	0.35	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	172.00		
11 <i>Cheumatopsyche</i> Abundance	20.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.50		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	4.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.33		
17 Chironomini Abundance (Family Functional Group)	26.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	77.23
2	<i>Hydropsyche</i>	9.21
3	<i>Brachycentrus</i>	1.14
4	<i>Cheumatopsyche</i>	1.07
5	<i>Baetis</i>	1.07



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Waterbody: West Branch Pleasant River - Station 686

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: 23.3 deg C
Dissolved Oxygen: 8.59 mg/l
Dissolved Oxygen Saturation: 103.3 %
Specific Conductance: 28.3 uS/cm
Velocity:
pH: 6.73
Wetted Width: 25.2 m
Bankfull Width: 28.5 m
Depth: 44 cm

Waterbody Information - Retrieval

Temperature: 21.1 deg C
Dissolved Oxygen: 9.03 mg/l
Dissolved Oxygen Saturation: 103.5 %
Specific Conductance: 29.7 uS/cm
Velocity: 70 cm/s
pH: 6.59
Wetted Width:
Bankfull Width:
Depth: 38 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 Road Crossing	Gravel	80 %
		Rubble/Cobble	20 %

Landcover Summary - 2004 Data

Total Area (ac)	50742	High Int. Dev. %	0.0	Water %	1.2	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	2.5	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.1	Upland Woody %	96.1	Grassland %	0.0
		Development %	0.1	Natural %	98.7	Human Altered %	0.1
						Impervious %	0.0

Sample Comments

BLACKNOSE DACE, CUSK, LAMPREY, AND LARGEMOUTH BASS OBSERVED.



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

Station Number: S-686 Waterbody: West Branch Pleasant River - Station 686 Town: Katahdin Iron Works Twp
Log Number: 2830 Subsample Factor: X4 Replicates: 3 Calculated: 3/30/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009	4.00	4.00		CG	0.2	0.2
<i>Placobdella</i>	08030101006		1.33		--		0.1
<i>Placobdella ornata</i>	08030101006002	1.33			--	0.1	
<i>Leuctra</i>	09020204020	1.33	1.33	0	SH	0.1	0.1
<i>Pteronarcys</i>	09020205023		4.00	0	SH		0.2
<i>Pteronarcys biloba</i>	09020205023061	4.00			--	0.2	
Perlodidae	09020207	1.33	1.33		--	0.1	0.1
<i>Isoperla</i>	09020207026	16.00	16.00	2	PR	0.9	0.9
<i>Acroneuria</i>	09020209042	1.33	1.33	0	PR	0.1	0.1
<i>Paragnetina</i>	09020209049	1.33	1.33	1	PR	0.1	0.1
<i>Aagnetina</i>	09020209050	1.33	1.33	2	PR	0.1	0.1
<i>Boyeria</i>	09020301004		1.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.1	
Baetidae	09020401	1.33			--	0.1	
<i>Baetis</i>	09020401001	1.33	19.91	4	CG	0.1	1.1
<i>Baetis intercalaris</i>	09020401001008	14.67			--	0.8	
<i>Baetis pluto</i>	09020401001009	2.67			--	0.1	
<i>Plauditus</i>	09020401012	1.33	1.42		CG	0.1	0.1
<i>Maccaffertium</i>	09020402015	2.67	6.67	4	SC	0.1	0.4
<i>Maccaffertium vicarium</i>	09020402015055	4.00			--	0.2	
<i>Isonychia</i>	09020404018	4.00	4.00	2	CF	0.2	0.2
Leptophlebiidae	09020406	1.33	1.33		--	0.1	0.1
<i>Ephemerella</i>	09020410035	17.33	17.33	1	CG	0.9	0.9
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.1	0.1
<i>Dolophilodes</i>	09020601001		18.67	0	CF		1.0
<i>Dolophilodes distincta</i>	09020601001001	18.67			--	1.0	
<i>Chimarra</i>	09020601003		1.33	2	CF		0.1
<i>Chimarra socia</i>	09020601003004	1.33			--	0.1	
<i>Cheumatopsyche</i>	09020604015	20.00	20.00	5	CF	1.1	1.1
<i>Hydropsyche</i>	09020604016	48.00	172.00	4	CF	2.6	9.2
<i>Hydropsyche morosa</i>	09020604016030	5.33			--	0.3	
<i>Hydropsyche sparna</i>	09020604016032	116.00			--	6.2	
<i>Hydropsyche betteni</i>	09020604016037	2.67			--	0.1	
<i>Rhyacophila</i>	09020605019		17.33	2	PR		0.9
<i>Rhyacophila minora</i>	09020605019063	17.33			PR	0.9	
<i>Brachycentrus</i>	09020609043		21.33	0	CF		1.1
<i>Brachycentrus appalachia</i>	09020609043096	21.33			--	1.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Psilotreta</i>	09020614068	1.33	1.33	0	SC	0.1	0.1
Chironomidae	09021011				--		
<i>Thienemannimyia</i>	09021011020		1.33	3	PR		0.1
<i>Thienemannimyia group</i>	09021011020041	1.33			--	0.1	
<i>Potthastia</i>	09021011026		1.33	2	CG		0.1
<i>Potthastia longimana</i>	09021011026046	1.33			--	0.1	
<i>Corynoneura</i>	09021011036	1.33	1.33	7	CG	0.1	0.1
<i>Nanocladius</i>	09021011049		1.33	3	CG		0.1
<i>Nanocladius balticus</i>	09021011049085	1.33			--	0.1	
<i>Orthocladius</i>	09021011050		5.33	6	CG		0.3
<i>Orthocladius annectens</i>	09021011050092	5.33			--	0.3	
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	1.33	1.33	6	CG	0.1	0.1
<i>Tvetenia</i>	09021011065		13.33	5	CG		0.7
<i>Tvetenia vitracies</i>	09021011065113	13.33			--	0.7	
<i>Rheotanytarsus</i>	09021011072		1442.67	6	CF		77.2
<i>Rheotanytarsus exiguus group</i>	09021011072127	1432.00			CF	76.7	
<i>Rheotanytarsus pellucidus</i>	09021011072128	10.67			CF	0.6	
<i>Microtendipes</i>	09021011094		16.00	6	CF		0.9
<i>Microtendipes rydalensis group</i>	09021011094168	16.00			--	0.9	
<i>Polypedilum</i>	09021011102		10.67	6	SH		0.6
<i>Polypedilum aviceps</i>	09021011102181	10.67			--	0.6	
<i>Simulium</i>	09021012047	17.33	17.33	4	CF	0.9	0.9
<i>Atherix</i>	09021015055	6.67	6.67	2	PR	0.4	0.4
<i>Hemerodromia</i>	09021016057	5.33	5.33	3	PR	0.3	0.3
<i>Optioservus</i>	09021113067		4.00	3	SC		0.2
<i>Optioservus tardella</i>	09021113067052	4.00			--	0.2	
<i>Stenelmis</i>	09021113070		1.33	5	SC		0.1
<i>Stenelmis crenata</i>	09021113070055	1.33			--	0.1	