



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

Station Information

Station Number: S-1237 River Basin: Penobscot
Waterbody: West Branch Penobscot River - Station 1237 HUC8 Name: West Branch Penobscot
Town: Millinocket Latitude: 45° 38' 08.970" N
Directions: DOWNSTREAM OF NORTH TWIN DAM, RIVER RIGHT Longitude: 68° 46' 43.084" W
Stream Order: 5

Sample Information

Log Number: 3173 Type of Sample: ROCK BAG Date Deployed: 7/25/2024
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/22/2024

Classification Attainment

Statutory Class: B Final Determination: B Date: 9/10/2025
Model Result with $P \geq 0.6$: C Reason for Determination: Best Professional Judgement
Date Last Calculated: 5/29/2025 Comments: Raised to Class B due to community structure and sensitive taxa

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.01	Class A, B, or C	1.00
Class B	0.40	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.13	Class A	0.03
Class C or Non-Attainment	0.87	Class B or C or Non-Attainment	0.97

Model Variables

01 Total Mean Abundance	2204.67	18 Relative Abundance Ephemeroptera	0.09
02 Generic Richness	22.00	19 EPT Generic Richness	16.00
03 Plecoptera Mean Abundance	12.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	197.00	23 Relative Generic Richness- Plecoptera	0.09
05 Shannon-Wiener Generic Diversity	2.91	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	276.00
06 Hilsenhoff Biotic Index	4.83	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	71.33
07 Relative Abundance - Chironomidae	0.08	28 EP Generic Richness/14	0.57
08 Relative Generic Richness Diptera	0.14	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	885.00		
11 <i>Cheumatopsyche</i> Abundance	182.00		
12 EPT Generic Richness/ Diptera Generic Richness	5.33		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	12.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.00		
17 Chironomini Abundance (Family Functional Group)	75.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	40.14
2	<i>Neureclipsis</i>	20.83
3	<i>Cheumatopsyche</i>	8.26
4	<i>Macrostemum</i>	6.35
5	<i>Cricotopus</i>	4.26



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Station Number: S-1237 Town: Millinocket Date Deployed: 7/25/2024
Log Number: 3173 Waterbody: West Branch Penobscot River - Station 1237 Date Retrieved: 8/22/2024

Sample Collection and Processing Information

Sampling Organization: MOODY MOUNTAIN
ENVIRONMENTAL

Taxonomist: PAUL LEEPER (MOODY MOUNTAIN
ENVIRONMENTAL)

Waterbody Information - Deployment

Temperature: 23.1 deg C
Dissolved Oxygen: 8.1 mg/l
Dissolved Oxygen Saturation:
Specific Conductance:
Velocity: 31 cm/s
pH:
Wetted Width: 59 m
Bankfull Width:
Depth: 79 cm

Waterbody Information - Retrieval

Temperature: 21.6 deg C
Dissolved Oxygen: 8.3 mg/l
Dissolved Oxygen Saturation:
Specific Conductance:
Velocity: 40 cm/s
pH:
Wetted Width: 62 m
Bankfull Width:
Depth: 92 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Open	Rolling
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Regulated Flows	Below Dam	Boulder 40 %
	Main Stem	Gravel 30 %
		Rubble/Cobble 30 %

Landcover Summary - 2004 Data

Total Area (ac) 1203864	High Int. Dev. % 0.6	Water % 7.4	Non-vegetated % 0.2
	Med Int. Dev. % 0.0	Wetland % 5.9	Tilled Agriculture % 0.0
	Low Int. Dev. % 0.0	Upland Woody % 84.7	Grassland % 0.2
	Development % 0.6	Natural % 90.9	Human Altered % 0.6
			Impervious % 0.2
Total Land (ac) 1115349	High Int. Dev. % 0.6	Water % N/A	Non-vegetated % N/A
	Med Int. Dev. % 0.0	Wetland % 6.4	Tilled Agriculture % 0.0
	Low Int. Dev. % 0.0	Upland Woody % 91.4	Grassland % 0.2
	Development % 0.6	Natural % 98.1	Human Altered % 0.6
			Impervious % 0.2

Sample Comments



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Aquatic Life Taxonomic Inventory Report

Station Number: S-1237 Waterbody: West Branch Penobscot River - Station 1237 Town: Millinocket
Log Number: 3173 Subsample Factor: X1 Replicates: 3 Calculated: 5/29/2025

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Planariidae	03010101	36.00	36.00		--	1.6	1.6
Hirudinidae	08030201	39.33	39.33		--	1.8	1.8
<i>Acroneuria</i>	09020209042	3.00	3.00	0	PR	0.1	0.1
<i>Paragnetina</i>	09020209049	9.67	9.67	1	PR	0.4	0.4
<i>Baetis</i>	09020401001	40.00	40.00	4	CG	1.8	1.8
<i>Heterocloeon</i>	09020401005	59.67	59.67	2	SC	2.7	2.7
<i>Epeorus</i>	09020402009	5.00	5.00	0	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	59.33	59.33	4	SC	2.7	2.7
<i>Stenonema</i>	09020402016	9.00	9.00	4	SC	0.4	0.4
<i>Eurylophella</i>	09020410036	24.00	24.00	3	CG	1.1	1.1
<i>Chimarra</i>	09020601003	2.00	2.00	2	CF	0.1	0.1
<i>Neureclipsis</i>	09020603008	459.33	459.33	7	CF	20.8	20.8
<i>Polycentropus</i>	09020603010	36.00	36.00	6	PR	1.6	1.6
<i>Cheumatopsyche</i>	09020604015	182.00	182.00	5	CF	8.3	8.3
<i>Hydropsyche</i>	09020604016	885.00	885.00	4	CF	40.1	40.1
<i>Macrostemum</i>	09020604018	140.00	140.00	3	CF	6.4	6.4
Hydroptilidae	09020607	40.33	40.33		--	1.8	1.8
<i>Oecetis</i>	09020618078	3.00	3.00	8	PR	0.1	0.1
<i>Pentaneura</i>	09021011014	2.00	2.00	6	PR	0.1	0.1
<i>Cricotopus</i>	09021011037	94.00	94.00	7	SH	4.3	4.3
<i>Polypedilum</i>	09021011102	75.00	75.00	6	SH	3.4	3.4
Cladocera	090504	1.00	1.00		--	0.0	0.0