



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

Station Information

Station Number: S-1231 River Basin: Penobscot
Waterbody: West Branch Penobscot River - Station 1231 HUC8 Name: West Branch Penobscot
Town: Millinocket Latitude: 45° 37' 52.835" N
Directions: DOWNSTREAM OF DOLBY STATION, RIVER LEFT Longitude: 68° 36' 13.698" W
Stream Order: 5

Sample Information

Log Number: 3170 Type of Sample: ROCK BASKET Date Deployed: 7/25/2024
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/22/2024

Classification Attainment

Statutory Class: B Final Determination: B Date: 9/9/2025
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	0.03	Class A, B, or C	1.00
Class B	0.57	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.21	Class A	0.05
Class C or Non-Attainment	0.79	Class B or C or Non-Attainment	0.95

Model Variables

01 Total Mean Abundance	1541.33	18 Relative Abundance Ephemeroptera	0.11
02 Generic Richness	34.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	3.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	26.67
04 Ephemeroptera Mean Abundance	163.33	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	3.42	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	200.00
06 Hilsenhoff Biotic Index	5.77	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	87.67
07 Relative Abundance - Chironomidae	0.23	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.26	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	48.67		
11 <i>Cheumatopsyche</i> Abundance	72.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.11		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	3.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	146.67		
17 Chironomini Abundance (Family Functional Group)	42.67		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Neureclipsis</i>	43.25
2	<i>Thienemannimyia</i>	6.66
3	<i>Cricotopus</i>	5.54
4	<i>Cheumatopsyche</i>	4.67
5	<i>Maccaffertium</i>	4.63



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Station Number: S-1231 Town: Millinocket Date Deployed: 7/25/2024
Log Number: 3170 Waterbody: West Branch Penobscot River - Station 1231 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: 23.6 deg C
Dissolved Oxygen: 7.6 mg/l
Dissolved Oxygen Saturation:
Specific Conductance:
Velocity: 25 cm/s
pH:
Wetted Width: 141 m
Bankfull Width: 141 m
Depth: 91 cm

Waterbody Information - Retrieval

Temperature: 21.8 deg C
Dissolved Oxygen: 7.8 mg/l
Dissolved Oxygen Saturation:
Specific Conductance:
Velocity: 30 cm/s
pH:
Wetted Width: 141 m
Bankfull Width: 141 m
Depth: 94 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer		Rolling
Upland Hardwood		
Urban		

<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Regulated Flows	Below Dam	Bedrock 10 %
Urban Runoff	Main Stem	Boulder 70 %
		Gravel 20 %

Landcover Summary - 2004 Data

Total Area (ac) 1352649	High Int. Dev. % 0.8	Water % 7.7	Non-vegetated % 0.2
	Med Int. Dev. % 0.0	Wetland % 6.0	Tilled Agriculture % 0.0
	Low Int. Dev. % 0.0	Upland Woody % 83.9	Grassland % 0.2
	Development % 0.8	Natural % 90.3	Human Altered % 0.9
			Impervious % 0.2
Total Land (ac) 1248489	High Int. Dev. % 0.8	Water % N/A	Non-vegetated % N/A
	Med Int. Dev. % 0.0	Wetland % 6.5	Tilled Agriculture % 0.0
	Low Int. Dev. % 0.0	Upland Woody % 90.9	Grassland % 0.2
	Development % 0.9	Natural % 97.8	Human Altered % 1.0
			Impervious % 0.3

Sample Comments



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Aquatic Life Taxonomic Inventory Report

Station Number: S-1231 Waterbody: West Branch Penobscot River - Station 1231 Town: Millinocket
Log Number: 3170 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	30.00	30.00		--	1.9	1.9
Annelida	08	8.00	8.00		--	0.5	0.5
<i>Hyaella</i>	09010203006	1.33	1.33	8	CG	0.1	0.1
Perlidae	09020209	0.33	0.33		--	0.0	0.0
<i>Acroneuria</i>	09020209042	3.33	3.33	0	PR	0.2	0.2
Baetidae	09020401	1.33			--	0.1	
<i>Baetis</i>	09020401001	3.33	3.51	4	CG	0.2	0.2
<i>Acerpenna</i>	09020401007	21.33	22.49	5	CG	1.4	1.5
<i>Maccaffertium</i>	09020402015	71.33	71.33	4	SC	4.6	4.6
<i>Stenonema</i>	09020402016	13.00	13.00	4	SC	0.8	0.8
<i>Isonychia</i>	09020404018	0.67	0.67	2	CF	0.0	0.0
<i>Eurylophella</i>	09020410036	48.67	48.67	3	CG	3.2	3.2
<i>Tricorythodes</i>	09020411038	1.00	1.00	4	CG	0.1	0.1
<i>Caenis</i>	09020412040	2.67	2.67	7	CG	0.2	0.2
<i>Chimarra</i>	09020601003	20.67	20.67	2	CF	1.3	1.3
<i>Neureclipsis</i>	09020603008	666.67	666.67	7	CF	43.3	43.3
<i>Polycentropus</i>	09020603010	52.33	52.33	6	PR	3.4	3.4
<i>Cheumatopsyche</i>	09020604015	72.00	72.00	5	CF	4.7	4.7
<i>Hydropsyche</i>	09020604016	48.67	48.67	4	CF	3.2	3.2
<i>Macrostemum</i>	09020604018	53.67	53.67	3	CF	3.5	3.5
<i>Brachycentrus</i>	09020609043	17.67	17.67	0	CF	1.1	1.1
<i>Ceraclea</i>	09020618072	4.00	4.00	3	CG	0.3	0.3
<i>Oecetis</i>	09020618078	30.00	30.00	8	PR	1.9	1.9
<i>Pentaneura</i>	09021011014	44.00	44.00	6	PR	2.9	2.9
<i>Thienemannimyia</i>	09021011020		102.67	3	PR		6.7
<i>Thienemannimyia group</i>	09021011020041	102.67			--	6.7	
<i>Cricotopus</i>	09021011037	85.33	85.33	7	SH	5.5	5.5
<i>Nanocladius</i>	09021011049	17.33	17.33	3	CG	1.1	1.1
<i>Rheotanytarsus</i>	09021011072	26.67	26.67	6	CF	1.7	1.7
<i>Tanytarsus</i>	09021011076	42.67	42.67	6	CF	2.8	2.8
<i>Parachironomus</i>	09021011097	26.67	26.67	10	PR	1.7	1.7
<i>Polypedilum</i>	09021011102	16.00	16.00	6	SH	1.0	1.0
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.1	0.1
Hydrachnidae	09030103	1.33	1.33		--	0.1	0.1
Gastropoda	1001	5.00	5.00		--	0.3	0.3
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.0	0.0