



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

Station Information

Station Number: S-1236 River Basin: Penobscot
Waterbody: Millinocket Stream - Station 1236 HUC8 Name: West Branch Penobscot
Town: Millinocket Latitude: 45° 38' 48.116" N
Directions: DOWNSTREAM OF MILLINOCKET STATION, RIVER LEFT Longitude: 68° 42' 09.560" W
Stream Order: 4

Sample Information

Log Number: 3172 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: 11/12/2025
Model Result with $P \geq 0.6$: B Reason for Determination: Model
Date Last Calculated: 5/29/2025 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.08	Class A, B, or C	1.00
Class B	0.71	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.96	Class A	0.20
Class C or Non-Attainment	0.04	Class B or C or Non-Attainment	0.80

Model Variables

01 Total Mean Abundance	1885.33	18 Relative Abundance Ephemeroptera	0.13
02 Generic Richness	35.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	13.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	240.33	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	3.41	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	254.00
06 Hilsenhoff Biotic Index	4.65	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	107.67
07 Relative Abundance - Chironomidae	0.14	28 EP Generic Richness/14	0.79
08 Relative Generic Richness Diptera	0.26	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	618.00		
11 <i>Cheumatopsyche</i> Abundance	107.67		
12 EPT Generic Richness/ Diptera Generic Richness	2.22		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	13.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	22.00		
17 Chironomini Abundance (Family Functional Group)	95.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	32.78
2	<i>Neureclipsis</i>	15.49
3	<i>Macrostemum</i>	8.54
4	<i>Cricotopus</i>	7.11
5	<i>Cheumatopsyche</i>	5.71



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Station Number: S-1236 Town: Millinocket Date Deployed: 7/25/2024
Log Number: 3172 Waterbody: Millinocket Stream - Station 1236 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 deg C
Dissolved Oxygen: 7.4 mg/l
Dissolved Oxygen Saturation:
Specific Conductance:
Velocity: 60 cm/s
pH:
Wetted Width: 41 m
Bankfull Width: 53 m
Depth: 94 cm

Waterbody Information - Retrieval

Temperature: 21.8 deg C
Dissolved Oxygen: 8.3 mg/l
Dissolved Oxygen Saturation:
Specific Conductance:
Velocity: 75 cm/s
pH:
Wetted Width: 43 m
Bankfull Width: 53 m
Depth: 61 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Flat
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Regulated Flows	Below Confluence	Gravel 50 %
Urban Runoff	Below Dam	Rubble/Cobble 5 %
	Below Urban NPS	Sand 45 %

Landcover Summary - 2004 Data

Total Area (ac)	193	High Int. Dev. %	16.6	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	2.8	Wetland %	3.4	Tilled Agriculture %	0.0
		Low Int. Dev. %	3.0	Upland Woody %	28.7	Grassland %	0.0
		Development %	22.4	Natural %	32.1	Human Altered %	67.9
						Impervious %	16.9
Total Land (ac)	193	High Int. Dev. %	16.6	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	2.8	Wetland %	3.4	Tilled Agriculture %	0.0
		Low Int. Dev. %	2.8	Upland Woody %	28.7	Grassland %	0.0
		Development %	22.4	Natural %	32.1	Human Altered %	67.9
						Impervious %	16.9

Sample Comments



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Biological Monitoring Program

Aquatic Life Taxonomic Inventory Report

Station Number: S-1236	Waterbody: Millinocket Stream - Station 1236	Town: Millinocket
Log Number: 3172	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	6.67	6.67		--	0.4	0.4
<i>Hyalella</i>	09010203006	0.33	0.33	8	CG	0.0	0.0
<i>Acroneuria</i>	09020209042	7.00	7.00	0	PR	0.4	0.4
<i>Paragnetina</i>	09020209049	6.33	6.33	1	PR	0.3	0.3
<i>Heterocloeon</i>	09020401005	14.67	14.67	2	SC	0.8	0.8
<i>Acerpenna</i>	09020401007	24.33	24.33	5	CG	1.3	1.3
<i>Epeorus</i>	09020402009	10.67	10.67	0	SC	0.6	0.6
<i>Maccaffertium</i>	09020402015	98.67	98.67	4	SC	5.2	5.2
<i>Stenonema</i>	09020402016	2.00	2.00	4	SC	0.1	0.1
<i>Isonychia</i>	09020404018	17.67	17.67	2	CF	0.9	0.9
Leptophlebiidae	09020406	1.67	1.67		--	0.1	0.1
<i>Eurylophella</i>	09020410036	64.33	64.33	3	CG	3.4	3.4
<i>Serratella</i>	09020410037	6.33	6.33	2	CG	0.3	0.3
<i>Chimarra</i>	09020601003	98.00	98.00	2	CF	5.2	5.2
<i>Neureclipsis</i>	09020603008	292.00	292.00	7	CF	15.5	15.5
<i>Polycentropus</i>	09020603010	46.33	46.33	6	PR	2.5	2.5
<i>Cheumatopsyche</i>	09020604015	107.67	107.67	5	CF	5.7	5.7
<i>Hydropsyche</i>	09020604016	618.00	618.00	4	CF	32.8	32.8
<i>Macrostemum</i>	09020604018	161.00	161.00	3	CF	8.5	8.5
Hydroptilidae	09020607	2.67	2.67		--	0.1	0.1
<i>Oxyethira</i>	09020607028	1.33	1.33	3	P	0.1	0.1
<i>Oecetis</i>	09020618078	4.33	4.33	8	PR	0.2	0.2
<i>Corydalus</i>	09020701002	7.33	7.33	6	PR	0.4	0.4
<i>Nilotanytus</i>	09021011012	15.33	15.33	6	PR	0.8	0.8
<i>Thienemannimyia</i>	09021011020		6.67	3	PR		0.4
<i>Thienemannimyia group</i>	09021011020041	6.67			--	0.4	
<i>Cricotopus</i>	09021011037	134.00	134.00	7	SH	7.1	7.1
<i>Rheotanytarsus</i>	09021011072	10.00	10.00	6	CF	0.5	0.5
<i>Tanytarsus</i>	09021011076	12.33	12.33	6	CF	0.7	0.7
<i>Microtendipes</i>	09021011094	5.33	5.33	6	CF	0.3	0.3
<i>Polypedilum</i>	09021011102	89.67	89.67	6	SH	4.8	4.8
<i>Prosimulium</i>	09021012045	4.33	4.33	4	CF	0.2	0.2
<i>Oreogeton</i>	09021016066	5.33	5.33		--	0.3	0.3
<i>Ancyronyx</i>	09021113063	2.00	2.00	6	--	0.1	0.1
Cladocera	090504	0.67	0.67		--	0.0	0.0
<i>Anguilla</i>	12021001001		0.33				0.0
<i>Anguilla rostrata</i>	12021001001001	0.33				0.0	