



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

Station Information

Station Number: S-1230 River Basin: Penobscot  
Waterbody: West Branch Penobscot River - Station 1230 HUC8 Name: West Branch Penobscot  
Town: Millinocket Latitude: 45° 52' 11.427" N  
Directions: DOWNSTREAM OF AMBERJACKAWOCKAMUS FALLS, RIVER RIGHT Longitude: 69° 06' 39.430" W  
Stream Order: 5

Sample Information

Log Number: 3174 Type of Sample: ROCK BAG Date Deployed: 7/24/2024  
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/21/2024

Classification Attainment

Statutory Class: AA Final Determination: A Date: 9/10/2025  
Model Result with  $P \geq 0.6$ : A Reason for Determination: Model  
Date Last Calculated: 5/29/2025 Comments:

Model Probabilities

| First Stage Model         |      | C or Better Model              |      |
|---------------------------|------|--------------------------------|------|
| Class A                   | 0.09 | Class A, B, or C               | 1.00 |
| Class B                   | 0.78 | Non-Attainment                 | 0.00 |
| B or Better Model         |      | A Model                        |      |
| Class A or B              | 0.99 | Class A                        | 0.70 |
| Class C or Non-Attainment | 0.01 | Class B or C or Non-Attainment | 0.30 |

Model Variables

|                                                            |         |                                                                                                                 |        |
|------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------|--------|
| 01 Total Mean Abundance                                    | 1634.67 | 18 Relative Abundance Ephemeroptera                                                                             | 0.16   |
| 02 Generic Richness                                        | 31.00   | 19 EPT Generic Richness                                                                                         | 21.00  |
| 03 Plecoptera Mean Abundance                               | 23.00   | 21 Sum of Abundances: <i>Dicrotendipes</i> ,<br><i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i> | 0.00   |
| 04 Ephemeroptera Mean Abundance                            | 262.33  | 23 Relative Generic Richness- Plecoptera                                                                        | 0.06   |
| 05 Shannon-Wiener Generic Diversity                        | 3.28    | 25 Sum of Abundances: <i>Cheumatopsyche</i> ,<br><i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>     | 439.00 |
| 06 Hilsenhoff Biotic Index                                 | 4.56    | 26 Sum of Abundances: <i>Acroneuria</i> ,<br><i>Maccaffertium</i> , <i>Stenonema</i>                            | 36.33  |
| 07 Relative Abundance - Chironomidae                       | 0.31    | 28 EP Generic Richness/14                                                                                       | 0.79   |
| 08 Relative Generic Richness Diptera                       | 0.19    | 30 Presence of Class A Indicator Taxa/7                                                                         | 0.71   |
| 09 <i>Hydropsyche</i> Abundance                            | 502.67  |                                                                                                                 |        |
| 11 <i>Cheumatopsyche</i> Abundance                         | 193.33  |                                                                                                                 |        |
| 12 EPT Generic Richness/ Diptera<br>Generic Richness       | 3.50    |                                                                                                                 |        |
| 13 Relative Abundance - Oligochaeta                        | 0.00    |                                                                                                                 |        |
| 15 Perlidae Mean Abundance (Family<br>Functional Group)    | 23.00   |                                                                                                                 |        |
| 16 Tanypodinae Mean Abundance<br>(Family Functional Group) | 10.67   |                                                                                                                 |        |
| 17 Chironomini Abundance (Family<br>Functional Group)      | 242.67  |                                                                                                                 |        |

| Five Most Dominant Taxa |                       |         |
|-------------------------|-----------------------|---------|
| Rank                    | Taxon Name            | Percent |
| 1                       | <i>Hydropsyche</i>    | 30.75   |
| 2                       | <i>Cricotopus</i>     | 14.78   |
| 3                       | <i>Polypedilum</i>    | 14.60   |
| 4                       | <i>Cheumatopsyche</i> | 11.83   |
| 5                       | <i>Heterocloeon</i>   | 5.77    |



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Log Number: 3174      Waterbody: West Branch Penobscot River - Station 1230      Date Retrieved: 8/21/2024

Sample Collection and Processing Information

Sampling Organization: MOODY MOUNTAIN  
ENVIRONMENTAL

Taxonomist: PAUL LEEPER (MOODY MOUNTAIN  
ENVIRONMENTAL)

Waterbody Information - Deployment

Temperature: 21.9 deg C  
Dissolved Oxygen: 8.6 mg/l  
Dissolved Oxygen Saturation:  
Specific Conductance:  
Velocity: 90 cm/s  
pH:  
Wetted Width: 56 m  
Bankfull Width: 75 m  
Depth: 27 cm

Waterbody Information - Retrieval

Temperature: 20.9 deg C  
Dissolved Oxygen: 9 mg/l  
Dissolved Oxygen Saturation:  
Specific Conductance:  
Velocity: 80 cm/s  
pH:  
Wetted Width: 56 m  
Bankfull Width: 75 m  
Depth: 34 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           | Main Stem           | Gravel 30 %<br>Rubble/Cobble 60 %<br>Sand 10 % |

Landcover Summary - 2004 Data

|                 |        |                  |     |                |      |                      |     |
|-----------------|--------|------------------|-----|----------------|------|----------------------|-----|
| Total Area (ac) | 919473 | High Int. Dev. % | 0.5 | Water %        | 5.5  | Non-vegetated %      | 0.2 |
|                 |        | Med Int. Dev. %  | 0.0 | Wetland %      | 6.7  | Tilled Agriculture % | 0.0 |
|                 |        | Low Int. Dev. %  | 0.0 | Upland Woody % | 85.6 | Grassland %          | 0.2 |
|                 |        | Development %    | 0.5 | Natural %      | 92.6 | Human Altered %      | 0.5 |
|                 |        |                  |     |                |      | Impervious %         | 0.2 |
| Total Land (ac) | 868947 | High Int. Dev. % | 0.6 | Water %        | N/A  | Non-vegetated %      | N/A |
|                 |        | Med Int. Dev. %  | 0.0 | Wetland %      | 7.1  | Tilled Agriculture % | 0.0 |
|                 |        | Low Int. Dev. %  | 0.0 | Upland Woody % | 90.6 | Grassland %          | 0.2 |
|                 |        | Development %    | 0.6 | Natural %      | 98.0 | Human Altered %      | 0.6 |
|                 |        |                  |     |                |      | Impervious %         | 0.2 |

Sample Comments

1000CFS



**Maine Department of Environmental Protection**  
**Biological Monitoring Program**  
**Aquatic Life Taxonomic Inventory Report**

**Station Number: S-1230**      Waterbody: West Branch Penobscot River - Station 1230    Town: Millinocket  
**Log Number: 3174**      Subsample Factor: X1      Replicates: 3      Calculated: 5/29/2025

| Taxon                        | Maine<br>Taxonomic<br>Code | Count<br>(Mean of Samplers) |          | Hilsenhoff<br>Biotic<br>Index | Functional<br>Feeding<br>Group | Relative<br>Abundance % |          |
|------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-------------------------|----------|
|                              |                            | Actual                      | Adjusted |                               |                                | Actual                  | Adjusted |
| Planariidae                  | 03010101                   | 32.33                       | 32.33    |                               | --                             | 2.0                     | 2.0      |
| <i>Acroneuria</i>            | 09020209042                | 7.00                        | 7.00     | 0                             | PR                             | 0.4                     | 0.4      |
| <i>Paragnetina</i>           | 09020209049                | 16.00                       | 16.00    | 1                             | PR                             | 1.0                     | 1.0      |
| <i>Erythemis</i>             | 09020306031                | 0.33                        | 0.33     |                               | PR                             | 0.0                     | 0.0      |
| <i>Baetis</i>                | 09020401001                | 12.00                       | 12.00    | 4                             | CG                             | 0.7                     | 0.7      |
| <i>Heterocloeon</i>          | 09020401005                | 94.33                       | 94.33    | 2                             | SC                             | 5.8                     | 5.8      |
| <i>Acerpenna</i>             | 09020401007                | 1.00                        | 1.00     | 5                             | CG                             | 0.1                     | 0.1      |
| <i>Plautidius</i>            | 09020401012                | 66.67                       | 66.67    |                               | CG                             | 4.1                     | 4.1      |
| <i>Epeorus</i>               | 09020402009                | 26.00                       | 26.00    | 0                             | SC                             | 1.6                     | 1.6      |
| <i>Maccaffertium</i>         | 09020402015                | 24.00                       | 24.00    | 4                             | SC                             | 1.5                     | 1.5      |
| <i>Stenonema</i>             | 09020402016                | 5.33                        | 5.33     | 4                             | SC                             | 0.3                     | 0.3      |
| <i>Eurylophella</i>          | 09020410036                | 27.33                       | 27.33    | 3                             | CG                             | 1.7                     | 1.7      |
| <i>Serratella</i>            | 09020410037                | 5.67                        | 5.67     | 2                             | CG                             | 0.3                     | 0.3      |
| <i>Chimarra</i>              | 09020601003                | 54.33                       | 54.33    | 2                             | CF                             | 3.3                     | 3.3      |
| <i>Neureclipsis</i>          | 09020603008                | 1.67                        | 1.67     | 7                             | CF                             | 0.1                     | 0.1      |
| <i>Cheumatopsyche</i>        | 09020604015                | 193.33                      | 193.33   | 5                             | CF                             | 11.8                    | 11.8     |
| <i>Hydropsyche</i>           | 09020604016                | 502.67                      | 502.67   | 4                             | CF                             | 30.8                    | 30.8     |
| <i>Macrostemum</i>           | 09020604018                | 34.33                       | 34.33    | 3                             | CF                             | 2.1                     | 2.1      |
| <i>Rhyacophila</i>           | 09020605019                | 3.00                        | 3.00     | 2                             | PR                             | 0.2                     | 0.2      |
| <i>Glossosoma</i>            | 09020606020                | 1.67                        | 1.67     | 0                             | SC                             | 0.1                     | 0.1      |
| Hydroptilidae                | 09020607                   | 5.33                        | 5.33     |                               | --                             | 0.3                     | 0.3      |
| <i>Brachycentrus</i>         | 09020609043                | 7.33                        | 7.33     | 0                             | CF                             | 0.4                     | 0.4      |
| <i>Oecetis</i>               | 09020618078                | 4.33                        | 4.33     | 8                             | PR                             | 0.3                     | 0.3      |
| <i>Thienemannimyia</i>       | 09021011020                |                             | 10.67    | 3                             | PR                             |                         | 0.7      |
| <i>Thienemannimyia group</i> | 09021011020041             | 10.67                       |          |                               | --                             | 0.7                     |          |
| <i>Cricotopus</i>            | 09021011037                | 241.67                      | 241.67   | 7                             | SH                             | 14.8                    | 14.8     |
| <i>Tanytarsus</i>            | 09021011076                | 4.00                        | 4.00     | 6                             | CF                             | 0.2                     | 0.2      |
| <i>Chironomus</i>            | 09021011080                | 4.00                        | 4.00     | 10                            | CG                             | 0.2                     | 0.2      |
| <i>Polypedilum</i>           | 09021011102                | 238.67                      | 238.67   | 6                             | SH                             | 14.6                    | 14.6     |
| <i>Hemerodromia</i>          | 09021016057                | 1.67                        | 1.67     | 3                             | PR                             | 0.1                     | 0.1      |
| Gastropoda                   | 1001                       | 6.00                        | 6.00     |                               | --                             | 0.4                     | 0.4      |
| <i>Pisidium</i>              | 10020201002                | 2.00                        | 2.00     |                               | CF                             | 0.1                     | 0.1      |