



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

**Station Information**

<b>Station Number:</b> S-444	River Basin: Androscoggin
Waterbody: Sunday River - Station 444	HUC8 Name: Lower Androscoggin
Town: Newry	Latitude: 44° 29' 30.349" N
Directions: COVERED BRIDGE OFF OF SUNDAY RIVER RD - 100 YDS UPSTREAM	Longitude: 70° 50' 40.739" W
	Stream Order: 4

**Sample Information**

<b>Log Number:</b> 3041	Type of Sample: ROCK BAG	Date Deployed: 8/2/2023
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/29/2023

**Classification Attainment**

<b>Statutory Class:</b> A	<b>Final Determination:</b> A	Date: 6/26/2024
Model Result with P $\geq$ 0.6: A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 6/18/2024	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.30	Class A, B, or C	1.00
Class B	0.66	Non-Attainment	0.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.90
Class A or B	1.00	Class B or C or Non-Attainment	0.10
Class C or Non-Attainment	0.00		

**Model Variables**

01 Total Mean Abundance	469.67	18 Relative Abundance Ephemeroptera	0.09
02 Generic Richness	58.00	19 EPT Generic Richness	31.00
03 Plecoptera Mean Abundance	11.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	3.00
04 Ephemeroptera Mean Abundance	41.67	23 Relative Generic Richness- Plecoptera	0.17
05 Shannon-Wiener Generic Diversity	3.53	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	199.67
06 Hilsenhoff Biotic Index	5.67	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	3.33
07 Relative Abundance - Chironomidae	0.68	28 EP Generic Richness/14	1.50
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	57.33		
11 <i>Cheumatopsyche</i> Abundance	7.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.55		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.33		
17 Chironomini Abundance (Family Functional Group)	41.00		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	40.81
2	<i>Hydropsyche</i>	12.21
3	<i>Polypedilum</i>	8.73
4	<i>Rheotanytarsus</i>	5.82
5	<i>Eukiefferiella</i>	3.76



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

**Station Number: S-444**      Town: Newry      Date Deployed: 8/2/2023  
**Log Number: 3041**      Waterbody: Sunday River - Station 444      Date Retrieved: 8/29/2023

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: ECOANALYSTS IDAHO

**Waterbody Information - Deployment**

Temperature: 16.9 deg C  
Dissolved Oxygen: 9.87 mg/l  
Dissolved Oxygen Saturation: 103.2 %  
Specific Conductance: 24.8 uS/cm  
Velocity: 26 cm/s  
pH: 5.8  
Wetted Width: 9 m  
Bankfull Width: 36 m  
Depth: 43 cm

**Waterbody Information - Retrieval**

Temperature: 18.7 deg C  
Dissolved Oxygen: 10.26 mg/l  
Dissolved Oxygen Saturation: 112.1 %  
Specific Conductance: 24.4 uS/cm  
Velocity: 44 cm/s  
pH: 6.89  
Wetted Width: 8.5 m  
Bankfull Width:  
Depth: 46 cm

**Water Chemistry - 8/2/2023**

Chloride	1 mg/l	Nitrate + Nitrite As Nitrogen	0.015 mg/l
Nitrate As Nitrogen	0.01 mg/l	Nitrite As Nitrogen	<0.01 mg/l
Orthophosphate As Phosphorus	1 ug/l	Total Alkalinity	6 mg/l
Total Kjeldahl Nitrogen (organic A)	mg/l	Total Phosphorus Mixed Forms (po	7 ug/l

**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>	
Agricultural Runoff	Above Road Crossing	Boulder	10 %
		Rubble/Cobble	80 %
		Sand	10 %

**Landcover Summary - 2004 Data**

Total Area (ac)	26827	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	0.2	Tilled Agriculture %	0.2
		Low Int. Dev. %	0.3	Upland Woody %	97.4	Grassland %	1.2
		Development %	0.3	Natural %	99.5	Human Altered %	0.5
						Impervious %	0.1
Total Land (ac)	26825	High Int. Dev. %	0.0	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	0.0	Wetland %	0.2	Tilled Agriculture %	0.2
		Low Int. Dev. %	0.3	Upland Woody %	97.4	Grassland %	1.2
		Development %	0.3	Natural %	99.5	Human Altered %	0.5
						Impervious %	0.1

**Sample Comments**

SPLIT CHANNEL WITH BOULDER/COBBLE BAR, BAGS ON FAR SIDE.





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

**Station Number: S-444**

Waterbody: Sunday River - Station 444

Town: Newry

**Log Number: 3041**

Subsample Factor: X1

Replicates: 3

Calculated: 6/18/2024

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Lumbriculidae	08020101	0.33	0.33		--	0.1	0.1
<i>Dero</i>	08020202007	1.67	1.67		CG	0.4	0.4
<i>Nais</i>	08020202009		0.33		CG		0.1
<i>Nais behningi</i>	08020202009003	0.33			--	0.1	
Leuctridae	09020204	0.33	0.33		--	0.1	0.1
<i>Leuctra</i>	09020204020	0.67	0.67	0	SH	0.1	0.1
<i>Pteronarcys</i>	09020205023	1.33	1.33	0	SH	0.3	0.3
Perlodidae	09020207	3.67	3.67		--	0.8	0.8
<i>Isoperla</i>	09020207026	0.67	0.67	2	PR	0.1	0.1
Chloroperlidae	09020208	1.33	1.33		--	0.3	0.3
<i>Sweltsa</i>	09020208040	1.67	1.67		PR	0.4	0.4
<i>Perlesta</i>	09020209046	0.67	0.67	5	PR	0.1	0.1
<i>Paragnetina</i>	09020209049	0.67	0.67	1	PR	0.1	0.1
<i>Aagnetina</i>	09020209050	0.33	0.33	2	PR	0.1	0.1
Calopterygidae	09020307	0.33	0.33		--	0.1	0.1
<i>Baetis</i>	09020401001		8.67	4	CG		1.8
<i>Baetis flavistriga</i>	09020401001004	7.00			--	1.5	
<i>Baetis tricaudatus</i>	09020401001012	1.67			--	0.4	
<i>Acerpenna</i>	09020401007		2.67	5	CG		0.6
<i>Acerpenna pygmaea</i>	09020401007011	2.67			--	0.6	
<i>Acentrella</i>	09020401008	2.00	2.00	3	CG	0.4	0.4
<i>Plauditus</i>	09020401012	3.67	3.67		CG	0.8	0.8
<i>Iswaeon</i>	09020401015	2.00	2.00		--	0.4	0.4
<i>Maccaffertium</i>	09020402015	3.00	3.33	4	SC	0.6	0.7
<i>Maccaffertium luteum</i>	09020402015049	0.33			--	0.1	
<i>Isonychia</i>	09020404018	0.33	0.33	2	CF	0.1	0.1
Leptophlebiidae	09020406	1.67	1.67		--	0.4	0.4
<i>Neoleptophlebia</i>	09020406027	1.67	1.67		--	0.4	0.4
<i>Ephemerella</i>	09020410035	15.00	15.33	1	CG	3.2	3.3
<i>Ephemerella aurivillii</i>	09020410035104	0.33			--	0.1	
<i>Eurylophella</i>	09020410036	0.33	0.33	3	CG	0.1	0.1
Polycentropodidae	09020603	0.33	0.33		--	0.1	0.1
<i>Cheumatopsyche</i>	09020604015	7.33	7.33	5	CF	1.6	1.6
<i>Hydropsyche</i>	09020604016	10.67	57.33	4	CF	2.3	12.2
<i>Hydropsyche bronta</i>	09020604016029	0.67			--	0.1	
<i>Hydropsyche morosa</i>	09020604016030	11.67			--	2.5	
<i>Hydropsyche slossonae</i>	09020604016031	20.67			--	4.4	



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

**Station Number: S-444**

Waterbody: Sunday River - Station 444

Town: Newry

**Log Number: 3041**

Subsample Factor: X1

Replicates: 3

Calculated: 6/18/2024

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche sparna</i>	09020604016032	13.67			--	2.9	
<i>Rhyacophila</i>	09020605019		1.33	2	PR		0.3
<i>Rhyacophila acutiloba</i>	09020605019056	0.33			PR	0.1	
<i>Rhyacophila minora</i>	09020605019063	1.00			PR	0.2	
<i>Brachycentrus</i>	09020609043		13.00	0	CF		2.8
<i>Brachycentrus appalachia</i>	09020609043096	12.67			--	2.7	
<i>Brachycentrus numerosus</i>	09020609043098	0.33			--	0.1	
<i>Micrasema</i>	09020609044	0.33	0.33	2	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	0.67	0.67	1	SH	0.1	0.1
<i>Helicopsyche</i>	09020616070		0.33	3	SC		0.1
<i>Helicopsyche borealis</i>	09020616070137	0.33			--	0.1	
Leptoceridae	09020618	0.33	0.33		--	0.1	0.1
<i>Oecetis</i>	09020618078	0.33	0.33	8	PR	0.1	0.1
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.1	0.1
<i>Nilotanytus</i>	09021011012	1.33	1.33	6	PR	0.3	0.3
<i>Thienemannimyia</i>	09021011020		2.00	3	PR		0.4
<i>Thienemannimyia group</i>	09021011020041	2.00			--	0.4	
<i>Potthastia gaedii</i>	09021011026045				--		
<i>Brillia</i>	09021011033	1.33	1.33	5	SH	0.3	0.3
<i>Corynoneura</i>	09021011036	5.33	5.33	7	CG	1.1	1.1
<i>Cricotopus</i>	09021011037	1.33	191.67	7	SH	0.3	40.8
<i>Cricotopus bicinctus</i>	09021011037057	190.33			--	40.5	
<i>Eukiefferiella</i>	09021011041	0.67	17.67	8	CG	0.1	3.8
<i>Eukiefferiella discoloripes</i>	09021011041085	17.00			--	3.6	
<i>Orthocladius</i>	09021011050		4.00	6	CG		0.9
<i>Orthocladius annectens</i>	09021011050092	4.00			--	0.9	
<i>Parametriocnemus</i>	09021011053	3.67	3.67	5	CG	0.8	0.8
<i>Rheocricotopus</i>	09021011057	1.33	1.33	6	CG	0.3	0.3
<i>Thienemanniella</i>	09021011062	10.67	10.67	6	CG	2.3	2.3
<i>Tvetenia</i>	09021011065		9.33	5	CG		2.0
<i>Tvetenia bavarica group</i>	09021011065111	9.33			--	2.0	
<i>Micropsectra</i>	09021011070	3.00	3.00	7	CG	0.6	0.6
<i>Paratanytarsus</i>	09021011071		1.33	6	--		0.3
<i>Paratanytarsus longistylus</i>	09021011071126	1.33		6	--	0.3	
<i>Rheotanytarsus</i>	09021011072		27.33	6	CF		5.8
<i>Rheotanytarsus exiguus group</i>	09021011072127	4.67			CF	1.0	
<i>Rheotanytarsus pellucidus</i>	09021011072128	22.67			CF	4.8	



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

**Station Number: S-444**  
**Log Number: 3041**

Waterbody: Sunday River - Station 444  
Subsample Factor: X1

Town: Newry  
Replicates: 3  
Calculated: 6/18/2024

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Tanytarsus</i>	09021011076	0.67	0.67	6	CF	0.1	0.1
<i>Polypedilum</i>	09021011102	3.67	41.00	6	SH	0.8	8.7
<i>Polypedilum aviceps</i>	09021011102181	33.67			--	7.2	
<i>Polypedilum flavum</i>	09021011102182	2.33			--	0.5	
<i>Polypedilum illinoense group</i>	09021011102185	1.33			--	0.3	
<i>Simulium</i>	09021012047	3.33	3.33	4	CF	0.7	0.7
<i>Hemerodromia</i>	09021016057	2.67	2.67	3	PR	0.6	0.6
<i>Neoplasia</i>	09021016064	2.67	2.67		PR	0.6	0.6
<i>Optioservus</i>	09021113067		1.33	3	SC		0.3
<i>Optioservus elegans</i>	09021113067051	1.33			--	0.3	
<i>Oulimnius</i>	09021113068	0.33	0.33		--	0.1	0.1
<i>Stenelmis</i>	09021113070	0.33	0.33	5	SC	0.1	0.1