



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

Station Information

**Station Number: S-444**  
Waterbody: Sunday River - Station 444  
Town: Newry  
Directions: COVERED BRIDGE OFF OF SUNDAY RIVER RD - 100 YDS UPSTREAM  
DEP Drainage: Androscoggin  
HUC8 Name: Lower Androscoggin  
Latitude: 44 29 30.32 N  
Longitude: 70 50 40.74 W  
Stream Order: 4

Sample Information

**Log Number: 2216** Type of Sample: ROCK BAG Date Deployed: 7/23/2013  
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/21/2013

Classification Attainment

**Statutory Class: A** **Final Determination: A** Date: 1/30/2014  
Model Result with P>.6: A **Reason for Determination: Model**  
Date Last Calculated: 1/29/2014 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.72	Class A, B, or C	1.00
Class B	0.27	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
Class A or B	1.00	Class A	0.99
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	240.00	18 Relative Abundance Ephemeroptera	0.13
02 Generic Richness	54.00	19 EPT Generic Richness	28.00
03 Plecoptera Mean Abundance	9.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	3.01
04 Ephemeroptera Mean Abundance	30.00	23 Relative Generic Richness- Plecoptera	0.13
05 Shannon-Wiener Generic Diversity	4.25	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	29.80
06 Hilsenhoff Biotic Index	4.56	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	13.67
07 Relative Abundance - Chironomidae	0.53	28 EP Generic Richness/14	1.29
08 Relative Generic Richness Diptera	0.41	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	35.94		
11 <i>Cheumatopsyche</i> Abundance	1.06		
12 EPT Generic Richness/ Diptera	1.27		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	3.67		
Functional Group)			
16 Tanypodinae Mean Abundance	9.36		
(Family Functional Group)			
17 Chironomini Abundance (Family	19.72		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	14.98
2	<i>Rheotanytarsus</i>	11.98
3	<i>Tvetenia</i>	11.14
4	<i>Cricotopus</i>	10.44
5	<i>Polypedilum</i>	8.22



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

<b>Station Number: S-444</b>	Town: Newry	Date Deployed: 7/23/2013
<b>Log Number: 2216</b>	Waterbody: Sunday River - Station 444	Date Retrieved: 8/21/2013

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	17.4 deg C
Dissolved Oxygen:	8.5 mg/l
Specific Conductance:	16 uS/cm
Velocity:	62.82 cm/s
pH:	7.48
Wetted Width:	25 m
Bankfull Width:	36 m
Depth:	55 cm

**Waterbody Information - Retrieval**

Temperature:	19.5 deg C
Dissolved Oxygen:	9.1 mg/l
Specific Conductance:	15 uS/cm
Velocity:	60.5 cm/s
pH:	5.75
Wetted Width:	24 m
Bankfull Width:	36 m
Depth:	50 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Mountainous
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Above Road Crossing	Boulder 40 %
	Main Stem	Gravel 10 %
		Rubble/Cobble 40 %
		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

**Sample Comments**

8/21/2013 - FISH PRESENT



**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: 2216**

Subsample Factor: X1

Replicates: 3

Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Leuctridae	09020204	0.33	0.33		--	0.1	0.1
<i>Leuctra</i>	09020204020		0.33	0	SH		0.1
<i>Leuctra truncata</i>	09020204020058	0.33			--	0.1	
<i>Pteronarcys</i>	09020205023		1.67	0	SH		0.7
<i>Pteronarcys biloba</i>	09020205023061	1.67			--	0.7	
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Isoperla</i>	09020207026	2.67	2.67	2	PR	1.1	1.1
<i>Perlesta</i>	09020209046	2.67	2.67	5	PR	1.1	1.1
<i>Agnetina</i>	09020209050	0.33	1.00	2	PR	0.1	0.4
<i>Agnetina capitata</i>	09020209050152	0.67		2	PR	0.3	
<i>Boyeria</i>	09020301004		0.33	2	PR		0.1
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.1	
Baetidae	09020401	0.67			--	0.3	
<i>Baetis</i>	09020401001	0.67	1.12	4	CG	0.3	0.5
<i>Baetis tricaudatus</i>	09020401001012	0.33			--	0.1	
<i>Acerpenna</i>	09020401007	0.67	2.98	5	CG	0.3	1.2
<i>Acerpenna macdunnoughi</i>	09020401007001	2.00			--	0.8	
<i>Plauditus</i>	09020401012	0.67	1.86		CG	0.3	0.8
<i>Plauditus cestus</i>	09020401012004	1.00			--	0.4	
<i>Iswaeon</i>	09020401015	0.33	0.37		--	0.1	0.2
Heptageniidae	09020402	0.67	0.67		--	0.3	0.3
<i>Maccaffertium</i>	09020402015	6.67	13.67	4	SC	2.8	5.7
<i>Maccaffertium luteum</i>	09020402015049	7.00			--	2.9	
Leptophlebiidae	09020406	1.00	1.00		--	0.4	0.4
Ephemerellidae	09020410	0.33			--	0.1	
<i>Attenella</i>	09020410032		0.36	3	CG		0.2
<i>Attenella attenuata</i>	09020410032095	0.33			CG	0.1	
<i>Ephemerella</i>	09020410035	3.00	3.27	1	CG	1.3	1.4
<i>Serratella</i>	09020410037		0.36	2	CG		0.2
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.1	
<i>Tricorythodes</i>	09020411038	4.33	4.33	4	CG	1.8	1.8
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.1	0.1
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.1	0.1
Hydropsychidae	09020604	2.00			--	0.8	
<i>Cheumatopsyche</i>	09020604015	1.00	1.06	5	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016	13.33	35.94	4	CF	5.6	15.0
<i>Hydropsyche bronta</i>	09020604016029	1.67			--	0.7	
<i>Hydropsyche morosa</i>	09020604016030	1.00			--	0.4	



# **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: 2216**

Subsample Factor: X1

Replicates: 3

Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche slossonae</i>	09020604016031	13.67			--	5.7	
<i>Hydropsyche sparna</i>	09020604016032	4.33			--	1.8	
<i>Rhyacophila</i>	09020605019	0.33	3.67	2	PR	0.1	1.5
<i>Rhyacophila minor</i>	09020605019063	3.33			PR	1.4	
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		19.33	0	CF		8.1
<i>Brachycentrus appalachia</i>	09020609043096	19.00			--	7.9	
<i>Brachycentrus numerosus</i>	09020609043098	0.33			--	0.1	
<i>Lepidostoma</i>	09020611064	4.67	4.67	1	SH	1.9	1.9
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.1	0.1
<i>Triaenodes</i>	09020618077	0.33	0.33	6	SH	0.1	0.1
<i>Hexatoma</i>	09021001008	0.33	0.33	2	PR	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.1	0.1
Chironomidae	09021011	0.33			--	0.1	
<i>Ablabesmyia</i>	09021011001		0.67	8	PR		0.3
<i>Ablabesmyia mallochii</i>	09021011001004	0.67			--	0.3	
<i>Conchapelopia</i>	09021011004	4.00	4.01	6	PR	1.7	1.7
<i>Larsia</i>	09021011009	0.33	0.33	6	PR	0.1	0.1
<i>Paramerina</i>	09021011013				--		
<i>Rheopelopia</i>	09021011017		1.00		PR		0.4
<i>Rheopelopia acra group</i>	09021011017036	1.00			--	0.4	
<i>Trissopelopia</i>	09021011021		3.34		PR		1.4
<i>Trissopelopia ogemawi</i>	09021011021042	3.33			--	1.4	
<i>Brillia</i>	09021011033	1.33	1.34	5	SH	0.6	0.6
<i>Corynoneura</i>	09021011036	2.00	2.01	7	CG	0.8	0.8
<i>Cricotopus</i>	09021011037	0.33	25.07	7	SH	0.1	10.4
<i>Cricotopus bicinctus</i>	09021011037057	24.33			--	10.1	
<i>Cricotopus luciae</i>	09021011037073	0.33			--	0.1	
<i>Eukiefferiella</i>	09021011041		0.33	8	CG		0.1
<i>Eukiefferiella brehmi group</i>	09021011041073	0.33			--	0.1	
<i>Orthocladius</i>	09021011050		0.33	6	CG		0.1
<i>Orthocladius annectens</i>	09021011050092	0.33			--	0.1	
<i>Parametriocnemus</i>	09021011053	8.00	8.02	5	CG	3.3	3.3
<i>Rheocricotopus</i>	09021011057	0.33	0.33	6	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.1	0.1
<i>Tvetenia</i>	09021011065		26.74	5	CG		11.1
<i>Tvetenia vitracies</i>	09021011065113	10.00			--	4.2	
<i>Tvetenia paucunca</i>	09021011065114	16.67			--	6.9	



**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: 2216**

Subsample Factor: X1

Replicates: 3

Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Micropsectra</i>	09021011070	3.00	3.01	7	CG	1.3	1.3
<i>Rheotanytarsus</i>	09021011072	28.67	28.74	6	CF	11.9	12.0
<i>Tanytarsus</i>	09021011076	3.00	3.01	6	CF	1.3	1.3
<i>Polypedilum</i>	09021011102		19.72	6	SH		8.2
<i>Polypedilum aviceps</i>	09021011102181	17.00			--	7.1	
<i>Polypedilum flavum</i>	09021011102182	0.33			--	0.1	
<i>Polypedilum albicorne</i>	09021011102195	2.33			--	1.0	
<i>Simulium tuberosum</i>	09021012047067				--		
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.1	0.1
<i>Neoplasta</i>	09021016064	2.33	2.33		PR	1.0	1.0
<i>Promoresia</i>	09021113069		1.67		--		0.7
<i>Promoresia tardella</i>	09021113069052	1.67			--	0.7	
<i>Stenelmis</i>	09021113070	0.33	0.67	5	SC	0.1	0.3
<i>Stenelmis crenata</i>	09021113070055	0.33			--	0.1	
<i>Hygrobates</i>	09030102001	0.33	0.33		--	0.1	0.1