



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

Station Information

Station Number: S-866	River Basin:	Androscoggin
Waterbody: Bear River - Station 866	HUC8 Name:	Lower Androscoggin
Town: Newry	Latitude:	44 32 26.76 N
Directions: ON ROUTE 26, 4.9 MILES FROM THE INTERSECTION WITH ROUTE 2; SITE IS ON THE WEST SIDE OF THE ROAD, 45 M DOWNSTREAM	Longitude:	70 49 52.77 W
	Stream Order:	3

Sample Information

Log Number: 2681	Type of Sample: ROCK BAG	Date Deployed: 7/31/2018
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/28/2018

Classification Attainment

Statutory Class: AA	Final Determination: B	Date: 2/21/2019
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 2/19/2019	Comments: Class A (.16)	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.22	Class C	0.04
Class B	0.74	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.16
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.84

Model Variables

01 Total Mean Abundance	1156.00	18 Relative Abundance Ephemeroptera	0.09
02 Generic Richness	43.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	53.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	13.50
04 Ephemeroptera Mean Abundance	104.00	23 Relative Generic Richness- Plecoptera	0.19
05 Shannon-Wiener Generic Diversity	2.98	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	156.67
06 Hilsenhoff Biotic Index	4.37	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	14.67
07 Relative Abundance - Chironomidae	0.28	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	600.00		
11 <i>Cheumatopsyche</i> Abundance	6.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.05		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	6.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	4.50		
17 Chironomini Abundance (Family Functional Group)	28.50		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	51.90
2	<i>Cricotopus</i>	12.85
3	<i>Neoleptophlebia</i>	5.19
4	<i>Tvetenia</i>	4.15
5	<i>Isoperla</i>	2.77



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

Station Number: S-866 Town: Newry Date Deployed: 7/31/2018
Log Number: 2681 Waterbody: Bear River - Station 866 Date Retrieved: 8/28/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 17.9 deg C
Dissolved Oxygen: 10.62 mg/l
Dissolved Oxygen Saturation: 112.3 %
Specific Conductance: 35.7 uS/cm
Velocity: 39.6 cm/s
pH: 6.74
Wetted Width: 16 m
Bankfull Width: 21 m
Depth: 25 cm

Waterbody Information - Retrieval

Temperature: 19.4 deg C
Dissolved Oxygen: 10.73 mg/l
Dissolved Oxygen Saturation: 117.8 %
Specific Conductance: 39.4 uS/cm
Velocity: 27.4 cm/s
pH: 6.81
Wetted Width: 16 m
Bankfull Width: 21 m
Depth: 19 cm

Water Chemistry

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>	
Nps Pollution	Below Road Crossing	Boulder	15 %
	Main Stem	Gravel	10 %
		Rubble/Cobble	60 %
		Sand	15 %

Landcover Summary - 2004 Data

Total Area (ac)	14795	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	0.6	Tilled Agriculture %	0.4
		Low Int. Dev. %	0.6	Upland Woody %	97.6	Grassland %	0.0
		Development %	0.6	Natural %	99.0	Human Altered %	1.0
						Impervious %	0.5

Sample Comments

Small fish.



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

Station Number: S-866

Waterbody: Bear River - Station 866

Town: Newry

Log Number: 2681

Subsample Factor: X4

Replicates: 3

Calculated: 2/19/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Paracapnia</i>	09020203018	1.33	1.33	1	SH	0.1	0.1
<i>Leuctra</i>	09020204020	2.67	2.67	0	SH	0.2	0.2
<i>Pteronarcys</i>	09020205023	1.33	2.67	0	SH	0.1	0.2
<i>Pteronarcys biloba</i>	09020205023061	1.33			--	0.1	
Perlodidae	09020207	24.00			--	2.1	
<i>Isoperla</i>	09020207026	10.67	32.00	2	PR	0.9	2.8
<i>Isogenoides</i>	09020207033	1.33	4.00	0	PR	0.1	0.3
Chloroperlidae	09020208	1.33	1.33		--	0.1	0.1
<i>Sweltsa</i>	09020208040	2.67	2.67		PR	0.2	0.2
<i>Agnatina</i>	09020209050		6.67	2	PR		0.6
<i>Agnatina capitata</i>	09020209050152	6.67		2	PR	0.6	
<i>Baetis</i>	09020401001	1.33	2.67	4	CG	0.1	0.2
<i>Baetis flavistriga</i>	09020401001004	1.33			--	0.1	
<i>Acerpenna</i>	09020401007		2.67	5	CG		0.2
<i>Acerpenna macdunnoughi</i>	09020401007001	2.67			--	0.2	
<i>Plauditus</i>	09020401012	12.00	12.00		CG	1.0	1.0
<i>Maccaffertium</i>	09020402015		14.67	4	SC		1.3
<i>Maccaffertium vicarium</i>	09020402015055	14.67			--	1.3	
Leptophlebiidae	09020406	1.33	1.33		--	0.1	0.1
<i>Neoleptophlebia</i>	09020406027	60.00	60.00		--	5.2	5.2
<i>Ephemerella</i>	09020410035	10.67	10.67	1	CG	0.9	0.9
<i>Dolophilodes</i>	09020601001		22.67	0	CF		2.0
<i>Dolophilodes distincta</i>	09020601001001	22.67			--	2.0	
<i>Cheumatopsyche</i>	09020604015	6.67	6.67	5	CF	0.6	0.6
<i>Hydropsyche</i>	09020604016	290.67	600.00	4	CF	25.1	51.9
<i>Hydropsyche bronta</i>	09020604016029	5.33			--	0.5	
<i>Hydropsyche slossonae</i>	09020604016031	252.00			--	21.8	
<i>Hydropsyche sparna</i>	09020604016032	49.33			--	4.3	
<i>Hydropsyche ventura</i>	09020604016033	2.67			--	0.2	
<i>Rhyacophila</i>	09020605019		16.00	2	PR		1.4
<i>Rhyacophila acutiloba</i>	09020605019056	8.00			PR	0.7	
<i>Rhyacophila fuscula</i>	09020605019060	8.00			PR	0.7	
<i>Hydroptila</i>	09020607026	6.67	6.67	6	P	0.6	0.6
<i>Brachycentrus</i>	09020609043		9.33	0	CF		0.8
<i>Brachycentrus appalachia</i>	09020609043096	9.33			--	0.8	
<i>Antocha</i>	09021001004	2.67	2.67	3	CG	0.2	0.2
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.1	0.1



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

Station Number: S-866
Log Number: 2681

Waterbody: Bear River - Station 866
Subsample Factor: X4

Replicates: 3

Town: Newry
Calculated: 2/19/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hexatoma</i>	09021001008	2.67	2.67	2	PR	0.2	0.2
Chironomidae	09021011	36.00			--	3.1	
<i>Thienemannimyia</i>	09021011020		4.50	3	PR		0.4
<i>Thienemannimyia group</i>	09021011020041	4.00			--	0.3	
<i>Pagastia</i>	09021011025	1.33	1.50	1	--	0.1	0.1
<i>Potthastia</i>	09021011026		1.50	2	CG		0.1
<i>Potthastia gaedii</i>	09021011026045	1.33			--	0.1	
<i>Cricotopus</i>	09021011037	40.00	148.50	7	SH	3.5	12.8
<i>Cricotopus bicinctus</i>	09021011037057	92.00			--	8.0	
<i>Orthocladus</i>	09021011050	13.33	24.00	6	CG	1.2	2.1
<i>Orthocladus annectens</i>	09021011050092	8.00			--	0.7	
<i>Parametricnemus</i>	09021011053	2.67	3.00	5	CG	0.2	0.3
<i>Rheocricotopus</i>	09021011057	2.67	3.00	6	CG	0.2	0.3
<i>Synorthocladus</i>	09021011061	5.33	6.00	2	CG	0.5	0.5
<i>Thienemanniella</i>	09021011062	16.00	18.00	6	CG	1.4	1.6
<i>Tvetenia</i>	09021011065		48.00	5	CG		4.2
<i>Tvetenia vitracies</i>	09021011065113	2.67			--	0.2	
<i>Tvetenia paucunca</i>	09021011065114	40.00			--	3.5	
<i>Micropsectra</i>	09021011070	12.00	13.50	7	CG	1.0	1.2
<i>Rheotanytarsus</i>	09021011072		19.50	6	CF		1.7
<i>Rheotanytarsus exiguus group</i>	09021011072127	4.00			CF	0.3	
<i>Rheotanytarsus pellucidus</i>	09021011072128	13.33			CF	1.2	
<i>Tanytarsus</i>	09021011076	1.33	1.50	6	CF	0.1	0.1
<i>Polypedilum</i>	09021011102		28.50	6	SH		2.5
<i>Polypedilum aviceps</i>	09021011102181	25.33			--	2.2	
<i>Paracricotopus</i>	09021011110	2.67	3.00		CG	0.2	0.3
<i>Simulium</i>	09021012047	2.67	2.67	4	CF	0.2	0.2
<i>Roederiodes</i>	09021016058	1.33	1.33	3	PR	0.1	0.1
<i>Optioservus</i>	09021113067		1.33	3	SC		0.1
<i>Optioservus trivittatus</i>	09021113067048	1.33			--	0.1	
<i>Promoesia</i>	09021113069		1.33		--		0.1
<i>Promoesia tardella</i>	09021113069052	1.33			--	0.1	