



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

**Station Information**

<b>Station Number:</b>	<b>S-866</b>	DEP Drainage:	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**

<b>Log Number:</b>	<b>2214</b>	Type of Sample:	ROCK BAG	Date Deployed:	7/23/2013
Subsample Factor:	X4	Replicates:	3	Date Retrieved:	8/21/2013

**Classification Attainment**

<b>Statutory Class:</b>	<b>AA</b>	<b>Final Determination:</b>	<b>A</b>	Date:	3/18/2014
Model Result with P>.6:	A	<b>Reason for Determination:</b>	<b>Model</b>		
Date Last Calculated:	3/17/2014	Comments:			

**Model Probabilities**

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.52	Class C	0.01	Class A, B, or C	1.00
Class B	0.48	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B		1.00		Class A	0.95
Class C or Non-Attainment		0.00		Class B or C or Non-Attainment	0.05

**Model Variables**

01 Total Mean Abundance	776.00	18 Relative Abundance Ephemeroptera	0.15
02 Generic Richness	53.00	19 EPT Generic Richness	26.00
03 Plecoptera Mean Abundance	57.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.37
04 Ephemeroptera Mean Abundance	117.33	23 Relative Generic Richness- Plecoptera	0.13
05 Shannon-Wiener Generic Diversity	4.22	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	211.70
06 Hilsenhoff Biotic Index	4.81	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	30.61
07 Relative Abundance - Chironomidae	0.57	28 EP Generic Richness/14	1.21
08 Relative Generic Richness Diptera	0.40	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	73.28		
11 <i>Cheumatopsyche</i> Abundance	1.38		
12 EPT Generic Richness/ Diptera Generic Richness	1.24		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	4.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	17.87		
17 Chironomini Abundance (Family Functional Group)	37.11		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	26.39
2	<i>Hydropsyche</i>	9.44
3	<i>Rheotanytarsus</i>	7.79
4	<i>Ephemerella</i>	6.70
5	<i>Brachycentrus</i>	6.19



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Town: Newry

Date Deployed: 7/23/2013

**Log Number: 2214**

Waterbody: Bear River - Station 866

Date Retrieved: 8/21/2013

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 16.9 deg C  
Dissolved Oxygen: 8.3 mg/l  
Specific Conductance: 19 uS/cm  
Velocity: 37.9 cm/s  
pH: 7.89  
Wetted Width: 19 m  
Bankfull Width: 20 m  
Depth: 45 cm

**Waterbody Information - Retrieval**

Temperature: 19.2 deg C  
Dissolved Oxygen: 11.1 mg/l  
Specific Conductance: 24 uS/cm  
Velocity: 19.3 cm/s  
pH: 6.25  
Wetted Width: 19 m  
Bankfull Width: 20 m  
Depth: 37 cm

**Water Chemistry - 8/21/2013**

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	3 ug/l
Nitrate+nitrite As N	0.05 mg/l	Total Phosphorus	0.005 mg/l
Total Kjeldahl Nitrogen	0.1 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	1.6 mg/l	Total Dissolved Solids	41 mg/l

**Summary of Habitat Characteristics**

Landuse Name

Canopy Cover

Terrain

Upland Conifer

Open

Hilly

Upland Hardwood

Potential Stressor

Location

Substrate

Main Stem

Boulder

15 %

Pristine Landscape

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**



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Subsample Factor: X4

Replicates: 3

Calculated: 3/17/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Stylodrilus</i>	08020101004		1.33		--		0.2
<i>Stylodrilus heringianus</i>	08020101004001	1.33			--	0.2	
<i>Nais</i>	08020202009		1.33		CG		0.2
<i>Nais simplex</i>	08020202009008	1.33			--	0.2	
<i>Paracapnia</i>	09020203018	1.33	1.33	1	SH	0.2	0.2
<i>Leuctra</i>	09020204020	1.33	1.33	0	SH	0.2	0.2
<i>Pteronarcys</i>	09020205023		2.67	0	SH		0.3
<i>Pteronarcys biloba</i>	09020205023061	2.67			--	0.3	
Perlodidae	09020207	21.33	21.33		--	2.7	2.7
<i>Isoperla</i>	09020207026	24.00	24.00	2	PR	3.1	3.1
<i>Sweltsa</i>	09020208040	2.67	2.67		PR	0.3	0.3
<i>Agneta</i>	09020209050		4.00	2	PR		0.5
<i>Agneta capitata</i>	09020209050152	4.00		2	PR	0.5	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.2
<i>Boyeria grafiana</i>	09020301004011	1.33			--	0.2	
<i>Cordulegaster</i>	09020303019	4.00	4.00	3	PR	0.5	0.5
Baetidae	09020401	1.33			--	0.2	
<i>Baetis</i>	09020401001	2.67	3.20	4	CG	0.3	0.4
<i>Acerpenna</i>	09020401007	4.00	4.80	5	CG	0.5	0.6
Heptageniidae	09020402	1.33			--	0.2	
<i>Stenacron</i>	09020402014	1.33	1.39	7	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	21.33	30.61	4	SC	2.7	3.9
<i>Maccaffertium luteum</i>	09020402015049	8.00			--	1.0	
Leptophlebiidae	09020406	9.33	9.33		--	1.2	1.2
<i>Habrophlebia</i>	09020406023		1.33		--		0.2
<i>Habrophlebia vibrans</i>	09020406023072	1.33			--	0.2	
<i>Ephemerella</i>	09020410035	52.00	52.00	1	CG	6.7	6.7
<i>Eurylophella</i>	09020410036	8.00	8.00	3	CG	1.0	1.0
<i>Serratella</i>	09020410037		2.67	2	CG		0.3
<i>Serratella serratoides</i>	09020410037124	2.67			--	0.3	
<i>Tricorythodes</i>	09020411038	4.00	4.00	4	CG	0.5	0.5
<i>Neureclipsis</i>	09020603008	1.33	1.33	7	CF	0.2	0.2
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	0.2	0.2
Hydropsychidae	09020604	2.67			--	0.3	
<i>Cheumatopsyche</i>	09020604015	1.33	1.38	5	CF	0.2	0.2
<i>Hydropsyche</i>	09020604016	38.67	73.28	4	CF	5.0	9.4
<i>Hydropsyche bronta</i>	09020604016029	1.33			--	0.2	
<i>Hydropsyche morosa</i>	09020604016030	2.67			--	0.3	



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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche slossonae</i>	09020604016031	24.00			--	3.1	
<i>Hydropsyche sparna</i>	09020604016032	4.00			--	0.5	
<i>Rhyacophila</i>	09020605019	4.00	6.67	2	PR	0.5	0.9
<i>Rhyacophila mainensis</i>	09020605019069	2.67			--	0.3	
<i>Brachycentrus</i>	09020609043		48.00	0	CF		6.2
<i>Brachycentrus appalachia</i>	09020609043096	48.00			--	6.2	
Limnephilidae	09020610				--		
<i>Lepidostoma</i>	09020611064	1.33	1.33	1	SH	0.2	0.2
Leptoceridae	09020618	1.33	1.33		--	0.2	0.2
<i>Ceraclea</i>	09020618072	1.33	1.33	3	CG	0.2	0.2
<i>Nigronia</i>	09020701003		1.33	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	1.33			--	0.2	
<i>Hexatoma</i>	09021001008	2.67	2.67	2	PR	0.3	0.3
Chironomidae	09021011	13.33			--	1.7	
<i>Rheopelopia</i>	09021011017		16.50		PR		2.1
<i>Rheopelopia acra group</i>	09021011017036	16.00			--	2.1	
<i>Trissopelopia</i>	09021011021		1.37		PR		0.2
<i>Trissopelopia ogemawi</i>	09021011021042	1.33			--	0.2	
<i>Pagastia</i>	09021011025		2.75	1	--		0.4
<i>Pagastia orthogonia</i>	09021011025001	2.67			--	0.3	
<i>Potthastia</i>	09021011026		2.75	2	CG		0.4
<i>Potthastia gaedii</i>	09021011026045	2.67			--	0.3	
<i>Corynoneura</i>	09021011036	21.33	21.99	7	CG	2.7	2.8
<i>Cricotopus</i>	09021011037	5.33	204.82	7	SH	0.7	26.4
<i>Cricotopus bicinctus</i>	09021011037057	170.67			--	22.0	
<i>Cricotopus annulator complex</i>	09021011037074	21.33			--	2.7	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	1.33			SH	0.2	
<i>Eukiefferiella</i>	09021011041		5.50	8	CG		0.7
<i>Eukiefferiella brehmi group</i>	09021011041073	4.00			--	0.5	
<i>Eukiefferiella devonica group</i>	09021011041083	1.33			CG	0.2	
<i>Orthocladius</i>	09021011050	12.00	13.75	6	CG	1.5	1.8
<i>Orthocladius lignicola</i>	09021011050100	1.33			--	0.2	
<i>Parametriocnemus</i>	09021011053	8.00	8.25	5	CG	1.0	1.1
<i>Rheocricotopus</i>	09021011057	5.33	8.25	6	CG	0.7	1.1
<i>Rheocricotopus pauciseta</i>	09021011057111	2.67			--	0.3	
<i>Synorthocladius</i>	09021011061	1.33	1.37	2	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	2.67	27.49	6	CG	0.3	3.5
<i>Thienemanniella xena</i>	09021011062110	16.00			--	2.1	



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<i>Thienemanniella boltoni</i>	09021011062113	5.33			--	0.7	
<i>Thienemanniella sp. B</i>	09021011062116	2.67			--	0.3	
<i>Tvetenia</i>	09021011065		24.74	5	CG		3.2
<i>Tvetenia paucunca</i>	09021011065114	24.00			--	3.1	
<i>Micropsectra</i>	09021011070	1.33	1.37	7	CG	0.2	0.2
<i>Rheotanytarsus</i>	09021011072	58.67	60.48	6	CF	7.6	7.8
<i>Sublettea coffmani</i>	09021011075131				--		
<i>Tanytarsus</i>	09021011076	5.33	5.50	6	CF	0.7	0.7
<i>Microtendipes</i>	09021011094		5.50	6	CF		0.7
<i>Microtendipes pedellus group</i>	09021011094166	5.33			--	0.7	
<i>Phaenopsectra</i>	09021011101		1.37	7	SC		0.2
<i>Phaenopsectra obediens</i>	09021011101182	1.33			SC	0.2	
<i>Polypedilum</i>	09021011102		30.24	6	SH		3.9
<i>Polypedilum aviceps</i>	09021011102181	18.67			--	2.4	
<i>Polypedilum flavum</i>	09021011102182	5.33			--	0.7	
<i>Polypedilum albicorne</i>	09021011102195	5.33			--	0.7	
<i>Neoplasta</i>	09021016064	2.67	2.67		PR	0.3	0.3
<i>Promoresia</i>	09021113069		6.67		--		0.9
<i>Promoresia tardella</i>	09021113069052	6.67			--	0.9	