



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

Station Information

Station Number: S-868	River Basin:	Androscoggin	
Waterbody:	Kennebago River - Station 868	HUC8 Name:	Upper Androscoggin
Town:	Rangeley	Latitude:	45 0 34.75 N
Directions:	RTE 16 TO BOY SCOUT ROAD; FOLLOW ROAD UNTIL JUST BEFORE GATE (~1 MILE); FOLLOW STEPS (LEFT) DOWN TO RIVER	Longitude:	70 47 29.46 W
		Stream Order:	4

Sample Information

Log Number: 2685	Type of Sample:	ROCK BAG	Date Deployed:	7/30/2018	
Subsample Factor:	X1	Replicates:	2	Date Retrieved:	8/29/2018

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.97	Class A, B, or C	1.00
Class B	0.03	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	163.50	18 Relative Abundance Ephemeroptera	0.50
02 Generic Richness	51.00	19 EPT Generic Richness	24.00
03 Plecoptera Mean Abundance	17.50	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	82.00	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.34	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	10.50
06 Hilsenhoff Biotic Index	2.96	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	4.50
07 Relative Abundance - Chironomidae	0.13	28 EP Generic Richness/14	1.07
08 Relative Generic Richness Diptera	0.29	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	1.50		
11 <i>Cheumatopsyche</i> Abundance	5.50		
12 EPT Generic Richness/ Diptera Generic Richness	1.60		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Paraleptophlebia</i>	30.58
2	<i>Isoperla</i>	10.40
3	<i>Brachycentrus</i>	3.67
4	<i>Cheumatopsyche</i>	3.36
5	<i>Stenacron</i>	3.06
6	<i>Eurylophella</i>	3.06
7	<i>Tanytarsus</i>	3.06



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	21.8 deg C
Dissolved Oxygen:	9.55 mg/l
Dissolved Oxygen Saturation:	112.1 %
Specific Conductance:	27.2 uS/cm
Velocity:	21.3 cm/s
pH:	7.72
Wetted Width:	27 m
Bankfull Width:	27 m
Depth:	106 cm

Waterbody Information - Retrieval

Temperature:	22.3 deg C
Dissolved Oxygen:	9.58 mg/l
Dissolved Oxygen Saturation:	114.4 %
Specific Conductance:	33.7 uS/cm
Velocity:	12.2 cm/s
pH:	6.95
Wetted Width:	27 m
Bankfull Width:	27 m
Depth:	82 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Open	Mountainous
Upland Hardwood		

<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Main Stem	Bedrock	30 %
	Minimally Disturbed	Gravel	50 %
		Rubble/Cobble	15 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	83050	High Int. Dev. %	0.0	Water %	3.8	Non-vegetated %	0.1
		Med Int. Dev. %	0.0	Wetland %	4.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.4	Upland Woody %	91.6	Grassland %	0.0
		Development %	0.4	Natural %	95.6	Human Altered %	0.5
						Impervious %	0.1

Sample Comments

Fish.



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Aquatic Life Taxonomic Inventory Report

Station Number: S-868

Waterbody: Kennebago River - Station 868

Town: Rangeley

Log Number: 2685

Subsample Factor: X1

Replicates: 2

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>Girardia</i>	03010102002	1.50	1.50		--	0.9	0.9
Lumbriculidae	08020101	0.50	0.50		--	0.3	0.3
<i>Orconectes</i>	09010301008	0.50	0.50		CG	0.3	0.3
<i>Pteronarcys</i>	09020205023	0.50	0.50	0	SH	0.3	0.3
<i>Isoperla</i>	09020207026	17.00	17.00	2	PR	10.4	10.4
<i>Boyeria</i>	09020301004	1.50	3.50	2	PR	0.9	2.1
<i>Boyeria grafiana</i>	09020301004011	0.50			--	0.3	
<i>Boyeria vinosa</i>	09020301004012	1.50			--	0.9	
Gomphidae	09020302	0.50	0.50		--	0.3	0.3
<i>Hagenius</i>	09020302008		0.50	1	PR		0.3
<i>Hagenius brevistylus</i>	09020302008015	0.50			PR	0.3	
<i>Calopteryx</i>	09020307043	1.50	1.50	5	PR	0.9	0.9
Baetidae	09020401	1.00			--	0.6	
<i>Centroptilum</i>	09020401003	1.50	1.67	2	CG	0.9	1.0
<i>Acerpenna</i>	09020401007	0.50	3.89	5	CG	0.3	2.4
<i>Acerpenna macdunnoughi</i>	09020401007001	1.50			--	0.9	
<i>Acerpenna pygmaea</i>	09020401007011	1.50			--	0.9	
<i>Labiobaetis</i>	09020401009	1.50	1.67		--	0.9	1.0
<i>Procloeon</i>	09020401010	1.50	1.67		CG	0.9	1.0
<i>Plauditus</i>	09020401012	0.50	0.56		CG	0.3	0.3
<i>Iswaeon</i>	09020401015		0.56		--		0.3
<i>Iswaeon anoka</i>	09020401015001	0.50			--	0.3	
<i>Leucrocuta</i>	09020402011	2.50	2.50	1	SC	1.5	1.5
<i>Stenacron</i>	09020402014	0.50	5.00	7	SC	0.3	3.1
<i>Stenacron interpunctatum</i>	09020402014045	4.50			--	2.8	
<i>Maccaffertium</i>	09020402015	1.50	4.50	4	SC	0.9	2.8
<i>Maccaffertium modestum</i>	09020402015051	0.50			--	0.3	
<i>Maccaffertium vicarium</i>	09020402015055	2.50			--	1.5	
<i>Paraleptophlebia</i>	09020406026	50.00	50.00	1	CG	30.6	30.6
<i>Ephemera</i>	09020407027	2.50	2.50	1	CG	1.5	1.5
<i>Eurylophella</i>	09020410036	5.00	5.00	3	CG	3.1	3.1
<i>Tricorythodes</i>	09020411038	2.50	2.50	4	CG	1.5	1.5
<i>Chimarra</i>	09020601003		3.50	2	CF		2.1
<i>Chimarra obscura</i>	09020601003003	3.50			--	2.1	
<i>Neureclipsis</i>	09020603008	2.00	2.00	7	CF	1.2	1.2
<i>Nyctiophylax</i>	09020603009	0.50	0.50	5	PR	0.3	0.3
<i>Cheumatopsyche</i>	09020604015	5.50	5.50	5	CF	3.4	3.4



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		Calculated: 2/19/2019

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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche</i>	09020604016		1.50	4	CF		0.9
<i>Hydropsyche morosa</i>	09020604016030	1.00			--	0.6	
<i>Hydropsyche sparna</i>	09020604016032	0.50			--	0.3	
<i>Oxyethira</i>	09020607028	0.50	0.50	3	P	0.3	0.3
<i>Brachycentrus</i>	09020609043		6.00	0	CF		3.7
<i>Brachycentrus appalachia</i>	09020609043096	6.00			--	3.7	
<i>Mystacides</i>	09020618075		0.50	4	CG		0.3
<i>Mystacides sepulchralis</i>	09020618075147	0.50			--	0.3	
<i>Oecetis</i>	09020618078	4.50	4.50	8	PR	2.8	2.8
<i>Sialis</i>	09020702004	0.50	0.50	4	PR	0.3	0.3
Chironomidae	09021011				--		
<i>Labrundinia</i>	09021011008			7	PR		
<i>Nilotanytus</i>	09021011012			6	PR		
<i>Procladius</i>	09021011015	0.50	0.50	9	PR	0.3	0.3
<i>Thienemannimyia</i>	09021011020		2.50	3	PR		1.5
<i>Thienemannimyia group</i>	09021011020041	2.50			--	1.5	
<i>Zavrelimyia</i>	09021011022	0.50	0.50	8	PR	0.3	0.3
<i>Cardiocladius</i>	09021011034	0.50	0.50	5	PR	0.3	0.3
<i>Eukiefferiella</i>	09021011041		1.00	8	CG		0.6
<i>Eukiefferiella brehmi group</i>	09021011041073	0.50			--	0.3	
<i>Eukiefferiella pseudomontana group</i>	09021011041080	0.50			--	0.3	
<i>Orthocladius</i>	09021011050		1.50	6	CG		0.9
<i>Orthocladius annectens</i>	09021011050092	1.50			--	0.9	
<i>Parametriocnemus</i>	09021011053	0.50	0.50	5	CG	0.3	0.3
<i>Rheotanytarsus</i>	09021011072		2.50	6	CF		1.5
<i>Rheotanytarsus pellucidus</i>	09021011072128	2.50			CF	1.5	
<i>Stempellinella</i>	09021011074	2.50	2.50	2	--	1.5	1.5
<i>Tanytarsus</i>	09021011076	5.00	5.00	6	CF	3.1	3.1
<i>Pseudochironomus</i>	09021011078	1.00	1.00	5	CG	0.6	0.6
<i>Microtendipes</i>	09021011094		2.50	6	CF		1.5
<i>Microtendipes rydalensis group</i>	09021011094168	2.50			--	1.5	
<i>Tribelos</i>	09021011107	0.50	0.50	5	CG	0.3	0.3
<i>Simulium</i>	09021012047	0.50	0.50	4	CF	0.3	0.3
Tabanidae	09021014	0.50	0.50		--	0.3	0.3
<i>Dubiraphia</i>	09021113064	4.50	4.50	6	--	2.8	2.8
<i>Promoresia</i>	09021113069		0.50		--		0.3
<i>Promoresia tardella</i>	09021113069052	0.50			--	0.3	
<i>Stenelmis</i>	09021113070	3.00	3.00	5	SC	1.8	1.8



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<i>Gyraulius</i>	10010203029	0.50	0.50		SC	0.3	0.3