



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

Station Information

Station Number: S-136 River Basin: Androscoggin
Waterbody: Rangeley River - Station 136 HUC8 Name: Upper Androscoggin
Town: Rangeley Latitude: 44 58 5.36 N
Directions: ABOVE ATLANTIC SALMON HATCHERY Longitude: 70 46 29.73 W
Stream Order: 3

Sample Information

Log Number: 2683 Type of Sample: ROCK BASKET Date Deployed: 7/30/2018
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/29/2018

Classification Attainment

Statutory Class: A Final Determination: B Date: 2/21/2019
Model Result with $P \geq 0.6$: C Reason for Determination: Best Professional Judgement
Date Last Calculated: 2/19/2019 Comments: Lake Outlet Effect. Raised finding from Class C to Class B.

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.03	Class A, B, or C	1.00
Class B	0.42	Non-Attainment	0.00
Class C			
	0.54		
NA			
	0.01		
B or Better Model		A Model	
Class A or B	0.07	Class A	0.00
Class C or Non-Attainment	0.93	Class B or C or Non-Attainment	1.00

Model Variables

01 Total Mean Abundance	1273.33	18 Relative Abundance Ephemeroptera	0.05
02 Generic Richness	22.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	0.00
04 Ephemeroptera Mean Abundance	69.33	<i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	
05 Shannon-Wiener Generic Diversity	2.20	23 Relative Generic Richness- Plecoptera	0.09
06 Hilsenhoff Biotic Index	4.17	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	229.33
07 Relative Abundance - Chironomidae	0.02	<i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	
08 Relative Generic Richness Diptera	0.32	26 Sum of Abundances: <i>Acroneuria</i> ,	37.33
09 <i>Hydropsyche</i> Abundance	726.67	<i>Maccaffertium</i> , <i>Stenonema</i>	
11 <i>Cheumatopsyche</i> Abundance	218.67	28 EP Generic Richness/14	0.36
12 EPT Generic Richness/ Diptera	1.71	30 Presence of Class A Indicator Taxa/7	0.00
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	1.33		
Functional Group)			
16 Tanypodinae Mean Abundance	1.33		
(Family Functional Group)			
17 Chironomini Abundance (Family	4.00		
Functional Group)			

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	57.07
2	<i>Cheumatopsyche</i>	17.17
3	<i>Girardia</i>	7.75
4	<i>Simulium</i>	4.29
5	<i>Chimarra</i>	3.77



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Station Number: S-136	Town: Rangeley	Date Deployed: 7/30/2018
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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	21.9 deg C
Dissolved Oxygen:	9.36 mg/l
Dissolved Oxygen Saturation:	110.3 %
Specific Conductance:	42.5 uS/cm
Velocity:	51.8 cm/s
pH:	7.25
Wetted Width:	13.25 m
Bankfull Width:	13.25 m
Depth:	60 cm

Waterbody Information - Retrieval

Temperature:	21.5 deg C
Dissolved Oxygen:	9.61 mg/l
Dissolved Oxygen Saturation:	112.9 %
Specific Conductance:	42.5 uS/cm
Velocity:	73.2 cm/s
pH:	6.84
Wetted Width:	13.25 m
Bankfull Width:	13.25 m
Depth:	74 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer		Hilly
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Lake Outlet	Above Fish Hatchery	Boulder 15 %
	Above Road Crossing	Gravel 10 %
		Rubble/Cobble 75 %

Landcover Summary - 2004 Data

Total Area (ac)	63755	High Int. Dev. %	0.2	Water %	12.6	Non-vegetated %	0.4
		Med Int. Dev. %	0.3	Wetland %	3.2	Tilled Agriculture %	0.0
		Low Int. Dev. %	1.4	Upland Woody %	79.3	Grassland %	0.6
		Development %	1.9	Natural %	83.1	Human Altered %	4.3
						Impervious %	1.5

Sample Comments

JONATHAN ADKINS- SITE SUPERVISOR FOR OQUOSSUC HATCHERY (207-864-3664) . 665,000
Atlantic Salmon fry.



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-136

Waterbody: Rangeley River - Station 136

Town: Rangeley

Log Number: 2683

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
Hydridae	02010101	6.67	6.67		--	0.5	0.5
<i>Girardia</i>	03010102002	98.67	98.67		--	7.7	7.7
Perlodidae	09020207	1.33	1.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042		1.33	0	PR		0.1
<i>Acroneuria abnormis</i>	09020209042121	1.33		0	PR	0.1	
<i>Baetis</i>	09020401001	6.67	32.00	4	CG	0.5	2.5
<i>Baetis flavistriga</i>	09020401001004	13.33			--	1.0	
<i>Baetis intercalaris</i>	09020401001008	10.67			--	0.8	
<i>Baetis tricaudatus</i>	09020401001012	1.33			--	0.1	
<i>Maccaffertium</i>	09020402015	14.67	36.00	4	SC	1.2	2.8
<i>Maccaffertium mediopunctatum</i>	09020402015050	21.33			--	1.7	
<i>Neoleptophlebia</i>	09020406027	1.33	1.33		--	0.1	0.1
<i>Chimarra</i>	09020601003		48.00	2	CF		3.8
<i>Chimarra obscura</i>	09020601003003	48.00			--	3.8	
<i>Neureclipsis</i>	09020603008	6.67	6.67	7	CF	0.5	0.5
<i>Cheumatopsyche</i>	09020604015	218.67	218.67	5	CF	17.2	17.2
<i>Hydropsyche</i>	09020604016	304.00	726.67	4	CF	23.9	57.1
<i>Hydropsyche morosa</i>	09020604016030	414.67			--	32.6	
<i>Hydropsyche sparna</i>	09020604016032	8.00			--	0.6	
<i>Rhyacophila</i>	09020605019		1.33	2	PR		0.1
<i>Rhyacophila fuscula</i>	09020605019060	1.33			PR	0.1	
<i>Hydroptila</i>	09020607026	10.67	10.67	6	P	0.8	0.8
<i>Ceraclea</i>	09020618072	1.33	1.33	3	CG	0.1	0.1
Chironomidae	09021011				--		
<i>Nilotanytus</i>	09021011012		1.33	6	PR		0.1
<i>Nilotanytus fimbriatus</i>	09021011012027	1.33			--	0.1	
<i>Cricotopus</i>	09021011037	8.00	10.67	7	SH	0.6	0.8
<i>Cricotopus bicinctus</i>	09021011037057	2.67			--	0.2	
<i>Nanocladius</i>	09021011049	2.67	2.67	3	CG	0.2	0.2
<i>Tvetenia</i>	09021011065		6.67	5	CG		0.5
<i>Tvetenia vitracies</i>	09021011065113	5.33			--	0.4	
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.1	
<i>Polypedilum</i>	09021011102		4.00	6	SH		0.3
<i>Polypedilum flavum</i>	09021011102182	4.00			--	0.3	
<i>Simulium</i>	09021012047	54.67	54.67	4	CF	4.3	4.3
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058		1.33	4	SC		0.1



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		Actual	Adjusted			Actual	Adjusted
<i>Psephenus herricki</i>	09021108058028		1.33		--		0.1