



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

Station Information

Station Number: S-747	River Basin: Saco
Waterbody: Goodall Brook - Station 747	HUC8 Name: Piscataqua-Salmon Falls
Town: Sanford	Latitude: 43 26 11.01 N
Directions: 25M UPSTREAM OF ROBERTS ROAD	Longitude: 70 46 42.43 W
	Stream Order: 1

Sample Information

Log Number: 2375	Type of Sample: ROCK BAG	Date Deployed: 7/21/2015
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/18/2015

Classification Attainment

Statutory Class: B	Final Determination: NA	Date: 4/28/2016
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 4/26/2016	Comments:	

Model Probabilities

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

Model Variables

01 Total Mean Abundance	510.67	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	27.00	19 EPT Generic Richness	2.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	244.98
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.75	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	0.00
06 Hilsenhoff Biotic Index	6.23	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.88	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.67	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.11		
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	31.13		
17 Chironomini Abundance (Family Functional Group)	25.72		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Micropsectra</i>	47.97
2	<i>Prodiamesa</i>	14.58
3	<i>Brillia</i>	11.13
4	<i>Caecidotea</i>	6.79
5	<i>Zavrelimyia</i>	4.51



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 13.2 deg C
Dissolved Oxygen: 8.75 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 652 uS/cm
Velocity: 6.1 cm/s
pH: 6.32
Wetted Width: 2.4 m
Bankfull Width: 4.4 m
Depth: 12.5 cm

Waterbody Information - Retrieval

Temperature: 13.5 deg C
Dissolved Oxygen: 9.06 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 419.7 uS/cm
Velocity:
pH: 6.32
Wetted Width: 2.5 m
Bankfull Width: 4.2 m
Depth: 14 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Hardwood	Partly Open	Flat	
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above Road Crossing	Detritus	5 %
		Gravel	5 %
		Sand	80 %
		Silt	10 %

Landcover Summary - 2004 Data

Total Area (ac)	150	High Int. Dev. %	19.1	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	25.8	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	5.8	Upland Woody %	21.5	Grassland %	0.0
		Development %	50.7	Natural %	21.5	Human Altered %	78.5
						Impervious %	37.0

Sample Comments

7/21/2015: 84.7% DO.
8/18/2015: FISH PRESENT



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-747

Waterbody: Goodall Brook - Station 747

Town: Sanford

Log Number: 2375

Subsample Factor: X4

Replicates: 3

Calculated: 4/26/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Lumbriculidae	08020101	5.33	5.33		--	1.0	1.0
Tubificida	080202	1.33	1.33		--	0.3	0.3
<i>Pristina</i>	08020202004		2.67		--		0.5
<i>Pristina jenkiniae</i>	08020202004010	2.67			--	0.5	
<i>Limnodrilus</i>	08020202022		1.33		CG		0.3
<i>Limnodrilus udekemianus</i>	08020202022006	1.33			--	0.3	
<i>Caecidotea</i>	09010101001	28.00	34.67	8	SH	5.5	6.8
<i>Caecidotea communis</i>	09010101001001	6.67			--	1.3	
<i>Rhyacophila</i>	09020605019	1.33	1.33	2	PR	0.3	0.3
<i>Frenesia</i>	09020610058		4.00	0	SH		0.8
<i>Frenesia difficilis</i>	09020610058117	4.00			--	0.8	
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.3	0.3
<i>Dixella</i>	09021006024	1.33	1.33		CG	0.3	0.3
Chironomidae	09021011	6.67			--	1.3	
<i>Conchapelopia</i>	09021011004			6	PR		
<i>Meropelopia</i>	09021011010	6.67	6.77		--	1.3	1.3
<i>Natarsia</i>	09021011011	1.33	1.35	8	PR	0.3	0.3
<i>Zavrelimyia</i>	09021011022		23.01	8	PR		4.5
<i>Zavrelimyia sinuosa group</i>	09021011022046	22.67			--	4.4	
<i>Prodiamesa</i>	09021011031		74.44	3	CG		14.6
<i>Prodiamesa olivacea</i>	09021011031048	73.33			--	14.4	
<i>Brillia</i>	09021011033	4.00	56.85	5	SH	0.8	11.1
<i>Brillia parva</i>	09021011033050	52.00			--	10.2	
<i>Corynoneura</i>	09021011036			7	CG		
<i>Diplocladius</i>	09021011038		1.35	8	CG		0.3
<i>Diplocladius cultriger</i>	09021011038001	1.33			--	0.3	
<i>Heterotrissocladius</i>	09021011044		1.35	0	CG		0.3
<i>Heterotrissocladius marcidus</i>	09021011044083	1.33			--	0.3	
<i>Thienemanniella</i>	09021011062	1.33	1.35	6	CG	0.3	0.3
<i>Micropsectra</i>	09021011070	9.33	244.98	7	CG	1.8	48.0
<i>Micropsectra polita</i>	09021011070124	232.00		7	--	45.4	
<i>Chironomus</i>	09021011080	12.00	12.18	10	CG	2.3	2.4
<i>Paracladopelma</i>	09021011098		2.71	7	--		0.5
<i>Paracladopelma undine</i>	09021011098177	2.67			--	0.5	
<i>Phaenopsectra</i>	09021011101		1.35	7	SC		0.3
<i>Phaenopsectra flavipes</i>	09021011101179	1.33			SC	0.3	
<i>Polypedilum</i>	09021011102		5.41	6	SH		1.1



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<i>Polypedilum aviceps</i>	09021011102181	1.33			--	0.3	
<i>Polypedilum albicorne</i>	09021011102195	4.00			--	0.8	
<i>Stictochironomus</i>	090210111106	4.00	4.06	9	CG	0.8	0.8
<i>Macropelopia</i>	090210111111		10.83		P		2.1
<i>Macropelopia decedens</i>	09021011111002	10.67			--	2.1	
<i>Neoplasta</i>	09021016064	5.33	5.33		PR	1.0	1.0
<i>Neoporus</i>	09021103033	1.33	1.33		--	0.3	0.3
Acariformes	090301	1.33	1.33		--	0.3	0.3
Basommatophora	100102	1.33	1.33		--	0.3	0.3