



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

**Station Information**

<b>Station Number:</b> S-1157	River Basin:	Androscoggin	
Waterbody:	Bunganock Brook - Station 1157	HUC8 Name:	Lower Androscoggin
Town:	Hartford	Latitude:	44 21 31.68 N
Directions:	DOWNSTREAM OF TOWN FARM ROAD	Longitude:	70 21 55.69 W
		Stream Order:	1

**Sample Information**

<b>Log Number:</b> 2762	Type of Sample:	ROCK BAG	Date Deployed:	7/25/2019	
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/26/2019

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> A	Date:	1/4/2021
Model Result with $P \geq 0.6$ :	A	<b>Reason for Determination:</b>	Model
Date Last Calculated:	12/23/2020	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.66	Class C	0.03
Class B	0.31	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B		Class A	0.93
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.07

**Model Variables**

01 Total Mean Abundance	123.00	18 Relative Abundance Ephemeroptera	0.16
02 Generic Richness	37.00	19 EPT Generic Richness	16.00
03 Plecoptera Mean Abundance	2.67	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	1.00
04 Ephemeroptera Mean Abundance	20.00	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.80	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	9.00
06 Hilsenhoff Biotic Index	4.29	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	9.67
07 Relative Abundance - Chironomidae	0.19	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	45.00		
11 <i>Cheumatopsyche</i> Abundance	6.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.14		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.67		
17 Chironomini Abundance (Family Functional Group)	11.67		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	36.59
2	<i>Maccaffertium</i>	6.78
3	<i>Stenelmis</i>	6.50
4	<i>Cheumatopsyche</i>	5.42
5	<i>Polypedilum</i>	5.42



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**Station Number: S-1157**      Town: Hartford      Date Deployed: 7/25/2019  
**Log Number: 2762**      Waterbody: Bunganock Brook - Station 1157      Date Retrieved: 8/26/2019

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 18.7 deg C  
Dissolved Oxygen: 9.21 mg/l  
Dissolved Oxygen Saturation: 97.9 %  
Specific Conductance: 75.3 uS/cm  
Velocity: 18.3 cm/s  
pH: 7.06  
Wetted Width: 6.8 m  
Bankfull Width: 8.6 m  
Depth: 28 cm

**Waterbody Information - Retrieval**

Temperature: 15.4 deg C  
Dissolved Oxygen: 10.02 mg/l  
Dissolved Oxygen Saturation: 98.9 %  
Specific Conductance: 86.4 uS/cm  
Velocity: 9.1 cm/s  
pH: 7.03  
Wetted Width: 7 m  
Bankfull Width: 8.6 m  
Depth: 27 cm

**Water Chemistry - 6/25/2019**

Nitrate + Nitrite As Nitrogen	0.02 mg/l	Nitrate As Nitrogen	0.02 mg/l
Nitrite As Nitrogen	<0.01 mg/l	Orthophosphate As Phosphorus	2 ug/l
Total Alkalinity	6 mg/l	Total Kjeldahl Nitrogen (organic A	0.5 mg/l
Total Phosphorus Mixed Forms (po	18 ug/l		

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Dense	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Below Road Crossing	Boulder	20 %
	Minimally Disturbed	Gravel	30 %
		Rubble/Cobble	45 %
		Sand	5 %

**Landcover Summary - 2004 Data**

**Sample Comments**

BLACKNOSE DACE PRESENT.



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

**Station Number: S-1157**

Waterbody: Bunganock Brook - Station 1157

Town: Hartford

**Log Number: 2762**

Subsample Factor: X1

Replicates: 3

Calculated: 12/23/2020

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Pteronarcys</i>	09020205023		1.33	0	SH		1.1
<i>Pteronarcys biloba</i>	09020205023061	1.33			--	1.1	
<i>Acroneuria</i>	09020209042		1.33	0	PR		1.1
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	1.1	
<i>Boyeria</i>	09020301004	1.00	3.00	2	PR	0.8	2.4
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.3	
<i>Boyeria vinosa</i>	09020301004012	1.67			--	1.4	
<i>Calopteryx</i>	09020307043	2.00	2.00	5	PR	1.6	1.6
<i>Baetis</i>	09020401001		0.33	4	CG		0.3
<i>Baetis pluto</i>	09020401001009	0.33			--	0.3	
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.3
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.3	
<i>Epeorus</i>	09020402009	2.00	2.00	0	SC	1.6	1.6
<i>Stenacron</i>	09020402014	3.33	4.67	7	SC	2.7	3.8
<i>Stenacron interpunctatum</i>	09020402014045	1.33			--	1.1	
<i>Maccaffertium</i>	09020402015	5.00	8.33	4	SC	4.1	6.8
<i>Maccaffertium vicarium</i>	09020402015055	3.33			--	2.7	
<i>Neoleptophlebia</i>	09020406027	1.67	1.67		--	1.4	1.4
<i>Eurylophella</i>	09020410036		2.67	3	CG		2.2
<i>Eurylophella funeralis</i>	09020410036115	2.67			SH	2.2	
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	0.5	0.5
<i>Cheumatopsyche</i>	09020604015	6.67	6.67	5	CF	5.4	5.4
<i>Hydropsyche</i>	09020604016	2.33	45.00	4	CF	1.9	36.6
<i>Hydropsyche alhedra</i>	09020604016028	0.67			--	0.5	
<i>Hydropsyche sparna</i>	09020604016032	4.67			--	3.8	
<i>Hydropsyche betteni</i>	09020604016037	37.33			--	30.4	
<i>Brachycentrus</i>	09020609043		0.67	0	CF		0.5
<i>Brachycentrus appalachia</i>	09020609043096	0.67			--	0.5	
Limnephilidae	09020610				--		
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.3	0.3
<i>Helicopsyche</i>	09020616070		0.33	3	SC		0.3
<i>Helicopsyche borealis</i>	09020616070137	0.33			--	0.3	
<i>Oecetis</i>	09020618078	0.67	0.67	8	PR	0.5	0.5
<i>Nigronia</i>	09020701003		0.67	0	PR		0.5
<i>Nigronia serricornis</i>	09020701003003	0.67			--	0.5	
<i>Ablabesmyia</i>	09021011001	0.33	0.33	8	PR	0.3	0.3
<i>Thienemannimyia</i>	09021011020		2.67	3	PR		2.2



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Thienemannimyia group</i>	09021011020041	2.67			--	2.2	
<i>Trissopelopia</i>	09021011021	0.67	0.67		PR	0.5	0.5
<i>Parametriocnemus</i>	09021011053	0.33	0.33	5	CG	0.3	0.3
<i>Tvetenia</i>	09021011065		0.33	5	CG		0.3
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.3	
<i>Micropsectra</i>	09021011070	1.00	1.00	7	CG	0.8	0.8
<i>Paratanytarsus</i>	09021011071		0.33	6	--		0.3
<i>Paratanytarsus longistylus</i>	09021011071126	0.33		6	--	0.3	
<i>Rheotanytarsus</i>	09021011072		3.67	6	CF		3.0
<i>Rheotanytarsus exiguus group</i>	09021011072127	3.67			CF	3.0	
<i>Stempellinella</i>	09021011074	0.67	0.67	2	--	0.5	0.5
<i>Tanytarsus</i>	09021011076	2.00	2.00	6	CF	1.6	1.6
<i>Microtendipes</i>	09021011094		5.00	6	CF		4.1
<i>Microtendipes rydalensis group</i>	09021011094168	5.00			--	4.1	
<i>Polypedilum</i>	09021011102		6.67	6	SH		5.4
<i>Polypedilum aviceps</i>	09021011102181	6.67			--	5.4	
<i>Simulium</i>	09021012047	4.00	4.00	4	CF	3.3	3.3
<i>Simulium venustum/verecundum complex</i>	09021012047072				CF		
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	1.1	1.1
<i>Psephenus</i>	09021108058		1.00	4	SC		0.8
<i>Psephenus herricki</i>	09021108058028	1.00			--	0.8	
<i>Macronychus</i>	09021113065		0.33	4	--		0.3
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.3	
<i>Promoresia</i>	09021113069		2.00		--		1.6
<i>Promoresia tardella</i>	09021113069052	2.00			--	1.6	
<i>Stenelmis</i>	09021113070	8.00	8.00	5	SC	6.5	6.5