



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

**Station Information**

<b>Station Number:</b> S-1142	River Basin: Androscoggin
Waterbody: Tumbledown Brook - Station 1142	HUC8 Name: Lower Androscoggin
Town: Weld	Latitude: 44 42 40.28 N
Directions: UPSTREAM OF WEST BROOK ROAD AND CONFLUENCE WITH WEST BROOK	Longitude: 70 29 45.42 W
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 2671	Type of Sample: ROCK BAG	Date Deployed: 7/24/2018
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/22/2018

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> A	Date: 2/8/2019
Model Result with $P \geq 0.6$ : A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 2/5/2019	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.93	Class C	0.00
Class B	0.07	NA	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	509.67	18 Relative Abundance Ephemeroptera	0.08
02 Generic Richness	65.00	19 EPT Generic Richness	36.00
03 Plecoptera Mean Abundance	56.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	20.33
04 Ephemeroptera Mean Abundance	40.33	23 Relative Generic Richness- Plecoptera	0.14
05 Shannon-Wiener Generic Diversity	3.52	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	31.00
06 Hilsenhoff Biotic Index	3.28	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	14.33
07 Relative Abundance - Chironomidae	0.19	28 EP Generic Richness/14	1.43
08 Relative Generic Richness Diptera	0.32	30 Presence of Class A Indicator Taxa/7	0.86
09 <i>Hydropsyche</i> Abundance	184.67		
11 <i>Cheumatopsyche</i> Abundance	3.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.71		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	3.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	5.67		
17 Chironomini Abundance (Family Functional Group)	24.00		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	36.23
2	<i>Brachycentrus</i>	19.75
3	<i>Isoperla</i>	8.26
4	<i>Cricotopus</i>	5.04
5	<i>Polypedilum</i>	4.71



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

**Station Number: S-1142**      Town: Weld      Date Deployed: 7/24/2018  
**Log Number: 2671**      Waterbody: Tumbledown Brook - Station 1142      Date Retrieved: 8/22/2018

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 17.9 deg C  
Dissolved Oxygen: 10.18 mg/l  
Dissolved Oxygen Saturation: 106.9 %  
Specific Conductance: 30 uS/cm  
Velocity: 45.7 cm/s  
pH: 7.08  
Wetted Width: 4.4 m  
Bankfull Width: 12.3 m  
Depth: 30 cm

**Waterbody Information - Retrieval**

Temperature: 16.3 deg C  
Dissolved Oxygen: 10.58 mg/l  
Dissolved Oxygen Saturation: 109.7 %  
Specific Conductance: 28.3 uS/cm  
Velocity: 57.9 cm/s  
pH: 6.7  
Wetted Width: 4.5 m  
Bankfull Width: 12.3 m  
Depth: 41 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Pasture	Open	Mountainous	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above Confluence	Boulder	10 %
	Above Road Crossing	Gravel	10 %
		Rubble/Cobble	80 %

**Landcover Summary - 2004 Data**

**Sample Comments**

FROG, FISH



**Maine Department of Environmental Protection  
Biological Monitoring Program  
Aquatic Life Taxonomic Inventory Report**

<b>Station Number: S-1142</b>	Waterbody: Tumbledown Brook - Station 1142	Town: Weld
<b>Log Number: 2671</b>	Subsample Factor: X1	Replicates: 3
		Calculated: 2/5/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Lumbriculidae	08020101	1.67	1.67		--	0.3	0.3
<i>Stylodrilus</i>	08020101004		1.67		--		0.3
<i>Stylodrilus heringianus</i>	08020101004001	1.67			--	0.3	
<i>Leuctra</i>	09020204020	1.67	1.67	0	SH	0.3	0.3
<i>Pteronarcys</i>	09020205023	1.00	1.33	0	SH	0.2	0.3
<i>Pteronarcys biloba</i>	09020205023061	0.33			--	0.1	
Perlodidae	09020207	44.33			--	8.7	
<i>Isoperla</i>	09020207026	2.67	42.07	2	PR	0.5	8.3
<i>Isogenoides</i>	09020207033	0.33	5.26	0	PR	0.1	1.0
Chloroperlidae	09020208	0.67	0.67		--	0.1	0.1
<i>Sweltsa</i>	09020208040	1.33	1.33		PR	0.3	0.3
<i>Acroneuria</i>	09020209042		0.33	0	PR		0.1
<i>Acroneuria abnormis</i>	09020209042121	0.33		0	PR	0.1	
<i>Paragnetina</i>	09020209049	1.67	1.67	1	PR	0.3	0.3
<i>Aagnetina</i>	09020209050		1.67	2	PR		0.3
<i>Aagnetina capitata</i>	09020209050152	1.67		2	PR	0.3	
<i>Lanthus</i>	09020302014	0.33	0.33		PR	0.1	0.1
Baetidae	09020401	0.67			--	0.1	
<i>Baetis</i>	09020401001	0.33	2.92	4	CG	0.1	0.6
<i>Baetis flavistriga</i>	09020401001004	1.00			--	0.2	
<i>Baetis intercalaris</i>	09020401001008	1.33			--	0.3	
<i>Acerpenna</i>	09020401007		2.92	5	CG		0.6
<i>Acerpenna macdunnoughi</i>	09020401007001	2.67			--	0.5	
<i>Plauditus</i>	09020401012	1.67	1.83		CG	0.3	0.4
<i>Epeorus</i>	09020402009	0.33	0.33	0	SC	0.1	0.1
<i>Leucrocuta</i>	09020402011	2.00	2.00	1	SC	0.4	0.4
<i>Stenacron</i>	09020402014	0.33	0.33	7	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	5.33	14.00	4	SC	1.0	2.7
<i>Maccaffertium modestum</i>	09020402015051	1.67			--	0.3	
<i>Maccaffertium vicarium</i>	09020402015055	7.00			--	1.4	
<i>Habrophlebia</i>	09020406023		1.67		--		0.3
<i>Habrophlebia vibrans</i>	09020406023072	1.67			--	0.3	
<i>Neoleptophlebia</i>	09020406027	6.00	6.00		--	1.2	1.2
<i>Ephemerella</i>	09020410035	6.00	6.67	1	CG	1.2	1.3
<i>Ephemerella aurivillii</i>	09020410035104	0.67			--	0.1	
<i>Eurylophella</i>	09020410036	0.33	1.67	3	CG	0.1	0.3
<i>Eurylophella funeralis</i>	09020410036115	1.33			SH	0.3	



**Maine Department of Environmental Protection  
Biological Monitoring Program  
Aquatic Life Taxonomic Inventory Report**

**Station Number: S-1142**

Waterbody: Tumbledown Brook - Station 1142

Town: Weld

**Log Number: 2671**

Subsample Factor: X1

Replicates: 3

Calculated: 2/5/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.1	0.1
Polycentropodidae	09020603	1.33	1.33		--	0.3	0.3
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	0.1	0.1
Hydropsychidae	09020604				--		
<i>Cheumatopsyche</i>	09020604015	3.33	3.33	5	CF	0.7	0.7
<i>Hydropsyche</i>	09020604016	141.33	184.67	4	CF	27.7	36.2
<i>Hydropsyche slossonae</i>	09020604016031	22.33			--	4.4	
<i>Hydropsyche sparna</i>	09020604016032	20.33			--	4.0	
<i>Hydropsyche betteni</i>	09020604016037	0.67			--	0.1	
<i>Rhyacophila</i>	09020605019	0.33	1.00	2	PR	0.1	0.2
<i>Rhyacophila acutiloba</i>	09020605019056	0.67			PR	0.1	
Glossosomatidae	09020606				--		
<i>Glossosoma</i>	09020606020	1.67	1.67	0	SC	0.3	0.3
<i>Agapetus</i>	09020606021	0.33	0.33	0	SC	0.1	0.1
<i>Hydroptila</i>	09020607026	1.67	1.67	6	P	0.3	0.3
<i>Brachycentrus</i>	09020609043		100.67	0	CF		19.8
<i>Brachycentrus appalachia</i>	09020609043096	100.67			--	19.8	
Limnephilidae	09020610	0.33	0.33		--	0.1	0.1
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	3.00	3.00	1	SH	0.6	0.6
<i>Psilotreta</i>	09020614068	0.67	0.67	0	SC	0.1	0.1
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.1	0.1
<i>Apatania</i>	09020619061	0.33	0.33		SC	0.1	0.1
<i>Nigronia</i>	09020701003		1.67	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	1.67			--	0.3	
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.1	0.1
<i>Hexatoma</i>	09021001008	1.00	1.00	2	PR	0.2	0.2
Chironomidae	09021011				--		
<i>Labrundinia</i>	09021011008		0.33	7	PR		0.1
<i>Labrundinia pilosella</i>	09021011008022	0.33			--	0.1	
<i>Thienemannimyia</i>	09021011020		2.33	3	PR		0.5
<i>Thienemannimyia group</i>	09021011020041	2.33			--	0.5	
<i>Trissopelopia</i>	09021011021	0.33	0.33		PR	0.1	0.1
<i>Zavrelimyia</i>	09021011022	2.67	2.67	8	PR	0.5	0.5
<i>Pagastia</i>	09021011025	0.33	0.33	1	--	0.1	0.1
<i>Corynoneura</i>	09021011036	1.33	1.33	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037	0.33	25.67	7	SH	0.1	5.0
<i>Cricotopus bicinctus</i>	09021011037057	25.33			--	5.0	



**Maine Department of Environmental Protection  
Biological Monitoring Program  
Aquatic Life Taxonomic Inventory Report**

**Station Number: S-1142**      Waterbody: Tumbledown Brook - Station 1142      Town: Weld  
**Log Number: 2671**      Subsample Factor: X1      Replicates: 3      Calculated: 2/5/2019

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Parametrioconemus</i>	09021011053	4.33	4.33	5	CG	0.9	0.9
<i>Rheocricotopus</i>	09021011057	1.00	1.00	6	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	2.67	2.67	6	CG	0.5	0.5
<i>Tvetenia</i>	09021011065		5.33	5	CG		1.0
<i>Tvetenia vitracies</i>	09021011065113	0.67			--	0.1	
<i>Tvetenia paucunca</i>	09021011065114	4.67			--	0.9	
<i>Micropsectra</i>	09021011070	20.33	20.33	7	CG	4.0	4.0
<i>Rheotanytarsus</i>	09021011072		4.00	6	CF		0.8
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.67			CF	0.1	
<i>Rheotanytarsus pellucidus</i>	09021011072128	3.33			CF	0.7	
<i>Tanytarsus</i>	09021011076	2.00	2.00	6	CF	0.4	0.4
<i>Polypedilum</i>	09021011102		24.00	6	SH		4.7
<i>Polypedilum aviceps</i>	09021011102181	19.67			--	3.9	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.1	
<i>Polypedilum laetum</i>	09021011102186	4.00			--	0.8	
<i>Simulium</i>	09021012047	5.67	5.67	4	CF	1.1	1.1
<i>Atherix</i>	09021015055	0.67	0.67	2	PR	0.1	0.1
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.1	0.1
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058		0.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.1	
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	--	0.1	0.1
<i>Promoresia</i>	09021113069		1.33		--		0.3
<i>Promoresia tardella</i>	09021113069052	1.33			--	0.3	
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.1	0.1