



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

**Station Information**

<b>Station Number:</b>	<b>S-255</b>	River Basin:	Kennebec
Waterbody:	Cold Brook - Station 255	HUC8 Name:	Lower Kennebec
Town:	Skowhegan	Latitude:	44 46 57.25 N
Directions:	30 M BELOW DAM; BELOW RT. 201 CROSSING	Longitude:	69 43 32.77 W
		Stream Order:	2

**Sample Information**

<b>Log Number:</b>	<b>2574</b>	Type of Sample:	ROCK BAG	Date Deployed:	7/19/2017
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/16/2017

**Classification Attainment**

<b>Statutory Class:</b>	<b>B</b>	<b>Final Determination:</b>	<b>NA</b>	Date:	4/26/2018
Model Result with $P \geq 0.6$ :	NA	<b>Reason for Determination:</b>	<b>Model</b>		
Date Last Calculated:	4/26/2018	Comments:			

**Model Probabilities**

First Stage Model				C or Better Model	
Class A	0.00	Class C	0.56	Class A, B, or C	0.00
Class B	0.00	NA	0.43	Non-Attainment	1.00
B or Better Model				A Model	
Class A or B			0.00	Class A	0.01
Class C or Non-Attainment			1.00	Class B or C or Non-Attainment	0.99

**Model Variables**

01 Total Mean Abundance	60.33	18 Relative Abundance Ephemeroptera	0.04
02 Generic Richness	35.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	2.71
04 Ephemeroptera Mean Abundance	2.67	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.18	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	5.40
06 Hilsenhoff Biotic Index	6.21	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.39	28 EP Generic Richness/14	0.43
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	3.67		
11 <i>Cheumatopsyche</i> Abundance	0.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.09		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Hyaella</i>	15.47
2	<i>Ferrissia</i>	14.36
3	<i>Paratanytarsus</i>	12.89
4	<i>Tanytarsus</i>	6.73
5	<i>Microtendipes</i>	6.73

13 Relative Abundance - Oligochaeta	0.01
15 Perlidae Mean Abundance (Family Functional Group)	0.00
16 Tanypodinae Mean Abundance (Family Functional Group)	0.68
17 Chironomini Abundance (Family Functional Group)	8.12



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**Station Number: S-255**

Town: Skowhegan

Date Deployed: 7/19/2017

**Log Number: 2574**

Waterbody: Cold Brook - Station 255

Date Retrieved: 8/16/2017

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	22 deg C
Dissolved Oxygen:	8.48 mg/l
Dissolved Oxygen Saturation:	96.3 %
Specific Conductance:	279.6 uS/cm
Velocity:	15.2 cm/s
pH:	7.46
Wetted Width:	5.2 m
Bankfull Width:	6.8 m
Depth:	32 cm

**Waterbody Information - Retrieval**

Temperature:	21 deg C
Dissolved Oxygen:	8.48 mg/l
Dissolved Oxygen Saturation:	98.8 %
Specific Conductance:	668 uS/cm
Velocity:	15.2 cm/s
pH:	7.49
Wetted Width:	5.7 m
Bankfull Width:	6.8 m
Depth:	30 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Partly Open	Rolling
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Hydrology	Below Road Crossing	Boulder 5 %
Impounded	Below Town	Rubble/Cobble 60 %
Urban Runoff		Sand 30 %
		Silt 5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	4224	High Int. Dev. %	3.9	Water %	0.2	Non-vegetated %	0.1
		Med Int. Dev. %	1.0	Wetland %	3.0	Tilled Agriculture %	5.0
		Low Int. Dev. %	3.7	Upland Woody %	77.3	Grassland %	5.3
		Development %	8.7	Natural %	80.3	Human Altered %	19.5
						Impervious %	6.6

**Sample Comments**

7/19/17: LOTS OF FISH PRESENT.

8/16/17: FISH PRESENT.



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

<b>Station Number: S-255</b>	Waterbody: Cold Brook - Station 255	Town: Skowhegan
<b>Log Number: 2574</b>	Subsample Factor: X1	Replicates: 3
		Calculated: 4/26/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Nais</i>	08020202009		0.33		CG		0.6
<i>Nais variabilis</i>	08020202009009	0.33			--	0.6	
<i>Hyalella</i>	09010203006	9.33	9.33	8	CG	15.5	15.5
<i>Orconectes</i>	09010301008		2.33		CG		3.9
<i>Orconectes limosus</i>	09010301008013	2.33			--	3.9	
Entomobryidae	09020103	0.33	0.33		--	0.6	0.6
<i>Aeshna</i>	09020301001		0.67	5	PR		1.1
<i>Aeshna umbrosa</i>	09020301001006	0.67			--	1.1	
Coenagrionidae	09020309	1.00	1.00		--	1.7	1.7
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.6	0.6
<i>Procloeon</i>	09020401010	0.67	0.67		CG	1.1	1.1
<i>Anafroptilum (Centroptilum)</i>	09020401016	0.33	0.33	2	CG	0.6	0.6
<i>Stenacron</i>	09020402014	0.33	0.33	7	SC	0.6	0.6
Leptophlebiidae	09020406	0.67	0.67		--	1.1	1.1
<i>Paraleptophlebia</i>	09020406026	0.33	0.33	1	CG	0.6	0.6
<i>Caenis</i>	09020412040		0.33	7	CG		0.6
<i>Caenis diminuta</i>	09020412040131	0.33			--	0.6	
<i>Nyctiophylax</i>	09020603009		0.33	5	PR		0.6
<i>Nyctiophylax moestus</i>	09020603009013	0.33			--	0.6	
<i>Polycentropus</i>	09020603010	0.33	0.33	6	PR	0.6	0.6
<i>Plectrocnemia</i>	09020603012	0.67	0.67	6	PR	1.1	1.1
<i>Cheumatopsyche</i>	09020604015	0.67	0.67	5	CF	1.1	1.1
<i>Hydropsyche</i>	09020604016		3.67	4	CF		6.1
<i>Hydropsyche bronta</i>	09020604016029	3.67			--	6.1	
<i>Pycnopsyche</i>	09020610049	0.67	0.67	4	SH	1.1	1.1
Chironomidae	09021011	0.33			--	0.6	
<i>Conchapelopia</i>	09021011004	0.67	0.68	6	PR	1.1	1.1
<i>Cricotopus</i>	09021011037		0.68	7	SH		1.1
<i>Cricotopus bicinctus</i>	09021011037057	0.67			--	1.1	
<i>Paratanytarsus</i>	09021011071	7.67	7.78	6	--	12.7	12.9
<i>Rheotanytarsus</i>	09021011072		0.68	6	CF		1.1
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.67			CF	1.1	
<i>Stempellinella</i>	09021011074		1.35	2	--		2.2
<i>Stempellinella fimbriata</i>	09021011074002	1.33			--	2.2	
<i>Tanytarsus</i>	09021011076	3.33	4.06	6	CF	5.5	6.7
<i>Tanytarsus buckleyi</i>	09021011076139	0.67			CF	1.1	
<i>Dicrotendipes</i>	09021011085		2.71	8	CG		4.5



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		Actual	Adjusted			Actual	Adjusted
<i>Dicrotendipes neomodestus</i>	09021011085152	2.67			--	4.4	
<i>Endochironomus</i>	09021011087		0.68	10	SH		1.1
<i>Endochironomus subtendens</i>	09021011087157	0.67			--	1.1	
<i>Microtendipes</i>	09021011094		4.06	6	CF		6.7
<i>Microtendipes pedellus group</i>	09021011094166	4.00			--	6.6	
<i>Paratendipes</i>	09021011100		0.34	8	CG		0.6
<i>Paratendipes albimanus group</i>	09021011100176	0.33			--	0.6	
<i>Phaenopsectra</i>	09021011101		0.34	7	SC		0.6
<i>Phaenopsectra obediens</i>	09021011101182	0.33			SC	0.6	
<i>Neoporus</i>	09021103033	0.67	0.67		--	1.1	1.1
<i>Dubiraphia</i>	09021113064	0.33	3.00	6	--	0.6	5.0
<i>Dubiraphia minima</i>	09021113064036	0.33			--	0.6	
<i>Dubiraphia quadrinotata</i>	09021113064037	1.67			--	2.8	
<i>Dubiraphia vittata</i>	09021113064038	0.67			--	1.1	
<i>Stenelmis</i>	09021113070		1.00	5	SC		1.7
<i>Stenelmis crenata</i>	09021113070055	1.00			--	1.7	
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.6	0.6
<i>Ferrissia</i>	10010204035		8.67		SC		14.4
<i>Ferrissia rivularis</i>	10010204035066	8.67			--	14.4	