



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

**Station Information**

<b>Station Number:</b> S-253	River Basin: Kennebec
Waterbody: Cobbosseecontee Stream - Station 253	HUC8 Name: Lower Kennebec
Town: Gardiner	Latitude: 44 13 49.1 N
Directions: BELOW RT. 126/9 BRIDGE CROSSING	Longitude: 69 46 21.23 W
	Stream Order: 4

**Sample Information**

<b>Log Number:</b> 2567	Type of Sample: ROCK BAG	Date Deployed: 7/17/2017
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/14/2017

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> C	Date: 3/16/2018
Model Result with P $\geq$ 0.6: C	<b>Reason for Determination:</b> Model	
Date Last Calculated: 3/15/2018	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.99
Class B	0.01	Non-Attainment	0.01
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.01
Class A or B	0.00	Class B or C or Non-Attainment	0.99
Class C or Non-Attainment	1.00		

**Model Variables**

01 Total Mean Abundance	1194.67	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	43.00	19 EPT Generic Richness	11.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	88.44
04 Ephemeroptera Mean Abundance	12.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.32	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	117.74
06 Hilsenhoff Biotic Index	5.83	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	1.33
07 Relative Abundance - Chironomidae	0.22	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.35	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	36.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.73		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	13.40		
17 Chironomini Abundance (Family Functional Group)	135.35		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Amnicola</i>	46.09
2	<i>Dicrotendipes</i>	7.40
3	<i>Hydroptila</i>	5.80
4	<i>Girardia</i>	5.25
5	<i>Micrasema</i>	4.02



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 25.6 deg C  
Dissolved Oxygen: 9.57 mg/l  
Dissolved Oxygen Saturation: 115.1 %  
Specific Conductance: 115.7 uS/cm  
Velocity: 18.3 cm/s  
pH: 7.94  
Wetted Width: 26 m  
Bankfull Width: 26 m  
Depth: 60 cm

**Waterbody Information - Retrieval**

Temperature: 24.3 deg C  
Dissolved Oxygen: 9.81 mg/l  
Dissolved Oxygen Saturation: 115.4 %  
Specific Conductance: 116.1 uS/cm  
Velocity: 6.1 cm/s  
pH: 7.66  
Wetted Width: 26 m  
Bankfull Width: 26 m  
Depth: 67 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Hardwood	Open	Rolling	
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Altered Hydrology	Below Dam	Boulder	75 %
Urban Runoff	Below Urban NPS	Gravel	5 %
		Rubble/Cobble	15 %
		Sand	5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	138413	High Int. Dev. %	0.3	Water %	10.8	Non-vegetated %	0.1
		Med Int. Dev. %	0.5	Wetland %	4.4	Tilled Agriculture %	1.8
		Low Int. Dev. %	3.6	Upland Woody %	67.2	Grassland %	10.3
		Development %	4.5	Natural %	71.7	Human Altered %	17.5
						Impervious %	4.0

**Sample Comments**

7/17/17: FISH PRESENT, EEL OBSERVED, SOME FILAMENTOUS ALGAE.  
8/14/17: ALGAE GROWTH ON ROCKS, FISH PRESENT.



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**Log Number: 2567**      Subsample Factor: X4      Replicates: 3      Calculated: 3/15/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002	62.67	62.67		--	5.2	5.2
<i>Prostoma</i>	04010101001	9.33	9.33		--	0.8	0.8
<i>Gammarus</i>	09010201003	36.00	36.00	4	--	3.0	3.0
<i>Crangonyx</i>	09010202004	1.33	1.33	8	--	0.1	0.1
<i>Hyaella</i>	09010203006	1.33	1.33	8	CG	0.1	0.1
<i>Baetis</i>	09020401001		6.67	4	CG		0.6
<i>Baetis flavistriga</i>	09020401001004	6.67			--	0.6	
<i>Stenacron</i>	09020402014		2.67	7	SC		0.2
<i>Stenacron interpunctatum</i>	09020402014045	2.67			--	0.2	
<i>Maccaffertium</i>	09020402015		1.33	4	SC		0.1
<i>Maccaffertium modestum</i>	09020402015051	1.33			--	0.1	
<i>Serratella</i>	09020410037		1.33	2	CG		0.1
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	1.33			--	0.1	
Polycentropodidae	09020603	1.33			--	0.1	
<i>Neureclipsis</i>	09020603008	17.33	18.06	7	CF	1.5	1.5
<i>Polycentropus</i>	09020603010	14.67	15.28	6	PR	1.2	1.3
Hydropsychidae	09020604				--		
<i>Cheumatopsyche</i>	09020604015	36.00	36.00	5	CF	3.0	3.0
<i>Hydroptila</i>	09020607026	69.33	69.33	6	P	5.8	5.8
<i>Oxyethira</i>	09020607028			3	P		
<i>Micrasema</i>	09020609044	48.00	48.00	2	SH	4.0	4.0
Leptoceridae	09020618				--		
<i>Ceraclea</i>	09020618072	17.33	17.33	3	CG	1.5	1.5
<i>Oecetis</i>	09020618078	14.67	20.00	8	PR	1.2	1.7
<i>Oecetis avara</i>	09020618078153	1.33			--	0.1	
<i>Oecetis persimilis</i>	09020618078157	4.00			--	0.3	
<i>Petrophila</i>	09020901004	2.67	2.67	5	SC	0.2	0.2
Chironomidae	09021011	1.33			--	0.1	
<i>Ablabesmyia</i>	09021011001	12.00	12.06	8	PR	1.0	1.0
<i>Nilotanyus</i>	09021011012		1.34	6	PR		0.1
<i>Nilotanyus fimbriatus</i>	09021011012027	1.33			--	0.1	
<i>Cricotopus</i>	09021011037	18.67	26.80	7	SH	1.6	2.2
<i>Cricotopus bicinctus</i>	09021011037057	8.00			--	0.7	
<i>Orthocladius</i>	09021011050	25.33	26.80	6	CG	2.1	2.2
<i>Orthocladius dubitatus</i>	09021011050103	1.33			--	0.1	
<i>Psectrocladius</i>	09021011056	8.00	8.04	8	CG	0.7	0.7
<i>Synorthocladius</i>	09021011061	1.33	1.34	2	CG	0.1	0.1



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		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Rheotanytarsus</i>	09021011072		10.72	6	CF		0.9
<i>Rheotanytarsus exiguus group</i>	09021011072127	10.67			CF	0.9	
<i>Tanytarsus</i>	09021011076	42.67	42.88	6	CF	3.6	3.6
<i>Chironomus</i>	09021011080	2.67	2.68	10	CG	0.2	0.2
<i>Dicrotendipes</i>	09021011085	17.33	88.44	8	CG	1.5	7.4
<i>Dicrotendipes neomodestus</i>	09021011085152	70.67			--	5.9	
<i>Microtendipes</i>	09021011094		40.20	6	CF		3.4
<i>Microtendipes rydalensis group</i>	09021011094168	40.00			--	3.3	
<i>Nilothauma</i>	09021011095	1.33	1.34	2	--	0.1	0.1
<i>Phaenopsectra</i>	09021011101	1.33	1.34	7	SC	0.1	0.1
<i>Polypedilum</i>	09021011102		1.34	6	SH		0.1
<i>Polypedilum illinoense group</i>	09021011102185	1.33			--	0.1	
<i>Hemerodromia</i>	09021016057	2.67	2.67	3	PR	0.2	0.2
<i>Dineutus</i>	09021104032	1.33	1.33	2	--	0.1	0.1
<i>Macronychus</i>	09021113065		1.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.1	
<i>Microcylloepus</i>	09021113066		1.33	3	--		0.1
<i>Microcylloepus pusillus</i>	09021113066041	1.33			--	0.1	
<i>Stenelmis</i>	09021113070	9.33	9.33	5	SC	0.8	0.8
<i>Lebertia</i>	09030105001	1.33	1.33		--	0.1	0.1
<i>Sperchon</i>	09030107001	1.33	1.33		--	0.1	0.1
<i>Amnicola</i>	10010104013	550.67	550.67		SC	46.1	46.1
Physidae	10010202	4.00	4.00		SC	0.3	0.3
<i>Ferrissia</i>	10010204035	2.67	2.67		SC	0.2	0.2
<i>Laevapex</i>	10010204046		2.67		--		0.2
<i>Laevapex fuscus</i>	10010204046068	2.67			--	0.2	
Sphaeriidae	10020201	1.33	1.33		CF	0.1	0.1