



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

**Station Information**

<b>Station Number:</b> S-944	River Basin: Kennebec
Waterbody: Stone Brook - Station 944	HUC8 Name: Lower Kennebec
Town: Augusta	Latitude: 44 20 42.44 N
Directions: ~0.2 MILES DOWN STONY BROOK ROAD	Longitude: 69 48 2.53 W
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 2571	Type of Sample: ROCK BAG	Date Deployed: 7/18/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/15/2017

**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	0.13	Class A, B, or C	0.99
Class B	0.36	Non-Attainment	0.01
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.01
Class A or B	0.02	Class B or C or Non-Attainment	0.99
Class C or Non-Attainment	0.98		

**Model Variables**

01 Total Mean Abundance	245.33	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	40.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.67
04 Ephemeroptera Mean Abundance	1.67	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	3.67	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	7.33
06 Hilsenhoff Biotic Index	5.31	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.29	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.33	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.67		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.77		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.00		
17 Chironomini Abundance (Family Functional Group)	55.33		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	21.33
2	<i>Polycentropus</i>	17.26
3	<i>Helicopsyche</i>	12.36
4	<i>Amnicola</i>	10.46
5	<i>Dubiraphia</i>	7.97



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**Log Number: 2571**      Waterbody: Stone Brook - Station 944      Date Retrieved: 8/15/2017

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 21.8 deg C  
Dissolved Oxygen: 9.25 mg/l  
Dissolved Oxygen Saturation: 104 %  
Specific Conductance: 744 uS/cm  
Velocity: 15.24 cm/s  
pH: 7.97  
Wetted Width: 8.1 m  
Bankfull Width: 10.2 m  
Depth: 25 cm

**Waterbody Information - Retrieval**

Temperature: 19.7 deg C  
Dissolved Oxygen: 9.89 mg/l  
Dissolved Oxygen Saturation: 107.5 %  
Specific Conductance: 843 uS/cm  
Velocity: 3 cm/s  
pH: 8.13  
Wetted Width: 7.8 m  
Bankfull Width: 10.2 m  
Depth: 21 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>	
Nps Pollution	Below Urban NPS	Boulder	10 %
Urban Runoff		Gravel	15 %
		Rubble/Cobble	70 %
		Sand	5 %

**Landcover Summary - 2004 Data**

**Sample Comments**

7/18/17: FISH OBSERVED. WATER APPEARS SOMEWHAT MILKY.  
8/15/17: FISH OBSERVED, LOW WATER. HORSEHAIR WORM IN BAG 2.



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Aquatic Life Taxonomic Inventory Report**

**Station Number: S-944**      Waterbody: Stone Brook - Station 944      Town: Augusta  
**Log Number: 2571**      Subsample Factor: X1      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>Hydra</i>	02010101001	0.33	0.33		PR	0.1	0.1
<i>Prostoma</i>	04010101001	0.67	0.67		--	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>Boyeria</i>	09020301004	0.33	2.00	2	PR	0.1	0.8
<i>Boyeria grafiana</i>	09020301004011	0.33			--	0.1	
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.5	
Calopterygidae	09020307	16.00	16.00		--	6.5	6.5
<i>Calopteryx</i>	09020307043	2.33	2.33	5	PR	1.0	1.0
<i>Acerpenna</i>	09020401007		0.67	5	CG		0.3
<i>Acerpenna macdunnoughi</i>	09020401007001	0.67			--	0.3	
<i>Procloeon</i>	09020401010	0.67	0.67		CG	0.3	0.3
<i>Stenacron</i>	09020402014	0.33	0.33	7	SC	0.1	0.1
<i>Microvelia</i>	09020510025	0.33	0.33		PR	0.1	0.1
<i>Nyctiophylax</i>	09020603009	0.67	0.67	5	PR	0.3	0.3
<i>Polycentropus</i>	09020603010	42.33	42.33	6	PR	17.3	17.3
<i>Hydropsyche</i>	09020604016		0.67	4	CF		0.3
<i>Hydropsyche bronta</i>	09020604016029	0.67			--	0.3	
<i>Helicopsyche</i>	09020616070	30.33	30.33	3	SC	12.4	12.4
<i>Mystacides</i>	09020618075		6.33	4	CG		2.6
<i>Mystacides sepulchralis</i>	09020618075147	6.33			--	2.6	
<i>Oecetis</i>	09020618078	8.33	8.33	8	PR	3.4	3.4
<i>Nigronia</i>	09020701003		1.67	0	PR		0.7
<i>Nigronia serricornis</i>	09020701003003	1.67			--	0.7	
Chironomidae	09021011				--		
<i>Nilotanytus</i>	09021011012		1.00	6	PR		0.4
<i>Nilotanytus fimbriatus</i>	09021011012027	1.00			--	0.4	
<i>Pentaneura</i>	09021011014	0.67	0.67	6	PR	0.3	0.3
<i>Thienemannimyia</i>	09021011020		0.33	3	PR		0.1
<i>Thienemannimyia group</i>	09021011020041	0.33			--	0.1	
<i>Limnophyes</i>	09021011047	0.33	0.33	8	CG	0.1	0.1
<i>Nanocladius</i>	09021011049	0.33	0.33	3	CG	0.1	0.1
<i>Parakiefferiella</i>	09021011052	0.67	0.67		CG	0.3	0.3
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	0.5	0.5
<i>Rheotanytarsus</i>	09021011072		3.00	6	CF		1.2
<i>Rheotanytarsus exiguus group</i>	09021011072127	2.00			CF	0.8	
<i>Rheotanytarsus pellucidus</i>	09021011072128	1.00			CF	0.4	



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		Actual	Adjusted			Actual	Adjusted
<i>Tanytarsus</i>	09021011076	7.33	7.33	6	CF	3.0	3.0
<i>Dicrotendipes</i>	09021011085	0.67	0.67	8	CG	0.3	0.3
<i>Microtendipes</i>	09021011094		52.33	6	CF		21.3
<i>Microtendipes rydalensis group</i>	09021011094168	52.33			--	21.3	
<i>Polypedilum</i>	09021011102		2.33	6	SH		1.0
<i>Polypedilum aviceps</i>	09021011102181	1.33			--	0.5	
<i>Polypedilum fallax group</i>	09021011102183	0.33			--	0.1	
<i>Polypedilum illinoense group</i>	09021011102185	0.67			--	0.3	
<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	
Elmidae	09021113	0.33			--	0.1	
<i>Ancyronyx</i>	09021113063		0.34	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	0.33			CG	0.1	
<i>Dubiraphia</i>	09021113064	19.33	19.54	6	--	7.9	8.0
<i>Macronychus</i>	09021113065		9.43	4	--		3.8
<i>Macronychus glabratus</i>	09021113065040	9.33			--	3.8	
<i>Optioservus</i>	09021113067	0.33	0.34	3	SC	0.1	0.1
<i>Promoresia</i>	09021113069		1.01		--		0.4
<i>Promoresia tardella</i>	09021113069052	1.00			--	0.4	
<i>Stenelmis</i>	09021113070	0.67	0.67	5	SC	0.3	0.3
<i>Amnicola</i>	10010104013	25.67	25.67		SC	10.5	10.5
Physidae	10010202	0.67	0.67		SC	0.3	0.3
<i>Gyraulus</i>	10010203029	2.67	2.67		SC	1.1	1.1