



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

Station Information

Station Number: S-1101	River Basin:	Maine Coastal	
Waterbody:	Trout Brook - Station 1101	HUC8 Name:	Maine Coastal
Town:	Columbia	Latitude:	44 38 5.46 N
Directions:	TURN LEFT ON SACARAP RD FROM RT 1 (HEADING EAST). 0.8 MI DOWN ROAD. 17 M ABOVE RD CROSSING.	Longitude:	67 49 45.19 W
		Stream Order:	3

Sample Information

Log Number: 2501	Type of Sample:	ROCK BAG	Date Deployed:	7/27/2016	
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/23/2016

Classification Attainment

Statutory Class: A	Final Determination: C	Date:	6/23/2017
Model Result with $P \geq 0.6$:	C	Reason for Determination:	Model
Date Last Calculated:	6/22/2017	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.02	Class C	0.87
Class B	0.10	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B		Class A	0.04
Class C or Non-Attainment	0.97	Class B or C or Non-Attainment	0.96

Model Variables

01 Total Mean Abundance	458.33	18 Relative Abundance Ephemeroptera	0.29
02 Generic Richness	59.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	1.00
04 Ephemeroptera Mean Abundance	130.67	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.13	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	51.12
06 Hilsenhoff Biotic Index	4.98	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	70.33
07 Relative Abundance - Chironomidae	0.44	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.36	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	9.00		
11 <i>Cheumatopsyche</i> Abundance	16.33		
12 EPT Generic Richness/ Diptera Generic Richness	0.90		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	28.43		
17 Chironomini Abundance (Family Functional Group)	91.97		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	17.95
2	<i>Maccaffertium</i>	15.35
3	<i>Stenacron</i>	8.36
4	<i>Tanytarsus</i>	7.52
5	<i>Polycentropus</i>	7.35



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Station Number: S-1101 Town: Columbia Date Deployed: 7/27/2016
Log Number: 2501 Waterbody: Trout Brook - Station 1101 Date Retrieved: 8/23/2016

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 24.7 deg C
Dissolved Oxygen: 7.06 mg/l
Dissolved Oxygen Saturation: 85.1 %
Specific Conductance: 41 uS/cm
Velocity: 12.2 cm/s
pH: 6.59
Wetted Width: 6.2 m
Bankfull Width: 6.2 m
Depth: 35 cm

Waterbody Information - Retrieval

Temperature: 17.8 deg C
Dissolved Oxygen: 8.54 mg/l
Dissolved Oxygen Saturation: 89.3 %
Specific Conductance: 36.7 uS/cm
Velocity: 30.5 cm/s
pH: 6.55
Wetted Width: 6.6 m
Bankfull Width: 6.2 m
Depth: 42.7 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Swamp Hardwood	Partly Open	Rolling	
Upland Conifer			
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above Road Crossing	Boulder	75 %
		Gravel	5 %
		Rubble/Cobble	20 %

Landcover Summary - 2004 Data

Sample Comments

7/27/2016: MILKY WATER; WEIRD ALGAE; DOESN'T LOOK GREAT.
8/23/2016: MORE WATER THAN AT DEPLOYMENT; STILL CLOUDY; FISH AND FROGS PRESENT.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-1101
Log Number: 2501

Waterbody: Trout Brook - Station 1101
Subsample Factor: X1

Town: Columbia

Replicates: 3

Calculated: 6/22/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Rhabditophora	0301	2.00	2.00		--	0.4	0.4
<i>Boyeria</i>	09020301004	0.33	1.00	2	PR	0.1	0.2
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.1	
Gomphidae	09020302	0.33	0.33		--	0.1	0.1
<i>Hagenius</i>	09020302008		0.33	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	0.33			PR	0.1	
Calopterygidae	09020307	0.67	0.67		--	0.1	0.1
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.1	0.1
<i>Acerpenna</i>	09020401007		5.33	5	CG		1.2
<i>Acerpenna pygmaea</i>	09020401007011	5.33			--	1.2	
<i>Leucrocuta</i>	09020402011	0.33	0.33	1	SC	0.1	0.1
<i>Stenacron</i>	09020402014		38.33	7	SC		8.4
<i>Stenacron interpunctatum</i>	09020402014045	38.33			--	8.4	
<i>Maccaffertium</i>	09020402015	70.33	70.33	4	SC	15.3	15.3
<i>Paraleptophlebia</i>	09020406026	14.67	14.67	1	CG	3.2	3.2
<i>Eurylophella</i>	09020410036	1.33	1.33	3	CG	0.3	0.3
<i>Caenis</i>	09020412040	0.33	0.33	7	CG	0.1	0.1
<i>Chimarra</i>	09020601003		3.33	2	CF		0.7
<i>Chimarra aterrima</i>	09020601003002	3.33			--	0.7	
<i>Nyctiophylax</i>	09020603009	3.67	3.67	5	PR	0.8	0.8
<i>Polycentropus</i>	09020603010	33.67	33.67	6	PR	7.3	7.3
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.1	0.1
<i>Cheumatopsyche</i>	09020604015	16.33	16.33	5	CF	3.6	3.6
<i>Hydropsyche</i>	09020604016	9.00	9.00	4	CF	2.0	2.0
<i>Oxyethira</i>	09020607028	1.00	1.00	3	P	0.2	0.2
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.1	0.1
<i>Helicopsyche</i>	09020616070		5.33	3	SC		1.2
<i>Helicopsyche borealis</i>	09020616070137	5.33			--	1.2	
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.1	0.1
<i>Mystacides</i>	09020618075		1.00	4	CG		0.2
<i>Mystacides sepulchralis</i>	09020618075147	1.00			--	0.2	
<i>Oecetis</i>	09020618078		23.67	8	PR		5.2
<i>Oecetis persimilis</i>	09020618078157	23.67			--	5.2	
<i>Nigronia</i>	09020701003		1.00	0	PR		0.2
<i>Nigronia serricornis</i>	09020701003003	1.00			--	0.2	
Chironomidae	09021011	0.67			--	0.1	
<i>Ablabesmyia</i>	09021011001		0.33	8	PR		0.1



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		Actual	Adjusted			Actual	Adjusted
<i>Ablabesmyia mallochi</i>	09021011001004	0.33			--	0.1	
<i>Clinotanytus</i>	09021011002	0.33	0.33	8	PR	0.1	0.1
<i>Nilotanytus</i>	09021011012		2.34	6	PR		0.5
<i>Nilotanytus fimbriatus</i>	09021011012027	2.33			--	0.5	
<i>Thienemannimyia</i>	09021011020		24.75	3	PR		5.4
<i>Thienemannimyia group</i>	09021011020041	24.67			--	5.4	
<i>Zavrelimyia</i>	09021011022	0.67	0.67	8	PR	0.1	0.1
<i>Corynoneura</i>	09021011036	0.33	0.33	7	CG	0.1	0.1
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	0.1	0.1
<i>Parachaetocladius</i>	09021011051	0.33	0.33		CG	0.1	0.1
<i>Parametriocnemus</i>	09021011053	0.67	0.67	5	CG	0.1	0.1
<i>Rheocricotopus</i>	09021011057	4.00	4.01	6	CG	0.9	0.9
<i>Micropsectra</i>	09021011070	1.00	1.00	7	CG	0.2	0.2
<i>Paratanytarsus</i>	09021011071	0.33	0.33	6	--	0.1	0.1
<i>Rheotanytarsus</i>	09021011072		6.69	6	CF		1.5
<i>Rheotanytarsus exiguus group</i>	09021011072127	4.00			CF	0.9	
<i>Rheotanytarsus pellucidus</i>	09021011072128	2.67			CF	0.6	
<i>Stempellinella</i>	09021011074	30.67	30.77	2	--	6.7	6.7
<i>Tanytarsus</i>	09021011076	34.33	34.45	6	CF	7.5	7.5
<i>Microtendipes</i>	09021011094		82.27	6	CF		18.0
<i>Microtendipes rydalensis group</i>	09021011094168	82.00			--	17.9	
<i>Nilothauma</i>	09021011095	3.67	3.68	2	--	0.8	0.8
<i>Polypedilum</i>	09021011102		6.02	6	SH		1.3
<i>Polypedilum aviceps</i>	09021011102181	5.00			--	1.1	
<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.1	
<i>Polypedilum scalaenum group</i>	09021011102189	0.33			--	0.1	
<i>Simulium</i>	09021012047	0.67	0.67	4	CF	0.1	0.1
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.1	0.1
<i>Hemerodromia</i>	09021016057	0.33	0.33	3	PR	0.1	0.1
<i>Gyrinus</i>	09021104033	0.33	0.33	2	PR	0.1	0.1
<i>Ancyronyx</i>	09021113063		0.33	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	0.33			CG	0.1	
<i>Dubiraphia</i>	09021113064	2.00	2.00	6	--	0.4	0.4
<i>Macronychus</i>	09021113065		1.67	4	--		0.4
<i>Macronychus glabratus</i>	09021113065040	1.67			--	0.4	
<i>Promoresia</i>	09021113069		8.00		--		1.7
<i>Promoresia elegans</i>	09021113069051	1.00			--	0.2	
<i>Promoresia tardella</i>	09021113069052	7.00			--	1.5	



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<i>Stenelmis</i>	09021113070	8.33	8.33	5	SC	1.8	1.8
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.1	0.1
<i>Sperchon</i>	09030107001	0.33	0.33		--	0.1	0.1
<i>Sperchonopsis</i>	09030107002	0.33	0.33		--	0.1	0.1
<i>Amnicola</i>	10010104013	0.33	0.33		SC	0.1	0.1
<i>Physa</i>	10010202027	0.67	0.67		SC	0.1	0.1
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.1	0.1