



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

Station Information

Station Number: S-600 River Basin: Kennebec
Waterbody: South Branch Sandy River - Station 600 HUC8 Name: Lower Kennebec
Town: Phillips Latitude: 44 51 2.12 N
Directions: #Deleted Longitude: 70 25 59.15 W
Stream Order: 3

Sample Information

Log Number: 2825 Type of Sample: #Deleted Date Deployed: 7/10/2020
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/6/2020

Classification Attainment

Statutory Class: A Final Determination: A Date: 3/30/2021
Model Result with $P \geq 0.6$: A Reason for Determination: Model
Date Last Calculated: 3/30/2021 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.38	Class A, B, or C	1.00
Class B	0.60	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.99	Class A	0.92
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.08

Model Variables

01 Total Mean Abundance	1017.33	18 Relative Abundance Ephemeroptera	0.08
02 Generic Richness	37.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	22.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	38.67
04 Ephemeroptera Mean Abundance	85.33	23 Relative Generic Richness- Plecoptera	0.11
05 Shannon-Wiener Generic Diversity	3.52	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	93.33
06 Hilsenhoff Biotic Index	4.03	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	37.33
07 Relative Abundance - Chironomidae	0.50	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.57
09 <i>Hydropsyche</i> Abundance	141.33		
11 <i>Cheumatopsyche</i> Abundance	6.67		
12 EPT Generic Richness/ Diptera Generic Richness	1.43		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	5.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	21.33		
17 Chironomini Abundance (Family Functional Group)	66.67		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Rheotanytarsus</i>	25.95
2	<i>Brachycentrus</i>	21.36
3	<i>Hydropsyche</i>	13.89
4	<i>Cricotopus</i>	7.21
5	<i>Polypedilum</i>	4.85



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Station Number: S-600	Town: Phillips	Date Deployed: 7/10/2020
Log Number: 2825	Waterbody: South Branch Sandy River - Station 600	Date Retrieved: 8/6/2020

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	20.7 deg C
Dissolved Oxygen:	9.4 mg/l
Dissolved Oxygen Saturation:	107 %
Specific Conductance:	24 uS/cm
Velocity:	42.7 cm/s
pH:	6.9
Wetted Width:	17.8 m
Bankfull Width:	19.2 m
Depth:	34 cm

Waterbody Information - Retrieval

Temperature:	18.1 deg C
Dissolved Oxygen:	9.81 mg/l
Dissolved Oxygen Saturation:	105.9 %
Specific Conductance:	24.4 uS/cm
Velocity:	27.4 cm/s
pH:	6.62
Wetted Width:	17.4 m
Bankfull Width:	19.2 m
Depth:	33 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Hilly
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Logging	Above Road Crossing	Boulder 5 %
		Gravel 35 %
		Rubble/Cobble 60 %

Landcover Summary - 2004 Data

Total Area (ac)	13514	High Int. Dev. %	0.0	Water %	0.5	Non-vegetated %	0.1
		Med Int. Dev. %	0.0	Wetland %	0.6	Tilled Agriculture %	0.0
		Low Int. Dev. %	0.8	Upland Woody %	97.5	Grassland %	0.0
		Development %	0.8	Natural %	98.2	Human Altered %	1.3
						Impervious %	0.5

Sample Comments

BLACKNOSE DACE OBSERVED.



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

Station Number: S-600

Waterbody: South Branch Sandy River - Station 600

Town: Phillips

Log Number: 2825

Subsample Factor: X4

Replicates: 3

Calculated: 3/30/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Leuctra</i>	09020204020	1.33	1.33	0	SH	0.1	0.1
<i>Pteronarcys</i>	09020205023	6.67	6.67	0	SH	0.7	0.7
Perlodidae	09020207	9.33	9.33		--	0.9	0.9
<i>Agnetina</i>	09020209050	4.00	5.33	2	PR	0.4	0.5
<i>Agnetina capitata</i>	09020209050152	1.33		2	PR	0.1	
<i>Baetis</i>	09020401001		17.33	4	CG		1.7
<i>Baetis flavistriga</i>	09020401001004	9.33			--	0.9	
<i>Baetis intercalaris</i>	09020401001008	8.00			--	0.8	
<i>Acerpenna</i>	09020401007	4.00	4.00	5	CG	0.4	0.4
<i>Plautidius</i>	09020401012	2.67	2.67		CG	0.3	0.3
<i>Leucrocota</i>	09020402011	4.00	4.00	1	SC	0.4	0.4
<i>Maccaffertium</i>	09020402015	34.67	37.33	4	SC	3.4	3.7
<i>Maccaffertium vicarium</i>	09020402015055	2.67			--	0.3	
Leptophlebiidae	09020406	4.00	4.00		--	0.4	0.4
Ephemerellidae	09020410	2.67			--	0.3	
<i>Ephemerella</i>	09020410035	9.33	11.20	1	CG	0.9	1.1
<i>Eurylophella</i>	09020410036	2.67	3.20	3	CG	0.3	0.3
<i>Serratella</i>	09020410037		1.60	2	CG		0.2
<i>Serratella serratoidea</i>	09020410037124	1.33			--	0.1	
<i>Dolophilodes</i>	09020601001		6.67	0	CF		0.7
<i>Dolophilodes distincta</i>	09020601001001	6.67			--	0.7	
<i>Cheumatopsyche</i>	09020604015	6.67	6.67	5	CF	0.7	0.7
<i>Hydropsyche</i>	09020604016	85.33	141.33	4	CF	8.4	13.9
<i>Hydropsyche alhedra</i>	09020604016028	1.33			--	0.1	
<i>Hydropsyche bronta</i>	09020604016029	5.33			--	0.5	
<i>Hydropsyche morosa</i>	09020604016030	9.33			--	0.9	
<i>Hydropsyche slossonae</i>	09020604016031	4.00			--	0.4	
<i>Hydropsyche sparna</i>	09020604016032	36.00			--	3.5	
<i>Brachycentrus</i>	09020609043		217.33	0	CF		21.4
<i>Brachycentrus appalachia</i>	09020609043096	217.33			--	21.4	
<i>Lepidostoma</i>	09020611064	12.00	12.00	1	SH	1.2	1.2
<i>Ceraclea</i>	09020618072	2.67	2.67	3	CG	0.3	0.3
<i>Oecetis</i>	09020618078	1.33	1.33	8	PR	0.1	0.1
<i>Thienemannimyia</i>	09021011020		18.67	3	PR		1.8
<i>Thienemannimyia group</i>	09021011020041	18.67			--	1.8	
<i>Trissopelopia</i>	09021011021		2.67		PR		0.3
<i>Trissopelopia ogemawi</i>	09021011021042	2.67			--	0.3	



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Town: Phillips

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Subsample Factor: X4

Replicates: 3

Calculated: 3/30/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Cricotopus</i>	09021011037		73.33	7	SH		7.2
<i>Cricotopus bicinctus</i>	09021011037057	73.33			--	7.2	
<i>Thienemanniella</i>	09021011062	5.33	5.33	6	CG	0.5	0.5
<i>Tvetenia</i>	09021011065		24.00	5	CG		2.4
<i>Tvetenia vitracies</i>	09021011065113	24.00			--	2.4	
<i>Micropsectra</i>	09021011070	38.67	38.67	7	CG	3.8	3.8
<i>Paratanytarsus</i>	09021011071		2.67	6	--		0.3
<i>Paratanytarsus longistylus</i>	09021011071126	2.67		6	--	0.3	
<i>Rheotanytarsus</i>	09021011072		264.00	6	CF		26.0
<i>Rheotanytarsus exiguus group</i>	09021011072127	262.67			CF	25.8	
<i>Rheotanytarsus pellucidus</i>	09021011072128	1.33			CF	0.1	
<i>Stempellinella</i>	09021011074	2.67	2.67	2	--	0.3	0.3
<i>Tanytarsus</i>	09021011076	13.33	13.33	6	CF	1.3	1.3
<i>Microtendipes</i>	09021011094		17.33	6	CF		1.7
<i>Microtendipes pedellus group</i>	09021011094166	10.67			--	1.0	
<i>Microtendipes rydalensis group</i>	09021011094168	6.67			--	0.7	
<i>Polypedilum</i>	09021011102		49.33	6	SH		4.8
<i>Polypedilum aviceps</i>	09021011102181	48.00			--	4.7	
<i>Polypedilum tritum</i>	09021011102191	1.33			--	0.1	
<i>Simulium</i>	09021012047	2.67	2.67	4	CF	0.3	0.3
<i>Neoplasia</i>	09021016064	1.33	1.33		PR	0.1	0.1
<i>Dubiraphia</i>	09021113064	1.33	1.33	6	--	0.1	0.1
<i>Macronychus</i>	09021113065		1.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.1	
<i>Stenelmis</i>	09021113070		2.67	5	SC		0.3
<i>Stenelmis crenata</i>	09021113070055	1.33			--	0.1	
<i>Stenelmis mera</i>	09021113070058	1.33			--	0.1	