



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

Station Information

Station Number: S-34
Waterbody: Wilson Stream - Station 34
Town: Wilton
Directions: 0.96 KM BELOW WILTON TANNERY (CLOSED) DISCHARGE
DEP Drainage: Kennebec
HUC8: 01030003
HUC8 Name: Lower Kennebec
Latitude: 44 36 42.42 N
Longitude: 70 10 14.85 W
Stream Order: 4

Sample Information

Log Number: 2123
Subsample Factor: X4
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/23/2012
Date Retrieved: 8/21/2012

Classification Attainment

Statutory Class: C
Model Result with P>.6: A
Date Last Calculated: 4/22/2013
Final Determination: A
Reason for Determination: Model
Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.51	Class A, B, or C	1.00
Class B	0.48	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
Class A or B	1.00	Class A	0.72
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.28

Model Variables

01 Total Mean Abundance	994.67	18 Relative Abundance Ephemeroptera	0.25
02 Generic Richness	47.00	19 EPT Generic Richness	20.00
03 Plecoptera Mean Abundance	21.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	246.67	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	4.03	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	224.17
06 Hilsenhoff Biotic Index	4.21	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	111.52
07 Relative Abundance - Chironomidae	0.24	28 EP Generic Richness/14	0.86
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	146.40		
11 <i>Cheumatopsyche</i> Abundance	181.60		
12 EPT Generic Richness/ Diptera Generic Richness	1.25		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	21.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	28.38		
17 Chironomini Abundance (Family Functional Group)	32.64		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cheumatopsyche</i>	18.26
2	<i>Hydropsyche</i>	14.72
3	<i>Rheotanytarsus</i>	11.98
4	<i>Maccaffertium</i>	9.23
5	<i>Isonychia</i>	8.31



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	23.7 deg C
Dissolved Oxygen:	8.2 mg/l
Specific Conductance:	61 uS/cm
Velocity:	32.6 cm/s
pH:	7.08
Wetted Width:	15.9 m
Bankfull Width:	16.4 m
Depth:	37 cm

Waterbody Information - Retrieval

Temperature:	20.6 deg C
Dissolved Oxygen:	7.8 mg/l
Specific Conductance:	57 uS/cm
Velocity:	30 cm/s
pH:	6.75
Wetted Width:	16.4 m
Bankfull Width:	16.4 m
Depth:	47 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Conifer

Upland Hardwood

Canopy Cover

Partly Open

Terrain

Rolling

Potential Stressor

Nps Pollution

Location

Below Town

Substrate

Boulder	30 %
Gravel	5 %
Rubble/Cobble	55 %
Sand	10 %

Landcover Summary - 2004 Data

Total Area (ac)	32294	High Int. Dev. %	0.4	Water %	3.2	Non-vegetated %	0.2
		Med Int. Dev. %	0.5	Wetland %	2.8	Tilled Agriculture %	1.4
		Low Int. Dev. %	1.9	Upland Woody %	84.0	Grassland %	5.0
		Development %	2.8	Natural %	86.9	Human Altered %	9.9
						Impervious %	2.8

Sample Comments

8/21/12: FISH AND MUSSELS OBSERVED.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-34
Log Number: 2123

Waterbody: Wilson Stream - Station 34
Subsample Factor: X4

Town: Wilton
Calculated: 4/22/2013

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Prostoma</i>	04010101001	1.33	1.33		--	0.1	0.1
Perlidae	09020209	4.00			--	0.4	
<i>Acroneuria</i>	09020209042	2.67	19.69	0	PR	0.3	2.0
<i>Acroneuria abnormis</i>	09020209042121	2.67		0	PR	0.3	
<i>Acroneuria lycorias</i>	09020209042125	10.67			--	1.1	
<i>Agnetina</i>	09020209050		1.64	2	PR		0.2
<i>Agnetina capitata</i>	09020209050152	1.33		2	PR	0.1	
<i>Boyeria</i>	09020301004		1.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.1	
<i>Hagenius</i>	09020302008		1.33	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	1.33			PR	0.1	
<i>Argia</i>	09020309048	1.33	1.33	7	PR	0.1	0.1
<i>Baetis</i>	09020401001	2.67	22.67	4	CG	0.3	2.3
<i>Baetis flavistriga</i>	09020401001004	8.00			--	0.8	
<i>Baetis intercalaris</i>	09020401001008	12.00			--	1.2	
<i>Acerpenna</i>	09020401007		1.33	5	CG		0.1
<i>Acerpenna pygmaea</i>	09020401007011	1.33			--	0.1	
Heptageniidae	09020402	4.00			--	0.4	
<i>Leucrocuta</i>	09020402011	4.00	4.17	1	SC	0.4	0.4
<i>Maccaffertium</i>	09020402015	72.00	91.83	4	SC	7.2	9.2
<i>Maccaffertium luteum</i>	09020402015049	1.33			--	0.1	
<i>Maccaffertium mediopunctatum</i>	09020402015050	1.33			--	0.1	
<i>Maccaffertium modestum</i>	09020402015051	13.33			--	1.3	
<i>Isonychia</i>	09020404018	82.67	82.67	2	CF	8.3	8.3
Leptophlebiidae	09020406	1.33	1.33		--	0.1	0.1
<i>Ephemera</i>	09020407027	2.67	2.67	1	CG	0.3	0.3
<i>Ephemerella</i>	09020410035	37.33	37.33	1	CG	3.8	3.8
<i>Serratella</i>	09020410037		1.33	2	CG		0.1
<i>Serratella serratoides</i>	09020410037124	1.33			--	0.1	
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.1	0.1
<i>Dolophilodes</i>	09020601001	1.33	1.33	0	CF	0.1	0.1
<i>Chimarra</i>	09020601003	2.67	13.33	2	CF	0.3	1.3
<i>Chimarra obscura</i>	09020601003003	8.00			--	0.8	
<i>Chimarra socia</i>	09020601003004	2.67			--	0.3	
<i>Cernotina</i>	09020603006	2.67	2.67		PR	0.3	0.3
Hydropsychidae	09020604	17.33			--	1.7	
<i>Cheumatopsyche</i>	09020604015	172.00	181.60	5	CF	17.3	18.3
<i>Hydropsyche</i>	09020604016	77.33	146.40	4	CF	7.8	14.7



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Calculated: 4/22/2013

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		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche bronta</i>	09020604016029	36.00			--	3.6	
<i>Hydropsyche morosa</i>	09020604016030	6.67			--	0.7	
<i>Hydropsyche sparna</i>	09020604016032	9.33			--	0.9	
<i>Hydropsyche depravata complex</i>	09020604016041	9.33			CF	0.9	
<i>Rhyacophila</i>	09020605019	1.33	5.33	2	PR	0.1	0.5
<i>Rhyacophila minor</i>	09020605019063	4.00			PR	0.4	
<i>Apatania</i>	09020610061	1.33	1.33		SC	0.1	0.1
<i>Oecetis</i>	09020618078		10.67	8	PR		1.1
<i>Oecetis persimilis</i>	09020618078157	10.67			--	1.1	
<i>Nigronia</i>	09020701003		6.67	0	PR		0.7
<i>Nigronia serricornis</i>	09020701003003	6.67			--	0.7	
Chironomidae	09021011	14.67			--	1.5	
<i>Ablabesmyia</i>	09021011001	1.33	4.26	8	PR	0.1	0.4
<i>Ablabesmyia mallochi</i>	09021011001004	2.67			--	0.3	
<i>Nilotanyus</i>	09021011012		2.84	6	PR		0.3
<i>Nilotanyus fimbriatus</i>	09021011012027	2.67			--	0.3	
<i>Pentaneura</i>	09021011014		1.42	6	PR		0.1
<i>Pentaneura inconspicua</i>	09021011014028	1.33			--	0.1	
<i>Rheopelopia</i>	09021011017		19.87		PR		2.0
<i>Rheopelopia acra group</i>	09021011017036	18.67			--	1.9	
<i>Nanocladius</i>	09021011049		7.10	3	CG		0.7
<i>Nanocladius spinipennis</i>	09021011049090	4.00			--	0.4	
<i>Nanocladius downesi</i>	09021011049092	2.67			--	0.3	
<i>Tvetenia</i>	09021011065		7.10	5	CG		0.7
<i>Tvetenia vitracies</i>	09021011065113	5.33			--	0.5	
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.1	
<i>Rheotanytarsus</i>	09021011072	112.00	119.20	6	CF	11.3	12.0
<i>Stempellinella</i>	09021011074		9.93	2	--		1.0
<i>Stempellinella fimbriata</i>	09021011074002	9.33			--	0.9	
<i>Tanytarsus</i>	09021011076	36.00	38.32	6	CF	3.6	3.9
<i>Cryptochironomus</i>	09021011082	1.33	1.42	8	PR	0.1	0.1
<i>Microtendipes</i>	09021011094		4.26	6	CF		0.4
<i>Microtendipes pedellus group</i>	09021011094166	2.67			--	0.3	
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	0.1	
<i>Phaenopsectra</i>	09021011101		2.84	7	SC		0.3
<i>Phaenopsectra obediens</i>	09021011101182	2.67			SC	0.3	
<i>Polypedilum</i>	09021011102		22.71	6	SH		2.3
<i>Polypedilum aviceps</i>	09021011102181	5.33			--	0.5	



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<i>Polypedilum flavum</i>	09021011102182	16.00			--	1.6	
<i>Stenochironomus</i>	090210111105	1.33	1.42	5	CG	0.1	0.1
<i>Simulium</i>	09021012047		5.33	4	CF		0.5
<i>Simulium jenningsi</i>	09021012047060	2.67			--	0.3	
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.1	
<i>Simulium jenningsi complex</i>	09021012047070	1.33			CF	0.1	
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	0.1	0.1
<i>Psephenus</i>	09021108058		33.33	4	SC		3.4
<i>Psephenus herricki</i>	09021108058028	33.33			--	3.4	
<i>Optioservus</i>	09021113067	10.67	10.67	3	SC	1.1	1.1
<i>Promoresia</i>	09021113069		4.00		--		0.4
<i>Promoresia tardella</i>	09021113069052	4.00			--	0.4	
<i>Stenelmis</i>	09021113070	33.33	52.00	5	SC	3.4	5.2
<i>Stenelmis crenata</i>	09021113070055	18.67			--	1.9	
<i>Lebertia</i>	09030105001	1.33	1.33		--	0.1	0.1
<i>Ferrissia</i>	10010204035		1.33		SC		0.1
<i>Ferrissia rivularis</i>	10010204035066	1.33			--	0.1	