



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

Station Information

Station Number: S-604 DEP Drainage: Kennebec  
Waterbody: China Lake Outlet Stream - Station 604 HUC8: 01030003  
Town: Winslow HUC8 Name: Lower Kennebec  
Directions: DOWNSTREAM OF RT 137 Latitude: 44 31 34.26 N  
Longitude: 69 36 52.16 W  
Stream Order: 3

Sample Information

Log Number: 2102 Type of Sample: ROCK BAG Date Deployed: 7/12/2012  
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/13/2012

Classification Attainment

Statutory Class: B Final Determination: B Date: 12/4/2012  
Model Result with P>.6: B Reason for Determination: Model  
Date Last Calculated: 11/16/2012 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.22	Class A, B, or C	1.00
Class B	0.73	Non-Attainment	0.00
B or Better Model		A Model	
Class A or B	0.99	Class A	0.18
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.82

Model Variables

01 Total Mean Abundance	1676.00	18 Relative Abundance Ephemeroptera	0.14
02 Generic Richness	55.00	19 EPT Generic Richness	22.00
03 Plecoptera Mean Abundance	13.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	5.44
04 Ephemeroptera Mean Abundance	238.67	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.75	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	207.31
06 Hilsenhoff Biotic Index	4.79	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	94.47
07 Relative Abundance - Chironomidae	0.24	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.27	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	482.31		
11 <i>Cheumatopsyche</i> Abundance	192.35		
12 EPT Generic Richness/ Diptera Generic Richness	1.47		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	13.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	31.28		
17 Chironomini Abundance (Family Functional Group)	65.28		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	28.78
2	<i>Rheotanytarsus</i>	17.45
3	<i>Cheumatopsyche</i>	11.48
4	<i>Neureclipsis</i>	4.99
5	<i>Maccaffertium</i>	4.92



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<b>Log Number: 2102</b>	Waterbody: China Lake Outlet Stream - Station 604	Date Retrieved: 8/13/2012

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	21.7 deg C
Dissolved Oxygen:	8.6 mg/l
Specific Conductance:	113 uS/cm
Velocity:	46 cm/s
pH:	7.56
Wetted Width:	9.4 m
Bankfull Width:	12 m
Depth:	50 cm

**Waterbody Information - Retrieval**

Temperature:	22.8 deg C
Dissolved Oxygen:	6.2 mg/l
Specific Conductance:	141 uS/cm
Velocity:	36.9 cm/s
pH:	6.8
Wetted Width:	9 m
Bankfull Width:	12 m
Depth:	45 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Upland Conifer

Upland Hardwood

Canopy Cover

Open

Terrain

Rolling

Potential Stressor

Lake Outlet

Nps Pollution

Location

Below Road Crossing

Lake Outlet

Substrate

Boulder 20 %

Gravel 15 %

Rubble/Cobble 60 %

Sand 5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	33449	High Int. Dev. %	0.5	Water %	12.3	Non-vegetated %	0.6
		Med Int. Dev. %	0.7	Wetland %	8.3	Tilled Agriculture %	2.8
		Low Int. Dev. %	4.5	Upland Woody %	62.1	Grassland %	8.4
		Development %	5.6	Natural %	70.5	Human Altered %	17.2
						Impervious %	4.3

**Sample Comments**

FISH OBSERVED DURING DEPLOYMENT AND RETRIEVAL. ERODED BANKS, STREAM BOTTOM SILTY.

7/12/12: SOME MACROALGAE OBSERVED.



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Aquatic Life Taxonomic Inventory Report**

**Station Number: S-604**

Waterbody: China Lake Outlet Stream - Station 604

Town: Winslow

**Log Number: 2102**

Subsample Factor: X4

Replicates: 3

Calculated: 11/16/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	1.33	1.33		PR	0.1	0.1
Dugesidae	03010102	2.67	2.67		--	0.2	0.2
<i>Girardia</i>	03010102002		1.33		--		0.1
<i>Girardia tigrina</i>	03010102002001	1.33			--	0.1	
<i>Prostoma</i>	04010101001	2.67	2.67		--	0.2	0.2
<i>Chaetogaster</i>	08020202002		1.33		--		0.1
<i>Chaetogaster diastrophus</i>	08020202002002	1.33			--	0.1	
Perlidae	09020209	1.33	1.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042		12.00	0	PR		0.7
<i>Acroneuria abnormis</i>	09020209042121	12.00		0	PR	0.7	
<i>Hagenius</i>	09020302008		1.33	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	1.33			PR	0.1	
Calopterygidae	09020307	1.33	1.33		--	0.1	0.1
<i>Baetis</i>	09020401001	6.67	17.33	4	CG	0.4	1.0
<i>Baetis flavistriga</i>	09020401001004	10.67			--	0.6	
<i>Acerpenna</i>	09020401007	6.67	12.00	5	CG	0.4	0.7
<i>Acerpenna pygmaea</i>	09020401007011	5.33			--	0.3	
Heptageniidae	09020402	10.67			--	0.6	
<i>Leucrocuta</i>	09020402011	1.33	1.53	1	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	50.67	82.47	4	SC	3.0	4.9
<i>Maccaffertium mediopunctatum</i>	09020402015050	6.67			--	0.4	
<i>Maccaffertium modestum</i>	09020402015051	14.67			--	0.9	
<i>Isonychia</i>	09020404018	24.00	24.00	2	CF	1.4	1.4
<i>Ephemerella</i>	09020410035	12.00	12.00	1	CG	0.7	0.7
<i>Serratella</i>	09020410037		69.33	2	CG		4.1
<i>Serratella (Teloganopsis) deficiens</i>	09020410037121	49.33			--	2.9	
<i>Serratella serratoides</i>	09020410037124	20.00			--	1.2	
<i>Tricorythodes</i>	09020411038	20.00	20.00	4	CG	1.2	1.2
<i>Chimarra</i>	09020601003	4.00	9.33	2	CF	0.2	0.6
<i>Chimarra obscura</i>	09020601003003	4.00			--	0.2	
<i>Chimarra socia</i>	09020601003004	1.33			--	0.1	
<i>Psychomyia</i>	09020602005		2.67	2	CG		0.2
<i>Psychomyia flavida</i>	09020602005006	2.67			--	0.2	
Polycentropodidae	09020603	4.00			--	0.2	
<i>Neureclipsis</i>	09020603008	80.00	83.69	7	CF	4.8	5.0
<i>Polycentropus</i>	09020603010	6.67	6.97	6	PR	0.4	0.4
Hydropsychidae	09020604	48.00			--	2.9	
<i>Cheumatopsyche</i>	09020604015	178.67	192.35	5	CF	10.7	11.5



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Waterbody: China Lake Outlet Stream - Station 604

Town: Winslow

**Log Number: 2102**

Subsample Factor: X4

Replicates: 3

Calculated: 11/16/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche</i>	09020604016	193.33	482.31	4	CF	11.5	28.8
<i>Hydropsyche morosa</i>	09020604016030	221.33			--	13.2	
<i>Hydropsyche sparna</i>	09020604016032	16.00			--	1.0	
<i>Hydropsyche depravata complex</i>	09020604016041	16.00			CF	1.0	
<i>Hydropsyche simulans</i>	09020604016049	1.33			--	0.1	
Hydroptilidae	09020607	1.33	1.33		--	0.1	0.1
<i>Hydroptila</i>	09020607026	16.00	16.00	6	P	1.0	1.0
<i>Micrasema</i>	09020609044	4.00	5.33	2	SH	0.2	0.3
<i>Micrasema wataga</i>	09020609044101	1.33			--	0.1	
<i>Pycnopsyche</i>	09020610049	1.33	1.33	4	SH	0.1	0.1
<i>Helicopsyche</i>	09020616070		1.33	3	SC		0.1
<i>Helicopsyche borealis</i>	09020616070137	1.33			--	0.1	
Leptoceridae	09020618				--		
<i>Oecetis</i>	09020618078	30.67	54.67	8	PR	1.8	3.3
<i>Oecetis avara</i>	09020618078153	14.67			--	0.9	
<i>Oecetis persimilis</i>	09020618078157	9.33			--	0.6	
<i>Nigronia</i>	09020701003		1.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	1.33			--	0.1	
<i>Petrophila</i>	09020901004	1.33	1.33	5	SC	0.1	0.1
<i>Antocha</i>	09021001004	4.00	4.00	3	CG	0.2	0.2
Chironomidae	09021011	8.00			--	0.5	
<i>Ablabesmyia</i>	09021011001		1.36	8	PR		0.1
<i>Ablabesmyia mallochi</i>	09021011001004	1.33			--	0.1	
<i>Nilotanytus</i>	09021011012		2.72	6	PR		0.2
<i>Nilotanytus fimbriatus</i>	09021011012027	2.67			--	0.2	
<i>Pentaneura</i>	09021011014		10.88	6	PR		0.6
<i>Pentaneura inconspicua</i>	09021011014028	10.67			--	0.6	
<i>Rheopelopia</i>	09021011017	1.33	16.32		PR	0.1	1.0
<i>Rheopelopia acra group</i>	09021011017036	14.67			--	0.9	
<i>Nanocladius</i>	09021011049		1.36	3	CG		0.1
<i>Nanocladius branchicolus</i>	09021011049091	1.33			--	0.1	
<i>Synorthocladius</i>	09021011061	1.33	1.36	2	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062	1.33	1.36	6	CG	0.1	0.1
<i>Tvetenia</i>	09021011065		1.36	5	CG		0.1
<i>Tvetenia vitracies</i>	09021011065113	1.33			--	0.1	
<i>Rheotanytarsus</i>	09021011072	286.67	292.40	6	CF	17.1	17.4
<i>Tanytarsus</i>	09021011076	13.33	13.60	6	CF	0.8	0.8
<i>Dicrotendipes</i>	09021011085	5.33	5.44	8	CG	0.3	0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Microtendipes</i>	09021011094		54.40	6	CF		3.2
<i>Microtendipes pedellus group</i>	09021011094166	2.67			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	50.67			--	3.0	
<i>Polypedilum</i>	09021011102		5.44	6	SH		0.3
<i>Polypedilum flavum</i>	09021011102182	5.33			--	0.3	
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058		13.33	4	SC		0.8
<i>Psephenus herricki</i>	09021108058028	13.33			--	0.8	
Elmidae	09021113	1.33			--	0.1	
<i>Dubiraphia</i>	09021113064		17.58	6	--		1.0
<i>Dubiraphia minima</i>	09021113064036	17.33			--	1.0	
<i>Macronychus</i>	09021113065		1.35	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.1	
<i>Microcylloepus</i>	09021113066	4.00	4.06	3	--	0.2	0.2
<i>Promoresia</i>	09021113069		63.57		--		3.8
<i>Promoresia elegans</i>	09021113069051	60.00			--	3.6	
<i>Promoresia tardella</i>	09021113069052	2.67			--	0.2	
<i>Stenelmis</i>	09021113070	1.33	6.76	5	SC	0.1	0.4
<i>Stenelmis concinna</i>	09021113070054	1.33			--	0.1	
<i>Stenelmis crenata</i>	09021113070055	4.00			--	0.2	
Acariformes	090301	1.33	1.33		--	0.1	0.1
<i>Clathrosperchon</i>	09030118001	1.33	1.33		--	0.1	0.1
<i>Amnicola</i>	10010104013		25.33		SC		1.5
<i>Amnicola limosa</i>	10010104013018	25.33			--	1.5	
<i>Ferrissia</i>	10010204035	2.67	4.00		SC	0.2	0.2
<i>Ferrissia rivularis</i>	10010204035066	1.33			--	0.1	