



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

Station Information

Station Number: S-664
Waterbody: West Branch Nezinscot River - Station 664
Town: Sumner
Directions: UPSTREAM OF ATV CROSSING, APPROXIMATELY 1 KM UPSTREAM OF N. BUCKFIELD RD.
DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 44 19 5.01 N
Longitude: 70 24 39.27 W
Stream Order: 4

Sample Information

Log Number: 2196
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/15/2013
Date Retrieved: 8/12/2013

Classification Attainment

Statutory Class: A
Model Result with P>.6: A
Date Last Calculated: 1/29/2014
Final Determination: A
Reason for Determination: Model
Date: 1/30/2014
Comments:

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.83	Class A, B, or C	1.00
Class B	0.17	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	378.00	18 Relative Abundance Ephemeroptera	0.14
02 Generic Richness	48.00	19 EPT Generic Richness	25.00
03 Plecoptera Mean Abundance	24.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.67
04 Ephemeroptera Mean Abundance	52.00	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.62	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	7.79
06 Hilsenhoff Biotic Index	3.57	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	36.64
07 Relative Abundance - Chironomidae	0.18	28 EP Generic Richness/14	1.00
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.71
09 <i>Hydropsyche</i> Abundance	130.55		
11 <i>Cheumatopsyche</i> Abundance	6.78		
12 EPT Generic Richness/ Diptera Generic Richness	1.67		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	24.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.01		
17 Chironomini Abundance (Family Functional Group)	32.32		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	34.54
2	<i>Simulium</i>	9.96
3	<i>Brachycentrus</i>	8.91
4	<i>Polypedilum</i>	8.19
5	<i>Acroneuria</i>	6.12



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

Station Number: S-664

Town: Sumner

Date Deployed: 7/15/2013

Log Number: 2196

Waterbody: West Branch Nezinscot River - Station 664

Date Retrieved: 8/12/2013

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.7 deg C
Dissolved Oxygen: 8 mg/l
Specific Conductance: 20 uS/cm
Velocity: 87.4 cm/s
pH: 5.98
Wetted Width: 8 m
Bankfull Width: 13 m
Depth: 50 cm

Waterbody Information - Retrieval

Temperature: 17.3 deg C
Dissolved Oxygen: 7.6 mg/l
Specific Conductance: 11 uS/cm
Velocity: 94.6 cm/s
pH: 6.24
Wetted Width: 11 m
Bankfull Width: 13 m
Depth: 60 cm

Water Chemistry - 8/12/2013

Ammonia As Nitrogen	<0.01 mg/l	Soluble Reactive Phosphorus	2 ug/l
Nitrate+nitrite As N	0.01 mg/l	Total Phosphorus	0.015 mg/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	4.8 mg/l	Total Dissolved Solids	39 mg/l

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Upland Conifer

Partly Open

Rolling

Upland Hardwood

Potential Stressor

Location

Substrate

Main Stem

Boulder	25 %
Gravel	15 %
Rubble/Cobble	50 %
Sand	10 %

Landcover Summary - 2004 Data

Total Area (ac)	18439	High Int. Dev. %	0.0	Water %	1.3	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	4.1	Tilled Agriculture %	0.3
		Low Int. Dev. %	1.0	Upland Woody %	91.0	Grassland %	2.3
		Development %	1.1	Natural %	95.9	Human Altered %	2.8
						Impervious %	1.3

Sample Comments

8/12/2013 - FISH OBSERVED



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

Station Number: S-664

Waterbody: West Branch Nezinscot River - Station 664 Town: Sumner

Log Number: 2196

Subsample Factor: X1

Replicates: 3

Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Perlidae	09020209	3.33			--	0.9	
<i>Acroneuria</i>	09020209042	14.00	23.13	0	PR	3.7	6.1
<i>Acroneuria abnormis</i>	09020209042121	6.00		0	PR	1.6	
<i>Paragnetina</i>	09020209049		1.54	1	PR		0.4
<i>Paragnetina media</i>	09020209049151	1.33			--	0.4	
<i>Boyeria</i>	09020301004		1.00	2	PR		0.3
<i>Boyeria vinosa</i>	09020301004012	1.00			--	0.3	
<i>Ophiogomphus</i>	09020302015	0.33	0.33	1	PR	0.1	0.1
Baetidae	09020401	0.67			--	0.2	
<i>Baetis</i>	09020401001	2.67	20.59	4	CG	0.7	5.4
<i>Baetis flavistriga</i>	09020401001004	1.00			--	0.3	
<i>Baetis intercalaris</i>	09020401001008	5.33			--	1.4	
<i>Baetis pluto</i>	09020401001009	11.00			--	2.9	
<i>Acerpenna</i>	09020401007	0.33	1.03	5	CG	0.1	0.3
<i>Acerpenna pygmaea</i>	09020401007011	0.67			--	0.2	
<i>Procloeon</i>	09020401010	0.33	0.34		CG	0.1	0.1
<i>Iswaeon</i>	09020401015	1.33	1.37		--	0.4	0.4
Heptageniidae	09020402	1.67			--	0.4	
<i>Epeorus</i>	09020402009	4.33	4.75	0	SC	1.1	1.3
<i>Leucrocuta</i>	09020402011	0.67	0.73	1	SC	0.2	0.2
<i>Maccaffertium</i>	09020402015	10.00	13.52	4	SC	2.6	3.6
<i>Maccaffertium luteum</i>	09020402015049	2.33			--	0.6	
<i>Isonychia</i>	09020404018	0.33	0.33	2	CF	0.1	0.1
Leptophlebiidae	09020406	0.33	0.33		--	0.1	0.1
<i>Ephemerella</i>	09020410035	5.33	5.33	1	CG	1.4	1.4
<i>Serratella</i>	09020410037		1.33	2	CG		0.4
<i>Serratella serratoides</i>	09020410037124	1.33			--	0.4	
<i>Tricorythodes</i>	09020411038	2.33	2.33	4	CG	0.6	0.6
Trichoptera	090206				--		
<i>Dolophilodes</i>	09020601001	0.67	0.67	0	CF	0.2	0.2
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.1	0.1
<i>Neureclipsis</i>	09020603008	4.33	4.33	7	CF	1.1	1.1
Hydropsychidae	09020604	2.33			--	0.6	
<i>Cheumatopsyche</i>	09020604015	6.67	6.78	5	CF	1.8	1.8
<i>Hydropsyche</i>	09020604016	58.67	130.55	4	CF	15.5	34.5
<i>Hydropsyche bronta</i>	09020604016029	16.67			--	4.4	
<i>Hydropsyche morosa</i>	09020604016030	1.00			--	0.3	
<i>Hydropsyche sparna</i>	09020604016032	51.33			--	13.6	



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

Station Number: S-664 Waterbody: West Branch Nezinscot River - Station 664 Town: Sumner
Log Number: 2196 Subsample Factor: X1 Replicates: 3 Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche depravata complex</i>	09020604016041	0.67			CF	0.2	
<i>Rhyacophila</i>	09020605019		2.67	2	PR		0.7
<i>Rhyacophila minor</i>	09020605019063	2.67			PR	0.7	
Glossosomatidae	09020606				--		
<i>Brachycentrus</i>	09020609043		33.67	0	CF		8.9
<i>Brachycentrus appalachia</i>	09020609043096	31.67			--	8.4	
<i>Brachycentrus numerosus</i>	09020609043098	2.00			--	0.5	
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.1	0.1
<i>Lepidostoma</i>	09020611064	2.00	2.00	1	SH	0.5	0.5
<i>Psilotreta</i>	09020614068		0.33	0	SC		0.1
<i>Psilotreta indecisa</i>	09020614068132	0.33			--	0.1	
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.1	0.1
<i>Nigronia</i>	09020701003		1.67	0	PR		0.4
<i>Nigronia serricornis</i>	09020701003003	1.67			--	0.4	
Chironomidae	09021011	0.67			--	0.2	
<i>Rheopelopia</i>	09021011017		1.01		PR		0.3
<i>Rheopelopia acra group</i>	09021011017036	1.00			--	0.3	
<i>Corynoneura</i>	09021011036	0.33	0.34	7	CG	0.1	0.1
<i>Eukiefferiella</i>	09021011041		2.02	8	CG		0.5
<i>Eukiefferiella brehmi group</i>	09021011041073	2.00			--	0.5	
<i>Nanocladius</i>	09021011049	1.00	4.71	3	CG	0.3	1.2
<i>Nanocladius branchicolus</i>	09021011049091	0.67			--	0.2	
<i>Nanocladius downesi</i>	09021011049092	3.00			--	0.8	
<i>Parametriocnemus</i>	09021011053	0.33	0.34	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062		0.34	6	CG		0.1
<i>Thienemanniella xena</i>	09021011062110	0.33			--	0.1	
<i>Tvetenia</i>	09021011065		4.04	5	CG		1.1
<i>Tvetenia vitracies</i>	09021011065113	2.00			--	0.5	
<i>Tvetenia paucunca</i>	09021011065114	2.00			--	0.5	
<i>Micropsectra</i>	09021011070	0.67	0.67	7	CG	0.2	0.2
<i>Rheotanytarsus</i>	09021011072	20.33	20.54	6	CF	5.4	5.4
<i>Tanytarsus</i>	09021011076	1.00	1.01	6	CF	0.3	0.3
<i>Microtendipes</i>	09021011094		1.35	6	CF		0.4
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	0.4	
<i>Polypedilum</i>	09021011102		30.97	6	SH		8.2
<i>Polypedilum aviceps</i>	09021011102181	22.67			--	6.0	
<i>Polypedilum flavum</i>	09021011102182	7.00			--	1.9	
<i>Polypedilum laetum</i>	09021011102186	1.00			--	0.3	



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

Station Number: S-664 Waterbody: West Branch Nezinscot River - Station 664 Town: Sumner
Log Number: 2196 Subsample Factor: X1 Replicates: 3 Calculated: 1/29/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Simulium</i>	09021012047	1.00	37.67	4	CF	0.3	10.0
<i>Simulium fibrinflatum</i>	09021012047059	1.33			--	0.4	
<i>Simulium jenningsi</i>	09021012047060				--		
<i>Simulium tuberosum</i>	09021012047067	26.00			--	6.9	
<i>Simulium jenningsi complex</i>	09021012047070	9.33			CF	2.5	
<i>Atherix</i>	09021015055	1.33	1.33	2	PR	0.4	0.4
<i>Hemerodromia</i>	09021016057	0.67	0.67	3	PR	0.2	0.2
<i>Psephenus</i>	09021108058		0.33	4	SC		0.1
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.1	
<i>Ectopria</i>	09021109059	0.33	0.33	5	SC	0.1	0.1
<i>Optioservus</i>	09021113067	0.33	0.67	3	SC	0.1	0.2
<i>Optioservus ovalis</i>	09021113067046	0.33			--	0.1	
<i>Promoresia</i>	09021113069		6.33		--		1.7
<i>Promoresia tardella</i>	09021113069052	6.33			--	1.7	
<i>Stenelmis</i>	09021113070	0.33	1.67	5	SC	0.1	0.4
<i>Stenelmis crenata</i>	09021113070055	1.33			--	0.4	