



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

Station Information

Station Number: S-860
Waterbody: Nezinscot River - Station 860
Town: Turner
Directions: ABOUT 100 M DOWNSTREAM OF DAM

DEP Drainage: Androscoggin
HUC8 Name: Lower Androscoggin
Latitude: 44 15 22.05 N
Longitude: 70 15 16.14 W
Stream Order: 5

Sample Information

Log Number: 2207
Subsample Factor: X1

Type of Sample: ROCK BASKET
Replicates: 3

Date Deployed: 7/15/2013
Date Retrieved: 8/19/2013

Classification Attainment

Statutory Class: B
Model Result with P>.6: A
Date Last Calculated: 3/14/2014

Final Determination: A
Reason for Determination: Model
Comments:

Date: 3/18/2014

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.78	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.97
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.03

Model Variables

01 Total Mean Abundance	190.67	18 Relative Abundance Ephemeroptera	0.67
02 Generic Richness	51.00	19 EPT Generic Richness	24.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	128.00	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>	17.64
06 Hilsenhoff Biotic Index	4.28	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	42.07
07 Relative Abundance - Chironomidae	0.07	28 EP Generic Richness/14	1.14
08 Relative Generic Richness Diptera	0.25	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	4.50		
11 <i>Cheumatopsyche</i> Abundance	15.59		
12 EPT Generic Richness/ Diptera Generic Richness	1.85		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	1.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.05		
17 Chironomini Abundance (Family Functional Group)	5.13		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	21.54
2	<i>Baetis</i>	13.12
3	<i>Leucrocuta</i>	10.98
4	<i>Acerpenna</i>	10.42
5	<i>Cheumatopsyche</i>	8.18



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	22.1 deg C
Dissolved Oxygen:	7.8 mg/l
Specific Conductance:	45 uS/cm
Velocity:	63.7 cm/s
pH:	6.17
Wetted Width:	49 m
Bankfull Width:	49 m
Depth:	90 cm

Waterbody Information - Retrieval

Temperature:	20.8 deg C
Dissolved Oxygen:	8.2 mg/l
Specific Conductance:	45 uS/cm
Velocity:	48.3 cm/s
pH:	6.3
Wetted Width:	49 m
Bankfull Width:	49 m
Depth:	85 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Open	Rolling
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Hydrology	Below Dam	Boulder 5 %
	Below Road Crossing	Rubble/Cobble 40 %
	Main Stem	Sand 55 %

Landcover Summary - 2004 Data

Total Area (ac)	100661	High Int. Dev. %	0.3	Water %	1.9	Non-vegetated %	0.1
		Med Int. Dev. %	0.2	Wetland %	5.9	Tilled Agriculture %	1.0
		Low Int. Dev. %	2.1	Upland Woody %	82.6	Grassland %	5.5
		Development %	2.6	Natural %	88.8	Human Altered %	9.3
						Impervious %	2.9

Sample Comments

7/15/2013- FISH OBSERVED

8/12/2013 - WATER TOO HIGH FOR PICK UP. RETRIEVED BASKETS ON 8/19/2013



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-860

Waterbody: Nezinscot River - Station 860

Town: Turner

Log Number: 2207

Subsample Factor: X1

Replicates: 3

Calculated: 3/14/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
DugesIIDae	03010102	0.67	0.67		--	0.3	0.3
<i>Girardia</i>	03010102002		0.33		--		0.2
<i>Girardia tigrina</i>	03010102002001	0.33			--	0.2	
<i>Caecidotea</i>	09010101001	0.67	0.67	8	SH	0.3	0.3
Amphipoda	090102	0.33	0.33	8	--	0.2	0.2
<i>Crangonyx</i>	09010202004	5.00	5.00	8	--	2.6	2.6
<i>Synurella</i>	09010202006		1.67		--		0.9
<i>Synurella chamberlaini</i>	09010202006001	1.67			--	0.9	
<i>Hyaella</i>	09010203006	0.33	0.33	8	CG	0.2	0.2
<i>Orconectes</i>	09010301008		0.67		CG		0.3
<i>Orconectes virilis</i>	09010301008016	0.67			--	0.3	
<i>Acroneuria</i>	09020209042	0.33	1.00	0	PR	0.2	0.5
<i>Acroneuria lycorias</i>	09020209042125	0.67			--	0.3	
<i>Perlinella</i>	09020209047	0.67	0.67	1	--	0.3	0.3
<i>Boyeria</i>	09020301004		0.33	2	PR		0.2
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.2	
<i>Gomphus</i>	09020302012	0.33	0.33	5	PR	0.2	0.2
<i>Argia</i>	09020309048		0.33	7	PR		0.2
<i>Argia moesta</i>	09020309048096	0.33			--	0.2	
Baetidae	09020401	1.33			--	0.7	
<i>Baetis</i>	09020401001	3.00	25.01	4	CG	1.6	13.1
<i>Baetis flavistriga</i>	09020401001004	9.67			--	5.1	
<i>Baetis intercalaris</i>	09020401001008	11.33			--	5.9	
<i>Baetis pluto</i>	09020401001009	0.33			--	0.2	
<i>Centroptilum</i>	09020401003	0.33	0.34	2	CG	0.2	0.2
<i>Acerpenna</i>	09020401007	3.33	19.87	5	CG	1.7	10.4
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.2	
<i>Acerpenna pygmaea</i>	09020401007011	15.67			--	8.2	
<i>Labiobaetis</i>	09020401009		0.69		--		0.4
<i>Labiobaetis propinquus</i>	09020401009010	0.67			--	0.3	
<i>Procloeon</i>	09020401010	1.00	1.03		CG	0.5	0.5
<i>Diphetor</i>	09020401013		0.69		--		0.4
<i>Diphetor hageni</i>	09020401013001	0.67			--	0.3	
<i>Iswaeon</i>	09020401015	1.33	1.37		--	0.7	0.7
Heptageniidae	09020402	12.00			--	6.3	
<i>Epeorus</i>	09020402009	0.33	0.39	0	SC	0.2	0.2
<i>Leucrocuta</i>	09020402011	17.67	20.93	1	SC	9.3	11.0
<i>Stenacron</i>	09020402014	9.67	14.61	7	SC	5.1	7.7



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Stenacron interpunctatum</i>	09020402014045	2.67			--	1.4	
<i>Maccaffertium</i>	09020402015	19.00	41.07	4	SC	10.0	21.5
<i>Maccaffertium luteum</i>	09020402015049	3.00			--	1.6	
<i>Maccaffertium mediopunctatum</i>	09020402015050	0.33			--	0.2	
<i>Maccaffertium modestum</i>	09020402015051	12.33			--	6.5	
<i>Isonychia</i>	09020404018	1.33	1.33	2	CF	0.7	0.7
<i>Ephemerella</i>	09020410035	0.33	0.33	1	CG	0.2	0.2
<i>Caenis</i>	09020412040	0.33	0.33	7	CG	0.2	0.2
<i>Chimarra</i>	09020601003	0.67	1.33	2	CF	0.3	0.7
<i>Chimarra obscura</i>	09020601003003	0.67			--	0.3	
<i>Nyctiophylax</i>	09020603009		0.67	5	PR		0.3
<i>Nyctiophylax moestus</i>	09020603009013	0.67			--	0.3	
<i>Polycentropus</i>	09020603010	0.67	0.67	6	PR	0.3	0.3
Hydropsychidae	09020604	1.00			--	0.5	
<i>Cheumatopsyche</i>	09020604015	15.00	15.59	5	CF	7.9	8.2
<i>Hydropsyche</i>	09020604016	4.33	4.50	4	CF	2.3	2.4
<i>Macrostemum</i>	09020604018		6.24	3	CF		3.3
<i>Macrostemum zebratum</i>	09020604018054	6.00			--	3.1	
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.2	0.2
<i>Ceraclea</i>	09020618072	0.33	0.33	3	CG	0.2	0.2
<i>Petrophila</i>	09020901004	0.33	0.33	5	SC	0.2	0.2
Chironomidae	09021011	0.33			--	0.2	
<i>Nilotanytus</i>	09021011012		2.05	6	PR		1.1
<i>Nilotanytus fimbriatus</i>	09021011012027	2.00			--	1.0	
<i>Corynoneura</i>	09021011036	0.33	0.34	7	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	0.67	0.68	6	CG	0.3	0.4
<i>Tvetenia</i>	09021011065		1.03	5	CG		0.5
<i>Tvetenia vitracies</i>	09021011065113	1.00			--	0.5	
<i>Rheotanytarsus</i>	09021011072	0.67	0.68	6	CF	0.3	0.4
<i>Stempellinella</i>	09021011074		0.68	2	--		0.4
<i>Stempellinella fimbriata</i>	09021011074002	0.67			--	0.3	
<i>Tanytarsus</i>	09021011076	2.00	2.05	6	CF	1.0	1.1
<i>Microtendipes</i>	09021011094		2.05	6	CF		1.1
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.2	
<i>Microtendipes rydalensis group</i>	09021011094168	1.67			--	0.9	
<i>Phaenopsectra</i>	09021011101		0.34	7	SC		0.2
<i>Phaenopsectra flavipes</i>	09021011101179	0.33			SC	0.2	
<i>Polypedilum</i>	09021011102		2.39	6	SH		1.3



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<i>Polypedilum flavum</i>	09021011102182	1.67			--	0.9	
<i>Polypedilum laetum</i>	09021011102186	0.33			--	0.2	
<i>Polypedilum scalaenum group</i>	09021011102189	0.33			--	0.2	
<i>Tribelos</i>	09021011107		0.34	5	CG		0.2
<i>Tribelos jucundum</i>	09021011107198	0.33			--	0.2	
<i>Helopelopia</i>	09021011114	1.00	1.03	6	PR	0.5	0.5
<i>Simulium</i>	09021012047		2.67	4	CF		1.4
<i>Simulium fibrinflatum</i>	09021012047059	0.67			--	0.3	
<i>Simulium tuberosum</i>	09021012047067				--		
<i>Simulium jenningsi complex</i>	09021012047070	2.00			CF	1.0	
<i>Stenelmis</i>	09021113070	1.67	1.67	5	SC	0.9	0.9
Sphaeriidae	10020201	1.67			CF	0.9	
<i>Musculium</i>	10020201001		1.17		CF		0.6
<i>Musculium securis</i>	10020201001003	0.33			CF	0.2	
<i>Pisidium</i>	10020201002	0.33	1.17		CF	0.2	0.6