



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

Station Information

Station Number: S-1018 River Basin: St. John
Waterbody: Amsden Brook - Station 1018 HUC8 Name: Aroostook
Town: Fort Fairfield Latitude: 46° 48' 34.213" N
Directions: 20 M UPSTREAM OF NORTH CARIBOU RD. Longitude: 67° 52' 21.560" W
Stream Order: 2

Sample Information

Log Number: 2272 Type of Sample: ROCK BAG Date Deployed: 7/22/2014
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/19/2014

Classification Attainment

Statutory Class: B Final Determination: C Date: 1/22/2015
Model Result with $P \geq 0.6$: C Reason for Determination: Model
Date Last Calculated: 1/21/2015 Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.98
Class B	0.00	Non-Attainment	0.02
B or Better Model		A Model	
Class A or B	0.00	Class A	0.00
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	1.00

Model Variables

01 Total Mean Abundance	628.00	18 Relative Abundance Ephemeroptera	0.04
02 Generic Richness	25.00	19 EPT Generic Richness	1.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	64.40
04 Ephemeroptera Mean Abundance	25.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.11	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	267.18
06 Hilsenhoff Biotic Index	6.56	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.71	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.64	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera	0.06		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.13		
15 Perlidae Mean Abundance (Family	0.00		
Functional Group)			
16 Tanypodinae Mean Abundance	1.37		
(Family Functional Group)			
17 Chironomini Abundance (Family	5.48		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cricotopus</i>	42.54
2	<i>Micropsectra</i>	10.25
3	<i>Pseudodiamesa</i>	7.85
4	<i>Simulium</i>	7.22
5	<i>Nais</i>	6.79



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

Station Number: S-1018	Town: Fort Fairfield	Date Deployed: 7/22/2014
Log Number: 2272	Waterbody: Amsden Brook - Station 1018	Date Retrieved: 8/19/2014

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	13 deg C
Dissolved Oxygen:	10.6 mg/l
Specific Conductance:	456 uS/cm
Velocity:	32 cm/s
pH:	8.62
Wetted Width:	5.8 m
Bankfull Width:	7.5 m
Depth:	25 cm

Waterbody Information - Retrieval

Temperature:	13.6 deg C
Dissolved Oxygen:	10.1 mg/l
Specific Conductance:	479 uS/cm
Velocity:	25 cm/s
pH:	8.19
Wetted Width:	2 m
Bankfull Width:	7.5 m
Depth:	25 cm

Water Chemistry - 7/8/2014

Nitrate+nitrite As N	5.4 mg/l	Total Phosphorus	87 ug/l
Total Kjeldahl Nitrogen	0.6 mg/l	Orthophosphate As Phosphorus	35 ug/l
Total Alkalinity	176 mg/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Cultivated	Partly Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Agricultural Runoff	Above Road Crossing	Boulder	10 %
		Gravel	30 %
		Rubble/Cobble	55 %
		Sand	5 %

Landcover Summary - 2004 Data

Sample Comments

8/16 - NOT AS MUCH ALGAE PRESENT AS 7/22, SCULPIN FOUND IN ROCK BAG. NMRO METER USED FOR DO, TEMP AND SPC.

7/22 - SLIMY ROCKS, LOTS OF ALGAE.



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

Station Number: S-1018	Waterbody: Amsden Brook - Station 1018	Town: Fort Fairfield
Log Number: 2272	Subsample Factor: X4	Replicates: 3
		Calculated: 1/21/2015

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	5.33	5.33		PR	0.8	0.8
<i>Stylodrilus</i>	08020101004		1.33		--		0.2
<i>Stylodrilus heringianus</i>	08020101004001	1.33			--	0.2	
Tubificida	080202	4.00	4.00		--	0.6	0.6
Enchytraeidae	08020201	2.67	2.67		--	0.4	0.4
<i>Nais</i>	08020202009		42.67		CG		6.8
<i>Nais behningi</i>	08020202009003	2.67			--	0.4	
<i>Nais communis</i>	08020202009005	2.67			--	0.4	
<i>Nais variabilis</i>	08020202009009	37.33			--	5.9	
<i>Ophidonais</i>	08020202010		25.33		CG		4.0
<i>Ophidonais serpentina</i>	08020202010001	25.33			--	4.0	
Lumbricidae	08020205	4.00	4.00		--	0.6	0.6
<i>Baetis</i>	09020401001	1.33	25.33	4	CG	0.2	4.0
<i>Baetis flavistriga</i>	09020401001004	14.67			--	2.3	
<i>Baetis tricaudatus</i>	09020401001012	9.33			--	1.5	
<i>Tipula</i>	09021001002	4.00	4.00	4	SH	0.6	0.6
<i>Dicranota</i>	09021001005	1.33	1.33	3	PR	0.2	0.2
<i>Limonia</i>	09021001010	1.33	1.33	6	SH	0.2	0.2
Chironomidae	09021011	12.00			--	1.9	
<i>Procladius</i>	09021011015	1.33	1.37	9	PR	0.2	0.2
<i>Pseudodiamesa</i>	09021011028	48.00	49.33		CG	7.6	7.9
<i>Brillia</i>	09021011033		5.48	5	SH		0.9
<i>Brillia parva</i>	09021011033050	5.33			--	0.8	
<i>Cricotopus</i>	09021011037	10.67	267.18	7	SH	1.7	42.5
<i>Cricotopus bicinctus</i>	09021011037057	234.67			--	37.4	
<i>Cricotopus trifascia</i>	09021011037070	1.33			--	0.2	
<i>Cricotopus annulator complex</i>	09021011037074	4.00			--	0.6	
<i>Cricotopus triannulatus/infuscatus</i>	09021011037078	9.33			SH	1.5	
<i>Diplocladius</i>	09021011038		32.88	8	CG		5.2
<i>Diplocladius cultriger</i>	09021011038001	32.00			--	5.1	
<i>Eukiefferiella</i>	09021011041	5.33	17.81	8	CG	0.8	2.8
<i>Eukiefferiella claripennis group</i>	09021011041075	9.33			--	1.5	
<i>Eukiefferiella devonica group</i>	09021011041083	2.67			CG	0.4	
<i>Thienemanniella</i>	09021011062			6	CG		
<i>Tvetenia</i>	09021011065		1.37	5	CG		0.2
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.2	
<i>Micropsectra</i>	09021011070		64.40	7	CG		10.3
<i>Micropsectra polita</i>	09021011070124	62.67		7	--	10.0	



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

Station Number: S-1018	Waterbody: Amsden Brook - Station 1018	Town: Fort Fairfield
Log Number: 2272	Subsample Factor: X4	Replicates: 3
		Calculated: 1/21/2015

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Rheotanytarsus</i>	09021011072		1.37	6	CF		0.2
<i>Rheotanytarsus exiguus</i>	09021011072127	1.33			CF	0.2	
<i>Tanytarsus</i>	09021011076			6	CF		
<i>Polypedilum</i>	09021011102		5.48	6	SH		0.9
<i>Polypedilum aviceps</i>	09021011102181	5.33			--	0.8	
<i>Simulium</i>	09021012047		45.33	4	CF		7.2
<i>Simulium vittatum</i>	09021012047064	44.00			--	7.0	
<i>Simulium tuberosum</i>	09021012047067	1.33			--	0.2	
<i>Neoplasta</i>	09021016064	1.33	1.33		PR	0.2	0.2
<i>Limnophora</i>	09021022080	2.67	2.67	2	PR	0.4	0.4
Basommatophora	100102	6.67	6.67		--	1.1	1.1
<i>Lymnaea</i>	10010201022		4.00		SC		0.6
<i>Lymnaea columella</i>	10010201022038	4.00			--	0.6	
<i>Physa</i>	10010202027	4.00	4.00		SC	0.6	0.6