



**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: 2754	Type of Sample:	ROCK BAG	Date Deployed:	7/9/2019	
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/5/2019

Classification Attainment

Statutory Class: B	Final Determination: A	Date:	4/1/2020
Model Result with $P \geq 0.6$:	A	Reason for Determination:	Model
Date Last Calculated:	3/30/2020	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.98	Class C	0.00
Class B	0.02	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.99
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.01

Model Variables

01 Total Mean Abundance	133.67	18 Relative Abundance Ephemeroptera	0.13
02 Generic Richness	44.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	6.67	21 Sum of Abundances: <i>Dicrondipetes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	8.97
04 Ephemeroptera Mean Abundance	17.33	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	3.85	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	3.79
06 Hilsenhoff Biotic Index	1.96	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.22	28 EP Generic Richness/14	0.43
08 Relative Generic Richness Diptera	0.45	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	1.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.60		
13 Relative Abundance - Oligochaeta	0.02		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.10		
17 Chironomini Abundance (Family Functional Group)	1.72		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Psychoglypha</i>	37.64
2	<i>Micropsectra</i>	6.71
3	<i>Paraleptophlebia</i>	5.99
4	<i>Dicranota</i>	5.99
5	<i>Anafroptilum (centroptilum)</i>	4.74



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Town: Fort Fairfield

Date Deployed: 7/9/2019

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Waterbody: Amsden Brook - Station 1018

Date Retrieved: 8/5/2019

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	14.2 deg C
Dissolved Oxygen:	10.62 mg/l
Dissolved Oxygen Saturation:	103.4 %
Specific Conductance:	401.7 uS/cm
Velocity:	3 cm/s
pH:	8.2
Wetted Width:	3 m
Bankfull Width:	3.6 m
Depth:	33 cm

Waterbody Information - Retrieval

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Cultivated

Partly Open

Rolling

Pasture

Upland Hardwood

Potential Stressor

Location

Substrate

Agricultural Runoff

Below Agriculture NPS

Boulder 5 %

Nutrients

Clay 5 %

Sedimentation

Gravel 30 %

Rubble/Cobble 25 %

Sand 25 %

Silt 10 %

Landcover Summary - 2004 Data

Sample Comments



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-1018	Waterbody: Amsden Brook - Station 1018	Town: Fort Fairfield
Log Number: 2754	Subsample Factor: X1	Replicates: 3
		Calculated: 3/30/2020

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	5.00	5.00		PR	3.7	3.7
<i>Oligochaeta</i>	0802	1.67	1.67		--	1.2	1.2
<i>Lumbriculidae</i>	08020101	0.67	0.67		--	0.5	0.5
<i>Naididae</i>	08020202	0.33	0.33		--	0.2	0.2
<i>Nais</i>	08020202009	0.67	0.67		CG	0.5	0.5
<i>Glossiphonia</i>	08030101004		1.00		--		0.7
<i>Glossiphonia elegans</i>	08030101004001	1.00			--	0.7	
<i>Placobdella</i>	08030101006		0.67		--		0.5
<i>Placobdella ornata</i>	08030101006002	0.67			--	0.5	
<i>Paracapnia</i>	09020203018	1.00	1.00	1	SH	0.7	0.7
<i>Leuctra</i>	09020204020	5.67	5.67	0	SH	4.2	4.2
<i>Sympetrum</i>	09020306041	0.33	0.33	10	PR	0.2	0.2
<i>Baetis</i>	09020401001		2.67	4	CG		2.0
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.2	
<i>Baetis tricaudatus</i>	09020401001012	2.33			--	1.7	
<i>Anafroptilum (Centroptilum)</i>	09020401016	6.33	6.33	2	CG	4.7	4.7
<i>Paraleptophlebia</i>	09020406026		8.00	1	CG		6.0
<i>Paraleptophlebia debilis</i>	09020406026079	8.00		1	CG	6.0	
<i>Dannella</i>	09020410033		0.33	2	CG		0.2
<i>Dannella simplex</i>	09020410033097	0.33			CG	0.2	
<i>Hydropsyche</i>	09020604016	0.33	1.00	4	CF	0.2	0.7
<i>Hydropsyche sparna</i>	09020604016032	0.67			--	0.5	
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.2	0.2
<i>Limnephilidae</i>	09020610	1.00			--	0.7	
<i>Hesperophylax</i>	09020610054		0.34	3	SH		0.3
<i>Hesperophylax designatus</i>	09020610054110	0.33			--	0.2	
<i>Glyphopsyche</i>	09020610059		0.68	1	--		0.5
<i>Glyphopsyche irrorata</i>	09020610059119	0.67			--	0.5	
<i>Psychoglypha</i>	09020610060		50.31	0	SH		37.6
<i>Psychoglypha subborealis</i>	09020610060120	49.33			--	36.9	
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Dicranota</i>	09021001005	8.00	8.00	3	PR	6.0	6.0
<i>Pericoma</i>	09021002016	1.00	1.00	4	CG	0.7	0.7
<i>Chironomidae</i>	09021011	1.00			--	0.7	
<i>Thienemannimyia</i>	09021011020		2.76	3	PR		2.1
<i>Thienemannimyia group</i>	09021011020041	2.67			--	2.0	
<i>Trissopelopia</i>	09021011021	0.33	0.34		PR	0.2	0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Pagastia</i>	09021011025	1.33	1.38	1	--	1.0	1.0
<i>Prodiamesa</i>	09021011031	0.67	0.69	3	CG	0.5	0.5
<i>Acricotopus</i>	09021011032	0.67	0.69	10	--	0.5	0.5
<i>Cricotopus</i>	09021011037	0.67	0.69	7	SH	0.5	0.5
<i>Heterotrissocladius</i>	09021011044		3.45	0	CG		2.6
<i>Heterotrissocladius marcidus</i>	09021011044083	3.33			--	2.5	
<i>Parametriocnemus</i>	09021011053	4.33	4.48	5	CG	3.2	3.4
<i>Synorthocladius</i>	09021011061	0.67	0.69	2	CG	0.5	0.5
<i>Tvetenia</i>	09021011065		0.34	5	CG		0.3
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	0.2	
<i>Micropsectra</i>	09021011070	8.67	8.97	7	CG	6.5	6.7
<i>Rheotanytarsus</i>	09021011072		0.34	6	CF		0.3
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.33			CF	0.2	
<i>Stempellinella</i>	09021011074	0.33	0.34	2	--	0.2	0.3
<i>Tanytarsus</i>	09021011076	3.00	3.10	6	CF	2.2	2.3
<i>Microtendipes</i>	09021011094		1.72	6	CF		1.3
<i>Microtendipes pedellus group</i>	09021011094166	1.67			--	1.2	
Simuliidae	09021012				--		
<i>Simulium</i>	09021012047	1.00	1.00	4	CF	0.7	0.7
Empididae	09021016			6	--		
<i>Neoplasta</i>	09021016064	0.33	0.33		PR	0.2	0.2
Muscidae	09021022	1.67	1.67	6	--	1.2	1.2
Dytiscidae	09021103	0.67	0.67		--	0.5	0.5
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	0.5	0.5
<i>Lebertia</i>	09030105001	0.33	0.33		--	0.2	0.2
<i>Fossaria</i>	10010201021	0.33	0.33		--	0.2	0.2
<i>Physa</i>	10010202027	2.33	2.33		SC	1.7	1.7