



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

Station Information

Station Number: S-1021 River Basin: St. John
Waterbody: Cowett Brook - Station 1021 HUC8 Name: Aroostook
Town: Presque Isle Latitude: 46° 42' 21.635" N
Directions: 30 M UPSTREAM OF FORT FAIRFIELD RD (ROUTE 167/163) Longitude: 67° 57' 20.977" W
Stream Order: 1

Sample Information

Log Number: 2730 Type of Sample: ROCK BAG Date Deployed: 7/10/2019
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/6/2019

Classification Attainment

Statutory Class: B Final Determination: NA Date: 1/4/2021
Model Result with $P \geq 0.6$: NA Reason for Determination: Model
Date Last Calculated: 12/23/2020 Comments:

Model Probabilities

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

Model Variables

01 Total Mean Abundance	363.33	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	32.00	19 EPT Generic Richness	5.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	9.67
04 Ephemeroptera Mean Abundance	5.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.31	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	2.00
06 Hilsenhoff Biotic Index	5.52	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.27	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.47	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	0.33		
13 Relative Abundance - Oligochaeta	0.67		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.33		
17 Chironomini Abundance (Family Functional Group)	0.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Ophidonais</i>	59.91
2	<i>Pseudodiamesa</i>	16.51
3	<i>Nais</i>	5.96
4	<i>Micropsectra</i>	2.66
5	<i>Diplocladius</i>	1.74



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Station Number: S-1021	Town: Presque Isle	Date Deployed: 7/10/2019
Log Number: 2730	Waterbody: Cowett Brook - Station 1021	Date Retrieved: 8/6/2019

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature:	9.4 deg C
Dissolved Oxygen:	11.15 mg/l
Dissolved Oxygen Saturation:	96.9 %
Specific Conductance:	461 uS/cm
Velocity:	7 cm/s
pH:	7.94
Wetted Width:	1.8 m
Bankfull Width:	3.25 m
Depth:	45 cm

Waterbody Information - Retrieval

Temperature:	9.7 deg C
Dissolved Oxygen:	12.11 mg/l
Dissolved Oxygen Saturation:	106.5 %
Specific Conductance:	470 uS/cm
Velocity:	6.1 cm/s
pH:	8.14
Wetted Width:	3 m
Bankfull Width:	4 m
Depth:	20 cm

Water Chemistry - 7/10/2019

Nitrate + Nitrite As Nitrogen	4 mg/l	Nitrate As Nitrogen	4 mg/l
Nitrite As Nitrogen	<0.01 mg/l	Orthophosphate As Phosphorus	13 ug/l
Total Alkalinity	189 mg/l	Total Kjeldahl Nitrogen (organic A	0.2 mg/l
Total Phosphorus Mixed Forms (po	40 ug/l		

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Pasture

Partly Open

Rolling

Swamp Conifer

Swamp Hardwood

Potential Stressor

Location

Substrate

Altered Hydrology

Above Road Crossing

Boulder	5 %
Gravel	55 %
Rubble/Cobble	20 %
Sand	10 %
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-1021

Waterbody: Cowett Brook - Station 1021

Town: Presque Isle

Log Number: 2730

Subsample Factor: X1

Replicates: 3

Calculated: 12/23/2020

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
DugesIIDae	03010102	0.33	0.33		--	0.1	0.1
<i>Girardia</i>	03010102002	0.33	0.33		--	0.1	0.1
Enchytraeidae	08020201	0.33	0.33		--	0.1	0.1
<i>Chaetogaster</i>	08020202002	1.33	1.33		--	0.4	0.4
<i>Nais</i>	08020202009	21.67	21.67		CG	6.0	6.0
<i>Ophidonais</i>	08020202010		217.67		CG		59.9
<i>Ophidonais serpentina</i>	08020202010001	217.67			--	59.9	
Lumbricidae	08020205	3.00	3.00		--	0.8	0.8
Aeshnidae	09020301	1.00	1.00		--	0.3	0.3
<i>Baetis</i>	09020401001		5.33	4	CG		1.5
<i>Baetis flavistriga</i>	09020401001004	3.00			--	0.8	
<i>Baetis tricaudatus</i>	09020401001012	2.33			--	0.6	
<i>Hydropsyche</i>	09020604016	1.00	1.00	4	CF	0.3	0.3
<i>Rhyacophila</i>	09020605019		0.33	2	PR		0.1
<i>Rhyacophila fuscula</i>	09020605019060	0.33			PR	0.1	
<i>Glyphopsyche</i>	09020610059		0.67	1	--		0.2
<i>Glyphopsyche irrorata</i>	09020610059119	0.67			--	0.2	
<i>Psychoglypha</i>	09020610060		3.00	0	SH		0.8
<i>Psychoglypha subborealis</i>	09020610060120	3.00			--	0.8	
<i>Paramerina</i>	09021011013	2.33	2.33		--	0.6	0.6
<i>Procladius</i>	09021011015	0.33	0.33	9	PR	0.1	0.1
<i>Thienemannimyia</i>	09021011020		0.67	3	PR		0.2
<i>Thienemannimyia group</i>	09021011020041	0.67			--	0.2	
<i>Pagastia</i>	09021011025	2.00	2.00	1	--	0.6	0.6
<i>Pseudodiamesa</i>	09021011028	60.00	60.00		CG	16.5	16.5
<i>Brillia</i>	09021011033	4.67	4.67	5	SH	1.3	1.3
<i>Chaetocladius</i>	09021011035	1.00	1.00	6	CG	0.3	0.3
<i>Corynoneura</i>	09021011036	0.33	0.33	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037		2.00	7	SH		0.6
<i>Cricotopus bicinctus</i>	09021011037057	2.00			--	0.6	
<i>Diplocladius</i>	09021011038	6.33	6.33	8	CG	1.7	1.7
<i>Eukiefferiella</i>	09021011041		3.67	8	CG		1.0
<i>Eukiefferiella claripennis group</i>	09021011041075	3.67			--	1.0	
<i>Orthocladius</i>	09021011050	1.33	1.33	6	CG	0.4	0.4
<i>Thienemanniella</i>	09021011062	0.67	0.67	6	CG	0.2	0.2
<i>Tvetenia</i>	09021011065		3.33	5	CG		0.9
<i>Tvetenia paucunca</i>	09021011065114	3.33			--	0.9	



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Replicates: 3

Calculated: 12/23/2020

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<i>Micropsectra</i>	09021011070	9.67	9.67	7	CG	2.7	2.7
<i>Agabus</i>	09021103016	1.00	1.00		PR	0.3	0.3
Ostracoda	0906	2.33	2.33			0.6	0.6
<i>Stagnicola</i>	10010201025	4.33	4.33		--	1.2	1.2
<i>Gyraulus</i>	10010203029	0.67	1.33		SC	0.2	0.4
<i>Gyraulus parvus</i>	10010203029057	0.67			--	0.2	