



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

Station Information

Station Number:	S-371	DEP Drainage:	St. John
Waterbody:	Fish River - Station 371	HUC8:	01010003
Town:	Fort Kent	HUC8 Name:	Fish River
Directions:	BELOW POTW - UPSTREAM OF DAIGLE BROOK	Latitude:	47 15 10.49 N
		Longitude:	68 35 23.9 W
		Stream Order:	4

Sample Information

Log Number:	1844	Type of Sample:	ROCK BAG	Date Deployed:	7/21/2009
Subsample Factor:	X4	Replicates:	3	Date Retrieved:	8/18/2009

Classification Attainment

Statutory Class:	B	Final Determination:	B	Date:	1/14/2010
Model Result with P>.6:	B	Reason for Determination:	Model		
Date Last Calculated:	1/12/2010	Comments:			

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.21	Class A, B, or C	1.00
Class B	0.66	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.97	Class A	0.10
Class C or Non-Attainment	0.03	Class B or C or Non-Attainment	0.90

Model Variables

01 Total Mean Abundance	686.67	18 Relative Abundance Ephemeroptera	0.06
02 Generic Richness	28.00	19 EPT Generic Richness	16.00
03 Plecoptera Mean Abundance	5.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	38.67	23 Relative Generic Richness- Plecoptera	0.07
05 Shannon-Wiener Generic Diversity	2.41	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	36.47
06 Hilsenhoff Biotic Index	3.89	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	11.33
07 Relative Abundance - Chironomidae	0.10	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.32	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	436.26		
11 <i>Cheumatopsyche</i> Abundance	29.81		
12 EPT Generic Richness/ Diptera Generic Richness	1.78		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	5.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.33		
17 Chironomini Abundance (Family Functional Group)	8.00		

Five Most Dominant Taxa		
Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	63.53
2	<i>Macrostemum</i>	5.52
3	<i>Cheumatopsyche</i>	4.34
4	<i>Tvetenia</i>	4.27
5	<i>Chimarra</i>	3.30



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Town: Fort Kent

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Log Number: 1844

Waterbody: Fish River - Station 371

Date Retrieved: 8/18/2009

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.7 deg C

Dissolved Oxygen: 8.2 mg/l

Specific Conductance: 53 uS/cm

Velocity:

pH: 7.06

Wetted Width:

Bankfull Width:

Depth:

Waterbody Information - Retrieval

Temperature: 24.4 deg C

Dissolved Oxygen: 8.3 mg/l

Specific Conductance: 62 uS/cm

Velocity: 71 cm/s

pH: 7.3

Wetted Width:

Bankfull Width:

Depth: 110 cm

Water Chemistry - 7/21/2009

Soluble Reactive Phosphorus 1 ug/l

Total Phosphorus 0.009 mg/l

Dissolved Organic Carbon 5 mg/l

Nitrate+nitrite As N 0.04 mg/l

Total Kjeldahl Nitrogen 0.3 mg/l

Total Alkalinity 28 mg/l

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Swamp Hardwood

Open

Rolling

Upland Conifer

Urban

Potential Stressor

Location

Substrate

Urban Runoff

Below Urban NPS

Gravel 10 %

Rubble/Cobble 70 %

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-371	Waterbody: Fish River - Station 371	Town: Fort Kent
Log Number: 1844	Subsample Factor: X4	Replicates: 3
		Calculated: 1/12/2010

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Perlidae	09020209	4.00	4.00		--	0.6	0.6
<i>Acroneuria</i>	09020209042		1.33	0	PR		0.2
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	0.2	
Baetidae	09020401	1.33			--	0.2	
<i>Baetis</i>	09020401001	2.67	7.33	4	CG	0.4	1.1
<i>Baetis intercalaris</i>	09020401001008	4.00			--	0.6	
<i>Proclleon</i>	09020401010	1.33	1.47		CG	0.2	0.2
<i>Plauditus</i>	09020401012	5.33	5.87		CG	0.8	0.9
Heptageniidae	09020402	2.67			--	0.4	
<i>Epeorus</i>	09020402009	2.67	3.33	0	SC	0.4	0.5
<i>Maccaffertium</i>	09020402015	8.00	10.00	4	SC	1.2	1.5
Leptophlebiidae	09020406	4.00	4.00		--	0.6	0.6
<i>Ephemerella</i>	09020410035	5.33	5.33	1	CG	0.8	0.8
<i>Tricorythodes</i>	09020411038	1.33	1.33	4	CG	0.2	0.2
<i>Chimarra</i>	09020601003	22.67	22.67	2	CF	3.3	3.3
Hydropsychidae	09020604	8.00			--	1.2	
<i>Cheumatopsyche</i>	09020604015	29.33	29.81	5	CF	4.3	4.3
<i>Hydropsyche</i>	09020604016	186.67	436.26	4	CF	27.2	63.5
<i>Hydropsyche bronta</i>	09020604016029	6.67			--	1.0	
<i>Hydropsyche morosa</i>	09020604016030	161.33			--	23.5	
<i>Hydropsyche slossonae</i>	09020604016031	5.33			--	0.8	
<i>Hydropsyche sparna</i>	09020604016032	62.67			--	9.1	
<i>Hydropsyche phalerata</i>	09020604016047	2.67			--	0.4	
<i>Hydropsyche scalaris group</i>	09020604016048	4.00			--	0.6	
<i>Macrostemum</i>	09020604018		37.94	3	CF		5.5
<i>Macrostemum zebratum</i>	09020604018054	37.33			--	5.4	
<i>Proptila</i>	09020606022	4.00	4.00	1	SC	0.6	0.6
<i>Brachycentrus</i>	09020609043		18.67	0	CF		2.7
<i>Brachycentrus appalachia</i>	09020609043096	14.67			--	2.1	
<i>Brachycentrus lateralis</i>	09020609043097	4.00			--	0.6	
<i>Rheopelopia</i>	09021011017	1.33	1.33		PR	0.2	0.2
<i>Cricotopus</i>	09021011037		6.67	7	SH		1.0
<i>Cricotopus bicinctus</i>	09021011037057	6.67			--	1.0	
<i>Parametriocnemus</i>	09021011053	1.33	1.33	5	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062		1.33	6	CG		0.2
<i>Thienemanniella xena</i>	09021011062110	1.33			--	0.2	
<i>Tvetenia</i>	09021011065		29.33	5	CG		4.3
<i>Tvetenia vitracies</i>	09021011065113	29.33			--	4.3	



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<i>Rheotanytarsus</i>	09021011072	17.33	17.33	6	CF	2.5	2.5
<i>Polypedilum</i>	09021011102		8.00	6	SH		1.2
<i>Polypedilum aviceps</i>	09021011102181	6.67			--	1.0	
<i>Polypedilum flavum</i>	09021011102182	1.33			--	0.2	
<i>Simulium</i>	09021012047		18.67	4	CF		2.7
<i>Simulium tuberosum</i>	09021012047067	17.33			--	2.5	
<i>Simulium jenningsi complex</i>	09021012047070	1.33			CF	0.2	
<i>Simulium venustum/verecundum complex</i>	09021012047072				CF		
<i>Atherix</i>	09021015055	2.67	2.67	2	PR	0.4	0.4
<i>Psephenus</i>	09021108058		1.33	4	SC		0.2
<i>Psephenus herricki</i>	09021108058028	1.33			--	0.2	
<i>Optioservus</i>	09021113067	1.33	2.67	3	SC	0.2	0.4
<i>Optioservus trivittatus</i>	09021113067048	1.33			--	0.2	
<i>Stenelmis</i>	09021113070	2.67	2.67	5	SC	0.4	0.4