



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

Station Information

Station Number: S-148	River Basin: Maine Coastal
Waterbody: Tunk Stream - Station 148	HUC8 Name: Maine Coastal
Town: Cherryfield	Latitude: 44 36 18.87 N
Directions: DOWNING POND OUTLET; 30 M BELOW RT.182 CROSSING	Longitude: 67 59 33.64 W
	Stream Order: 3

Sample Information

Log Number: 2484	Type of Sample: ROCK BAG	Date Deployed: 7/18/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/15/2016

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 1/30/2017
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 1/27/2017	Comments: Class A (.32).	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.46	Class C	0.05
Class B	0.50	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.32
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.68

Model Variables

01 Total Mean Abundance	129.33	18 Relative Abundance Ephemeroptera	0.63
02 Generic Richness	16.00	19 EPT Generic Richness	7.00
03 Plecoptera Mean Abundance	4.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	81.33	23 Relative Generic Richness- Plecoptera	0.06
05 Shannon-Wiener Generic Diversity	2.28	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	1.33
06 Hilsenhoff Biotic Index	4.17	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	74.33
07 Relative Abundance - Chironomidae	0.02	28 EP Generic Richness/14	0.29
08 Relative Generic Richness Diptera	0.19	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	14.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.33		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	4.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.00		
17 Chironomini Abundance (Family Functional Group)	0.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	54.38
2	<i>Promoesia</i>	12.63
3	<i>Hydropsyche</i>	11.08
4	<i>Acerpenna</i>	8.25
5	<i>Oecetis</i>	4.90



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Aquatic Life Classification Attainment Report**

Station Number: S-148 Town: Cherryfield Date Deployed: 7/18/2016
Log Number: 2484 Waterbody: Tunk Stream - Station 148 Date Retrieved: 8/15/2016

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 24.5 deg C
Dissolved Oxygen: 8.67 mg/l
Dissolved Oxygen Saturation: 104.3 %
Specific Conductance: 29 uS/cm
Velocity: 42.7 cm/s
pH: 6.24
Wetted Width: 9 m
Bankfull Width: 9 m
Depth: 42 cm

Waterbody Information - Retrieval

Temperature: 24.1 deg C
Dissolved Oxygen: 7.32 mg/l
Dissolved Oxygen Saturation: 87.1 %
Specific Conductance: 34 uS/cm
Velocity: 6.096 cm/s
pH: 6.04
Wetted Width: 9 m
Bankfull Width: 9 m
Depth: 25 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>	
Lake Outlet	Below Road Crossing	Bedrock	20 %
Low pH	Lake Outlet	Boulder	55 %
		Gravel	5 %
		Rubble/Cobble	20 %

Landcover Summary - 2004 Data

Sample Comments

FISH AND FROGS PRESENT.
FISH PRESENT.



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

Station Number: S-148
Log Number: 2484

Waterbody: Tunk Stream - Station 148
Subsample Factor: X1

Town: Cherryfield
Calculated: 1/27/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Rhabditophora	0301	0.67	0.67		--	0.5	0.5
<i>Acroneuria</i>	09020209042		4.00	0	PR		3.1
<i>Acroneuria abnormis</i>	09020209042121	4.00		0	PR	3.1	
<i>Boyeria</i>	09020301004		1.67	2	PR		1.3
<i>Boyeria vinosa</i>	09020301004012	1.67			--	1.3	
Calopterygidae	09020307	0.33	0.33		--	0.3	0.3
<i>Acerpenna</i>	09020401007		10.67	5	CG		8.2
<i>Acerpenna pygmaea</i>	09020401007011	10.67			--	8.2	
<i>Maccaffertium</i>	09020402015		70.33	4	SC		54.4
<i>Maccaffertium modestum</i>	09020402015051	65.67			--	50.8	
<i>Maccaffertium vicarium</i>	09020402015055	4.67			--	3.6	
<i>Serratella</i>	09020410037		0.33	2	CG		0.3
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.3	
Philopotamidae	09020601				--		
<i>Chimarra</i>	09020601003		1.33	2	CF		1.0
<i>Chimarra aterrima</i>	09020601003002	1.33			--	1.0	
<i>Hydropsyche</i>	09020604016		14.33	4	CF		11.1
<i>Hydropsyche sparna</i>	09020604016032	14.33			--	11.1	
Hydroptilidae	09020607				--		
<i>Oecetis</i>	09020618078		6.33	8	PR		4.9
<i>Oecetis persimilis</i>	09020618078157	6.33			--	4.9	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.3
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.3	
<i>Ablabesmyia</i>	09021011001		1.33	8	PR		1.0
<i>Ablabesmyia mallochi</i>	09021011001004	1.33			--	1.0	
<i>Nilotanytus</i>	09021011012		0.67	6	PR		0.5
<i>Nilotanytus fimbriatus</i>	09021011012027	0.67			--	0.5	
<i>Polypedilum</i>	09021011102		0.33	6	SH		0.3
<i>Polypedilum laetum</i>	09021011102186	0.33			--	0.3	
<i>Macronychus</i>	09021113065		0.33	4	--		0.3
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.3	
<i>Promoesia</i>	09021113069		16.33		--		12.6
<i>Promoesia tardella</i>	09021113069052	16.33			--	12.6	