



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

Station Information

Station Number: S-562
Waterbody: Tannery Brook - Station 562
Town: Gorham
Directions: U1/ BELOW RT 114/SCHOOL ST CROSSING

DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8: 01060001
HUC8 Name: Presumpscot
Latitude: 43 41 12.04 N
Longitude: 70 26 46.2 W
Stream Order: 1

Sample Information

Log Number: 1969
Subsample Factor: X1
Type of Sample: ROCK BAG
Replicates: 3
Date Deployed: 7/27/2010
Date Retrieved: 8/30/2010

Classification Attainment

Statutory Class: B
Model Result with P>.6: A
Date Last Calculated: 3/4/2011

Final Determination: A
Reason for Determination: Model
Comments:

Date: 3/4/2011

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.77	Class A, B, or C	1.00
Class B	0.21	Non-Attainment	0.00

B or Better Model		A Model	
Class A or B	1.00	Class A	0.96
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.04

Model Variables

01 Total Mean Abundance	122.00	18 Relative Abundance Ephemeroptera	0.10
02 Generic Richness	58.00	19 EPT Generic Richness	17.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.74
04 Ephemeroptera Mean Abundance	12.67	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.53	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	22.21
06 Hilsenhoff Biotic Index	4.38	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	1.00
07 Relative Abundance - Chironomidae	0.63	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.48	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera	0.61		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	4.47		
(Family Functional Group)			
17 Chironomini Abundance (Family	8.19		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stempellinella</i>	18.30
2	<i>Tanytarsus</i>	17.08
3	Calopterygidae	6.83
4	<i>Parametriocnemus</i>	6.71
5	Leptophlebiidae	5.19



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

Station Number: S-562

Town: Gorham

Date Deployed: 7/27/2010

Log Number: 1969

Waterbody: Tannery Brook - Station 562

Date Retrieved: 8/30/2010

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 19.4 deg C
Dissolved Oxygen: 8.1 mg/l
Specific Conductance: 375 uS/cm
Velocity: 12 cm/s
pH:
Wetted Width: 2.05 m
Bankfull Width: 5.2 m
Depth: 20 cm

Waterbody Information - Retrieval

Temperature: 17.5 deg C
Dissolved Oxygen: 7.4 mg/l
Specific Conductance: 344 uS/cm
Velocity: 7 cm/s
pH: 7.42
Wetted Width: 1.8 m
Bankfull Width: 5.2 m
Depth: 17 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Canopy Cover

Terrain

Upland Conifer

Dense

Rolling

Upland Hardwood

Potential Stressor

Location

Substrate

Below Road Crossing

Boulder 10 %
Gravel 40 %
Rubble/Cobble 10 %
Sand 40 %

Landcover Summary - 2004 Data

Total Area (ac)	432	High Int. Dev. %	4.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	3.0	Wetland %	0.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	5.8	Upland Woody %	66.0	Grassland %	16.6
		Development %	12.7	Natural %	66.0	Human Altered %	34.0
						Impervious %	9.3

Sample Comments

7/27/2010 BANK EROSION, FISH.

8/30/2010 SALAMANDERS (3 IN ONE BAG); FISH, BLACK NOSE DACE AND OTHER UNKNOWN SMALL FISH.



Maine Department of Environmental Protection

Biological Monitoring Program

Aquatic Life Taxonomic Inventory Report

Station Number: S-562	Waterbody: Tannery Brook - Station 562	Town: Gorham
Log Number: 1969	Subsample Factor: X1	Replicates: 3
		Calculated: 3/4/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Lumbricidae	08020205	0.33	0.33		--	0.3	0.3
Entomobryidae	09020103	0.33	0.33		--	0.3	0.3
Perlodidae	09020207	0.33	0.33		--	0.3	0.3
<i>Boyeria</i>	09020301004		2.00	2	PR		1.6
<i>Boyeria vinosa</i>	09020301004012	2.00			--	1.6	
<i>Cordulegaster</i>	09020303019	1.67	1.67	3	PR	1.4	1.4
Calopterygidae	09020307	8.33	8.33		--	6.8	6.8
<i>Acerpenna</i>	09020401007	1.00	1.33	5	CG	0.8	1.1
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.3	
<i>Proclleon</i>	09020401010	0.33	0.33		CG	0.3	0.3
<i>Maccaffertium</i>	09020402015	1.00	1.00	4	SC	0.8	0.8
Leptophlebiidae	09020406	6.33	6.33		--	5.2	5.2
<i>Paraleptophlebia</i>	09020406026	2.67	2.67	1	CG	2.2	2.2
<i>Eurylophella</i>	09020410036	1.00	1.00	3	CG	0.8	0.8
<i>Microvelia</i>	09020510025	4.00	4.00		PR	3.3	3.3
Trichoptera	090206	0.33	0.33		--	0.3	0.3
<i>Chimarra</i>	09020601003	0.67	0.67	2	CF	0.5	0.5
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.3	0.3
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	0.8	0.8
<i>Rhyacophila</i>	09020605019	0.33	0.33	2	PR	0.3	0.3
<i>Oligostomis</i>	09020608039		0.33	2	PR		0.3
<i>Oligostomis ocelligera</i>	09020608039091	0.33		2	--	0.3	
<i>Ptilostomis</i>	09020608041	0.33	0.33	5	SH	0.3	0.3
Limnephilidae	09020610	0.33	0.33		--	0.3	0.3
<i>Frenesia</i>	09020610058		0.67	0	SH		0.5
<i>Frenesia difficilis</i>	09020610058117	0.67			--	0.5	
<i>Psilotreta</i>	09020614068	1.00	1.00	0	SC	0.8	0.8
<i>Molanna</i>	09020615069		0.67	6	SC		0.5
<i>Molanna blenda</i>	09020615069133	0.67			--	0.5	
<i>Sialis</i>	09020702004	0.33	0.33	4	PR	0.3	0.3
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.3	0.3
<i>Antocha</i>	09021001004	0.67	0.67	3	CG	0.5	0.5
<i>Limnophila</i>	09021001009	0.67	0.67	3	PR	0.5	0.5
<i>Ormosia</i>	09021001011	0.33	0.33		CG	0.3	0.3
<i>Bezzia/palpomyia</i>	09021010043	0.33	0.33	6	PR	0.3	0.3
Chironomidae	09021011	8.00			--	6.5	
<i>Labrundinia</i>	09021011008		0.74	7	PR		0.6
<i>Labrundinia pilosella</i>	09021011008022	0.67			--	0.5	



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

Station Number: S-562

Waterbody: Tannery Brook - Station 562

Town: Gorham

Log Number: 1969

Subsample Factor: X1

Replicates: 3

Calculated: 3/4/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Natarsia</i>	09021011011		0.74	8	PR		0.6
<i>Natarsia baltimorea</i>	09021011011026	0.67			--	0.5	
<i>Paramerina</i>	09021011013	1.00	1.12		--	0.8	0.9
<i>Trissopelopia</i>	09021011021		1.86		PR		1.5
<i>Trissopelopia ogemawi</i>	09021011021042	1.67			--	1.4	
<i>Zavreliomyia</i>	09021011022			8	PR		
<i>Pagastia</i>	09021011025		1.49	1	--		1.2
<i>Pagastia orthogonia</i>	09021011025001	1.33			--	1.1	
<i>Brillia</i>	09021011033		0.74	5	SH		0.6
<i>Brillia flavifrons</i>	09021011033049	0.67			--	0.5	
<i>Corynoneura</i>	09021011036	0.33	0.37	7	CG	0.3	0.3
<i>Cricotopus</i>	09021011037		0.37	7	SH		0.3
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.3	
<i>Orthocladius</i>	09021011050		0.37	6	CG		0.3
<i>Symposiocladius lignicola</i>	09021011050100	0.33			--	0.3	
<i>Orthocladius lignicola</i>	09021011050100	0.33			--	0.3	
<i>Parametriocnemus</i>	09021011053	7.33	8.19	5	CG	6.0	6.7
<i>Rheocricotopus</i>	09021011057		0.74	6	CG		0.6
<i>Rheocricotopus eminellobus</i>	09021011057109	0.67			--	0.5	
<i>Thienemanniella</i>	09021011062		0.37	6	CG		0.3
<i>Thienemanniella boltoni</i>	09021011062113	0.33			--	0.3	
<i>Micropsectra</i>	09021011070	0.67	0.74	7	CG	0.5	0.6
<i>Paratanytarsus</i>	09021011071	5.33	5.95	6	--	4.4	4.9
<i>Rheotanytarsus</i>	09021011072	1.33	1.49	6	CF	1.1	1.2
<i>Stempellinella</i>	09021011074		22.33	2	--		18.3
<i>Stempellinella leptocelloides</i>	09021011074001	8.67			--	7.1	
<i>Stempellinella fimbriata</i>	09021011074002	11.33			--	9.3	
<i>Tanytarsus</i>	09021011076	18.67	20.84	6	CF	15.3	17.1
<i>Microtendipes</i>	09021011094		2.23	6	CF		1.8
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	1.1	
<i>Microtendipes rydalensis group</i>	09021011094168	0.67			--	0.5	
<i>Phaenopsectra</i>	09021011101		0.74	7	SC		0.6
<i>Phaenopsectra flavipes</i>	09021011101179	0.67			SC	0.5	
<i>Polypedilum</i>	09021011102		4.09	6	SH		3.4
<i>Polypedilum aviceps</i>	09021011102181	1.00			--	0.8	
<i>Polypedilum illinoense group</i>	09021011102185	0.67			--	0.5	
<i>Polypedilum angulum</i>	09021011102198	2.00			--	1.6	
<i>Stictochironomus</i>	09021011106	1.00	1.12	9	CG	0.8	0.9



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

Station Number: S-562	Waterbody: Tannery Brook - Station 562	Town: Gorham
Log Number: 1969	Subsample Factor: X1	Replicates: 3
		Calculated: 3/4/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Saetheria tylus</i>	09021011132001				--		
<i>Chrysops</i>	09021014052	3.00	3.00	6	CG	2.5	2.5
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.3	0.3
<i>Ectopria</i>	09021109059		0.33	5	SC		0.3
<i>Ectopria leechi</i>	09021109059030	0.33			--	0.3	
<i>Dubiraphia</i>	09021113064	0.33	0.33	6	--	0.3	0.3
<i>Oulimnius</i>	09021113068	1.33	1.33		--	1.1	1.1
<i>Promoresia</i>	09021113069		1.00		--		0.8
<i>Promoresia tardella</i>	09021113069052	1.00			--	0.8	
Planorbidae	10010203	0.33	0.33		--	0.3	0.3
<i>Gyraulus</i>	10010203029	0.33	0.33		SC	0.3	0.3