



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

Station Information

Station Number: S-562	River Basin: Saco
Waterbody: Tannery Brook - Station 562	HUC8 Name: Presumpscot
Town: Gorham	Latitude: 43 41 12.04 N
Directions: U1/ BELOW RT 114/SCHOOL ST CROSSING	Longitude: 70 26 46.2 W
	Stream Order: 1

Sample Information

Log Number: 2357	Type of Sample: ROCK BAG	Date Deployed: 7/13/2015
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/10/2015

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 12/22/2015
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 12/22/2015	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.73	Class C	0.01
Class B	0.26	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.92
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.08

Model Variables

01 Total Mean Abundance	206.00	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	63.00	19 EPT Generic Richness	15.00
03 Plecoptera Mean Abundance	9.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	9.64
04 Ephemeroptera Mean Abundance	2.33	23 Relative Generic Richness- Plecoptera	0.03
05 Shannon-Wiener Generic Diversity	4.82	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	29.21
06 Hilsenhoff Biotic Index	5.26	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.67
07 Relative Abundance - Chironomidae	0.71	28 EP Generic Richness/14	0.43
08 Relative Generic Richness Diptera	0.46	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 Generic Richness	0.52		
13 Relative Abundance - Oligochaeta	0.03		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	12.86		
17 Chironomini Abundance (Family Functional Group)	34.28		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	13.69
2	<i>Paratanytarsus</i>	11.96
3	<i>Paratendipes</i>	7.80
4	<i>Pisidium</i>	5.83
5	Sphaeriidae	4.69



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Station Number: S-562 Town: Gorham Date Deployed: 7/13/2015
Log Number: 2357 Waterbody: Tannery Brook - Station 562 Date Retrieved: 8/10/2015

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 17.1 deg C
Dissolved Oxygen: 9.09 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 238 uS/cm
Velocity: 12.2 cm/s
pH: 7.66
Wetted Width: 1.7 m
Bankfull Width: 8.95 m
Depth: 28 cm

Waterbody Information - Retrieval

Temperature: 17.1 deg C
Dissolved Oxygen: 9.11 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 170.2 uS/cm
Velocity: 9.1 cm/s
pH: 7.76
Wetted Width: 1.6 m
Bankfull Width: 8.6 m
Depth: 17.5 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Dense	Rolling
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Below Road Crossing	Boulder 5 %
		Gravel 40 %
		Rubble/Cobble 15 %
		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

8/10/2015: LOTS OF FALLEN DEBRIS IN STREAM. 94.6% DO.
7/13/2015: UNDERCUT BANKS. STREAM WIDENED. FISH PRESENT. 94.5% DO.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-562

Waterbody: Tannery Brook - Station 562

Town: Gorham

Log Number: 2357

Subsample Factor: X1

Replicates: 3

Calculated: 12/22/2015

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Lumbriculidae	08020101	1.00	1.00		--	0.5	0.5
Enchytraeidae	08020201	1.67	1.67		--	0.8	0.8
Naididae	08020202	1.00			--	0.5	
<i>Nais</i>	08020202009		0.67		CG		0.3
<i>Nais variabilis</i>	08020202009009	0.33			--	0.2	
<i>Aulodrilus</i>	08020202018		1.33		--		0.6
<i>Aulodrilus plurisetus</i>	08020202018004	0.67			--	0.3	
Lumbricidae	08020205	1.33	1.33		--	0.6	0.6
<i>Orconectes</i>	09010301008	0.33	0.33		CG	0.2	0.2
<i>Nemoura</i>	09020201002	0.67	0.67	1	SH	0.3	0.3
<i>Leuctra</i>	09020204020	2.67	8.33	0	SH	1.3	4.0
<i>Leuctra ferruginea</i>	09020204020050	5.00			--	2.4	
<i>Leuctra truncata</i>	09020204020058	0.67			--	0.3	
<i>Boyeria</i>	09020301004	1.33	1.33	2	PR	0.6	0.6
Corduliidae	09020305	0.33	0.33		--	0.2	0.2
<i>Calopteryx</i>	09020307043		0.33	5	PR		0.2
<i>Calopteryx maculata</i>	09020307043088	0.33			--	0.2	
<i>Acerpenna</i>	09020401007	0.33	0.33	5	CG	0.2	0.2
<i>Maccaffertium</i>	09020402015		0.67	4	SC		0.3
<i>Maccaffertium modestum</i>	09020402015051	0.67			--	0.3	
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
<i>Eurylophella</i>	09020410036	1.00	1.00	3	CG	0.5	0.5
<i>Cernotina</i>	09020603006	1.67	1.67		PR	0.8	0.8
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.2	0.2
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	0.5	0.5
<i>Rhyacophila</i>	09020605019	0.67	1.00	2	PR	0.3	0.5
<i>Rhyacophila minor</i>	09020605019063	0.33			PR	0.2	
<i>Oligostomis</i>	09020608039	1.00	1.00	2	PR	0.5	0.5
Limnephilidae	09020610	0.33	0.33		--	0.2	0.2
<i>Pycnopsyche</i>	09020610049	1.67	1.67	4	SH	0.8	0.8
<i>Lepidostoma</i>	09020611064	0.33	0.33	1	SH	0.2	0.2
<i>Psilotreta</i>	09020614068	0.67	0.67	0	SC	0.3	0.3
<i>Nigronia</i>	09020701003		2.33	0	PR		1.1
<i>Nigronia serricornis</i>	09020701003003	2.33			--	1.1	
<i>Sialis</i>	09020702004	1.00	1.00	4	PR	0.5	0.5
Chironomidae	09021011	9.67			--	4.7	
<i>Larsia</i>	09021011009	0.67	0.71	6	PR	0.3	0.3
<i>Meropelopia</i>	09021011010				--		



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Log Number: 2357 Subsample Factor: X1 Replicates: 3 Calculated: 12/22/2015

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Natarsia</i>	09021011011	0.33	0.36	8	PR	0.2	0.2
<i>Paramerina</i>	09021011013	0.33	5.00		--	0.2	2.4
<i>Paramerina anomala</i>	09021011013001	4.33			--	2.1	
<i>Trissopelopia</i>	09021011021		4.64		PR		2.3
<i>Trissopelopia ogemawi</i>	09021011021042	4.33			--	2.1	
<i>Zavreliomyia</i>	09021011022		2.14	8	PR		1.0
<i>Zavreliomyia thryptica group</i>	09021011022045	2.00			PR	1.0	
<i>Pagastia</i>	09021011025		1.43	1	--		0.7
<i>Pagastia orthogonia</i>	09021011025001	1.33			--	0.6	
<i>Prodiamesa</i>	09021011031		8.21	3	CG		4.0
<i>Prodiamesa olivacea</i>	09021011031048	7.67			--	3.7	
<i>Brillia</i>	09021011033		0.71	5	SH		0.3
<i>Brillia flavifrons</i>	09021011033049	0.33			--	0.2	
<i>Brillia parva</i>	09021011033050	0.33			--	0.2	
<i>Corynoneura</i>	09021011036	0.33	0.36	7	CG	0.2	0.2
<i>Heterotrissocladius</i>	09021011044	5.00	5.36	0	CG	2.4	2.6
<i>Parametriocnemus</i>	09021011053	5.33	9.28	5	CG	2.6	4.5
<i>Parametriocnemus sp. F Epler</i>	09021011053101	3.33			--	1.6	
<i>Tvetenia</i>	09021011065		1.43	5	CG		0.7
<i>Tvetenia paucunca</i>	09021011065114	1.33			--	0.6	
<i>Cladotanytarsus</i>	09021011068	2.33	2.50	7	CG	1.1	1.2
<i>Micropsectra</i>	09021011070	7.67	9.64	7	CG	3.7	4.7
<i>Micropsectra polita</i>	09021011070124	1.33		7	--	0.6	
<i>Paratanytarsus</i>	09021011071		24.64	6	--		12.0
<i>Paratanytarsus dissimilis</i>	09021011071125	22.33			--	10.8	
<i>Paratanytarsus longistylus</i>	09021011071126	0.67		6	--	0.3	
<i>Rheotanytarsus</i>	09021011072		2.14	6	CF		1.0
<i>Rheotanytarsus exiguus group</i>	09021011072127				CF		
<i>Rheotanytarsus pellucidus</i>	09021011072128	2.00			CF	1.0	
<i>Stempellinella</i>	09021011074		3.93	2	--		1.9
<i>Stempellinella fimbriata</i>	09021011074002	3.67			--	1.8	
<i>Tanytarsus</i>	09021011076	26.33	28.21	6	CF	12.8	13.7
<i>Chironomus</i>	09021011080	1.00	1.07	10	CG	0.5	0.5
<i>Cryptochironomus</i>	09021011082	1.00	1.07	8	PR	0.5	0.5
<i>Microtendipes</i>	09021011094		1.43	6	CF		0.7
<i>Microtendipes pedellus group</i>	09021011094166	1.33			--	0.6	
<i>Paratendipes</i>	09021011100		16.07	8	CG		7.8
<i>Paratendipes albimanus group</i>	09021011100176	15.00			--	7.3	



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<i>Phaenopsectra</i>	09021011101		1.43	7	SC		0.7
<i>Phaenopsectra flavipes</i>	09021011101179	1.33			SC	0.6	
<i>Polypedilum</i>	09021011102		7.86	6	SH		3.8
<i>Polypedilum aviceps</i>	09021011102181	1.67			--	0.8	
<i>Polypedilum scalaenum group</i>	09021011102189	3.33			--	1.6	
<i>Polypedilum albicorne</i>	09021011102195	2.33			--	1.1	
<i>Stictochironomus</i>	09021011106	5.00	5.36	9	CG	2.4	2.6
<i>Odontomesa</i>	09021011121		0.36	4	--		0.2
<i>Odontomesa fulva</i>	09021011121001	0.33			--	0.2	
<i>Chrysops</i>	09021014052	0.67	0.67	6	CG	0.3	0.3
<i>Roederiodes</i>	09021016058	0.67	0.67	3	PR	0.3	0.3
<i>Neoplasta</i>	09021016064	0.67	0.67		PR	0.3	0.3
<i>Dubiraphia</i>	09021113064		0.33	6	--		0.2
<i>Dubiraphia quadrinotata</i>	09021113064037	0.33			--	0.2	
<i>Oulimnius</i>	09021113068		2.33		--		1.1
<i>Oulimnius latiusculus</i>	09021113068049	2.33			--	1.1	
<i>Promoresia</i>	09021113069		0.33		--		0.2
<i>Promoresia tardella</i>	09021113069052	0.33			--	0.2	
<i>Stenelmis</i>	09021113070	1.00	1.00	5	SC	0.5	0.5
Basommatophora	100102	0.33	0.33		--	0.2	0.2
<i>Physa</i>	10010202027	1.33	1.33		SC	0.6	0.6
Planorbidae	10010203	0.33	0.33		--	0.2	0.2
Sphaeriidae	10020201	9.67	9.67		CF	4.7	4.7
<i>Pisidium</i>	10020201002	11.33	12.00		CF	5.5	5.8
<i>Pisidium casertanum</i>	10020201002006	0.67			CF	0.3	