



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

**Station Information**

<b>Station Number:</b> S-474	River Basin: Saco
Waterbody: Tannery Brook - Station 474	HUC8 Name: Presumpscot
Town: Gorham	Latitude: 43 42 4.88 N
Directions: L1/LIBBY AVE TO QUEEN STREET DRIVE	Longitude: 70 26 10.61 W
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 2847	Type of Sample: ROCK BASKET	Date Deployed: 7/29/2020
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/27/2020

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> NA	Date: 3/3/2022
Model Result with $P \geq 0.6$ : I	<b>Reason for Determination: Best Professional Judgement</b>	
Date Last Calculated: 10/19/2021	Comments: Minimum provision for Total Mean Abundance not met, but sensitive taxa lacking and community declined since 2015 when model result was NA.	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.00	Class A	0.00
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	1.00

**Model Variables**

01 Total Mean Abundance	49.00	18 Relative Abundance Ephemeroptera	0.01
02 Generic Richness	36.00	19 EPT Generic Richness	8.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	0.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.36	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	6.67
06 Hilsenhoff Biotic Index	5.32	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.50	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.50	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	3.33		
11 <i>Cheumatopsyche</i> Abundance	3.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.44		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	5.67		
17 Chironomini Abundance (Family Functional Group)	10.00		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	18.37
2	<i>Stenelmis</i>	11.56
3	<i>Hydropsyche</i>	6.80
4	<i>Zavrelimyia</i>	6.80
5	<i>Tanytarsus</i>	6.80



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

**Station Number: S-474**      Town: Gorham      Date Deployed: 7/29/2020  
**Log Number: 2847**      Waterbody: Tannery Brook - Station 474      Date Retrieved: 8/27/2020

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: ECOANALYSTS IDAHO

**Waterbody Information - Deployment**

Temperature: 20.1 deg C  
Dissolved Oxygen: 9.3 mg/l  
Dissolved Oxygen Saturation: 102.7 %  
Specific Conductance: 570 uS/cm  
Velocity: 0.1 cm/s  
pH: 7.69  
Wetted Width: 4.6 m  
Bankfull Width: 7.25 m  
Depth: 42 cm

**Waterbody Information - Retrieval**

Temperature: 14.8 deg C  
Dissolved Oxygen: 10.48 mg/l  
Dissolved Oxygen Saturation: 104.1 %  
Specific Conductance: 540 uS/cm  
Velocity: 0.1 cm/s  
pH: 7.78  
Wetted Width: 5.25 m  
Bankfull Width: 7.25 m  
Depth: 51 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Urban	Partly Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution	Below Urban NPS	Boulder	10 %
		Detritus	5 %
		Gravel	10 %
		Rubble/Cobble	50 %
		Sand	5 %
		Silt	20 %

**Landcover Summary - 2004 Data**

Total Area (ac)	1721	High Int. Dev. %	3.8	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	3.9	Wetland %	1.7	Tilled Agriculture %	2.4
		Low Int. Dev. %	6.8	Upland Woody %	54.7	Grassland %	14.3
		Development %	14.4	Natural %	56.5	Human Altered %	43.5
						Impervious %	11.6
Total Land (ac)	1720	High Int. Dev. %	3.8	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	3.9	Wetland %	1.7	Tilled Agriculture %	2.4
		Low Int. Dev. %	6.8	Upland Woody %	54.7	Grassland %	14.3
		Development %	14.4	Natural %	56.5	Human Altered %	43.5
						Impervious %	11.6

**Sample Comments**

VISIBLE FLOW. HORSE-HAIR WORMS OBSERVED.



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

**Station Number: S-474**

Waterbody: Tannery Brook - Station 474

Town: Gorham

**Log Number: 2847**

Subsample Factor: X1

Replicates: 3

Calculated: 10/19/2021

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Nais</i>	08020202009		0.33		CG		0.7
<i>Nais behningi</i>	08020202009003	0.33			--	0.7	
<i>Orconectes</i>	09010301008	0.33	0.33		CG	0.7	0.7
<i>Boyeria</i>	09020301004	1.00	1.00	2	PR	2.0	2.0
<i>Calopteryx</i>	09020307043	2.33	2.33	5	PR	4.8	4.8
<i>Argia</i>	09020309048	0.67	0.67	7	PR	1.4	1.4
<i>Anafroptilum (Centroptilum)</i>	09020401016	0.33	0.33	2	CG	0.7	0.7
<i>Chimarra</i>	09020601003		0.67	2	CF		1.4
<i>Chimarra aterrima</i>	09020601003002	0.67			--	1.4	
<i>Nyctiophylax</i>	09020603009	1.67	1.67	5	PR	3.4	3.4
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	2.7	2.7
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.7	0.7
<i>Cheumatopsyche</i>	09020604015	3.00	3.00	5	CF	6.1	6.1
<i>Hydropsyche</i>	09020604016		3.33	4	CF		6.8
<i>Hydropsyche morosa</i>	09020604016030	3.00			--	6.1	
<i>Hydropsyche betteni</i>	09020604016037	0.33			--	0.7	
Limnephilidae	09020610				--		
<i>Pycnopsyche</i>	09020610049	0.33	0.33	4	SH	0.7	0.7
<i>Nigronia</i>	09020701003		1.33	0	PR		2.7
<i>Nigronia serricornis</i>	09020701003003	1.33			--	2.7	
<i>Labrundinia</i>	09021011008	0.67	0.67	7	PR	1.4	1.4
<i>Procladius</i>	09021011015	1.67	1.67	9	PR	3.4	3.4
<i>Zavrelimyia</i>	09021011022	3.33	3.33	8	PR	6.8	6.8
<i>Brillia</i>	09021011033	0.33	0.33	5	SH	0.7	0.7
<i>Cricotopus</i>	09021011037		0.33	7	SH		0.7
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.7	
<i>Eukiefferiella</i>	09021011041		0.33	8	CG		0.7
<i>Eukiefferiella discoloripes</i>	09021011041085	0.33			--	0.7	
<i>Nanocladius</i>	09021011049	0.67	0.67	3	CG	1.4	1.4
<i>Parametrioconemus</i>	09021011053	0.33	0.33	5	CG	0.7	0.7
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.7	0.7
<i>Tvetenia</i>	09021011065		0.33	5	CG		0.7
<i>Tvetenia bavarica group</i>	09021011065111	0.33			--	0.7	
<i>Paratanytarsus</i>	09021011071	1.00	1.00	6	--	2.0	2.0
<i>Rheotanytarsus</i>	09021011072		0.33	6	CF		0.7
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.33			CF	0.7	
<i>Rheotanytarsus pellucidus</i>	09021011072128				CF		



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

**Station Number: S-474**  
**Log Number: 2847**

Waterbody: Tannery Brook - Station 474  
Subsample Factor: X1

Town: Gorham  
Replicates: 3  
Calculated: 10/19/2021

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Stempellinella</i>	09021011074	1.67	1.67	2	--	3.4	3.4
<i>Tanytarsus</i>	09021011076	3.33	3.33	6	CF	6.8	6.8
<i>Microtendipes</i>	09021011094		9.00	6	CF		18.4
<i>Microtendipes pedellus group</i>	09021011094166	7.67			--	15.6	
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	2.7	
<i>Paratendipes</i>	09021011100	0.33	0.33	8	CG	0.7	0.7
<i>Polypedilum</i>	09021011102		0.67	6	SH		1.4
<i>Polypedilum flavum</i>	09021011102182	0.67			--	1.4	
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.7	0.7
<i>Dubiraphia</i>	09021113064	0.67	0.67	6	--	1.4	1.4
<i>Macronychus</i>	09021113065		0.33	4	--		0.7
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.7	
<i>Oulimnius</i>	09021113068	0.33	0.33		--	0.7	0.7
<i>Stenelmis</i>	09021113070	5.67	5.67	5	SC	11.6	11.6