



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

**Station Information**

<b>Station Number:</b> S-624	River Basin: Penobscot
Waterbody: Sucker Brook (hampden) - Station 624	HUC8 Name: Lower Penobscot
Town: Hampden	Latitude: 44 46 23.74 N
Directions: DOWNSTREAM OF OLD COUNTY ROAD	Longitude: 68 47 40.81 W
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 2494	Type of Sample: ROCK BAG	Date Deployed: 7/21/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/18/2016

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> NA	Date: 4/7/2017
Model Result with $P \geq 0.6$ : NA	<b>Reason for Determination:</b> Model	
Date Last Calculated: 4/5/2017	Comments:	

**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	250.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	26.00	19 EPT Generic Richness	5.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.67
04 Ephemeroptera Mean Abundance	0.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.01	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	50.33
06 Hilsenhoff Biotic Index	5.76	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.33
07 Relative Abundance - Chironomidae	0.74	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.46	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	1.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.42		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	12.00		
17 Chironomini Abundance (Family Functional Group)	68.00		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Polypedilum</i>	22.67
2	<i>Rheotanytarsus</i>	21.07
3	<i>Tanytarsus</i>	19.73
4	<i>Dubiraphia</i>	10.53
5	<i>Girardia</i>	10.00



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**Station Number: S-624**      Town: Hampden      Date Deployed: 7/21/2016  
**Log Number: 2494**      Waterbody: Sucker Brook (hampden) - Station 624      Date Retrieved: 8/18/2016

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 17.9 deg C  
Dissolved Oxygen: 9.31 mg/l  
Dissolved Oxygen Saturation: 97.8 %  
Specific Conductance: 720 uS/cm  
Velocity: 9.1 cm/s  
pH: 8.01  
Wetted Width: 2.2 m  
Bankfull Width: 9 m  
Depth: 18 cm

**Waterbody Information - Retrieval**

Temperature: 18.2 deg C  
Dissolved Oxygen: 8.6 mg/l  
Dissolved Oxygen Saturation: 91.3 %  
Specific Conductance: 579 uS/cm  
Velocity: 9.1 cm/s  
pH: 7.81  
Wetted Width: 2.9 m  
Bankfull Width: 9 m  
Depth: 18 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Pasture	Partly Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nutrients	Below Urban NPS	Bedrock	10 %
Urban Runoff		Boulder	60 %
		Gravel	5 %
		Rubble/Cobble	10 %
		Silt	15 %

**Landcover Summary - 2004 Data**

Total Area (ac)	1768	High Int. Dev. %	23.3	Water %	0.0	Non-vegetated %	1.2
		Med Int. Dev. %	6.4	Wetland %	1.0	Tilled Agriculture %	0.0
		Low Int. Dev. %	6.1	Upland Woody %	18.0	Grassland %	12.2
		Development %	35.8	Natural %	19.4	Human Altered %	80.5
						Impervious %	29.3

**Sample Comments**

8/18/2016: EEL NEAR ROCK BAGS.  
SILTY.



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

**Station Number: S-624**      Waterbody: Sucker Brook (hampden) - Station 624      Town: Hampden  
**Log Number: 2494**      Subsample Factor: X1      Replicates: 3      Calculated: 4/5/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002	25.00	25.00		--	10.0	10.0
<i>Prostoma</i>	04010101001	0.33	0.33		--	0.1	0.1
Naididae	08020202	0.33	0.33		--	0.1	0.1
Aeshnidae	09020301	0.33	0.33		--	0.1	0.1
<i>Aeshna</i>	09020301001	0.67	0.67	5	PR	0.3	0.3
<i>Calopteryx</i>	09020307043	1.00	1.00	5	PR	0.4	0.4
<i>Maccaffertium</i>	09020402015	0.33	0.33	4	SC	0.1	0.1
<i>Nyctiophylax</i>	09020603009	0.67	0.67	5	PR	0.3	0.3
<i>Polycentropus</i>	09020603010	6.00	6.00	6	PR	2.4	2.4
<i>Cheumatopsyche</i>	09020604015	1.00	1.00	5	CF	0.4	0.4
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.1	0.1
<i>Antocha</i>	09021001004	0.33	0.33	3	CG	0.1	0.1
<i>Thienemannimyia</i>	09021011020		12.00	3	PR		4.8
<i>Thienemannimyia group</i>	09021011020041	12.00			--	4.8	
<i>Pagastia</i>	09021011025	0.67	0.67	1	--	0.3	0.3
<i>Nanocladius</i>	09021011049	1.33	1.33	3	CG	0.5	0.5
<i>Parametriocnemus</i>	09021011053	1.00	1.00	5	CG	0.4	0.4
<i>Rheotanytarsus</i>	09021011072		52.67	6	CF		21.1
<i>Rheotanytarsus exiguus group</i>	09021011072127	52.67			CF	21.1	
<i>Tanytarsus</i>	09021011076	49.33	49.33	6	CF	19.7	19.7
<i>Dicrotendipes</i>	09021011085	0.67	0.67	8	CG	0.3	0.3
<i>Microtendipes</i>	09021011094		10.67	6	CF		4.3
<i>Microtendipes pedellus group</i>	09021011094166	10.67			--	4.3	
<i>Polypedilum</i>	09021011102		56.67	6	SH		22.7
<i>Polypedilum flavum</i>	09021011102182	56.67			--	22.7	
<i>Simulium</i>	09021012047	0.33	0.33	4	CF	0.1	0.1
Empididae	09021016			6	--		
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.4	0.4
<i>Ectopria</i>	09021109059		0.33	5	SC		0.1
<i>Ectopria nervosa</i>	09021109059029	0.33			--	0.1	
<i>Dubiraphia</i>	09021113064	26.33	26.33	6	--	10.5	10.5
<i>Promoesia</i>	09021113069		0.67		--		0.3
<i>Promoesia tardella</i>	09021113069052	0.67			--	0.3	