



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

Station Information

**Station Number: S-624**  
Waterbody: Sucker Brook (hampden) - Station 624  
Town: Hampden  
Directions: DOWNSTREAM OF OLD COUNTY ROAD

DEP Drainage: Penobscot  
HUC8: 01020005  
HUC8 Name: Lower Penobscot  
Latitude: 44 46 23.74 N  
Longitude: 68 47 40.81 W  
Stream Order: 2

Sample Information

**Log Number: 2034**  
Subsample Factor: X1  
Type of Sample: ROCK BAG  
Replicates: 3  
Date Deployed: 7/13/2011  
Date Retrieved: 8/15/2011

Classification Attainment

**Statutory Class: B**  
Model Result with P>.6: NA  
Date Last Calculated: 2/17/2012  
**Final Determination: NA**  
**Reason for Determination: Model**  
Comments:

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
Class C			
	0.08		
NA			
	0.92		
B or Better Model		A Model	
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	312.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	38.00	19 EPT Generic Richness	5.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	4.88
04 Ephemeroptera Mean Abundance	0.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.05	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	124.22
06 Hilsenhoff Biotic Index	6.00	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.77	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	6.67		
12 EPT Generic Richness/ Diptera	0.28		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	1.40		
(Family Functional Group)			
17 Chironomini Abundance (Family	52.33		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	37.46
2	<i>Rheotanytarsus</i>	18.45
3	<i>Dubiraphia</i>	14.96
4	<i>Microtendipes</i>	7.04
5	<i>Polypedilum</i>	4.47



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<b>Log Number: 2034</b>	Waterbody: Sucker Brook (hampden) - Station 624	Date Retrieved: 8/15/2011

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	23.1 deg C
Dissolved Oxygen:	8.8 mg/l
Specific Conductance:	430 uS/cm
Velocity:	8 cm/s
pH:	7.9
Wetted Width:	7.4 m
Bankfull Width:	11.9 m
Depth:	25 cm

**Waterbody Information - Retrieval**

Temperature:	21.3 deg C
Dissolved Oxygen:	12.1 mg/l
Specific Conductance:	633 uS/cm
Velocity:	15 cm/s
pH:	8.63
Wetted Width:	3.8 m
Bankfull Width:	11.9 m
Depth:	20 cm

**Water Chemistry - 8/15/2011**

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	3 ug/l
Nitrate+nitrite As N	0.04 mg/l	Total Phosphorus	0.017 mg/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	3.5 mg/l	Total Dissolved Solids	440 mg/l

**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>
Urban Runoff	Below Urban NPS	Bedrock 10 %
		Boulder 60 %
		Gravel 5 %
		Rubble/Cobble 5 %
		Silt 20 %

**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**

7/13/11: FISH, EELS, AND CRAYFISH OBSERVED.  
8/15/11: FISH AND A LARGE EEL OBSERVED.



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Aquatic Life Taxonomic Inventory Report**

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Town: Hampden

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Replicates: 3

Calculated: 2/17/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002		1.67		--		0.5
<i>Girardia tigrina</i>	03010102002001	1.67			--	0.5	
Naididae	08020202	1.00			--	0.3	
<i>Nais</i>	08020202009		0.83		CG		0.3
<i>Nais variabilis</i>	08020202009009	0.33			--	0.1	
<i>Limnodrilus</i>	08020202022		0.83		CG		0.3
<i>Limnodrilus hoffmeisteri</i>	08020202022003	0.33			--	0.1	
<i>Hyalella</i>	09010203006		2.33	8	CG		0.7
<i>Hyalella azteca</i>	09010203006011	2.33			--	0.7	
<i>Aeshna</i>	09020301001	0.33	0.33	5	PR	0.1	0.1
<i>Boyeria</i>	09020301004		0.33	2	PR		0.1
<i>Boyeria vinosa</i>	09020301004012	0.33			--	0.1	
Coenagrionidae	09020309	0.33	0.33		--	0.1	0.1
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.1
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.1	
Corixidae	09020501	0.33	0.33		--	0.1	0.1
<i>Polycentropus</i>	09020603010	1.33	1.33	6	PR	0.4	0.4
<i>Cheumatopsyche</i>	09020604015	6.67	6.67	5	CF	2.1	2.1
<i>Hydropsyche</i>	09020604016		0.33	4	CF		0.1
<i>Hydropsyche depravata complex</i>	09020604016041	0.33			CF	0.1	
<i>Ptilostomis</i>	09020608041	0.33	0.33	5	SH	0.1	0.1
<i>Sialis</i>	09020702004	2.33	2.33	4	PR	0.7	0.7
<i>Tipula</i>	09021001002	0.67	0.67	4	SH	0.2	0.2
Chironomidae	09021011	10.67			--	3.4	
<i>Paramerina</i>	09021011013	1.33	1.40		--	0.4	0.4
<i>Cricotopus</i>	09021011037		0.70	7	SH		0.2
<i>Cricotopus bicinctus</i>	09021011037057	0.67			--	0.2	
<i>Nanocladius</i>	09021011049		1.05	3	CG		0.3
<i>Nanocladius spinipennis</i>	09021011049090	1.00			--	0.3	
<i>Parametriocnemus</i>	09021011053	7.33	7.67	5	CG	2.4	2.5
<i>Rheocricotopus</i>	09021011057		0.35	6	CG		0.1
<i>Rheocricotopus robacki</i>	09021011057105	0.33			--	0.1	
<i>Paratanytarsus</i>	09021011071	0.33	0.35	6	--	0.1	0.1
<i>Rheotanytarsus</i>	09021011072	55.00	57.56	6	CF	17.6	18.4
<i>Tanytarsus</i>	09021011076	111.67	116.86	6	CF	35.8	37.5
<i>Cryptochironomus</i>	09021011082	0.33	0.35	8	PR	0.1	0.1
<i>Dicrotendipes</i>	09021011085	1.33	4.88	8	CG	0.4	1.6
<i>Dicrotendipes neomodestus</i>	09021011085152	3.33			--	1.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Microtendipes</i>	09021011094		21.98	6	CF		7.0
<i>Microtendipes pedellus group</i>	09021011094166	21.00			--	6.7	
<i>Paratendipes</i>	09021011100		1.40	8	CG		0.4
<i>Paratendipes albimanus group</i>	09021011100176	1.33			--	0.4	
<i>Phaenopsectra</i>	09021011101		8.02	7	SC		2.6
<i>Phaenopsectra obediens</i>	09021011101182	7.67			SC	2.5	
<i>Polypedilum</i>	09021011102		13.95	6	SH		4.5
<i>Polypedilum flavum</i>	09021011102182	10.67			--	3.4	
<i>Polypedilum scalaenum group</i>	09021011102189	2.67			--	0.9	
<i>Stictochironomus</i>	09021011106	1.67	1.74	9	CG	0.5	0.6
<i>Helopelopia</i>	09021011114	1.67	1.74	6	PR	0.5	0.6
<i>Hemerodromia</i>	09021016057	1.67	1.67	3	PR	0.5	0.5
<i>Helichus</i>	09021112062		0.33	5	SH		0.1
<i>Helichus striatus</i>	09021112062034	0.33			--	0.1	
<i>Dubiraphia</i>	09021113064	46.67	46.67	6	--	15.0	15.0
<i>Promoresia</i>	09021113069		0.33		--		0.1
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.1	
<i>Ferrissia</i>	10010204035		0.33		SC		0.1
<i>Ferrissia rivularis</i>	10010204035066	0.33			--	0.1	
Sphaeriidae	10020201	1.00	1.00		CF	0.3	0.3
<i>Pisidium</i>	10020201002		2.67		CF		0.9
<i>Pisidium casertanum</i>	10020201002006	2.67			CF	0.9	