

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

Station Information

Station Number: S624	DEP Drainage: Penobscot
Waterbody: Sucker Brook (Hampden)	HUC Code: 01020005
Town: HAMPDEN	HUC Name: Lower Penobscot
Directions: dwnstrm of Old County Road	Latitude: Deg Min Sec
	Longitude: Deg Min Sec
	Stream Order: 2

Sample Information

Log Number: 1400	Type of Sample: Riffle Bags	Date Deployed: 28-JUL-04
Subsample Factor: X4	Replicates: 3	Date Retrieved: 24-AUG-04

Classification Attainment

Statutory Class: B	Final Determination: C	
Model Result with P > .6: C	Reason for Determination: Model	
Date Last Calculated:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.98
Class B	0.00	Non-Attainment	0.02
<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 Abundance of Individuals	665.33	18 Relative Abundance - Ephemeroptera	0.01
02 Generic Richness	39.00	19 EPT Generic Richness	3.00
03 Plecoptera Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> ,	17.38
04 Ephemeroptera Abundance	5.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	3.86	23 Relative Generic Richness- Plecoptera	0.00
06 Hilsenhoff Biotic Index	6.01	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	157.71
07 Relative Abundance - Chironomidae	0.60	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.54	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	0.00
09 <i>Hydropsyche</i> Abundance	0.00	28 EP Generic Richness/14	0.14
11 <i>Cheumatopsyche</i> Abundance	18.67	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	0.14		

Five Most Dominant Taxa

		Taxa Rank	Taxa Name	Percent
		1	Tanytarsus	20.66
		2	Dubiraphia	18.84
		3	Rheotanytarsus	12.82
		4	Pisidium	6.21
		5	Microtendipes	6.17

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Station Number S624 Town: HAMPDEN Date Deployed: 28-JUL-04
Log Number: 1400 Waterbody: Sucker Brook (Hampden) Date Retrieved: 24-AUG-04

Sample Collection and Processing Information

Sampling Organization:
Taxonomist: Michael Winnell

Waterbody Information

Water Temperature: 16.9 °C	Specific Conductance 358.0 uS/cm	Channel Width: 6.0 m
Velocity: 48 cm/s	Dissolved Oxygen: 8.3 ppm	Channel Depth: 45.0 cm

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Pasture	Partly Open		Not Designated
Upland Hardwood			

Substrate

Bedrock	Boulder	Rubble	Silt
10%	65%	5%	20%

Comments about the Station or Sample

8/24/04 Data:
Flow: 15.4cm/s; Depth: 30cm; Temp: 17.8C; SPC: 716uS/cm; DO: 11.5ppm; pH:

Comments about the Final Determination

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Biological Monitoring Unit**

Station Number: S624 **Waterbody:** Sucker Brook (Hampden)

Town: HAMPDEN

Log Number: 1400 **Subsample:** X4

Replicates: 3

Calculated:

BioME Aquatic Life Taxonomic Inventory Report

Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Planariidae</i>	03010101	2.67	0.00		--	0.4	0.0
<i>Cura</i>	03010101001	0.00	3.05		--	0.0	0.5
<i>Cura foremanii</i>	03010101001001	2.67	0.00		--	0.4	0.0
<i>Dugesia</i>	03010101002	0.00	18.29		--	0.0	2.7
<i>Dugesia tigrina</i>	03010101002003	16.00	0.00		--	2.4	0.0
<i>Eclipidrilus</i>	08020101003	1.33	1.33		--	0.2	0.2
<i>Nais</i>	08020202009	0.00	4.00		CG	0.0	0.6
<i>Nais pardalis</i>	08020202009007	1.33	0.00		--	0.2	0.0
<i>Nais variabilis</i>	08020202009009	2.67	0.00		--	0.4	0.0
<i>Tubificidae</i>	08020203	14.67	0.00		--	2.2	0.0
<i>Aulodrilus</i>	08020203001	0.00	8.53		--	0.0	1.3
<i>Aulodrilus plurisetia</i>	08020203001004	2.67	0.00		--	0.4	0.0
<i>Ilyodrilus</i>	08020203003	0.00	4.27		--	0.0	0.6
<i>Ilyodrilus templetoni</i>	08020203003001	1.33	0.00		--	0.2	0.0
<i>Limnodrilus</i>	08020203005	0.00	8.53		CG	0.0	1.3
<i>Limnodrilus hoffmeisteri</i>	08020203005003	2.67	0.00		--	0.4	0.0
<i>Erpobdellidae</i>	08030301	1.33	1.33		--	0.2	0.2
<i>Hyalella</i>	09010203006	0.00	8.00	8	CG	0.0	1.2
<i>Hyalella azteca</i>	09010203006011	8.00	0.00		--	1.2	0.0
<i>Aeshna</i>	09020301001	1.33	1.33	5	PR	0.2	0.2
<i>Boyeria</i>	09020301004	0.00	1.33	2	PR	0.0	0.2
<i>Boyeria grafiana</i>	09020301004011	1.33	0.00		--	0.2	0.0
<i>Stenacron</i>	09020402014	0.00	1.33	7	SC	0.0	0.2
<i>Stenacron interpunctatum</i>	09020402014045	1.33	0.00		--	0.2	0.0
<i>Caenis</i>	09020412040	4.00	4.00	7	CG	0.6	0.6
<i>Cheumatopsyche</i>	09020604015	18.67	18.67	5	CF	2.8	2.8
<i>Sialis</i>	09020702004	1.33	1.33	4	PR	0.2	0.2
<i>Tipulidae</i>	09021001	1.33	1.33		--	0.2	0.2
<i>Probezzia</i>	09021010041	1.33	1.33	6	PR	0.2	0.2
<i>Chironomidae</i>	09021011	62.67	0.00		--	9.4	0.0
<i>Conchapelopia</i>	09021011004	16.00	18.96	6	PR	2.4	2.8
<i>Meropelopia</i>	09021011010	16.00	18.96		--	2.4	2.8
<i>Zavrelimyia</i>	09021011022	0.00	1.58	8	PR	0.0	0.2
<i>Zavrelimyia thryptica-grp.</i>	09021011022045	1.33	0.00		PR	0.2	0.0
<i>Corynoneura</i>	09021011036	1.33	1.58	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037	0.00	1.58	7	SH	0.0	0.2
<i>Cricotopus bicinctus</i>	09021011037057	1.33	0.00		--	0.2	0.0

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		Actual	Adjusted			Actual	Adjusted
		<i>Parachaetocladius</i>	09021011051			0.00	1.58
<i>Parachaetocladius anoboenus</i>	09021011051001	1.33	0.00		--	0.2	0.0
<i>Parametriocnemus</i>	09021011053	17.33	20.54	5	CG	2.6	3.1
<i>Synorthocladius</i>	09021011061	1.33	1.58	2	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	1.33	1.58	6	CG	0.2	0.2
<i>Micropsectra</i>	09021011070	5.33	6.32	7	CG	0.8	0.9
<i>Paratanytarsus</i>	09021011071	28.00	33.18	6	--	4.2	5.0
<i>Rheotanytarsus</i>	09021011072	72.00	85.32	6	CF	10.8	12.8
<i>Tanytarsus</i>	09021011076	90.67	137.46	6	CF	13.6	20.7
<i>Tanytarsus glabrescens</i>	09021011076134	25.33	0.00		--	3.8	0.0
<i>Cryptochironomus</i>	09021011082	2.67	3.16	8	PR	0.4	0.5
<i>Dicrotendipes</i>	09021011085	9.33	11.06	8	CG	1.4	1.7
<i>Microtendipes</i>	09021011094	0.00	41.08	6	CF	0.0	6.2
<i>Microtendipes pedellus-grp.</i>	09021011094166	34.67	0.00		--	5.2	0.0
<i>Phaenopsectra</i>	09021011101	0.00	1.58	7	SC	0.0	0.2
<i>Phaenopsectra obediens-grp.</i>	09021011101180	1.33	0.00		--	0.2	0.0
<i>Polypedilum</i>	09021011102	1.33	14.22	6	SH	0.2	2.1
<i>Polypedilum flavum</i>	09021011102182	10.67	0.00		--	1.6	0.0
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.2	0.2
<i>Dubiraphia</i>	09021113064	125.33	125.33	6	CG	18.8	18.8
<i>Physa</i>	10010202026	8.00	8.00		SC	1.2	1.2
<i>Pisidium</i>	10020201002	26.67	41.33		CF	4.0	6.2
<i>Pisidium casertanum</i>	10020201002006	10.67	0.00		CF	1.6	0.0
<i>Pisidium walkeri</i>	10020201002017	4.00	0.00		CF	0.6	0.0