



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

Station Information

Station Number: S-526	River Basin:	Maine Coastal
Waterbody: Carleton Stream - Station 526	HUC8 Name:	Maine Coastal
Town: Blue Hill	Latitude:	44 22 50.23 N
Directions: BELOW SECOND POND, CLOSE TO FIRST POND	Longitude:	68 36 50.53 W
	Stream Order:	2

Sample Information

Log Number: 2476	Type of Sample: ROCK BAG	Date Deployed: 7/13/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/10/2016

Classification Attainment

Statutory Class: C	Final Determination: I	Date: 12/14/2016
Model Result with $P \geq 0.6$: NA	Reason for Determination: Best Professional Judgement	
Date Last Calculated: 10/13/2016	Comments: Heavy Beaver Activity; Resample.	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.54	Class A, B, or C	0.03
Class B	0.13	Non-Attainment	0.97
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.42	Class A	0.11
Class C or Non-Attainment	0.58	Class B or C or Non-Attainment	0.89

Model Variables

01 Total Mean Abundance	342.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	48.00	19 EPT Generic Richness	12.00
03 Plecoptera Mean Abundance	11.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.75	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	88.26
06 Hilsenhoff Biotic Index	3.99	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.73	28 EP Generic Richness/14	0.14
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.67		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	15.08		
17 Chironomini Abundance (Family Functional Group)	24.27		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Pagastia</i>	25.57
2	<i>Tanytarsus</i>	24.39
3	<i>Polypedilum</i>	6.88
4	<i>Stempellinella</i>	6.02
5	<i>Oecetis</i>	5.16



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Station Number: S-526 Town: Blue Hill Date Deployed: 7/13/2016
Log Number: 2476 Waterbody: Carleton Stream - Station 526 Date Retrieved: 8/10/2016

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 21.6 deg C
Dissolved Oxygen: 9.3 mg/l
Dissolved Oxygen Saturation: 105.3 %
Specific Conductance: 69.5 uS/cm
Velocity: 39.6 cm/s
pH: 6.79
Wetted Width: 5.3 m
Bankfull Width: 7.8 m
Depth: 34 cm

Waterbody Information - Retrieval

Temperature: 21.4 deg C
Dissolved Oxygen: 9.27 mg/l
Dissolved Oxygen Saturation: 104.2 %
Specific Conductance: 76.7 uS/cm
Velocity: 12.192 cm/s
pH: 6.97
Wetted Width: 5.3 m
Bankfull Width: 7.8 m
Depth: 36 cm

Water Chemistry - 8/10/2016

Nitrate+nitrite As N	0.01 mg/l	Total Phosphorus	5 ug/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	5.7 mg/l	Total Dissolved Solids	47 mg/l
Orthophosphate As Phosphorus	1 ug/l		

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Rolling	
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Altered Habitat	Below In-place Contamination	Boulder	60 %
Lake Outlet	Below Road Crossing	Gravel	10 %
	Lake Outlet	Rubble/Cobble	30 %

Landcover Summary - 2004 Data

Sample Comments

BEAVER ACTIVITY NEAR/ON THE BAGS at pickup
, SEE PICTURES. BAG #1 WAS UNDER A NEWLY FORMED DAM.
BEAVER DAM ACTIVITY UPSTREAM.



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-526
Log Number: 2476

Waterbody: Carleton Stream - Station 526
Subsample Factor: X1

Town: Blue Hill
Calculated: 10/13/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Rhabditophora	0301	0.33	0.33		--	0.1	0.1
<i>Paracapnia</i>	09020203018	2.33	2.33	1	SH	0.7	0.7
<i>Leuctra</i>	09020204020	2.67	9.33	0	SH	0.8	2.7
<i>Leuctra ferruginea</i>	09020204020050	5.33			--	1.6	
<i>Leuctra truncata</i>	09020204020058	1.33			--	0.4	
<i>Basiaeschna</i>	09020301003		0.33	6	PR		0.1
<i>Basiaeschna janata</i>	09020301003010	0.33			--	0.1	
<i>Boyeria</i>	09020301004		5.00	2	PR		1.5
<i>Boyeria vinosa</i>	09020301004012	5.00			--	1.5	
Gomphidae	09020302	1.67	1.67		--	0.5	0.5
<i>Hagenius</i>	09020302008		0.33	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	0.33			PR	0.1	
Corduliidae	09020305	0.33	0.33		--	0.1	0.1
<i>Somatochlora</i>	09020305027	1.33	1.33	1	PR	0.4	0.4
Calopterygidae	09020307	0.33	0.33		--	0.1	0.1
<i>Argia</i>	09020309048	0.33	0.33	7	PR	0.1	0.1
Polycentropodidae	09020603	1.67			--	0.5	
<i>Cernotina</i>	09020603006	9.33	10.47		PR	2.7	3.1
<i>Nyctiophylax</i>	09020603009		0.75	5	PR		0.2
<i>Nyctiophylax moestus</i>	09020603009013	0.67			--	0.2	
<i>Polycentropus</i>	09020603010	1.67	1.87	6	PR	0.5	0.5
<i>Plectrocnemia</i>	09020603012	2.00	2.24	6	PR	0.6	0.7
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.1	0.1
Hydroptilidae	09020607				--		
<i>Hydroptila</i>	09020607026	6.33	6.33	6	P	1.9	1.9
<i>Oxyethira</i>	09020607028	4.67	4.67	3	P	1.4	1.4
<i>Ceraclea</i>	09020618072	7.67	7.67	3	CG	2.2	2.2
<i>Mystacides</i>	09020618075		2.33	4	CG		0.7
<i>Mystacides sepulchralis</i>	09020618075147	2.33			--	0.7	
<i>Oecetis</i>	09020618078	4.67	17.67	8	PR	1.4	5.2
<i>Oecetis persimilis</i>	09020618078157	13.00			--	3.8	
<i>Nigronia</i>	09020701003		5.00	0	PR		1.5
<i>Nigronia serricornis</i>	09020701003003	5.00			--	1.5	
Chironomidae	09021011	23.33			--	6.8	
<i>Ablabesmyia</i>	09021011001		1.84	8	PR		0.5
<i>Ablabesmyia mallochi</i>	09021011001004	1.67			--	0.5	
<i>Conchapelopia</i>	09021011004	4.33	4.78	6	PR	1.3	1.4



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Town: Blue Hill

Log Number: 2476

Subsample Factor: X1

Replicates: 3

Calculated: 10/13/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Labrundinia</i>	09021011008		0.37	7	PR		0.1
<i>Labrundinia pilosella</i>	09021011008022	0.33			--	0.1	
<i>Meropelopia</i>	09021011010	2.33	2.57		--	0.7	0.8
<i>Trissopelopia</i>	09021011021		5.15		PR		1.5
<i>Trissopelopia ogemawi</i>	09021011021042	4.67			--	1.4	
<i>Zavrelimyia</i>	09021011022		0.37	8	PR		0.1
<i>Zavrelimyia thryptica group</i>	09021011022045	0.33			PR	0.1	
<i>Pagastia</i>	09021011025		87.52	1	--		25.6
<i>Pagastia orthogonia</i>	09021011025001	79.33			--	23.2	
<i>Corynoneura</i>	09021011036	0.67	0.74	7	CG	0.2	0.2
<i>Cricotopus</i>	09021011037		2.94	7	SH		0.9
<i>Cricotopus bicinctus</i>	09021011037057	0.67			--	0.2	
<i>Cricotopus vierriensis</i>	09021011037071	0.67			--	0.2	
<i>Cricotopus patens</i>	09021011037075	1.33			--	0.4	
<i>Orthocladius</i>	09021011050		1.47	6	CG		0.4
<i>Orthocladius annectens</i>	09021011050092	1.33			--	0.4	
<i>Parakiefferiella</i>	09021011052		0.74		CG		0.2
<i>Parakiefferiella sp. E</i>	09021011052001	0.67			--	0.2	
<i>Parametriocnemus</i>	09021011053	1.00	1.10	5	CG	0.3	0.3
<i>Psectrocladius</i>	09021011056		11.40	8	CG		3.3
<i>Psectrocladius simulans</i>	09021011056110	10.33			--	3.0	
<i>Stempellinella</i>	09021011074		20.59	2	--		6.0
<i>Stempellinella leptocelloides</i>	09021011074001	1.33			--	0.4	
<i>Stempellinella fimbriata</i>	09021011074002	17.33			--	5.1	
<i>Tanytarsus</i>	09021011076	75.67	83.48	6	CF	22.1	24.4
<i>Phaenopsectra</i>	09021011101		0.74	7	SC		0.2
<i>Phaenopsectra punctipes</i>	09021011101183	0.67			SC	0.2	
<i>Polypedilum</i>	09021011102		23.54	6	SH		6.9
<i>Polypedilum laetum</i>	09021011102186	0.33			--	0.1	
<i>Polypedilum scalaenum group</i>	09021011102189	20.67			--	6.0	
<i>Polypedilum angulum</i>	09021011102198	0.33			--	0.1	
<i>Hemerodromia</i>	09021016057	3.00	3.00	3	PR	0.9	0.9
<i>Ancyronyx</i>	09021113063		0.67	6	--		0.2
<i>Ancyronyx variegatus</i>	09021113063034	0.67			CG	0.2	
<i>Dubiraphia</i>	09021113064		0.33	6	--		0.1
<i>Dubiraphia minima</i>	09021113064036	0.33			--	0.1	
<i>Oulimnius</i>	09021113068		0.33		--		0.1
<i>Oulimnius latiusculus</i>	09021113068049	0.33			--	0.1	



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<i>Promoresia</i>	09021113069		4.00		--		1.2
<i>Promoresia elegans</i>	09021113069051	1.67			--	0.5	
<i>Promoresia tardella</i>	09021113069052	2.33			--	0.7	
<i>Stenelmis</i>	09021113070	1.33	2.00	5	SC	0.4	0.6
<i>Stenelmis crenata</i>	09021113070055	0.67			--	0.2	
Acariformes	090301	0.33	0.33		--	0.1	0.1
<i>Rhyncholimnochaeres</i>	09030110001	0.33	0.33		--	0.1	0.1
<i>Hydrozetes</i>	09030115001	0.33	0.33		--	0.1	0.1
<i>Pisidium</i>	10020201002	0.33	0.67		CF	0.1	0.2
<i>Pisidium casertanum</i>	10020201002006	0.33			CF	0.1	