



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

Station Information

**Station Number:** S-626  
**Waterbody:** Ducktrap River - Station 626  
**Town:** Lincolnville  
**Directions:** UPSTREAM OF TANGLEWOOD 4H CAMP'S SWIMMING AREA  
**DEP Drainage:** St. Croix - Coastal  
**HUC8:** 01050002  
**HUC8 Name:** Maine Coastal  
**Latitude:** 44 18 51.41 N  
**Longitude:** 69 2 38.3 W  
**Stream Order:** 3

Sample Information

**Log Number:** 2096  
**Subsample Factor:** X1  
**Type of Sample:** ROCK BAG  
**Replicates:** 3  
**Date Deployed:** 7/10/2012  
**Date Retrieved:** 8/8/2012

Classification Attainment

**Statutory Class:** AA  
**Model Result with P>.6:** A  
**Date Last Calculated:** 12/6/2012  
**Final Determination:** A  
**Reason for Determination:** Model  
**Comments:** Low Class A (.63)  
**Date:** 12/6/2012

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.57	Class A, B, or C	1.00
Class B	0.39	Non-Attainment	0.00
Class C			
NA			
0.00			
B or Better Model		A Model	
Class A or B	1.00	Class A	0.63
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.37

Model Variables

01 Total Mean Abundance	174.33	18 Relative Abundance Ephemeroptera	0.30
02 Generic Richness	54.00	19 EPT Generic Richness	22.00
03 Plecoptera Mean Abundance	1.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	52.33	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.37	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	15.27
06 Hilsenhoff Biotic Index	5.18	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	37.44
07 Relative Abundance - Chironomidae	0.32	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.26	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.67		
11 <i>Cheumatopsyche</i> Abundance	0.33		
12 EPT Generic Richness/ Diptera	1.57		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family	1.67		
Functional Group)			
16 Tanypodinae Mean Abundance	4.75		
(Family Functional Group)			
17 Chironomini Abundance (Family	25.45		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Maccaffertium</i>	20.52
2	<i>Microtendipes</i>	12.26
3	<i>Tanytarsus</i>	8.37
4	<i>Polycentropus</i>	5.74
5	<i>Dubiraphia</i>	5.73



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Waterbody: Ducktrap River - Station 626

Date Retrieved: 8/8/2012

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 20.2 deg C  
Dissolved Oxygen: 7.7 mg/l  
Specific Conductance: 46 uS/cm  
Velocity: 25 cm/s  
pH: 6.81  
Wetted Width: 11.5 m  
Bankfull Width: 13 m  
Depth: 40 cm

**Waterbody Information - Retrieval**

Temperature: 20.7 deg C  
Dissolved Oxygen: 6.8 mg/l  
Specific Conductance: 85 uS/cm  
Velocity:  
pH: 6.45  
Wetted Width: 6.9 m  
Bankfull Width: 13 m  
Depth: 20 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Canopy Cover

Terrain

Upland Conifer

Partly Open

Flat

Upland Hardwood

Potential Stressor

Location

Substrate

Main Stem

Gravel 35 %  
Rubble/Cobble 5 %  
Sand 50 %  
Silt 10 %

**Landcover Summary - 2004 Data**

Total Area (ac)	14251	High Int. Dev. %	0.1	Water %	4.2	Non-vegetated %	0.2
		Med Int. Dev. %	0.4	Wetland %	6.5	Tilled Agriculture %	0.0
		Low Int. Dev. %	3.3	Upland Woody %	79.6	Grassland %	5.8
		Development %	3.9	Natural %	84.7	Human Altered %	11.2
						Impervious %	3.6

**Sample Comments**

8/8/12: VISIBLE FLOW. 8/8/12: FISH OBSERVED.



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**Log Number: 2096**

Subsample Factor: X1

Replicates: 3

Calculated: 12/6/2012

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Phagocata</i>	03010101004	0.33	0.33		--	0.2	0.2
Dugesidae	03010102	0.33	0.33		--	0.2	0.2
<i>Girardia</i>	03010102002		0.67		--		0.4
<i>Girardia tigrina</i>	03010102002001	0.67			--	0.4	
<i>Slavina</i>	08020202012		0.33		--		0.2
<i>Slavina appendiculata</i>	08020202012001	0.33			--	0.2	
<i>Acroneuria</i>	09020209042	0.67	1.67	0	PR	0.4	1.0
<i>Acroneuria lycorias</i>	09020209042125	1.00			--	0.6	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.4
<i>Boyeria vinosa</i>	09020301004012	0.67			--	0.4	
Gomphidae	09020302	0.33	0.33		--	0.2	0.2
Corduliidae	09020305	0.33	0.33		--	0.2	0.2
Calopterygidae	09020307	0.33	0.33		--	0.2	0.2
<i>Calopteryx</i>	09020307043		2.67	5	PR		1.5
<i>Calopteryx maculata</i>	09020307043088	2.67			--	1.5	
<i>Baetis</i>	09020401001	0.33	0.33	4	CG	0.2	0.2
<i>Acerpenna</i>	09020401007	0.33	3.00	5	CG	0.2	1.7
<i>Acerpenna macdunnoughi</i>	09020401007001	2.67			--	1.5	
<i>Procloeon</i>	09020401010	2.00	2.00		CG	1.1	1.1
Heptageniidae	09020402	1.00			--	0.6	
<i>Leucrocota</i>	09020402011	1.67	1.70	1	SC	1.0	1.0
<i>Stenacron</i>	09020402014	8.33	8.52	7	SC	4.8	4.9
<i>Maccaffertium</i>	09020402015	29.33	35.78	4	SC	16.8	20.5
<i>Maccaffertium luteum</i>	09020402015049	1.00			--	0.6	
<i>Maccaffertium modestum</i>	09020402015051	4.67			--	2.7	
Leptophlebiidae	09020406	0.33	0.33		--	0.2	0.2
<i>Tricorythodes</i>	09020411038	0.67	0.67	4	CG	0.4	0.4
<i>Chimarra</i>	09020601003	0.33	0.33	2	CF	0.2	0.2
<i>Cernotina</i>	09020603006	0.33	0.33		PR	0.2	0.2
<i>Neureclipsis</i>	09020603008	0.33	0.33	7	CF	0.2	0.2
<i>Nyctiophylax</i>	09020603009		0.33	5	PR		0.2
<i>Nyctiophylax moestus</i>	09020603009013	0.33			--	0.2	
<i>Polycentropus</i>	09020603010	10.00	10.00	6	PR	5.7	5.7
<i>Cheumatopsyche</i>	09020604015	0.33	0.33	5	CF	0.2	0.2
<i>Hydropsyche</i>	09020604016	0.67	0.67	4	CF	0.4	0.4
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.2	0.2
<i>Oxyethira</i>	09020607028	3.00	3.00	3	P	1.7	1.7
<i>Pycnopsyche</i>	09020610049	3.67	3.67	4	SH	2.1	2.1



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Helicopsyche</i>	09020616070		0.33	3	SC		0.2
<i>Helicopsyche borealis</i>	09020616070137	0.33			--	0.2	
<i>Mystacides</i>	09020618075		0.67	4	CG		0.4
<i>Mystacides sepulchralis</i>	09020618075147	0.67			--	0.4	
<i>Oecetis</i>	09020618078	3.67	9.33	8	PR	2.1	5.4
<i>Oecetis inconspicua complex</i>	09020618078156	0.33			--	0.2	
<i>Oecetis persimilis</i>	09020618078157	5.33			--	3.1	
Chironomidae	09021011	1.00			--	0.6	
<i>Ablabesmyia</i>	09021011001		0.34	8	PR		0.2
<i>Ablabesmyia mallochii</i>	09021011001004	0.33			--	0.2	
<i>Meropelopia</i>	09021011010	0.33	0.34		--	0.2	0.2
<i>Nilotanytus</i>	09021011012		1.02	6	PR		0.6
<i>Nilotanytus fimbriatus</i>	09021011012027	1.00			--	0.6	
<i>Paramerina</i>	09021011013	1.33	1.36		--	0.8	0.8
<i>Trissopelopia</i>	09021011021		1.70		PR		1.0
<i>Trissopelopia ogemawi</i>	09021011021042	1.67			--	1.0	
<i>Parakiefferiella</i>	09021011052	0.33	0.34		CG	0.2	0.2
<i>Paratanytarsus</i>	09021011071	0.33	1.36	6	--	0.2	0.8
<i>Paratanytarsus dissimilis</i>	09021011071125	1.00			--	0.6	
<i>Rheotanytarsus</i>	09021011072	9.67	9.84	6	CF	5.5	5.6
<i>Tanytarsus</i>	09021011076	14.33	14.59	6	CF	8.2	8.4
<i>Microtendipes</i>	09021011094		21.38	6	CF		12.3
<i>Microtendipes rydalensis group</i>	09021011094168	21.00			--	12.0	
<i>Nilothauma</i>	09021011095	1.33	1.36	2	--	0.8	0.8
<i>Polypedilum</i>	09021011102		2.71	6	SH		1.6
<i>Polypedilum aviceps</i>	09021011102181	1.67			--	1.0	
<i>Polypedilum illinoense group</i>	09021011102185	1.00			--	0.6	
<i>Simulium</i>	09021012047		0.33	4	CF		0.2
<i>Simulium venustum/verecundum complex</i>	09021012047072	0.33			CF	0.2	
<i>Atherix</i>	09021015055	2.00	2.00	2	PR	1.1	1.1
<i>Gyrinus</i>	09021104033	3.33	3.33	2	PR	1.9	1.9
<i>Helichus</i>	09021112062		0.67	5	SH		0.4
<i>Helichus basalis</i>	09021112062031	0.67			--	0.4	
Elmidae	09021113	0.67			--	0.4	
<i>Dubiraphia</i>	09021113064		9.99	6	--		5.7
<i>Dubiraphia minima</i>	09021113064036	9.67			--	5.5	
<i>Macronychus</i>	09021113065		1.38	4	--		0.8



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		Actual	Adjusted			Actual	Adjusted
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.8	
<i>Optioservus</i>	09021113067		0.34	3	SC		0.2
<i>Optioservus fastiditus</i>	09021113067044	0.33			--	0.2	
<i>Promoresia</i>	09021113069		6.55		--		3.8
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.2	
<i>Promoresia tardella</i>	09021113069052	6.00			--	3.4	
<i>Stenelmis</i>	09021113070	0.33	2.07	5	SC	0.2	1.2
<i>Stenelmis crenata</i>	09021113070055	1.67			--	1.0	
<i>Amnicola</i>	10010104013		1.00		SC		0.6
<i>Amnicola limosa</i>	10010104013018	1.00			--	0.6	
Basommatophora	100102	0.33	0.33		--	0.2	0.2
<i>Physa</i>	10010202026		0.33		SC		0.2
<i>Physa acuta</i>	10010202026047	0.33			--	0.2	