



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

Station Information

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

Sample Information

Log Number: 1676	Type of Sample: ROCK BAG	Date Deployed: 7/26/2007
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/23/2007

Classification Attainment

Statutory Class: AA	Final Determination: A	Date: 3/5/2008
Model Result with P>.6: A	Reason for Determination: Model	
Date Last Calculated: 3/4/2008	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.43	Class A, B, or C	1.00
Class B	0.49	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	0.82
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.18

Model Variables

01 Total Mean Abundance	235.25	18 Relative Abundance Ephemeroptera	0.17
02 Generic Richness	55.00	19 EPT Generic Richness	19.00
03 Plecoptera Mean Abundance	2.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	38.83	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.81	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	41.67
06 Hilsenhoff Biotic Index	5.62	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	11.50
07 Relative Abundance - Chironomidae	0.38	28 EP Generic Richness/14	0.71
08 Relative Generic Richness Diptera	0.35	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.00		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	2.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.88		
17 Chironomini Abundance (Family Functional Group)	15.71		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	15.61
2	<i>Oecetis</i>	14.88
3	Calopterygidae	5.95
4	<i>Microtendipes</i>	5.33
5	<i>Maccaffertium</i>	4.04



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Log Number: 1676

Town: Lincolnville
Waterbody: Ducktrap River - Station 626

Date Deployed: 7/26/2007
Date Retrieved: 8/23/2007

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 20.8 deg C
Dissolved Oxygen: 7.3 mg/l
Specific Conductance: 45 uS/cm
Velocity:
pH: 6.47
Wetted Width: 12.2 m
Bankfull Width: 15.1 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 14.6 deg C
Dissolved Oxygen: 8.1 mg/l
Specific Conductance: 44 uS/cm
Velocity: 8 cm/s
pH: 6.38
Wetted Width: 11.8 m
Bankfull Width: 14.7 m
Depth: 35 cm

Water Chemistry - Retrieval

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Canopy Partly Open	Flat Terrain
Upland Hardwood		

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Main Stem	Gravel	35 %
		Rubble/Cobble	5 %
		Sand	50 %
		Silt	10 %

Landcover Summary - 2004 Data

Sample Comments

FLOW VISIBLE



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-626 Waterbody: Ducktrap River - Station 626 Town: Lincolnville
Log Number: 1676 Subsample Factor: X1 Replicates: 3 Calculated: 3/4/2008

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	1.00	1.00		PR	0.4	0.4
<i>Slavina</i>	08020202012		1.00		--		0.4
<i>Slavina appendiculata</i>	08020202012001	1.00			--	0.4	
<i>Aeolosoma</i>	08020301001	1.00	1.00		--	0.4	0.4
<i>Acroneuria</i>	09020209042		2.00	0	PR		0.9
<i>Acroneuria lycorias</i>	09020209042125	2.00			--	0.9	
Aeshnidae	09020301	1.00	1.00		--	0.4	0.4
<i>Boyeria</i>	09020301004		2.00	2	PR		0.9
<i>Boyeria vinosa</i>	09020301004012	2.00			--	0.9	
Gomphidae	09020302	1.00	1.00		--	0.4	0.4
<i>Lanthus</i>	09020302014		1.00		PR		0.4
<i>Lanthus parvulus</i>	09020302014030	1.00			--	0.4	
Calopterygidae	09020307	14.00	14.00		--	6.0	6.0
Baetidae	09020401	1.50			--	0.6	
<i>Acerpenna</i>	09020401007		1.23	5	CG		0.5
<i>Acerpenna macdunnoughi</i>	09020401007001	1.00			--	0.4	
<i>Procloeon</i>	09020401010	5.50	6.77		CG	2.3	2.9
Heptageniidae	09020402	6.67			--	2.8	
<i>Leucrocuta</i>	09020402011	1.00	1.73	1	SC	0.4	0.7
<i>Stenacron</i>	09020402014		4.61	7	SC		2.0
<i>Stenacron interpunctatum</i>	09020402014045	2.67			--	1.1	
<i>Maccaffertium</i>	09020402015	1.00	9.50	4	SC	0.4	4.0
<i>Maccaffertium luteum</i>	09020402015049	2.50			--	1.1	
<i>Maccaffertium modestum</i>	09020402015051	2.00			--	0.9	
Leptophlebiidae	09020406	4.50	4.50		--	1.9	1.9
<i>Eurylophella</i>	09020410036	1.00	1.00	3	CG	0.4	0.4
<i>Tricorythodes</i>	09020411038	7.00	7.00	4	CG	3.0	3.0
<i>Caenis</i>	09020412040	2.50	2.50	7	CG	1.1	1.1
<i>Cernotina</i>	09020603006	6.33	6.33		PR	2.7	2.7
<i>Polycentropus</i>	09020603010	8.67	8.67	6	PR	3.7	3.7
<i>Hydroptila</i>	09020607026	2.33	2.33	6	P	1.0	1.0
<i>Oxyethira</i>	09020607028	2.00	2.00	3	P	0.9	0.9
<i>Psilotreta</i>	09020614068	2.00	2.00	0	SC	0.9	0.9
<i>Molanna</i>	09020615069		1.00	6	SC		0.4
<i>Molanna blenda</i>	09020615069133	1.00			--	0.4	
<i>Helicopsyche</i>	09020616070		1.00	3	SC		0.4
<i>Helicopsyche borealis</i>	09020616070137	1.00			--	0.4	
<i>Mystacides</i>	09020618075		4.67	4	CG		2.0
<i>Mystacides sepulchralis</i>	09020618075147	4.67			--	2.0	
<i>Oecetis</i>	09020618078	1.00	35.00	8	PR	0.4	14.9
<i>Oecetis inconspicua-complex</i>	09020618078156	28.00			--	11.9	
<i>Oecetis persimilis</i>	09020618078157	6.00			--	2.6	



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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>Nigronia</i>	09020701003		2.50	0	PR		1.1
<i>Nigronia serricornis</i>	09020701003003	2.50			--	1.1	
Chironomidae	09021011	5.00			--	2.1	
<i>Ablabesmyia</i>	09021011001		1.77	8	PR		0.8
<i>Ablabesmyia mallochi</i>	09021011001004	1.67			--	0.7	
<i>Labrundinia</i>	09021011008		1.06	7	PR		0.5
<i>Labrundinia pilosella</i>	09021011008022	1.00			--	0.4	
<i>Zavrelimyia</i>	09021011022		1.06	8	PR		0.5
<i>Zavrelimyia thryptica-grp.</i>	09021011022045	1.00			PR	0.4	
<i>Corynoneura</i>	09021011036	1.00	1.06	7	CG	0.4	0.5
<i>Cricotopus</i>	09021011037		3.18	7	SH		1.4
<i>Cricotopus bicinctus</i>	09021011037057	3.00			--	1.3	
<i>Nanocladius</i>	09021011049	1.33	1.41	3	CG	0.6	0.6
<i>Orthocladius</i>	09021011050		4.59	6	CG		2.0
<i>Orthocladius annectens</i>	09021011050092	4.33			--	1.8	
<i>Parakiefferiella</i>	09021011052	1.00	1.06		CG	0.4	0.5
<i>Parametriocnemus</i>	09021011053	1.00	1.06	5	CG	0.4	0.5
<i>Psectrocladius</i>	09021011056		2.12	8	CG		0.9
<i>Psectrocladius simulans</i>	09021011056110	2.00			--	0.9	
<i>Cladotanytarsus</i>	09021011068	1.00	1.06	7	CG	0.4	0.5
<i>Paratanytarsus</i>	09021011071	5.33	5.65	6	--	2.3	2.4
<i>Rheotanytarsus</i>	09021011072	4.50	4.77	6	CF	1.9	2.0
<i>Stempellinella</i>	09021011074		6.89	2	--		2.9
<i>Stempellinella sp. a epler</i>	09021011074002	6.50			--	2.8	
<i>Tanytarsus</i>	09021011076	23.33	36.73	6	CF	9.9	15.6
<i>Tanytarsus glabrescens group sp. 1</i>	09021011076137	11.33			CF	4.8	
<i>Microtendipes</i>	09021011094		12.54	6	CF		5.3
<i>Microtendipes pedellus-grp.</i>	09021011094166	3.50			--	1.5	
<i>Microtendipes rydalensis-grp.</i>	09021011094168	8.33			--	3.5	
<i>Nilothauma</i>	09021011095	1.00	1.06	2	--	0.4	0.5
<i>Polypedilum</i>	09021011102		2.12	6	SH		0.9
<i>Polypedilum scalaenum-grp.</i>	09021011102189	2.00			--	0.9	
<i>Atherix</i>	09021015055	2.00	2.00	2	PR	0.9	0.9
<i>Gyrinus</i>	09021104033	1.00	1.00	2	PR	0.4	0.4
<i>Psephenus</i>	09021108058		1.00	4	SC		0.4
<i>Psephenus herricki</i>	09021108058028	1.00			--	0.4	
<i>Dubiraphia</i>	09021113064	6.25	6.25	6	CG	2.7	2.7
<i>Macronychus</i>	09021113065		1.00	4	--		0.4
<i>Macronychus glabratus</i>	09021113065040	1.00			--	0.4	
<i>Promoesia</i>	09021113069		2.00		--		0.9
<i>Promoesia tardella</i>	09021113069052	2.00			--	0.9	
<i>Stenelmis</i>	09021113070		1.00	5	SC		0.4



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<i>Stenelmis crenata</i>	09021113070055	1.00			--	0.4	
<i>Amnicola</i>	10010104013	2.50	2.50		SC	1.1	1.1
<i>Ferrissia</i>	10010204035	1.00	1.00		SC	0.4	0.4