



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

**Station Information**

<b>Station Number:</b> S-626	River Basin: Maine Coastal
Waterbody: Ducktrap River - Station 626	HUC8 Name: Maine Coastal
Town: Lincolnville	Latitude: 44 18 51.41 N
Directions: UPSTREAM OF TANGLEWOOD 4H CAMP'S SWIMMING AREA	Longitude: 69 2 38.3 W
	Stream Order: 3

**Sample Information**

<b>Log Number:</b> 2560	Type of Sample: ROCK BAG	Date Deployed: 7/11/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/8/2017

**Classification Attainment**

<b>Statutory Class:</b> AA	<b>Final Determination:</b> B	Date: 12/11/2017
Model Result with $P \geq 0.6$ : B	<b>Reason for Determination:</b> Model	
Date Last Calculated: 12/8/2017	Comments: Low Flow.	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.33	Class A, B, or C	1.00
Class B	0.53	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.96	Class A	0.06
Class C or Non-Attainment	0.04	Class B or C or Non-Attainment	0.94

**Model Variables**

01 Total Mean Abundance	251.00	18 Relative Abundance Ephemeroptera	0.25
02 Generic Richness	49.00	19 EPT Generic Richness	18.00
03 Plecoptera Mean Abundance	1.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	1.33
04 Ephemeroptera Mean Abundance	63.33	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.41	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	38.33
06 Hilsenhoff Biotic Index	5.47	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	2.33
07 Relative Abundance - Chironomidae	0.27	28 EP Generic Richness/14	0.57
08 Relative Generic Richness Diptera	0.27	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	1.38		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Dubiraphia</i>	15.41
2	<i>Tanytarsus</i>	10.23
3	<i>Stenacron</i>	7.44
4	<i>Pycnopsyche</i>	6.24
5	<i>Paraleptophlebia</i>	5.58



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature: 22.2 deg C  
Dissolved Oxygen: 9.19 mg/l  
Dissolved Oxygen Saturation: 104.7 %  
Specific Conductance: 55.6 uS/cm  
Velocity: 6.1 cm/s  
pH: 7.15  
Wetted Width: 11 m  
Bankfull Width: 15.2 m  
Depth: 42 cm

**Waterbody Information - Retrieval**

Temperature: 17.6 deg C  
Dissolved Oxygen: 8.28 mg/l  
Dissolved Oxygen Saturation: 86.1 %  
Specific Conductance: 57.6 uS/cm  
Velocity:  
pH: 7.25  
Wetted Width: 10.7 m  
Bankfull Width: 15.2 m  
Depth: 36 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Flat	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Nps Pollution	Main Stem	Boulder	3 %
		Gravel	32 %
		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**

AT DEPLOYMENT, FISH AND MUSSELS PRESENT. VALLISNERIA IN STREAM AND MANY BLOWDOWNS.  
AT RETRIEVAL FLOW WAS VISIBLE.



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Subsample Factor: X1

Town: Lincolnville  
Calculated: 12/8/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	0.67	0.67		PR	0.3	0.3
<i>Girardia</i>	03010102002	1.00	1.00		--	0.4	0.4
Lumbriculidae	08020101	0.33	0.33		--	0.1	0.1
<i>Placobdella</i>	08030101006	1.33	2.00		--	0.5	0.8
<i>Placobdella papillifera</i>	08030101006003	0.67			--	0.3	
<i>Acroneuria</i>	09020209042		1.00	0	PR		0.4
<i>Acroneuria abnormis</i>	09020209042121	0.33		0	PR	0.1	
<i>Acroneuria arenosa</i>	09020209042122	0.67			--	0.3	
<i>Boyeria</i>	09020301004	0.33	1.67	2	PR	0.1	0.7
<i>Boyeria vinosa</i>	09020301004012	1.33			--	0.5	
<i>Ophiogomphus</i>	09020302015	0.33	0.33	1	PR	0.1	0.1
<i>Procloeon</i>	09020401010	11.33	11.33		CG	4.5	4.5
<i>Neocloeon (Centroptilum)</i>	09020401017	0.33	0.33	2	CG	0.1	0.1
<i>Stenacron</i>	09020402014		18.67	7	SC		7.4
<i>Stenacron interpunctatum</i>	09020402014045	18.67			--	7.4	
<i>Maccaffertium</i>	09020402015	0.67	1.33	4	SC	0.3	0.5
<i>Maccaffertium vicarium</i>	09020402015055	0.67			--	0.3	
<i>Paraleptophlebia</i>	09020406026		14.00	1	CG		5.6
<i>Paraleptophlebia debilis</i>	09020406026079	14.00		1	CG	5.6	
<i>Tricorythodes</i>	09020411038	5.67	5.67	4	CG	2.3	2.3
<i>Caenis</i>	09020412040	12.00	12.00	7	CG	4.8	4.8
<i>Nyctiophylax</i>	09020603009	1.00	1.00	5	PR	0.4	0.4
<i>Polycentropus</i>	09020603010	13.67	13.67	6	PR	5.4	5.4
<i>Phylocentropus</i>	09020603011	0.33	0.33	5	CF	0.1	0.1
<i>Hydropsyche</i>	09020604016		0.33	4	CF		0.1
<i>Hydropsyche slossonae</i>	09020604016031	0.33			--	0.1	
<i>Oxyethira</i>	09020607028	0.67	0.67	3	P	0.3	0.3
<i>Pycnopsyche</i>	09020610049	15.67	15.67	4	SH	6.2	6.2
<i>Molanna</i>	09020615069	7.33	7.33	6	SC	2.9	2.9
<i>Helicopsyche</i>	09020616070	1.33	1.33	3	SC	0.5	0.5
<i>Mystacides</i>	09020618075		13.33	4	CG		5.3
<i>Mystacides sepulchralis</i>	09020618075147	13.33			--	5.3	
<i>Oecetis</i>	09020618078	11.67	11.67	8	PR	4.6	4.6
<i>Nigronia</i>	09020701003		1.00	0	PR		0.4
<i>Nigronia serricornis</i>	09020701003003	1.00			--	0.4	
<i>Sialis</i>	09020702004	0.67	0.67	4	PR	0.3	0.3
Chironomidae	09021011				--		



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<i>Ablabesmyia</i>	09021011001	10.00	10.00	8	PR	4.0	4.0
<i>Labrundinia</i>	09021011008		0.67	7	PR		0.3
<i>Labrundinia pilosella</i>	09021011008022	0.67			--	0.3	
<i>Thienemannimyia</i>	09021011020		7.00	3	PR		2.8
<i>Thienemannimyia group</i>	09021011020041	7.00			--	2.8	
<i>Cricotopus</i>	09021011037	2.67	2.67	7	SH	1.1	1.1
<i>Cladotanytarsus</i>	09021011068	0.33	0.33	7	CG	0.1	0.1
<i>Paratanytarsus</i>	09021011071	5.00	5.00	6	--	2.0	2.0
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	0.1	0.1
<i>Tanytarsus</i>	09021011076	25.67	25.67	6	CF	10.2	10.2
<i>Cryptochironomus</i>	09021011082	0.33	0.33	8	PR	0.1	0.1
<i>Dicrotendipes</i>	09021011085	1.00	1.00	8	CG	0.4	0.4
<i>Microtendipes</i>	09021011094		13.00	6	CF		5.2
<i>Microtendipes pedellus group</i>	09021011094166	11.67			--	4.6	
<i>Microtendipes rydalensis group</i>	09021011094168	1.33			--	0.5	
<i>Parachironomus</i>	09021011097	0.33	0.33	10	PR	0.1	0.1
<i>Polypedilum</i>	09021011102		0.67	6	SH		0.3
<i>Polypedilum aviceps</i>	09021011102181	0.67			--	0.3	
Dytiscidae	09021103	1.00	1.00		--	0.4	0.4
<i>Gyrinus</i>	09021104033	1.00	1.00	2	PR	0.4	0.4
<i>Dubiraphia</i>	09021113064	38.67	38.67	6	--	15.4	15.4
<i>Macronychus</i>	09021113065		1.67	4	--		0.7
<i>Macronychus glabratus</i>	09021113065040	1.67			--	0.7	
<i>Optioservus</i>	09021113067	0.67	0.67	3	SC	0.3	0.3
<i>Promoresia</i>	09021113069		1.67		--		0.7
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.1	
<i>Promoresia tardella</i>	09021113069052	1.33			--	0.5	
<i>Stenelmis</i>	09021113070	1.00	1.00	5	SC	0.4	0.4
<i>Amnicola</i>	10010104013		0.33		SC		0.1
<i>Amnicola limosus</i>	10010104013018	0.33			--	0.1	
Planorbidae	10010203	0.33	0.33		--	0.1	0.1
<i>Pisidium</i>	10020201002	0.33	0.33		CF	0.1	0.1