



**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> 2653	Type of Sample: ROCK BAG	Date Deployed: 7/12/2018
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/9/2018

**Classification Attainment**

<b>Statutory Class:</b> AA	<b>Final Determination:</b> B	Date: 11/28/2018
Model Result with $P \geq 0.6$ : B	<b>Reason for Determination:</b> Model	
Date Last Calculated: 11/28/2018	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.14	Class C	0.25
Class B	0.61	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.90	Class A	0.04
Class C or Non-Attainment	0.10	Class B or C or Non-Attainment	0.96

**Model Variables**

01 Total Mean Abundance	705.00	18 Relative Abundance Ephemeroptera	0.15
02 Generic Richness	65.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	0.33	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	5.53
04 Ephemeroptera Mean Abundance	108.67	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	3.92	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	271.60
06 Hilsenhoff Biotic Index	5.90	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.61
07 Relative Abundance - Chironomidae	0.52	28 EP Generic Richness/14	0.64
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.14
09 <i>Hydropsyche</i> Abundance	0.89		
11 <i>Cheumatopsyche</i> Abundance	0.44		
12 EPT Generic Richness/ Diptera Generic Richness	1.05		

**Five Most Dominant Taxa**

13 Relative Abundance - Oligochaeta	0.00	Rank	Taxon Name	Percent
15 Perlidae Mean Abundance (Family Functional Group)	0.00	1	<i>Tanytarsus</i>	35.37
16 Tanypodinae Mean Abundance (Family Functional Group)	31.82	2	<i>Microtendipes</i>	7.95
17 Chironomini Abundance (Family Functional Group)	81.97	3	Leptophlebiidae	6.52
		4	<i>Dubiraphia</i>	5.72
		5	<i>Pycnopsyche</i>	5.34



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 19.9 deg C  
Dissolved Oxygen: 7.37 mg/l  
Dissolved Oxygen Saturation: 79.3 %  
Specific Conductance: 59.5 uS/cm  
Velocity:  
pH: 6.68  
Wetted Width: 9.4 m  
Bankfull Width: 15 m  
Depth: 40 cm

**Waterbody Information - Retrieval**

Temperature: 23.4 deg C  
Dissolved Oxygen: 5.95 mg/l  
Dissolved Oxygen Saturation: 69.7 %  
Specific Conductance: 61.9 uS/cm  
Velocity:  
pH: 6.57  
Wetted Width: 9.1 m  
Bankfull Width: 15 m  
Depth: 35 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	Above Town	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**

7/12/18: VISIBLE FLOW BUT NO READING ON FLOW METER.  
8/9/18: FLOW NOT VISIBLE.



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Subsample Factor: X1

Replicates: 3

Calculated: 11/28/2018

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Girardia</i>	03010102002		4.67		--		0.7
<i>Girardia tigrina</i>	03010102002001	4.67			--	0.7	
<i>Chaetogaster</i>	08020202002		0.33		--		0.0
<i>Chaetogaster diastrophus</i>	08020202002002	0.33			--	0.0	
<i>Aulodrilus</i>	08020202018		0.67		--		0.1
<i>Aulodrilus plurisetia</i>	08020202018004	0.67			--	0.1	
<i>Placobdella</i>	08030101006		12.67		--		1.8
<i>Placobdella papillifera</i>	08030101006003	0.67			--	0.1	
<i>Placobdella phalera</i>	08030101006006	12.00			--	1.7	
<i>Leuctra</i>	09020204020	0.33	0.33	0	SH	0.0	0.0
<i>Boyeria</i>	09020301004		3.33	2	PR		0.5
<i>Boyeria vinosa</i>	09020301004012	3.33			--	0.5	
<i>Hagenius</i>	09020302008		1.00	1	PR		0.1
<i>Hagenius brevistylus</i>	09020302008015	1.00			PR	0.1	
<i>Stylogomphus</i>	09020302017		0.33	0	PR		0.0
<i>Stylogomphus albistylus</i>	09020302017037	0.33			--	0.0	
<i>Neurocordulia</i>	09020305026		0.33	2	PR		0.0
<i>Neurocordulia molesta</i>	09020305026055	0.33			--	0.0	
Coenagrionidae	09020309	1.67	1.67		--	0.2	0.2
Baetidae	09020401	0.33			--	0.0	
<i>Procloeon</i>	09020401010	8.33	8.57		CG	1.2	1.2
<i>Neocloeon (Centroptilum)</i>	09020401017	2.33	3.43	2	CG	0.3	0.5
<i>Neocloeon (Centroptilum)</i> <i>triangulifer</i>	09020401017001	1.00			--	0.1	
Heptageniidae	09020402	9.00			--	1.3	
<i>Stenacron</i>	09020402014	10.33	19.05	7	SC	1.5	2.7
<i>Maccaffertium</i>	09020402015	0.33	0.61	4	SC	0.0	0.1
Leptophlebiidae	09020406	46.00	46.00		--	6.5	6.5
<i>Paraleptophlebia</i>	09020406026	6.67	6.67	1	CG	0.9	0.9
<i>Tricorythodes</i>	09020411038	4.67	4.67	4	CG	0.7	0.7
<i>Caenis</i>	09020412040	7.00	19.67	7	CG	1.0	2.8
<i>Caenis tardata</i>	09020412040137	12.67			--	1.8	
Corixidae	09020501	2.33	2.33		--	0.3	0.3
Polycentropodidae	09020603	0.33			--	0.0	
<i>Cernotina</i>	09020603006	14.33	14.61		PR	2.0	2.1
<i>Polycentropus</i>	09020603010	1.00	1.02	6	PR	0.1	0.1
<i>Phylocentropus</i>	09020603011	1.33	1.36	5	CF	0.2	0.2
<i>Plectrocnemia</i>	09020603012	0.67	0.68	6	PR	0.1	0.1



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Hydropsychidae	09020604	0.33			--	0.0	
<i>Cheumatopsyche</i>	09020604015	0.33	0.44	5	CF	0.0	0.1
<i>Hydropsyche</i>	09020604016	0.67	0.89	4	CF	0.1	0.1
<i>Oxyethira</i>	09020607028			3	P		
<i>Pycnopsyche</i>	09020610049	37.67	37.67	4	SH	5.3	5.3
<i>Psilotreta</i>	09020614068		0.67	0	SC		0.1
<i>Psilotreta labida</i>	09020614068133	0.67			--	0.1	
<i>Molanna</i>	09020615069		7.33	6	SC		1.0
<i>Molanna blenda</i>	09020615069133	7.33			--	1.0	
<i>Helicopsyche</i>	09020616070		1.00	3	SC		0.1
<i>Helicopsyche borealis</i>	09020616070137	1.00			--	0.1	
Leptoceridae	09020618	1.00			--	0.1	
<i>Mystacides</i>	09020618075		21.03	4	CG		3.0
<i>Mystacides sepulchralis</i>	09020618075147	20.67			--	2.9	
<i>Oecetis</i>	09020618078	7.00	37.31	8	PR	1.0	5.3
<i>Oecetis inconspicua complex</i>	09020618078156	29.67			--	4.2	
<i>Nigronia</i>	09020701003		4.00	0	PR		0.6
<i>Nigronia serricornis</i>	09020701003003	4.00			--	0.6	
<i>Sialis</i>	09020702004	9.00	9.00	4	PR	1.3	1.3
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.0	0.0
<i>Probezzia</i>	09021010041	0.33	0.33	6	PR	0.0	0.0
Chironomidae	09021011	13.33			--	1.9	
<i>Ablabesmyia</i>	09021011001	1.33	21.79	8	PR	0.2	3.1
<i>Ablabesmyia mallochii</i>	09021011001004	19.67			--	2.8	
<i>Conchapelopia</i>	09021011004	3.33	3.46	6	PR	0.5	0.5
<i>Nilotanypus</i>	09021011012		0.35	6	PR		0.0
<i>Nilotanypus fimbriatus</i>	09021011012027	0.33			--	0.0	
<i>Paramerina</i>	09021011013	0.33	0.35		--	0.0	0.0
<i>Procladius</i>	09021011015	5.67	5.88	9	PR	0.8	0.8
<i>Monodiamesa</i>	09021011030		0.35	7	CG		0.0
<i>Monodiamesa depectinata</i>	09021011030001	0.33			--	0.0	
<i>Corynoneura</i>	09021011036	0.33	0.35	7	CG	0.0	0.0
<i>Orthocladius</i>	09021011050		1.04	6	CG		0.1
<i>Orthocladius annectens</i>	09021011050092	1.00			--	0.1	
<i>Parakiefferiella</i>	09021011052	2.00	2.08		CG	0.3	0.3
<i>Thienemanniella</i>	09021011062		1.04	6	CG		0.1
<i>Thienemanniella lobapodema</i>	09021011062114	1.00			--	0.1	
<i>Tanytarsus</i>	09021011076	218.33	249.37	6	CF	31.0	35.4



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		Actual	Adjusted			Actual	Adjusted
<i>Tanytarsus buckleyi</i>	09021011076139	22.00			CF	3.1	
<i>Pseudochironomus</i>	09021011078	1.33	1.38	5	CG	0.2	0.2
<i>Cryptochironomus</i>	09021011082	0.33	0.35	8	PR	0.0	0.0
<i>Cryptotendipes</i>	09021011083			6	--		
<i>Dicrotendipes</i>	09021011085	1.67	5.53	8	CG	0.2	0.8
<i>Dicrotendipes modestus</i>	09021011085151	3.67			--	0.5	
<i>Microtendipes</i>	09021011094		56.03	6	CF		7.9
<i>Microtendipes pedellus group</i>	09021011094166	51.33			--	7.3	
<i>Microtendipes rydalensis group</i>	09021011094168	2.67			--	0.4	
<i>Nilothauma</i>	09021011095	0.67	0.69	2	--	0.1	0.1
<i>Paratendipes</i>	09021011100		14.18	8	CG		2.0
<i>Paratendipes albimanus group</i>	09021011100176	13.67			--	1.9	
<i>Polypedilum</i>	09021011102		3.80	6	SH		0.5
<i>Polypedilum scalaenum group</i>	09021011102189	3.33			--	0.5	
<i>Polypedilum halterale group</i>	09021011102193	0.33			--	0.0	
<i>Heterosternuta</i>	09021103035	0.33	0.33		PR	0.0	0.0
<i>Dineutus</i>	09021104032	0.67	0.67	2	--	0.1	0.1
<i>Psephenus</i>	09021108058		0.33	4	SC		0.0
<i>Psephenus herricki</i>	09021108058028	0.33			--	0.0	
<i>Ancyronyx</i>	09021113063		1.00	6	--		0.1
<i>Ancyronyx variegatus</i>	09021113063034	1.00			CG	0.1	
<i>Dubiraphia</i>	09021113064		40.33	6	--		5.7
<i>Dubiraphia minima</i>	09021113064036	40.33			--	5.7	
<i>Macronychus</i>	09021113065		6.67	4	--		0.9
<i>Macronychus glabratus</i>	09021113065040	6.67			--	0.9	
<i>Promoesia</i>	09021113069		0.33		--		0.0
<i>Promoesia tardella</i>	09021113069052	0.33			--	0.0	
<i>Stenelmis</i>	09021113070		1.33	5	SC		0.2
<i>Stenelmis crenata</i>	09021113070055	1.33			--	0.2	
<i>Torrenticola</i>	09030104001	0.33	0.33		--	0.0	0.0
<i>Amnicola</i>	10010104013		1.33		SC		0.2
<i>Amnicola limosus</i>	10010104013018	1.33			--	0.2	
<i>Ferrissia</i>	10010204035		0.33		SC		0.0
<i>Ferrissia rivularis</i>	10010204035066	0.33			--	0.0	
<i>Pisidium</i>	10020201002	10.00	10.00		CF	1.4	1.4