



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

Station Information

Station Number: S-1146	River Basin:	Maine Coastal	
Waterbody:	Ducktrap River - Station 1146	HUC8 Name:	Maine Coastal
Town:	Lincolnville	Latitude:	44 19 42.85 N
Directions:	PULL OFF ON THE LEFT JUST S. OF DUCKTRAP RIVER PRESERVE SIGN ON RT. 52. THERE IS A GAUGE STATION WHERE YOU LEAVE THE ROAD.	Longitude:	69 3 35.82 W
		Stream Order:	3

Sample Information

Log Number: 2652	Type of Sample:	ROCK BAG	Date Deployed:	7/12/2018	
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/9/2018

Classification Attainment

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

Model Probabilities

<u>First Stage Model</u>				<u>C or Better Model</u>	
Class A	0.52	Class C	0.02	Class A, B, or C	1.00
Class B	0.46	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>				<u>A Model</u>	
Class A or B			1.00	Class A	0.95
Class C or Non-Attainment			0.00	Class B or C or Non-Attainment	0.05

Model Variables

01 Total Mean Abundance	328.00	18 Relative Abundance Ephemeroptera	0.47
02 Generic Richness	64.00	19 EPT Generic Richness	22.00
03 Plecoptera Mean Abundance	3.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	155.00	23 Relative Generic Richness- Plecoptera	0.05
05 Shannon-Wiener Generic Diversity	4.21	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	34.22
06 Hilsenhoff Biotic Index	5.49	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	6.90
07 Relative Abundance - Chironomidae	0.23	28 EP Generic Richness/14	1.00
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.43
09 <i>Hydropsyche</i> Abundance	2.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	1.00		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	2.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	13.35		
17 Chironomini Abundance (Family Functional Group)	28.06		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stenacron</i>	29.36
2	<i>Leptophlebiidae</i>	11.28
3	<i>Tanytarsus</i>	7.20
4	<i>Microtendipes</i>	5.84
5	<i>Mystacides</i>	4.24



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Station Number: S-1146	Town: Lincolnville	Date Deployed: 7/12/2018
Log Number: 2652	Waterbody: Ducktrap River - Station 1146	Date Retrieved: 8/9/2018

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature:	19.5 deg C
Dissolved Oxygen:	9.09 mg/l
Dissolved Oxygen Saturation:	97.1 %
Specific Conductance:	66 uS/cm
Velocity:	6.096 cm/s
pH:	6.85
Wetted Width:	5.7 m
Bankfull Width:	10 m
Depth:	18 cm

Waterbody Information - Retrieval

Temperature:	22.8 deg C
Dissolved Oxygen:	8.17 mg/l
Dissolved Oxygen Saturation:	94.5 %
Specific Conductance:	70.9 uS/cm
Velocity:	
pH:	6.82
Wetted Width:	4.8 m
Bankfull Width:	10 m
Depth:	14 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Conifer	Partly Open	Rolling
Upland Hardwood		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
	Below Road Crossing	Boulder 30 %
		Gravel 25 %
		Rubble/Cobble 20 %
		Sand 25 %

Landcover Summary - 2004 Data

Sample Comments

8/9/18: VISIBLE FLOW
MANY FISH.



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Waterbody: Ducktrap River - Station 1146

Town: Lincolnville

Log Number: 2652

Subsample Factor: X1

Replicates: 3

Calculated: 11/28/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	0.33	0.33		PR	0.1	0.1
<i>Girardia</i>	03010102002		0.33		--		0.1
<i>Girardia tigrina</i>	03010102002001	0.33			--	0.1	
<i>Slavina</i>	08020202012		0.33		--		0.1
<i>Slavina appendiculata</i>	08020202012001	0.33			--	0.1	
<i>Leuctra</i>	09020204020		0.67	0	SH		0.2
<i>Leuctra ferruginea</i>	09020204020050	0.33			--	0.1	
<i>Leuctra truncata</i>	09020204020058	0.33			--	0.1	
<i>Acroneuria</i>	09020209042	0.67	2.00	0	PR	0.2	0.6
<i>Acroneuria lycorias</i>	09020209042125	1.33			--	0.4	
<i>Perlesta</i>	09020209046		0.33	5	PR		0.1
<i>Perlesta decipiens</i>	09020209046141	0.33			--	0.1	
Aeshnidae	09020301	0.33	0.33		--	0.1	0.1
<i>Boyeria</i>	09020301004		1.67	2	PR		0.5
<i>Boyeria vinosa</i>	09020301004012	1.67			--	0.5	
Gomphidae	09020302	0.33	0.33		--	0.1	0.1
Corduliidae	09020305	0.67	0.67		--	0.2	0.2
Calopterygidae	09020307	0.33	0.33		--	0.1	0.1
<i>Calopteryx</i>	09020307043	1.00	1.00	5	PR	0.3	0.3
<i>Acerpenna</i>	09020401007		1.00	5	CG		0.3
<i>Acerpenna macdunnoughi</i>	09020401007001	1.00			--	0.3	
<i>Labiobaetis</i>	09020401009		1.00		--		0.3
<i>Labiobaetis frondalis</i>	09020401009005	1.00			--	0.3	
<i>Procloeon</i>	09020401010	3.67	3.67		CG	1.1	1.1
Heptageniidae	09020402	25.67			--	7.8	
<i>Leucrocuta</i>	09020402011	0.33	0.45	1	SC	0.1	0.1
<i>Stenacron</i>	09020402014	72.00	96.32	7	SC	22.0	29.4
<i>Maccaffertium</i>	09020402015	0.33	4.90	4	SC	0.1	1.5
<i>Maccaffertium luteum</i>	09020402015049	3.33			--	1.0	
Leptophlebiidae	09020406	37.00	37.00		--	11.3	11.3
<i>Paraleptophlebia</i>	09020406026	6.67	6.67	1	CG	2.0	2.0
Ephemerellidae	09020410	0.33	0.33		--	0.1	0.1
<i>Serratella</i>	09020410037		0.33	2	CG		0.1
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.1	
<i>Tricorythodes</i>	09020411038	3.33	3.33	4	CG	1.0	1.0
Polycentropodidae	09020603	0.33	0.33		--	0.1	0.1
<i>Plectrocnemia</i>	09020603012	4.33	4.33	6	PR	1.3	1.3



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Town: Lincolnville

Log Number: 2652

Subsample Factor: X1

Replicates: 3

Calculated: 11/28/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydropsyche</i>	09020604016	2.00	2.00	4	CF	0.6	0.6
<i>Pycnopsyche</i>	09020610049	5.67	5.67	4	SH	1.7	1.7
<i>Psilotreta</i>	09020614068		11.67	0	SC		3.6
<i>Psilotreta labida</i>	09020614068133	11.67			--	3.6	
<i>Helicopsyche</i>	09020616070		9.67	3	SC		2.9
<i>Helicopsyche borealis</i>	09020616070137	9.67			--	2.9	
Leptoceridae	09020618	0.33			--	0.1	
<i>Mystacides</i>	09020618075		13.91	4	CG		4.2
<i>Mystacides sepulchralis</i>	09020618075147	13.67			--	4.2	
<i>Oecetis</i>	09020618078	2.67	5.43	8	PR	0.8	1.7
<i>Oecetis persimilis</i>	09020618078157	2.67			--	0.8	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.1	
Chironomidae	09021011	2.00			--	0.6	
<i>Ablabesmyia</i>	09021011001		4.79	8	PR		1.5
<i>Ablabesmyia mallochii</i>	09021011001004	4.67			--	1.4	
<i>Conchapelopia</i>	09021011004	1.67	1.71	6	PR	0.5	0.5
<i>Labrundinia</i>	09021011008		0.68	7	PR		0.2
<i>Labrundinia pilosella</i>	09021011008022	0.67			--	0.2	
<i>Meropelopia</i>	09021011010	0.33	0.34		--	0.1	0.1
<i>Paramerina</i>	09021011013	3.67	3.76		--	1.1	1.1
<i>Procladius</i>	09021011015	0.33	0.34	9	PR	0.1	0.1
<i>Trissopelopia</i>	09021011021		1.71		PR		0.5
<i>Trissopelopia ogemawi</i>	09021011021042	1.67			--	0.5	
<i>Zavrelimyia</i>	09021011022			8	PR		
<i>Pagastia</i>	09021011025		0.34	1	--		0.1
<i>Pagastia orthogonia</i>	09021011025001	0.33			--	0.1	
<i>Cricotopus</i>	09021011037	0.67	5.82	7	SH	0.2	1.8
<i>Cricotopus bicinctus</i>	09021011037057	5.00			--	1.5	
<i>Orthocladius</i>	09021011050		1.03	6	CG		0.3
<i>Orthocladius annectens</i>	09021011050092	1.00			--	0.3	
<i>Parakiefferiella</i>	09021011052	1.33	1.37		CG	0.4	0.4
<i>Paratanytarsus</i>	09021011071	1.33	1.37	6	--	0.4	0.4
<i>Rheotanytarsus</i>	09021011072		1.37	6	CF		0.4
<i>Rheotanytarsus exiguus group</i>	09021011072127	0.67			CF	0.2	
<i>Rheotanytarsus pellucidus</i>	09021011072128	0.67			CF	0.2	
<i>Stempellina</i>	09021011073	0.33	0.34	2	CG	0.1	0.1
<i>Stempellinella</i>	09021011074		0.34	2	--		0.1



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<i>Stempellinella fimbriata</i>	09021011074002	0.33			--	0.1	
<i>Tanytarsus</i>	09021011076	15.67	23.61	6	CF	4.8	7.2
<i>Tanytarsus buckleyi</i>	09021011076139	7.33			CF	2.2	
<i>Lauterborniella</i>	09021011092		1.03		CG		0.3
<i>Lauterborniella agrayloides</i>	09021011092001	1.00			--	0.3	
<i>Microtendipes</i>	09021011094		19.16	6	CF		5.8
<i>Microtendipes pedellus group</i>	09021011094166	4.33			--	1.3	
<i>Microtendipes rydalensis group</i>	09021011094168	14.33			--	4.4	
<i>Nilothauma</i>	09021011095	1.00	1.03	2	--	0.3	0.3
<i>Paratendipes</i>	09021011100		0.34	8	CG		0.1
<i>Paratendipes albimanus group</i>	09021011100176	0.33			--	0.1	
<i>Phaenopsectra</i>	09021011101		2.05	7	SC		0.6
<i>Phaenopsectra obediens</i>	09021011101182	2.00			SC	0.6	
<i>Polypedilum</i>	09021011102		4.45	6	SH		1.4
<i>Polypedilum aviceps</i>	09021011102181	2.00			--	0.6	
<i>Polypedilum flavum</i>	09021011102182	0.67			--	0.2	
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.2	
<i>Polypedilum illinoense</i>	09021011102204	1.00			--	0.3	
<i>Hydrobius</i>	09021105047	0.33	0.33		--	0.1	0.1
<i>Psephenus</i>	09021108058		13.00	4	SC		4.0
<i>Psephenus herricki</i>	09021108058028	13.00			--	4.0	
<i>Ectopria</i>	09021109059	0.33	0.33	5	SC	0.1	0.1
<i>Helichus</i>	09021112062		5.33	5	SH		1.6
<i>Helichus basalis</i>	09021112062031	5.33			--	1.6	
<i>Dubiraphia</i>	09021113064		8.67	6	--		2.6
<i>Dubiraphia minima</i>	09021113064036	8.67			--	2.6	
<i>Macronychus</i>	09021113065		0.33	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	0.33			--	0.1	
<i>Promoresia</i>	09021113069		2.67		--		0.8
<i>Promoresia elegans</i>	09021113069051	0.33			--	0.1	
<i>Promoresia tardella</i>	09021113069052	2.33			--	0.7	
<i>Stenelmis</i>	09021113070	0.33	3.00	5	SC	0.1	0.9
<i>Stenelmis crenata</i>	09021113070055	2.67			--	0.8	
Curculionidae	09021115	0.33	0.33		--	0.1	0.1
<i>Hygrobates</i>	09030102001	0.33	0.33		--	0.1	0.1