



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

**Station Information**

<b>Station Number:</b> S-341	DEP Drainage: Androscoggin
Waterbody: Hart Brook - Station 341	HUC8 Name: Lower Androscoggin
Town: Lewiston	Latitude: 44 4 11.52 N
Directions: BELOW GODDARD RD. CROSSING	Longitude: 70 11 44.37 W
	Stream Order: 1

**Sample Information**

<b>Log Number:</b> 2187	Type of Sample: ROCK BAG	Date Deployed: 7/9/2013
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/6/2013

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> NA	Date: 1/30/2014
Model Result with P>.6: NA	<b>Reason for Determination:</b> Model	
Date Last Calculated: 1/28/2014	Comments:	

**Model Probabilities**

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

**Model Variables**

01 Total Mean Abundance	274.67	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	32.00	19 EPT Generic Richness	2.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	84.25
04 Ephemeroptera Mean Abundance	0.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.34	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	11.85
06 Hilsenhoff Biotic Index	6.94	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.79	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.47	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera	0.13		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.07		
15 Perlidae Mean Abundance (Family	0.00		
Functional Group)			
16 Tanypodinae Mean Abundance	4.06		
(Family Functional Group)			
17 Chironomini Abundance (Family	101.56		
Functional Group)			

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Paratanytarsus</i>	30.57
2	<i>Dicrotendipes</i>	26.87
3	<i>Phaenopsectra</i>	5.92
4	<i>Glossiphonia</i>	3.76
5	Hirudinidae	3.76



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature:	19.4 deg C
Dissolved Oxygen:	7.6 mg/l
Specific Conductance:	267 uS/cm
Velocity:	46.8 cm/s
pH:	7
Wetted Width:	3.1 m
Bankfull Width:	3.1 m
Depth:	39 cm

**Waterbody Information - Retrieval**

Temperature:	20.7 deg C
Dissolved Oxygen:	4.7 mg/l
Specific Conductance:	567 uS/cm
Velocity:	
pH:	6.66
Wetted Width:	2.1 m
Bankfull Width:	3.1 m
Depth:	16 cm

**Water Chemistry - 8/6/2013**

Ammonia As Nitrogen	0.38 mg/l	Soluble Reactive Phosphorus	4 ug/l
Nitrate+nitrite As N	0.09 mg/l	Total Phosphorus	0.055 mg/l
Total Kjeldahl Nitrogen	0.8 mg/l	Total Suspended Solids	8.4 mg/l
Dissolved Organic Carbon	3.9 mg/l	Total Dissolved Solids	400 mg/l

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Partly Open	Rolling
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Urban Runoff	Below Road Crossing	Gravel 25 %
		Rubble/Cobble 30 %
		Sand 45 %

**Landcover Summary - 2004 Data**

Total Area (ac)	1781	High Int. Dev. %	16.6	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	10.5	Wetland %	1.6	Tilled Agriculture %	1.7
		Low Int. Dev. %	12.8	Upland Woody %	38.0	Grassland %	5.4
		Development %	39.9	Natural %	39.6	Human Altered %	60.4
						Impervious %	26.3

**Sample Comments**

7/9/2013-CLOUDY WATER

8/6/2013 - FISH OBSERVED, WATER CLOUDY, VERY LOW WATER LEVELS, FLOW VISIBLE



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Aquatic Life Taxonomic Inventory Report**

**Station Number: S-341**

Waterbody: Hart Brook - Station 341

Town: Lewiston

**Log Number: 2187**

Subsample Factor: X1

Replicates: 3

Calculated: 1/28/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Enchytraeidae	08020201	0.67	0.67		--	0.2	0.2
Naididae	08020202	10.00			--	3.6	
<i>Dero</i>	08020202007	4.67	9.85		CG	1.7	3.6
<i>Nais</i>	08020202009		2.81		CG		1.0
<i>Nais communis</i>	08020202009005	1.33			--	0.5	
<i>Branchiura</i>	08020202019	1.33	2.81		--	0.5	1.0
<i>Limnodrilus</i>	08020202022		3.52		CG		1.3
<i>Limnodrilus hoffmeisteri</i>	08020202022003	1.67			--	0.6	
<i>Glossiphonia</i>	08030101004		10.33		--		3.8
<i>Glossiphonia complanata</i>	08030101004001	10.33			--	3.8	
<i>Helobdella</i>	08030101005		3.00		--		1.1
<i>Helobdella stagnalis</i>	08030101005004	3.00			--	1.1	
Hirudinidae	08030201	10.33	10.33		--	3.8	3.8
<i>Erpobdella</i>	08030203002		9.33		--		3.4
<i>Erpobdella punctata</i>	08030203002001	9.33			--	3.4	
<i>Caecidotea</i>	09010101001	1.00	1.33	8	SH	0.4	0.5
<i>Caecidotea racovitzai racovitzai</i>	09010101001002	0.33			--	0.1	
<i>Hyaella</i>	09010203006	0.33	0.33	8	CG	0.1	0.1
<i>Orconectes</i>	09010301008	1.67	1.67		CG	0.6	0.6
<i>Cloeon</i>	09020401004		0.33	2	CG		0.1
<i>Cloeon dipterum</i>	09020401004020	0.33			--	0.1	
<i>Frenesia</i>	09020610058		0.33	0	SH		0.1
<i>Frenesia difficilis</i>	09020610058117	0.33			--	0.1	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	0.1	0.1
Chironomidae	09021011	3.33			--	1.2	
<i>Meropelopia</i>	09021011010	2.67	2.71		--	1.0	1.0
<i>Paramerina</i>	09021011013	1.33	1.35		--	0.5	0.5
<i>Cricotopus</i>	09021011037	1.67	1.69	7	SH	0.6	0.6
<i>Parakiefferiella</i>	09021011052		3.39		CG		1.2
<i>Parakiefferiella sp. E</i>	09021011052001	3.33			--	1.2	
<i>Micropsectra</i>	09021011070	7.33	7.45	7	CG	2.7	2.7
<i>Paratanytarsus</i>	09021011071	4.00	83.96	6	--	1.5	30.6
<i>Paratanytarsus dissimilis</i>	09021011071125	78.67			--	28.6	
<i>Rheotanytarsus</i>	09021011072	4.00	4.06	6	CF	1.5	1.5
<i>Tanytarsus</i>	09021011076	10.00	10.16	6	CF	3.6	3.7
<i>Chironomus</i>	09021011080	4.00	4.06	10	CG	1.5	1.5
<i>Cryptochironomus</i>	09021011082	0.33	0.34	8	PR	0.1	0.1
<i>Dicrotendipes</i>	09021011085	8.00	73.80	8	CG	2.9	26.9



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<i>Dicrotendipes neomodestus</i>	09021011085152	62.67			--	22.8	
<i>Dicrotendipes simpsoni</i>	09021011085156	2.00			--	0.7	
<i>Paratendipes</i>	09021011100		5.08	8	CG		1.8
<i>Paratendipes albimanus group</i>	09021011100176	5.00			--	1.8	
<i>Phaenopsectra</i>	09021011101		16.25	7	SC		5.9
<i>Phaenopsectra obediens</i>	09021011101182	16.00			SC	5.8	
<i>Polypedilum</i>	09021011102		2.03	6	SH		0.7
<i>Polypedilum illinoense group</i>	09021011102185	1.33			--	0.5	
<i>Polypedilum laetum</i>	09021011102186	0.67			--	0.2	
<i>Peltodytes</i>	09021101002	0.33	0.33		P	0.1	0.1
<i>Lymnaea</i>	10010201022		0.67		SC		0.2
<i>Lymnaea columella</i>	10010201022038	0.67			--	0.2	
<i>Physa</i>	10010202026	0.33	0.33		SC	0.1	0.1