



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

**Station Information**

<b>Station Number:</b> S-349	DEP Drainage: Androscoggin
Waterbody: Bean Brook - Station 349	HUC8: 01040002
Town: Rumford	HUC8 Name: Lower Androscoggin
Directions: ABOVE RT. 2 CROSSING	Latitude: 44 32 31.73 N
	Longitude: 70 32 57.99 W
	Stream Order: 2

**Sample Information**

<b>Log Number:</b> 1737	Type of Sample: ROCK BAG	Date Deployed: 7/22/2008
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/19/2008

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> A	Date: 5/20/2009
Model Result with P>.6: A	<b>Reason for Determination:</b> Model	
Date Last Calculated: 5/19/2009	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.92	Class A, B, or C	1.00
Class B	0.08	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

**Model Variables**

01 Total Mean Abundance	107.67	18 Relative Abundance Ephemeroptera	0.17
02 Generic Richness	57.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	4.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	4.05
04 Ephemeroptera Mean Abundance	18.33	23 Relative Generic Richness- Plecoptera	0.09
05 Shannon-Wiener Generic Diversity	5.01	25 Sum of Abundances: <i>Cheumatopsyche</i> <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	3.02
06 Hilsenhoff Biotic Index	4.13	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	6.33
07 Relative Abundance - Chironomidae	0.25	28 EP Generic Richness/14	0.79
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	9.33		
11 <i>Cheumatopsyche</i> Abundance	1.33		
12 EPT Generic Richness/ Diptera Generic Richness	0.95		
13 Relative Abundance - Oligochaeta	0.15		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.01		
17 Chironomini Abundance (Family Functional Group)	3.04		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Baetis</i>	9.91
2	<i>Hydropsyche</i>	8.67
3	<i>Nais</i>	6.81
4	<i>Stylodrilus</i>	6.19
5	<i>Maccaffertium</i>	5.88



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Town: Rumford  
Waterbody: Bean Brook - Station 349

Date Deployed: 7/22/2008  
Date Retrieved: 8/19/2008

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT  
Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 17.7 deg C  
Dissolved Oxygen: 9.3 mg/l  
Specific Conductance: 73 uS/cm  
Velocity: 65 cm/s  
pH: 6.79  
Wetted Width: 4.3 m  
Bankfull Width: 4.9 m  
Depth: 36 cm

**Waterbody Information - Retrieval**

Temperature: 16 deg C  
Dissolved Oxygen: 9.1 mg/l  
Specific Conductance: 78 uS/cm  
Velocity: 70 cm/s  
pH: 6.72  
Wetted Width: 4.7 m  
Bankfull Width: 4.9 m  
Depth: 40 cm

**Water Chemistry - Retrieval**

Ammonia As Nitrogen	0.01 mg/l	Soluble Reactive Phosphorus	3 ug/l
Nitrate+nitrite As N	0.04 mg/l	Total Phosphorus	0.025 mg/l
Total Kjeldahl Nitrogen	0.2 mg/l	Total Suspended Solids	5.6 mg/l
Dissolved Organic Carbon	4.8 mg/l	Total Dissolved Solids	52 mg/l

**Summary of Habitat Characteristics**

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

<u>Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Altered Hydrology Stressor	Above Confluence	Boulder	10 %
Urban Runoff Stressor	Above Road Crossing	Detritus	5 %
		Gravel	20 %
		Rubble/Cobble	25 %
		Sand	40 %

**Landcover Summary - 2004 Data**

**Sample Comments**



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Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Enchytraeidae	08020201	2.00	2.00		--	1.9	1.9
<i>Pristina</i>	08020202004		0.33		--		0.3
<i>Pristina jenkinae</i>	08020202004010	0.33			--	0.3	
<i>Nais</i>	08020202009		7.33		CG		6.8
<i>Nais behningi</i>	08020202009003	0.33			--	0.3	
<i>Nais communis</i>	08020202009005	7.00			--	6.5	
<i>Stylodrilus</i>	08020203011		6.67		--		6.2
<i>Stylodrilus heringianus</i>	08020203011001	6.67			--	6.2	
<i>Caecidotea</i>	09010101001	0.33	0.33	8	SH	0.3	0.3
<i>Nemoura</i>	09020201002	0.33	0.33	1	SH	0.3	0.3
<i>Tallaperla</i>	09020206025	2.00	2.00		SH	1.9	1.9
Perlodidae	09020207	1.00	1.00		--	0.9	0.9
Chloroperlidae	09020208	0.33	0.33		--	0.3	0.3
<i>Sweltsa</i>	09020208040	0.67	0.67		PR	0.6	0.6
<i>Boyeria</i>	09020301004		0.67	2	PR		0.6
<i>Boyeria grafiana</i>	09020301004011	0.67			--	0.6	
<i>Cordulegaster</i>	09020303019	0.33	0.33	3	PR	0.3	0.3
<i>Baetis</i>	09020401001	0.33	10.67	4	CG	0.3	9.9
<i>Baetis flavistriga</i>	09020401001004	4.33			--	4.0	
<i>Baetis tricaudatus</i>	09020401001012	6.00			--	5.6	
<i>Acerpenna</i>	09020401007		0.33	5	CG		0.3
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	0.3	
<i>Dipheter</i>	09020401013		0.33		--		0.3
<i>Dipheter hageni</i>	09020401013001	0.33			--	0.3	
<i>Maccaffertium</i>	09020402015	6.00	6.33	4	SC	5.6	5.9
<i>Maccaffertium modestum</i>	09020402015051	0.33			--	0.3	
<i>Ephemerella</i>	09020410035	0.33	0.33	1	CG	0.3	0.3
<i>Eurylophella</i>	09020410036	0.33	0.33	3	CG	0.3	0.3
<i>Lype</i>	09020602004		0.33	2	SC		0.3
<i>Lype diversa</i>	09020602004005	0.33			--	0.3	
<i>Diplectrona</i>	09020604014		0.33	0	CF		0.3
<i>Diplectrona modesta</i>	09020604014025	0.33			--	0.3	
<i>Cheumatopsyche</i>	09020604015	1.33	1.33	5	CF	1.2	1.2
<i>Hydropsyche</i>	09020604016	1.00	9.33	4	CF	0.9	8.7
<i>Hydropsyche alhedra</i>	09020604016028	1.67			--	1.5	
<i>Hydropsyche sparna</i>	09020604016032	5.33			--	5.0	
<i>Hydropsyche ventura</i>	09020604016033	0.33			--	0.3	
<i>Hydropsyche depravata complex</i>	09020604016041	1.00			CF	0.9	



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		Actual	Adjusted			Actual	Adjusted
<i>Rhyacophila</i>	09020605019	1.67	4.00	2	PR	1.5	3.7
<i>Rhyacophila fuscula</i>	09020605019060	1.33			PR	1.2	
<i>Rhyacophila minor</i>	09020605019063	0.33			PR	0.3	
<i>Rhyacophila nigrita</i>	09020605019064	0.67			PR	0.6	
<i>Brachycentrus</i>	09020609043			0	CF		
<i>Hydatophylax</i>	09020610048		0.33	2	SH		0.3
<i>Hydatophylax argus</i>	09020610048103	0.33			--	0.3	
<i>Apatania</i>	09020610061	0.67	0.67		SC	0.6	0.6
<i>Neophylax</i>	09020610062	0.67	0.67	3	SC	0.6	0.6
<i>Lepidostoma</i>	09020611064	0.67	0.67	1	SH	0.6	0.6
<i>Psilotreta</i>	09020614068		4.00	0	SC		3.7
<i>Psilotreta frontalis</i>	09020614068134	4.00			--	3.7	
<i>Tipula</i>	09021001002	2.00	2.00	4	SH	1.9	1.9
<i>Dicranota</i>	09021001005	2.33	2.33	3	PR	2.2	2.2
<i>Hexatoma</i>	09021001008	0.67	0.67	2	PR	0.6	0.6
<i>Limnophila</i>	09021001009	0.33	0.33	3	PR	0.3	0.3
<i>Bezzia/palpomyia</i>	09021010043	1.33	1.33	6	PR	1.2	1.2
Chironomidae	09021011	0.33			--	0.3	
<i>Trissopelopia</i>	09021011021		1.01		PR		0.9
<i>Trissopelopia ogemawi</i>	09021011021042	1.00			--	0.9	
<i>Pagastia</i>	09021011025		1.35	1	--		1.3
<i>Pagastia orthogonia</i>	09021011025001	1.33			--	1.2	
<i>Brillia</i>	09021011033		2.03	5	SH		1.9
<i>Brillia flavifrons</i>	09021011033049	1.33			--	1.2	
<i>Brillia parva</i>	09021011033050	0.67			--	0.6	
<i>Corynoneura</i>	09021011036	1.00	1.01	7	CG	0.9	0.9
<i>Cricotopus</i>	09021011037	0.33	1.35	7	SH	0.3	1.3
<i>Cricotopus bicinctus</i>	09021011037057	0.33			--	0.3	
<i>Cricotopus vierriensis</i>	09021011037071	0.67			--	0.6	
<i>Eukiefferiella</i>	09021011041	0.33	1.01	8	CG	0.3	0.9
<i>Eukiefferiella claripennis group</i>	09021011041075	0.67			--	0.6	
<i>Parametriocnemus</i>	09021011053	4.33	6.08	5	CG	4.0	5.6
<i>Parametriocnemus sp. f epler</i>	09021011053101	1.67			--	1.5	
<i>Rheocricotopus</i>	09021011057		0.68	6	CG		0.6
<i>Rheocricotopus eminellobus</i>	09021011057109	0.33			--	0.3	
<i>Rheocricotopus pauciseta</i>	09021011057111	0.33			--	0.3	
<i>Thienemanniella</i>	09021011062		1.01	6	CG		0.9
<i>Thienemanniella xena</i>	09021011062110	0.67			--	0.6	



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<i>Thienemanniella boltoni</i>	09021011062113	0.33			--	0.3	
<i>Tvetenia</i>	09021011065		2.36	5	CG		2.2
<i>Tvetenia paucunca</i>	09021011065114	2.33			--	2.2	
<i>Micropsectra</i>	09021011070	4.00	4.05	7	CG	3.7	3.8
<i>Rheotanytarsus</i>	09021011072	1.33	1.35	6	CF	1.2	1.3
<i>Tanytarsus</i>	09021011076	0.33	0.34	6	CF	0.3	0.3
<i>Polypedilum</i>	09021011102		3.04	6	SH		2.8
<i>Polypedilum aviceps</i>	09021011102181	2.00			--	1.9	
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	0.3	
<i>Polypedilum tritum</i>	09021011102191	0.67			--	0.6	
<i>Saetheria</i>	09021011132		0.34		--		0.3
<i>Saetheria tylus</i>	09021011132001	0.33			--	0.3	
<i>Simulium</i>	09021012047		5.00	4	CF		4.6
<i>Simulium tuberosum</i>	09021012047067	1.00			--	0.9	
<i>Simulium jenningsi complex</i>	09021012047070	0.33			CF	0.3	
<i>Simulium venustum/verecundum complex</i>	09021012047072	3.67			CF	3.4	
<i>Roederiodes</i>	09021016058	0.33	0.33	3	PR	0.3	0.3
<i>Heterosternuta</i>	09021103035	0.33	0.33		PR	0.3	0.3
<i>Optioservus</i>	09021113067	0.33	0.33	3	SC	0.3	0.3
<i>Oulimnius</i>	09021113068		2.00		--		1.9
<i>Oulimnius latiusculus</i>	09021113068049	2.00			--	1.9	
<i>Promoresia</i>	09021113069		2.33		--		2.2
<i>Promoresia tardella</i>	09021113069052	2.33			--	2.2	
<i>Stenelmis</i>	09021113070		0.33	5	SC		0.3
<i>Stenelmis concinna</i>	09021113070054	0.33			--	0.3	
<i>Torrenticola</i>	09030104001	0.33	0.33		--	0.3	0.3
<i>Ferrissia</i>	10010204035		1.00		SC		0.9
<i>Ferrissia rivularis</i>	10010204035066	1.00			--	0.9	