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

Station Information

Station Number: W-050	Trip ID: 2001-050	River Basin:	Saco
Waterbody:	TRAFTON BROOK	HUC8 Name:	Piscataqua-Salmon Falls
Town:	Alfred	Latitude:	43 28 55.18 N
Mitigation Monitoring Site: No		Longitude:	70 44 50.13 W

Sample Information

Sample ID: DN-2001-050	Type of Sample: DIPNET	Date Sampled: 6/20/2001
Subsample Factor: X1	Replicates: 3	

Classification Attainment

Statutory Class:	**B**	**Final Determination:**	**C**	Date: 12/14/2012
Model Result with P≥0.6:	C	**Reason for Determination:**	**Model**	
Date Last Calculated:	5/15/2014	Comments:		

Model Probabilities

First Stage Model

Class A:	0.00	Class C:	1.00
Class B:	0.00	NA:	0.00

B or Better Model

Class A or B	0.00
Class C or Non-Attainment	1.00

C or Better Model

Class A, B, or C	1.00
Non-Attainment	0.00

A Model

Class A	0.00
Class B or C or Non-Attainment	1.00

Model Variables

		Reference Range
Total Mean Abundance	315	< 787
Ephemeroptera Abundance	0.67	most > 35
Odonata Relative Abundance	0.026	most > 0.04
Trichoptera Relative Abundance	0.001	most > 0.02
Shredder Taxa Relative Abundance	0.09	< 0.2
Non-insect Taxa Relative Richness	0.30	< 0.4
MTI Sensitive Taxa Abundance	4.33	most > 30
MTI Sensitive Taxa Relative Abundance	0.02	most > 0.05
MTI Sensitive Taxa Richness	4	most > 7
MTI Intermediate Taxa Relative Abundance	0.59	> 0.5
MTI Intermediate Taxa Richness	19	< 25
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	0.04	most > 1

Other Variables

Generic Richness:	46
Hilsenhoff Biotic Index:	7.05
Shannon-Weiner Diversity:	3.74
Maine Tolerance Index:	38.87

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	*Nais*	27.01
2	*Helisoma*	14.72
3	*Enchytraeidae*	10.70
4	*Lumbriculus*	9.43
5	*Polypedilum*	8.16

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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT
Taxonomist: LOTIC INC.

Water Chemistry

Sample Date: 6/20/2001 11:30:00 AM

Sample Type	Collection Method	Parameter	Value	Units	Qualifier
Surface Water	Grab Sample	Aluminum	45.9	ug/l	
Surface Water	Grab Sample	Ammonia As Nitrogen		mg/l	U
Surface Water	Grab Sample	Calcium	3.86	mg/l	
Surface Water	Grab Sample	Chloride	1.207	mg/l	
Surface Water	Grab Sample	Chlorophyll A	0.0033	mg/l	
Surface Water	Grab Sample	Dissolved Organic Carbon	13.9	mg/l	
Surface Water	Grab Sample	Magnesium	0.81	mg/l	
Surface Water	Grab Sample	Nitrate As N		mg/l	U
Surface Water	Grab Sample	Orthophosphate As Phosphorus	12	ug/l	
Surface Water	Grab Sample	pH	6.83		
Surface Water	Grab Sample	Potassium	1.49	mg/l	
Surface Water	Grab Sample	Silica	1.3	mg/l	
Surface Water	Grab Sample	Sodium	1.54	mg/l	
Surface Water	Grab Sample	Specific Conductance	36.6	us/cm	
Surface Water	Grab Sample	Sulfate	0.624	mg/l	
Surface Water	Grab Sample	Total Alkalinity	15.05	mg/l	
Surface Water	Grab Sample	Total Nitrogen Mixed Forms (NH3, NH4, Organic, NO2, NO3)	0.853	mg/l	
Surface Water	Grab Sample	Total Phosphorus	0.078	mg/l	
Surface Water	Grab Sample	True Color	150	unit	
Surface Water	In-situ	Dissolved Oxygen	2.2	mg/l	
Surface Water	In-situ	pH	5.5		
Surface Water	In-situ	Specific Conductance	38.3	us/cm	
Surface Water	In-situ	Temperature	25.4	deg c	

Landcover Summary - 2004 Data

Total Area (ac)	517	High Int. Dev. %	0.1	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.3	Wetland %	11.5	Tilled Agriculture %	0.0
		Low Int. Dev. %	3.3	Upland Woody %	82.8	Grassland %	2.2
		Development %	3.6	Natural %	94.2	Human Altered %	5.8
						Impervious %	2.7
Total Land (ac)	517	High Int. Dev. %	0.1	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	0.3	Wetland %	11.5	Tilled Agriculture %	0.0
		Low Int. Dev. %	3.3	Upland Woody %	82.8	Grassland %	2.2
		Development %	3.6	Natural %	94.2	Human Altered %	5.8

Impervious %	2.7

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Summary of Habitat Characteristics

Human Disturbance		Landscape-level Cowardin Classification		Hydrogeomorphic Setting	
Total Score:	11	System:	PALUSTRINE	Landscape Position:	LOTIC STREAM
Hydrologic Modifications:	0	Subsystem:		Lotic Gradient:	LOW GRADIENT
Vegetative Modifications:	2	Class 1:	EMERGENT	Flow Path:	THROUGHFLOW
Chemical Contaminants	4	Subclass 1:	PERSISTENT	Land Form:	FRINGE
Impervious Surface:	1	Class 2:		Land Form Type:	LOTIC STREAM FRINGE POND
Non-point Sources:	4				
		Subclass 2:		Waterbody Type:	POND
		Class 3:		Waterbody Subtype:	
		Subclass 3:			
				Comments:	

Dominant Plant Species: SEDGES, CATTAIL (TYPHA), DUCKWEED (LEMNA)

Additional Plant Community Observations:

Habitat Classification:	Substrate Classification:
AQUATIC MACROPHYTE BED	DETRITUS SUBSTRATE
EMERGENT PERSISTENT VEGETATION	SILT/MUCK SUBSTRATE

Average Depth: 50 cm

Sample Comments: WETLAND IS SMALL (~1/2 ACRE), IN WATERSHED OF MIDDLE BRANCH OF MOUSAM RIVER

Additional Summary Variables

Station Number: W-050 Waterbody: TRAFTON BROOK Town: Alfred

Log Number: DN-2001-050 Subsample Factor: X1 Replicates: 3 Calculated: 5/15/2014

	Abundance	Relative Abundance	Richness	Relative Richness
EOT Taxa:	9.33	0.030	7	0.15
EPT Taxa:	1.00	0.003	3	0.07
Insects:	98.00	0.311	32	0.70
Non-Insects:	216.67	0.689	14	0.30
Leeches:	0.00	0.000	0	0.00
Oligochaetes:	148.33	0.471	3	0.07
Snails:	56.67	0.180	4	0.09
Bivalves:	6.33	0.020	1	0.02
Isopods:	3.33	0.011	1	0.02
Amphipods:	1.00	0.003	2	0.04
Mites:	0.67	0.002	2	0.04
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	0.67	0.002	2	0.04
Odonates:	8.33	0.026	4	0.09
Caddisflies:	0.33	0.001	1	0.02
Diptera:	52.00	0.165	15	0.33
Hemiptera:	6.33	0.020	2	0.04
Beetles:	29.67	0.094	6	0.13
Chironomids:	50.00	0.159	13	0.28
Tanypodinae Tribe:	12.33	0.039	5	0.11
Chironomiinae Tribe:	33.67	0.107	4	0.09
Orthoclodiinae Tribe:	4.00	0.013	4	0.09
Collector-Filterers:	6.33	0.020	1	0.02
Collector-Gatherers:	123.67	0.393	8	0.17
Predators:	41.00	0.130	13	0.28
Piercers:	3.33	0.011	3	0.07
Shredders:	29.67	0.094	4	0.09
Scrapers:	47.00	0.149	2	0.04
Maine Tolerance:				
Sensitive:	4.33	0.017	4	0.11
Intermediate:	152.00	0.588	19	0.54
Eurytopic:	102.00	0.395	12	0.34
Ratio of MTI Sensitive to Eurytopic	0.04	0.042	0.33	0.33

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Aquatic Life Taxonomic Inventory Report

Station Number: W-050 Waterbody: TRAFTON BROOK Town: Alfred

Log Number: DN-2001-050 Subsample Factor: X1 Replicates: 3 Calculated: 5/15/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samples) Actual	Count (Mean of Samples) Adjusted	Hilsen-hoff Biotic Index	Func-tional Feeding Group	Maine Toler-ance Index	Tribe	Taxa Group
Planariidae	03010101	0.33	0.33	--	--	--	--	Planaria
Lumbriculus	08020101002	29.67	29.67	--	CG	35-I	--	Worm
Enchytraeidae	08020201	33.67	33.67	--	--	--	--	Worm
Nais	08020202009	85.00	85.00	--	CG	43-E	--	Worm
Caecidotea	09010101001	3.33	3.33	8	SH	51.9-E	--	Isopod
Gammarus	09010201003	0.33	0.33	4	--	40.3-I	--	Amphipod
Hyalella	09010203006	0.00	0.67	8	CG	24.5-I	--	Amphipod
Hyalella azteca	09010203006011	0.67	0.00	--	--	--	--	Amphipod
Aeshnidae	09020301	1.00	1.00	--	--	--	--	Dragonfly/damselfly
Sympetrum	09020306041	1.33	1.33	10	PR	37-I	--	Dragonfly/damselfly
Lestes	09020308045	5.67	5.67	9	PR	32.6-I	--	Dragonfly/damselfly
Coenagrionidae	09020309	0.33	0.33	--	--	--	--	Dragonfly/damselfly
Baetidae	09020401	0.33	0.33	--	--	--	--	Mayfly
Acerpenna	09020401007	0.33	0.33	5	CG	--	--	Mayfly
Corixidae	09020501	6.00	6.00	--	--	--	--	True Bug
Belostoma	09020502009	0.33	0.33	--	PR	41.7-I	--	True Bug
Oxyethira	09020607028	0.33	0.33	3	P	22-S	--	Caddisfly
Chauliodes	09020701001	0.33	0.33	4	PR	34.4-I	--	Dobsonfly
Nigronia	09020701003	0.33	0.33	0	PR	15.7-S	--	Dobsonfly
Tipula	09021001002	0.33	0.33	4	SH	53.8-E	--	Fly: Crane
Chaoborus	09021007025	1.67	1.67	8	PR	25-I	--	Fly: Phantom Midge
Ablabesmyia	09021011001	5.33	5.33	8	PR	23.6-I	T	Fly: Midge
Larsia	09021011009	2.00	2.00	6	PR	15.6-S	T	Fly: Midge
Natarsia	09021011011	0.33	0.33	8	PR	43.6-E	T	Fly: Midge
Paramerina	09021011013	3.33	3.33	--	--	29.3-I	T	Fly: Midge
Acricotopus	09021011032	0.33	0.33	10	--	75-E	--	Fly: Midge
Corynoneura	09021011036	1.67	1.67	7	CG	40.1-I	--	Fly: Midge
Cricotopus	09021011037	0.33	0.33	7	SH	43-E	--	Fly: Midge
Psectrocladius	09021011056	1.67	1.67	8	CG	22-S	--	Fly: Midge
Paratanytarsus	09021011071	3.33	3.33	6	--	43-E	Y	Fly: Midge
Chironomus	09021011080	3.67	3.67	10	CG	27.4-I	C	Fly: Midge
Dicrotendipes	09021011085	1.00	1.00	8	CG	28.8-I	C	Fly: Midge
Polypedilum	09021011102	25.67	25.67	6	SH	24.2-I	C	Fly: Midge
Monopelopia	09021011131	1.33	1.33	--	PR	60.4-E	T	Fly: Midge
Haliplus	09021101001	2.67	2.67	--	P	67.1-E	--	Beetle

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Peltodytes	09021101002	0.33	0.33	--	P	56.2-E	--	Beetle
Dytiscidae	09021103	1.67	0.00	--	--	--	--	Beetle
Hydroporus	09021103013	14.00	15.40	--	PR	42.9-I	--	Beetle
Ilybius	09021103018	2.67	2.93	--	PR	40.7-I	--	Beetle
Tropisternus	09021105038	4.00	4.00	--	PR	61.8-E	--	Beetle
Curculionidae	09021115	4.33	4.33	--	--	--	--	Beetle
Hydrachnidia	09030101	0.33	0.33	--	--	--	--	Mite
Arrenurus	09030111001	0.33	0.33	--	--	23.8-I	--	Mite
Hydrobiidae	10010104	0.33	0.33	--	--	--	--	Snail
Lymnaeidae	10010201	9.33	9.33	--	--	--	--	Snail
Lymnaea	10010201022	0.67	0.67	--	SC	83.3-E	--	Snail
Helisoma	10010203030	46.33	46.33	--	SC	42.8-I	--	Snail
Musculium	10020201001	6.33	6.33	--	CF	24.8-I	--	Clam