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

Station Information

Station Number:	**W-208**	Trip ID:	2009-208	River Basin:	St. John
Waterbody:	DAIGLE POND WEST			HUC8 Name:	Fish
Town:	New Canada			Latitude:	47 11 32.74 N
Mitigation Monitoring Site:	No			Longitude:	68 28 33.37 W

Sample Information

Sample ID:	**DN-2009-208**	Type of Sample:	DIPNET	Date Sampled:	7/8/2009
Subsample Factor:	X4	Replicates:	3		

Classification Attainment

Statutory Class:	**GPA**	**Final Determination:**	**C**	Date:	2/7/2013
Model Result with P≥0.6:	C	**Reason for Determination:**	**Model**		
Date Last Calculated:	5/13/2014	Comments:			

Model Probabilities

First Stage Model

Class A:	0.00	Class C:	0.94
Class B:	0.06	NA:	0.00

B or Better Model

Class A or B	0.06
Class C or Non-Attainment	0.94

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	567	< 787
Ephemeroptera Abundance	5.33	most > 35
Odonata Relative Abundance	0.002	most > 0.04
Trichoptera Relative Abundance	0.024	most > 0.02
Shredder Taxa Relative Abundance	0.08	< 0.2
Non-insect Taxa Relative Richness	0.35	< 0.4
MTI Sensitive Taxa Abundance	4.00	most > 30
MTI Sensitive Taxa Relative Abundance	0.01	most > 0.05
MTI Sensitive Taxa Richness	2	most > 7
MTI Intermediate Taxa Relative Abundance	0.83	> 0.5
MTI Intermediate Taxa Richness	16	< 25
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	0.05	most > 1

Other Variables

Generic Richness:	37
Hilsenhoff Biotic Index:	7.85
Shannon-Weiner Diversity:	3.62
Maine Tolerance Index:	35.65

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	*Gyraulus*	19.06
2	*Gyraulus deflectus*	13.65
3	*Hyalella azteca*	10.82
4	*Sphaerium*	8.47
5	*Helisoma*	8.24

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Sample Collection and Processing Information

Sampling Organization: BIOMONITOIRNG UNIT
Taxonomist: LOTIC INC.

Water Chemistry

Sample Date: 7/8/2009 11:30:00 AM

Sample Type	Collection Method	Parameter	Value	Units	Qualifier
Surface Water	Grab Sample	Chloride	6	mg/l	
Surface Water	Grab Sample	Chlorophyll A	0.045	mg/l	
Surface Water	Grab Sample	Chlorophyll A - Phaeophytin	0.0395	mg/l	
Surface Water	Grab Sample	Dissolved Organic Carbon	6.8	mg/l	
Surface Water	Grab Sample	Nitrate+nitrite As N		mg/l	U
Surface Water	Grab Sample	Orthophosphate As Phosphorus	12	ug/l	
Surface Water	Grab Sample	pH	8.5		
Surface Water	Grab Sample	Silica	1.8	mg/l	
Surface Water	Grab Sample	Silicon	0.83	mg/l	
Surface Water	Grab Sample	Specific Conductance	129	umhos/cm	
Surface Water	Grab Sample	Total Alkalinity	52	mg/l	
Surface Water	Grab Sample	Total Kjeldahl Nitrogen	1	mg/l	
Surface Water	Grab Sample	Total Phosphorus	0.073	mg/l	
Surface Water	Grab Sample	True Color	33	unit	
Surface Water	In-situ	Dissolved Oxygen	9.9	mg/l	
Surface Water	In-situ	pH	9.9		
Surface Water	In-situ	Specific Conductance	124	us/cm	
Surface Water	In-situ	Temperature	19.3	deg c	

Landcover Summary - 2004 Data

Total Area (ac)	1226	High Int. Dev. %	0.4	Water %	5.8	Non-vegetated %	0.0
		Med Int. Dev. %	0.3	Wetland %	1.7	Tilled Agriculture %	40.0
		Low Int. Dev. %	2.3	Upland Woody %	38.7	Grassland %	10.7
		Development %	3.1	Natural %	40.4	Human Altered %	53.8
						Impervious %	2.0
Total Land (ac)	1155	High Int. Dev. %	0.4	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	0.4	Wetland %	1.8	Tilled Agriculture %	42.4
		Low Int. Dev. %	2.5	Upland Woody %	41.1	Grassland %	11.4
		Development %	3.3	Natural %	42.9	Human Altered %	57.1
						Impervious %	2.1

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Summary of Habitat Characteristics

Human Disturbance		Landscape-level Cowardin Classification		Hydrogeomorphic Setting	
Total Score:	26	System:	LACUSTRINE	Landscape Position:	LENTIC
Hydrologic Modifications:	9	Subsystem:	LITTORAL	Lotic Gradient:	
Vegetative Modifications:	0	Class 1:	UNCONSOLIDATED BOTTOM	Flow Path:	BIDIRECTIONAL FLOW-NONTIDAL
Chemical Contaminants	1				
Impervious Surface:	5	Subclass 1:	MUD	Land Form:	FRINGE
Non-point Sources:	11	Class 2:		Land Form Type:	LENTIC
		Subclass 2:		Waterbody Type:	LAKE
		Class 3:		Waterbody Subtype:	
		Subclass 3:			
				Comments:	

Dominant Plant Species: NUPHAR, ELODEA

Additional Plant Community Observations:

Habitat Classification:
AQUATIC MACROPHYTE BED

Substrate Classification:
DETRITUS SUBSTRATE
SAND SUBSTRATE

Average Depth: 61 cm

Sample Comments: BLUE-GREEN ALGAE BLOOMS IN PROGRESS; EXTRA PHYTOPLANKTON SAMPLE COLLECTED IN AREA OF BLOOM COLLECTED BELOW WATER SURFACE

Additional Summary Variables

Station Number: W-208 Waterbody: DAIGLE POND WEST Town: New Canada

Log Number: DN-2009-208 Subsample Factor: X4 Replicates: 3 Calculated: 5/13/2014

	Abundance	Relative Abundance	Richness	Relative Richness
EOT Taxa:	20.00	0.035	5	0.14
EPT Taxa:	18.67	0.033	4	0.11
Insects:	156.00	0.275	24	0.65
Non-Insects:	410.67	0.725	13	0.35
Leeches:	4.00	0.007	3	0.08
Oligochaetes:	2.67	0.005	2	0.05
Snails:	265.33	0.468	4	0.11
Bivalves:	74.67	0.132	2	0.05
Isopods:	0.00	0.000	0	0.00
Amphipods:	61.33	0.108	1	0.03
Mites:	0.00	0.000	0	0.00
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	5.33	0.009	2	0.05
Odonates:	1.33	0.002	1	0.03
Caddisflies:	13.33	0.024	2	0.05
Diptera:	121.33	0.214	14	0.38
Hemiptera:	8.00	0.014	2	0.05
Beetles:	6.67	0.012	3	0.08
Chironomids:	114.67	0.202	13	0.35
Tanypodinae Tribe:	5.33	0.009	1	0.03
Chironomiinae Tribe:	100.00	0.176	8	0.22
Orthoclodiinae Tribe:	9.33	0.016	4	0.11
Collector-Filterers:	101.33	0.179	3	0.08
Collector-Gatherers:	88.00	0.155	10	0.27
Predators:	18.67	0.033	6	0.16
Piercers:	6.67	0.012	3	0.08
Shredders:	48.00	0.085	3	0.08
Scrapers:	237.33	0.419	3	0.08
Maine Tolerance:				
Sensitive:	4.00	0.008	2	0.07
Intermediate:	400.00	0.831	16	0.57
Eurytopic:	77.33	0.161	10	0.36
Ratio of MTI Sensitive to Eurytopic	0.05	0.052	0.20	0.20

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Aquatic Life Taxonomic Inventory Report

Station Number: W-208 Waterbody: DAIGLE POND WEST Town: New Canada

Log Number: DN-2009-208 Subsample Factor: X4 Replicates: 3 Calculated: 5/13/2014

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	2.67	2.67	--	--	--	--	Planaria
Lumbriculus	08020101002	1.33	1.33	--	CG	35-I	--	Worm
Limnodrilus	08020202022	1.33	1.33	--	CG	83.9-E	--	Tubificid Worm
Helobdella	08030101005	0.00	1.33	--	--	43-E	--	Leech
Helobdella modesta	08030101005004	1.33	0.00	--	--	--	--	Leech
Erpobdellidae	08030203	1.33	1.33	--	--	--	--	Leech
Erpobdella	08030203002	0.00	1.33	--	--	36.4-I	--	Leech
Erpobdella punctata	08030203002001	1.33	0.00	--	--	--	--	Leech
Hyalella	09010203006	0.00	61.33	8	CG	24.5-I	--	Amphipod
Hyalella azteca	09010203006011	61.33	0.00	--	--	--	--	Amphipod
Boyeria	09020301004	1.33	1.33	2	PR	8-S	--	Dragonfly/damselfly
Callibaetis	09020401002	2.67	2.67	9	CG	40.5-I	--	Mayfly
Caenis	09020412040	2.67	2.67	7	CG	22.1-I	--	Mayfly
Corixidae	09020501	6.67	6.67	--	--	--	--	True Bug
Trepobates	09020506021	1.33	1.33	--	PR	--	--	True Bug
Agraylea	09020607024	1.33	1.33	8	P	--	--	Caddisfly
Phryganeidae	09020608	12.00	12.00	--	--	--	--	Caddisfly
Bezzia/palpomyia	09021010043	6.67	6.67	6	PR	26.9-I	--	Fly: Biting Midge
Procladius	09021011015	5.33	5.33	9	PR	25.1-I	T	Fly: Midge
Acricotopus	09021011032	1.33	1.33	10	--	75-E	--	Fly: Midge
Corynoneura	09021011036	1.33	1.33	7	CG	40.1-I	--	Fly: Midge
Cricotopus	09021011037	0.00	4.00	7	SH	43-E	--	Fly: Midge
Cricotopus tricinctus	09021011037076	4.00	0.00	--	--	--	--	Fly: Midge
Psectrocladius	09021011056	2.67	2.67	8	CG	22-S	--	Fly: Midge
Paratanytarsus	09021011071	12.00	12.00	6	--	43-E	Y	Fly: Midge
Tanytarsus	09021011076	26.67	26.67	6	CF	25.7-I	Y	Fly: Midge
Pseudochironomus	09021011078	8.00	8.00	5	CG	47.7-E	S	Fly: Midge
Cladopelma	09021011081	2.67	2.67	9	CG	27.9-I	C	Fly: Midge
Dicrotendipes	09021011085	4.00	4.00	8	CG	28.8-I	C	Fly: Midge
Endochironomus	09021011087	42.67	42.67	10	SH	50.2-E	C	Fly: Midge
Parachironomus	09021011097	2.67	2.67	10	PR	28.6-I	C	Fly: Midge
Polypedilum	09021011102	1.33	1.33	6	SH	24.2-I	C	Fly: Midge
Haliplus	09021101001	2.67	2.67	--	P	67.1-E	--	Beetle
Peltodytes	09021101002	2.67	2.67	--	P	56.2-E	--	Beetle
Tropisternus	09021105038	1.33	1.33	--	PR	61.8-E	--	Beetle

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Log Number: DN-2009-208 Subsample Factor: X4 Replicates: 3 Calculated: 5/13/2014

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Physidae	10010202	5.33	5.33	--	SC	--	--	Snail
Gyraulus	10010203029	108.00	185.33	--	SC	37.2-I	--	Snail
Gyraulus deflectus	10010203029056	77.33	0.00	--	--	--	--	Snail
Helisoma	10010203030	46.67	46.67	--	SC	42.8-I	--	Snail
Armiger	10010203035	0.00	28.00	--	--	--	--	Snail
Armiger crista	10010203035001	28.00	0.00	--	--	--	--	Snail
Sphaeriidae	10020201	26.67	26.67	--	CF	--	--	Clam
Sphaerium	10020201003	48.00	48.00	--	CF	24.8-I	--	Clam