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

Station Information

Station Number: W-063 Trip ID: 2002-063 River Basin: Kennebec
Waterbody: MOSHER POND HUC8 Name: Lower Kennebec
Town: Fayette Latitude: 44 29 8.06 N
Mitigation Monitoring Site: No Longitude: 70 5 39.22 W

Sample Information

Sample ID: DN-2002-063 Type of Sample: DIPNET Sampling Organization: BIOMONITORING UNIT
Date Sampled: 6/17/2002 Replicates: 3 Taxonomist: LOTIC INC.
Subsample Factor: X1

Classification Attainment

Statutory Class: B **Final Determination: A** Date: 12/17/2012
Model Result with P≥0.6: A **Reason for Determination: Model**
Date Last Calculated: 12/18/2018 Comments:

Model Probabilities

First Stage Model
Class A: 1.00 Class C: 0.00
Class B: 0.00 NA: 0.00

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

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

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

Model Variables

		Reference Range (10th or 90th percentile value)
Abundance of Taxa in the Order Ephemeroptera	2.667	≥ 0.000
Relative Richness of Taxa in the Orders Ephemeroptera, Odonata and Tricoptera	0.323	≥ 0.140
Shannon-Wiener Diversity Index	3.827	≥ 2.497
Relative Abundance of Collector-Gatherer Taxa	0.355	≥ 0.131
Abundance of Sensitive Taxa	27.000	≥ 3.424
Richness of Sensitive Taxa	12.000	≥ 3.000
Maine Tolerance Index Score For Wetland Macroinvertebrates	23.376	≤ 29.776
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	81.000	≥ 0.334

Other Variables

Total Mean Abundance	68
Generic Richness:	31
Hilsenhoff Biotic Index:	7.34

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	*Hyalella azteca*	23.65
2	*Amnicola*	21.18
3	*Lumbriculus*	7.39
4	*Corixidae*	5.42
5	*Triaenodes*	4.93

Surface Water Chemistry

Sample Date: 6/17/2002 9:30:00 AM

Collection Method	Parameter	Value	Units	Qualifier
Grab Sample	Calcium	5.5	mg/l	
Grab Sample	Chloride	8	mg/l	
Grab Sample	Chlorophyll A	0.0022	mg/l	
Grab Sample	Dissolved Organic Carbon	13.2	mg/l	
Grab Sample	Magnesium	0.97	mg/l	
Grab Sample	Nitrate As Nitrogen		mg/l	U
Grab Sample	pH	6.5		
Grab Sample	Potassium	1.2	mg/l	
Grab Sample	Sodium	5	mg/l	
Grab Sample	Specific Conductance	58.2	us/cm	
Grab Sample	Sulfate	20	mg/l	
Grab Sample	Total Alkalinity	10	mg/l	
Grab Sample	Total Hardness	18	mg/l	
Grab Sample	Total Kjeldahl Nitrogen (organic And Nh3) As Nitrogen	0.5	mg/l	
Grab Sample	Total Phosphorus	0.015	mg/l	
Grab Sample	True Color	100	unit	
In-situ	Dissolved Oxygen	5.3	mg/l	
In-situ	pH	5.79		
In-situ	Specific Conductance	57	us/cm	
In-situ	Temperature	11.7	deg c	

Landcover Summary - 2004 Data

Total Area (ac)	1423	High Int. Dev. %	0.3	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.3	Wetland %	3.7	Tilled Agriculture %	2.6
		Low Int. Dev. %	2.3	Upland Woody %	79.1	Grassland %	11.7
		Development %	2.9	Natural %	82.8	Human Altered %	17.1
						Impervious %	3.3
Total Land (ac)	1422	High Int. Dev. %	0.3	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	0.3	Wetland %	3.7	Tilled Agriculture %	2.6
		Low Int. Dev. %	2.3	Upland Woody %	79.1	Grassland %	11.7
		Development %	2.9	Natural %	82.9	Human Altered %	17.1
						Impervious %	3.3

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Summary of Habitat Characteristics

Human Disturbance		Landscape-level Cowardin Classification		Hydrogeomorphic Setting	
Total Score:	10	System:	PALUSTRINE	Landscape Position:	TERRENE
Hydrologic Modifications:	2	Subsystem:		Lotic Gradient:	
Vegetative Modifications:	1	Class 1:	EMERGENT	Flow Path:	OUTFLOW
Chemical Contaminants	0	Subclass 1:	PERSISTENT	Land Form:	BASIN
Impervious Surface:	3	Class 2:		Land Form Type:	
Non-point Sources:	4	Subclass 2:		Waterbody Type:	POND
		Class 3:		Waterbody Subtype:	
		Subclass 3:			
				Comments:	

Dominant Plant Species: GRASSES, SEDGES, SPIREA, ROYAL FERN, ALDER

Additional Plant Community Observations:

Habitat Classification:
EMERGENT PERSISTENT VEGETATION

Substrate Classification:
DETRITUS SUBSTRATE
SILT/MUCK SUBSTRATE

Average Depth: 43 cm

Sample Comments: SULFATE DILUTED DUE TO INTERFERENCES. J INDICATES O.D. @664 NM <0.1 OR > 1.0. STD METH ED 20,10200H
HEADWATER - HEAD OF INLET TO MOSHER POND

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Additional Summary Variables

Station Number: W-063 Waterbody: MOSHER POND Town: Fayette

Log Number: DN-2002-063 Subsample Factor: X1 Replicates: 3 Calculated: 12/18/2018

	Abundance	Relative Abundance	Richness	Relative Richness
EOT Taxa:	10.67	0.158	10	0.32
EPT Taxa:	7.67	0.113	6	0.19
Insects:	29.33	0.433	25	0.81
Non-Insects:	38.33	0.567	6	0.19
Leeches:	0.00	0.000	0	0.00
Oligochaetes:	5.33	0.079	2	0.06
Snails:	15.33	0.227	2	0.06
Bivalves:	1.67	0.025	1	0.03
Isopods:	0.00	0.000	0	0.00
Amphipods:	16.00	0.236	1	0.03
Mites:	0.00	0.000	0	0.00
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	2.67	0.039	3	0.10
Odonates:	3.00	0.044	4	0.13
Caddisflies:	5.00	0.074	3	0.10
Diptera:	13.00	0.192	11	0.35
Hemiptera:	4.00	0.059	2	0.06
Beetles:	1.67	0.025	2	0.06
Chironomids:	11.67	0.172	8	0.26
Tanypodinae Tribe:	6.67	0.099	3	0.10
Chironomiinae Tribe:	4.67	0.069	4	0.13
Orthoclodiinae Tribe:	0.33	0.005	1	0.03
Collector-Filterers:	4.00	0.059	3	0.10
Collector-Gatherers:	24.00	0.355	8	0.26
Predators:	12.67	0.187	10	0.32
Piercers:	0.33	0.005	1	0.03
Shredders:	6.33	0.094	3	0.10
Scrapers:	15.33	0.227	2	0.06
Maine Tolerance:				
Sensitive:	27.00	0.443	12	0.46
Intermediate:	33.67	0.552	13	0.50
Eurytopic:	0.33	0.005	1	0.04
Ratio of MTI Sensitive to Eurytopic	81.00	81.000	12.00	12.00

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Aquatic Life Taxonomic Inventory Report

Station Number: W-063 Waterbody: MOSHER POND Town: Fayette

Log Number: DN-2002-063 Subsample Factor: X1 Replicates: 3 Calculated: 12/18/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samples) Actual	Count (Mean of Samples) Adjusted	Hilsenhoff Biotic Index	Functional Feeding Group	Maine Tolerance Index	Tribe	Taxa Group
Lumbriculus	08020101002	5.00	5.00	--	CG	35-I	--	Worm
Stylaria	08020202014	0.33	0.33	--	CG	18-S	--	Worm
Hyalella	09010203006	0.00	16.00	8	CG	24.5-I	--	Amphipod
Hyalella azteca	09010203006011	16.00	0.00	--	--	--	--	Amphipod
Aeshna	09020301001	0.67	0.67	5	PR	27.9-I	--	Dragonfly/damselfly
Libellulidae	09020306	0.33	0.33	--	--	--	--	Dragonfly/damselfly
Lestes	09020308045	1.67	1.67	9	PR	32.6-I	--	Dragonfly/damselfly
Enallagma	09020309051	0.33	0.33	9	PR	26.2-I	--	Dragonfly/damselfly
Arthroplea	09020402007	1.67	1.67	5	CF	19.5-S	--	Mayfly
Siphlonurus	09020405021	0.33	0.33	7	CG	17-S	--	Mayfly
Caenis	09020412040	0.67	0.67	7	CG	22.1-I	--	Mayfly
Corixidae	09020501	3.67	3.67	--	--	--	--	True Bug
Notonectidae	09020505	0.33	0.33	--	--	--	--	True Bug
Polycentropus	09020603010	1.33	1.33	6	PR	15.4-S	--	Caddisfly
Banksiola	09020608036	0.33	0.33	--	SH	14.9-S	--	Caddisfly
Triaenodes	09020618077	3.33	3.33	6	SH	19.3-S	--	Caddisfly
Alluaudomyia	09021010038	0.33	0.33	--	PR	18-S	--	Fly: Biting Midge
Bezzia/palpomyia	09021010043	0.33	0.33	6	PR	26.9-I	--	Fly: Biting Midge
Ablabesmyia	09021011001	2.00	2.00	8	PR	23.6-I	T	Fly: Midge
Larsia	09021011009	3.00	3.00	6	PR	15.6-S	T	Fly: Midge
Procladius	09021011015	1.67	1.67	9	PR	25.1-I	T	Fly: Midge
Psectrocladius	09021011056	0.33	0.33	8	CG	22-S	--	Fly: Midge
Chironomus	09021011080	1.00	1.00	10	CG	27.4-I	C	Fly: Midge
Microtendipes	09021011094	0.67	0.67	6	CF	22.3-I	C	Fly: Midge
Paratendipes	09021011100	0.33	0.33	8	CG	20.8-S	C	Fly: Midge
Polypedilum	09021011102	2.67	2.67	6	SH	24.2-I	C	Fly: Midge
Tabanidae	09021014	0.67	0.67	--	--	--	--	Fly: Horse And Deer
Haliplus	09021101001	0.33	0.33	--	P	67.1-E	--	Beetle
Hygrotus	09021103014	1.33	1.33	--	PR	17.6-S	--	Beetle
Amnicola	10010104013	14.33	14.33	--	SC	18.7-S	--	Snail
Helisoma	10010203030	1.00	1.00	--	SC	42.8-I	--	Snail
Sphaeriidae	10020201	1.67	1.67	--	CF	--	--	Clam