

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

Station Information

Station Number: W-396	Trip ID: 2023-396	River Basin:
Waterbody: AMBAJEJUS LAKE (K1)		HUC8 Name:
Town: T01 R09 Wels		Latitude:
Mitigation Monitoring Site: No		Longitude:

Sample Information

Sample ID: KQ-2023-396	Type of Sample: KICK-QUALITATIVE	Sampling Organization: NORMANDEAU ASSOCIATES
Date Sampled: 8/15/2023	Replicates: 3	Taxonomist: NORMANDEAU ASSOCIATES
Subsample Factor: X1		

Classification Attainment

Statutory Class:	GPA	Final Determination:	C	Date: 1/3/2025
Model Result with $P \geq 0.6$:	C	Reason for Determination: Best Professional Judgement		
Date Last Calculated:	11/21/2024	Comments: Sample method not appropriate for model. Sample does meet structure and function		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A: 0.05	Class C: 0.43	Class A, B, or C	1.00
Class B: 0.51	NA: 0.00	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.57	Class A	0.05
Class C or Non-Attainment	0.43	Class B or C or Non-Attainment	0.95

Model Variables

		Reference Range (10th or 90th percentile value)
Abundance of Taxa in the Order Ephemeroptera	4.000	≥ 0.000
Relative Richness of Taxa in the Orders Ephemeroptera, Odonata and Tricoptera	0.182	≥ 0.140
Shannon-Wiener Diversity Index	3.656	≥ 2.497
Relative Abundance of Collector-Gatherer Taxa	0.789	≥ 0.131
Abundance of Sensitive Taxa	23.725	≥ 3.424
Richness of Sensitive Taxa	8.000	≥ 3.000
Maine Tolerance Index Score For Wetland Macroinvertebrates	31.388	≤ 29.776
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	0.400	≥ 0.334

Other Variables

Total Mean Abundance	174
Generic Richness:	44
Hilsenhoff Biotic Index:	6.84

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Nais</i>	30.46
2	<i>Hyalella azteca</i>	24.71
3	<i>Stylaria lacustris</i>	4.02

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

4	<i>Cladotanytarsus</i>	3.83
4	<i>Psectrocladius</i>	3.83
5	<i>Tanytarsus</i>	3.45

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

Surface Water Chemistry

Sample Date: 8/15/2023 12:56:00 PM

Collection Method	Parameter	Value	Units	Qualifier
In-situ	Dissolved Oxygen	10.34	mg/l	
In-situ	pH	6.99		
In-situ	Specific Conductance	26	us/cm	
In-situ	Temperature	21.67	deg c	

Landcover Summary - 2004 Data

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

Summary of Habitat Characteristics

<u>Human Disturbance</u>	<u>Landscape-level Cowardin Classification</u>	<u>Hydrogeomorphic Setting</u>
Total Score:	System:	Landscape Position:
Hydrologic Modifications:	Subsystem:	Lotic Gradient:
Vegetative Modifications:	Class 1:	Flow Path:
Chemical Pollutants:	Subclass 1:	Land Form:
Watershed	Class 2:	Land Form Type:
Characterization and	Subclass 2:	Waterbody Type:
Non-point Sources:	Class 3:	Waterbody Subtype:
	Subclass 3:	
		Comments:
Dominant Plant Species:		
Additional Plant Community Observations:		
Habitat Classification:	Substrate Classification:	
OPEN WATER STANDING	BOULDER SUBSTRATE	
	DETRITUS SUBSTRATE	
	GRAVEL SUBSTRATE	
	SAND SUBSTRATE	
Average Depth:	Visible Flow: No	Rain In Previous 24 Hours: No
Sample Comments:		

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

Additional Summary Variables

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Log Number: KQ-2023-396	Subsample Factor: X1	Replicates: 3
		Calculated: 11/21/2024

	Abundance	Relative Abundance	Richness	Relative Richness
EOT Taxa:	11.00	0.063	8	0.18
EPT Taxa:	9.67	0.056	7	0.16
Insects:	55.00	0.316	32	0.73
Non-Insects:	119.00	0.684	12	0.27
Leeches:	0.00	0.000	0	0.00
Oligochaetes:	69.67	0.400	7	0.16
Snails:	2.33	0.013	3	0.07
Bivalves:	4.00	0.023	1	0.02
Isopods:	0.00	0.000	0	0.00
Amphipods:	43.00	0.247	1	0.02
Mites:	0.00	0.000	0	0.00
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	4.00	0.023	4	0.09
Odonates:	1.33	0.008	1	0.02
Caddisflies:	5.67	0.033	3	0.07
Diptera:	44.00	0.253	24	0.55
Hemiptera:	0.00	0.000	0	0.00
Beetles:	0.00	0.000	0	0.00
Chironomids:	40.33	0.232	20	0.45
Tanypodinae Tribe:	3.70	0.021	3	0.07
Chironomiinae Tribe:	23.86	0.137	12	0.27
Orthoclodiinae Tribe:	12.44	0.071	4	0.09
Collector-Filterers:	10.05	0.058	2	0.05
Collector-Gatherers:	137.23	0.789	21	0.48
Predators:	10.37	0.060	8	0.18
Piercers:	3.33	0.019	1	0.02
Shredders:	0.34	0.002	1	0.02
Scrapers:	2.67	0.015	4	0.09
Maine Tolerance:				
Sensitive:	23.73	0.152	8	0.27
Intermediate:	72.50	0.466	17	0.57
Eurytopic:	59.39	0.382	5	0.17
Ratio of MTI Sensitive to Eurytopic	0.40	0.400	1.60	1.60

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

Aquatic Life Taxonomic Inventory Report

Station Number: W-396	Waterbody: AMBAJEJUS LAKE (K1)	Town: T01 R09 Wels
Log Number: KQ-2023-396	Subsample Factor: X1	Replicates: 3
		Calculated: 11/21/2024

Taxon	Maine Taxonomic Code	Count (Mean of Samples)		Hilsen- hoff Biotic Index	Func- tional Feeding Group	Maine Toler- ance Index	Tribe	Taxa Group
		Actual	Adjusted					
Oligochaeta	0802	0.67	0.67	--	--	--	--	Oligochaete
Lumbriculus	08020101002	0.00	1.33	--	CG	35-I	--	Worm
<i>Lumbriculus variegatus</i>	08020101002001	1.33	0.00	--	--	--	--	Worm
Stylodrilus	08020101004	0.00	1.33	--	--	--	--	Worm
<i>Stylodrilus heringianus</i>	08020101004001	1.33	0.00	--	--	--	--	Worm
Bratislavia	08020202003	2.67	2.67	--	--	--	--	Worm
Nais	08020202009	53.00	53.00	--	CG	43-E	--	Worm
Slavina	08020202012	0.00	3.00	--	--	4.2-S	--	Worm
<i>Slavina appendiculata</i>	08020202012001	3.00	0.00	--	--	--	--	Worm
Stylaria	08020202014	0.00	7.00	--	CG	18-S	--	Worm
<i>Stylaria lacustris</i>	08020202014002	7.00	0.00	--	--	--	--	Worm
Vejdovskyella	08020202015	0.00	0.67	--	--	13.7-S	--	Worm
<i>Vejdovskyella comata</i>	08020202015001	0.67	0.00	--	--	--	--	Worm
Hyaella	09010203006	0.00	43.00	8	CG	24.5-I	--	Amphipod
<i>Hyaella azteca</i>	09010203006011	43.00	0.00	--	--	--	--	Amphipod
Enallagma	09020309051	1.33	1.33	9	PR	26.2-I	--	Dragonfly/damselfly
Centropetium	09020401003	0.33	0.33	2	CG	--	--	Mayfly
Choroterpes	09020406022	0.33	0.33	2	CG	--	--	Mayfly
Paraleptophlebia	09020406026	0.33	0.33	1	CG	--	--	Mayfly
Caenis	09020412040	3.00	3.00	7	CG	22.1-I	--	Mayfly
Oxyethira	09020607028	3.33	3.33	3	P	22-S	--	Caddisfly
Psilotreta	09020614068	0.33	0.33	0	SC	--	--	Caddisfly
Oecetis	09020618078	2.00	2.00	8	PR	16.3-S	--	Caddisfly
Dasyhelea	09021010036	0.33	0.33	--	CG	30.6-I	--	Fly: Biting Midge
Probezzia	09021010041	1.33	1.33	6	PR	28.6-I	--	Fly: Biting Midge
Mallochohelea	09021010047	1.33	1.33	--	PR	--	--	Fly: Biting Midge
Chironomidae	09021011	0.33	0.00	--	--	--	--	Fly: Midge
Ablabesmyia	09021011001	1.00	3.03	8	PR	23.6-I	T	Fly: Midge
<i>Ablabesmyia mallochii</i>	09021011001004	1.67	0.00	--	--	--	T	Fly: Midge
<i>Ablabesmyia aspera</i>	09021011001012	0.33	0.00	--	--	--	T	Fly: Midge
Paramerina	09021011013	0.33	0.34	--	--	29.3-I	T	Fly: Midge
Thienemannimyia	09021011020	0.00	0.34	3	PR	--	T	Fly: Midge
<i>Thienemannimyia group</i>	09021011020041	0.33	0.00	--	--	--	T	Fly: Midge
Potthastia	09021011026	0.00	0.34	2	CG	--	D	Fly: Midge
<i>Potthastia longimana</i>	09021011026046	0.33	0.00	--	--	--	D	Fly: Midge

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Taxon	Maine Taxonomic Code	Count (Mean of Samples)		Hilsen- hoff Biotic Index	Func- tional Feeding Group	Maine Toler- ance Index	Tribe	Taxa Group
		Actual	Adjusted					
Corynoneura	09021011036	0.33	0.34	7	CG	40.1-I	--	Fly: Midge
Heterotrissocladius	09021011044	5.00	5.04	0	CG	--	--	Fly: Midge
Nanocladius	09021011049	0.33	0.34	3	CG	14.1-S	--	Fly: Midge
Psectrocladius	09021011056	6.67	6.72	8	CG	22-S	--	Fly: Midge
Cladotanytarsus	09021011068	6.67	6.72	7	CG	22.2-I	Y	Fly: Midge
Micropsectra	09021011070	1.00	1.01	7	CG	98.1-E	Y	Fly: Midge
Paratanytarsus	09021011071	1.00	1.01	6	--	43-E	Y	Fly: Midge
Tanytarsus	09021011076	6.00	6.05	6	CF	25.7-I	Y	Fly: Midge
Pseudochironomus	09021011078	4.00	4.03	5	CG	47.7-E	S	Fly: Midge
Cryptochironomus	09021011082	0.00	0.67	8	PR	31.3-I	C	Fly: Midge
<i>Cryptochironomus fulvus</i>	09021011082144	0.67	0.00	--	--	--	C	Fly: Midge
Dicrotendipes	09021011085	2.33	2.35	8	CG	28.8-I	C	Fly: Midge
Harnischia	09021011090	0.67	0.67	8	CG	--	C	Fly: Midge
Parachironomus	09021011097	0.33	0.34	10	PR	28.6-I	C	Fly: Midge
Phaenopsectra	09021011101	0.00	0.34	7	SC	44.2-E	C	Fly: Midge
<i>Phaenopsectra obediens</i>	09021011101182	0.33	0.00	--	SC	--	C	Fly: Midge
Polypedilum	09021011102	0.00	0.34	6	SH	24.2-I	C	Fly: Midge
<i>Polypedilum flavum</i>	09021011102182	0.33	0.00	--	--	--	C	Fly: Midge
Stictochironomus	09021011106	0.00	0.34	9	CG	--	C	Fly: Midge
<i>Stictochironomus devinctus</i>	09021011106197	0.33	0.00	--	--	--	C	Fly: Midge
Chrysops	09021014052	0.67	0.67	6	CG	20.7-S	--	Fly: Horse And Deer
Gyraulus	10010203029	1.00	1.00	--	SC	37.2-I	--	Snail
Helisoma	10010203030	1.00	1.00	--	SC	42.8-I	--	Snail
Menetus	10010203031	0.00	0.33	--	--	--	--	Snail
<i>Menetus dilatatus</i>	10010203031059	0.33	0.00	--	--	--	--	Snail
Pisidium	10020201002	4.00	4.00	--	CF	--	--	Clam