

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

Station Information

Station Number: W-371	Trip ID: 2022-371	River Basin: Penobscot
Waterbody: CHESUNCOOK LAKE (K2)		HUC8 Name: West Branch Penobscot
Town: T03 R13 Wels		Latitude: 45° 55' 35.616" N
Mitigation Monitoring Site: No		Longitude: 69° 19' 40.584" W

Sample Information

Sample ID: KQ-2022-371	Type of Sample: KICK-QUALITATIVE	Sampling Organization: NORMANDEAU ASSOCIATES
Date Sampled: 8/2/2022	Replicates: 3	Taxonomist: NORMANDEAU ASSOCIATES
Subsample Factor: X1		

Classification Attainment

Statutory Class:	GPA	Final Determination:	NA	Date: 12/20/2023
Model Result with $P \geq 0.6$:	I	Reason for Determination: Best Professional Judgement		
Date Last Calculated:	12/20/2023	Comments: Sample method not appropriate for model. Sample does not meet structure and function due to low richness, lack of EOT taxa and quantity of eurytopic taxa.		

Model Probabilities

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

Model Variables

		Reference Range (10th or 90th percentile value)
Abundance of Taxa in the Order Ephemeroptera	0.000	≥ 0.000
Relative Richness of Taxa in the Orders Ephemeroptera, Odonata and Tricoptera	0.000	≥ 0.140
Shannon-Wiener Diversity Index	1.557	≥ 2.497
Relative Abundance of Collector-Gatherer Taxa	0.225	≥ 0.131
Abundance of Sensitive Taxa	22.667	≥ 3.424
Richness of Sensitive Taxa	1.000	≥ 3.000
Maine Tolerance Index Score For Wetland Macroinvertebrates	35.906	≤ 29.776
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	0.325	≥ 0.334

Other Variables

Total Mean Abundance	108
Generic Richness:	8
Hilsenhoff Biotic Index:	6.62

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Paratanytarsus</i>	63.38
2	<i>Psectrocladius</i>	20.92

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3	<i>Ablabesmyia</i>	9.54
4	<i>Tanytarsus</i>	4.00
5	<i>Nais</i>	0.92

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Surface Water Chemistry

Sample Date: 8/2/2022 12:45:00 PM

Collection Method	Parameter	Value	Units	Qualifier
In-situ	Dissolved Oxygen	9.3	mg/l	
In-situ	Dissolved Oxygen Saturation	111	%	
In-situ	pH	6.86		
In-situ	Specific Conductance	27.9	us/cm	
In-situ	Temperature	24.5	deg c	

Landcover Summary - 2004 Data

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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:
BOULDER SUBSTRATE
GRAVEL SUBSTRATE
SAND SUBSTRATE
SILT/MUCK SUBSTRATE

Average Depth:

Sample Comments:

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Additional Summary Variables

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		Calculated: 12/20/2023

	Abundance	Relative Abundance	Richness	Relative Richness
EOT Taxa:	0.00	0.000	0	0.00
EPT Taxa:	0.00	0.000	0	0.00
Insects:	107.33	0.991	7	0.88
Non-Insects:	1.00	0.009	1	0.13
Leeches:	0.00	0.000	0	0.00
Oligochaetes:	1.00	0.009	1	0.13
Snails:	0.00	0.000	0	0.00
Bivalves:	0.00	0.000	0	0.00
Isopods:	0.00	0.000	0	0.00
Amphipods:	0.00	0.000	0	0.00
Mites:	0.00	0.000	0	0.00
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	0.00	0.000	0	0.00
Odonates:	0.00	0.000	0	0.00
Caddisflies:	0.00	0.000	0	0.00
Diptera:	107.33	0.991	7	0.88
Hemiptera:	0.00	0.000	0	0.00
Beetles:	0.00	0.000	0	0.00
Chironomids:	107.00	0.988	6	0.75
Tanypodinae Tribe:	10.33	0.095	1	0.13
Chironomiinae Tribe:	73.67	0.680	3	0.38
Orthoclodiinae Tribe:	23.00	0.212	2	0.25
Collector-Filterers:	5.00	0.046	2	0.25
Collector-Gatherers:	24.33	0.225	4	0.50
Predators:	10.33	0.095	1	0.13
Piercers:	0.00	0.000	0	0.00
Shredders:	0.00	0.000	0	0.00
Scrapers:	0.00	0.000	0	0.00
Maine Tolerance:				
Sensitive:	22.67	0.210	1	0.14
Intermediate:	15.67	0.145	4	0.57
Eurytopic:	69.67	0.645	2	0.29
Ratio of MTI Sensitive to Eurytopic	0.33	0.325	0.50	0.50

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Aquatic Life Taxonomic Inventory Report

Station Number: W-371	Waterbody: CHESUNCOOK LAKE (K2)	Town: T03 R13 Wels
Log Number: KQ-2022-371	Subsample Factor: X1	Replicates: 3
		Calculated: 12/20/2023

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					
Nais	08020202009	1.00	1.00	--	CG	43-E	--	Worm
Atrichopogon	09021010034	0.33	0.33	--	CG	--	--	Fly: Biting Midge
Ablabesmyia	09021011001	10.33	10.33	8	PR	23.6-I	T	Fly: Midge
Corynoneura	09021011036	0.33	0.33	7	CG	40.1-I	--	Fly: Midge
Psectrocladius	09021011056	22.67	22.67	8	CG	22-S	--	Fly: Midge
Paratanytarsus	09021011071	68.67	68.67	6	--	43-E	Y	Fly: Midge
Tanytarsus	09021011076	4.33	4.33	6	CF	25.7-I	Y	Fly: Midge
Microtendipes	09021011094	0.00	0.67	6	CF	22.3-I	C	Fly: Midge
<i>Microtendipes pedellus group</i>	09021011094166	0.67	0.00	--	--	--	C	Fly: Midge