THE DISTRICT MUNICIPALITY OF MUSKOKA

Aquatic Invertebrate Data Sheet
Leonard Lake
Township of Muskoka Lakes

Common Name	Site 1[R]								Scientific Name
	2005	2006	2010	2011	2014	2021	2023	2024	
Hydras									Coelenterata
Flatworms	8	15	4		4	1		3	Turbellaria
Roundworms	7	7			3	3		7	Nematoda
Aquatic Earthworms	1	16	8	5	16	2	5		Oligochaeta
Leeches	2	2		7	2				Hirudinaea
Sow Bugs					12		21		Isopoda
Clams & Mussels	17	3	3	2	5			15	Bivalvia
Scuds	161	158	166	92	105	66	21	14	Amphipoda
Crayfish									Decapoda
Mites	11	4	16	12	31		10	17	Hydracarina
Mayflies	5	19	24	8	39	8	6	2	Ephemeroptera
Dragonflies	36	17	28	23	39	6	23	9	Anisoptera
Damselflies	8	19	19	13	12	1	9	5	Zygoptera
Stoneflies				1					Plecoptera
True Bugs				2	2				Hemiptera
Fishflies & Alderflies					9				Megaloptera
Caddisflies	10	9	23	9	31	4	3	1	Trichoptera
Aquatic Moths			1						Lepidoptera
Beetles	22	10	18		15				Coleoptera
Snails & Limpets	14	15	8	1	10	1	2	13	Gastropoda
Midges	37	29	77	33	61	8	10	21	Chironomidae
Horse & Deer Flies									Tabanidae
Mosquitos	1								Culicidae
No-see-ums	6		4	2	7	1		3	Ceratopogonidae
Craneflies									Tipulidae
Blackflies									Simuliidae
Misc. True Flies					7				Misc. Diptera
Total Count	346	323	399	210	410	101	110	110	
Number of Taxa	16	14	14	14	19	11	10	12	
									Muskoka Average *
Richness	16	14	14	14	19	11	10	12	**13**
% EOT	17	20	24	25	29	19	37	15	**17**
% Chironomids	11	9	19	16	15	8	9	19	**8**
% Predators	27	21	22	29	30	9	38	34	**24**
% Shredders	3	3	6	4	8	4	3	1	**2**
% Collectors/Gatherers	60	69	69	66	58	83	57	34	**68**
Hilsenhoff Index	5.68	5.98	5.96	6.09	5.87	5.87	6.35	6.39	**6.27**

R = Reference Site

* The Muskoka Average is based on 228 samples collected at 94 reference sites between 2013 and 2023. Data prior to 2021 is based on three subsamples (min. 300 count) per site while data from 2021 on is based on one sample (min. 100 count) per site.

THE DISTRICT MUNICIPALITY OF MUSKOKA

Aquatic Invertebrate Data Sheet

Leonard Lake

Township of Muskoka Lakes

Common Name	Site 2[R]						Scientific Name
	2007	2008	2012	2015	2017	2022	
Hydras							Coelenterata
Flatworms	5	1	10	9	1	12	Turbellaria
Roundworms						30	Nematoda
Aquatic Earthworms	10	2	11	14	4		Oligochaeta
Leeches			2	1			Hirudinaea
Sow Bugs			1	45	1	3	Isopoda
Clams & Mussels	1		33				Bivalvia
Scuds	219	71	22	51	31	5	Amphipoda
Crayfish							Decapoda
Mites	10	152	27	19	121	8	Hydracarina
Mayflies	2	1	20	5	15	7	Ephemeroptera
Dragonflies	71	9	60	5	3	9	Anisoptera
Damselflies	26	42	76	10		10	Zygoptera
Stoneflies							Plecoptera
True Bugs							Hemiptera
Fishflies & Alderflies							Megaloptera
Caddisflies	1	15	27	19	12	5	Trichoptera
Aquatic Moths			2				Lepidoptera
Beetles		7	15	12	7	1	Coleoptera
Snails & Limpets	7		25		2	2	Gastropoda
Midges	41	23	78	19	16	5	Chironomidae
Horse & Deer Flies	1				2		Tabanidae
Mosquitos		1					Culicidae
No-see-ums	3	4		3	1	4	Ceratopogonidae
Craneflies		6					Tipulidae
Blackflies		1					Simuliidae
Misc. True Flies			1			1	Misc. Diptera
Total Count	397	335	410	212	216	102	
Number of Taxa	13	14	16	13	13	14	
							Muskoka Average *
Richness	12	14	16	13	13	14	**13**
% EOT	25	20	45	18	14	30	**17**
% Chironomids	10	7	19	9	7	5	**8**
% Predators	29	64	46	28	62	43	**24**
% Shredders	0	6	7	9	6	5	**2**
% Collectors/Gatherers	69	29	32	63	31	21	**68**
Hilsenhoff Index	6.01	5.99	6.21	6.28	5.87	5.41	**6.27**

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THE DISTRICT MUNICIPALITY OF MUSKOKA

Aquatic Invertebrate Data Sheet

Leonard Lake

Township of Muskoka Lakes

Common Name	Site 3[R] 2023	Scientific Name
Hydras		Coelenterata
Flatworms	1	Turbellaria
Roundworms	2	Nematoda
Aquatic Earthworms	2	Oligochaeta
Leeches		Hirudinaea
Sow Bugs	1	Isopoda
Clams & Mussels	1	Bivalvia
Scuds	19	Amphipoda
Crayfish		Decapoda
Mites	10	Hydracarina
Mayflies	10	Ephemeroptera
Dragonflies	12	Anisoptera
Damselflies	5	Zygoptera
Stoneflies		Plecoptera
True Bugs		Hemiptera
Fishflies & Alderflies		Megaloptera
Caddisflies	9	Trichoptera
Aquatic Moths		Lepidoptera
Beetles		Coleoptera
Snails & Limpets	5	Gastropoda
Midges	10	Chironomidae
Horse & Deer Flies		Tabanidae
Mosquitos		Culicidae
No-see-ums	2	Ceratopogonidae
Craneflies		Tipulidae
Blackflies		Simuliidae
Misc. True Flies		Misc. Diptera
Total Count	89	
Number of Taxa	14	
		Muskoka Average *
Richness	14	**13**
% EOT	40	**17**
% Chironomids	11	**8**
% Predators	34	**24**
% Shredders	10	**2**
% Collectors/Gatherers	47	**68**
Hilsenhoff Index	5.82	**6.27**

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THE DISTRICT MUNICIPALITY OF MUSKOKA

Aquatic Invertebrate Data Sheet

Leonard Lake

Township of Muskoka Lakes

Common Name	Site 4 2023	Scientific Name
Hydras		Coelenterata
Flatworms		Turbellaria
Roundworms	1	Nematoda
Aquatic Earthworms	2	Oligochaeta
Leeches		Hirudinaea
Sow Bugs	18	Isopoda
Clams & Mussels		Bivalvia
Scuds	32	Amphipoda
Crayfish		Decapoda
Mites	37	Hydracarina
Mayflies	12	Ephemeroptera
Dragonflies	10	Anisoptera
Damselflies	3	Zygoptera
Stoneflies		Plecoptera
True Bugs	1	Hemiptera
Fishflies & Alderflies	1	Megaloptera
Caddisflies		Trichoptera
Aquatic Moths		Lepidoptera
Beetles		Coleoptera
Snails & Limpets	5	Gastropoda
Midges	5	Chironomidae
Horse & Deer Flies		Tabanidae
Mosquitos		Culicidae
No-see-ums	3	Ceratopogonidae
Craneflies		Tipulidae
Blackflies		Simuliidae
Misc. True Flies		Misc. Diptera
Total Count	130	
Number of Taxa	13	
		Muskoka Average *
Richness	13	**13**
% EOT	19	**17**
% Chironomids	4	**8**
% Predators	42	**24**
% Shredders	0	**2**
% Collectors/Gatherers	53	**68**
Hilsenhoff Index	6.21	**6.27**

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THE DISTRICT MUNICIPALITY OF MUSKOKA

Aquatic Invertebrate Data Sheet

Leonard Lake

Township of Muskoka Lakes

Common Name	Site 5 2025	Scientific Name
Hydras		Coelenterata
Flatworms	2	Turbellaria
Roundworms	5	Nematoda
Aquatic Earthworms		Oligochaeta
Leeches		Hirudinaea
Sow Bugs		Isopoda
Clams & Mussels		Bivalvia
Scuds	15	Amphipoda
Crayfish		Decapoda
Mites	29	Hydracarina
Mayflies	15	Ephemeroptera
Dragonflies	7	Anisoptera
Damselflies	14	Zygoptera
Stoneflies		Plecoptera
True Bugs		Hemiptera
Fishflies & Alderflies		Megaloptera
Caddisflies		Trichoptera
Aquatic Moths		Lepidoptera
Beetles		Coleoptera
Snails & Limpets	2	Gastropoda
Midges	9	Chironomidae
Horse & Deer Flies		Tabanidae
Mosquitos		Culicidae
No-see-ums	13	Ceratopogonidae
Craneflies		Tipulidae
Blackflies		Simuliidae
Misc. True Flies		Misc. Diptera
Total Count	111	
Number of Taxa	10	
		Muskoka Average *
Richness	10	**13**
% EOT	32	**17**
% Chironomids	8	**8**
% Predators	59	**24**
% Shredders	0	**2**
% Collectors/Gatherers	35	**68**
Hilsenhoff Index	5.97	**6.27**

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