THE DISTRICT MUNICIPALITY OF MUSKOKA

Aquatic Invertebrate Data Sheet

Lake Vernon - Camp Tawingo

Town of Huntsville

Common Name	Site 1[R]									Scientific Name
	2009	2010	2014	2015	2017	2019	2022	2024	2025	
Hydras					1					Coelenterata
Flatworms				6		2			1	Turbellaria
Roundworms			2	1	2	2	14		2	Nematoda
Aquatic Earthworms	5	6	4	45	57	11	1	18	1	Oligochaeta
Leeches					1	2		3		Hirudinaea
Sow Bugs				18	6	16	9	54	6	Isopoda
Clams & Mussels			4	1	1	3		11		Bivalvia
Scuds	286	212	332	74	148	158	65	52	14	Amphipoda
Crayfish										Decapoda
Mites	8	35	13	7	2	11	2	10	66	Hydracarina
Mayflies	10	10		3	3	35	1	3	4	Ephemeroptera
Dragonflies			4	1	1				1	Anisoptera
Damselflies	6	3	5		1	4		2	1	Zygoptera
Stoneflies						1				Plecoptera
True Bugs										Hemiptera
Fishflies & Alderflies			1	1					1	Megaloptera
Caddisflies	10	4	24	6	1	6	1			Trichoptera
Aquatic Moths									1	Lepidoptera
Beetles	3		1		17	1		2		Coleoptera
Snails & Limpets		24	24	17			1			Gastropoda
Midges	7	39	93	89	10	16	42	13	6	Chironomidae
Horse & Deer Flies			1			1				Tabanidae
Mosquitos			1	3						Culicidae
No-see-ums		1	7	4		5			4	Ceratopogonidae
Craneflies			1	2		2				Tipulidae
Blackflies				1	1					Simuliidae
Misc. True Flies		1		2		2				Misc. Diptera
Total Count	335	335	517	281	252	278	136	168	108	
Number of Taxa	8	10	16	18	15	18	9	10	13	
										Muskoka Average *
Richness	8	10	16	18	17	18	9	10	13	**13**
% EOT	8	5	8	4	2	16	1	3	6	**17**
% Chironomids	2	12	17	32	19	6	31	8	6	**8**
% Predators	5	12	6	7	8	10	1	10	69	**24**
% Shredders	3	1	5	3	0	3	1	0	1	**2**
% Collectors/Gatherers	92	80	83	83	82	86	87	83	29	**68**
Hilsenhoff Index	5.96	6.18	6.45	6.68	6.4	6.06	6.34	7.07	6.69	**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

Lake Vernon - Camp Tawingo

Town of Huntsville

Common Name	Site 2[R]									Scientific Name
	2011	2012	2013	2016	2018	2021	2023	2024	2025	
Hydras										Coelenterata
Flatworms		4						2		Turbellaria
Roundworms		1		1	4		2		2	Nematoda
Aquatic Earthworms	22	46	3	54	28	3	2	4	1	Oligochaeta
Leeches	1									Hirudinaea
Sow Bugs	1		1		24			23	1	Isopoda
Clams & Mussels	2	2	2	1			2	13	7	Bivalvia
Scuds	161	222	210	112	80	9	93	30	52	Amphipoda
Crayfish										Decapoda
Mites	53	23	13	8	10	6	2	19	31	Hydracarina
Mayflies	20	15	5	3	5		2	20	3	Ephemeroptera
Dragonflies	5	4	5	1	1		1	13	3	Anisoptera
Damselflies	9	8	3	2	3		3	4	4	Zygoptera
Stoneflies					2					Plecoptera
True Bugs	3									Hemiptera
Fishflies & Alderflies	1		4	2	2			4	5	Megaloptera
Caddisflies	72	27	8	2	2	4	1	2		Trichoptera
Aquatic Moths							1			Lepidoptera
Beetles	1	5	1	1	1					Coleoptera
Snails & Limpets	7	3	1	7	5		13	1	1	Gastropoda
Midges	135	178	37	151	25	5	17	4	11	Chironomidae
Horse & Deer Flies	1	3		3						Tabanidae
Mosquitos	1		1							Culicidae
No-see-ums	5	23	11	16	4	5	1	1	3	Ceratopogonidae
Craneflies										Tipulidae
Blackflies							1			Simuliidae
Misc. True Flies	2	2								Misc. Diptera
Total Count	502	566	305	364	196	32	141	140	124	
Number of Taxa	19	16	15	15	15	6	14	14	13	
										Muskoka Average *
Richness	19	16	15	15	13	6	14	14	13	**13**
% EOT	21	10	7	2	6	13	5	28	8	**17**
% Chironomids	27	31	13	42	13	16	12	3	9	**8**
% Predators	16	12	11	9	6	34	5	31	37	**24**
% Shredders	14	5	3	1	1	13	1	1	0	**2**
% Collectors/Gatherers	68	82	86	88	83	53	81	58	55	**68**
Hilsenhoff Index	6.06	6.36	6.06	6.73	6.26	6.09	6.24	6.29	5.90	**6.27**

* 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

Lake Vernon - Camp Tawingo

Town of Huntsville

Common Name	Site 3[R] 2025	Scientific Name
Hydras		Coelenterata
Flatworms		Turbellaria
Roundworms	2	Nematoda
Aquatic Earthworms	2	Oligochaeta
Leeches		Hirudinaea
Sow Bugs	4	Isopoda
Clams & Mussels	3	Bivalvia
Scuds	49	Amphipoda
Crayfish		Decapoda
Mites	54	Hydracarina
Mayflies	1	Ephemeroptera
Dragonflies		Anisoptera
Damselflies	1	Zygoptera
Stoneflies		Plecoptera
True Bugs		Hemiptera
Fishflies & Alderflies		Megaloptera
Caddisflies		Trichoptera
Aquatic Moths		Lepidoptera
Beetles		Coleoptera
Snails & Limpets	2	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	130	
Number of Taxa	11	
		Muskoka Average *
Richness	11	**13**
% EOT	2	**17**
% Chironomids	8	**8**
% Predators	44	**24**
% Shredders	0	**2**
% Collectors/Gatherers	51	**68**
Hilsenhoff Index	5.94	**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

Lake Vernon - Hunter's Bay

Town of Huntsville

Common Name	Site 1[R]			Scientific Name
	2022	2023	2024	
Hydras				Coelenterata
Flatworms			3	Turbellaria
Roundworms	16	1	9	Nematoda
Aquatic Earthworms	1	17	8	Oligochaeta
Leeches		3		Hirudinaea
Sow Bugs	50	40	28	Isopoda
Clams & Mussels				Bivalvia
Scuds	73	32	22	Amphipoda
Crayfish				Decapoda
Mites	5		45	Hydracarina
Mayflies	3	6	3	Ephemeroptera
Dragonflies				Anisoptera
Damselflies			1	Zygoptera
Stoneflies				Plecoptera
True Bugs				Hemiptera
Fishflies & Alderflies		1		Megaloptera
Caddisflies		3		Trichoptera
Aquatic Moths				Lepidoptera
Beetles		1	3	Coleoptera
Snails & Limpets	1	4	6	Gastropoda
Midges	6	2	3	Chironomidae
Horse & Deer Flies				Tabanidae
Mosquitos				Culicidae
No-see-ums			3	Ceratopogonidae
Craneflies				Tipulidae
Blackflies				Simuliidae
Misc. True Flies				Misc. Diptera
Total Count	155	110	134	
Number of Taxa	8	11	12	
				Muskoka Average *
Richness	8	11	12	**13**
% EOT	2	6	3	**17**
% Chironomids	4	2	2	**8**
% Predators	3	10	41	**24**
% Shredders	0	3	0	**2**
% Collectors/Gatherers	86	88	48	**68**
Hilsenhoff Index	6.58	6.99	6.43	**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
Lake Vernon - Hunter's Bay
Town of Huntsville

Common Name	Site 2			Scientific Name
	2022	2024	2025	
Hydras				Coelenterata
Flatworms			1	Turbellaria
Roundworms		1		Nematoda
Aquatic Earthworms	1	4	1	Oligochaeta
Leeches				Hirudinaea
Sow Bugs	15	58	21	Isopoda
Clams & Mussels			3	Bivalvia
Scuds	57	44	27	Amphipoda
Crayfish				Decapoda
Mites	12	11	36	Hydracarina
Mayflies	13	1	1	Ephemeroptera
Dragonflies	1		3	Anisoptera
Damselflies			3	Zygoptera
Stoneflies				Plecoptera
True Bugs	1			Hemiptera
Fishflies & Alderflies				Megaloptera
Caddisflies	1	2	4	Trichoptera
Aquatic Moths				Lepidoptera
Beetles			2	Coleoptera
Snails & Limpets	2	12	4	Gastropoda
Midges	2	4	3	Chironomidae
Horse & Deer Flies				Tabanidae
Mosquitos			1	Culicidae
No-see-ums			10	Ceratopogonidae
Craneflies			1	Tipulidae
Blackflies				Simuliidae
Misc. True Flies				Misc. Diptera
Total Count	105	137	121	
Number of Taxa	10	9	16	
				Muskoka Average *
Richness	10	9	16	**13**
% EOT	14	2	9	**17**
% Chironomids	2	3	2	**8**
% Predators	13	8	45	**24**
% Shredders	1	1	4	**2**
% Collectors/Gatherers	84	81	45	**68**
Hilsenhoff Index	6.18	6.98	6.01	**6.27**

* 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
Lake Vernon - Hunter's Bay
Town of Huntsville

Common Name	Site 3			Scientific Name
	2023	2024	2025	
Hydras				Coelenterata
Flatworms			2	Turbellaria
Roundworms	6	40		Nematoda
Aquatic Earthworms	20	23	1	Oligochaeta
Leeches			2	Hirudinaea
Sow Bugs	18	18	18	Isopoda
Clams & Mussels				Bivalvia
Scuds	57	36	20	Amphipoda
Crayfish				Decapoda
Mites		2	35	Hydracarina
Mayflies	2	2	6	Ephemeroptera
Dragonflies				Anisoptera
Damselflies	1	1	5	Zygoptera
Stoneflies				Plecoptera
True Bugs				Hemiptera
Fishflies & Alderflies	1			Megaloptera
Caddisflies				Trichoptera
Aquatic Moths				Lepidoptera
Beetles	1	1	2	Coleoptera
Snails & Limpets	5	15	1	Gastropoda
Midges		2	6	Chironomidae
Horse & Deer Flies				Tabanidae
Mosquitos				Culicidae
No-see-ums		3	30	Ceratopogonidae
Craneflies				Tipulidae
Blackflies				Simuliidae
Misc. True Flies				Misc. Diptera
Total Count	111	143	128	
Number of Taxa	9	11	12	
				Muskoka Average *
Richness	9	11	12	**13**
% EOT	3	2	9	**17**
% Chironomids	0	1	5	**8**
% Predators	3	5	59	**24**
% Shredders	0	0	0	**2**
% Collectors/Gatherers	86	57	40	**68**
Hilsenhoff Index	6.63	6.39	5.97	**6.27**

* 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

Lake Vernon - Hunter's Bay

Town of Huntsville

Common Name	Site 4			Scientific Name
	2023	2024	2025	
Hydras				Coelenterata
Flatworms			2	Turbellaria
Roundworms				Nematoda
Aquatic Earthworms	12	1		Oligochaeta
Leeches	5		1	Hirudinaea
Sow Bugs	30	31	35	Isopoda
Clams & Mussels		3		Bivalvia
Scuds	28	55	30	Amphipoda
Crayfish				Decapoda
Mites		7	17	Hydracarina
Mayflies	5	4	3	Ephemeroptera
Dragonflies		1		Anisoptera
Damselflies	3	2	4	Zygoptera
Stoneflies				Plecoptera
True Bugs				Hemiptera
Fishflies & Alderflies				Megaloptera
Caddisflies	9			Trichoptera
Aquatic Moths		1	1	Lepidoptera
Beetles		7	7	Coleoptera
Snails & Limpets	4	6	5	Gastropoda
Midges	4	3	3	Chironomidae
Horse & Deer Flies				Tabanidae
Mosquitos				Culicidae
No-see-ums		1		Ceratopogonidae
Craneflies				Tipulidae
Blackflies				Simuliidae
Misc. True Flies			1	Misc. Diptera
Total Count	100	122	109	
Number of Taxa	9	13	12	
				Muskoka Average *
Richness	9	13	12	**13**
% EOT	17	6	6	**17**
% Chironomids	4	2	3	**8**
% Predators	8	15	28	**24**
% Shredders	9	1	1	**2**
% Collectors/Gatherers	79	77	66	**68**
Hilsenhoff Index	6.82	6.51	6.19	**6.27**

* 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.