

Table 1: Water chemistry data from Lake Joondalup over multiple sampling years.

Year	Temperature (°C)	pH	Salinity (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (%)	Phosphates (Ppm/mgL)	Petroleum (mg/L)	Nitrates (Ppm/mgL)
1999	21.1	8.5	2.8	5	102	.05	1.2	.05
2001	21.4	8.6	2.7	6	100	.04	1.1	.04
2004	24	8.4	2.9	5	103	.05	1.3	.04
2007	22.1	8.7	2.8	6	102	.05	1.2	.05
2010	22.6	6.5	3.1	12	89	.07	2.9	.07
2013	23.2	7.1	3.3	12	91	.06	3.0	.06
2016	23.9	7.4	3.4	13	92	.07	2.9	.08
2019	24.2	7.9	3.3	13	95	.07	3.1	.06

Table 2: Macroinvertebrate species diversity, abundance and pollution tolerance levels during sampling years.

Macroinvertebrate	Classification	Disturbance Tolerance Level	Species Abundance and Diversity Per Year							
			1998	2001	2004	2007	2010	2013	2016	2019
Stonefly Nymph	Plecoptera	Very sensitive	75	70	56	50	0	0	10	11
Mayfly Nymph	Ephemeroptera	Very sensitive	28	30	23	18	0	0	0	8
Damselfly Nymph	Odonata	Tolerant	57	49	45	56	0	34	45	63
Freshwater Shrimp	Decapoda	Very tolerant	87	82	90	93	70	78	85	98
Leech	Hirudinea	Very tolerant	5	6	5	7	6	5	5	6
Freshwater Snail	Gastropoda	Very tolerant	23	29	23	25	12	15	18	20
Water mite	Acarina	Sensitive	13	15	16	17	0	0	0	2
Water Boatman	Corixidae	Very tolerant	49	45	56	60	103	95	86	79
Dragonfly Nymph	Odonata	Tolerant	31	35	34	42	0	4	18	14
Caddisfly Larvae	Trichoptera	Very sensitive	18	16	21	19	0	1	2	0
Biting Midge Larvae	Ceratopogonidae	Tolerant	42	48	52	36	0	0	0	0
Freshwater Mussel	Bivalvia	Tolerant	3	2	5	3	0	2	1	3
Springtail	Collembola	Very tolerant	17	23	12	16	34	31	37	45
Flatworm	Turbellaria	Very tolerant	13	16	14	10	12	13	10	16
Ostracod	Ostracoda	Sensitive	7	3	1	2	0	0	2	6
Crane Fly Larvae	Tipulidae	Tolerant	6	9	8	6	0	2	6	8