

Monitoring biological and chemical trends in temperate still waters using citizen science

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Table S1. Site summaries for ponds and lakes included within the analysis.

Row Labels	Area	Urban	Latitude	Longitude	City	Country	Continent
Cron Pond 3	31253	N	−34.0326	151.1671	Sydney	Australia	Oceania
Deep Creek Pond	6796	N	−33.9044	150.9593	Sydney	Australia	Oceania
Warriwood 2	5132	N	−33.6949	151.2946	Sydney	Australia	Oceania
St. Davids – Warner Rd.	9205	N	43.15591	−79.1059	Saint Catharines	Canada	North America
Burlington ON – Sunmill Cres.	2529	N	43.40425	−79.7807	Toronto	Canada	North America
Grenadier Pond, High Park, Toronto	349445	Y	43.64559	−79.4681	Toronto	Canada	North America
High Park – Spring Creek	3791	Y	43.65286	−79.4664	Toronto	Canada	North America
Toogood Pond	67048	N	43.87244	−79.3158	Toronto	Canada	North America
Etang de Longchamps	15416	Y	48.83125	2.231453	Paris	France	Europe
Aramco Pond of Life (Crown Plaza)	81685	Y	52.09844	4.289529	The Hague	Netherlands	Europe
Central Station NWP pond	43074	Y	52.08451	4.32302	The Hague	Netherlands	Europe
Clingendael 1	25372	N	52.10084	4.333446	The Hague	Netherlands	Europe
POND 2 C16	8497	Y	52.09532	4.313513	The Hague	Netherlands	Europe
Te Werve Rijswijk	249543	Y	52.04585	4.322223	The Hague	Netherlands	Europe
Wilheminapark, Rijswijk	109278	N	52.0281	4.328252	The Hague	Netherlands	Europe
Bank House Farm	21607	N	52.52494	−2.28272	Birmingham	United Kingdom	Europe
Beechwater, Leasowes	5779	Y	52.45521	−2.02902	Birmingham	United Kingdom	Europe
Highgate Common	1235	N	52.50384	−2.24051	Birmingham	United Kingdom	Europe
Priory pool, Leasowes	21407	N	52.45228	−2.03741	Birmingham	United Kingdom	Europe
Sanders Park pond	7448	N	52.3348	−2.07046	Birmingham	United Kingdom	Europe
Shawbirch Pond, Telford	16868	N	52.72021	−2.52814	Birmingham	United Kingdom	Europe
Tee Lake, Telford	48607	N	52.71358	−2.53091	Birmingham	United Kingdom	Europe
Garden Pond St Michaels Lane Leeds	10	Y	53.8112	−1.5838	Leeds	United Kingdom	Europe

Golden Acre Park	54942	N	53.86944	-1.59093	Leeds	United Kingdom	Europe
Paul's pond – Breary Marsh	48591	N	53.86317	-1.59461	Leeds	United Kingdom	Europe
Pond Between Brookfield Road and Meanwood Beck	77	Y	53.80555	-1.57165	Leeds	United Kingdom	Europe
WGDC Pond	714	N	53.70366	-1.37766	Leeds	United Kingdom	Europe
YSP Bath Wood Upper Lake	132959	N	53.60652	-1.57978	Leeds	United Kingdom	Europe
Bardag Lake	50696	Y	51.55029	0.17925	London	United Kingdom	Europe
Blackheath Pond (Prince and Princess of Wales)	5879	Y	51.44303	0.04089	London	United Kingdom	Europe
Bradmore Green Pond	2963	N	51.30886	-0.12362	London	United Kingdom	Europe
Cable Street Community Gardens – Bike Pond	26	Y	51.51145	-0.05006	London	United Kingdom	Europe
Cable Street Community Gardens – Greenhouse Pond	43	Y	51.51191	-0.05018	London	United Kingdom	Europe
Clapham Common Eagle Pond	7062	Y	51.45524	-0.14575	London	United Kingdom	Europe
Clapham Common Long Pond	16147	Y	51.4596	-0.14288	London	United Kingdom	Europe
Claybury Park Pond	9369	Y	51.59894	0.067136	London	United Kingdom	Europe
Connaught Water, Epping Forest	98223	N	51.63807	0.027202	London	United Kingdom	Europe
Crowfoot pond	3300	Y	51.54759	0.182195	London	United Kingdom	Europe
Danson Park Lake Welling	191859	Y	51.45499	0.117997	London	United Kingdom	Europe
Epping Forest Hollow Pond	213079	N	51.5811	0.011036	London	United Kingdom	Europe
Gallions Reach Lake	66620	Y	51.50048	0.093567	London	United Kingdom	Europe
Hookhamslade Pond	2885	N	51.43486	-0.23863	London	United Kingdom	Europe
Johnston Road Pond, Woodford	3485	Y	51.60965	0.022272	London	United Kingdom	Europe
Kelsey Park, Beckenham	13059	Y	51.40371	-0.02379	London	United Kingdom	Europe
Long Pond, Highgrove Woods, Eastcote	769	Y	51.58159	-0.40891	London	United Kingdom	Europe
Long Water, Hyde Park	444745	Y	51.51967	-0.22471	London	United Kingdom	Europe
Round Pond, Highgrove Woods, Eastcote	1863	Y	51.58002	-0.40715	London	United Kingdom	Europe
Scadbury Nature Reserve Moat	5491	Y	51.38983	0.091923	London	United Kingdom	Europe
South Norwood Country Park	42048	Y	51.39913	-0.05316	London	United Kingdom	Europe
Willow Pond, Lings Lane, Keyworth	4405	N	52.85554	-0.77838	Nottingham	United Kingdom	Europe
Oxford, Morris pond	11619	N	51.77391	-1.26942	Oxford	United Kingdom	Europe
Brockholes Nature Reserve, Preston gravel pits (main lake)	405141	N	53.77093	-2.63614	Preston	United Kingdom	Europe
Hillsborough Park pond	23016	Y	53.40585	-1.49933	Sheffield	United Kingdom	Europe
Potter Carr – Dragonfly pond	1688	N	53.49674	-1.11319	Sheffield	United Kingdom	Europe
Potter Carr – Loversall Swans	29823	N	53.49847	-1.11322	Sheffield	United Kingdom	Europe

SYGDC Large Pond	602	N	53.48984	−1.49136	Sheffield	United Kingdom	Europe
SYGDC Small Pond	420	N	53.48991	−1.49134	Sheffield	United Kingdom	Europe
The Hollies, Darley Dale	30	N	53.16123	−1.59074	Sheffield	United Kingdom	Europe
Walton Dam, Chesterfield	50957	N	53.22909	−1.45851	Sheffield	United Kingdom	Europe
Wharncliffe Pond	4215	N	53.47846	−1.55245	Sheffield	United Kingdom	Europe
Whitworth Park, Darley Dale	5671	N	53.15905	−1.59274	Sheffield	United Kingdom	Europe
Woodland Center Pond	106	N	53.33773	−1.5179	Sheffield	United Kingdom	Europe
Cemetery Lake Southampton Common	26974	Y	50.98475	−1.40194	Southampton	United Kingdom	Europe
Garden Pond Holland Close	32	Y	50.97118	−1.38834	Southampton	United Kingdom	Europe
Hawthorns Wildlife Centre Pond	222	Y	50.92296	−1.409	Southampton	United Kingdom	Europe
Ornamental lake, Southampton Common	19274	Y	50.9894	−1.40189	Southampton	United Kingdom	Europe
Fendrod Lake	216167	Y	51.65836	−3.81007	Swansea	United Kingdom	Europe
Half Round Pond East	11949	N	51.65357	−3.84276	Swansea	United Kingdom	Europe
Half Round Pond West	15310	N	51.65702	−3.77552	Swansea	United Kingdom	Europe
Upton Warren N. Reserve	196301	N	52.30161	−2.09991	Worcester	United Kingdom	Europe
Longbrook Park/Brewsters Pond, Stratford CT	27811	Y	41.20677	−73.1254	Bridgeport	United States	North America
Blair pond	7718	N	42.39503	−71.1567	Cambridge	United States	North America
Mount Auburn Cemetery – Halcyon Lake	10732	Y	42.36624	−71.1701	Cambridge	United States	North America
Mt. Auburn – Willow Pond	7092	Y	42.36805	−71.1409	Cambridge	United States	North America
Mt. Auburn Cemetery – Auburn Lake	7829	Y	42.37172	−71.1421	Cambridge	United States	North America

Table S2. Average seasonal water quality statistics ($\pm$ 1SD) for temperate still waters across Oceania (OCN), North America (NAM) and Europe (EUR). Median values displayed for nitrate (N-NO₃) and phosphate (P-PO₄), mean values for turbidity (NTU) and frequency of algal observations (presence/absence).

Season		Spring				Summer				Autumn				Winter				Overall
Parameter	Unit	OCN	NAM	EUR	GLO	OCN	NAM	EUR	GLO	OCN	NAM	EUR	GLO	OCN	NAM	EUR	GLO	
Nitrate	mg/l	n/a	0.35 $\pm$.41	0.1 $\pm$.80	0.1 $\pm$.75	0.1 $\pm$ 0	0.1 $\pm$.28	0.1 $\pm$ 1.1	0.1 $\pm$.96	0.1 $\pm$ 0	0.35 $\pm$.61	0.1 $\pm$ 1.3	0.1 $\pm$ 1.2	0.1 $\pm$ 0	1.3 $\pm$.83	0.35 $\pm$ 1.9	0.35 $\pm$ 1.8	0.1 $\pm$ 1.2
Phosphate	mg/l	n/a	0.01 $\pm$.02	0.02 $\pm$.11	0.02 $\pm$.11	0.04 $\pm$.02	0.01 $\pm$.02	0.02 $\pm$ 0.7	0.02 $\pm$.06	0.01 $\pm$.01	0.01 $\pm$.00	0.02 $\pm$.15	0.01 $\pm$.13	0.01 $\pm$ 0	0.01 $\pm$.01	0.02 $\pm$.06	0.01 $\pm$.05	0.01 $\pm$.10
Turbidity	NTU	n/a	26.7 $\pm$ 35	20.3 $\pm$ 20	21.3 $\pm$ 30	26.1 $\pm$.14	40.9 $\pm$ 52	22.7 $\pm$ 24	25.7 $\pm$ 30	15.5 $\pm$ 4.4	39.2 $\pm$ 43	21.8 $\pm$ 21	24.0 $\pm$ 25	33.1 $\pm$ 29	31.3 $\pm$ 31	14.7 $\pm$ 6.0	17.5 $\pm$ 14	22.4 $\pm$ 24
Algal obs.	%	n/a	17.6 $\pm$ 21	32.9 $\pm$ 39	30.7 $\pm$ 37	10.8 $\pm$ 9.6	61.7 $\pm$ 32	40.7 $\pm$ 43	42.5 $\pm$ 41	18.9 $\pm$ 27	41.7 $\pm$ 34	37.1 $\pm$ 38	36.9 $\pm$ 37	22.7 $\pm$ 25	4.2 $\pm$ 10	26.5 $\pm$ 38	24.0 $\pm$ 36	33.9 $\pm$ 38