Table S1: The main parameters of investigated lakes.

Lake name	Sampling data	Area (ha)	Max depth (m)	Mean depth (m)	Active bottom surface (%)	Temp (°C)	O_2 (mg)	Chl-*a* (µg/L)	SD (m)	TP (mgP/l)	TN (mgN/l)	TSI_Carlson	Catchment areas (km2)	Types of catchment land use (%)					
														Forests	Wetlands	Pastures	Agricultural areas and discontinuous urban fabric	Land principally occupied by agriculture with…. (ugory)	Continuous urban fabric
Lake Blanki	2022/7/18	450.6	8.4	5	89	19.1	7.5	102.7	0.5	0.337	1.39	hypereutrophy	192.9	14.46	6.44	3.19	71.78	4.13	0.00
Lake Brożówka	2022/7/15	68.4	9	4	95	18.4	5.8	15	1.4	0.083	1.03	eutrophy	5	28.83	10.29	7.87	48.87	4.14	0.00
Lake Dowcień	2022/7/21	73.9	10.4	4	100	21.3	6.4	4.4	3.3	0.037	0.83	mesotrophy	5.4	11.21	11.76	31.60	33.74	11.69	0.00
Lake Gremzdel	2022/7/21	63	10	3.2	94	22.1	7.5	19.6	1.6	0.064	1.32	eutrophy	14.9	8.76	6.13	0.74	74.38	9.99	0.00
Lake Haleckie	2022/7/16	90.3	7.2	3.4	80	19.5	9.2	32.5	1.3	0.083	0.99	eutrophy	816.3	33.83	7.11	3.78	48.96	6.27	0.05
Lake Iławki	2022/7/16	118.5	6.5	3	100	19.7	8.5	62.5	1.1	0.105	1.40	eutrophy	14.7	28.90	13.00	5.48	45.18	7.44	0.00
Lake Inulec	2022/7/19	170.4	10.1	4.6	80	19	6.1	10.9	1.8	0.051	1.02	eutrophy	29.7	57.69	8.71	0.45	30.56	2.59	0.00
Lake Jełmuń	2022/7/23	120.6	7.5	4.1	100	22.6	10.7	19.1	1.3	0.052	1.16	eutrophy	6.9	7.88	14.64	1.28	66.99	9.21	0.00
Lake Kirsajty	2022/7/16	193.2	5.8	3.2	100	19.3	10.2	4.7	4.3	0.055	0.92	mesotrophy	246	28.59	27.77	3.44	38.72	1.19	0.29
Lake Kołowin21_st1	2021/8/5	83	7.2	4	94	23.1	8.4	6	2.9	0.062	0.57	eutrophy	18.6	85.28	3.47	1.89	9.36	0.00	0.00
Lake Kołowin21_st2	2021/8/5	83	7.2	4	94	23.1	8.4	4.3	2.9	0.074	0.60	eutrophy	18.6	85.28	3.47	1.89	9.36	0.00	0.00
Lake Kołowin22_st1	2022/7/20	83	7.2	4	94	21.1	8.4	3.7	3.3	0.043	0.44	mesotrophy	18.6	85.28	3.47	1.89	9.36	0.00	0.00
Lake Łękuk	2022/7/16	80.6	5	2.7	100	19.7	9.3	47.7	0.8	0.151	1.20	eutrophy	10.5	63.86	10.28	0.20	25.66	0.00	0.00
Lake Łuknajno	2022/7/19	680	3	0.6	100	21.1	11.1	1.6	to the bottom	0.034	1.23	mesotrophy	47.9	15.09	10.40	19.73	53.72	1.06	0.00
Lake Marksoby	2022/7/20	153	10.2	4.6	82	20.2	8.2	3.8	3.2	0.039	0.92	mesotrophy	22.6	62.50	6.68	0.00	28.29	2.53	0.00
Lake Mój_st1	2021/8/6	114.7	4.1	2.5	100	20.7	8.7	25.2	0.8	0.068	1.06	eutrophy	7.3	60.51	13.83	0.00	25.66	0.00	0.00
Lake Mój_st2	2021/8/6	114.7	4.1	2.5	100	19.3	10.3	20.7	0.8	0.069	1.15	eutrophy	7.3	60.51	13.83	0.00	25.66	0.00	0.00

Lake Mój_st3	2021/8/6	114.7	4.1	2.5	100	19.3	10.3	22.9	0.8	0.068	1.10	eutrophy	7.3	60.51	13.83	0.00	25.66	0.00	0.00
Lake Piłwąg	2022/7/16	146	3.6	1.5	93	19.3	10.3	80.5	0.6	0.149	1.38	eutrophy	79.5	80.66	5.99	2.07	9.86	1.42	0.00
Lake Pozezdrze	2021/8/6	126.4	4	1.8	97	22.3	10.5	19.7	0.9	0.043	0.89	eutrophy	224.6	33.82	9.92	4.63	48.84	2.43	0.36
Lake Rańskie	2021/8/5	286.3	7.8	3.8	100	20.5	7.7	5.9	2.8	0.063	0.81	eutrophy	26.7	14.54	9.30	8.27	65.24	2.65	0.00
Lake Rekąty	2021/8/6	55.9	5.5	2.3	96	20.7	9.5	87.3	0.6	0.105	1.63	eutrophy	170.2	32.47	6.73	5.59	52.04	3.17	0.00
Lake Rospuda Augustowska	2022/7/21	103.2	10.5	5.1	100	19.1	0.4	17.7	1.8	0.058	0.83	eutrophy	740.6	31.30	2.47	11.85	39.57	14.67	0.14
Lake Stromek	2022/7/23	150.2	2.5	0.9	100	25.7	11.5	4.8	to the bottom	0.046	1.2	eutrophy	34.4	8.03	6.22	2.81	74.00	8.92	0.02
Lake Symsar	2022/7/18	139.7	9.6	4.9	80	19.1	7.2	98.3	0.5	0.239	1.53	hypereutrophy	226.7	15.44	6.20	3.60	70.94	3.82	0.00
Lake Szwałk Mały_st1	2021/8/5	69.3	6.7	4.3	100	21.2	7.1	15.2	1	0.053	1.01	eutrophy	2	16.35	26.45	0.00	53.52	3.68	0.00
Lake Szwałk Mały_st2	2021/8/5	69.3	6.7	4.3	100	21.2	7.1	11.8	1.1	0.059	1.03	eutrophy	2	16.35	26.45	0.00	53.52	3.68	0.00
Lake Szwałk Mały_st3	2021/8/5	69.3	6.7	4.3	100	21.2	7.1	14.2	1	0.065	0.98	eutrophy	2	16.35	26.45	0.00	53.52	3.68	0.00
Lake Świętajno Łąckie	2022/7/20	168.4	9.1	4.6	100	20.9	9.3	30.3	1.1	0.054	1.27	eutrophy	16.1	79.53	9.80	2.31	5.86	2.50	0.00
Lake Tajno	2022/7/21	215.7	6.6	2.6	100	21.8	11.2	44.9	0.5	0.127	0.97	eutrophy	32.7	5.88	5.73	14.96	66.96	6.47	0.00
Lake Tobołowo	2022/7/21	53.4	9.4	4.1	95	20.8	7.3	2.4	2.8	0.057	0.70	mesotrophy	14.2	74.59	6.64	0.00	18.77	0.00	0.00
Lake Walpusz	2022/7/20	397.6	10.3	4.2	100	20.1	7.7	4.7	3	0.048	0.67	mesotrophy	55	46.67	10.41	3.10	35.21	4.61	0.00
Lake Zawadzkie	2022/7/16	100.8	9.7	2.7	89	19.6	9.6	24.8	1.2	0.118	1.19	eutrophy	7.1	9.49	12.21	9.51	59.91	8.88	0.00