

Supplementary material. Environmental parameters in group of ponds after cluster analysis on the basis of catchment land use (1, 2), type of buffer zone (I, II) and on both together (catchment land use and buffer zone, A-C).

Group of ponds	1					2					I					II					A				B				C							
Type of catchment	barren-grassland-rural					arable					shrubs/trees					herbage/grasses					barren-rural				arable				arable							
Type of buffer																					shrubs/herbage				herbage				trees/shrubs							
N	43					122					39					126					46				85				34				ANOVA			
Parameter	Mean		SD		P	Mean		SD		P	Mean		SD		P	Mean		SD		P	Mean		SD		P	Mean		SD		P						
Ponds																																				
Area (ha)	0.35	0.41	0.19	0.28	0.0199	0.27	0.42	0.22	0.29	ns	0.33	0.41	0.16	0.19	0.27	0.44	ns																			
Depth (m)	1.3	1.1	1.1	0.7	ns	0.9	0.8	1.2	0.9	0.2253	1.2	1.1	1.2	0.7	0.9	0.8	0.0473																			
Shore length (m)	234.1	179.8	192.7	122.2	ns	190.6	141.7	183.8	142.1	ns	227.2	176.4	160.3	110.3	191.8	148.9	ns																			
Catchment																																				
Area (ha)	11.1	21.4	16.2	23.4	0.155	17.4	25.8	13.8	21.9	ns	14.3	29.5	12.4	15.7	20.8	27.0	ns																			
Ohle index	57	80	172	295	<0.0001	196	401	125	198	ns	84	160	118	140	280	477	0.0006																			
Land use form (%)																																				
Arable	9.0	15.9	88.0	16.4	<0.0001	62.2	38.6	70.2	38.4	ns	12.0	19.0	92.3	11.6	80.1	20.8	<0.0001																			
Grassland	20.0	35.6	3.0	6.6	ns	8.3	20.2	6.7	20.1	ns	17.8	34.6	2.2	5.3	4.8	8.9	ns																			
Forest	13.6	27.2	8.1	3.0	0.032	10.3	19.8	4.2	15.4	ns	16.8	27.4	0.0	0.0	4.7	10.4	<0.0001																			
Barren	18.1	30.0	7.6	3.0	0.0002	7.6	23.5	7.2	16.7	ns	20.1	30.1	3.0	7.7	1.5	4.7	0.0001																			
Rural	40.1	37.4	7.8	3.0	ns	11.0	22.8	12.9	26.8	ns	34.4	38.3	2.4	7.6	8.1	14.7	<0.0001																			
Buffer vegetation																																				
Herbage/grasses	0.65	0.48	0.81	0.39	0.372	0.46	0.51	0.87	0.33	ns	0.70	0.47	0.92	0.28	0.48	0.51	<0.0001																			
Trees	0.74	0.44	0.67	0.50	0.0076	0.95	0.22	0.44	0.50	<0.0001	0.42	0.47	0.35	0.48	0.94	0.24	<0.0001																			
Shrubs	0.53	0.50	0.42	0.49	0.0018	0.59	0.50	0.39	0.49	ns	0.67	0.51	0.34	0.48	0.61	0.50	0.0297																			
Rushes	0.26	0.44	0.28	0.47	ns	0.15	0.37	0.35	0.48	ns	0.24	0.43	0.39	0.49	0.15	0.36	0.0193																			
ShoreTS (m)	92.7	82.0	63.2	93.6	0.0018	160.5	118.6	40.9	57.3	<0.0001	79.1	78.9	28.2	42.0	158.0	126.4	<0.0001																			

Group of ponds	1		2		M-W U test P	I		II		M-W U test P	A		B		C		ANOVA P
Type of catchment	barren-grassland-rural		arable			shrubs/trees		herbage/grasses			shrubs/herbage		arable herbage		arable trees/shrubs		
Type of buffer																	
N	43		122			39		126			46		85		34		
Parameter	Mean	SD	Mean	SD		Mean	SD	Mean	SD		Mean	SD	Mean	SD	Mean	SD	
<i>Aquatic vegetation</i>																	
Helophytes	2.47	1.59	2.28	1.51	ns	2.10	1.64	2.45	1.48	ns	2.30	1.43	2.60	1.58	1.88	1.43	0.0472
Nymphheids	0.53	0.96	0.28	0.60	ns	0.18	0.45	0.52	0.76	0.0053	0.54	0.94	0.48	0.65	0.18	0.39	ns
Pleustophytes	0.65	0.65	0.65	0.64	ns	0.90	0.64	0.67	0.63	0.0442	0.67	0.70	0.71	0.61	0.82	0.63	ns
Elodeids	0.79	0.97	0.74	0.73	ns	0.59	0.59	0.69	0.85	ns	0.83	1.00	0.61	0.71	0.59	0.70	ns
<i>Phytoplankton</i>																	
Chlorophyll a (µg l ⁻¹)	38.6	54.71	48.5	71.23	ns	44.2	50.7	47.3	72.31	ns	37.6	53.37	50.5	73.66	53.2	77.43	ns
<i>Zooplankton (Shannon Index)</i>																	
Cladocera	0.657	0.610	0.775	0.574	ns	0.663	0.470	0.695	0.615	ns	0.71	0.62	0.66	0.60	0.72	0.48	ns
Rotifera	1.414	0.676	1.556	0.709	ns	1.430	0.602	1.582	0.727	ns	1.54	0.71	1.60	0.73	1.42	0.63	ns
<i>Hydrochemistry</i>																	
Conductivity (µS cm ⁻¹)	875	417	675	446	0.0021	737	327	729	477	ns	868	412	645	475	758	362	0.0020
Total phosphorus (mg P l ⁻¹)	0.50	1.58	0.54	0.62	ns	0.45	0.53	0.56	0.61	ns	0.45	0.48	0.60	0.66	0.47	0.55	ns
Nitrate (mg N-NO ₃ l ⁻¹)	0.33	1.61	0.38	0.53	ns	0.26	0.28	0.40	1.06	ns	0.31	0.38	0.34	0.62	0.22	0.13	0.0474
DIN (mg N l ⁻¹)	1.91	2.62	3.15	2.81	ns	2.51	2.21	2.74	2.79	ns	2.2	2.22	2.82	2.77	3.01	3.37	ns
Hardness (mg CaCO ₃ l ⁻¹)	368.5	271.6	387.7	202.0	ns	402.8	250.1	308.4	208.6	0.0152	369.6	263.9	284.9	203.4	392.9	182.4	0.0068