

Role of River–Lake System Sediments and Microbial Activity in the Hyporheic Zone

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Table S1. Mean values and standard deviation of individual indicators of interstitial water and the granulometric composition of sediments collected at individual locations of the river-lake system.

Location in river-lake system							
Indicator	Behind Luterskie Lake	Before Ławki	Before Blanki	Before Symsar	Behind Symsar	<i>p</i>	H; df; n; effect size
Mean±SD							
Oxy	6.69±0.83	6.92±0.37	6.74±0.87	7.56±0.30	7.07±1.39	0.001*	20.06; 4; 278; 0.060
Temp	23.99±0.79	23.94±0.48	23.77±0.54	23.12±1.45	23.74±0.41	0.621	2.63; 4; 272; 0.005
Fluo	97.90±47.87	87.49±30.94	106.79±49.7	96.82±52.78	105.10±49.15	0.315	4.74; 4; 320; 0.004
Rru	1.60±11.12	20.40±7.26	33.34±14.44	17.04±6.54	17.01±8.05	0.710	8.63; 4; 325; 0.008
Raz	58.26±11.74	47.49±12.11	51.50±19.54	50.63±31.14	56.54±18.58	0.511	3.28; 4; 319; 0.008
Cond	349.99±58.6	324.95±16.8	338.12±33.6	357.08±57.74	323.67±35.24	0.003*	20.870; 4; 272; 0.056
D.M.	95.47±4.38	93.06±4.88	99.42±0.17	99.47±0.20	99.40±0.28	0.000*	275.67; 4; 400; 0.680
TC	65.00±15.56	119.91±20.0	87.63±34.57	75.31±3.10	63.70±18.72	0.003*	16.29; 4; 187; 0.056
Granulometric composition:							
m.sand	61.09±27.88	47.09±7.71	86.46±2.91	85.83±1.06	71.97±5.29	0.000*	227.16; 4; 400; 0.560
f.sand	25.47±14.01	42.07±4.20	10.67±0.72	12.59±1.26	23.78±4.25	0.000*	342.91; 4; 400; 0.853
v.f.sand	5.89±5.80	5.20±1.98	2.19±1.45	0.79±0.14	3.15±0.59	0.000*	193.19; 4; 400; 0.474
clay, silt	5.00±8.07	5.64±1.53	0.68±0.74	0.78±0.34	1.10±0.45	0.000*	173.87; 4; 400; 0.425

Table S2. Mean values and standard deviation of individual indicators in relation to the bottom sediment deposition depth.

Depth of bottom sediment

[°C]; Fluo: Fluorescein [ppb]; Rru: Resorufin [ppb]; Raz: Resazurin [ppb], Cond: Conductivity [$\mu\text{S}\cdot\text{cm}^{-1}$]; TC: Total carbon [$\text{mg}\cdot\text{dm}^{-3}$]; H- result of Kruskal-Wallis test; df: degrees of freedom; n: group size.

Table 3. Mean values and standard deviation of individual indicators for the day of experiment.
p - statistically significant result (Kruskal-Wallis test; * result significant after taking into account

Indicator	Day of experiment				<i>p</i>	H; df; n; effect size
	1	2	3	4		
	Mean±SD					
Oxy	7.14±0.32	7.27±1.43	6.44±0.31	6.86±0.92	0.000	29.55; 3; 278; 0.090
Temp	22.47±2.89	23.93±1.10	24.37±0.79	24.33±1.63	0.006	7.58; 3; 272; 0.006
Fluo	50.52±28.72	115.94±69.39	82.05±42.40	104.52±47.16	0.000	20.07; 3; 320; 0.045
Rru	8.91±5.59	76.18±11.04	23.83±7.93	26.09±15.49	0.000	30.83; 3; 325; 0.076
Raz	45.10±13.16	59.40±10.59	57.80±43.11	54.80±14.49	0.311	3.58; 3; 319; 0.007
Cond	368.30±83.39	350.26±45.67	338.54±48.12	321.10±23.19	0.002	15.18; 3; 272; 0.034
TC	108.57±10.02	88.96±16.13	66.72±0.61	62.32±0.01	0.037	8.47; 3; 187; 0.013

the Bonferroni correction; SD – standard deviation Oxy: oxygen [mg·dm⁻³]; Temp: Temperature [°C]; Fluo: Fluorescein [ppb]; Rru: Resorufin [ppb]; Raz: Resazurin [ppb], Cond: Conductivity [μs·cm⁻¹]; TC: Total carbon [mg·dm⁻³]; H- result of Kruskal-Wallis test; df: degrees of freedom; n: group size.