**Table S1.** Correlation between SS and selected nutrients contained in the in entrapped sediments and bottom sediment of the studied reservoirs (red font color indicates statistically significant relations p < 0.05, n = 48)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **TPS**  [mg/g d.w.] | **TNS**  [%] | **TOCS**  [%] | **OMS**  [%] |
| **SS** [mg/dm3] | **0.64** | 0.16 | **0.34** | **-0.31** |
| **TPSB** | **TNSB** | **TOCSB** | **OMSB** |
| [mg/g d.w.] | [%] | [%] | [%] |
| **0.61** | -0.20 | **0.32** | 0.12 |

**Table S2**. Average values of suspended sediment (SS) concentration in waters of the studied reservoirs (n = 3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Series** | **Sites** | | |
|  | **River zone** | **Center zone** | **Dam zone** |
|  | mg/dm³ | mg/dm³ | mg/dm³ |
| **Blizne** | 08.05.2018 - 28.05.2018 | 21.38  25.02  29.75  26.11  21.60  18.46  18.38  14.50  18.17  20.08  18.33  20.17  37.46  76.44  28.99  31.76 | 6.11  7.51  7.33  5.59  5.59  6.38  11.23  9.00  9.61  12.03  13.23  12.63  31.18  50.24  38.07  31.13 | 7.72  6.45  6.13  6.62  5.28  6.16  8.99  6.83  9.14  9.14  15.03  13.08  25.51  28.97  24.27  21.67 |
| 28.05.2018 - 18.06.2018 |
| 18.06.2018 - 09.07.2018 |
| 09.07.2018 - 30.07.2018 |
| 30.07.2018 - 20.08.2018 |
| 20.08.2018 - 11.09.2018 |
| **Maziarnia** | 08.05.2018 - 28.05.2018 |
| 28.05.2018 -19.06.2018 |
| 19.06.2018 - 06.07.2018 |
| 06.07.2018 - 31.07.2018 |
| 31.07.2018 - 21.08.2018 |
| 21.08.2018 - 11.09.2018 |
| **Nielisz** | 08.05.2019 -10.06.2019 |
| 10.06.2019 - 09.07.2019 |
| 09.07.2019 - 07.08.2019 |
| 07.08.2019 - 27.08.2019 |

**Table S3.** Results of analyses of parameters characterizing entrapped sediment – Blizne Reservoir

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Date** | **TPS**  **mg/g d.w.** | **TNS**  **%** | **TOCS**  **%** | **OMS**  **%** |
| **BL 1** | 28.05.2018 | 0.45 | 0.32 | 3.45 | 13.40 |
| 18.06.2018 | 0.42 | 0.36 | 3.49 | 13.98 |
| 09.07.2018 | 0.88 | 0.52 | 3.97 | 17.91 |
| 30.07.2018 | 0.74 | 0.53 | 4.23 | 19.44 |
| 20.08.2018 | 1.28 | 0.51 | 5.17 | 21.42 |
| 11.09.2018 | 1.17 | 0.53 | 5.33 | 18.23 |
| **BL 2** | 28.05.2018 | 0.86 | 0.35 | 3.99 | 13.61 |
| 18.06.2018 | 1.29 | 0.46 | 3.25 | 12.85 |
| 09.07.2018 | 1.42 | 0.43 | 4.22 | 14.93 |
| 30.07.2018 | 1.84 | 0.49 | 5.12 | 17.80 |
| 20.08.2018 | 1.14 | 0.33 | 3.67 | 10.17 |
| 11.09.2018 | 1,.27 | 0.30 | 4.81 | 13.26 |
| **BL 3** | 28.05.2018 | 0.57 | 0.45 | 3.34 | 13.72 |
| 18.06.2018 | 0.85 | 0.38 | 4.27 | 13.96 |
| 09.07.2018 | 0.85 | 0.49 | 3.98 | 15.86 |
| 30.07.2018 | 1.63 | 0.62 | 4.20 | 17.51 |
| 20.08.2018 | 1.28 | 0.52 | 3.63 | 17.48 |
| 11.09.2018 | 1.43 | 0.64 | 5.06 | 19.09 |

**Table S4.** Results of analyses of parameters characterizing entrapped sediment – Maziarnia Reservoir

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Data** | **TPS**  **mg/g d.w.** | **TNS**  **%** | **TOCS**  **%** | **OMS**  **%** |
| **M 1** | 28.05.2018 | 1.07 | 0.36 | 4.01 | 15.02 |
| 19.06.2018 | 1.15 | 0.39 | 5.80 | 15.65 |
| 06.07.2018 | 0.76 | 0.35 | 3.92 | 14.56 |
| 31.07.2018 | 0.88 | 0.36 | 5.59 | 14.02 |
| 21.08.2018 | 1.16 | 1.52 | 6.00 | 17.61 |
| 11.09.2018 | 1.45 | 0.79 | 8.52 | 18.43 |
| **M 2** | 28.05.2018 | 1.72 | 0.62 | 6.01 | 24.08 |
| 19.06.2018 | 2.27 | 0.67 | 7.55 | 25.71 |
| 06.07.2018 | 3.45 | 0.61 | 8.25 | 24.59 |
| 31.07.2018 | 2.88 | 0.60 | 5.97 | 35.23 |
| 21.08.2018 | 2.26 | 0.96 | 7.33 | 30.87 |
| 11.09.2018 | 2.14 | 0.90 | 7.43 | 29.23 |
| **M 3** | 28.05.2018 | 2.40 | 0.84 | 11.98 | 36.52 |
| 19.06.2018 | 1.47 | 0.99 | 10.89 | 38.08 |
| 06.07.2018 | 1.60 | 0.90 | 9.05 | 37.78 |
| 31.07.2018 | 2.93 | 0.98 | 8.08 | 31.64 |
| 21.08.2018 | 2.02 | 0.80 | 6.25 | 33.02 |
| 11.09.2018 | 3.80 | 0.81 | 8.33 | 33.13 |

**Table S5**. Results of analyses of parameters characterizing entrapped sediment – Nielisz Reservoir

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Data** | **TPS**  **mg/g d.w.** | **TNS**  **%** | **TOCS**  **%** | **OMS**  **%** |
| **N 1** | 10.06.2019 | 7.80 | 1.02 | 12.49 | 20.44 |
| 09.07.2019 | 7.68 | 1.06 | 12.56 | 19.29 |
| 07.08.2019 | 7.33 | 1.06 | 12.39 | 19.43 |
| 27.08.2019 | 8.42 | 0.98 | 12.11 | 19.19 |
| **N 2** | 10.06.2019 | 4.25 | 0.46 | 6.07 | 8.29 |
| 09.07.2019 | 3.62 | 0.47 | 6.76 | 8.07 |
| 07.08.2019 | 7.19 | 0.54 | 6.35 | 9.21 |
| 27.08.2019 | 4.94 | 0.51 | 6.85 | 9.36 |
| **N 3** | 10.06.2019 | 2.78 | 0.35 | 3.80 | 6.23 |
| 09.07.2019 | 1.38 | 0.20 | 2.63 | 3.60 |
| 07.08.2019 | 4.93 | 0.55 | 2.26 | 9.21 |
| 27.08.2019 | 4.49 | 0.63 | 7.51 | 10.74 |

**Table S6.** Results of analyses of parameters characterizing bottom sediment – Blizne Reservoir

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Data** | **TPSB**  **mg/g d.w.** | **TNSB**  **%** | **TOCSB**  **%** | **OMSB**  **%** |
| **BL 1** | 28.05.2018 | 0.04 | 0.24 | 1.52 | 4.25 |
| 18.06.2018 | 0.05 | 0.04 | 0.85 | 3.64 |
| 09.07.2018 | 0.04 | 0.15 | 2.15 | 6.29 |
| 30.07.2018 | 0.26 | 0.21 | 1.57 | 5.65 |
| 20.08.2018 | 0.22 | 0.09 | 1.47 | 4.72 |
| 11.09.2018 | 0.18 | 0.15 | 1.44 | 5.59 |
| **BL 2** | 28.05.2018 | 0.17 | 0.05 | 0.97 | 3.91 |
| 18.06.2018 | 0.10 | 0.04 | 0.61 | 2.93 |
| 09.07.2018 | 0.03 | 0.03 | 0.66 | 3.31 |
| 30.07.2018 | 0.26 | 0.07 | 0.98 | 3.67 |
| 20.08.2018 | 0.10 | 0.20 | 0.54 | 3.15 |
| 11.09.2018 | 0.20 | 0.03 | 0.70 | 2.74 |
| **BL 3** | 28.05.2018 | 0.08 | 0.01 | 0.38 | 2.49 |
| 18.06.2018 | 0.12 | 0.07 | 0.99 | 5.05 |
| 09.07.2018 | 0.20 | < LD\* | 0.33 | 2.60 |
| 30.07.2018 | 0.15 | 0.02 | 0.40 | 2.34 |
| 20.08.2018 | 0.23 | 0.03 | 0.23 | 2.51 |
| 11.09.2018 | 0.21 | 0.02 | 0.31 | 2.51 |

\* limit of detection

**Table S7.** Results of analyses of parameters characterizing bottom sediment – Maziarnia Reservoir

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Data** | **TPSB**  **mg/g d.w.** | **TNSB**  **%** | **TOCSB**  **%** | **OMSB**  **%** |
| **M 1** | 28.05.2018 | 0.53 | 0.19 | 2.26 | 6.94 |
| 19.06.2018 | 0.30 | 0.08 | 1.45 | 4.03 |
| 06.07.2018 | 0.29 | 0.01 | 0.70 | 4.12 |
| 31.07.2018 | 0.15 | 0.02 | 0.62 | 1.73 |
| 21.08.2018 | 0.22 | 0.07 | 1.14 | 3.32 |
| 11.09.2018 | 0.31 | 0.08 | 1.16 | 4.00 |
| **M 2** | 28.05.2018 | 0.07 | 0.05 | 1.70 | 1.12 |
| 19.06.2018 | 0.06 | 0.01 | 0.13 | 0.37 |
| 06.07.2018 | 0.06 | < LD\* | 0.09 | 0.38 |
| 31.07.2018 | 0.04 | < LD\* | 0.08 | 0.36 |
| 21.08.2018 | 0.07 | 0.01 | 0.21 | 0.60 |
| 11.09.2018 | 0.12 | 0.03 | 0.38 | 0.92 |
| **M 3** | 28.05.2018 | 0.04 | 0.02 | 0.48 | 0.94 |
| 19.06.2018 | 0.02 | < LD\* | 0.02 | 0.50 |
| 06.07.2018 | 0.02 | < LD\* | 0.30 | 0.63 |
| 31.07.2018 | 0.03 | < LD\* | 0.26 | 0.70 |
| 21.08.2018 | 0.03 | < LD\* | 0.22 | 0.62 |
| 11.09.2018 | 0.04 | 0.02 | 0.52 | 1.14 |

\* limit of detection

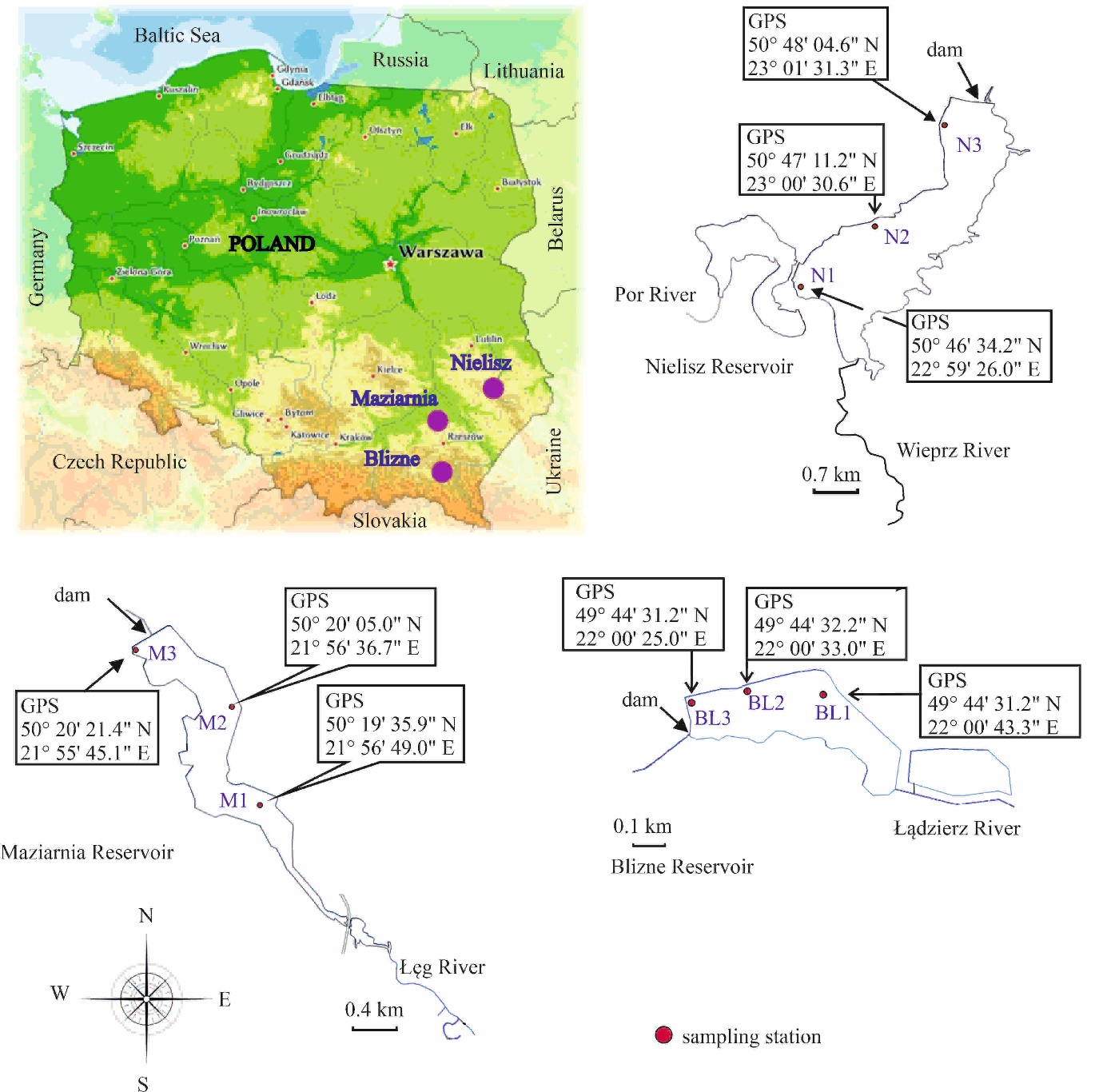
**Table S8.** Results of analyses of parameters characterizing bottom sediment – Nielisz Reservoir

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Data** | **TPSB**  **mg/g d.w.** | **TNSB**  **%** | **TOCSB**  **%** | **OMSB**  **%** |
| **N 1** | 10.06.2019 | 1.05 | 0.13 | 1.50 | 3.48 |
| 09.07.2019 | 1.76 | 0.11 | 1.21 | 2.89 |
| 07.08.2019 | 2.16 | 0.25 | 3.12 | 5.79 |
| 27.08.2019 | 2.35 | 0.35 | 4.29 | 7.47 |
| **N 2** | 10.06.2019 | 0.64 | < LD\* | 0.08 | 0.35 |
| 09.07.2019 | 0.60 | 0.01 | 0.37 | 0.53 |
| 07.08.2019 | 2.49 | 0.05 | 0.98 | 1.94 |
| 27.08.2019 | 2.69 | 0.08 | 1.37 | 2.38 |
| **N 3** | 10.06.2019 | 0.20 | 0.02 | 0.17 | 0.59 |
| 09.07.2019 | 0.28 | 0.02 | 0.21 | 0.66 |
| 07.08.2019 | 0.02 | 0.02 | 0.21 | 0.47 |
| 27.08.2019 | 0.03 | 0.01 | 0.13 | 0.43 |

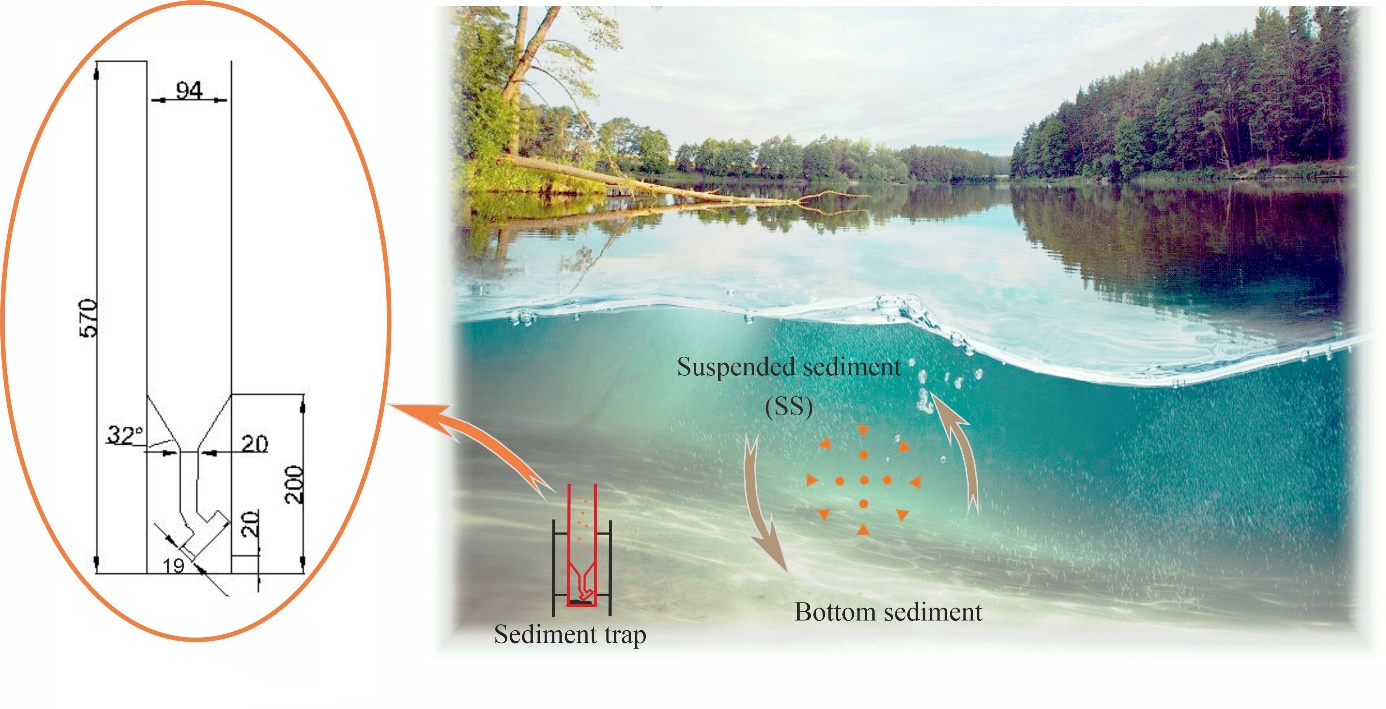
\* limit of detection

**Explanation:**

SS, i.e. the concentration of sediments suspended in water . Total nitrogen (TNS), total phosphorus (TPS), total organic carbon (TOCS) and organic matter (OMS) were determined in entrapped sediment. Analogous determinations were made for bottom sediment (TNSB, TPSB, TOCSB and OMSB, respectively).



**Fig. 1.** Locations of the studied reservoirs and research stations



**Fig. 2.** Scheme of field research