
ASSESSMENT OF THE RELATIONSHIP BETWEEN WATER QUALITY AND FUNCTIONS OF SMALL WATER RESERVOIRS

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Small water reservoirs are one of the principal elements of agricultural landscape in the Central European context. The monitoring of the quality of aquatic environment of selected ponds and small reservoirs (SWR) in areas of southern and central Moravia and the Vysočina Region was carried out in 2013 to 2015. The intentions were to focus on the mutual relationships between surface running and still water (ponds and SWR) quality taking into account their economic use, to carry out a field survey of the current situation at selected sampling sites and to monitor the current state of their environment as influenced by external inputs. Ecosystems of monitored sites significantly reduce the pollution brought by inlet tributaries, as was the case of the Želeč reservoir. Monitored localities have a positive impact on the nitrogen and phosphorus retention and uptake from polluted surface waters and diluted wastewaters produced by settlements. Also the reduction of microbial contamination by the monitored ponds and reservoirs was significantly apparent. It was confirmed that the character of the water quality dynamics in flow-through ponds is fundamentally influenced by the quality of inlet water. The results obtained from the monitored locations indicate that it is necessary to determine properly the primary purpose and function of the locality (ponds and other small water reservoirs).