SUMMARY

Small water reservoirs in urban areas have important landscape-forming and environmental roles. However, numerous anthropogenic activities can influence the water quality in these urban ponds. This thesis evaluates and compares the water quality in selected ponds in Prague area (Motol, Stodůlky, Háje) by means of regular water monitoring between May and November 2013. Parameters commonly used as indicators of anthropogenic load were monitored (NO_3^-, NH_4^+, PO_4^{3-}, Cl^-, dissolved oxygen, chemical oxygen demand) and supplemented with the investigation of other chemical and physico-chemical parameters (alkalinity, acidity, water hardness, pH, Ca^{2+}, NO_2^-, specific conductivity).

Data were evaluated using Czech technical norm (ČSN – EN 75 7221), which defines five categories of surface water quality. Our data indicated that surface water from reservoirs in Motol exhibited the best water quality (1st category), reservoirs from Stodůlky were slightly polluted and reservoirs from Háje exhibited the poorest water quality (with some parameters exhibiting values corresponding to the 4th category). We found statistically significant correlations between the alkalinity, water hardness, COD and concentrations of NO_3^-, Ca^{2+}, Cl^- and PO_4^{3-}. Moreover, numerous parameters are dependent on cumulative precipitation before the date of sampling (NO_3^-, NH_4^+, PO_4^{3-}, Cl^-, dissolved oxygen), other indicators were surprisingly not affected by the precipitation (e.g., pH).