

Abstract

Submitted thesis analyses and summarizes findings about runoff dynamics in the upper Křemelná River basin (SW Czechia, Šumava Mountains). A theoretical part of the thesis describes existing findings about hydrological extremes related to ongoing climatic change in the Central Europe region. It is also focused on water retention in headwaters, physical-geographic factors influencing runoff and runoff assessment approaches. Within the practical part of the thesis the accent was put on correct construction of discharge curves and on time series cleansing. Using basic hydrological statistics the daily, monthly and annual runoff regime in Stodůlky state profile and in chosen experimental catchments of the Department of Physical Geography and Geoecology, Faculty of Science, Charles University in Prague, were assessed. Results show slightly unbalanced runoff in the upper Křemelná River basin. The highest rate of discharge is typical for spring period during snowmelt and increased discharges are significant also within winter floods. Increased summer discharges are reflected in daily, but not in monthly mode, due to their short time of duration.