

Abstract

Nowadays drought is a very actual topic. Hydrological drought is most often caused by a deficit of precipitation and it has been missing almost one year of rain in some areas in Czechia. This bachelor thesis focuses on the analysis of this type of drought in the upper Mže River basin, which is located in West Bohemia. In the basin there are these five gauging stations: VD Lučina and Stříbro on the Mže River, Planá on Hamerský brook, Třebel on Kosový brook and Stříbro on the Úhlavka River. The theoretical part defines the area of interest in terms of physiographic and runoff conditions. Furthermore, a research of the current knowledge about drought, its causes and impacts is performed. The practical part follows with the analysis, using data of the average daily discharges from gauging stations and two methods – threshold limit method and deficit volumes. Results are based on a mutual comparison of the stations and hydrological years. The biggest drought on the Mže River was registred in the period 1934–1935, since 1970s natural discharges were improved due to the built dam. The period 2018–2019 can be considered as driest years for the whole river basin.

Key words: upper Mže River basin, hydrological drought, runoff, precipitation, physiographic conditions