
OBSERVED CHANGES OF HYDROLOGICAL BALANCE COMPONENTS REGARDING THE AVAILABLE WATER RESOURCES

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Keywords: hydrological balance — trend — R — stream flow
— water sources — baseflow — boreholes — springs

This study investigated changes in time series of hydrological balance components using trend detection. A various sets of data were available, such as data from the report “Hydrological balance of water quantity and quality in the Czech Republic”, the report of natural sources of groundwater and groundwater regime assessment, in order the potential change of hydrological cycle to be comprehensively observed. Although the time series used are relatively short with length of some 30 or 40 years, the advantage is their similar period and thus possibility of comparison among the series. For trend detection the modified Mann-Kendall test removing lag-1 autocorrelation was used. The magnitude of the trend was described in mean monthly and annual series of precipitation, air temperature, evapotranspiration, stream flow and other variates, as well as in monthly and annual mean and minimum of daily stream flow and baseflow, spring yields and borehole levels.