



Analysis of Chosen Rainfall-Runoff Events in Small Mountainous Watershed in the Czech Republic

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Small mountainous watersheds situated in headwaters are typical with their high heterogeneity in hydrological processes. They are mainly used in order to describe this variability, which is caused by different local conditions and factors. After bark beetle calamity experimental watersheds, which differ in forest cover (dead forest and clearing), were established in upper mountainous parts of Sumava National Park. Their out-flow process is determined by hillslope processes, especially overland and subsurface stormflow. Areas of experimental watersheds are 10 ha (dead forest cover) and 17 ha (clearing). Main goal of presented poster is simple analysis of chosen rainfall-runoff events, which contributes towards description of heterogeneity of runoff response of hillslopes. Forty-two significant rainfall-runoff events were chosen for runoff response evaluation. The characteristics of rainfall hyetograph and runoff hydrograph were estimated for each selected event. Subsequently, chosen relations between these characteristics were explored. Dependences of lag-to-peak on mean rainfall intensity, time base of hydrograph on duration of hyetograph, time of rise on duration of hyetograph, peak discharge on maximal rainfall intensity, peak discharge on rainfall rate and out-flow rate on rainfall rate were explored. Results help to indicate limit values of runoff response in studied forest watersheds.