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Comparison of forest litter interception model of sessile oak and beech forest

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Forest hydrological models help us to understand the natural processes in forest. The forest has huge active surface available for evaporation processes. The amount of precipitation decreases after reaching the canopy. The throughfall arrives at the forest litter. The rainfall retention of the litter is the litter interception. In this paper a hydrologic model was employed for estimation of forest litter interception of a middle-aged sessile oak (*Quercus petraea*) and beech (*Fagus sylvatica*) stand. The discussed forest litter interception is an important element of the water balance of the forest and can be an important parameter of the rainfall runoff models in forested area. The research catchment in Hidegvíz Valley near Sopron provides valuable data for testing such kind of hydrologic models. Antecedent water content and the storage capacity of the forest litter are the main parameters of the model. The antecedent water content of the litter was estimated by the daily precipitation and temperature data, collected in Hidegvíz Valley research catchment in a three years long measurement period (2006-2008). The measurements were done by own developed instrument, where the undisturbed forest litter samples are enclosed in frames and it was measured on stationary place in every time step. Our model estimation for litter interception was 5–7% of gross precipitation.

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