



Rainfall interception by forest canopy and forest litter in three different forest ecosystems at the eastern border of the Alps

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In forests just as in all plant stand precipitation is trapped and temporarily stored at the surfaces of forest crow (canopy interception) and forest litter (litter interception). Canopy interception has been investigated in many parts of the world, but litter interception, and total amount of water evaporated from litter in forests has been slightly determined.

In this paper we calculated and compared canopy and litter interception in case of three forest ecosystems (a middle age beech (*Fagus sylvatica*), a sessile oak (*Quercus petraea*) and a pine (*Picea abies*) forest). The study site (Hidegvíz-völgy) is located in Sopron-hills at the eastern border of the Alps.

We measured interception storage capacity of different forest site litter in laboratory. On the basis of laboratory and field measured data we calculated the function between mass per unit area and interception storage capacity of forest floor cover. We analyzed ratio and storage capacity of various components (leaves, twigs, seeds, grasses) of forest litter.

On the basis of rainfall events followed throughfall and stemflow sampling we calculated crown interception function. We determined forest litter desiccation curve (winter and summer type) of forest litter moisture content from field and laboratory data. On the basis of rainfall events followed litter sampling and desiccation curves forest litter interception functions have been determined in case of three different forest types. At the end we made a comparison between estimated crown and litter interception functions in case of three forest ecosystems.