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Measurement of the canopy retention in a riparian forest ecosystem

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Canopy water retention plays important role in the water cycle. This work summarizes the automation efforts of interception measurement at the Hidegvíz Valley Experimental Cathchment (Sopron, Hungary). There are several years long time-series of throughfall and stemflow data, collected in the research catchment with labor intensive, manual recording in different sites. The high spatial and temporal variability of the process suggest to increase sampling point numbers and time resolution of the measurement. The only possible way is to fulfill this requirement is to introduce modern digital equipments.

The alder dominated plot in the riparian zone, as an agroforestry area, of the Rák Brook is already equipped with a digital datalogger. Both the stemflow and throughfall are collected in large containers. The water level in that containers is registered by vented pressure transducers. The measurements gives information about the temporal variability, but can not represent spatial differences. In this work we introduce beyond our recent efforts in interception measurement the possible enhancement directions too.

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