

Interactive comment on “Measuring forest floor interception in a beech forest in Luxembourg” by A. M. J. Gerrits et al.

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General comments

The title of the paper is not adequate, the stress is not on the actual measurements but on the interception device which is then applied for a limited period somewhere in the field (i.e. in a beech forest).

I generally agree with the Anonymous Referee #2 that this is rather a technical note than a full research paper. The reason why this manuscript is rather a technical note is the fact that the manuscript describes a new device with some preliminary results and some technical problems and issues related to the device that still should be solved

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and/or improved.

I strongly advise authors to change the title of the manuscript to sthg like “Technical note: First field tests using new forest floor interception device”.

General new knowledge on the floor interception is not given (just from cited - other published works). The main contribution in this research field is to stress the importance of forest floor interception (measurements) in order to prove its relative importance in the hydrologic cycle. Only limited field data (November 2004) are shown and used in discussion.

I suggest the authors to follow the proposal and when preparing the final version of the manuscript to go into the direction of a technical note, and stress the issue of a new device for measuring forest floor interception. If this option is to be followed, I advise authors to present longer time series and a better description of the site (see comments of the Anonymous Referee #2).

Also no statistical analysis of the measured data has been introduced (e.g. in Table 1) and this kind of analysis should be introduced in the final version of the manuscript wherever possible.

Specific comments

In several places (as well as in the abstract as the main results of the study) the evaporation from interception is reported in % of the precipitation (e.g. 34 % of the through-fall). It is important to stress which precipitation amounts this percentage is related to: event based, monthly values or annual precipitation. It is maybe better to give evaporation from interception also in absolute units such as mm and not only in relative units (percentage).

The presented results of measured floor interception are rather too short to definitely conclude that it is a significant process in the hydrological cycle - it may be seen as a proof to intensify such measurements for longer periods and also under different

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climatic and vegetation conditions.

Technical comments

p. 2325, l2: explain by which another process interception is generally compensated

p. 2326, l4: "The Interception process ..." should read "The interception process ..."

p. 2329, l14: the derivate of the storage of the lower basin SI is misprinted, using its prime

p. 2329, l21: after the section title 4. Results and discussion a new subsection should be introduced "4.1 Preliminary interception results"

p. 2329, l22: "... of the interception device of the Huewelerbach ..." should read "... of the interception device in the Huewelerbach ..." because not the whole catchment is measured

p. 2330, l14: "... is calculated for the Huewelerbach ..." should read "... is calculated for the interception device in the Huewelerbach ..." because not the whole catchment is measured

p. 2331, l10: change 4.1 Temperature correction to 4.2 Temperature correction

p.2331, l13: are there decreases or rather increases in the upper basin? Check that conclusion once more

p. 2332, l9: change 4.2 Improvements of the device to 4.2 Improvements of the device

p. 2332, l25: please add to read "... precipitation in November 2004) in the ..."

p. 2333, l1: "... that it was during the ..." should maybe rather read "... that it was measured during the ..."

p. 2333, l2: "these values" should read "this value" p.2333, l6: "... floor interception is a significant" should read "... floor interception can be a significant" (see specific comments)

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p.2333, l18: add your opinion on how might the process of interception be a function of the rainfall intensity, which is not mentioned in this discussion

p.2340, l1: "results of the ..." should read "results in the ..."

p.2341, l1: "results of the ..." should read "results in the ..."

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 3, 2323, 2006.

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