Hydrol. Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/hess-2018-54-RC1, 2018

Hydrology and Earth System Sciences
Discussions
Open Access
EGU

Interactive comment on "The influence of long-term changes in canopy structure on rainfall interception loss: a case study in Speulderbos, the Netherlands" *by* César Cisneros Vaca et al.

Anonymous Referee #1

Received and published: 2 April 2018

This study provide a comprehensive measurements and modelling of forest water and energy budgets, and discussed in depth on the canopy interception of rainfall and subsequent evaporation from interception, in comparison to estimates in the same but younger forest stand. Canopy interception is of course an important component in vegetated surface water balance as it can account for a large proportion of gross precipitation, and thus affect soil and groundwater recharge, storage, and catchment discharge. One of the difficulties in studying interception is that it is subject to many interactive factors including climatic factors as mentioned in this paper the wind and rainfall intensity etc., and forest structures and species composition.

Printer-friendly version

Discussion paper

Regarding this paper, it is well written, methods used are appropriate, data analyses and interpretations sufficiently accommodate the results and discussion, in particular the possible reasons why evaporation was lower when canopy was denser and canopy storage capacity was higher, which is important to clarify. I have no major comments therefore but only a few minor for the authors to consider corrections, given below.

1. Page 9, Line 11. You talked 'the performance of the sonic anemometer (CSAT3) during wet conditions was evaluated by...' Can you given the reason why doing this right after this sentence, maybe in just one sentence.

2. Page 11, Line 20. You referenced Fig 4c, but there is no such figure. Please provide it. Line 23, IET method gave mean values of p in Table 4 is 0.17, but in text is 0.22. Double check.

3. Page 12, use of figure numbers: you may want to swap Fig No. 7 and 8 as the latter appears first in the text.

4. Page 2, Line 24: insert 'such' before 'as'

5. Page 3, Line 26: as DBH appears for the first time in the text, expand in full here rather than Page 5 Line 7-8.

6. Page 4, Line 23: insert 'm' after 32 and before 'x 64 m'

7. Page 13, Line 14: delete 'predicted'

8. Page 5, Line 9: insert 'mm' for 0.14

Figures: please increase marker size in Fig 4, 5 for the dots for better visual.

Table 9: unit of LAI: m2 m-2

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2018-54, 2018.