

Review of “*FORHYCS v1.0: A spatially distributed model combining hydrology and forest dynamics*” by Speich et al.

I am happy that my previous review proved useful for the authors. I think the manuscript improved a lot compared to the previous version and the authors addressed my major concerns adequately. However, when reading over it again in detail, I still encountered quite some minor points. I think these should be fairly easy to address and hope these remarks prove useful again for the authors.

Minor comments

P1.L14. It is not clear here what a “delta change” approach is.

P10.L11. “This reduction function” → the environmental reduction function or the shading reduction?

P10.L24. Please define DDEGS

P15.L20. (2) Effects → , (2) effects

P17.L17. Acconuting → accounting

P17.L16-18. I would suggest to elaborate a bit on how the timeseries were constructed. The reader has to guess now how reliable it actually is. I think it would also be good to add the lake and diversions in the map. I think it is important to do this, as comparing a reconstructed time series with a modelled time series does not seem very reliable to me, and I agree with the authors it can only be used to plausibilize the outcomes.

P17.L20. Remove “a”

P19.L15-L16. “In this...mode (“F”) → this is partly a repetition of L10-L11 “The names... with “S”.”

P19.L17. What does _NCS stand for?

P19.L19. Suuccession → succession

P23.L2. Why was this the best?

P23.L5. What is the “delta” set?

P23.L31. (Gupta et al., 2009, KGE,) → remove additional comma

P24.L2. Table 2 → Table 3

P26.L8-9. Thank you for the addition, but you can’t make this statement and not show the evidence. Show either the data, or remove your statement.

P28.L1. On → in?

P25.L16. You mean the average LAI-values, correct?

P30.L2-3, Figure 8. S_F_Full and S_F_noSmort are not visible in the figure. You could change the linetype and/or (size of) the symbol to make it visible.

P31.L8. n particular → In particular

P31. Please use the same scenario-names as in Table 1 and Fig. 9., i.e. C_T_BEK and C_T_RA15 instead of TM_BEK and TM_RA2015

P31.L24-25. Inter-annual ...TM_BEK (Fig. S17 c)). → Can you clarify how I can see this? Are you still discussing the dry-scenario?

P33.L16. Differences of up → differences up to

P36.L4.”require” → Don’t you mean “lead to”?

P36.L6-7. “Any case ... uncoupled models” → You discuss canopy structure, so Figure 7, but how can you relate that to water availability and temperature? Does this relate to the soil parameterizations of BEK and RA2015?

P37.L15. Fig. S1 only shows soil moisture capacity and difference in drought stress, there are no LAI-values.

P36.L36. in this study in the runs → in this study are in the runs

Fig.7. The xlabel shows a square, but I think this is a delta.

Fig.8. Please add units and labels to the figure.

Fig.9. The legend has both dry, medium, wet and dP-10%, dP-0%, dP+10%, maybe clarify that dry, medium and wet relate to GCM-RCM.

I also have to say that I still find the article sometimes hard to read, because of all the case names that are not directly clear to the reader. This is probably a matter of personal taste, but I think it may help if the authors occasionally write out the scenario in paragraphs where it is discussed.