

hess-2019-45 / response to Editor comments

The manuscript has been significantly improved. Most points are addressed well, nonetheless some improvements still should be made:

* Title: I think it would be good to add 'boreal and peatland ecosystem' to your title. Although you claim the model is also suitable for other ecosystems, you don't have any proof on this. Currently, the model is only tested for a boreal and peat land ecosystem.

R: changed accordingly

* I think the manuscript would benefit from an English language check. Especially focus on articles.

R: the manuscript was checked and numerous mistakes in articles corrected.

* P4 L20: the units of the model are mm/day! Not mm

R: did not find this mistake in the manuscript file; will be corrected in proof-reading phase if necessary.

* Eq 1: Why do the authors suddenly use E for evaporation? Before they used ET. Furthermore, I recommend removing the dt, since you define ET in mm/day. And ρ_w should be in the denominator.

R: We have defined ET as evapotranspiration while in eq. 1 we want to emphasize that we talk about different ET components (E = evaporation from wet canopy, Tr = transpiration, Ef = evaporation from ground).

The typo in eq. 1 was corrected and ρ_w put into denominator. Having dt in eq.1 is necessary to convert from mm/s to mm/d; this was added after previous comment.

* P5L1: the unit of L is J/kg

R: thanks for pointing out the typo; corrected

* P5L20: exp should not be in italic. This should be changed in throughout the manuscript. This also holds for ln, min, and max in equation form.

R: changed accordingly throughout the manuscript