Dear authors,

thank you for your thorough revision of the manuscript. The model is much clearer now. However, I still have two minor comments.

1) The Penmann Monteith Equation, as it appears in the manuscript, is:

$$\lambda ET_0 = \frac{\frac{dq_{sat}}{dT}(R_n - G) \cdot +86400 \cdot \frac{\rho_a C_p (e_s^0 - e_a)}{\tau_{av}}}{\frac{dq_{sat}}{dT} + \gamma \left(1 + \frac{\tau_s}{\tau_{av}}\right)} \tag{1}$$

This equation still needs revision. Plugging in the values and units that you specify in your manuscript right after the equation, the term

$$\frac{dq_{sat}}{dT}(R_n - G) \tag{2}$$

has units of $\mathrm{kPa^\circ C^{-1} Jm^{-2} s^{-1}}$. Since the factor 86400 is in s/day, and C_p is in $\mathrm{MJkg^{-1} {}^\circ C^{-1}}$, the second term in the numerator,

$$86400 \cdot \frac{\rho_a C_p (e_s^0 - e_a)}{\tau_{av}} \tag{3}$$

has units of $\mathrm{kPa^\circ C^{-1} MJm^{-2} day^{-1}}$.

The units of these two terms must match. The energy is expressed in J in one term and in MJ in the other. Time is expressed in days in one term and in seconds in the other. In your response to my first comment you state that the daily version of the equation is used, but then divided by the number of time steps in one day. I guess what you mean is that you convert the subdaily values of R_n and G from $\mathrm{W/m^2}$ to J/day so that the 86400 factor makes sense, and then divide the resulting λET_0 by 24 and convert back to seconds? If there's an 86400 factor, the result of the calculation would be in $\mathrm{MJm^{-s} day^{-1}}$, but this cannot be the case if ET_0 on the left hand side of Eq. (1) is in $\mathrm{mms^{-1}}$, as is stated in the manuscript. Please, check the units and conversion factors of this equation.

Also, note the typo on the numerator, there's a multiplication symbol ($\cdot$) just before the +86400.

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2) It is stated that "While the new potential evapotranspiration is calculated in the subdaily time step, the non-water-stressed canopy conductance is calculated in a daily time step, due to the daily calculation of the photosynthesis in LPJmL5". If you are using daily values of the non-water-stressed canopy conductance I guess you use the cumulative net PAR, temperature, etc. . . at the end of the day to calculate the canopy conductance for the next day? I.e., the g_p you use one day is calculated with the values (PAR, temperature, . . .) from the previous day? This should be clear in the text. Also, what temperature are you feeding now to the photosynthesis routine? A diurnal average of the canopy temperature, or the air temperature?

Best regards,

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