Thank you again for the thoughtful comments and suggestions. We have made the following two changes to our revised MS (indicated in red text in the revised MS):

1. We have acknowledged the importance of VPD and explored how it might affect our results, providing also suggestions for future work in the **Summary and conclusions** section:

"We lacked information on vapor pressure deficit (VPD) in our sites, and thus excluded its simulated effects from the RS-Met model. However, there is a vast evidence that stomatal conductance is sensitive to VPD, with its effects usually accounted for in global vegetation models. Although temperature is tightly interrelated with VPD, it is commonly suggested that VPD should be also considered in addition to temperature and soil moisture deficit in predicting plant-related biophysical processes such as transpiration and photosynthesis. By including the water deficit factor, we aimed here to indirectly account for these effects of VPD. However, RS-Met still showed a slightly overestimation in the fluxes during the peak of the growth season (see results from Yatir site), when VPD is expected to be high. Thus, accounting for VPD effects on stomatal conductance in the RS-Met would have likely reduced these high fluxes during the period of high VPD conditions through the simulation of stomatal closure.

Further work should focus on refining the water deficit factor concept including the contribution of VPD in the RS-Met. In addition, the contribution of direct surface evaporation from leaves should be accounted for with some sort of a factor adjusted to the seasonal development of the canopy leaf area (likely through the seasonal evolution of satellite-derived fVC and fAPAR). The addition of a soil infiltration factor, adjusted with seasonal fVC and daily rainfall amount, should be probably considered too in the RS-Met. Eventually, a major challenge would be to apply the RS-Met globally, providing a global coverage of daily estimations of ET and CO_2 fluxes at a moderate spatial resolution."

2. We have changed the title of our MS to:

"A biophysical approach using water deficit factor for daily estimations of evapotranspiration and CO_2 uptake in Mediterranean environments"

Sincerely,
David Helman (on behalf of all authors)