Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2020-251-AC3, 2021 © Author(s) 2021. CC BY 4.0 License.







Interactive comment

Interactive comment on "SCOPE 2.0: A model to simulate vegetated land surface fluxes and satellite signals" by Peiqi Yang et al.

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Received and published: 25 April 2021

It should be noted that to compute GPP from the simulated photosynthesis, it is necessary to add the simulated dark respiration: GPP = Ac + Rdparam*Vcmax25*LAI. In other words, for actual GPP simulation leaf respiration should be disabled, setting Rdparam to 0. The difference with some other canopy-scale models is that SCOPE applies the FvCB model at leaf level (disaggregated), whereas many other models apply this model at aggregated (big leaf or sun-shade model) scales. Our hypothesis is that this results in higher required Vcmax25 values on SCOPE compared to other models. This is an important topic, which requires a detailed investigation.

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Discussion paper

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2020-251, 2020.

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