

Biogeosciences Discuss., community comment CC1
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Comment on bg-2022-50

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Community comment on "Excess radiation exacerbates drought stress impacts on canopy conductance along aridity gradients" by Jing Wang and Xuefa Wen, Biogeosciences Discuss., <https://doi.org/10.5194/bg-2022-50-CC1>, 2022

Stomatal conductance (g_s) of all co-existing species plays a significant role in transpiration and carbon uptake photosynthesis at ecosystem level. This study investigates the interactive effect of environmental stressors and biotic factors on canopy g_s , through an experiment conducted through three plateaus in China. Bulk leaf $\delta^{18}\text{O}$ organic matter is affected by g_s based in steady-state leaf water ^{18}O enrichment and is widely used by plant eco-physiologists to infer the spatial and temporal variation in g_s . The manuscript is well rewritten and the topic is useful for canopy g_c simulating at different scales.

The author should clarify why the radiation exhibited negative effect on g_s , however, temperature exhibited positive or no effect on g_s in different regions. Generally, radiation may influence plant g_s through its influence air temperature, thus, the consistent effect of radiation and temperature on g_s may be more reasonable.