

Thank you for responding to the comments posted by the two reviewers, who both raised important points to be considered. Both reviewers agreed, that the study is interesting, of relevance and important to consider, but also both indicated that the authors need to clarify some statistical and technical details, and to improve the structure within the manuscript, especially of the discussion. One thing to clarify, the editor did not request from the authors to put specific sentences into the manuscript, but as the article was submitted to a special issue on 'Global change effects on terrestrial biogeochemistry at the plant–soil interface' the authors should demonstrate that their study is relevant for that special issue.

On 12/23/2021 the editor Lucia Fuchslueger wrote: thank you for pointing out the global change aspect in the discussion and conclusion. It would be great to make it clear as well in the abstract already if this is possible. I understood that you were asking to put a sentence in the summary. In response to the editor's recommendation, I made it clear in some places in the text that the possible differences between the flows that occurred on Macaca Island may be the result of climate changes already underway, given that the summer was rainier and the winter drier in compared to climatology.

Both reviewers suggested to add more details and clarify some parts of the statistics (e.g. which data was used to compare averages, and what exactly was compared in statistical tests). Thank you for clarifying some details on statistics and averages already in your reply.

We added more detail to the statistical design and clarified what data were used to compare means and what exactly was compared in statistical tests.

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Moreover, both reviewers suggested to move redundant data (e.g. Table 1) into the SI (which is Supplementary Information for clarification). I fully support this, and also suggest to present the data that is now in Figure 4 already earlier to the results (also to avoid presenting redundant data in manuscripts).

We have moved Table 1 to the SI (supplementary information) as well as Figure 4 has moved to the results part.

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Indeed, results should be strictly moved from the discussion section and integrated in the results section. Both reviewers made great suggestions how to re-structure both results and discussion section. As indicated, please use the discussion section to put your GHG gas emission results into context with literature, and follow the suggestion made by the reviewers on changing the structure and sequence within the discussion section. As CO₂ and CH₄ are the results of very different biological processes I would also suggest to at least put the results into different paragraphs (maybe not sections), but as rein the discussion their dynamics and controls also separately in the discussion. Screen for repetitive sections.

We accept the excellent suggestions from the reviewers by better restructuring the results and the discussion. We also accept the change of structure and sequence in the discussion section. In the same way, the CO₂ and CH₄ results were placed in different paragraphs.

Thank you for taking your precious time to improve the presentation of the article so that it has a better understanding.