

Dear editor,
Thank you for the comments. I think (and I hope) that they have all been addressed satisfactorily. Our responses can be found below.
Kind regards,
Naoise

Editor's comments

- Shorten or split long paragraphs (>10 lines) to improve readability (e.g. last paragraph of the introduction; last paragraph of the discussion)

Response: *This has been done. In addition a paragraph in the results and discussion section has also been split in three.*

- The introduction could be tightened by removing repeated statements about Bh carbon size and age. Also the part on the priming effect can be reduced as it is partly redundant with the Discussion.

Response: *the paragraph on the priming effect has been removed altogether and a sentence added to another paragraph to help the reader understand the choice of adding a substrate cocktail as a treatment. There was only one mention of the Bh carbon size and age in the introduction.*

- State the knowledge gap more explicitly. For example: Despite the enormous size of the Bh carbon pool, its sensitivity to individual environmental drivers remains poorly constrained under realistic physical conditions.

Response: *this sentence has been added to the introduction.*

- Sharpen the conclusion by restating the main result in one sentence

Response: *this has been done*

Please carefully check the text and remove typo's. e.g. duplicated 'of the' in line 240, 'betwen' instead of 'between' in line 246, and 'frsh' instead of 'fresh' in line 96).

Response: *this has been done*

Reviewer's comments

The authors addressed well my previous comments and I have no further comments regarding those. However, the addition of hypotheses in the new version seems to me incomplete.

There's no formal testing, analyses, or discussion of each of the hypotheses after they are presented. I think the authors only added those hypotheses based on a comment from the other reviewer, but they are not treated as hypotheses that need to be tested and discussed.

For this reason, I believe the authors should add specific text for each of the hypotheses in the main manuscript, explicitly stating whether the results provide support or not for each of them.

Response: *this text has now been added. Each hypothesis was discussed, but the discussion was not formally linked to the hypotheses. This has now been done.*