

Dear Authors:

Thank you for contribution to Biogeosciences. I studied your responses to referee comments and revised manuscript. As you stated, I found that the manuscript was shortened (for text body, from 577 lines of the first submission to 530 lines of the revised one) and re-organized. By strengthening carbon stock evaluation, the manuscript became more focused. Although this manuscript looks still rather technical, I believe it addressed an interesting theme of carbon cycle and provides useful information. Therefore, I conclude that this manuscript would be published after technical corrections (see below).

Thanks so much for the great news and all your encouragement. We are very pleased to see that our revised version was satisfactory, and we are very excited to see this paper moving forward. Below please find a detailed response to your comments. Also we are including an annotated version of the manuscript showing the changes as per your comments. Once again thanks so much.

Technical corrections

Title

If you put more focus on carbon stock, why did you remove “carbon stock estimates” from title? Moreover, in a broad sense, “peat thickness” is a part of “peat soil characterization”. Please check again.

We agree with the comment and have reverted that change to the original format to show "carbon stock" instead of peat thickness. We originally made the change to satisfy a comment from a reviewer, however you raise a very good point and decided to revert the title again.

Section titles in 2. Methods.

Please clarify which section you explained the method of carbon storage estimation. For example, “2.4. Coring and carbon stock calculation”.

Clarification as suggested has now been added in the title of section 2.4, i.e. "Coring and C stock estimation".

Figure 2 and Section 4.1 (or 3.1?)

I still could not understand what is “woody area”. Can you give short explanation for woody area at somewhere earlier in the manuscript? Is that something like a woody-debris layer?

We are now referring to this as layers rich in woody debris the first time they are introduced, i.e. Line 231.