

Response

We want to thank E. Hobbie for the constructive short comment. Below you can find our response (bold) to the comment:

SC E. Hobbie

This is an interesting approach and a good use of ash content. The Suess effect will probably contribute some to low $\delta^{13}\text{C}$ values in the uppermost peat layers, since the $\delta^{13}\text{C}$ of atmospheric CO_2 has dropped by 1.7 per mil since 1850 (most rapidly since 1950).

Reply: Thank you! That is true, the Suess effect could have contributed to the low $\delta^{13}\text{C}$ values in the uppermost layer of the near-natural site. But the further increase of $\delta^{13}\text{C}$ (more than 5 per mil) with depth shows the aerobic decomposition of the peat at this site. We will include a short discussion of this aspect in the revised manuscript.