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Interactive comment on "A study of the role of wetlands in defining spatial patterns of near-surface (top 1 m) soil carbon in the Northern Latitudes" *by* E. M. Blyth et al.

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1) It is a bit surprising that the authors do not consider recent compilations of peat data that provide information on the timing of peat establishment as well as on the temporal evolution of soil carbon in peatlands at individual sites. There is a broad body of literature on this topic see e.g. (Loisel et al., 2014;Yu, 2010;Charman et al., 2013) and references therein. As peat carbon is a major component of the high latitude carbon inventory, these data require further attention.

2) The authors state as motivation for their study: "All of these studies concentrate their analysis on the total carbon budgets and ignore the spatial patterns Two maps of

current soil carbon of the Northern Latitudes have become available:. ..''

References to recent modelling approaches dealing with peat and high-latitude soil carbon and their spatial patterns are missing. See for example (Kleinen et al., 2012;Spahni et al., 2013;Stocker et al., 2014;Lawrence and Slater, 2008)

3) The assumption that soil carbon is in equilibrium with input and forcing is very likely not justified for many high-latitude ecosystems, and in particular for peat. Peat soils are still taking up carbon as the time scale of decomposition is often larger than the time since peat establishment

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