

Interactive comment on “Carbon dynamics in boreal peat-lands of the Yenisey region, Western Siberia” by E. D. Schulze et al.

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Received and published: 22 July 2015

This is well written paper based on an enormous amount of work in harsh conditions. The paper presents much needed data on age and carbon accumulation rates in peat-lands near the Yenisey region in Central, West Siberia. The authors find that the age is about 200 years older than previous reports and that this is due to DOC contamination in bulk samples. They find that when splitting C into DOC and POC, the DOC is generally much younger. In fact this is one of the main methodological advances of the paper, and this may merit a little more highlighting than currently done. The authors conclude that regional hydrology determines to large extent C uptake of peats.

The papers is experimentally and theoretically sound and the supplement presents relevant additional information.

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I have a few minor comments.

It would be good to cite and refer to Yu, Biogeosciences 9, 4071-4085 to present the results in a wider context, The authors appear to have "missed" this paper.

11292 L26-P11203 L16. While the papers generally sticks close to facts the discussion on the landscape development in these lines is overall very speculative, and distracting from the key messages of the paper. My recommendation is to delete most of that part, particularly the line mentioned here.

11293 L23. Figure 8 does not present a water balance but shows a landscape and landscape units.

Interactive comment on Biogeosciences Discuss., 12, 11279, 2015.

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