Biogeosciences Discuss., 8, C4761–C4762, 2011 www.biogeosciences-discuss.net/8/C4761/2011/ © Author(s) 2011. This work is distributed under the Creative Commons Attribute 3.0 License.



Interactive comment on "Annual emissions of CH₄ and N₂O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture" by S. O. Petersen et al.

Anonymous Referee #1

Received and published: 8 December 2011

Annual emissions of CH4 and N2O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture

S. O. Petersen, C. C. Hoffmann, C.-M. Schäfer, G. Blicher-Mathiesen, L. Elsgaard, K. Kristensen, S. E. Larsen, S. B. Torp, and M. H. Greve The paper reports on annual emissions of CH4 and N2O from organic soils managed by agriculture in Denmark. Overall the manuscript is well written and carefully justified. However, a few shortcomings should be addressed: the first is the fact that only one year was used. Tha authors highlighted this problem and presented the average temperature and precipitation of the reported year compared to the 20 years average in Table 1. Some of the precipita-

C4761

tion (for example at Vildmose) in 08/09 is very different from the 20 years mean: there should be mention in the discussion and/or conclusion about this. Moreover, some more statistics (min max, sd) should be presented also for the Tann of 08/09, not only for the 20 year, so that the reader could understand how atypical were 08/09. Another major point of the manuscript is the lack of originality: from the conclusions it seems that the results presented are just confirming previous results. I would suggest to the authors to think about and better highlight the novelties of their study. This would make the paper a more relevant contribution to the field. Specific comments: Page 10019 Line 16: I would guess Lohila et al., 2003 were not the ones to discover this: include more appropriate reference Page 10020 Line 21: "but also" replace with "and consequently" CH4 emission is connected to the C turnover, not in opposition Page 10023 Line 18-19: how far are the meteo stations from your sites? Indicate. Page 10031 Line 24: "resourcee"? correct Page 10040 Line 3: why did you measure SO4? Explain the goal of these measurements.

Interactive comment on Biogeosciences Discuss., 8, 10017, 2011.