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Interactive comment on "Drivers of long-term variability in CO_2 net ecosystem exchange in a temperate peatland" *by* C. Helfter et al.

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Hi Caroline and others, sorry for advertising our own work here but we recently published a 12-year time series for the Degerö peatland in which winter temperature also appeared as main control on the summer C cycle. It could therefore be really useful and relevant to compare with your findings: Peichl, M., M. Öquist, M. Ottosson-Löfvenius, U. Ilstedt, J. Sagerfors, A. Grelle, A. Lindroth and M.B. Nilsson, 2014. A 12-year record reveals pre-growing season temperature and water table level threshold effects on the net carbon dioxide uptake in a boreal fen. Environmental Research Letters 9, doi:10.1088/1748-9326/1089/1085/055006

Another accompanying paper suggests a link between the spring growing degree day sum, phenology and C cycle for the same peatland: Peichl, M., O. Sonnentag and

M.B. Nilsson, 2014. Bringing color into the picture: Using digital repeat photography to investigate phenology controls of the carbon dioxide exchange in a boreal mire. Ecosystems, DOI: 10.1007/s10021-014-9815-z

In addition there are 6 and 10 years of data for two Canadian peatlands presented in: Flanagan L B and Syed K H 2011 Stimulation of both photosynthesis and respiration in response to warmer and drier conditions in a boreal peatland ecosystem Global Change Biology 117 2271–87

Teklemariam T A, Lafleur P M, Moore T R, Roulet N T and Humphreys E R 2010 The direct and indirect effects of inter-annual meteorological variability on ecosystem carbon dioxide exchange at a temperate ombrotrophic bog Agricultural and Forest Meteorology 150 1402–11

Cheers, Matthias

Interactive comment on Biogeosciences Discuss., 11, 14981, 2014.