

Interactive comment on “Global-scale pattern of peatland *Sphagnum* growth driven by photosynthetically active radiation and growing season length” by J. Loisel et al.

Anonymous Referee #1

Received and published: 29 March 2012

General

The paper “Global-scale pattern of peatland *Sphagnum* growth driven by photosynthetically active radiation and growing season length” represents a valuable piece of research. It is very important to consider vegetation patterns and changes (such migration of species, growth etc.) when looking into future climate scenarios. This research provides good results which can be used for further calculations of GHG balance at site/region or global level. I enjoyed reading this manuscript and I would like to congratulate the authors for delivering such a nice and useful piece of research. I definitely recommend this article for publication in *Biogeosciences*.

C515

Specific comments:

Ideally, when plotting a global distribution of study sites it would be nice if this would also include sites from Asia, Africa and Australia (now 99% is Europe and N America). I am aware of the difficulty in collecting and managing large data sets and how unfortunately not everyone is willing to share their data, but, some data from sites in W Russia and E Russia (Siberia) are available. I would suggest to contact the PI's from the Fluxnet community and ask about data availability and publications on this subject. Perhaps this would also improve the quite low $R^2 = 0.31$ for continental sites.

I would like to ask the authors to add in SI table a column with the site number and link it to Fig. 1. (perhaps add in Fig. 1 the site numbers too) to make it clearer and easy to follow in the discussion.

Perhaps this can also be interesting: <http://www.plosbiology.org/article/info%3Adoi%2F10.1371/journal.pbio.1001111>

Interactive comment on *Biogeosciences Discuss.*, 9, 2169, 2012.

C516