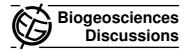
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Interactive Comment

Interactive comment on "Nitrogen balance of a boreal Scots pine forest" by J. F. J. Korhonen et al.

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The paper by Korhonen et al on the nitrogen balance of a boreal Scots pine forest is a great read and provides a wealth of measuring data and a very felicitous synopsis. The major short-come – which cannot be resolved easily – is the lack of an idea about N2 losses due to denitrification. As it stands now, it seems that the system is accumulating nitrogen at a rate of approx. 7 kg N ha-1 yr-1. I think that this estimate is uncertain since N2 emissions may easily be in this range. It would be good if this is directly mentioned in the abstract too. Also Fig. 4 should be amended accordingly, indicating that no information on N2 fluxes (fixation as well as denitrification losses) are available. As it stands now the Fig. is incomplete. If possibly it would also be good to see some uncertainty estimates. Fig. 2 would be a good place for this. This manuscript is highly

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valuable due to the integrated provision of N flux and pool data for a boreal forest ecosystem. It is an outflow of a long-term monitoring and measurement program and this work may stimulate other LTER site managers to draw such budgets too.

Sincerely yours

Klaus Butterbach-Bahl

Interactive comment on Biogeosciences Discuss., 9, 11201, 2012.

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