

Interactive comment on “Comparison of modelled and monitored deposition fluxes of sulphur and nitrogen to ICP-forest sites in Europe” by O. Westling et al.

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1. General Comments

The revised manuscript has undergone a number of changes, in order to allow a better discussion of the discrepancies found in the comparison of ICP measurement and EMEP modelled data. Although detailed replies to the referees are given in separate documents, the main changes are summarised here for convenience.

1. The discussion of the links between precipitation, total deposition, and open-field bulk (wet) deposition and open-field concentrations in precipitation have been expanded and improved.

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2. The major discrepancies are found in just a few regions, with southern Sweden being an important example. We have added extra text to discuss this example, since we have other studies which shed light on some of the problems with precipitation sampling, and why the concentrations in precipitation are modelled better than the bulk wet depositions at open field sites.
3. Fig. 2 has been added to enable a better discussion of the differences between monitored total deposition in forests and bulk-deposition in open-fields, for sulphur.
4. Fig. 4 has been added to show the spatial distribution in precipitation from both ICP forest data and the EMEP model.
5. Figs. 8b and 16 were added to show the spatial distribution in concentrations in precipitation, for comparison with the open-field wet depositions.
6. The text concerning comparison with EMEP measurement data has now been moved earlier in the manuscript, with relevant comparisons appearing alongside the comparison with ICP data. We have removed the old Fig. 14 (EMEP sulphur wet deposition) though, partly to save space, and partly as this comparison can be summarised adequately in the text.
7. Tables 1 and 2, along with the figures, now contain the statistical information on means and regression tables. The old tables with percentile data have been removed.
8. All statistics have been re-calculated, resulting in some minor changes in a few numbers.
9. The conclusions section has been expanded to include recommendations for future work.

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10. The author list has been re-ordered, better reflecting time spent on this paper over the whole writing process.

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