

***Interactive comment on “Chemodiversity in
terpene emissions at a boreal Scots pine stand”
by J. Bäck et al.***

Anonymous Referee #2

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This is an exceedingly well written manuscript outlining chemodiversity in terpene emissions in the finnish boreal forest. This reviewer was particularly impressed by the argument to study the elements of the distribution as opposed to combining overall forest emissions into just one number. To then carry out this distribution analysis with full chemical speciation is wonderful as it produces a dataset that will be highly valuable to the scientific community. The authors may want to examine Fig. 6 of Ebben et al. ACP, 11, 10317-10329 (2011), which shows a distribution histogram of α -pinene contrasted with the remaining terpenes during HUMPPA-COPEC, which may be relevant here as well. Section 4.2 was most interesting to this reviewer, who would suggest the authors quantify their important statements in the first paragraph of that section by possibly providing an order of magnitude estimate of the potential impacts of chemotype on air chemistry. Finally, this reviewer would be interested in hearing whether anthropogenic

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influences during the campaign were controlled for in this present work. Overall, an excellent manuscript!

Interactive comment on Biogeosciences Discuss., 8, 10577, 2011.