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Biogeosciences Discussions

Interactive comment on "Leaf level emissions of volatile organic compounds (VOC) from some Amazonian and Mediterranean plants" *by* A. Bracho-Nunez et al.

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The authors thank the referee for the work invested in reading and commenting. In view of our answers to the other two referees, there is not much to be added. We agree with the referee that screening of plant species is always at the edge. The data just give some information about some species. And we never will be able to describe the whole tropical rainforest based on such studies. As to the comparison of Amazonian species with Mediterranean ones, we have in mind that at least for the case of the species of Amazonian wetland areas plants may also suffer severe water stress, at least in one part of the year. Nevertheless, data on VOC primary emissions are valuable to

understand the ongoing chemical and physical processes in the atmosphere better than just relying on VOC measurements above the forest resulting in data on chemically processed compound mixtures. Furthermore, there are not much data available for the tropics and measurements of more plant species from the same genus Hevea will increase our knowledge. Within this context, we just would like to mention the genus Quercus. There we have a lot of isoprene emitting members contrasting the monoterpenes emitters.

We understand that the referee is very familiar with these problems and principally supports such a study and the publication of data too. As already clearly agreed on in view of the two other referee comments, we will totally rewrite the paper and introduce tables instead of figures. Consequently, the text will drastically be shortened that way. With such changes, we hope to convince the referees and the editor to accept such a manuscript for final publication in BG. Contrasting the remarks of referee 4 we will try to include data on CO2 exchange within such tables in order to indicate the relations between CO2 assimilation and release as VOC-carbon. Doing this, we will learn whether this will be too broad. In case these data do not improve the understanding we can skip this part and leave just a few and short comments.

Further comments

We agree with the referee that the age of a plant is not the key to understand methanol emissions. Instead, growth of plant tissues such as leaves is most relevant.

Identification of m/z73: We felt that it was reasonable to mention this mass. But we are not able to identify it. We just cite some papers where this mass is also reported.

Ocimenes are also reported to be released under normal light conditions (not in the dark) from pine trees. Furthermore, they are discussed to be emitted from young tree species. These explanations might also fit.

Interactive comment on Biogeosciences Discuss., 9, 15279, 2012.