

Interactive comment on "The added value of biomarker analysis to the genesis of Plaggic Anthrosols – the identification of stable fillings used for the production of plaggic manure" by J. M. van Mourik et al.

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"The added value of biomarker analysis to the genesis of Plaggic Anthrosols – the identification of stable fillings used for the production of plaggic manure." J. M. van Mourik, T. Wagner, J. G. de Boer, and B. Jansen

We thank the reviewers fort their carefully reviews and the critical comments to improve the quality of this paper.

It is correct that we used the pollen diagrams and dating result of previous publications, but in this paper we bring the results of 3 plaggic Anthrosols together, to show the

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potential value of the new analytical technique of lipid biomarker analysis when used in combination with existing approaches. We agree with the reviewers that this should be made clearer in the manuscript, and that more emphasis should be placed on the new aspects as provided by lipid biomarker analysis.

Our intention is to: 1. More explicitly indicate which data is new, and which is based on previous work. 2. Replace the earlier used micro photographs by new photographs (from the existing thin sections). 3. Present more extensive information about the functioning of the lipid biomarker approach, specifically indicating how certain parameters (e.g. root vs. leaf input) are selected; and support this by a new figure with a flow diagram giving a systematic overview of the process of biomarker analysis and modelling. 4. Present and discuss the biomarker data more extensively, including new figures showing lipid concentration patterns of all relevant plant species and tissues (new data not shown now). 5. Carefully follow and implement the other recommendations / corrections as suggested by the reviewers.

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