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Interactive comment on “High concentrations of biological aerosol particles and ice nuclei during and after rain” by J. A. Huffman et al.

J. A. Huffman et al.

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Received and published: 24 May 2013

We thank Herr Prof. Jaenicke for his encouraging comments on our recent manuscript. We agree that we all have much to learn about biological particles in the atmosphere.

(1) Regarding your point about the beginning sentence that could mislead certain readers, your point is well taken and we removed the word “micrometer” from the beginning of the sentence you mentioned (at P 1769, L16).

(2) While we utilized the Andersen impactor for collection of particles into agar for subsequent culturing analysis, we discussed data we investigated from these analyses only roughly in terms of particle size (e.g. $\sim 1\text{--}4\ \mu\text{m}$, P1778, L19). So the valid point you raise should not cause problems within the manuscript. Note that most of the size-

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resolved particle analysis came as a result of using the UV-APS or MOUDI impactor.

(3) You are also correct to pointing out that culturing and incubation of airborne microorganisms will only show a small fraction of species actually present in the air. To be very clear we have added the following text to the manuscript:

"It is important to note that a given growth medium is only capable of culturing a small fraction (< 1-10%) of airborne fungal or bacterial species (e.g. Staley and Konopka, 1985; Lighthart, 2000; Bridge and Spooner, 2001; Fierer et al., 2008; Després et al., 2012). Thus, results stemming from growth cultures presented here provide qualitative information for a subset of species possibly airborne at the site."

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 1767, 2013.

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