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Interactive Comment

Interactive comment on "Bacteria in the global atmosphere – Part 1: Review and synthesis of literature data for different ecosystems" by S. M. Burrows et al.

A. Sesartic

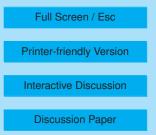
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Received and published: 13 May 2009

This paper is an excellent review of the published measurements of total and culturable bacteria concentrations in the atmospheric aerosol. It presents a very comprehensive collection of the scarce and scattered data available on bacteria in the atmosphere today.

General comment:

I suggest that the authors explain more clearly whether by bacteria they mean any bacteria found in the atmosphere in general, or just those species, which exhibit ice nucleating abilities.





Specific comments:

Page 10778, line 19: cite the source of the claim that "bacteria have a long residence time (of the order of several days)"

Page 10785, line 11: How does the Bowen ratio come into play for bacterial flux measurement? Is it not rather used to measure evapo-transpiration, as it is the ratio of sensible to latent heat fluxes from the Earth's surface up into the air.

Page 10793: In line 19 you state that bacterial concentrations in rural areas are lower than in cities, yet in line 24 you write that "above crops, concentrations may be higher". I would say that your second statement is correct, as I expect crops (and thus rural areas) to produce higher bacterial emissions than cities.

Page 10795, lines 1-9: The use of ratios for the coastal and rural sites as rough scaling factors for forest data seems very questionable, though I am aware that no other means of scaling was available.

Typographical error:

Page 10787, line 26: replace "hiher" with "higher"

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