Interactive comment on “Ice-nucleation negative fluorescent pseudomonads isolated from Hebridean cloud and rain water produce biosurfactants” by H. E. Ahern et al.

Anonymous Referee #3

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General comments My sense is, this is a preliminary but thought-stimulating study that for sure might take us into a very new area of microbial ecology.

The writing and clarity of the manuscript are excellent for those from outside of the field and there is much excellent and pains-taking molecular ecology. I cannot think of similar data from elsewhere to make comparison hence these results should be more widely known.

Specific comments It would be good to have seen more data of course, and to have known of between-site differences between the samples that were taken. Also the negative ice-nucleation results are not conclusive and the biosurfactant production data
can be said to be of importance only if the cells are shown to be active metabolically in the clouds? Also it needs some speculation on differences in origin of cloud water and rain-water samples in light of their quantitative and qualitative bacterial burdens (p1573) and different chemical compositions (Table 2).

Maybe it is too strong to say that Pseudomonas cells use clouds as an environmental niche (p1573, p1577)?

But this paper is a clear pointer to future issues to be addressed.

Interactive comment on Biogeosciences Discuss., 3, 1561, 2006.