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Editorial

AGU Fall Meeting session on Aeolian Dust: Transport Processes, Anthropogenic Forces, and Biogeochemical Cycling

The papers in this issue of Aeolian Research were presented at a special session during the Fall, 2009 meeting of the American Geophysical Union. The special session titled “Aeolian Dust: Transport Processes, Anthropogenic Forces, and Biogeochemical Cycling” within the Earth and Planetary Surface Processes group had 167 participants, and was held in San Francisco, California, on December 14th, 2009. The conveners for the poster session and two presentation sessions were J.C. Ballantine, T.E. Gill, J. King, C.R. Lawrence, N.M. Mahowald, and S. Porder, and are acknowledged for their assistance during the sessions.

This session covered a range of interests related to aeolian dust including nutrient cycling, theory and modeling, applied issues, and field methodology and instrumentation. Papers were in the form of 26 posters and 14 oral presentations over the course of the day, allowing for the session participants and other AGU participants to interact within both casual and formal environments. The session was well received by all participants and the organizers agreed upon collaborating with the Aeolian Research journal to produce a dedicated issue of some of the key papers.

The content of the six papers presented in this special issue reflect those of the meeting. The ordering of the issue follows that of the meeting: ranging from coarse-scale to fine-scale assessments of aeolian dust processes. The first two papers focus on the impact

and controls of the generation and deposition of dust in the southwestern United States using a combination of field techniques and soil analyses. The third and fourth papers share the focus of identifying controls on sediment production, although one is in regard to land cover in New Mexico, USA, and the other investigates supply-limitation associated with glacial-interglacial cycles in West Greenland. The last two papers examine the processes of dust emissions using field wind tunnel technology on the spatial scales associated with cattle trampling and temporal scales controlling salt crust development on the shores of Salton Sea, California, USA.

We gratefully acknowledge those who served as anonymous referees for the papers presented in this issue and to Ted Zobeck for special editorial assistance. In several papers, the referees provided valuable comments that vastly improved the manuscripts.

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