



The
Geological
Society

Ecological uniformitarianism - key or lock?

V I R T U A L C O N F E R E N C E

3 - 4 March 2022

Keynote Speakers

Harry J. Dowsett (US Geological Survey)

Jan A.I. Hennissen (British Geological Survey)

James A. Secord (University of Cambridge)

Tom S. White (Natural History Museum, London)

Greg P. Dietl (Paleontological Research Institution)

Conveners

Andrew L.A. Johnson (University of Derby)

Elizabeth M. Harper (University of Cambridge)

Richard J. Twitchett (Natural History Museum, London)

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The meaning and value of uniformitarianism has always been in doubt since the inception of the doctrine and its promulgation by Charles Lyell in the mid-19th century. The predominance of uniformitarian thinking led to a long delay in acceptance of the origin of the Channelled Scablands (Washington State, USA) by gigantic floods, and certainly also retarded consideration of the importance of other 'catastrophic' events (bolide impacts, etc.) in Earth's past. Despite this chequered history, (pseudo-)uniformitarianism is still an integral part of palaeoecology, being applied to interpret the life habits and environments of fossil organisms from those of modern counterparts. But how stable are niches and hence how reliable are such reconstructions? The frequency of invasive species in modern biotas suggests significant niche lability and shows at the very least that associations may change. The intention of this meeting is to examine niche stability over various timescales and thus to inform both retrodiction of past environments (including climate) from assemblage evidence and prediction of biotic responses to present and future environmental change. Contributions are therefore invited from a variety of fields, including palaeoecology and conservation biology/palaeobiology.