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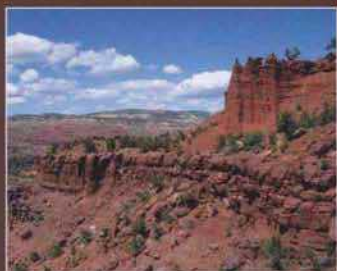


# Non-Marine Permian Biostratigraphy and Biochronology

Edited by

S. G. Lucas, G. Cassinis and J. W. Schneider

During the Permian, the single supercontinent Pangaea stretched from pole to pole. Early Permian glacial deposits are found in southern Gondwana. Along the sutures of Pangaea, mountain ranges towered over vast tropical lowlands. Interior areas included dry deserts where dune sands accumulated. Gypsum and halite beds document the evaporation of hot, shallow seas that formed the most extensive salt deposits in the geological record. The Permian period (251 to 299 Ma) encompasses nine ages (stages) arranged into three epochs (series). Most of the Permian marine timescale has been defined by global stratotype sections and points for the stage boundaries. This volume presents new data regarding the biostratigraphy and biochronology of the non-marine Permian and provides a basis for temporally ordering Permian geological and biotic history on land, and correlating that history to events in the marine realm.



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#### Cover illustration:

Lower Permian red beds of the Cutler Group in foreground near Arroyo del Agua, northern New Mexico, USA, are sandstone and siltstone of fluvial origin that yield extensive fossil assemblages of plants and vertebrates. The high country in the distance exposes lighter-coloured Mesozoic strata that overlie these Permian rocks along the southeastern edge of the Colorado Plateau.

Photograph by Spencer G. Lucas