
**A Jurassic hallucination?
Wooded oases in the Phanerozoic's largest desert, Utah**

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The Lower Jurassic Navajo Sandstone Formation represents the deposits of the largest sandy desert known in the entire Phanerozoic record. Thick strata containing gigantic desert dune forms extend across the states of Arizona, Utah, New Mexico, and Colorado in a continuous belt, 500 km long by 300 km wide. Until recently the Navajo desert was considered an extremely arid, inhospitable region at the heart of the Pangean supercontinent. However, fieldwork last summer has greatly altered our understanding of the paleoenvironment and biota of this region. In this paper I document the occurrence of large silicified conifer trunks rooted in discontinuous limestone beds that locally occur between the dune deposits at multiple horizons near Moab, SE Utah. Limestone beds appear to have originated from mineralized spring-seeps. Associated fossil trees represent the remains of ephemeral wooded oases that periodically developed in the desert.

Abundant trackways indicate that this was a very biologically rich environment frequented by a large range of animals including dinosaurs and mammals. Estimates based on tree growth rate suggest oasis communities bloomed for about 50–100 years before the desert sands encroached once again.