TETRAPOD TRACK ASSEMBLAGE FROM THE UPPER TRIASSIC OF ARGENTINA: PALEOECOLOGICAL AND PALEOGEOGRAPHICAL IMPLICATIONS

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Tetrapod track assemblage from the Upper Triassic of Argentina: paleoecological and paleogeographical implications.1MARSICANO, C.A. and 2BARREDO, S.P. 1CONICET. Departamento de Ciencias Geológicas, Facultad de Cs. Exactas y Naturales, U.B.A. Ciudad Universitaria, Pabellón II, 1428 Buenos Aires, Argentina. E-mail:claumar@gl.fcen.uba.ar Tetrapod footprints from the Upper Triassic Portezuelo Formation are, until now, the only evidence of the presence of tetrapods in the Rincón Blanco Basin (San Juan Province). The basin infilling consists of 2300 m of nonmarine clastics and piroclastics rocks, which are remarkably devoid of skeletal remains. The footprints are recorded in several sites of the Portezuelo outcrops from multiple track-bearing horizons. They are usually associated with desiccation cracks, ripples and drop marks, indicating recurrent playa to mudflat conditions in this marginal lacustrine succession, developed in an alternating humid to semi-arid climate. The ichnofauna suggests a relatively abundant and diverse archosaur fauna, where the dominant trackmakers were small to large basal archosaurs, represented by different types of chirotheroid footprints, and relatively large bipedal and quadrupedal dinosaurs (prosauropods and? basal ornithischians). Also quadrupedal trackways, that could be attributed to small mammal-like reptiles (therapsids), are present. The Portezuelo Formation footprint assemblage suggests the existence of a tetrapod fauna, although at a rather coarse taxonomic level, equivalent to that of the Late Triassic Los Colorados Formation, from the nearby Ischigualasto-Villa Unión Basin, which is mainly represented by skeletal remains. When compared with other gondwanan areas with the well known early Mesozoic footprint records, the Portezuelo footprint assemblage have typical elements of both, Upper Triassic and Lower Jurassic age, as those described from the Karoo Basin (Elliot and Clarens Formations).