

NEW RECORDS OF VERTEBRATES AND TRACE FOSSILS FROM THE HUINCUL FORMATION (CENOMANIAN-TURONIAN, UPPER CRETACEOUS) IN THE VICINITY OF EL CHOCÓN, NEUQUÉN PROVINCE, ARGENTINA

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The Huincul Formation (Neuquén Group) has preserved a rich fauna of continental fossil vertebrates, biased towards large forms, almost exclusively dinosaurs. This contrasts with the underlying Candeleros Formation, where records of small vertebrates and tracks abound. Here we present new trace and corporeous fossils records from the lower section of the Huincul Formation, outcropping at the Cañadón del Cocodrilo site, about 4 km NE of Villa El Chocón. Sub-circular to ovoidal depressions of decimetric dimension are preserved on the top-surface of reddish, fine- to medium-grained sandstones. Concave hyporeliefs show mutual alignment and narrow, fairly developed rims bordering their outer edge, suggesting identifying them as dinosaur tracks. A single kidney-shaped hyporelief, resembling a sauropod manus print in morphology, further supports our hypothesis. Invertebrate traces are straight to gently sinuous and variably oriented, unlined, cylindrical, meniscate backfilled burrows, up to 18 mm wide, with rare secondary branching. Invertebrate traces resemble the ichnospecies *Taenidium barretti*, indicative of the 'pre-desiccation' suite of the *Scoyenia ichnofacies*. The vertebrate remains collected include part of a hypoplastron (Museo Municipal "Ernesto Bachmann" collection: MMCh-PV 302), which on the basis of the ornamentation and the loose connection of the inguinal pillar between the carapace and the plastron, is referred to a turtle Chelidae pleurodiran. It is remarkable that the position of the abdominal-femoral sulcus is different to that present in other fossil chelids of the Neuquina Basin. A fragment of a right mandible (MMCh-PV 303) was collected, whose densely packed acrodont teeth, with a subtriangular section, allow its assignment to a sphenodontian lepidosaur Eilenodontinae, cf. *Priosphenodon* sp. A partial skeleton (MMCh-PV 304) was recovered including an incomplete skull which displays subcircular supratemporal fenestrae and unornamented quadratojugal, that, along with the small size of the specimen allow to assign it to the crocodyliform Notosuchia Uruguaysuchidae. Some features, such as the narrow dorsal surface of the parietal between the supratemporal fenestrae, elevated rims along the margins of these fenestrae, the low medial longitudinal crest over the frontals and angular with and oblique and strongly marked crest, resemble the species *Araripesuchus buitreaensis*. This is the first record of vertebrate tracks, chelid turtle, and notosuchian crocodyle remains at the Huincul Formation. This assemblage strongly expands the knowledge of the fossil fauna for this geological unit, and helps to fill the record gap of certain groups of vertebrates in the Patagonian Cretaceous.

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