

be placed), and pronounced precingulid. The talonid has its labial portion highly worn out, while the entoconid and hypoconulid are fused in a sharp apical region. The specimen has some morphological affinities with *Notogale mitis*, but also resembles Miocene Hathliacynidae like *Sipalocyon gracilis*, *Pseudonotictis pusillus* (Santacrucian) and specially *Cladosictis centralis* (Colhuehuapian). These similarities, such as metaconid absent and highly reduced talonid, suggest that MCN.P.1321 belongs to the Hathliacynidae and could represent the oldest record for the family.

Financial support: CNPq 486692/2012-4.

A NEW PTEROSAUR TRACKSITE FROM THE UPPER CRETACEOUS CANDELEROS FORMATION, NEUQUÉN PROVINCE, PATAGONIA, ARGENTINA

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New pterosaur tracks from the Aguada de Tuco tracksite of the Cenomanian Candeleros Formation (Neuquén Basin, Argentina) are reported here. They are preserved in medium grain-sized sandstones from fluvial deposits and are associated with *Arenicolites* isp. The pterosaur tracks are preserved as concave and convex epirelief, as true tracks and natural casts, respectively. The manus impressions, which are the most abundant, are usually isolated, although manus-pes sets and sequences of manus-manus imprints, some of them probably representing trackways, have been also documented. The best-preserved manus tracks (average 10.8 cm long, 5.4 cm wide) are tridactyl and strongly asymmetrical. The pes tracks (average 11.5 cm long, 4.8 cm wide) are very elongated, trapezoidal to subtriangular, and generally preserve three-digit impressions. Some morphological track variabilities, such as elongated impressions of manus digit III, has been interpreted as the result of variations in substrate properties, mainly moisture content, and behavior. The main features of the studied tracks, manus and pes track morphologies and length/width ratios, are similar to those of the *Pteraichnus* ichnogenus. Nevertheless, due to their preservation, not optimal, we classify them as cf. *Pteraichnus* isp. Only other site with pterosaur tracks has been found in the early Late Cretaceous of South America. These tracks are also in the Candeleros Formation but differ from the Aguada de Tuco ones in having differences in divarication of manus digit impressions, among other features. The present study contributes to the knowledge of the poorly pterosaur track record from Gondwana and its ichnotaxonomic and paleoecological implications.

Financial support: APA-Bunge & Born 2019 Grant (A.M.H.), PIP CONICET 2016–2020 and UBACyT 2016–2019 (P.J.P.). Contribution C-182 of the IDEAN.

FIRST CONSTRAINED OPTIMIZATION (CONOP9) ANALYSES ON ORDOVICIAN GRAPTOLITES FROM THE CENTRAL ANDEAN BASIN

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CONOP9 is an automated graphic correlation program that is multi-dimensional and examines the paleontological data from multiple stratigraphic sections simultaneously. It proposes sequences of first and last appearance datums of fossils; it also rejects impossible solutions (constraint) and searches by sorting through many possible solutions for the best (optimization). This methodology has been applied by many authors in North America, Scandinavia, Gondwana, and the Argentine Precordillera to correlate a number of stratigraphic sections, revising the geological time scale and building biodiversity curves. The research has been mainly focused on conodonts, foraminifera, chitinozoans, and trilobites. However, the graptolite composite range charts and biodiversity curves obtained with CONOP9 are scarce and some results disagree