FOOT MORPHOLOGY OF THE ABELISAURIAN THEROPODS: NEW EVIDENCES FROM THE CRETÁCEOUS OF PATAGONIA†

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Explorations made in the Huincul Formation (Late Cenomanian) close to the Ezequiel Ramos-Mexia Lake, Río Negro Province, conducted to the discovery of an incomplete medium-sized abelisaur theropod (~5 m in length), which includes cranial fragments, vertebrae and hind limb remains. The specimen offers novel anatomical information on the poorly known abelisaurian foot. Metatarsal II, only preserved on its distal end, narrows proximally, as happens in Masiakasaurus and Noasaurus, a derived character that could represent an Abelisauroid synapomorphy (= Abelisauridae + Noasauridae). Metatarsal III, the most robust, with a total estimative length of 27 cm, shows a dorsoventrally depressed ginglymus when compared to other theropods (e.g., Allosaurus, Sinraptor). Metatarsal IV, the best preserved, reaching 24 cm in length, is a slender bone with proportions that resemble II, in this way reflecting the markedly symmetrical structure of the foot with respect to the central metatarsal. The agreement between the slenderness of metatarsals II and IV, and the robustness of III, is expressed in that the maximum width of the latter duplicates the width of each other metatarsal. The metatarsals of the Río Negro specimen, as well as its ungual phalanges, both resemble those from the Lameta Formation (Maastrichtian) of India, originally described as belonging to allosaurid theropods. The evidence now available allows us to reallocate those remains as corresponding to abelisaurid theropods. Additionally, the remains here described provide unknown data on the pedal structure of this clade of Gondwanan dinosaurs.

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