

Nigersaurus, *Lavocatisaurus* and MMCh-PV 71). Except for *Lavocatisaurus*, remaining rebbachisaurids preserved the neurocranium and would seem to share the absence of a frontoparietal foramen, which is also known as ‘pineal’, ‘postfrontal’, ‘parietal’, ‘interfrontal foramen’ or ‘frontoparietal fenestra’. The presence of this opening is usually considered as a synapomorphy of Dicraeosauridae and, outside this family, it is also present in *Apatosaurus* (BYU-17096) and the basal sauropod *Spinophorosaurus*. Skull roof materials of an adult rebbachisaurid (MMCh-PV 70) from Huincul Formation, collected near Villa El Chocón, present a conspicuous frontoparietal foramen. The preserved fused frontals exhibit the anterior margin of this foramen. After a careful examination, this feature is also recognized in the rebbachisaurid specimen MMCh-PV 71, although not mentioned in its original description. While some authors hypothesized that this foramen is related to the parietal-pineal complex of the forebrain, others considered this structure related to ontogeny and present in young individuals. This novel evidence indicates that this frontoparietal foramen is present in some adult specimens of Rebbachisauridae and shows a wider distribution within Diplodocoidea, with a clear potential as a morphological character to analyze in future phylogenetic studies of this group.

ISOTOPIC HALLMARK OF MID-PALAEOLATITUDE TITANOSAURIAN EGGS

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Titanosaurian (Dinosauria – Neosauropoda) dinosaur eggshells are an important part of the fossil record of that clade, well-suited for palaeoecological reconstructions based on oxygen and carbon stable isotope analyses. Their resistance to diagenesis makes them valuable substitutes of bioapatite remains when highly mineralized skeletal remains such as teeth are scarce or absent. We present a new set of conventional ($\delta^{18}\text{O}$ and $\delta^{13}\text{C}$) and clumped (Δ_{47}) stable isotope compositions of titanosaurian eggshells from the recently discovered Late Cretaceous nesting site of Quebrada de Santo Domingo, La Rioja

Province, northwestern Argentina. Comparisons with isotopic data from other titanosaurian nesting sites worldwide reveal clear clusters, one of which is interpreted as the isotopic hallmark for well-preserved, mid-palaeolatitude titanosaurian eggs ($\delta^{13}\text{C}_{\text{VPDB}} = -15$ to -11 ‰; $\delta^{18}\text{O}_{\text{VSMOW}} = 27$ to 33 ‰). This implies that the physiological processes linked to egg formation across Titanosauria were comparable, and that representatives of that clade needed similar environmental conditions for nesting, independently of their geographical location. The definition of an isotopic range for well-preserved titanosaurian eggshells shall help to recognize close-to-pristine material, especially when the alteration is cryptic and did not affect the microstructure of the oological remains. Additionally, we offer new data on the body temperature of titanosaurians suggesting that it may have been higher than previously published. Finally, we show that Riojan titanosaurians needed conditions more arid than the long-term average for nesting, further supporting the hypothesis that these dinosaurs were breeding migrants.

*Project funded by the Jurassic Foundation, the Paleontological Society, PICT 2012-0421, PICT 2018-01211, and the Gobierno de La Rioja.

DIVERSIFICACIÓN CRANEANA Y MANDIBULAR EN MACRAUCHENIIDAE (MAMMALIA, LITOPTERNA): UNA APROXIMACIÓN DESDE LA MORFOMETRÍA GEOMÉTRICA

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Esta contribución describe la variación de la forma del cráneo y la mandíbula del linaje Macraucheniidae. Se estudiaron 16 cráneos y 12 mandíbulas, alojados en instituciones de Argentina (Museo de La Plata, Museo Argentino Ciencias Naturales, Museo Paleontológico Egidio Feruglio) y Brasil (Museu de Ciências Naturais/PUC-MG y Museu Nacional/UFRJ). Los análisis morfogeométricos fueron realizados con modelos 3D, generados por fotogrametría y escáner, utilizando Landmark Editor. Se eligieron 30 landmarks para el cráneo y 14 para la hemimandíbula. Los datos ausentes fueron estimados en el R Studio, utilizando la interpolación de los landmarks vía *thin-plate spline*; los demás análisis fueron realizados en MorphoJ. La proyección de los géneros en el primer componente principal de ambos análisis de componentes principales posibilita asociar la relación filogenética con el cambio de las estructuras, excepto para *Promacrauchenia*, que en el análisis craneal está proyectado cerca de *Xenorhinotherium* y *Macrauchenia*. Las principales modificaciones son el desplazamiento postero-dorsal de la abertura nasal y la proporción antero-posterior entre rostro y caja craneal. En el análisis mandibular, *Promacrauchenia* está proyectado cerca de *Cramauchenia* y *Theosodon*,