

Fossilised bird egg offers clues to Brazil's prehistoric past

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The first fossil avian egg from Brazil Alcheringa: An Australasian Journal of Palaeontology DOI:10.1080/03115518.2014.926449 Júlio Cesar, de A. Marsola, Gerald Grellet-Tinner, Felipe C. Montefeltro, Juliana M. Sayão, Annie Schmaltz Hsiou & Max C. Langer

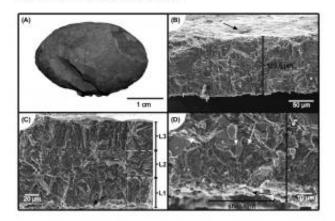


Fig. 1.

A, LPRP-USP 0359, a nearly complete egg.

B, C and D, SEM of the LPRP-USP 0359 shell in radial sections.

B, Black arrow points to the rounded pore opening.

C, Arrow indicates a spheruite core. Note also the delimitation of the shell units and the conduct (prismatic) contact between L1 and L2, and the about (aprismatic) contact. the gradual (prismatic) contact between L1 and L2, and the abrupt (aprismatic) contact between L2 and L3. White dashed lines separate the three structural layers, and a black dashed line indicates the boundary of shell units.

D. Magnification of a spherulite at the base of L1, around the core forming a semi-circle (black arrow). White arrows point to the spherulite calcite crystals that almost reach the contact between L1 and L2.

Brazilian scientists have discovered a near-intact fossilised bird egg – the country's first – in Sao Paulo State.

As Julio Cesar de A. Marsola and his colleagues explain in the journal Alcheringa, their discovery is significant for many reasons. Compared to



the abundance of eggs from non-avian dinosaurs, finds of complete eggs from Mezosoic birds are relatively scarce.

Although no remains were found inside this particular egg, known formally as LPRP USP-0359, the team's extensive tests revealed important information about both the egg itself and its wider context. Their observations suggest that LPRP-USP0359 is, in fact, one of the smallest and thinnest shelled Mesozoic bird eggs ever found.

Moreover, similarities between the Brazilian egg and specimens from Argentina suggests an affinity between them as Ornithothoraces. Given further similarities in where and how the eggs were found, the researchers suggest that the two birds may also have preferred the same types of breeding and nesting habitats – important clues that will help palaeontologists build up a more detailed picture of South America's Mesozoic past.

More information: "The first fossil avian egg from Brazil", by Júlio Cesar. de A. Marsola, Gerald Grellet-Tinner, Felipe C. Montefeltro, Juliana M. Sayão, Annie Schmaltz Hsiou and Max C. Langer, *Alcheringa: An Australasian Journal of Palaeontology*, 2014, published by Taylor & Francis Group. DOI: 10.1080/03115518.2014.926449

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