

Salvinialean megaspores in the Late Cretaceous of southern Patagonia, Argentina


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We report here two megaspores species related to the aquatic ferns of the Order Salviniiales from the Late Cretaceous Mata Amarilla Formation (Austral Basin), southern Santa Cruz Province, Argentina. We identified the species *Arcellites disciformis* and *Balmeisporites* cf. *B. holodictyus*. The presence of *A. disciformis*, in particular, is significant not only because it represents the first record for the Southern Hemisphere, indicating a bi-hemispheric distribution for the species, but also because it increases the diversity of this genus in Patagonia. The new findings of salvinialean megaspores highlight the importance of water ferns in the Late Cretaceous aquiferous environments of southern South America. The common occurrences of *Arcellites* and *Balmeisporites*, whether in shallow, fresh or brackish water facies, indicates aquatic paleoenvironment of the Mata Amarilla Formation, as was inferred also from the sedimentological evidence. Their presence also indicates that the lower and middle levels of the Mata Amarilla Formation can be attributed to the megaspore Zone M3 (Albian–Cenomanian) defined for the Cretaceous of Patagonia.

Key words: Salviniiales, Hydropteridales, Arcellites, megaspores, Cenomanian, South America, Argentina.

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