Megaspores from the Lower Cretaceous Kachaike Formation, Santa Cruz Province, Argentina

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With 8 figures in the text


Abstract: A stream section of the Lower Cretaceous Kachaike Formation in the vicinity of Lakes Tar and San Martín on the northern margin of the Austral Basin in Santa Cruz Province, Argentina has yielded nine species of megaspores. Five of these are described of which one, Tenellisporites coronatus, is new. The composition of both the megaspore, and associated miospore, assemblages suggests that deposition occurred in predominantly freshwater environments during the late Aptian — early Albian. Most of the megaspores are thought to have been derived from aquatic and semi-aquatic plants of selaginellalean, isoetalean and marsilealean affinity growing either within or very near the site of preservation.


Introduction

In 1987 Baldoni described two new species of megaspores, Arcellites santacrucensis and Paxillitriletes kachaikense, from the Kachaike Formation in the southwest of the province of Santa Cruz, Argentina. The ultrastructure of the wall of A. santacrucensis was subsequently discussed and illustrated by Baldoni & Taylor (1988), but so far only passing reference has been made to the other megaspores recovered from the formation. These are described here. Their botanical affinities and biostratigraphic value are also considered along with the palaeoenvironmental implications of their occurrence.