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Book of Abstracts

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Holocene aquatic ferns (Salviniaceae) from the eastern Chaco Region, Northeastern Argentina

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The Chaco region is a large subtropical plain and one of the major biogeographic and morphostructural areas of South-America. Eastern Chaco is the wettest sector of the Chaco region and has heterogeneous environments. Vegetation results of Quaternary alluvial plain dynamics including the intensive migration of the Chaco main rivers. Paleobotanical records do not attest significant floristic changes in the region during the last 10,000 years. Fern macrofossils (vegetative part impressions) and microfossils (spores) belonging to the group of heterosporous aquatic ferns (Salviniaceae) were collected from two sites (Formosa Province, Argentina) which include sediments of the Fidelidad Formation (Late Holocene - Bermejo River natural levees, Villa Escolar). Impressions correspond to *Salvinia* Ség. The floating leaves are orbicular to elliptical in shape, with smooth margin and both the apex as the base are rounded. The base bears a slightly developed keel. Venation pattern is dichotomous. These veins are anastomosed forming areolas. Generally, four tubercles (trichome bases) per areola are observed. The microfossils correspond to massulae and spores of *Azolla* Lam. The massulae are rounded, oval or kidney shaped and have septate glochidia. Spores are trilete and spheroidal. Aquatic ferns are significant paleoenvironmental indicators of open fresh water or wetlands, while *Azolla* and *Salvinia* represent floating plants. This evidence suggests that the basal sediments of the Fidelidad Formation formed under environments similar to those currently observed in the region.



Azolla
Salvinia
Massulae
Chaco region
Fossil ferns



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