

Pollen evidence for late-Holocene climatic variability at Laguna de Aculeo, Central Chile (lat. 34°S)

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A pollen record is presented from Laguna de Aculeo (33°50'S, 70°55'W, 360 m a.s.l.) that documents important vegetation changes over the last 2500 cal. yr in Central Chile. Grasses, composites, trees, paludal and aquatic taxa dominated the Aculeo watershed between 2500 and 100 cal. yr BP under a humid climate. Large amplitude fluctuations of pollen and microalgal accumulation rates and numerous turbidite layers during this interval, however, suggest high precipitation variability probably linked to El Niño-Southern Oscillation (ENSO) events. Although the expansion of warm sclerophyllous forest taxa over the last 100 years could be interpreted as an onset of a drier and warmer climate, this trend was more likely linked to human activities in the watershed. High accumulation rates of microscopic charcoal particles, exotic pollen taxa, and a shift from oligo-mesotrophic to hypereutrophic indicators would seem to back the latter hypothesis.