



Fossil chironomids and ostracods from a 5000 years- sediment sequence of Laguna El Chaltel, southern Patagonia, Argentina

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Lakes are excellent sensors of environmental change, including climate change. Chironomids (Insecta, Diptera) and ostracods (Crustacea) are among the most useful biological indicators for paleoenvironmental reconstruction found in lake sediments, due to their sensitiveness to environmental variables. However, the use of these microfossils in quaternary studies for southern Patagonia is still limited and poorly understood because of the paucity of regional taxonomic and palaeoenvironmental knowledge. The multi-proxy study of lacustrine sediments from Laguna El Chaltel presented here aims to partially fill this gap. Laguna El Chaltel is a permanent lake located at 49°58'25"S, 71°06'53"W in southern Patagonia, Argentina, in the semidesert steppe east of the Andes. A 60.8-cm short sediment core has been analysed in order to obtain information about the paleoenvironmental evolution of the lake during the last ca. 5000 yr BP. The ²¹⁰Pb/²³⁷Cs dating gave an age of 4685 cal yr BP for the base of the core. The presence and abundance of littoral chironomids of the genus *Polypedilum* Kieffer suggest oscillations in the lake level during the timespan of the core, while variations in the relative abundance of the ostracod *Limnocythere rionegroensis* Cusminsky and Whatley indicate the onset of periods of evaporative concentration. Some geochemical and physical parameters such as TIC (total inorganic carbon), TOC (total organic carbon) and magnetic susceptibility show similar patterns evidencing important variations in lake dynamics.

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