

Thème 1

LAKE LEVEL CHANGES DURING THE HOLOCENE INFERRED BY ELEMENTAL AND ISOTOPIC COMPOSITION OF SEDIMENTARY ORGANIC MATTER OF LAGOA DO BOQUEIRÃO (NORTHEASTERN BRAZIL)

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Two cores from Boqueirão Lake, Rio grande do Norte state (Northeastern Brazil) record different histories of sediment accumulation on the margin and center of the lake that reflect changes in lake level. Organic geochemical studies, backed by ¹⁴C dating, reveal variable hydrologic and climatic conditions over the last 7 Cal Kyr BP. From 7,000 Cal yr BP shows tendency to increase, with high variability, of Boqueirão lake level, which reaches his maximum at around 4,500 Cal yr BP. The period between 4,500 Cal yr BP and 3,200 Cal yr BP is characterized by a progressive decrease of the lake level, which reaches his minimum at 3,200 Cal yr BP and still stable until around 1,200 Cal yr BP. From this date, it starts to increase. Comparing with other South American records, we conclude that paleohydrologic changes during the up to Holocene in this region were controlled by the ITCZ shifts more to its south position resulting in sub-Milankovitch solar cycles. During the middle and the end of the Holocene the variability of the Boqueirão lake level changes is probably linked to regional forcings that are related to Atlantic and Pacific variability and their interconnections.



Les Matières
Organiques en France
Etat de l'Art
et Perspectives

22-24 janvier 2006
Carqueiranne

Co-organisé par le « Réseau Matières Organiques » et le Groupe Français de l'IHSS