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Kerschner, H., S. Ivy-Ochs and Ch. Schlüchter (1999): Paleoclimatic inter-pre-ta-tion of the early late-glacial glacier in the Gschnitz valley, Central Alps, Austria. Annals of Glaciology 28, 135-140.

Abstract

The former glacier at the type locality of the "Gschnitz Stadial" of the Alpine Lateglacial chronology is interpreted from a paleoglaciological and paleoclimatological point of view. From the reconstructed glacier topography, the equilibrium line altitude, ice flux through selected cross-sections and mass balance gradients are calculated. They are used to determine total net ablation and accumulation and precipitation under the assumption of steady state. With various glacier-climate models, the former temperature at the ELA and temperature change is estimated. Precipitation was in the order of less than one third of today's values, and summer temperature was roughly 10 C lower than today. The climate of the Gschnitz Stadial appears to have been cold and continental, and was more similar to full glacial conditions than to the Younger Dryas climate in the Alps. This is further evidence for an older age of the Gschnitz Stadial.