

Glacial Quaternary of the Levant from speleothems, lakes and loess

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Speleothems, lake levels and loess data have been collected and radiometrically dated, providing a comprehensive insight of climate change in the Levant during the last 300,000 years.

In the Mediterranean climatic belt, glacial periods were generally cool, wet and dusty. Lake levels were high; speleothems were deposited in presently Mediterranean and semi-arid zones; thick loess beds were deposited. Interglacial periods in the Mediterranean climatic belt were mostly drier, warmer, with less dust deposition. Lake levels were low.

In the arid zone of the northern Saharan belt, conditions were mostly dry, during both glacial and interglacial periods. However, short wetter episodes occurred mainly during previous interglacial periods, at marine isotope stages 5, 7, and 9. Climatic variability of the Levant is highest during interglacial periods, especially at the onset of these periods.

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