
Precipitation Reconstruction from Tree Rings for the Aures Region in Northern Algeria

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Résumé

An October–June precipitation reconstruction for the period AD 1761–2009 was developed from multicentury tree-ring record of *Cedrus atlantica* Manetti (Atlas cedar) for the Aurès region in northern Algeria. The reconstruction equation derived by regression of log-transformed precipitation on tree-ring indices explains 56% of the variance of observed precipitation. Calibration and verification statistics for the instrumental period 1931–2009 show a high level of skill. Split-sample validation supports temporal stability of the tree-ring signal for precipitation. Key features of the reconstruction reveal the magnitude of pre-instrumental droughts from the historic record. Remarkably, the most recent drought appears to be the worst since at least the middle of the 18th century which affected the regeneration of Atlas cedar forest.

Mots-Clés: Dendroclimatology, Atlas cedar, precipitation reconstruction, Algeria

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