Abrupt vegetation changes during the last glacial to Holocene transition in mid-latitude South America

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A pollen record from the Huelmo site (ca. 41°30'S) shows that vegetation and climate changed at millennial time-scales during the last glacial to Holocene transition in the mid-latitude region of western South America. The record shows that a Nothofagus parkland dominated the landscape between 16 400 and 14 600 14Cyr BP, along with Magellanic Moorland and cupressaceous conifers. Evergreen North Patagonian rainforest taxa expanded in pulses at 14 200 and 13 000 14Cyr BP, following a prominent rise in Nothofagus at 14 600 14Cyr BP. Highly diverse, closed canopy rainforests dominated the lowlands between 13 000 and 12 500 14Cyr BP, followed by the expansion of cold-resistant podocarps and Nothofagus at ca. 12 500 and 11 500 14Cyr BP. Local disturbance by fire favoured the expansion of shade-intolerant opportunistic taxa between 10 900 and 10 200 14Cyr BP. Subsequent warming pulses at 10 200 and 9100 14Cyr BP led to the expansion of thermophilous, summer-drought resistant Valdivian rainfor