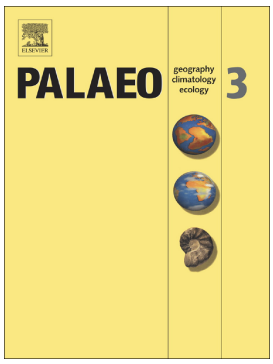

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Iberian micromammals show local extent of Vallesian Crisis

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ABSTRACT

Once perceived as a continent-wide extinction event, doubts have been raised as to the severity and extent of the Vallesian Crisis. In this paper, we use the high-resolution late Aragonian to middle Turolian micromammal record from both the coastal Vallès-Penedès Basin and inland Calatayud-Teruel Complex to determine geographic extent of this late Miocene turnover event and its effects within the reaches of the Iberian Peninsula. Differences in faunal composition between the two regions confirm that the event was much less severe than previously thought. Surprisingly, the diversity peaks in the two regions do not coincide. Whereas at the coast highest diversity is found in the early Vallesian (just before the turnover), in the inland it peaks in the late Vallesian. Several taxa never made it inland as reflected by the low similarity between both regions during the early Vallesian, suggesting that the Vallès-Penedès was indeed unique and consistently showed higher affinities with northern regions. The large differences even at relatively short distances support the idea that the 'Vallesian Crisis' was a local event.