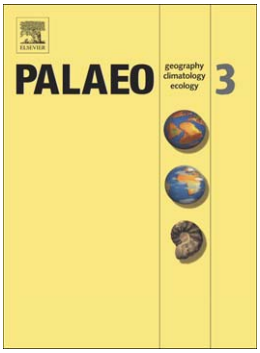

Plant- and micromammal-based paleoprecipitation proxies: Comparing results of the Coexistence and Climate-Diversity Approach

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Plant- and micromammal-based paleoprecipitation proxies: comparing results of the Coexistence and Climate-Diversity Approach

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Abstract

Both plant and vertebrate communities have been used to reconstruct paleoprecipitation. However, direct stratigraphic comparisons between the two types of proxies have hardly been performed, which is due to the fact that plant and vertebrate fossils usually do not occur together in single geological beds. Here, we focus on a series of 18 sites from the Neogene of Europe and Anatolia that contain both types of fossils, and compare paleoprecipitation predictions produced by the Coexistence Approach (plants) and the Climate – Diversity approach (micromammals).

Most of the sites have overlapping uncertainty intervals for mean annual precipitation as generated by the two methods, pointing to a common precipitation-related signal in flora and fauna. Nevertheless, a systematic difference appears to characterize drier sites,