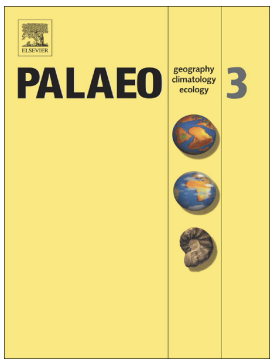

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High-diversity European palaeoflora favoured by early Pliocene warmth: New chronological constraints from the Ca' Viettone section, NW Italy

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Abstract

We present new chronological constraints for a reference European palaeoflora based on integrated stratigraphic, palaeobotanical, palaeomagnetic and micropalaeontological analysis carried out on the Pliocene section of Ca' Viettone, northwestern Italy. This site is characterized by rich fossil plant records of high taxonomic diversity, good preservation, and varied taphonomic mode. Palaeofloral analysis shows that the Ca' Viettone assemblage reflects a chronologically delimited and distinguishable stage of vegetation development in northern Italy (called Ca' Viettone Florenkomplex). Palaeomagnetic analyses show a dominant normal polarity that, however, seems to be the result of a remagnetization process due to secondary oxidation. Layers with no evidence of oxidation have registered a reverse polarity, which likely represents the original magnetization of the sediments. These results, in