

AN UPDATED CHRONOLOGY OF THE MIOCENE PRIMATE RECORD OF THE VALLÈS-PENEDÈS BASIN (CATALONIA, SPAIN)

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The Miocene primate record of the Vallès-Penedès Basin stands out as one of the richest in the world. This area is well-known for a handful of classical localities, but recently our knowledge of Miocene primates has substantially improved thanks to the discovery of many new sites in the Abocador de Can Mata series (ACM). This series is located in the Penedès sector of the basin and has yielded thousands of vertebrate fossils ranging from the latest Middle Miocene (MN7+8, Late Aragonian) to the early Late Miocene (MN9, Early Vallesian). Furthermore, a high-resolution magnetostratigraphical study has been carried out enabling the correlation of this series to other magnetostratigraphical profiles from the Vallès sector of the basin as well as to the geological magnetic polarity time scale. The final result is a detailed magnetostratigraphy that covers the whole primate record in the basin. Additionally a new mammal biozonation is proposed for the latest Aragonian and the Vallesian of the Vallès-Penedès, which allows us to constrain the age of certain classical sites for which magnetostratigraphy is not available. Hominoids and pliopithecoids are first recorded at 12.3 Ma and 11.9 Ma respectively. Hominoids last occur at 9.6 Ma while pliopithecoids disappear a little later being last recorded at 9.0 Ma at the site of Torrent de Febulines 3.

Keywords: magnetostratigraphy, biostratigraphy, hominoids, pliopithecoids