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MIOCENE HOMINOIDS: UNDERSTANDING THE EVOLUTIONARY HISTORY OF APES AND HUMANS

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Miocene hominoids are crucial for understanding the evolution of apes and humans. Extant apes represent a decimated and geographically restricted group of primates, but the Miocene has been repeatedly depicted as 'the planet of the apes' by many. What we can see now is just a relict of the large diversity of forms that existed in the past. For example, extant chimpanzees, gorillas and orangutans display an orthograde bodyplan with suspensory adaptations, but several finds from Africa (e.g. *Nacholapithecus*, *Nakalipithecus*, *Ugandapithecus*), Europe (e.g. *Pierolapithecus*, *Dryopithecus*, *Hispanopithecus*) and Asia (e.g. *Sivapithecus*, *Lufengpithecus*) show that there are no modern locomotor analogues to these Miocene forms. They were not modern ape-like, neither monkey-like, but just "Miocene hominoid-like. This exemplifies the mosaic nature of hominoid evolution, particularly regarding the locomotor apparatus. Accurate chronologies, robust phylogenetic analyses and well-grounded functional interpretations of these taxa, together with paleoenvironmental data, are required in order to propose consistent scenarios for the origin of the great ape and human clade during the middle Miocene and the subsequent evolution of African apes, pongines and hominines.

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