

toya *et al.*, 1999, 2001; Carlos Calero *et al.*, 2006a,b), and Cal Guardiola and Vallparadís (Terrassa, Catalonia) (Berástegui *et al.*, 2000; Alba *et al.*, in press a) are reported. On the basis of faunal comparisons, an age of ca. 1.3 Ma is attributed to Quibas, whereas a somewhat younger age of ca. 0.8-1.0 Ma can be attributed to both Cal Guardiola and Vallparadís, which on the basis of the associated fauna are roughly equivalent to one another and correspond to the Epivillafranchian.

The macaque remains from Quibas were partly figured by Montoya *et al.* (1999), although the sample has considerably increased since then. This collection includes dentognathic remains and some postcranial fragments, while the more restricted sample from Terrassa also includes dentognathic remains from Cal Guardiola and Vallparadís (Alba *et al.*, in press b) and a partial ulna from Cal Guardiola.

Dental morphology and proportions are essentially comparable between the several samples reported here. The teeth display a typically papionin morphology, with a bilophodont occlusal pattern in upper and lower molars. Although there is considerable overlap regarding dental measurements and proportions with the extant Barbary macaque, several significant differences emerge. Two out of three M/3 from Quibas resemble *M. s. florentina* from Italy by being absolutely longer and relatively narrower, while the upper molars (especially the M1) from the several Spanish localities further differ from *M. s. sylvanus* by tending to be absolutely larger and relatively broader.

Montoya *et al.* (1999) refrained from attributing the material from Quibas at the subspecies level, albeit noting metrical similarities with *M. s. florentina*. The samples from Cal Guardiola and Vallparadís have been recently attributed to *M. s. cf. florentina* by Alba *et al.* (in press b). Given the metric differences outlined above, an attribution of the reported fossil material to the nominal subspecies can be discarded. The material from Quibas is here attributed to *M. s. florentina*, on the basis of similar proportions as compared to the Italian material previously attributed to this taxon. In the case of Terrassa, the more restricted sample, combined with its younger (Epivillafranchian) age and the lack of clearcut taxonomic criteria to distinguish it from *M. s. pliocena*, makes an attribution to *M. s. florentina* less secure than in the case of Quibas.

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New pliopithecoid remains (Primates: Pliopithecidae) from the Middle Miocene (MN7 and MN8) of Abocador de Can Mata (els Hostalets de Pierola, Catalonia, Spain)

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New pliopithecoid findings from several localities of Abocador de Can Mata (ACM), recovered during the 2004, 2005 and 2007 field campaigns, are reported. The local stratigraphic series of ACM, situated in els Hostalets de Pierola (Vallès-Penedès Basin, Catalonia, Spain), comprises more than a hundred of vertebrate localities distributed throughout about 300 m with magnetostratigraphic dating (Alba *et al.*, 2006; Moyà-Solà *et al.*, in press). There are currently 20 records of pliopithecoids from 6 different sites (C3-B2, C5-C3, C4-Cb, C5-C2, C5-A8 and C4-A1), ranging from mandibles and maxillary fragments to isolated teeth, which correspond to a minimum number of 8 individuals. All these localities span from ca. 11.9 to 11.6 Ma (subchron C5r.3r, Late Aragonian, Middle Miocene). The oldest one (C3-B2) corresponds to the *Megacricetodon ibericus*+*Democricetodon larteti* local biozone and can be correlated to MN7, whereas the remaining ones correspond to the *M. ibericus*+*D. crusafonti* local biozone and can be correlated to MN8.

The pliopithecoid remains from ACM display a pliopithecine-like dental morphology with well-developed pliopithecine triangles on M/2 and M/3. This, together with other occlusal details, discards an attribution to *Pliopithecus* (*Epipliopthecus*). Albeit slightly smaller, the ACM remains are most similar in size to *P. piveteaui* and *P. antiquus*. Among the latter, several occlusal details (much greater development of the buccal cingulid in lower molars) and dental proportions (M/3 much longer than M/2) indicate greater similarities with *P. antiquus* from Sansan (MN6; type locality) and La Grive PB A (MN8; type locality of *P. antiquus chantrei*, considered a junior synonym of the former).

The pliopithecoid remains from ACM, however, differ from the material of both French localities regarding dental proportions and several occlusal details of the lower molars, such as the position of the protoconid and hypoconulid, and the development of the mesial fovea and buccal cingulid. These differences indicate that the material from ACM represents a new species of *Pliopithecus* s.s. Previous pliopithecoid findings from the Vallès-Penedès Basin previously attributed to *P. antiquus*, such as those from Castell de Barberà, are neither attributable to *P. antiquus* nor correspond to *Pliopithecus* sp. nov. from ACM.

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***Pierolapithecus* and the phalangeal morphology of Miocene apes: paleobiological and evolutionary implications**

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