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A new early Pliocene murine rodent from the Iberian Peninsula and its biostratigraphic implications

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In the last years, a murine identified as *Paraethomys* aff. *abaigari* has been repeatedly recognized in several early Pliocene localities of the Iberian Peninsula. We have revised these occurrences, as well as other samples of similar morphology, and propose that all these records correspond to a new species. We diagnose *Paraethomys baeticus* sp. nov. based on a large sample from the early Ruscinian site of Baza-1 (Guadix-Baza Basin, Spain). It is a medium-sized representative of the genus, with relatively well-developed longitudinal connections both in upper and lower molars, but incomplete stephanodonty. M1 displays high tubercles t6–t9 and low t4–t8 connections. M1 and, to a lesser extent, M2 have posterior spurs on t1 and t3. The t9 and t12 are absent in M2. In m1, a round islet of enamel between the anteroconid and the protoconid-metaconid is regularly observed, as well as a general lack of medial anteroconid, moderate labial cingulum with large posterior accessory cuspid, and longitudinal spur. The new species differs from other European representatives of the genus *Paraethomys* mainly in its size, which is intermediate between that of the small-sized *Paraethomys meini* and the large-sized *Paraethomys abaigari.* In addition, both the size and relative width are smaller than those of *Paraethomys jaegeri*. The frequency of posterior spurs on t1 and t3 of M1 and M2 is higher than that of *P. meini* and lower than that of *P. jaegeri*. The new species here described represents a key biochronological and biostratigraphic marker, since it is restricted to levels of late early Ruscinian age. Thus, this species is useful for establishing divisions within the early Ruscinian, and becomes a characteristic taxon for the early Pliocene in the terrestrial record of the Iberian Peninsula. Magnetobiostratigraphic correlations suggest a chronological range for *P. baeticus* sp. nov. between ca. 4.6 and 4.3 Ma.

Key words: Mammalia, Murinae, biochronology, diversification pattern, early Ruscinian, Europe.

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