

Pleistocene burrows in the Mar del Plata area (Argentina) and their probable builders

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Structures discovered near Mar del Plata are attributed to palaeoburrows built by fossil animals on the basis of morphological patterns, transgressive boundaries in relation to the sedimentary units, and the presence of claw marks on the walls and roofs. They are discrete features of several metres in length, and with subrounded cross sections. Their diameters range from 0.80 to 1.80 m, with the width generally exceeding the height. These structures occur in Pleistocene deposits containing mammals referable to the Ensenadan and Lujanian Ages. Several *Xenarthra* are good candidates as builders of these burrows. Palaeoburrows were attributed before to the large Pleistocene armadillos *Proptraopus*, *Eutatus*, and *Pampatherium*. We consider the possibility that the mylodontid ground sloths were responsible for excavating the burrows. The similar diameters of the burrows and the sloths are consistent with this observation. Anatomical, allometric, and biomechanical analysis of sloths limbs indicates that they were well designed to perform such activity. The shape of some claw marks preserved on the sides and roof of the burrows fits the form of their hand skeleton. Thus, the mylodontid sloths *Scelidotherium* and *Glossotherium* are considered as possible builders for the large late Cenozoic burrows present in the Pampean region.

Key words: Pleistocene, burrows, Mylodontidae, *Xenarthra*, South America.

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