

Description of the most complete skeleton of *Stegomastodon* (Mammalia, Gomphotheriidae) recorded for the Mexican Late Pleistocene

María Teresa Alberdi, Madrid, Javier Juárez-Woo, Guadalajara, Oscar J. Polaco, and Joaquín Arroyo-Cabrales, México

With 8 figures and 4 tables

ALBERDI, M. T., JUÁREZ-WO, J., POLACO, O. J. & ARROYO-CABRALES, J. (2009): Description of the most complete skeleton of *Stegomastodon* (Mammalia, Gomphotheriidae) recorded for the Mexican Late Pleistocene. – N. Jb. Geol. Paläont. Abh., **251**: 239–255; Stuttgart.

Abstract: Gomphotheres skull and skeletal remains from the Chapala Lake region, Jalisco, México are described and compared with other gomphotheres remains from North, Central and South America. Some characteristics are analysed and compared among them, and the Chapalan specimen is identified as *Stegomastodon* sp. Palaeoecological and palaeogeographic considerations of the Mexican gomphotheres are also provided compared with others gomphotheres. The tooth enamel was dated by ^{14}C AMS as $27,910 \pm 270$ AP, corresponding to the late Pleistocene.

Key words: Gomphotheriidae, *Stegomastodon*, Taxonomy, Distribution, Late Pleistocene, Chapala, Jalisco, Mexico.

1. Introduction

The family Gomphotheriidae (Mammalia, Proboscidea) is an ancestral group that originated from primitive proboscideans. The family had several adaptive radiations in Europe, Asia, and North America from the Late Oligocene to the Pleistocene (SIMPSON 1945; SHOSHANI & TASSY 2005; SENDERS et al. 2004). In North America gomphotheres were recorded from the middle Miocene to the end of the Pleistocene (end of Barstovian to Rancholabrean). The most diverse gomphotheres were found from the Late Clarendonian to the Early Hemphillian, with six genera: *Gomphotherium*, *Rhynchotherium*, *Amebelodon*, *Serbelodon*, *Platybelodon*, and *Torynobelodon* (LAMBERT & SHOSHANI 1998). After the Late Hemphillian, its presence was reduced to three genera: *Gomphotherium*, *Rhyn-*

chotherium, and *Amebelodon*. During the Blancan, the record was similar, but with *Rhynchotherium* as the most abundant. Both *Stegomastodon* and *Cuvieronius* were recorded from the middle Blancan, but the last records for *Stegomastodon* were from middle Irvingtonian, and *Cuvieronius* disappeared in North America at the end of the Rancholabrean (KURTÉN & ANDERSON 1980).

ALBERDI et al. (2002a), in a preliminary report of the study skeleton on deposit at the *Museo de Paleontología de Guadalajara*, recorded *Stegomastodon* for the first time in the shoreline of the Chapala Lake. Subsequently, LUCAS (2003) documented the presence of three proboscideans in the area of Lake Chapala: *Stegomastodon*, *Cuvieronius*, and *Mammuthus*; this author tentatively identified the study specimen as *S. rexroadensis* based on its primitive characters.