Zootaxa 817: 1–19 (2005)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

817

Diversity of Quaternary Bats from Serra da Mesa (State of Goiás, Brazil)

MARIA PAULA DE AGUIAR FRACASSO [1] & LEANDRO DE OLIVEIRA SALLES [2]

[1, 2] Sector of Mammalogy, Department of Vertebrates, Museu Nacional / Federal University of Rio de Janeiro, Quinta da Boa Vista, s/n, São Cristóvão, CEP: 20940-040, Rio de Janeiro, RJ, Brazil

Abstract

The aim of this paper is to evaluate the taxonomic diversity of fossil and extant bats from the region of the Serra da Mesa in the State of Goias, Central Brazil. Quaternary fossils were obtained from four limestone caves, namely Igrejinha, Carneiro, Nossa Senhora Aparecida, and Itambé. Information on extant bat fauna used for comparison were obtained from literature and from the collection of Museu Nacional (Rio de Janeiro). The taxonomic identification of the fragments was based on a comparative study of the masticatory apparatus of extant and fossil bat species. A total of 430 fragments were identified, comprising 27 species: *Anoura geoffroyi, Artibeus* sp., *Carollia* sp., *Chrotopterus auritus, Desmodus rotundus, Desmodus* sp., Emballonuridae sp. indet., *Eptesicus/ Histiotus*, *Glossophaga* sp., *Lionycteris spurrelli*, *Lonchorhina aurita*, *Micronycteris megalotis*, *Mimon bennetti*, *Mimon crenulatum*, Molossidae sp. indet., *Myotis* sp., *Natalus stramineus*, *Phylloderma* sp. n., *Phyllostomus discolor, Phyllostomus hastatus*, *Platyrrhinus* sp., *Pteronotus davyi*, *Pteronotus parnelli*, *Sturnira* sp., *Tonatia* sp. n., *Lophostoma silvicola*, and *Trachops cirrhosus.* Phyllostomidae was the most speciose family, but surprisingly most of the fossil fragments were attributed to the families Natalidae and Mormoopidae. Both of which are rare in the area today. The population reduction of these hot-humid-cave dwelling species (*Natalus* and *Pteronotus*) may suggest the climate of the area was warmer and wetter during some interval of the Late Pleistocene or Early Holocene. This study presents the first record of the genera *Lionycteris*, *Lonchorhina* and *Trachops* from the Quaternary of South America. The diversity of Chiroptera found in Serra da Mesa is equivalent to that described for Bahia, which heretofore has the most abundant record for Quaternary bats from South America.

Key words: Chiroptera, Diversity, Quaternary, Central Brazil

Introduction

Although Chiroptera is a remarkably successful group and comprises the second largest mammalian order, the fossil record of these organisms is generally recognized as poor

Accepted by G. Veron: 8 Dec. 2004; published: 17 Jan. 2005