



***Montealtosuchus arrudacamposi*, a new peirosaurid crocodile (Mesoeucrocodylia) from the Late Cretaceous Adamantina Formation of Brazil**

ISMAR DE SOUZA CARVALHO¹, FELIPE MESQUITA DE VASCONCELLOS¹ & SANDRA APARECIDA SIMIONATO TAVARES²

¹Universidade Federal do Rio de Janeiro. Departamento de Geologia, CCMN/IGEO. 21.949-900 Cidade Universitária - Ilha do Fundão. Rio de Janeiro - RJ. Brasil. E-mail: ismar@geologia.ufrj.br; felipe.crocodilo@gmail.com

²Museu de Paleontologia de Monte Alto. Praça do Centenário, Centro de Artes s/n°. 15.910-000, MonteAlto-Brazil. E-mail: sandraastavares@uol.com.br

Abstract

We describe a new species of Peirosauridae (Crocodyliformes, Mesoeucrocodylia), *Montealtosuchus arrudacamposi* **gen. nov. et sp. nov.**, from the Late Cretaceous (Turonian-Santonian) strata of the Bauru Basin, Brazil. *Montealtosuchus* was found at the outskirts of Monte Alto County in reddish sandstones of the Adamantina Formation. This specimen is exquisitely preserved with skull, mandible, postcranial and exoskeletal elements in articulation that provides critical information of the anatomy of this group. The occurrence of Peirosauridae in the Adamantina Formation (Turonian-Santonian) widens the chronostratigraphic range of this Mesoeucrocodylia taxon in Brazil. Recent analysis suggests that the Peirosauridae is restricted to the Late Cretaceous deposits of South America.

Key words: *Montealtosuchus arrudacamposi* **gen. nov. et sp. nov.**; Peirosauridae; Upper Cretaceous; Adamantina Formation; Bauru Basin

Introduction

The Bauru Basin comprises an area between latitudes 18° S and 24° S, and longitudes 47° W and 56° W, and covers an area over 370.000 km² in the southeast interior of Brazil, with outcrops in São Paulo, Minas Gerais, Mato Grosso do Sul and Goiás states. It is subdivided into two distinctive lithostratigraphic units: the Caiuá Group (Rio Paraná, Goio Erê and Santo Anastácio Formations; Cenomanian-Turonian) and the Bauru Group (Adamantina, Uberaba and Marília Formations; Turonian-Maastrichtian) (Fernandes 1998; Dias-Brito *et al.* 2001; Fernandes 2004) (Figure 1).

The rich fossil record of the Bauru Group has yielded a rich assemblage of vertebrate and invertebrate ichnofossils, continental mollusks, arthropods, freshwater fishes, amphibians, squamates, theropod and sauropod dinosaurs, birds and a diverse fauna of Crocodyliformes (Bertini *et al.* 1993; Dias-Brito *et al.* 2001; Arruda *et al.* 2005; Candeiro *et al.* 2006). The Crocodyliformes from Bauru Basin comprise at least five distinct groups of Mesoeucrocodylia: the notosuchids, sphagesaurids, baurusuchids, trematochampsids and peirosaurids (Carvalho *et al.* 2005).

The Peirosauridae are medium sized terrestrial predators and opportunistic scavengers with extensive exoskeleton such as dermal scutes (Vasconcellos 2006). *Peirosaurus tormini* Price 1955 was first described in the Marília Formation (Serra da Galga Member, Maastrichtian), near Peirópolis-Uberaba, Minas Gerais State, Brazil. It is represented by fragmentary cranial material but an extensive postcranial skeleton. Price (1955), based on dental features, suggested its relationship to other Upper Cretaceous Crocodyliformes, known at the