



A new myrmeleontoid genus from the Crato Formation of Northeast Brazil (Lower Cretaceous) (Insecta: Neuroptera: Palaeoleontidae)

JOHANN MILLET¹ & ANDRE NEL^{2,3}

¹2bis, rue des Petit Près, F-27640 Breuilpont-Lorey, France. E-mail: johann.millet@wanadoo.fr

²CNRS UMR 7205, Muséum National d'Histoire Naturelle, Entomologie, 45 rue Buffon, F-75005, Paris, France.

E-mail: anel@mnhn.fr

³Corresponding author

Abstract

The spectacular palaeoleontid *Araripeleon alphonsei* **gen. et sp. nov.** is described from the Lower Cretaceous Crato Formation (Brazil). This large neuropteran is the fourth genus of this Mesozoic family in this Formation.

Key words: Insecta, Neuroptera, Palaeoleontidae, Lower Cretaceous, Crato Formation, Brazil

Introduction

The neuropteran fauna of the Lower Cretaceous Crato Formation is one of the most diverse of this period with several extinct families (Martins-Neto *et al.*, 2007). The main difficulty with the study of this fauna is the lack of phylogenetic analysis that would include both the recent and Mesozoic groups. The most recent phylogenetic analyses of the Neuroptera proposed by Aspöck *et al.* (2001, 2003), Aspöck (2002), and Aspöck & Aspöck (2008) are strictly based on the modern taxa. Such a scope is limited by the fragmentary state of preservation of many fossils. Nevertheless, in some cases the insects from the Crato Formation are very well preserved, but they are not always available for study because they are in private collections. Herein we describe a large and relatively complete myrmeleontoid fossil from this formation, representing a new genus and species of the Mesozoic family Palaeoleontidae.

Methods

We follow the wing venation nomenclature of Heads *et al.* (2005). The type is deposited in the Staatliches Museum für Naturkunde, Karlsruhe, Germany.

Taxonomy

Family Palaeoleontidae Martins-Neto, 1992

Araripeleon alphonsei **gen. et sp. n.**

(Figs. 1–3)

Type species: *Araripeleon alphonsei* sp. n.

Material: Holotype SMNK 2358 PAL, stored at the Staatliches Museum für Naturkunde, Karlsruhe, Germany.