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Description of *Megistoleon thaumatopteryx* sp. nov. with notes on the genus *Megistoleon* Navás (Neuroptera, Myrmeleontidae)

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Abstract

A new African species of antlion, *Megistoleon thaumatopteryx* **sp. nov.**, is described from Mozambique. The poorly known genus *Megistoleon* Navás, 1931 and the only other species currently attributed to it, *M. ritsemae* (van der Weele, 1907) are redescribed in order to provide a better comparison with the new taxon. These myrmeleontids are easily distinguishable by means of an exclusive set of characters besides a striking appearance.

Key words: Neuropterida, Myrmeleontinae, Myrmeleontini, Afrotropical region

Introduction

The Afrotropical region is characterized by a considerably rich and diverse antlion fauna, comprising almost a quarter of the living species of the family Myrmeleontidae. However, this great faunistic diversity is counterbalanced by an unclear taxonomy of numerous genera and a consequent poor state of knowledge. Relatively few modern revisions have been conducted, excluding the subfamily Palparinae (Michel & Akoudjin 2011; Michel & Mansell 2010). Notably, the African members of the tribe Myrmeleontini have not been subjected to a recent taxonomic study. Among the representatives of this tribe, the genus *Megistoleon* Navás, 1931 stands out for its peculiar and striking appearance because of extensive wing markings, an uncommon character in the tribe. This interesting genus appears to be very rare in collections, probably due to forest-dwelling habits, whereas its taxonomic situation (Stange 2004) has been clarified only recently by Prost (2010). The last author demonstrated the existence of only one valid species: *Megistoleon ritsemae* (van der Weele, 1907), distributed in west and central Africa. The recent opportunity to examine further specimens of this poorly known genus allowed to discover a new species of *Megistoleon* from Mozambique, besides to describe and illustrate some characters of taxonomic value not treated in the original descriptions of the former species such as terminalia and genitalia (van der Weele 1907; Navás 1931; Navás 1936), improving the characterization of the genus.

Material and methods

A Leica® MZ9.5 stereomicroscope was used for morphological observations, while a Leica® MZ16 stereomicroscope equipped with a DFC320 digital camera was utilized both for morphological measurements and for photographs. Once obtained, the photos were subsequently elaborated using LAS (Leica® Application Suite) applied software Version 2.5.0 R1. The software Adobe® Photoshop CS5 Extended Version 12.0 was utilized for post-shoot image processing. The length of the adults was measured from the vertex of the head to the tip of the abdomen. The length of the wings was measured longitudinally from the base to the apex, and the width was taken as the maximum width perpendicular to the length measurement line. Terminalia and genitalia were prepared by maceration in 10% KOH (potassium hydroxide) in cold water for several hours, subsequently washed in acetic acid and water, and finally stained in a saturated solution of Chlorazol Black in 95% ethanol.

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