



## Revision of Mesitiinae (Hymenoptera, Bethyridae) from Madagascar, with description of eleven new species

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### Abstract

Thirteen species of Mesitiinae from Madagascar are recognized. *Pilomesitius madagascarensis* Móczár, *Zimankos madagascarensis* (Móczár), and eleven new species: *Anaylax betsileo* Barbosa & Azevedo, **sp. nov.**, *A. mahafaly* Barbosa & Azevedo, **sp. nov.**, *Clytrovorus bara* Barbosa & Azevedo, **sp. nov.**, *C. merina* Barbosa & Azevedo, **sp. nov.**, *C. zafimaniry* Barbosa & Azevedo, **sp. nov.**, *Codorcas antanosy* Barbosa & Azevedo, **sp. nov.**, *Itapayos antaimoro* Barbosa & Azevedo, **sp. nov.**, *Itapayos mikea* Barbosa & Azevedo, **sp. nov.**, *Pycnomesitius tanala* Barbosa & Azevedo, **sp. nov.**, *Zimankos mako* Barbosa & Azevedo, **sp. nov.**, *Z. sakalava* Barbosa & Azevedo, **sp. nov.** One new combination is proposed: *Zimankos madagascarensis* Móczár 1970, **comb. nov.** from *Sulcomesitius* with the discovery of its male. A key of Malagasy Mesitiinae species are provided.

**Key words:** Key; new characters; characters discussion; new records

### Introduction

Mesitiinae are represented by 202 species, and include 22 genera in four tribes, recorded from Afrotropical, Oriental and Palaearctic regions. Despite some species are reported to Afrotropical region, there are only two species recorded from Madagascar, *Pilomesitius madagascarensis* Móczár, 1970 and *Sulcomesitius madagascarensis* Móczár, 1970. The main goal of this study is to review for the first time the Malagasy Mesitiinae. Argaman (2003) changed the name of “Mesitiinae” to “Mesitinae”, he argued that the the word *Mesitius* is derived from Greek word “mesites” (mediator, intermediate), and the stem is “mesit”, therewith the correct name would be “Mesitinae”. However, according to the members of ICZN Denis J. Brothers and Miguel A.A. Zarazaga (pers. comm.), the stem of *Mesitius* is “mesiti”, and therefore the correct name is Mesitiinae.

### Materials and methods

The material examined was provided by California Academy of Science, U.S.A. (CASC, Robert Zuparko). It was collected under the scope of the project “Madagascar Arthropod Inventory”, grant #BSI 0072713, coordinated by Brian Fisher. This material was compared with types provided by provided by Muséum National d'Histoire Naturelle, France (MNHN, Claire Villeman) and MRAC–Musée Royal de l'Afrique Centrale, Belgium (MRAC, Eliane De Coninck).

Terms of body structures generally follows Evans (1964), Azevedo (1999), Móczár (1970) and those related to the integument follow Harris (1979). The abbreviations used in the text are as follows: LH, length of head measured dorsally; WH, width of head measured dorsally; WF, width of frons measured dorsally; HE, height of eye measured laterally; OOL, ocelli-ocular distance; WOT, width of the ocellar triangle; DAO, diameter of anterior ocellus; VOL, vertex-ocular line measured dorsally; and LFW, length of fore wing.

The descriptions and key were elaborated with DELTA (Descriptive Language for Taxonomy) according to Dallwitz *et al.* (1993). The photographs were obtained with the EntoVision® system and combined with Helicon Focus®. The genera of Mesitiinae are identified using the key proposed by Argaman (2003).