



## Taxonomy of the dung beetle genus *Ochicanthon* Vaz-de-Mello (Coleoptera: Scarabaeidae: Scarabaeinae) of the Indian subcontinent, with notes on distribution patterns and flightlessness

MATHEWS LATHA<sup>1</sup>, GIULIO CUCCODORO<sup>2</sup>, THOMAS K. SABU<sup>3</sup> & K. V. VINOD<sup>1</sup>

<sup>1,3</sup>Litter Entomology Research Unit, St. Joseph's College, Devagiri, Calicut-673008, Kerala, India

<sup>2</sup>Muséum d'histoire naturelle, Case postale 6434, CH-6436 Geneva, Switzerland. E-mail: Giulio.Cuccodoro@ville-ge.ch

<sup>3</sup>E-mail: sabukthomas@gmail.com

### Abstract

The taxonomy of the genus *Ochicanthon* Vaz-de-Mello of the Indian subcontinent is revised and an identification key to the species is provided. The number of *Ochicanthon* species from the region is increased to 15, eight of which are new: *O. besucheti* Cuccodoro **sp. nov.**, *O. ceylonicus* Cuccodoro **sp. nov.**, *O. devagiriensis* Sabu & Latha **sp. nov.**, *O. ernei* Cuccodoro **sp. nov.**, *O. gauricola* Cuccodoro **sp. nov.**, *O. murthi* Vinod & Sabu **sp. nov.**, *O. mussardi* Cuccodoro **sp. nov.** and *O. vazdemelloi* Latha & Sabu **sp. nov.** Four species from the upper montane cloud forests are wingless, raising the number of wingless species of *Ochicanthon* to five. At least two groups of *Ochicanthon* exist in the Indian subcontinent: i) the *O. tristis* group with dorsum predominantly black-brown, with a distinct pattern of orange-yellow patches on the elytra and ii) the *O. laetus* group with dorsum entirely brown or black and with or without a faint orange patch. The distributions in the moist forests of the southwestern and northeastern regions of the Indian subcontinent, the possible origin of the genus in the Western Ghats in the southwest of the subcontinent and the flightlessness of montane species are discussed.

**Key words:** Canthonini, winglessness, montane cloud forests, the Western Ghats, Indo-Burma, biodiversity hotspots

### Introduction

The genus *Ochicanthon* Vaz-de-Mello, 2003, previously referred to as *Phacosoma* Boucomont, 1914 (Vaz-de-Mello 2003), includes small to medium sized forest dwelling Canthonini. The genus has a geographic distribution restricted to the Oriental region, where it occurs from the Indian subcontinent bioregion to the Sunda Shelf and Philippines bioregion of the Indo-Pacific region (Wikramanayake *et al.* 2002, Krikken & Huijbregts 2007). Of the 39 known species, seven are recorded from the Indian subcontinent (Arrow 1931, Balthasar 1963, Paulian 1980, Paulian 1983, Krajcik 2006, Löbl & Smetana 2006, Schoolmeesters 2008), four from Indochina (Boucomont 1920, Paulian 1987, Masumoto 1989, Hanboonsong & Masumoto 2001, Krajcik 2006, Löbl & Smetana 2006, Schoolmeesters 2008) and 28 from the Sunda Shelf and Philippines bioregion (Boucomont 1914, Ochi 1990, Ochi & Araya 1996, Ochi *et al.* 1997, Krajcik 2006, Ochi *et al.* 2006, Krikken & Huijbregts 2007, Ochi *et al.* 2007, Ochi & Kon 2008, Schoolmeesters 2008).

Though the Indian subcontinent is suggested to have a morphologically diverse *Ochicanthon* fauna (Krikken & Huijbregts 2007), no additions have been made to the genus in the area since the works of Paulian (1980, 1983). In the present work, we describe eight new species, three of which are flightless, and redescribe all species recorded from Indian subcontinent except *O. obscurus* (Boucomont) whose status as an Indian species requires confirmation (see diagnosis under key to the species). Notes on the disjunct distribution of the genus in the southwest and northeast of the Indian subcontinent, flightlessness and possible origin of the genus in the southwest of the subcontinent and subsequent dispersion to Indochina, Sunda Shelf and Philippines ecoregions are also discussed.