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New species, new synonym, and redescription of *Onthophagus* (Coleoptera: Scarabaeidae: Scarabaeinae) from the Western Ghats, India

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Abstract

Onthophagus tnai **new species**, belonging to the *Onthophagus militaris* species group, is described from the Western Ghats, India. Characteristics of the *Onthophagus militaris* species group are discussed and a modified key to the group is given. A taxonomic assessment of *Onthophagus* species from the montane rain forest ecoregion (MEF) in the Western Ghats, resulted in the synonymy of *O. taruni* Biswas & Chatterjee with *O.vladimiri* Frey and the reassessment of the infrageneric position of *O.sahai* Biswas & Chatterjee.

Key words: taxonomy, dung beetle, the Western Ghats, biodiversity hotspot

Introduction

With 3,021 species, the genus *Onthophagus* Latreille is the most speciose in the subfamily Scarabaeinae (Schoolmeester 2011). The number of *Onthophagus* species from the Indian mainland are approximately 182 described species (Arrow 1931, Balthasar 1963, Löbl & Smetana 2006). Of these species, 78 have been recorded from the moist South Western Ghats (Sabu *et al*. 2011), which is the region with highest endemism in the Western Ghats and a global biodiversity hotspot (Wikramanayake *et al*. 2002). Among these 78 species, 19 are endemic to the Western Ghats; 12 are regional endemics to the South Western Ghats montane rain forest ecoregion (MEF); and one species, *O. bisectus* Arrow, is a local endemic to the tropical montane cloud forest (Sabu *et al*. 2011).

This paper reports on a reassessment of the *Onthophagus* species from the montane rain forest ecoregion (MEF), the region with the highest number of local endemic *Onthophagus* species in the Western Ghats (Sabu *et al*. 2011). This reassessment lead to the description of a new species of *Onthophagus* (belonging to *O. militaris* species group) from the South Western Ghats montane rain forests ecoregion, the synonymization of *Onthophagus taruni* Biswas & Chatterjee with *O.vladimiri* Frey (within the *O. fasciatus* species group), a reexamination of the infrageneric position and redescription of *Onthophagus sahai* Biswas & Chaterjee (within the *O. dama* species group), and a modified key to the species of *Onthophagus militaris* species group.

The high number of taxonomic errors found for *Onthophagus* species from the Indian subcontinent (*e.g.*, *see* Tarasov 2010) likely indicates that many more errors remain undetected since the major taxonomic treatments for this region (Arrow 1931, Balthasar 1963) are out of date. The careful reexamination of type material and the use of the aedeagal structure will be key components for future taxonomic studies of Indian *Onthophagus*.

Materials and methods

Specimens were collected using dung baited pitfall traps and identified using keys in Arrow (1931) and Balthasar (1963). Diagnostic features were described based on Arrow (1931) and Balthasar (1963).

Measurements have been taken dorsally and are defined as follows: TL = distance from apex of the clypeus to the apex of the elytra, BW = broadest body width, PL = medial length of pronotum, PW = maximal width of

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