



Distributional records of *Onthophagus germanus* Gillet, 1927 and *O. orissanus* Arrow, 1931 (Coleoptera, Scarabaeidae, Scarabaeinae) from south India

K.A. Sobhana*, T.K. Viswanath and V.D. Hegde

Western Ghat Regional Centre, Zoological Survey of India, Kozhikode 673006, Kerala, India.
Email: sobhanasineesh@gmail.com*; vivekvishvanath@gmail.com; vdhegde67@gmail.com

ABSTRACT: Distribution records of two dung beetle species, *Onthophagus orissanus* Arrow, 1931 and *O. germanus* Gillet, 1927, from south India is provided. *O. orissanus* is reported for first time from south India and *O. germanus* is reported for the first time outside the moist south Western Ghats from the Malabar Coast region in Kerala. © 2023 Association for Advancement of Entomology

KEY WORDS: First report, South Western Ghats, Kerala

The dung beetles *Onthophagus orissanus* Arrow, 1931 and *Onthophagus germanus* Gillet, 1927 comes belong to tribe Onthophagini, subfamily Scarabaeinae and family Scarabaeidae. 5700 species under 234 genera and 12 tribes are known within the subfamily Scarabaeinae (Krajcik, 2012). *Onthophagus* Latreille, 1802 is a speciose genus within the tribe Onthophagini, (Kharel *et al.*, 2020). In India, genus *Onthophagus* represented by 190 species and is the mega-diverse genus (Kharel *et al.*, 2020). Known distribution of *Onthophagus orissanus* Arrow, 1931 includes Bihar, Madhya Pradesh, Maharashtra and Odisha and that of *Onthophagus germanus* Gillet, 1927 include Sikkim, Uttarakhand and West Bengal (Kharel *et al.*, 2020). Present study reveals the range extension of these species to south India and is reported for the first time from the state of Kerala.

Specimens were collected using pitfall traps during 2018-2019, from the sacred grove located in

Koyilandy of Kozhikode district, Kerala, India (11° 29' 49" N; 75° 39' 51" E, 9m). The specimens were pinned, dried, labeled and then identified employing the keys of Arrow (1931) and Balthasar (1963). Specimens were examined under LEICA M205A stereo zoom microscope and imaged using LEICA DFC 500 digital camera attached to the microscope. The studied specimens are deposited at Zoological Survey of India, Western Ghat Regional Centre, Kozhikode, Kerala, India (ZSIK).

1. *Onthophagus orissanus* Arrow, 1931 (Figs.1, 2).

Onthophagus orissanus - Arrow, 1931: 257.

Onthophagus (Onthophagus) orissanus - Balthasar, 1963: 464

Material examined: 1♂, 1♀, Kerala, Kozhikode, Koyilandy, Muchukunnu, Kottayilkavu, (11° 29' 49" N; 75° 39' 51" E, 9m), 20.VII.2018, Coll. T.K. Viswanath.

* Author for correspondence

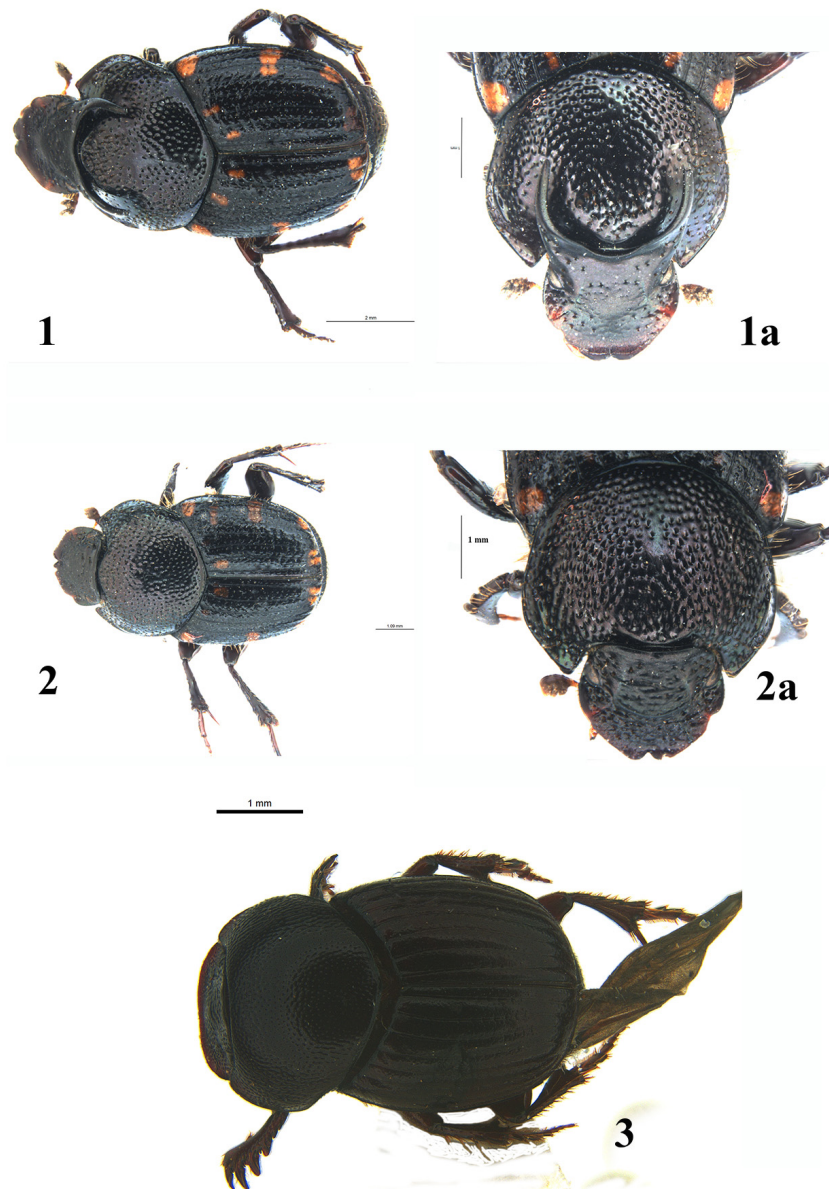


Fig. 1 *Onthophagus orissanus* Arrow, 1931 ♂, Fig. 1a *Onthophagus orissanus* Arrow, 1931 ♂ (Frontal view), Fig. 2 *Onthophagus orissanus* Arrow, 1931 ♀, Fig. 2a *Onthophagus orissanus* Arrow, 1931 ♀ (Frontal view), Fig. 3 *Onthophagus germanus* Gillet, 1927 ♀

Diagnosis: Length: 6.5mm, width 4.0mm. Oval and convex. Head, pronotum, pygidium and lower surface dark coppery or metallic green in colour. Clypeus deeply notched and sharply bilobed in front. Head bears a pair of backwardly directed horns (Fig. 1a) which are moderately broad at base slender at the end and united by a curved carina enclosing a half-circle at its posterior margin. In female, clypeus and forehead divided by a curved

carina and the vertex of head bears another straight carina (Fig. 2a).

Distribution: India: Bihar, Kerala (New Record), Madhya Pradesh, Maharashtra and Odisha.

Remarks: *Onthophagus orissanus* is reported first time from south India. It is also the first record from the south Western Ghat region of Kerala State.

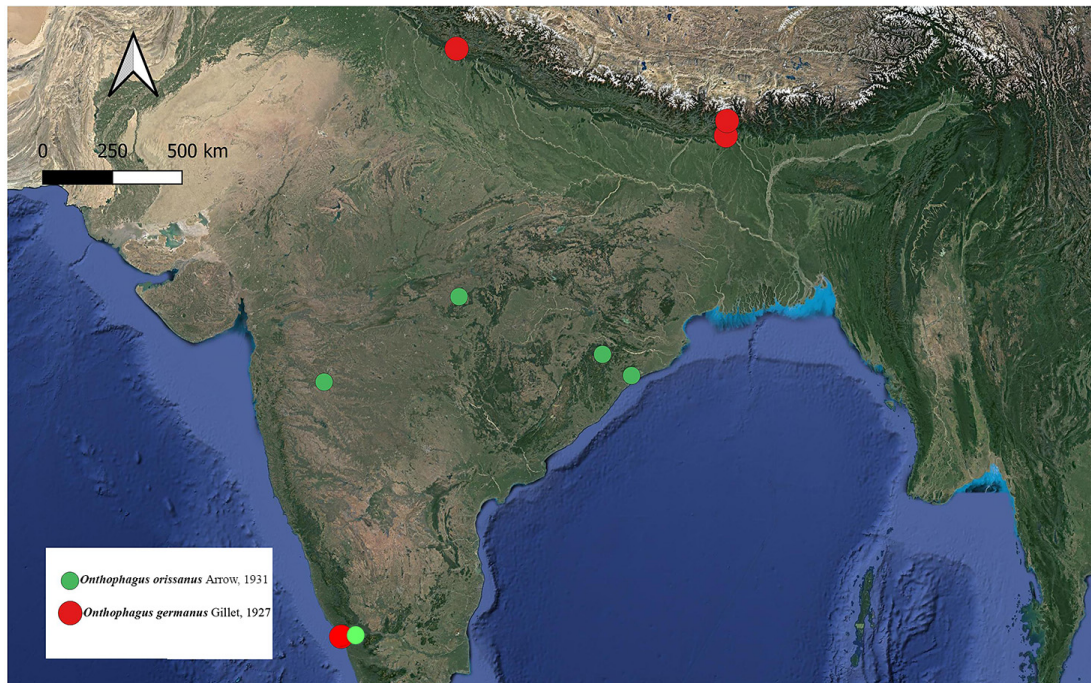


Fig. 4 Map showing the new distribution of *Onthophagus orissanus*

2. *Onthophagus germanus* Gillet, 1927 (Fig.3).

Onthophagus germanus Gillet. *Bull. Soc. Ent. Belg.* 1927, p. 254.

Material examined: 1 ♀, Kerala, Kozhikode, Koyilandy, Muchukunnu, Kottayilkavu, (11° 29' 49" N 75° 39' 51" E, 9m), 20.VII. 2018, Coll. T. K. Viswanath.

Diagnosis: Length 6-7mm, width 4mm. Black, Oval and highly convex, lower surface clothed with reddish hair. Head flat, broad, and densely rugose. Clypeal margin rounded with scarcely perceptible angulations in the middle. The front angles of the pronotum broadly rounded; lateral margins feebly rounded in front and sinuate behind. Elytra finely striate intervals flat and minutely punctate. Metasternum with a vertical, sharply compressed, and apically pointed process in front.

Distribution: India: Kerala (Malabar Coast; Shendurney and Wayanad in south Western Ghats montane rain forests ecoregion), Sikkim, Uttarakhand, West Bengal (Fig. 4).

Remarks: *Onthophagus germanus* was reported from south Western Ghats montane rain forests eco region (Sabu *et al.* 2011) in Kerala state with exact localities not provided by the earlier authors. It is the first record of the species outside the south Western Ghats and from the Malabar Coast in Kerala state referred as Malabar Coast moist deciduous forest ecoregion.

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