

Rediscovery of *Trochoideus desjardinsi* Guérin–Méneville, 1838 (Coleoptera, Endomychidae, Pleganophorinae) with a new record from Mumbai, Maharashtra, India

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ABSTRACT: After nearly a century, *Trochoideus desjardinsi* Guérin-Méneville, 1838 was rediscovered from India. Earlier records from India are by Arrow (1925) from Kerala and Andaman Islands. This species is reported for the first time from Maharashtra. Additionally, a brief redescription of the species is provided with habitus image. © 2025 Association for Advancement of Entomology

KEY WORDS: Range, extension, beetle fauna, light trap, Western Ghats

The “Handsome fungus beetle” is a common name for mycophagous beetles of the family Endomychidae, which are vibrant in colour. Global Endomychidae fauna consists of 1782 species in 130 genera and 12 subfamilies (Shockley *et al.*, 2009a). However, in India, this family of beetles is only represented by 116 species in 35 genera and six subfamilies (Shockley *et al.*, 2009a). One of the subfamilies is Pleganophorinae, which according to Strohecker (1953), Tomaszewska (2005) and Shockley *et al.* (2009a), has only three genera globally: *Pleganophorus* (Palearctic Region), *Dadocerus* (Oriental Region) and *Trochoideus* (Neotropical, Afrotropical and Oriental Regions).

Trochoideus Westwood, 1833 contains 19 species distributed worldwide, one of which, *Trochoideus desjardinsi* Guérin–Méneville, 1838 (Coleoptera, Endomychidae, Pleganophorinae) has been reported

from Borneo, Cuba, Fiji Islands, India, Indonesia, Japan, Java, Kenya, Madagascar, Malaysia, Mauritius, Micronesia, Myanmar, Papua–New Guinea, Philippines, Samoa, Seychelles, Sri Lanka, Taiwan, Tanzania, Uganda, and the United States (Shockley *et al.*, 2009a; Shockley and Kovalenko, 2018). Thus, the species is now considered cosmopolitan across the tropical regions of the world. Arrow (1925) revised the *Trochoideus* fauna from British India and reported *T. desjardinsi* from Indian regions like Quilon, Travancore (currently Kollam), and Port Blair, Andaman Islands (currently Sri Vijaya Puram). Therefore, this species in India has, so far, only been reported from the state of Kerala (Kollam district) and a union territory, Andaman and Nicobar Islands (South Andaman district). There are no new records of this species from India in any recent literature except the mention in Skelley and Burgess (1995) and a

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checklist by Shockley *et al.* (2009a), both with just a country name (“India”), likely referring to the specimen localities reported by Arrow collectively. Now the rediscovery of *T. desjardinsi* (Fig. 1) from India after nearly a century, with a record new for Maharashtra State in Sanjay Gandhi National Park, Mumbai is reported.

Sanjay Gandhi National Park (SGNP) is located in the metropolitan area of Mumbai. Yazdani *et al.* (1992) described a wide range of habitats present in this national park, such as: coastal, dry and moist deciduous, mixed deciduous to semi evergreen and open scrubland. These habitats are typical of the Western Ghats. The elevation, in SGNP, ranges from 30 meters to more than 500 meters above sea level, and vegetation is also highly diverse due to the area’s proximity to the sea, numerous streams, and mountainous topography (Yazdani *et al.*, 1992). An on-going field study to understand the diversity of beetle fauna from SGNP revealed a female specimen (Reg. No. KN210; deposited in the collection of the Department of Zoology, K.J. Somaiya College of Science and Commerce, Mumbai) on a light trap, during mid-monsoon on 23.VIII.2022 at Kashi, SGNP. The light trap (Fig. 2) was set at 51 m above sea level in the Dharavi Mandir under the canopy of a huge mango tree, facing downhill to a seasonal stream.

The collected female specimen was identified as *T. desjardinsi* using Arrow (1925), Strohecker (1953), and Tomaszewska (2000). The species is characterized by having modified antennae with probable association with ants and termites (Arrow, 1925; Strohecker, 1978). The female possesses antennae similar to that of the male but with a diameter of antennomere IV one-fourth of the length, while in male antennomere IV is swollen considerably (Arrow, 1925; Skelley and Burgess, 1995- images on p.290). According to Arrow (1925), the species is also found in heaps of refuse coconut husks. Additionally, this species also inhabits under the bark, can survive on stored products, and has a potential to be an economically important insect (Beeson, 1941; Shockley *et al.*, 2009b; Shockley and Kovalenko, 2018). The species has been redescribed in Arrow (1925) and a recent detailed

diagnosis of the genus has been given by Tomaszewska (2000).

Brief Redescription:

Female (Fig. 1). Body elongate-oval, almost twice as long as wide (3mm long, 1.5mm wide). Brown red integument with small and numerous punctures. Pubescence yellow, short, thin and moderately dense over the body.

Head width including eyes wider than the half of the pronotal width. Eyes small, widely placed with distinct facets. Antenna modified with four joints; antennal insertions visible from above. Antennomere I somewhat cylindrical and curved, broadening apically. Antennomere II smallest, narrower than III. Antennomere IV longest, largest, widening apically to somewhat rounded apex. Vestiture on antennomere IV. Frons convex, without frontal carina, carinate over antennal insertions. Clypeus punctate, light brown, anterior margin straight. Labrum rectangular, setose, as broad as clypeus, its anterior margin broadly emarginate. Mandibles slender. Maxillary palpi three segmented, terminal segments cylindrical with pointed apex. Labial palp with the terminal segment distinctly cup-shaped.

Thorax with pronotum transverse, widest near middle, its surface convex with shallow longitudinal depression in the middle. Lateral edges carinate, convex, slightly constricted submedially; posterior angles right angled. Scutellum small, flat with sides broadly rounded converging posteriorly to apex. Elytra only slightly broader than pronotum, with numerous punctures and without distinct striae, elytral humeral angle rounded. Elytral sides convex, uniformly sloping posteriad to almost rounded apex. Elytral epipleura broad, almost up to the middle of first abdominal ventrite. Prosternal process very narrow. Mesosternum convex, projecting between mesocoxae. Metasternum convex with distinct metaventral discripen along the entire length; broad and truncate between metacoxae. Metepimeron long and parallel sided.

Legs with procoxae broad anteriorly, narrowing posteriorly, placed very close to each other.



Fig. 1 Female of *Trochoideus desjardinsi* Guérin-Méneville, 1838 collected from SGNP, Mumbai

Mesocoxae parallel to each other. Metacoxae transverse, widely separated. Protochantin visible. Trochanter length in increasing order from anterior to posterior: protochanter < mesotrochanter < metatrochanter. Femora twice as broad as tibia; tibia slender, length subequal to femoral length. Tibial

spur absent. Tarsal formula 4-4-4; tarsomeres densely pubescent. Tarsomere IV long. Tarsal claws slender, blades uniformly curved to pointed apex. Abdomen with six visible ventrites. Ventrite I long almost equal to combined length of II–IV. Ventrite VI small, broadly rounded. All ventrites finely, uniformly punctate.

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Fig. 2 Light trap and a part of the habitat at Kashi

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