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SHORT COMMUNICATION

# *Myrmoteras scabrum* Moffett, 1985 (Hymenoptera: Formicidae), A Rare ant of Western Ghats of India

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**Abstract** *Myrmoteras scabrum* Moffett, 1985 is located again in Western Ghats. The species was described based upon a single specimen collected from Cannanore District of Western Ghats by Moffett (Bull Mus Comp Zool 151(1):1–53, 1985) Only the second known specimen of this species from Thanikuddy region of Periyar Tiger reserve is discovered here. Auto-montage images of the species are provided herewith along with notes on its biology.

**Keywords** Ants · Endemic · Western Ghats · Rare · India

The genus *Myrmoteras* Forel, 1893 is currently represented by 41 valid species distributed mainly in Oriental and the Austro-Malayan subregion of the Australian region [1]. These species are infrequent in collections, rare in occurrence and perhaps represent the most aberrant ants in the Formicinae [1, 2]. From India, five species are reported [3, 4], among which *Myrmoteras scabrum* Moffett, 1985 is the most distinct species with its heavily sculptured head and trunk. The species was described based on the single worker collected from Cannanore District, Peria Reserve, Western Ghats, India, by Moffett [5]. The holotype of the same is deposited in the Museum of Comparative Zoology (MCZC) in the Harvard University.

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A comprehensive survey across various localities of Western Ghats of India was carried from the year 2010 to 2013. A total of 173 species of ants belonging to 65 genera were recorded [6]. A single specimen of *M. scabrum* from Thanikuddy region of Periyar Tiger reserve, Kerala, India, was also collected during these surveys. The specimen is currently housed at Punjabi University Patiala, Ant Collection, Patiala, India (PUAC). The Periyar Tiger Reserve is located at Idukki (Kerala), between 9° 15′ to 9° 40′ N and 76° 55′ to 77° 25′ E coordinates. The place is unique and renowned for its wide variety of large animals. The reserve has a total core area of 300 $km^2$, buffer zone of 377 $km^2$ and 50 $km^2$ tourism zones. Thanikuddy forms part of the core area of the reserve and represents a primary, undisturbed tropical moist evergreen forest [7]. The specimen was collected by hand-picking method. Taxonomic analyses were carried using Nikon SMZ 1500 stereo zoom microscope. For digital images, MP evolution digital camera was used on same microscope with Auto-Montage (Syncroscopy, Division of Synoptics, Ltd.) software. Later, images were cleaned as per requirement with Adobe Photoshop CS6. The measurements of various sclerites are as defined in Bharti and Akbar [3]. Original description, images and the collection area are all in conformity with our specimen and easily enable us to identity our species.

## *Myrmoteras scabrum* Moffett, 1985 (Figs. 1, 2, 3)

Myrmoteras scabrum Moffett, 1985: 30, worker, INDIA, MCZC.

Material examined: India: Kerala, Periyar Tiger Reserve, Thanikuddy, 9° 30′ N, 77° 16′ E, 1003 m a.s.l., 17 × 2011, hand collected (PUAC: coll. Shahid A. Akbar). Measurements: HW1.23, HL 1.10, ML 1.10, SL 1.29, EL

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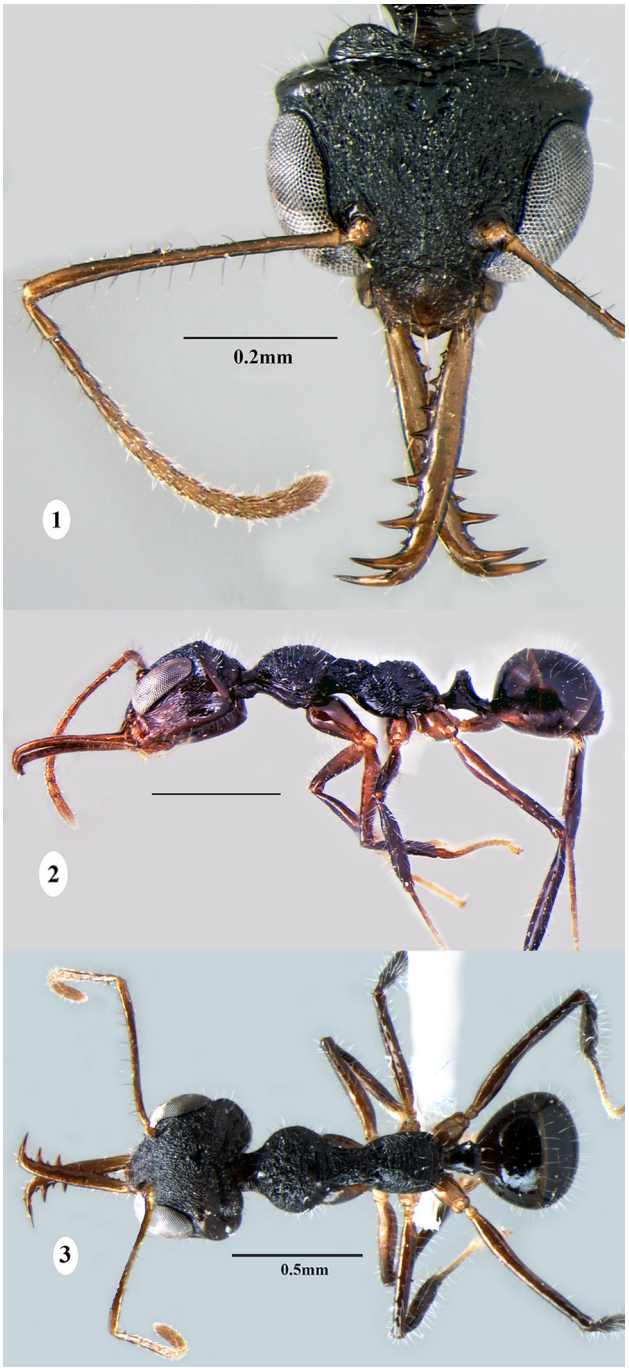


**Figs. 1–3** Worker of *Myrmoteras scabrum:* **1** head in full-face view. **2** Body in profile view. **3** Body in dorsal view

.69, HFL 1.36, WL 1.64, TL 5.33 mm. Indices: CI 111.81; SI 104.87; OI 56.09.

Diagnosis: *M. scabrum* is a distinct species belonging to subgenus *Myrmoteras* s.str. The species is easily identified with its conspicuously sculptured surface of head and mesosoma. *M scabrum* can be morphologically distinguished from closely related *M. ceylonicum* Gregg, 1957 by its larger size; stronger granulo-rugose sculpture; conspicuous mandible bend; convex pronotum in lateral view; node of petiole wider than tall and much darker colouration.

A single specimen of *M. scabrum* was collected from the Thanikuddy region of the Periyar Tiger Reserve while it was foraging on the leaves of small Indian sandalwood tree (*Santalum album*), planted on the rear side of the Inspection Bungalow. The Inspection Bungalow is the only manmade structure present in the entire core area (Thanikuddy region) of the reserve. A deep and wide trench is made around the Inspection Bungalow for the animal protection. It cuts the place from the rest of the intact forest area. The species may be a solitary forager as much time and continual sampling was done during the day and in following days but without any additional specimen collection. Collection of the specimen near the site may be accidental or preference of the species towards anthropogenic pressures or habitat conversed areas.

The two known distributional records suggest that the species may be present throughout the Western Ghats belt of India, as the known records are spread well apart from each other. The lack of any substantial reports of the species from the region suggests that the species may be rare and infrequent in occurrence. However, it also cannot be ruled out that the apparent rarity may be due to an inadequate collection method; likely, it has already been verified for many other ant species, rarity of whom was debugged after the application of new collection techniques [8].

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