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Note

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Range extension of the Gooty Tarantula *Poecilotheria metallica* (Araneae: Theraphosidae) in the Eastern Ghats of Tamil Nadu, India

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The family Theraphosidae Thorell, 1869 is represented by 999 species in 147 genera (World Spider Catalogue 2019). The greatest diversity of this family is found in the tropical regions of the world and some species exist in the subtropical and temperate regions but notably absent in the polar region (Nanayakkara et al. 2012). In India, it is represented by six subfamilies: Eumenophorinae, Ischnocolinae, Poecilotheriinae, Selenocosmiinae, Selenogyrinae and Thrigmopoeinae (Pocock 1900; Mirza et al. 2011; Siliwal et al. 2012). Members of the family Theraphosidae are predominantly terrestrial in habit, dwelling in burrows, beneath the rocks, and fallen logs (Nanayakkara et al. 2012). The old world genus *Poecilotheria* Simon, 1885 of the subfamily Poecilotheriinae is the only genus specifically arboreal in habit, occurring largely in the dry deciduous and evergreen forests or wooded areas in peninsular India and Sri Lanka (Siliwal et al. 2013). Spiders of the genus *Poecilotheria* are widely known for their large size, colourful marking within a flattish carapace (Pocock 1900; Smith & Kirk 2002), their potent venom (Nanayakkara et al. 2012) and familiarity in the pet trade (Siliwal et al. 2013).

About 14 species have been recognized hitherto from the genus *Poecilotheria*, wherein seven species are endemic to India (*formosa, metallica, miranda, regalis, rufilata, striata,* and *tigrinawesseli*) and five to Sri Lanka (*fasciata, ornata, rajaei, smithi,* and *subfusca*) while two species (*hanumavilasumica* and *vittata*) are found in both (World Spider Catalogue 2019). *Poecilotheria metallica* Pocock, 1899 is commonly known as the Peacock Parachute Spider or Gooty Tarantula. This species is endemic to India, and according to the current IUCN Red List of Threatened Species, the species is categorized as Critically Endangered, as it is restricted to a 100km^2 highly degraded forest between Nandyal and Giddalur in the Eastern Ghats of Andhra Pradesh (Molur et al. 2008). Reginald Innes Pocock (1899) had reported its type locality as Gooty on the basis of a single female specimen. About 102 years later, Molur et al. (2003) found two immature individuals in an extremely degraded forest between Nandyal and Giddalur in the Eastern Ghats of Andhra Pradesh. Subsequently, Molur

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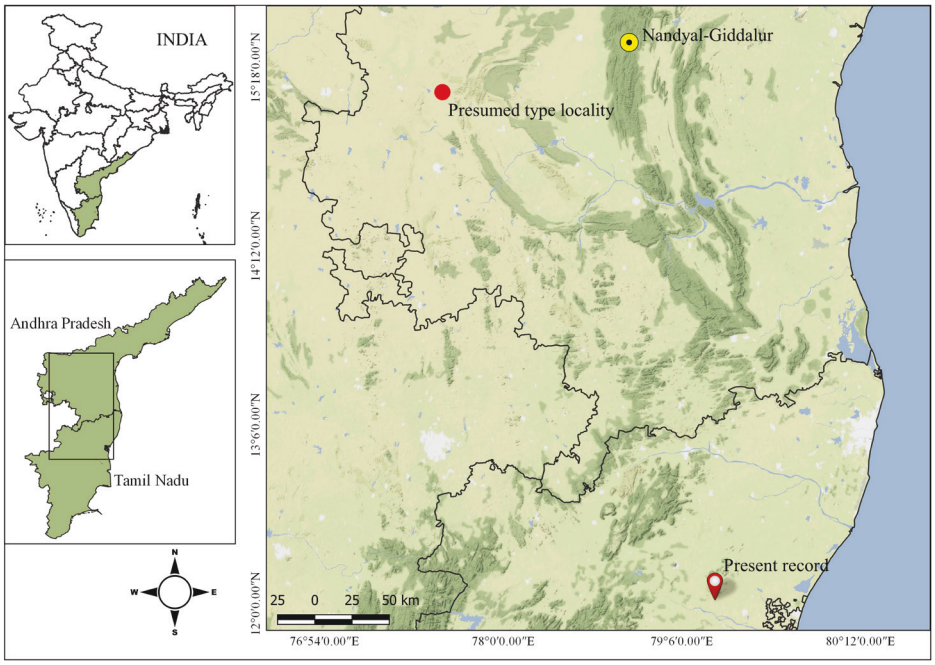

Figure 1. Map of southern India illustrating the previous record (yellow dot) of *Poecilotheria metallica*, present sighting (place holder) and presumed type locality as reported by Pocock (1899) (red circle).

Image 1. Habitat of *Poecilotheria metallica* at Pakkam Malai Reserve Forest, Villupuram District, Tamil Nadu. The photograph was taken during the monsoon when vegetation is lush.

et al. (2003) provided the first detailed description of its habitat. Previous to their record Gooty was considered as the existence locality of *P. metallica.* Pocock (1899) recorded that a single female specimen was collected from the railway timber yard in Gooty, however, it could inadvertently have been transported with timber from the Eastern Ghats (Molur et al. 2008). Presently, this species is found only within 100km^2 Reserve Forest between Nandayal and Giddalur (Molur et al. 2008). An additional location in Andhra Pradesh is not considered here as it was published in a predatory journal (see Beall's List 2019). Hitherto, *P. metallica* has not been found in any other parts of India or Sri Lanka. This paper is based on the observations from Tamil Nadu. The presence of this threatened theraphosid recorded for the first time outside of its known distribution expands its range further south from its confirmed record.

Gingee is a heritage town in the district of Villupuram, located in the northeast of Tamil Nadu (Muralidharan & Narasimhan 2012; Vimalraj et al. 2018). Pakkam Malai Reserve Forest has been protected as a sacred groove (Vimalraj et al. 2018). The average elevation of this

Image 2. Dorsal aspect of *Poecilotheria metallica* in life: A—Adult female showing peculiar metallic luster and orange yellow patches on tibiae | B—Adult female from the cave | C—Adult male from the bat cave.

rocky terrain is about 400m and the vegetation type ranges from dry thorn scrub to tropical dry deciduous and tropical dry evergreen forest (Kalaimani 2011; Balachandran et al. 2015). The annual rainfall is about 700mm, and the temperature fluctuates between 30^{0}C and 36^{0}C during the non-monsoon period of the year; during monsoon season it drops down to 24^{0}C (Karthik et al. 2018).

While undertaking a floral survey at Pakkam Malai (Image 1) on 09 December 2018, we sighted a huge blue coloured spider resting in a cave. We approached the specimen closely and photographed it with a Nikon D3200 (Image 2). The spider was later identified as *Poecilotheria metallica* described by Pocock (1899)

Table 1. Details on observation of *Poecilotheria metallica* on different occasions during the field visit at Pakkam Malai Reserve Forest, Villupuram District.

	Pakkam Malai Reserve Forest	Date of sighting	Microhabitat
1	Tharbasuanai (Spring)	09.xii.2018	Inside the cave (water was oozing out from the rock crevices inside the cave)
2	Sanipparai	22.i.2019	On the dry rill
3	Sanipparai	23.i.2019	On the dry rill
4	Bat cave	24.ii.2019	Inside the cave (bats also were roosting)
5	Tharbasuanai (Spring)	01.iii.2019	At the entrance of the cave

and corroborated using the photographic identification poster (Indian Parachutes) published by the Zoo Outreach Organization and Wildlife Information Liaison Development Society (ZOO/WILD 2010). Subsequently, we sighted *P. metallica* on four different occasions at Pakkam Malai Reserve Forest during fieldwork, details of which are given in Table 1.

The present sighting extends its distribution range along the Eastern Ghats by approximately 370km south from its previous record (Molur et al. 2008) (Figure 1). Further exploration could reveal the presence of *P. metallica* in the adjacent hills too. Documentation of biodiversity has become a very significant part of the conservation of that particular ecosystem (Nanayakkara et al. 2015). A few years ago, the Grizzled Giant Squirrel *Ratufa macroura* was reported from Pakkamalai RF (Vimalraj et al. 2018), and the addition of *P. metallica* from the same locality emphasizes the significance of these forests from the biodiversity and conservation perspectives.

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