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## On the genus *Hermippus* Simon, 1893 (Araneae: Zodariidae, Zodariinae) in India with the description of three new species from the Western Ghats and proposing a new biogeographical hypothesis for the distribution of the genus

PRADEEP M. SANKARAN<sup>1</sup>, MALAMEL J. JOBI, MATHEW M. JOSEPH & POTHALIL A. SEBASTIAN

Division of Arachnology, Department of Zoology, Sacred Heart College, Thevara, Cochin, Kerala 682 013, India.

<sup>1</sup>Corresponding author. E-mail: [pradeepmpala@rediffmail.com](mailto:pradeepmpala@rediffmail.com)

### Abstract

Three new species of the ant-eating spider genus *Hermippus* Simon, 1893, *H. globosus* sp. nov., *H. inflexus* sp. nov. and *H. gavi* sp. nov. are described and illustrated from the Western Ghats in the Kerala region of southern India. The genus is redefined and two species groups are recognized: the **cruciatus-group** with all the five described Oriental species including *H. cruciatus* Simon, 1905, *H. arjuna* Gravely, 1921, *H. inflexus* sp. nov., *H. globosus* sp. nov. and *H. gavi* sp. nov. and the **loricatus-group** representing all the seven described Afrotropical species including *H. loricatus* Simon, 1893, *H. affinis* Strand, 1906, *H. schoutedeni* Lessert, 1938, *H. septemguttatus* Lawrence, 1942, *H. minutus* Jocqué, 1986, *H. tenebrosus* Jocqué, 1986 and *H. arcus* Jocqué, 1989. The biogeographic distribution and possible migratory route of *Hermippus* spp. from Africa to the Oriental region are given.

**Key words:** ant-eating spider, biodiversity hot spot, biogeography, new species, species group, taxonomy

### Introduction

The spiders of the family Zodariidae Thorell, 1881, popularly known as ‘ant-eating spiders’ are small to medium sized, araneomorph, ecribellate, entelegyne, three-clawed spiders having six or eight eyes (Jocqué & Dippenaar-Schoeman 2007). They are characterized the absence of a serrula on the gnathocoxae and laterally implanted teeth on the tarsal claws with the exception of the widespread genus *Cyrioctea* Simon, 1889 (Jocqué 1991; Grismado & Ramírez 2004; Jocqué & Dippenaar-Schoeman 2007; Jocqué 2013). Zodariinae are characterized by long anterior lateral spinnerets, which are always stronger than the posterior ones. Zodariid spiders are free-living ground dwellers or tree-living (Jocqué & Dippenaar-Schoeman 2007) and are usually seen in association with soil debris and leaf litter or found underneath stones or decaying logs (Barrion & Litsinger 1992). Jocqué (1991) revised the family at the generic level and to date, a total of 1074 species belonging to 78 genera have been reported, with the majority of the species from Africa and Australia (Platnick 2014). Only 23 species in 9 genera (*Asceua* Thorell, 1887 with 1 species, *Cydrela* Thorell, 1873 with 3 species, *Cryptothele* L. Koch, 1872 with 1 species, *Hermippus* Simon, 1893 with 2 species, *Lutica* Marx, 1891 with 4 species, *Mallinella* Strand, 1906 with 2 species, *Storena* Walckenaer, 1805 with 7 species, *Storenomorpha* Simon, 1884 with 1 species, *Suffasia* Jocqué, 1991 with 2 species) have been reported from India so far (Platnick 2014). The present paper provides description of three new species of *Hermippus* Simon, 1893 from the Western Ghats of Kerala, India. A new biogeographical hypothesis is proposed for explaining the present distribution of the genus over Africa and India.

### Material and methods

The specimens used for the present study were collected from Western Ghats, one of the biodiversity hot spots of the world, in the Kerala region of southern India. The specimens were preserved in 70% ethanol and studied under a Zeiss Stemi 2000-C stereomicroscope. All measurements are in millimetres (mm) and were made with an ocular

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