



Research Paper

New Distributional Record of a Jumping Spider (Araneae: Salticidae: Myrmarachnini) of Genus *Myrmarachne* MacLeay, 1839 from Chhattisgarh, India

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Abstract

The present study documents a new state-level distribution record of the ant-mimicking jumping spider *Myrmarachne prava* (Karsch, 1880) (Araneae: Salticidae) from India. A male specimen was collected from the Gariaband district of Chhattisgarh, representing the first confirmed record of *M. prava* from the state. Furthermore, this finding constitutes the first documented occurrence of the genus *Myrmarachne* MacLeay, 1839 in Chhattisgarh. The specimen was collected by hand from a *Nerium oleander* plant in the Dakbangla area of Gariaband. Species identification was carried out using external morphological characteristics, body coloration and pattern, and diagnostic features of the male pedipalp. The specimen was identified as *M. prava* based particularly on its predominantly black body, elongated chelicerae, and characteristic oval cymbium. The present record extends the known geographical distribution of *M. prava* and contributes to the documentation and updating of the spider fauna of Chhattisgarh State, India.

1. Introduction

Jumping spiders (family Salticidae) are a major group of spiders found worldwide, with the exception of Antarctica. To date, 6,976 species and 696 genera have been identified (WSC, 2026). They are among the most distinctive groups of spiders. Their body structure and morphology differ significantly from those of other spiders (Tikader, 1973). A small cephalothorax, a conical abdomen, large anterior median eyes, and legs adapted for jumping are their distinctive characteristics (Tikader & Biswas, 1981). Some spider species belonging to the tribe *Myrmarachnini* resemble ants and possess long chelicerae. They can be easily identified based on these elongated chelicerae and their silk (Roewer, 1955). Approximately 348 species belonging to 114 genera of jumping spiders have been recorded from India and are distributed across various states (Singh *et al.*, 2023). To date, a total of 194 species of *Myrmarachne* (MacLeay, 1839) have been recorded from various countries around the world (WSC, 2026). Only 27 of these species have been recorded from India (Singh *et al.*, 2023), while no species of this genus has yet been recorded from Chhattisgarh.

Chhattisgarh is a highly significant region in terms of spider biodiversity and hosts a wide variety of species (Nayak *et al.*, 2026a). The state's dense forests and abundant vegetation provide favorable habitats for spiders, contributing to its rich spider biodiversity. However, research on the spider fauna of this region remains limited (Nayak *et al.*, 2026a). Consequently, standardized data on the spider species occurring in the state have not yet been compiled. Specific studies on jumping spiders have been conducted in certain areas of the state, such as the Deobhog region and Chhura in Gariaband district (Nichat *et al.*, 2024; 2025b; Nayak *et al.*, 2025b) and Tandula in Balod district (Nayak *et al.*, 2025c). Several new state records have also been documented from the forest region of Gariaband district (Nichat *et al.*, 2025a; Nichat and Nayak, 2026; Nayak, 2025; Nayak *et al.*, 2025a). However, the number of species recorded remains very low compared with the number of jumping spider species recorded from India. An analysis of previous records and relevant literature from the state revealed no mention of this species (Nayak *et al.*, 2026c; 2026d; 2026e; Nichat *et al.*, 2026a; 2026b).

2. Materials and Methods

2.1 Sample collection and analysis

Myrmarachne prava (Karsch, 1880): Gariaband, Chhattisgarh, India: 1♂, Gariaband urban area (Dakbanga), 20°37'37.55"N, 82°04'03.18"E, 376.1 m a.s.l., 21 December 2025, 11:29 a.m. (GMT+05:30), collected from a leaf of *Nerium oleander* (Fig. 1). The specimen was preserved in 70% ethanol (vial no. DBZ371) and deposited in the Zoology Laboratory of Government D. B. Girls' P. G. College, Raipur, Chhattisgarh, India, where it was examined.

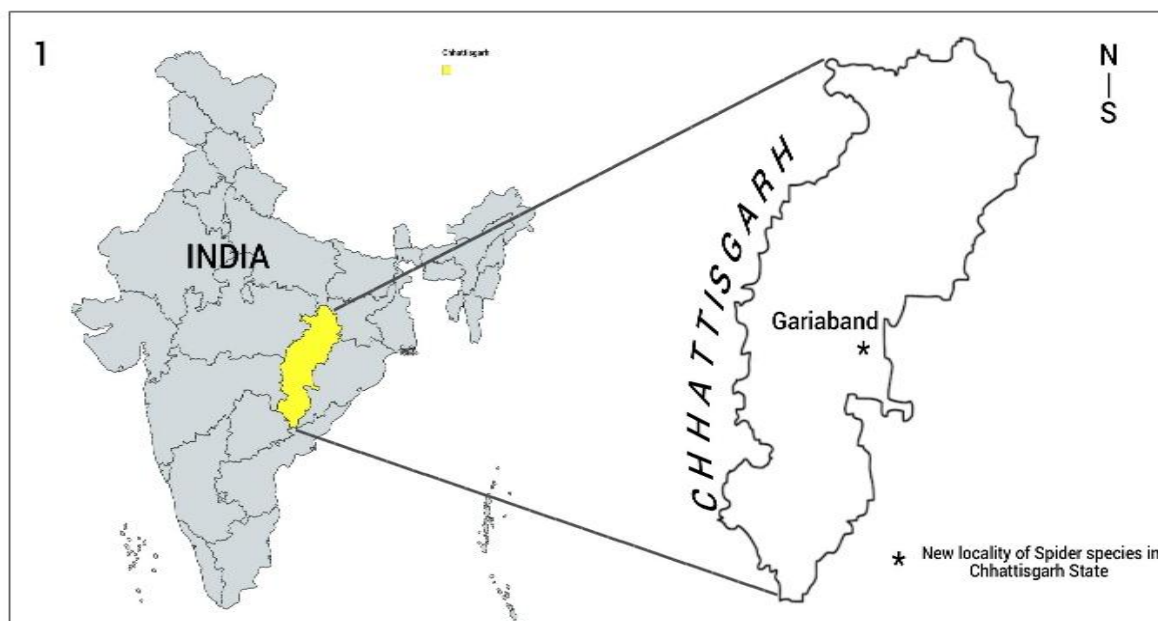


Figure 1: Map showing the new locality and collection site of *Myrmarachne prava* (Karsch, 1880) in Gariaband district, Chhattisgarh, India

2.2 identification of sample

A male specimen of the spider species was collected from the leaves of a *Nerium oleander* plant in the Dakbanga urban area of Gariaband district, Chhattisgarh, using the random hand-picking method. For further identification, the collected specimen was preserved in 70% ethanol and deposited in vial no. DBZ371 at the Zoology Laboratory of Government D.B. Girls' P.G. College, Raipur. Live photographs of the specimen were taken using a Canon EOS 200D II DSLR camera, and its morphological and male genital structures were examined with the aid of a stereozoom microscope. Species identification was carried out based on the specimen's body pattern, coloration, eye configuration, leg arrangement, and male genitalia. Websites such as the World Spider Catalog (2026) were used as sources of secondary data for identification (Benjamin, 2015; Tikader, 1973).

Identification: The species was identified based on the following literature: Benjamin (2015), Narayan (1915), Tikader (1973), and Tikader & Biswas (1981).

3. Results

3.1 Morphology

The examined male specimen measured 11.5 mm in total body length, including the chelicerae. The chelicerae measured 3.3 mm, while the cephalothorax was 5.5 mm long and 5.5 mm wide. The cephalic region measured 2.2 mm and the thoracic region 2.6 mm. The abdomen measured 3.4 mm in length and 2.4 mm in

width. The cephalothorax was elongated and pale black, with the cephalic and thoracic regions distinctly differentiated (Figure 2). The sternum was elongated, relatively broad anteriorly and gradually narrowed towards the posterior end. The chelicerae were elongated, broad, robust, and inwardly curved, bearing distinct denticles (Figure 5). Fine hairs were present on the surface of the chelicerae. The fang was long, strong, black, and curved posteriorly. The anterior eye row was curved. The anterior median eyes were large, rounded, and positioned anteriorly (Figure 4–5). The abdomen was shorter than the cephalothorax but relatively broader. Its dorsal surface was covered with fine, distinct hairs and was black in coloration, whereas the ventral surface was brown. The pedicel was relatively short. The legs were robust, cylindrical, and blackish-brown in coloration. The leg formula was 4-1-3-2, with the fourth pair being the longest and the second pair the shortest (Figure 7).

The male palp exhibited distinct diagnostic features. The retrolateral tibial apophysis (RTA) was short and stout, while the cymbium was oval-shaped. The embolus was relatively thick at its base, formed approximately two coils, and gradually became slender towards the distal end (Figure 8–11). The sperm duct was thick and curved, and the bulb was convex.

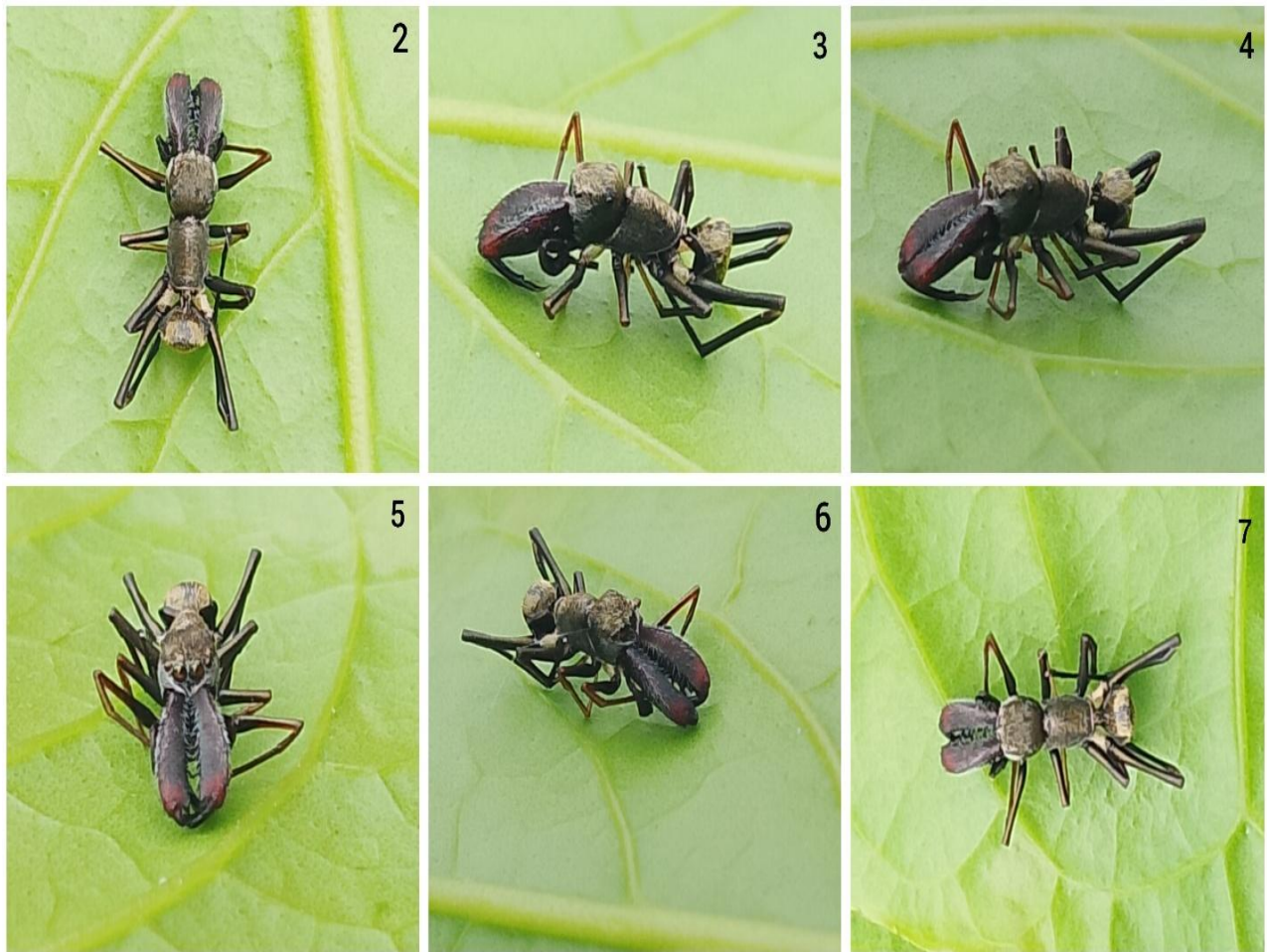


Figure 2-7: Habitus- *Myrmarachne prava* (Karsch, 1880) Adult male; 2&7- Dorsal; 3&4- Lateral; 5- Anterior; 6- Anterolateral view

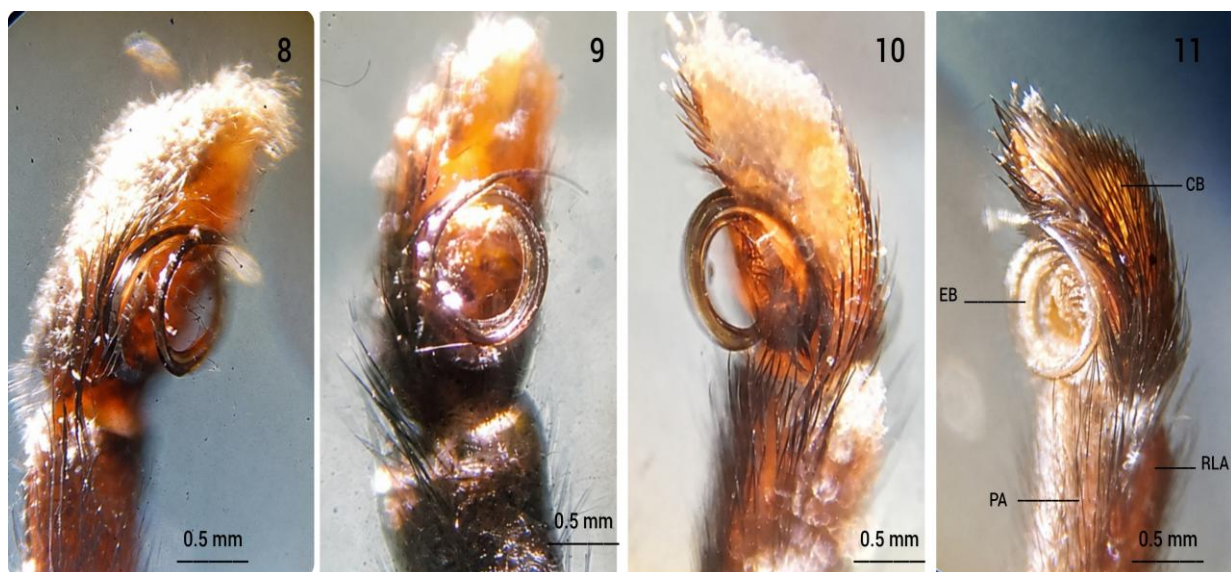


Figure 8-11: *Myrmarachne prava* (Karsch, 1880) Adult male genital; 8- Lateral view; 9- Ventral view; 10 and 11- Retrolateral view. Abbreviations: CB- Cymbium; EB- Embolus; RLA- Anterolateral Apophysis; PA- Palpal Appendage

4. Discussion

The taxonomic history of *Myrmarachne prava* (Karsch, 1880) reflects the difficulties associated with identifying ant-mimicking salticid spiders based solely on morphological characteristics. Karsch (1880) originally described the species as *Salticus pravus* based on a male specimen. Subsequently, Narayan (1915) described a specimen from Purnea, Bihar, as *Myrmarachne paivae*. Differences in geographical origin and morphological interpretation resulted in the use of different names for specimens that were later considered conspecific. Narayan also provided detailed observations on the morphology of the male, including the relative proportions of the cephalothorax and its constituent regions. Further specimens were examined by Tikader and Biswas (1973, 1981), who described *Myrmarachne bengalensis* from specimens collected in Dhakuria, Kolkata. Their material included a female specimen collected in 1973 and additional females from the same locality. Later, Benjamin (2015) reassessed the available material from different geographical regions, including

specimens from Sri Lanka, and concluded that the previously described forms represented the same species, *Myrmarachne prava*. This taxonomic reassessment helped clarify the synonymy associated with the species and established *M. prava* as the valid name.

The specimen recorded in the present study from Gariaband district, Chhattisgarh, exhibits several morphological features consistent with descriptions provided in earlier taxonomic literature, particularly those reported by Narayan (1915). The cephalothorax is moderately elevated, with the cephalic region slightly longer than the thoracic region and separated from it by a distinct deep groove. The dorsal surface of the cephalothorax is rounded, and the dorsal eyes are positioned laterally. The cephalothorax is olive-coloured and pale dorsally, while the clypeal region bears distinct hairs. The male genital structure also provides important diagnostic evidence, with the embolus arising from the retrolateral region and exhibiting approximately two turns. The combination of these morphological characters supports the identification of the present specimen as *Myrmarachne prava*.

The present record is significant because it extends the known distribution of *M. prava* to Chhattisgarh. The occurrence of the species in Gariaband district also indicates that the spider fauna of the state may be incompletely documented. Previous taxonomic and faunal studies have reported several salticid species from different parts of Chhattisgarh, but records of *Myrmarachne* from the state have remained absent. Therefore, the present observation adds to the known distributional information for the species and contributes to the growing knowledge of the diversity of ant-mimicking jumping spiders in central India. Further systematic surveys in forested, agricultural, and

urban habitats of Chhattisgarh may reveal additional populations or previously unrecorded species of Salticidae.

5. Conclusion

Spiders are important components of terrestrial ecosystems, and documenting their distribution is essential for understanding regional biodiversity. The present study reports *Myrmarachne prava* (Karsch, 1880) from Chhattisgarh for the first time, thereby extending the known distribution of this species within India. Although the species has previously been documented from ten Indian states and one Union Territory, its occurrence in Chhattisgarh had not been reported. The present record therefore contributes to the documented spider fauna of the state and provides additional information on the distribution of this ant-mimicking jumping spider. This finding also highlights the need for further systematic surveys in different habitats of Chhattisgarh to improve the understanding of its salticid diversity and distribution.

6. Statements and Declarations

Ethical Approval: Not applicable

Conflict of Interest: The authors declare that they have no known competing financial interests, personal relationships, or conflicts of interest that could have influenced the work reported in this study.

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