



New records of *Poecilotheria hanumavilasumica* Smith, 2004 from Western Ghats, Kerala (Araneae: Theraphosidae)

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General Note



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ABSTRACT

The new records on the distribution of *Poecilotheria hanumavilasumica* Smith, 2004 from Chinnar is reported. The diagnosis, images and distributional map are also provided.

Key words: Western Ghats, new distribution, mygalomorphs, tropical Asia, endemic.

Abbreviations: AME- anterior median eyes; ALE- anterior lateral; eyes, PME- posterior median eyes, PLE- posterior lateral eyes.

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1. INTRODUCTION

The genus *Poecilotheria* is endemic to south India and Sri Lanka with 14 known species. Only nine species are reported from India. *P.hanumavilasumica* belongs to the radiation of *Poecilotheria* with intense yellow coloring on legs I and II. This includes *Poecilotheria fasciata*, *Poecilotheria rajaei*, *Poecilotheria striata*, and *Poecilotheria regalis* from Sri Lanka and India (Nanayakkara et.al., 2015). The present distribution of *P.hanumavilasumica* is limited to Rameshwaram Island, Ramanthapuram, Mandapam in India, and Mannar Island in Sri Lanka. This species is recorded from Kerala state for the first time. The discovery of *P.hanumavilasumica* from Chinnar, a high altitude region in Kerala indicates that species has a wider distribution than originally thought.

2. MATERIALS AND METHODS

Specimens were collected by hand during June 2014 from Chinnar, Kerala, India. Photographs of live specimens were taken with digital camera, Canon EOS 600D. The micro-photographic images were taken using Canon EOS 600D digital camera attached to Labomed CZM6 stereomicroscope using EOS utility software. The material was preserved in 75% alcohol. Female epigyne was cleared in clove oil. All measurements are in millimeters. Leg measurements are given as: Femur, Patella, Tibia, Metatarsus (except palp), Tarsus and Total.

3. RESULTS

Taxonomy

Family: **Theraphosidae** Thorell, 1869

Gen. **Poecilotheria** Simon, 1885

Poecilotheria hanumavilasumica Smith, 2004

Poecilotheria hanumavilasumica Smith, 2004: 52, f. 1-17.

Poecilotheria hanumavilasumica Nanayakkara et.al. 2015: 3, f.3-4, 5 A-C.



Figure 1 *Poecilotheria hanumavilasumica* Smith, 2004 in life

Material examined

Two females, Chinnar, Kerala, Coordinates.10.213217N, 77.197264E, elevation 2300 m, coll. Sunil Jose K, 10-June-2014. Repository: DMCKT-14/157-1, DMCKT-14/157-2, Arachnological Collections, Zoology Museum, Deva Matha College, Kuravilangadu, Kerala, India.

Diagnosis

It is similar to *P.striata* but can be separated by femur I with a brown band on yellow background and fused seminal vesicles, which is broader at base and narrows towards apex. (Nanayakkara, 2015). *P.hanumavilasumia* is also characterized by femur IV with a narrow black patch on the basal end and a black band at the apical end. In addition a narrow black apical band on the ventral surface of femur IV and lilac colour on legs III-IV distinguishes it from *P.fasciata* (Smith, 2004).

Description of specimen DMCKT-14/157-1

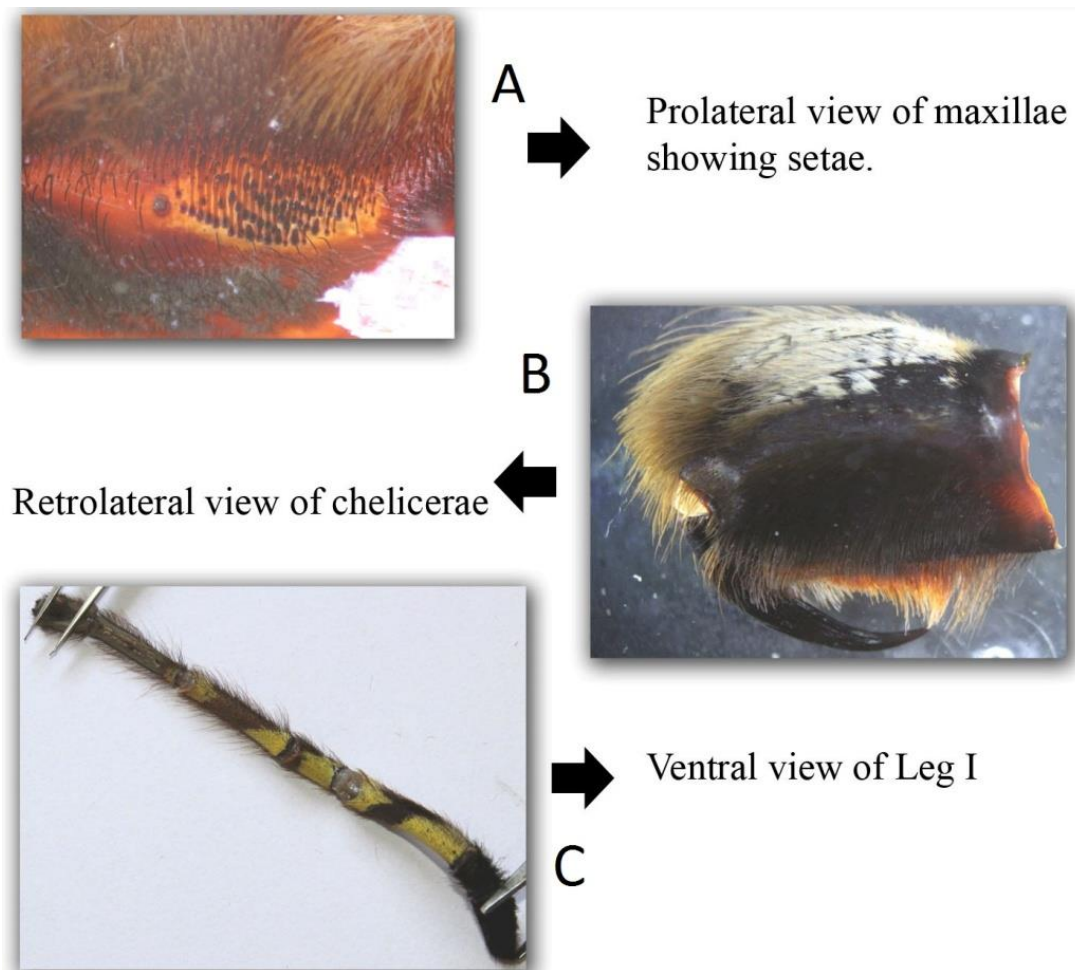


Figure 2 A.Prolateral view of maxillae showing setae, B. Retrolateral view of chelicerae, C. Ventral view of leg 1

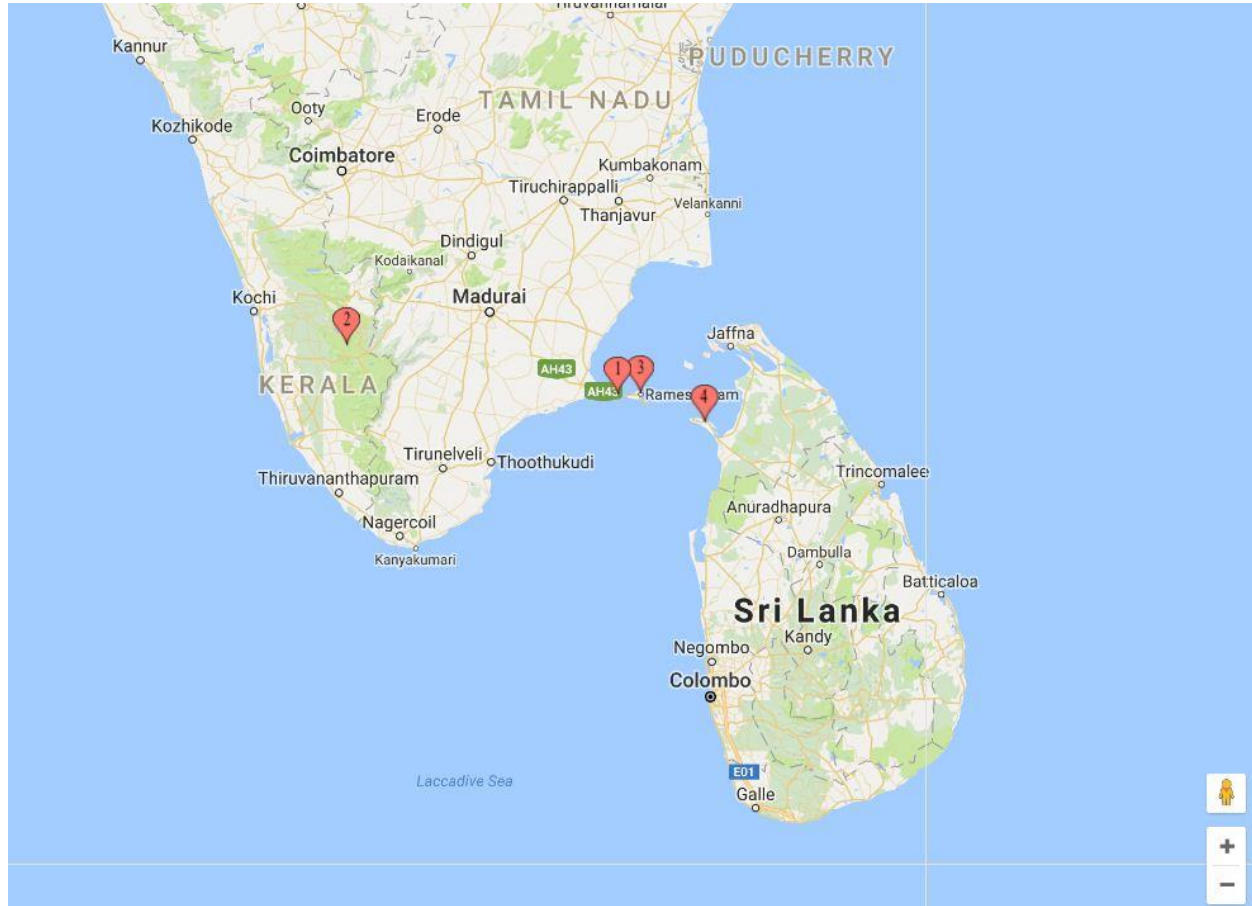


Figure 3 Map showing the present distribution of *P.hanumavilasumica* Smith, 2004

Taxonomy

Carapace longer than wide, dorsum covered with a dense mat of bluish white hairs, producing a 'Y' shaped pattern around fovea. Fovea deep and slightly procurved, with a mid dorsal black patch. Sternum with only posterior pair of sigilla present. Maxillary lyra consists of one thick black tubercle. Labium and maxilla with dense granules. Chelicerae with 14 teeth on promarginal margin, distal four teeth larger than others. The retrolateral side of chelicera with thick tuft of hairs on the dorsal side. AME larger than others, PME smallest.

Legs hairy, covered with a mat of bluish white and black bands. The femur of leg I with a brown band on yellow background. Femur IV with a narrow black patch on the basal edge and an unbroken black band at the apical end. The ventral surface of legs III-IV has a beautiful lilac bloom. Legs I and II with well developed scopulae on tarsus and metatarsus than legs III and IV.

Abdomen with a mid dorsal grayish band, with eight black chevron patterns laterally. Pedicel is not easily visible from top. Ventrums are uniformly black. Simple fused seminal vesicles, broader at base, gradually narrowing towards apex.

Distribution

INDIA: Chinnar, Kerala (New Record), Rameshwaram Island, Ramanthapuram, Mandapam SRI LANKA: Mannar Island.

Natural History

The species lives in the nest made in the cracks of tree barks. The burrows are similar to that made by *Poecilotheria rufilata*.

4. DISCUSSION AND CONCLUSION

The present discovery of *P.hanumavilasumica* from Kerala state is important, because it is the first discovery of this species from a locality far west of its type locality. This critically endangered species is so far known from a few individuals around 100 Sq.kms of Ramanthapuram and Mannar. The previous records of the species are from low land or coastal areas, hence the discovery of this species from a high altitude area is significant. It also highlights the need for further exploration between these different areas to confirm whether patches of *P.hanumavilasumica* also exist in other areas, or this is a just a isolated distribution of the species.

SUMMARY OF RESEARCH

New record on the distribution of *Poecilotheria hanumavilasumica* Smith, 2004 is reported from Chinnar in Kerala state.

The diagnosis and illustration of *P.hanumavilasumica* Smith, 2004 is given.

The present record extends the distribution of *P.hanumavilasumica* Smith, 2004 to Kerala.

The study indicates the need for further surveys to identify other isolated patches of this species.

ACKNOWLEDGMENT

Financial assistance obtained from University Grants Commission, India (F.No.42-512/2013-SR) is acknowledged. Kerala Forest Department is also thanked for permitting the study in the Wildlife Sanctuaries of Kerala.

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