

Stenaelurillus jagannathae Das, Malik & Vidhel, 2015: First Description in Chhattisgarh, India

Jashavant Nayak

Research Scholar, Department of Zoology, Govt. Dudhadhari Bajrang Girls Postgraduate College Raipur, Chhattisgarh- 492001, India

Email ID: jashavant.nayak@dbgirls.org

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Abstract

Family Salticidae Blackwall, 1841, is a fascinating group of spiders that called Salticids or Jumping spiders. they are most developed and modern spiders due to their body morphology, behaviour and adaptation abilities. A Jumping spider *Stenaelurillus jagannathae* Das, Malik & Vidhel, 2015 was first time recorded Udanti Wildlife Sanctuary Gariaband, Chhattisgarh. There are 58 species of *Stenaelurillus* accepted all over the world but till now only 17 species have been recorded in India. There are also new species of recorded genera for Chhattisgarh. This is second species of the genera *Stenaelurillus* Simon, 1886. Through this discovery, a new jumping spider has been added to the jumping spider fauna list of Chhattisgarh.

INTRODUCTION

Spiders are the most fascinating, small, air breathing, terrestrial creatures that belong to phylum Arthropoda. They are everywhere in the world except Antarctica (Caleb, 2020) (Nayak et al., 2025c). They are counted among the most strange creatures of this world, their morphology, body colouration, behaviour, all these things are very unbelievable (Nayak et al., 2024). There are around 52,985 species of spiders found in this world, Arachnologists divide them into different groups so that it is easier to study them (Tripathi et al., 2025). There is a group of spiders which is called Jumping spider group. These spiders have been placed under the family Salticidae. Family Salticidae is a large and diverse group of spiders. The family represents 689 genera and 6808 species in world wide (Maheshwari et al. 2017), (WSC, 2025). Till now, around 224 spiders have been recorded in Chhattisgarh, which belong to 96 genera and 23 families (Chaudhary et al., 2025). Recently 15 jumping spiders have been recorded from Shraddha Public School, Gariaband which belong to 12 genera (Nayak et al., 2025d).

Stenaelurillus Simon, 1886 is a black coloured, medium-sized, small, tropical jumping spider found in everywhere in the world. (Hill et al. 2024). Till now 58 species of genera *Stenaelurillus* are recorded from all

over the world. In india only 20 species were recorded. Simon was a researcher who was first discovered two species of *Stenaelurillus*, *S. nigricaudus* and *S. striguttatus*, then discovered many species of *Stenaelurillus* in the all over the world. *Stenaelurillus* has been documented twice only in Tamil Nadu and not in any other state (Caleb at al. 2016). Many spiders have been discovered in different places of Chhattisgarh (Nayak et al., 2025b) and *Stenaelurillus metallicus* Caleb & Mathai, 2016 was recorded from Chhattisgarh and explore morphology of male and female spider (Nayak et al., 2025a).

MATERIAL AND METHODS

Udanti Wildlife Sanctuary is a protected area and wildlife sanctuary located in Gariaband, Chhattisgarh, India. It is located in the south-eastern part of Gariaband district. It is located in coordinates Latitude 20°0' to 20° 5' N and Longitude 80°30'E to 82. This sanctuary is spread over 237.27 km and was declared a protected area in 1983. The Udanti Wildlife Sanctuary and Sitanadi Wildlife Sanctuary have been merged to form the Udanti-Sitanadi Tiger Reserve. The flora here is moist and dry deciduous forest, where the maximum

is mixed forest (54.51%), Sal forest (22.66%) and the least is teak forest (0.37%) (Tandan et al. 2024).



Figure: Map represent area (Gariaband & Chhattisgarh) where new spider recorded.



Figure: Udanti Wildlife Sanctuary Gariaband, Chhattisgarh, India. Board of sanctuary, grass field & GPS map picture of sanctuary with standard location.

This sanctuary is most famous for the Indian or Asian wild buffalo (*Bubalus bubalis*) found here, along with gaur, Bengal tiger, leopard, spotted deer, sambar, nilgai, and hyena is also present here, but the spiders of this region are not explored from here yet. (Fig. 1&2)

The spider species was observed randomly during forest visiting. The sample was carefully collected and preserved in 70% alcohol. Before preservation the spider pictures are captured by INFINIX smart HD camera for further analysis and report writing. All the parts of the sample like body coloration, eye configuration and legs arrangement have been studied with proper equipment and tools. For identification of spider, some recent research papers (2023-25) and some Spider online portals like Inaturalist, Indian Biodiversity Portal, World Spider Catalogue, 2025 were used.

RESULTS AND DISCUSSION

A salticid spider was recorded in Udanti Wildlife Sanctuary Gariaband, Chhattisgarh. The sample was carefully observe and identify it's characteristics and concluded that spider was *Stenaeturillus jagannathae*

Das, Malik & Vidhel, 2015 belongs to Genera *Stenaeturillus* Simon, 1886 and family Salticidae. It has been described for the first time in Chhattisgarh, India. All characteristics, identification keys, taxonomy and morphology of the recorded species is described in the paper.

Stenaeturillus Simon, 1886

Stenaeturillus jagannathae Das, Malik & Vidhel, 2015 Figure (3-7)

Taxonomy

Class – Arachnida

Order – Araneae

Suborder – Opisthothele

Infraorder - Araneomorphae

Family – Salticidae Balckwall, 1841

Subfamily – Allurillinae

Genus – *Stenaeturillus* Simon, 1886

Species – *Stenaeturillus jagannathae* Das, Malik & Vidhel, 2015

Habitat These are jumping spiders, which are found in dry leaves and litters.

They avoid green leaves, water, and tree barks.

Distribution

Delhi, Gujarat, Karnataka, Maharashtra & Tamil Nadu, (present study **Chhattisgarh**)

Type Material

Collected sample 2 male & 2 female.

Holotype male (Shraddha Public School Gariyaband, Chhattisgarh, India), from Udanti Wildlife Sanctuary Taurenga Region, Gariyaband, Chhattisgarh, India, pin code 493889, 16.iii. 2025, (02:52 AM, GTM + 05:30) by **Jashavant Nayak** Latitude 20.114522° & Longitude 82.319338°, sample collected from dry leaves on forest.

Diagnosis

Male

Body (Cephalothorax + abdomen) is completely black colour, cephalothorax is small, transverse band is white and form ‘U’ shape. Covered with small brown hairs. Clypeus and eye region with black stripe. Black

lateral margin run both side of carapace, chelicera silvery white, eye with horizontal, anterior median eyes are large, other arse small eyes. A large fovea present on the central region of carapace, Pedipalp are large and white colour. Abdomen is small, slender, and black colour, three small white dots are present on abdomen. Spinnerets are black colour, white transverse strip present proximal end of abdomen. Leg I, II are small, leg II is larger than both leg IV is larger than all legs, prograde legs. **(Fig. 3-4)**

Female

Cephalothorax is small, black coloured and covered with small hairs, large black band is absent. Clypeus small and white colour, covered with small bristles. Abdomen is larger than male, two white dots on abdomen, both are separated by a vertical line, spinnerets are large and pointed. Legs are black coloured and thicker than male, legs I, II, III are small in size. Leg IV is large than all. **(Fig. 5- 7)**

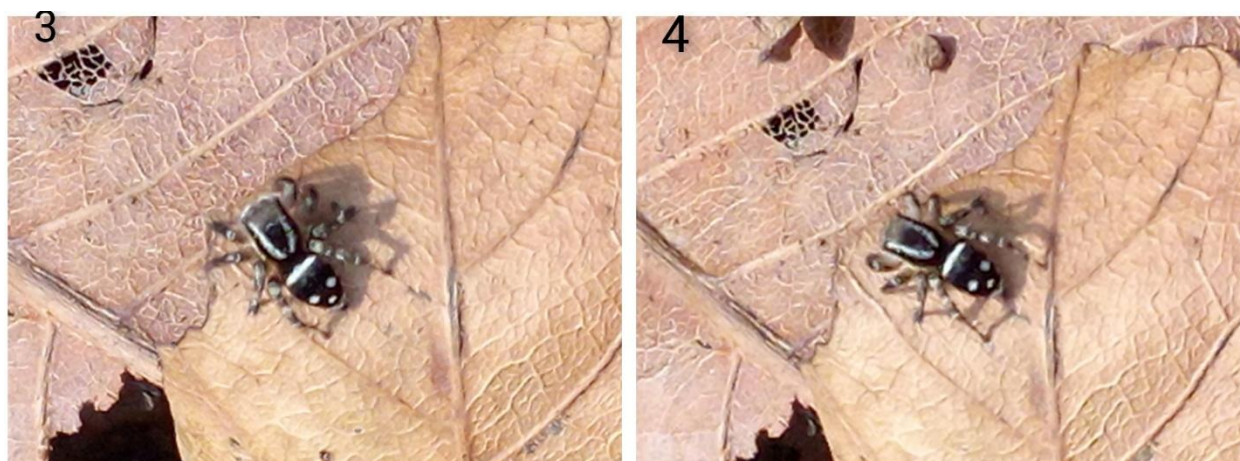


Figure: Habitus – *Stenaelurillus jagannathae* Das, Malik & Vidhel, 2015, 3. Male spider on dry leaves 4. Dorsal view of male spider. © **Jashavant Nayak**



Figure: Habitus *Stenaelurillus jagannathae* Das, Malik & Vidhel, 2015, (5-7) Dorsal morphology of female spider on dry leaves. © **Jashavant Nayak**

CONCLUSION

Stenaelurillus jagannathae Das, Malik & Vidhel, 2015 is an endemic spider species found in India, which was recorded for the first time in Delhi in 2015. This spider has been recorded in Udanti Wildlife Sanctuary Gariaband, Chhattisgarh, India. The sample of this species has been collected from the sanctuary for the first time. Chhattisgarh is sixth state where it recorded. Recording of this spider increases the number of one more jumping spider in the spider list of Chhattisgarh.

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