






Research article

[urn:lsid:zoobank.org:pub:9A632824-429B-4EAB-9ED0-B7683140FBA1](https://zoobank.org/pub:9A632824-429B-4EAB-9ED0-B7683140FBA1)**Four new species and five new distribution records of the jumping spider genus *Stenaelurillus* Simon, 1886 (Salticidae: Aelurillines) from India**Rishikesh TRIPATHI ^{1,*}, Nikhil KUNI ^{2,*}, Gautam KADAM ³,
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Abstract. Four new species of the jumping spider genus *Stenaelurillus* Simon, 1886 are described from India: *Stenaelurillus feral* Tripathi, Kuni & Kadam sp. nov. (♂, from the Eastern Coastline), *S. naldurg* Kuni, Kadam & Tripathi sp. nov. (♂♀, from the Deccan Plateau), *S. judithbleisterae* Kadam, Tripathi & Kuni sp. nov. (♂♀, from the Western Ghats) and *S. solapur* Kuni, Tripathi & Kadam sp. nov. (♂♀, from the Deccan Plateau). Detailed diagnoses, descriptions, illustrations, natural history and distribution map are provided. Additionally, new locality records for the other five species within the states are presented and mapped.

Keywords. Deccan Plateau, mating plug, Salticidae, taxonomy, Western Ghats.

Tripathi R., Kuni N., Kadam G., Kumaran K.P. & Sudhikumar A.V. 2024. Four new species and five new distribution records of the jumping spider genus *Stenaelurillus* Simon, 1886 (Salticidae: Aelurillines) from India. *European Journal of Taxonomy* 930: 124–156. <https://doi.org/10.5852/ejt.2024.930.2485>

Introduction

The salticid genus *Stenaelurillus* was established by Simon in 1886, with its type species being *Stenaelurillus nigricaudus* Simon, 1886. Presently, it is the third largest genus within the subtribe

Aelurillina Simon, 1901, comprising a total of 55 valid species globally, among them 16 species known from India, representing the highest species diversity of *Stenaelurillus*, surpassing all other countries (Maddison 2015; Sudhin *et al.* 2023; WSC 2023).

The genus has undergone three partial revisions to date. Initially, Wesolowska (2014a, 2014b) focused on studying the populations in the Oriental and Afrotropical regions. Subsequently, Logunov & Azarkina (2018) reevaluated the further scope of the revision, leading to a concise definition and diagnosis of the genus and moreover presented redescrptions and taxonomic remarks of large portions of undetermined museum samples. These revisions significantly advanced the understanding of the genus and provided a better opportunity to evaluate newly collected specimens. Since the last revision study, a total of seven new species have been discovered exclusively in India (Logunov 2020; Marathe *et al.* 2022; Sudhin *et al.* 2023).

In this research paper, we present four newly described species of *Stenaelurillus* Simon, 1886 from two Indian states, Maharashtra and Tamil Nadu. These species were found in three distinct biogeographic zones, namely the Western Ghats, the Deccan Plateau, and the Eastern Coastline. Furthermore, we report new records of *Stenaelurillus arambagensis* (B. Biswas & K. Biswas, 1992), *S. gabrieli* Prajapati, Murthappa, Sankaran & Sebastian, 2016, *S. lesserti* Reimoser, 1934, *S. neyyar* Sudhin, Sen & Caleb, 2023 and *Stenaelurillus tamravarni* Marathe & Maddison, 2022 from different Indian states. Additionally, a brief discussion is provided on modifications observed in the embolus and RTA, as well as the presence of a mating plug within the genus *Stenaelurillus*.

Material and methods

All measurements are in millimeters (mm). The lengths of palp and leg segments are provided as follows: total length, femur, patella, tibia, metatarsus (except for palp), tarsus. Microscopic images were captured using a Leica DMC4500 digital camera mounted on a Leica M205C stereo microscope, utilizing the Leica Application Suite (LAS, ver. 4.3.0) software for image stacking at different focal planes. Photographs of live specimens were taken using a Canon 5D Mark II camera equipped with a 100 mm macro lens. Distributional maps were generated using the online mapping software QGIS ver. 3.16.3 (QGIS Development Team 2021). Terminology for the description of setation follows the format of Tripathi *et al.* (2023). The coloration of all specimens is described while they were in alcohol. The specimens examined are deposited at NRC-AA (NCBS Research Collection, National Centre for Biological Sciences, Bangalore, India).

Abbreviations for morphology

ALE = anterior lateral eye
 AME = anterior median eye
 do = dorsal
 DP = distal projection
 E = embolus
 pl = prolateral
 pld = prolateral dorsal
 PLE = posterior lateral eye
 plv = prolateral ventral
 PME = posterior median eye
 PP = proximal projection
 RTA = retrolateral tibial apophysis
 rl = retrolateral
 rld = retrolateral dorsal

rlv = retrolateral ventral
TP = tegular process
VTA = ventral tibial apophysis
I–IV = 1st to 4th leg

Acronyms of repositories

ADSH = Division of Arachnology, Sacred Heart College, Cochin, Kerala, India
MHNG = Muséum d'histoire naturelle de la ville de Genève, Geneva, Switzerland
NRC-AA = National Centre for Biological Sciences (NCBS), Bangalore, Karnataka, India
NZC-ZSI = National Zoological Collections, Zoological Survey of India (NZC-ZSI), Kolkata, India

Results

New species

Class Arachnida Lamarck, 1801
Order Araneae Clerck, 1757
Family Salticidae Blackwall, 1841
Subfamily Salticinae Blackwall, 1841
Clade Simonida Maddison, 2015
Tribe Aelurillini Simon, 1901
Subtribe Aelurillina Simon, 1901

Genus *Stenaelurillus* Simon, 1886

Stenaelurillus Simon, 1886: 351.

Philotheroides Strand, 1934 by Prószyński (1984: 138, by transfer of the type species).

Microheros Wesołowska & Cumming, 1999: 204, synonymized by Logunov & Azarkina (2018: 4; type species: *M. termitophagus* Wesołowska & Cumming, 1999).

Mashonarus Wesołowska & Cumming, 2002: 165, synonymized by Logunov & Azarkina (2018: 4; type species: *M. guttatus* Wesołowska & Cumming, 2002).

Type species

Stenaelurillus nigricaudus Simon, 1886, by original designation.

Diagnosis

For diagnostic features of the genus, see Sebastian *et al.* (2015) and Logunov & Azarkina (2018).

Stenaelurillus feral Tripathi, Kuni & Kadam sp. nov.

[urn:lsid:zoobank.org:act:8E1CC80B-0148-40FB-B7A0-8C76479655BA](https://zoobank.org/act:8E1CC80B-0148-40FB-B7A0-8C76479655BA)

Figs 1–2, 15A, 16

Common name: Feral jumping spider

Diagnosis

Stenaelurillus feral sp. nov. differs from other species of *Stenaelurillus* in having a long blade-shaped retrolateral tibial apophysis with its tip bent prolaterally and serrated inner margin. *Stenaelurillus feral* sp. nov. is most similar to *S. tettii* Logunov, 2020 in having ventral tibial apophysis situated prolaterally, but retrolateral tibial apophysis without serrated inner margin and with blunt tip in latter species (compare Figs 1E–F, 2A, D and Logunov 2020: fig. 23).

Etymology

The specific epithet refers to the acronym 'FERAL', the Foundation for Ecological Research, Advocacy and Learning campus, from where the specimen was collected.

Type material**Holotype**

INDIA • ♂; Tamil Nadu, Villupuram, Morattandi, Auroville Post, FERAL Campus; 11°58'53.2" N, 79°46'52.3" E; 42 m alt.; 7 Jul. 2022; R. Tripathi leg.; from ground, by hand; NRC-AA-6951.

Description**Male** (holotype, Figs 1–2)

Measurements: Body length 4.38. Carapace length 2.24, width 1.62. Abdomen length 2.13, width 1.44. Ocular area length 0.78, width 1.42. Eye diameters: AME 0.38, ALE 0.24, PME 0.07, PLE 0.25. Eye interdistances: AME–AME 0.04, AME–ALE 0.05, PME–PME 1.24, ALE–ALE 0.90, PME–PLE 0.17, PLE–PLE 1.13, ALE–PME 0.29, ALE–PLE 0.52. Length of chelicera 0.51. Clypeus 0.21. Sternum 0.87 long, 0.51 wide. Endite 0.24 long, 0.27 wide. Labium 0.13 long, 0.23 wide. Measurement of palp and legs: Palp 1.42 [0.48, 0.23, 0.14, 0.57], leg I 3.11 [0.99, 0.44, 0.71, 0.50, 0.47], II 2.92 [0.97, 0.38, 0.63, 0.49, 0.45], III 4.55 [1.42, 0.52, 1.05, 1.06, 0.50], IV 4.41 [1.30, 0.43, 0.97, 1.16, 0.55]. Leg formula: 3412. Setation. Palp: spineless; Legs: femora I and IV pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III pld 2 do 5 rld 1; patella I pld 1, II–IV pld 1 rld 1; tibia I pl 2 pld 1 plv 1 rl 2 rld 1 rlv 2, II pld 1 pl 2 plv 2 rld 1 rlv 2, III pl 2 pld 1 plv 2 do 1 rl 2 rld 2 rlv 1, IV pl 2 pld 2 plv 2 do 1 rl 1 rld 2 rlv 1; metatarsus I pl 1 pld 1 plv 2 rld 1 rl 2 rlv 2, II pl 2 pld 2 plv 2 rl 1 rld 1 rlv 2, III–IV pl 2 pld 2 plv 2 rl 2 rld 2 rlv 2; tarsi I–IV spineless. Carapace blackish-brown with white marginal bands of nearly uniform thickness; thoracic region dorsally with paired white longitudinal bands fairly extending back from the ALE (Fig. 1A). Eye field with recumbent black flattened setae that reflects in alcohol; ALEs encircled by tiny rusty brown setae; anterior margin of eye field with thick setae (Fig. 1C–D). Chelicerae small, yellowish brown, anteriorly with long black setae. Sternum oviform; labium, maxillae and sternum pale brownish. Legs robust, pale brown; III–IV with longitudinal bands of black setae. Abdomen shield-shaped, anterior edge with long intermixed black and white setae; 2 pairs of symmetric white spots (one pair of large spot on the anterior half and other one pair in same lateral axis but small) and one large posteriorly; anterior half of dorsum covered with a transverse inconspicuous wide white band followed by a brownish W-shaped pattern (Fig. 1A). Sides densely covered by pale yellow setae; venter light yellow, with scattered black speckles (Fig. 1B). Palp (Figs 1E–F, 2): segments yellowish brown, darker embolus and RTA (Fig. 2A); femur without ventral process; VTA present, triangular, prolaterally located directed 10 o'clock ventrally (Figs 1E, 2A); RTA long, wide, serrated from inner margin, blade-shaped, directed 1 o'clock retrolaterally in ventral view (Figs 1E–F, 2D); cymbium elongated, 1.6 times longer than wide (Figs 1E, 2A); DP wide and obtuse, as long as embolus (Figs 1E–F, 2A–B); PP well-developed, long, bent prolaterally (Figs 1E–F, 2E); embolus with sharp curve, directed retrolaterally (Figs 1E, 2A, C).

Female

Unknown.

Habitat

Stenaelurillus feral sp. nov. was found within a tropical dry evergreen forest habitat, specifically on dried leaf litter in a grassy patch (Fig. 15A). The habitat is located in close proximity to the sea and experiences a moderate climate with slightly higher humidity.

Distribution

Known only from the type locality in Villupuram, Tamil Nadu, India.

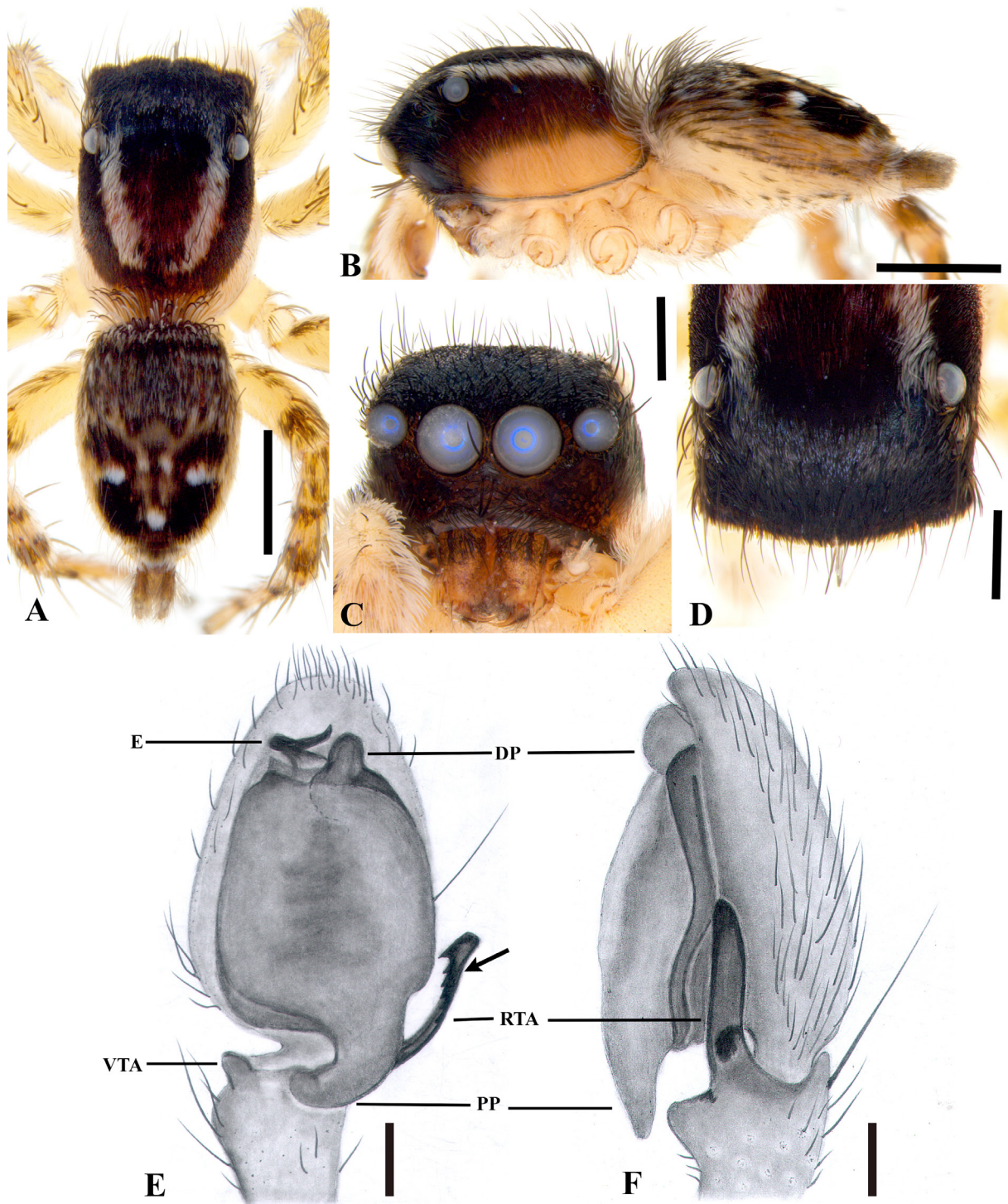


Fig. 1. *Stenaelurillus feral* Tripathi, Kuni & Kadam sp. nov., holotype, ♂ (NRC-AA-6951). **A.** Male habitus, dorsal view. **B.** Male habitus, lateral view. **C.** Carapace, frontal view. **D.** Carapace, dorsal view. **E.** Male palp, ventral view; the arrow indicates the serration of RTA. **F.** Male palp, retrolateral view. Scale bars: A–B = 0.5 mm; C–D = 0.2 mm; E–F = 0.1 mm.



Fig. 2. *Stenaelurillus feral* Tripathi, Kuni & Kadam sp. nov., holotype, ♂ (NRC-AA-6951), genitalia. **A.** Ventral view. **B.** Retrolateral view. **C.** Embolic division, apical view. **D.** RTA, ventral view indicate serration. **E.** Embolic division, ventral view. **F.** Embolic division, retrolateral view. **G.** Embolic division, prolateral view. Scale bars: A–G = 0.1 mm.

Stenaelurillus naldurg Kuni, Kadam & Tripathi sp. nov.
[urn:lsid:zoobank.org:act:07744434-A994-460F-A4C6-530701E18B14](https://zoobank.org/urn:lsid:zoobank.org:act:07744434-A994-460F-A4C6-530701E18B14)

Figs 3–6, 15B, 16

Common name: Naldurg jumping spider

Diagnosis

Males of *S. naldurg* sp. nov. are close to *S. marusiki* Logunov, 2001 in terms of palpal structures but differ in having a palp with a femoral process and an abdomen with iridescent scales and lateral fringes. Both of these characters are absent in *S. marusiki* Logunov, 2001 (compare Figs 3D, 4A, 5A–H, 6A–B with Logunov 2001: figs 27–30; Marathe *et al.* 2022: figs 1–2, 6–7, 14–18). Females are similar to *S. darwini* Wesołowska & Russell-Smith, 2000, in terms of epigyne shape and copulatory opening position but differ in having a fertilization duct longer than that in *S. darwini* Wesołowska & Russell-Smith, 2000 (compare Figs 5I–J, 6C–D with Wesołowska & Russell-Smith 2000: figs 275–276; Logunov & Azarkina 2018: figs 109–110).

Etymology

The specific epithet ‘*naldurg*’ is a noun in apposition and refers to the iconic monument ‘Naldurg Fort’, a revered monument situated in the State of Maharashtra, India, in close proximity to the collection site of the specimens. This epithet is intended to honor the architectural magnificence, cultural significance, and timeless beauty of the Naldurg Fort.

Type material

Holotype

INDIA • ♂; Maharashtra, Dharashiv, Naldurg area; 17°47'38.4" N, 76°17'56.9" E; 570 m alt.; 30 Mar. 2023; N. Kuni leg.; from ground, by hand; NRC-AA-6952.

Paratypes

INDIA • 1 ♂; same collecting data as for the holotype; NRC-AA-6953 • 1 ♀; same collecting data as for the holotype; NRC-AA-6954.

Description

Male (holotype, Figs 3A–B, D, 4A–D)

Measurements: Body length 4.22. Carapace length 2.08, width 1.44. Abdomen length 2.13, width 1.36. Ocular area length 0.87, width 1.03. Eye diameters: AME 0.38, ALE 0.25, PME 0.08, PLE 0.23. Eye interdistances: AME–AME 0.03, AME–ALE 0.02, PME–PME 1.09, ALE–ALE 0.82, PME–PLE 0.14, PLE–PLE 0.95, ALE–PME 0.33, ALE–PLE 0.53. Length of chelicera 0.47. Clypeus 0.17. Sternum 0.73 long, 0.50 wide. Endite 0.28 long, 0.29 wide. Labium 0.18 long, 0.14 wide. Measurement of palp and legs: Palp 1.32 [0.44, 0.15, 0.16, 0.57], leg I 2.66 [0.92, 0.37, 0.60, 0.40, 0.37], II 2.57 [0.89, 0.38, 0.56, 0.39, 0.35], III 4.16 [1.32, 0.58, 0.89, 0.92, 0.45], IV 3.85 [1.13, 0.42, 0.83, 0.99, 0.48]. Leg formula: 3412. Setation. Palp: spineless; Legs: femur I pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III–IV pld 2 do 5 rld 1; patella I pld 1, II–IV pld 1 rld 1; tibia I pld 1 rld 2, II pld 1 pl 1 plv 1 rl 1 rlv 2, III–IV pl 2 pld 2 plv 2 do 1 rl 2 rld 2 rlv 2; metatarsus I plv 2 rlv 2, II pld 1 pl 1 plv 2 rld 1 rlv 2, III–IV pl 2 pld 1 plv 2 do 2 rl 1 rld 2 rlv 2; tarsi I–IV spineless. Carapace blackish-brown with thick white marginal bands; thoracic region dorsally with paired white longitudinal bands fairly extending back from the ALE, narrows basally (Figs 3D, 4A). Eye field with long black setae; intermixed white and golden brown setae; ALE’s encircled with short white and golden brown setae (Figs 3B, 4C). Clypeus and chelicerae rusty brown; Clypeus covered with dispersed white setae (Figs 3B, 4C). Labium and maxillae dark brown; with white tips. Sternum oval, dark brown with scattered pale coloured blotches; margin encircled with black setae. Legs segments yellowish brown; leg I–II darker than III–IV. Abdomen oval; a dark brown spot medially

located at anterior edge; anterior half of abdomen densely covered with shiny white setae; posteriorly with iridescent recumbent scales creating colour pattern: a dark brown patch consisting of transverse stripe forming a crescent shape in posterior quarter; sides and venter light yellow; lateral edges of abdomen fringed with short and dense white setae; a narrow transverse band of shiny white setae at rear edge of abdomen (Figs 3D, 4A–B). Spinnerets surrounded with intermixed black and brown setae (Fig. 4A). Palp (Figs 5A–H, 6A–B): segments pale brown. Femur with medially located ventral process (Fig. 5H).



Fig. 3. *Stenaelurillus naldurg* Kuni, Kadam & Tripathi sp. nov., habitus, live photographs. A–B, D. Holotype, ♂ (NRC-AA-6952). C, E–F. Paratype, ♀ (NRC-AA-6954). Photographs by Rishikesh Tripathi.

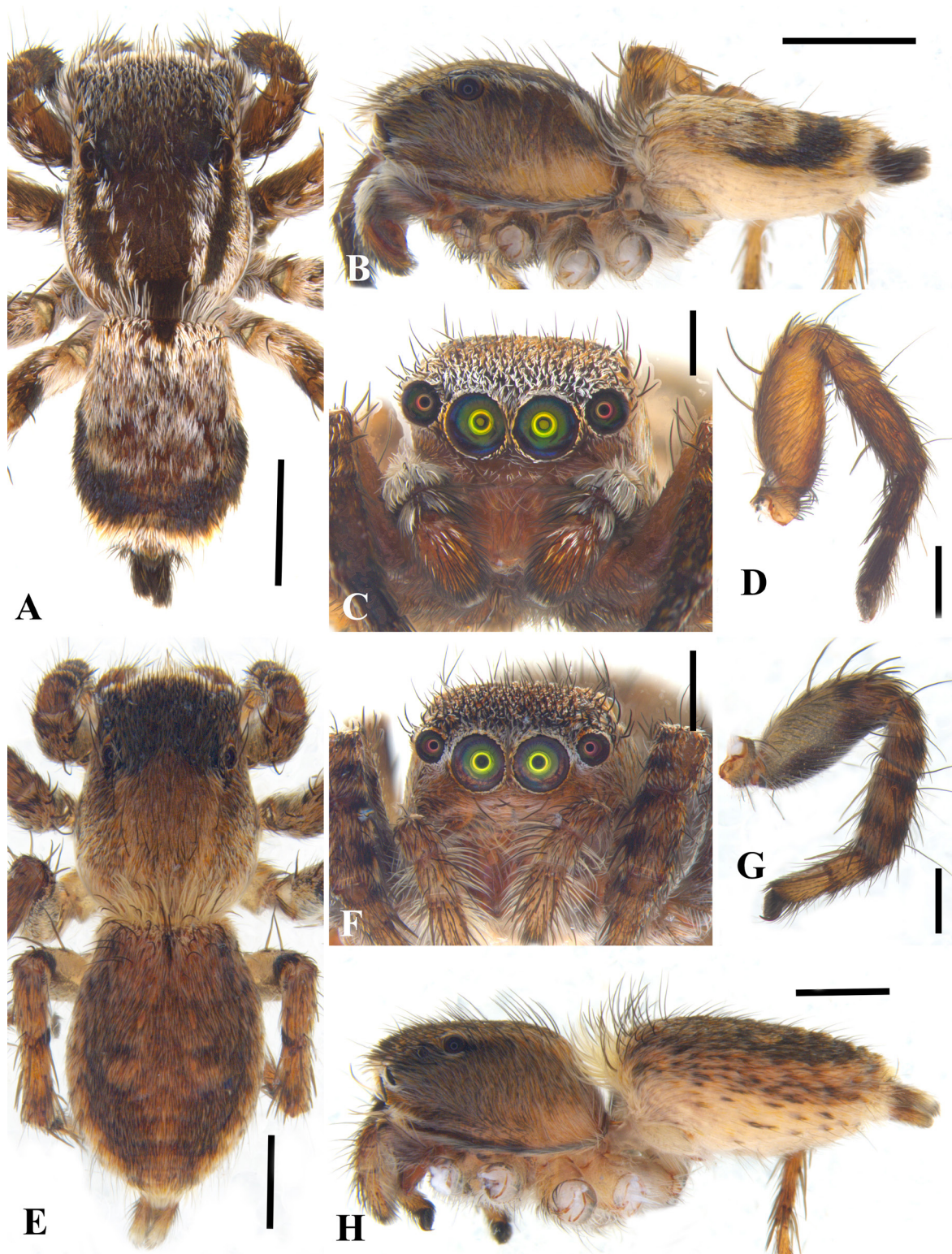


Fig. 4. *Stenaelurillus naldurg* Kuni, Kadam & Tripathi sp. nov. **A–D.** Holotype, ♂ (NRC-AA-6952). **A.** Male habitus, dorsal view. **B.** Male habitus, lateral view. **C.** Carapace, frontal view. **D.** Leg I, prolateral view. **E–H.** Paratype, ♀ (NRC-AA-6954). **E.** Female habitus, dorsal view. **F.** Carapace, frontal view. **G.** Leg I, prolateral view. **H.** Female habitus, lateral view. Scale bars: A–B, E, H = 1 mm; C–D, F–G = 0.5 mm.



Fig. 5. *Stenaedurillus naldurg* Kuni, Kadam & Tripathi sp. nov., genitalia. A–H. Holotype, ♂ (NRC-AA-6952). A. Male palp, ventral view. B. Male palp, retrolateral view. C. Male palp, palpal segments, retrolateral view. D–F. Embolic division. D. Ventral view. E. Retrolateral view. F. Prolateral view. G. Embolus, dorsal view. H. Palpal femur, prolateral view. I–J. Paratype, ♀ (NRC-AA-6954). I. Epigyne, ventral view. J. Vulva, dorsal view. Scale bars: A–B = 0.2 mm; C = 0.5 mm; D–J = 0.1 mm.

VTA triangular, with smoothly rounded tip directed 11 o'clock (Figs 5A, 6A); RTA short, tapered apex directed at 12 o'clock retrolaterally; tegular process short and obtuse; distal projection well developed and disc-shaped (Figs 5A–B, 6A–B); embolus curved retrolaterally, tip directed 11 o'clock position in ventral view (Figs 5A, D, 6A).

Female (paratype, Figs 3C, E–F, 4E–H)

Measurements: Body length 5.67. Carapace length 2.59, width 1.92. Abdomen length 3.07, width 2.05. Ocular area length 0.93, width 1.24. Eye diameters: AME 0.40, ALE 0.24, PME 0.10, PLE 0.23. Eye interdistances: AME–AME 0.04, AME–ALE 0.03, PME–PME 1.23, ALE–ALE 0.92, PME–PLE 0.17, PLE–PLE 1.09, ALE–PME 0.27, ALE–PLE 0.52. Length of chelicera 0.73. Clypeus 0.21. Sternum 0.95 long, 0.67 wide. Endite 0.32 long, 0.33 wide. Labium 0.18 long, 0.21 wide. Measurement of palp and legs: Palp 1.43 [0.51, 0.16, 0.24, 0.52], leg I 3.05 [1.08, 0.49, 0.67, 0.39, 0.42], II 2.98 [1.08, 0.47, 0.67, 0.38, 0.38], III 5.36 [1.77, 0.62, 1.29, 1.11, 0.57], IV 5.32 [1.54, 0.57, 1.25, 1.23, 0.73]. Leg formula: 3412. Setation. Palp: femur 0; patella 0; tibia 0; tarsus pld 1 do 2 rl 1; Legs: femora I and IV pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III–IV pld 1 do 5 rld 2; patellae I–II pld 1, III–IV pld 1 rld 1; tibiae I–II pl 2 plv 1 rlv 3, III–IV pl 2 pld 1 plv 1 do 1 rl 2 rld 2 rlv 2; metatarsus I pl 1 plv 2 rlv 2, II pl 1 pld 2 plv 2 rld 1 rlv 2, III–IV pl 2 pld 2 plv 2 do 1 rl 1 rld 2 rlv 2; tarsi I–IV spineless. Same as in male except the following: Coloration and pattern less vibrant. Carapace and abdomen covered with pale brown and rusty brown setae. Two inconspicuous stripes of pale brown setae running from behind PLEs to the posterior edge of carapace (Figs 3C, 4E). Ocular area with messy rusty brown and white setae (Figs 3E, 4F). Clypeus

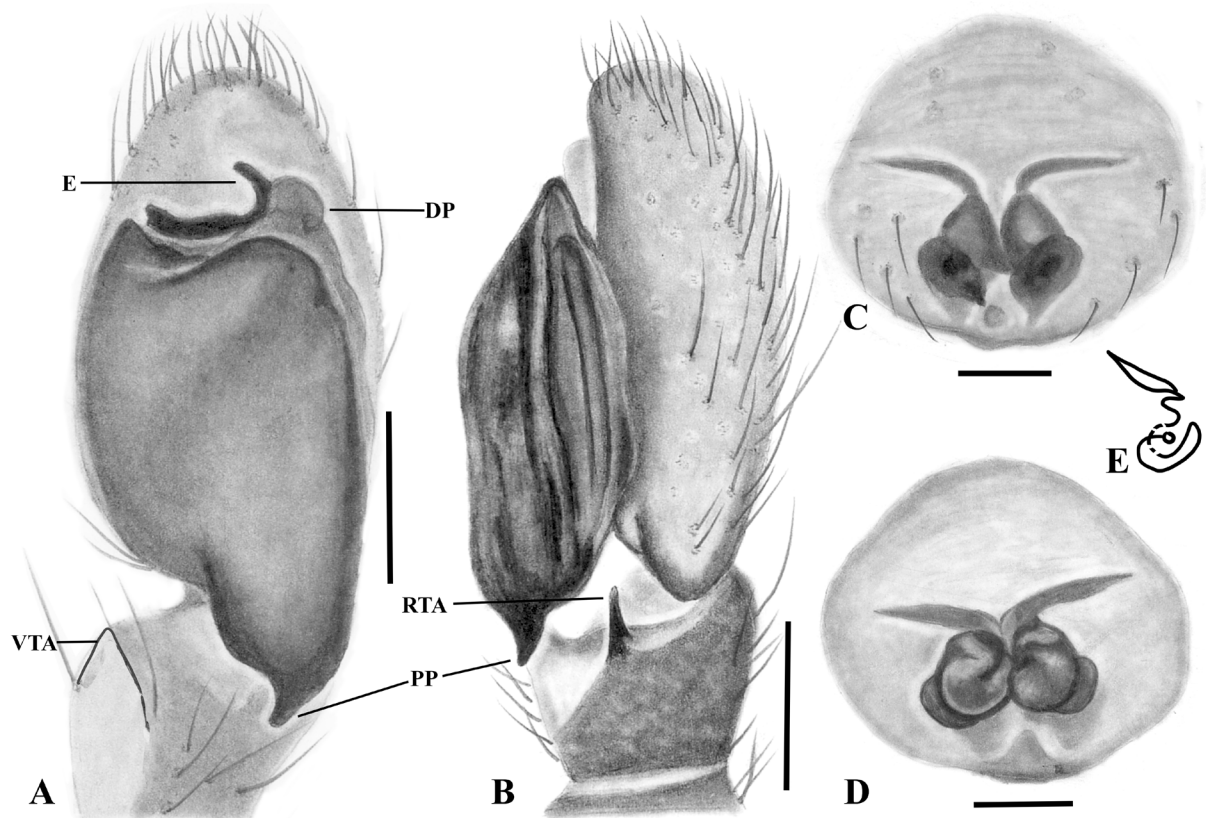


Fig. 6. *Stenaelurillus naldurg* Kuni, Kadam & Tripathi sp. nov. **A–B.** Holotype, ♂ (NRC-AA-6952). **A.** Male palp, ventral view. **B.** Male palp, retrolateral view. **C–E.** Paratype, ♀ (NRC-AA-6954), genitalia. **C.** Epigyne, ventral view. **D.** Vulva, dorsal view. **E.** Vulva, dorsal view of insemination ducts on left side. Scale bars: A–B = 0.2 mm; C–D = 0.1 mm.

densely clothed with white setae (Figs 3E, 4F). Abdomen with a dark brown streak medially placed at anterior edge and chevron-shaped markings on the posterior region (Figs 3C, 4E). Spinnerets surrounded by pale brown setae (Fig. 4E). Epigyne and vulva (Figs 5I–J, 6C–E): epigyne hirsute, plate flat longer than wide, posterior edge with small epigynal pocket (Figs 5I, 6C). Copulatory openings small, widely spaced, mediolaterally originating. Copulatory ducts short, covered behind spermathecae. Spermathecae medium-sized, S-shaped. Fertilization ducts long, diverging (Figs 5J, 6D).

Natural history

Stenaelurillus naldurg sp. nov. is found in the open grasslands of a semi-arid savanna habitat (Fig. 15B). Male individuals engage in a courtship display where they raise their front legs and perform a dance-like pose while shaking their glistening abdomen.

Distribution

Known only from the type locality in Dharashiv, Maharashtra, India.

Stenaelurillus judithbleisterae Kadam, Tripathi & Kuni sp. nov.

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Figs 7–10, 15C, 16

Common name: Sky jumping spider

Diagnosis

Males of *S. judithbleisterae* sp. nov. are most similar to those of *S. feral* sp. nov. by having serrations on the inner margin of the RTA but differ in embolus structure, RTA shorter in retrolateral view, and presence of a band of iridescent blue shade scales on the cephalic region, which is absent in *S. feral* sp. nov. (compare Figs 7A, 8C, 9A–B, G, 10A–B with *S. feral* sp. nov.: Figs 1C, E–F). Females are similar to *S. gabrieli* Prajapati, Murthappa, Sankaran & Sebastian, 2016 as both have large copulatory openings, and thick copulatory ducts but can be separated from the latter by having reniform spermathecae and absence of epigynal pocket (compare Figs 9H–I, 10C–D with Prajapati *et al.* 2016: figs 4A–C, 5C–D).

Etymology

The specific epithet *judithbleisterae* is dedicated to Ms. Judith Bleister, honouring her invaluable support for taxonomic research and the conservation of species.

Type material

Holotype

INDIA • ♂; Tamil Nadu, Coimbatore, Alamaramedu area; 11°06'10" N, 76°47'00" E; 665 m alt.; 20 Mar. 2023; N. Kuni, G. Kadam and R. Tripathi leg.; from ground, by hand; NRC-AA-6955.

Paratype

INDIA • 1 ♀; same collecting data as for the holotype; NRC-AA-6956.

Description

Male (holotype, Figs 7A–D, 8A–E)

Measurements: Body length 4.32. Carapace length 2.26, width 1.45. Abdomen length 2.05, width 1.31. Ocular area length 0.83, width 1.34. Eye diameters: AME 0.37, ALE 0.18, PME 0.06, PLE 0.23. Eye interdistances: AME–AME 0.02, AME–ALE 0.07, PME–PME 1.22, ALE–ALE 0.93, PME–PLE 0.19, PLE–PLE 1.09, ALE–PME 0.33, ALE–PLE 0.57. Length of chelicera 0.36. Clypeus 0.20. Sternum 0.74 long, 0.49 wide. Endite 0.21 long, 0.26 wide. Labium 0.09 long, 0.17 wide. Measurement of palp and legs:

Palp 1.4 [0.49, 0.19, 0.14, 0.58], leg I 3.3 [1.02, 0.50, 0.78, 0.58, 0.42], II 3.05 [1.01, 0.45, 0.66, 0.52, 0.41], III 4.47 [1.40, 0.48, 1.06, 1.08, 0.45], IV 4.65 [1.38, 0.55, 0.89, 1.22, 0.61]. Leg formula: 4312. Setation. Palp: spineless; Legs: femora I and IV pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III pld 2 do 5 rld 1; patella I pld 1, II–IV pld 1 rld 1; tibia I pl 2 pld 1, II pld 1 pl 2 rld 1 rlv 3, III pl 2 pld 1 do 1 rl 2 rld 2 rlv 2, IV pl 2 pld 2 plv 1 do 1 rl 2 rld 2 rlv 2; metatarsus I pl 1 pld 1 plv 1 rld 1, II pl 1 pld 2 plv 1 rl 1 rld 1 rlv 2, III–IV pl 2 pld 2 plv 2 do 1 rl 2 rld 2 rlv 2; tarsi I–IV spineless. Carapace slightly wider than abdomen,

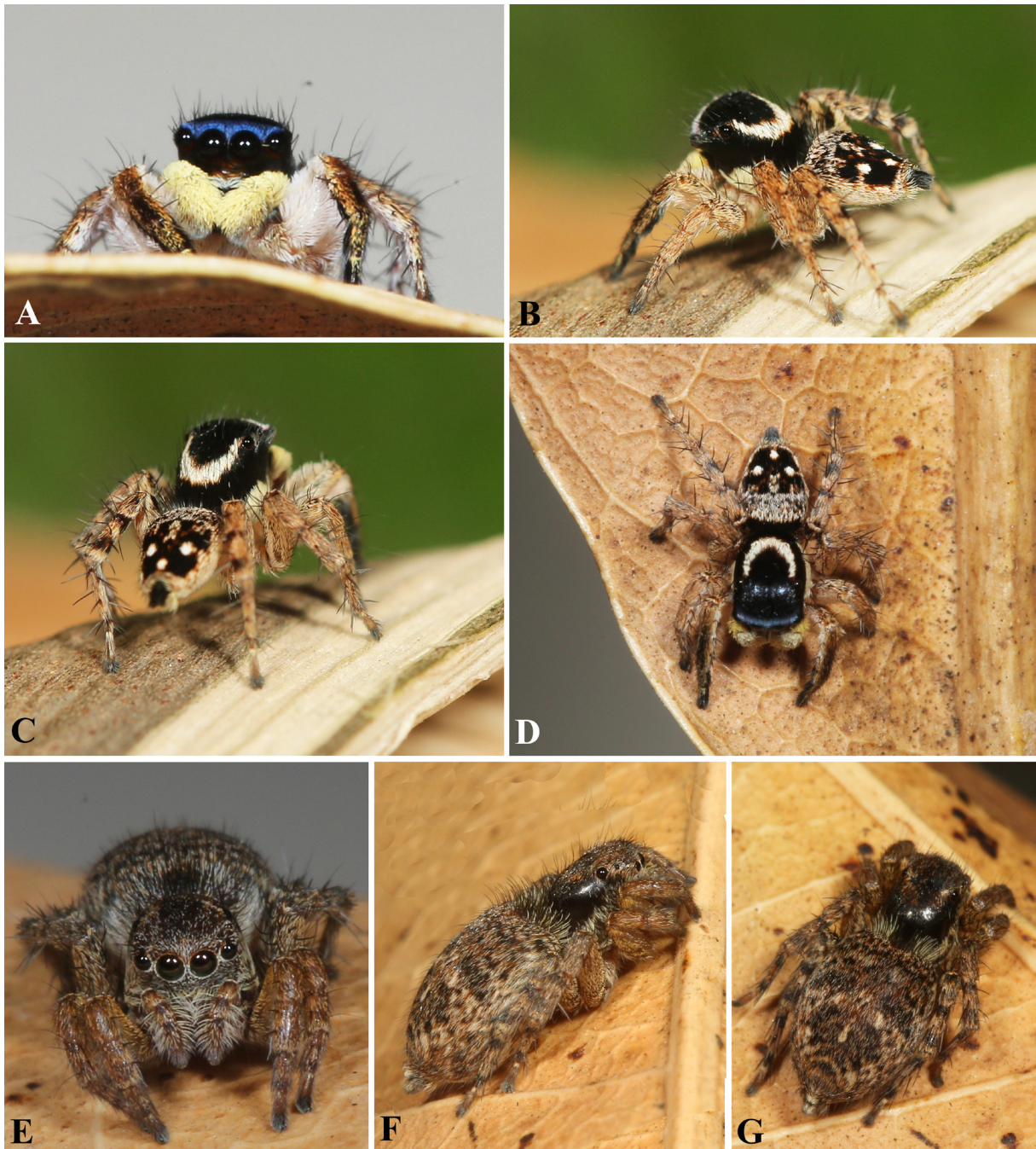


Fig. 7. *Stenaelurillus judithbleisterae* Kadam, Tripathi & Kuni sp. nov., habitus, live photographs. A–D. Holotype, ♂ (NRC-AA-6955). E–G. Paratype, ♀ (NRC-AA-6956). Photographs by Gautam Kadam (A–D) and Rishikesh Tripathi (E–G).

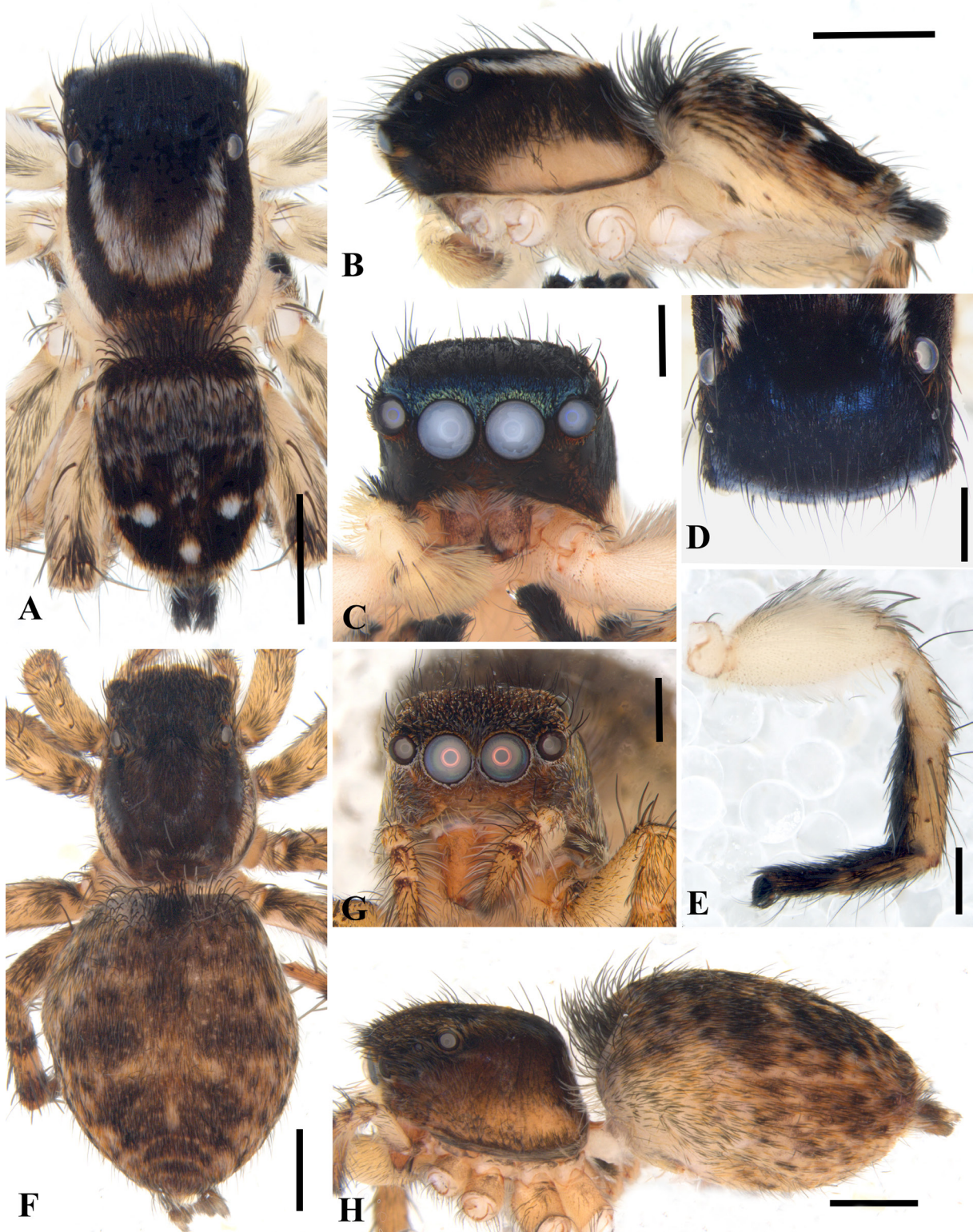


Fig. 8. *Stenaelurillus judithbleisterae* Kadam, Tripathi & Kuni sp. nov. A–E. Holotype, ♂ (NRC-AA-6955). A. Male habitus, dorsal view. B. Male habitus, lateral view. C. Carapace, frontal view. D. Carapace, dorsal view. E. Leg I, prolateral view. F–H. Paratype, ♀ (NRC-AA-6956). F. Female habitus, dorsal view. G. Carapace, frontal view. H. Carapace, lateral view. Scale bars: A–B, F, H = 1 mm; C–E, G = 0.5 mm.

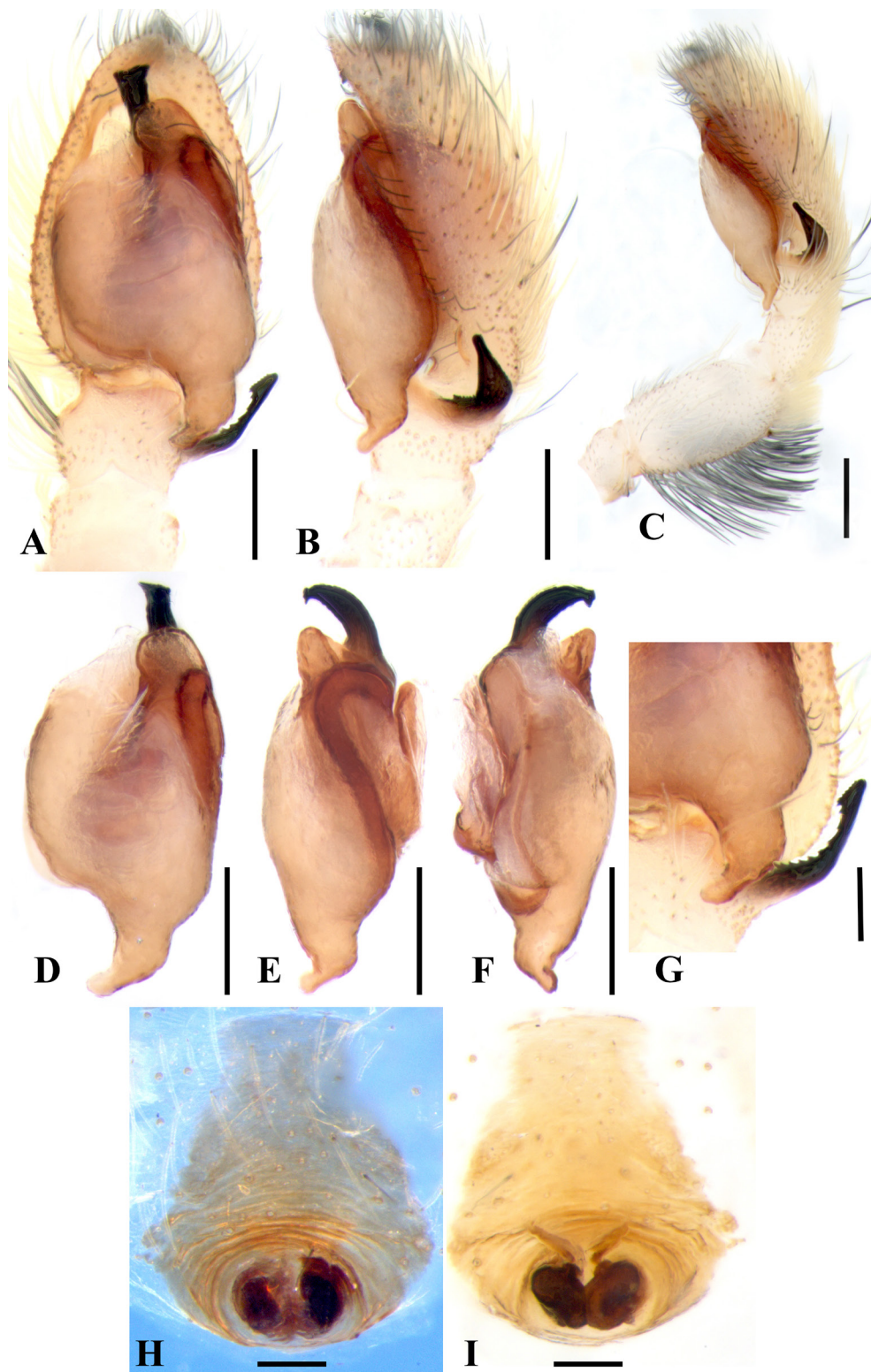


Fig. 9. *Stenaelurillus judithbleisterae* Kadam, Tripathi & Kuni sp. nov., genitalia. **A–G.** Holotype, ♂ (NRC-AA-6955). **A.** Male palp, ventral view. **B.** Male palp, retrolateral view. **C.** Male palp, palpal segments, retrolateral view. **D.** Embolic division, ventral view. **E.** Embolic division, retrolateral view. **F.** Embolic division, prolateral view. **G.** RTA, ventral view indicate serration. **H–I.** Paratype, ♀ (NRC-AA-6956). **H.** Epigyne, ventral view. **I.** Vulva, dorsal view. Scale bars: A–F = 0.2 mm; G–I = 0.1 mm.

densely covered with fine black setae (Figs 7A–D, 8A–D); eye field dark, clothed with iridescent bluish scales forming shiny ocular region, with few black erect setae (Figs 7A, 8C); pair of transverse bluish scales above anterior eyes; pair of longitudinal white stripes extend from posterior eye forms a crescent shape pattern (Figs 7D, 8A, D), with additional white marginal bands. ALE's posterior margin with rusty brown setae (Figs 7A, 8B–C). Clypeus sparsely covered with long white setae and intermixed with short black setae (Figs 7A, 8C). Chelicerae small, brownish with a thick mid-dorsal transverse layer of black setae; fangs short, pale brown (Fig. 8C). Maxillae, labium and sternum yellowish-brown. Legs short and stout, yellowish brown; leg I (tibia, metatarsus and tarsus) ventrally with long black setae (Fig. 8E). Abdomen covered with long black setae projecting forward anteriorly, dorsum covered with black and brown setae, with a pattern of transverse white wide stripe and V-shaped in its anterior half, and with three white spots (equal size) on its rear half; venter pale yellow, with poorly marked brownish speckles (Figs 7B–D, 8A–B). Palp (Figs 9A–G, 10A–B): segments pale yellow without any distinct colour pattern, except sperm duct brown; RTA and embolus black. Femur dorsal and prolateral sides provided with a bunch of long black setae shifting to white from apical region to cymbium, and their length decreases towards the distal region (Fig. 9C). RTA serrated from inner margin, basally broad abruptly narrowing distally, with the round tip (Fig. 9G). Tibia with a small conical apophysis, projecting ventrally (Figs 9A, 10A). Cymbium oval, densely covered with setae (Figs 9A–B, 10A–B). Functional tegulum with wide and robust, disc-shaped tegular process; well-developed proximal projection (Figs 9A–B, 10A–B); and conical

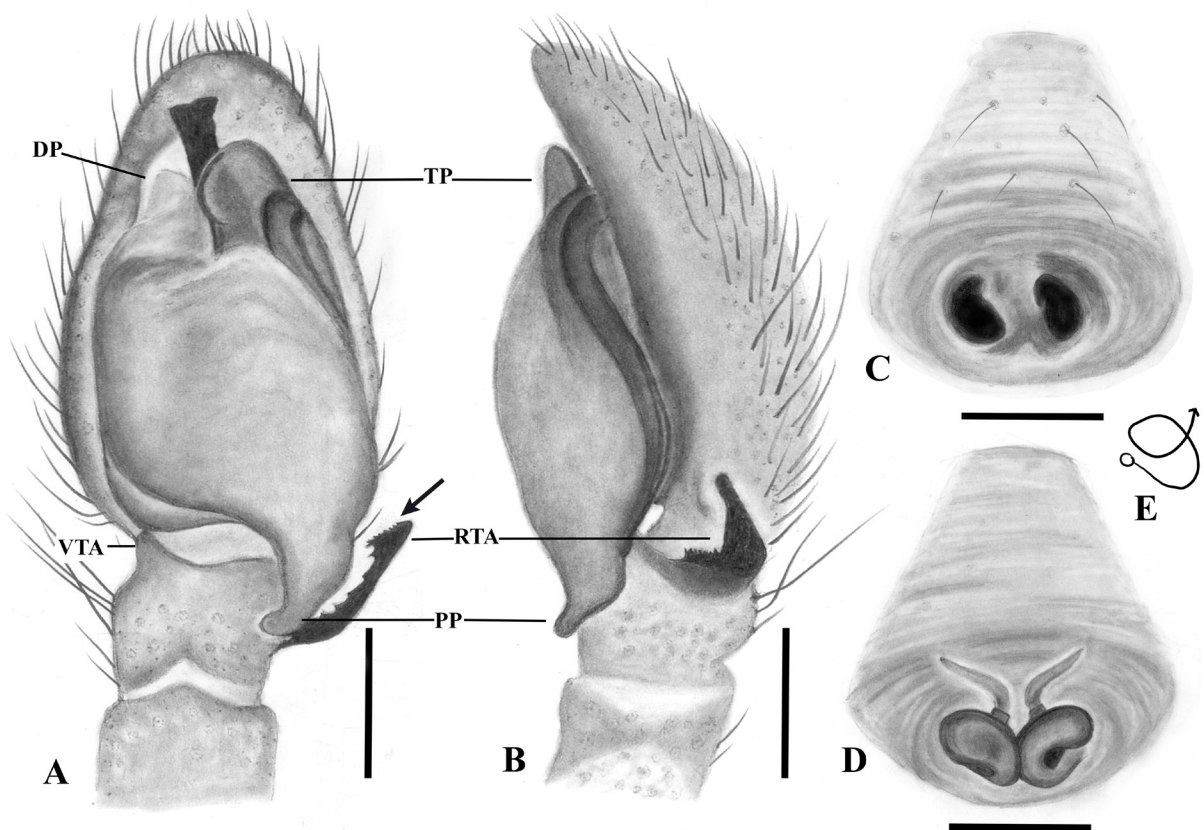


Fig. 10. *Stenaelurillus judithbleisterae* Kadam, Tripathi & Kuni sp. nov., genitalia. **A–B.** Holotype, ♂ (NRC-AA-6955). **A.** Male palp, ventral view; the arrow indicates the serration of RTA. **B.** Male palp, retrolateral view. **C–E.** Paratype, ♀ (NRC-AA-6956). **C.** Epigyne, ventral view. **D.** Vulva, dorsal view. **E.** Vulva, dorsal view of insemination ducts on left side. Scale bars: A–D = 0.2 mm.

poorly-developed, obtuse distal (DP) projections, directed at 10 o'clock position in ventral view (Figs 9A, 10A). Embolus short, wide, with blunt tip directed at 11 o'clock position in ventral view (Fig. 9A, D).

Female (paratype, Figs 7E–G, 8F–H)

Measurements: Body length 6.74. Carapace length 2.77, width 2.01. Abdomen length 3.97, width 3.15. Ocular area length 0.97, width 1.50. Eye diameters: AME 0.42, ALE 0.25, PME 0.09, PLE 0.26. Eye interdistances: AME–AME 0.05, AME–ALE 0.06, PME–PME 1.36, ALE–ALE 1.03, PME–PLE 0.17, PLE–PLE 1.18, ALE–PME 0.30, ALE–PLE 0.55. Length of chelicera 0.69. Clypeus 0.27. Sternum 1.08 long, 0.61 wide. Endite 0.35 long, 0.30 wide. Labium 0.17 long, 0.29 wide. Measurement of palp and legs: Palp 1.5 [0.57, 0.21, 0.23, 0.49], leg I 3.33 [1.15, 0.50, 0.68, 0.54, 0.46], II 3.31 [1.14, 0.46, 0.78, 0.46, 0.47], III 5.36 [1.82, 0.60, 1.23, 1.16, 0.55], IV 5.55 [1.69, 0.62, 1.18, 1.42, 0.64]. Leg formula: 4312. Setation. Palp: femur do 1, patella 0, tibia 0, tarsus pl 1 plv 1 do 1 rld 1 rlv 1; Legs: femora I and IV pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III pld 2 do 5 rld 1; patellae I–II pld 1, III–IV pld 1 rld 1; tibia I pl 2 plv 1 rlv 3, II pl 2 plv 1 rl 1 rlv 3, III pl 2 pld 2 plv 1 do 1 rl 2 rld 1 rlv 2, IV pl 2 pld 1 plv 1 do 1 rl 2 rld 1 rlv 2; metatarsi I–II plv 2 rlv 2, III–IV pl 2 pld 2 plv 2 do 1 rl 2 rld 2 rlv 2; tarsi I–IV spineless. General aspects essentially as in male except the followings: Coloration and pattern less bright and contrast (Figs 7E–G, 8F). Anterior eyes encircled with rusty brown intermixed white setae (Figs 7E, 8G). Chelicerae comparatively long; golden brown (Fig. 8G). Leg III–IV (tibiae, metatarsi and tarsi) with intermediate transverse bands of black setae. Abdomen pear-shaped; chevron pattern at posterior end (Figs 7G, 8F). Epigyne and vulva (Figs 9H–I, 10C–E). epigyne hirsute, plate flat with few folds medially, longer than wide (Figs 9H, 10C). Copulatory openings small, widely spaced, originating posterolaterally. Copulatory ducts short and wide, connecting receptacles almost directly to copulatory openings. Receptacles twisted, making 1.5 revolutions. Fertilization ducts wide, diverging, anterolaterally oriented (Figs 9I, 10D).

Natural history

Specimens of *Stenaelurillus judithbleisterae* sp. nov. were discovered within a tropical evergreen forest located in the Nilgiri hills of India. They were found on dry leaf litter that was interspersed with grass patches. The habitat featured a combination of bright sunlight and occasional shade provided by the tree canopy. The male individual being presented in this study caught attention swiftly due to the presence of shiny blue iridescent scales on its carapace, as well as a distinctive crescent-shaped mark.

Distribution

Known only from the type locality in Coimbatore, Tamil Nadu, India.

Stenaelurillus solapur Kuni, Tripathi & Kadam sp. nov.

[urn:lsid:zoobank.org:act:454BDEF1-E170-4155-8EE5-E324A7A10BCF](https://zoobank.org/urn:lsid:zoobank.org:act:454BDEF1-E170-4155-8EE5-E324A7A10BCF)

Figs 11–14, 15D, 16

Common name: Solapur jumping spider

Diagnosis

Males of *S. solapur* sp. nov. are close to those of *S. sarojinae* Caleb & Mathai, 2014 due to the similarity in their palpal structures, but they can be distinguished by the absence of the palpal femoral apophysis and differences in the shape and position of the embolic apophysis (compare Figs 11, 12A–D, 13A–F, 14A–B with Caleb *et al.* 2015: figs 57–61, 63–81; Marathe *et al.* 2022: figs 28–29, 32–33, 36–37, 40–48). Females are also most similar to those of *S. sarojinae* Caleb & Mathai, 2014 by having large centrally placed copulatory openings, but can be differentiated by absence of epigynal coupling pocket (compare Figs 13G–H, 14C–D with Marathe *et al.* 2022: figs 30–31, 34–35).

Etymology

The specific epithet, '*solapur*', is derived from the vibrant city located in Maharashtra, India. This epithet was chosen to honour the geographical significance and unique ecological characteristics of the type locality.

Type material

Holotype

INDIA • ♂; Maharashtra, Solapur, Mulegaon area; 17°40'12.1" N, 75°58'08.2" E; 330 m alt.; 13 Apr. 2023; N. Kuni leg.; from ground, by hand; NRC-AA-6957.

Paratypes

INDIA • 1 ♀, same collecting data as for the holotype; NRC-AA-6959 • 1 ♂; same collecting data as for the holotype; NRC-AA-6958.

Description

Male (holotype, Figs 11, 12A–D)

Measurements: Body length 3.91. Carapace length 1.96, width 1.41. Abdomen length 1.95, width 1.19. Ocular area length 0.79, width 1.14. Eye diameters: AME 0.33, ALE 0.21, PME 0.08, PLE 0.22. Eye interdistances: AME–AME 0.02, AME–ALE 0.03, PME–PME 1.06, ALE–ALE 0.79, PME–PLE 0.16, PLE–PLE 0.94, ALE–PME 0.28, ALE–PLE 0.50. Length of chelicera 0.40. Clypeus 0.17. Sternum 0.82



Fig. 11. *Stenaelurillus solapur* Kuni, Tripathi & Kadam sp. nov., habitus, live photographs. A–D. Holotype, ♂ (NRC-AA-6957). Photographs by Rishikesh Tripathi.

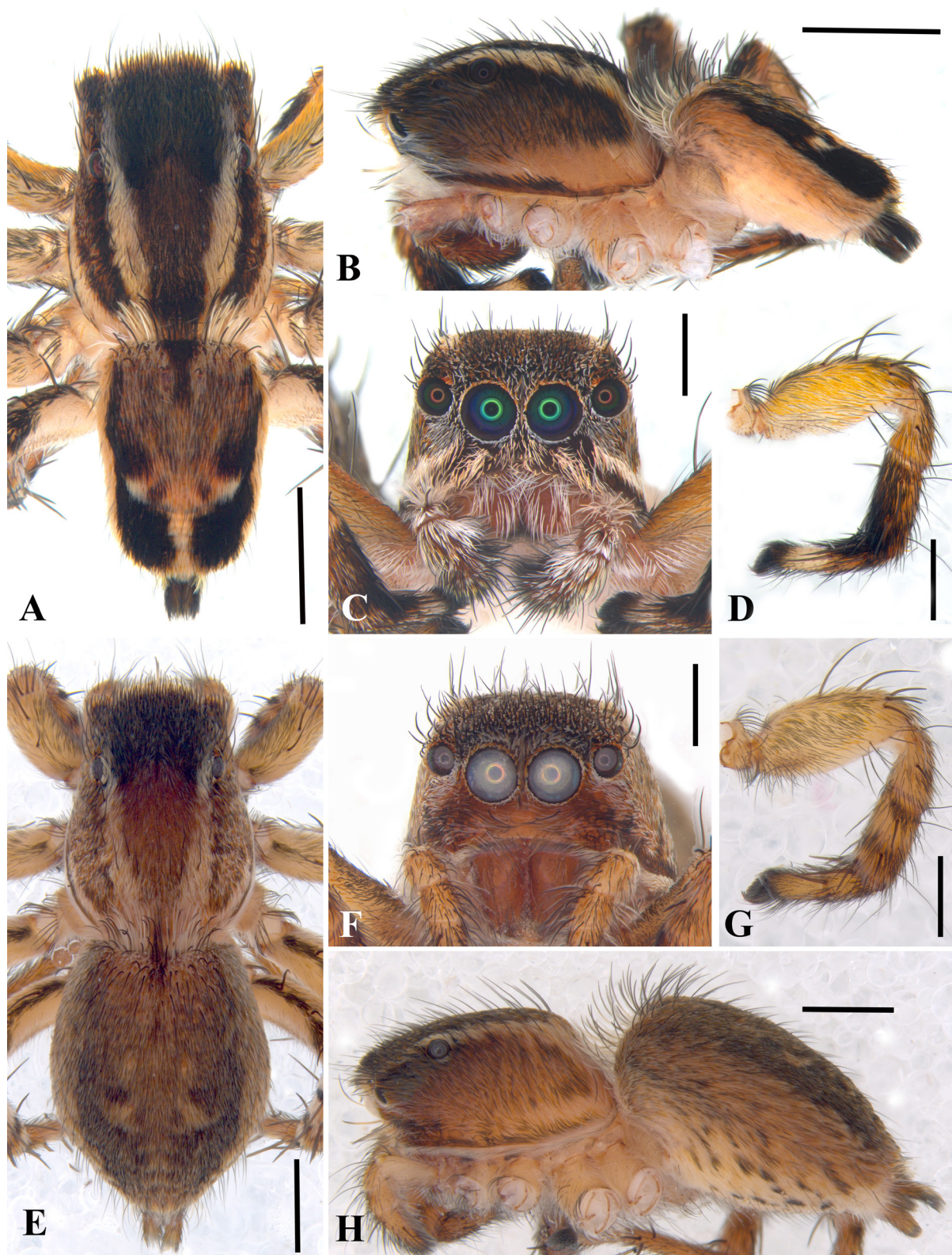


Fig. 12. *Stenaelurillus solapur* Kuni, Tripathi & Kadam sp. nov. **A–D.** Holotype, ♂ (NRC-AA-6957). **A.** Male habitus, dorsal view. **B.** Male habitus, lateral view. **C.** Carapace, frontal view. **D.** Leg I, prolateral view. **E–H.** Paratype, ♀ (NRC-AA-6959). **E.** Female habitus, dorsal view. **F.** Carapace, frontal view. **G.** Leg I, prolateral view. **H.** Habitus, lateral view. Scale bars: A–B, E, H = 1 mm; C–D, F–G = 0.5 mm.

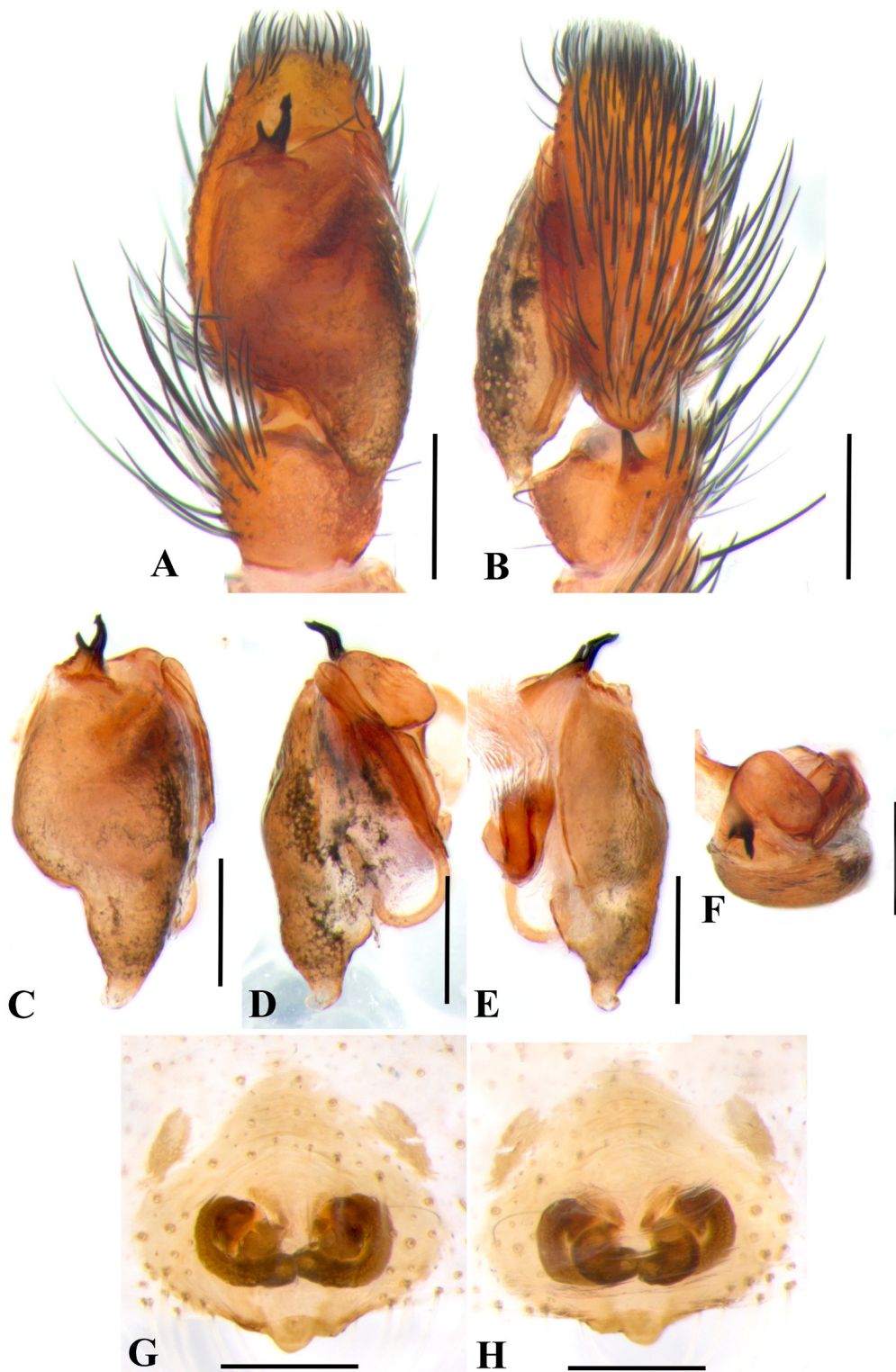


Fig. 13. *Stenaelurillus solapur* Kuni, Tripathi & Kadam sp. nov., genitalia. **A–F.** Holotype, ♂ (NRC-AA-6957). **A.** Male palp, ventral view. **B.** Male palp, retrolateral view. **C.** Embolic division, ventral view. **D.** Embolic division, retrolateral view. **E.** Embolic division, prolateral view. **F.** Embolic division, apical view. **G–H.** Paratype, ♀ (NRC-AA-6959). **G.** Epigyne, ventral view. **H.** Vulva, dorsal view. Scale bars: A–H = 0.2 mm.

long, 0.51 wide. Endite 0.15 long, 0.19 wide. Labium 0.08 long, 0.13 wide. Measurement of palp and legs: Palp 1.26 [0.45, 0.15, 0.12, 0.54], leg I 2.65 [0.95, 0.42, 0.60, 0.35, 0.33], II 2.51 [0.88, 0.36, 0.57, 0.35, 0.35], III 4.32 [1.39, 0.50, 1.01, 0.92, 0.50], IV 4.17 [1.21, 0.42, 0.90, 1.03, 0.61]. Leg formula: 4312. Setation. Palp: femur do 1; Legs: femur I pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III pld 2 do 5 rld 1, IV do 5 rld 1; patellae I–II pld 1, III–IV pld 1 rld 1; tibia I plv 3 rlv 3, II pl 2 plv 1 rl 1 rld 1 rlv 3, III pl 2 pld 1 plv 2 do 1 rl 2 rld 1 rlv 1, IV pl 2 pld 1 plv 2 do 2 rl 2 rld 1 rlv 1; metatarsus I pl 2 pld 1 plv 2 rld 1 rlv 2, II pl 2 pld 1 plv 2 rl 2 rld 1 rlv 2, III pl 2 pld 2 plv 2 do 1 rl 2 rld 2 rlv 2; IV pl 2 pld 2 plv 3 do 1 rl 2 rld 2 rlv 2; tarsi I–IV spineless. Carapace elongated, wider than abdomen, brownish clothed with largely black and few pale brown setae; thoracic region dorsally with paired pale white longitudinal bands extending back from the AMEs, narrow distally; with a pair of additional bands along the margin (Figs 11B–D, 12A–B) Eye field with long black setae, intermixed with small, rusty brown and white setae (Figs 11A, 12C). Clypeus black, hirsute with small white setae (Figs 11A, 12C). Chelicerae small, dorsally with long white setae (Fig. 12C). Legs pale brown; femora and patellae I–IV prolaterally with orangish yellow scales; tibia and metatarsus I ventrally covered dense with black setae (Figs 11A–B, 12A, D). Abdomen anterior edge with long black setae, intermixed with white setae; with a pair of longitudinal pale brown wide stripes forming V-shaped pattern in its anterior half; a pair of white, unevenly shaped spots at rear half and a small ventral stripe to its basal half (Figs 11C–D, 12A). Palp (Figs 13A–F, 14A–B): with brown segments. Femur without any projections; ventral tibial apophysis absent; retrolateral tibial apophysis tiny, straight directed at 12 o'clock laterally (Figs 13B, 14B). Tegulum with well-developed proximal projection, straight with rounded end; and disc-shaped tegular process (Figs 13A–B, 14A–B).

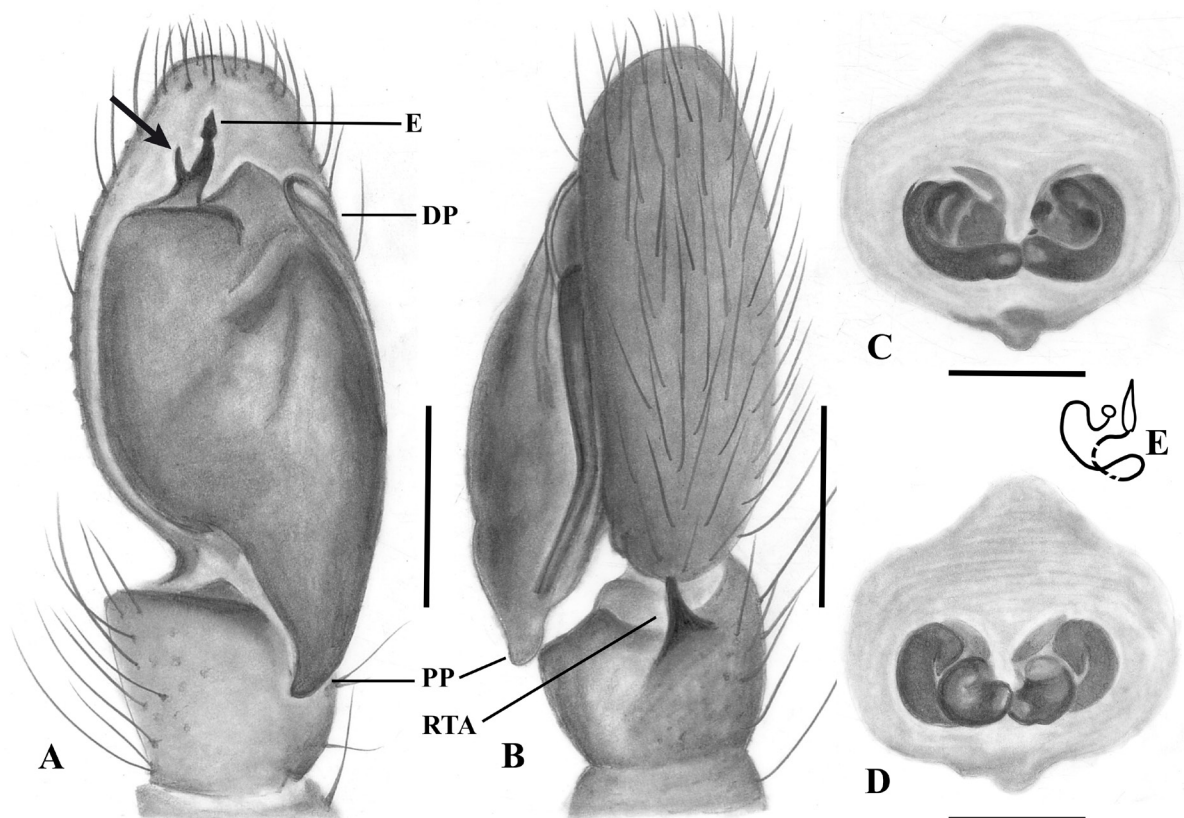


Fig. 14. *Stenaelurillus solapur* Kuni, Tripathi & Kadam sp. nov., genitalia. **A–B.** Holotype, ♂ (NRC-AA-6957). **A.** Male palp, ventral view; the arrow indicates the extension of embolus. **B.** Male palp, retrolateral view. **C–E.** Paratype, ♀ (NRC-AA-6959). **C.** Epigyne, ventral view. **D.** Vulva, dorsal view. **E.** Vulva, dorsal view of insemination ducts on left side. Scale bars: A–B = 0.2 mm; C–D = 0.1 mm.

Embolus 2.5 times as long as apophysis, with conical tip directed at 12 o'clock position in ventral view; embolus accompanied apophysis tiny, prolaterally located tip directed at 11 o'clock position (13A, C, 14A).

Female (paratype, Figs 12E–H)

Measurements: Body length 5.88. Carapace length 2.83, width 1.92. Abdomen length 3.05, width 2.31. Ocular area length 0.94, width 1.35. Eye diameters: AME 0.37, ALE 0.23, PME 0.08, PLE 0.22. Eye interdistances: AME–AME 0.05, AME–ALE 0.08, PME–PME 1.23, ALE–ALE 0.98, PME–PLE 0.17, PLE–PLE 1.10, ALE–PME 0.30, ALE–PLE 0.54. Length of chelicera 0.66. Clypeus 0.27. Sternum 0.92 long, 0.62 wide. Endite 0.25 long, 0.27 wide. Labium 0.13 long, 0.14 wide. Measurement of palp and legs: Palp 1.68 [0.62, 0.24, 0.26, 0.56], leg I 3.14 [1.17, 0.48, 0.72, 0.36, 0.41], II 3.19 [1.16, 0.48, 0.68, 0.41, 0.46], III 5.46 [1.61, 0.61, 1.18, 1.40, 0.66], IV 5.60 [1.88, 0.49, 1.49, 1.18, 0.56]. Leg formula: 4312. Setation. Palp: femur I do 1; Legs: femora I and IV pld 1 do 5 rld 1, II pld 1 do 5 rld 2, III pld 2 do 5 rld 1; patellae I–II pld 1, III–IV pld 1 rld 1; tibia I pld 2 plv 2 rlv 2, II pld 2 plv 1 rlv 3, III pld 1 pl 1 plv 1 do 1 rld 2 rl 2 rlv 2, IV pl 2 pld 2 plv 1 do 1 rl 2 rld 2 rlv 2; metatarsus I pl 1 pld 2 plv 2 rl 1 rlv 2, II pld 1 pl 1 plv 2 rlv 2, III pld 2 pl 1 plv 2 do 2 rld 2 rl 1 rlv 2, IV pl 2 pld 2 plv 2 do 1 pl 2 pld 2 plv 2; tarsi I–IV spineless. General aspects essentially as in male except the followings: coloration and pattern less bright and contrast (Fig. 12E). Clypeus and chelicerae with scattered small white setae, intermixed with black setae; additionally with black stain laterally on clypeus with brown blotches (Fig. 12F). Chelicerae comparatively long (Fig. 12F). Abdomen oval-shaped; chevron pattern at posterior end (Fig. 12E). Femur I prolaterally with very few orangish yellow scales (Fig. 12G). Venter pale brownish with rows of black speckles on lateral margins (Fig. 12H). Epigyne and vulva (Figs 13G–H, 14C–E): epigyne hirsute, longer than wide (Fig. 13G, 14C); Copulatory openings small, widely spaced, mediolaterally originating (Figs 13G, 14C). Copulatory ducts short, running along the spermathecae (Figs 13H, 14D). Spermathecae C-shaped, medially placed, adjacent (Figs 13H, 14D). Fertilization ducts long, diverging (Figs 13H, 14D).

Natural history

Stenaelurillus solapur sp. nov. was encountered in a compact and fragmented semi-arid grassland patch, where it sought refuge under the shade of Neem trees (*Azadirachta indica* A.Juss.). Adult males showcase remarkable agility, characterized by swift movements and impressive long jumps. In response to disturbances, they demonstrate a tendency to seek shelter under leaf litter or within ground crevices. The species' body coloration effectively blends with the dried Neem leaves, providing excellent camouflage and enhancing their concealment within the habitat.

Distribution

Known only from the type locality in Solapur, Maharashtra, India.

New locality record of following species of Stenaelurillus within Indian states

Stenaelurillus arambagensis (B. Biswas & K. Biswas, 1992)

Figs 17, 22

Marpissa arambagensis Biswas & Biswas, 1992: 390, figs 20–22 (♀).

Stenaelurillus digitus Prajapati, Murthappa, Sankaran & Sebastian, 2016: 327, figs 1C–D, 6A–D, 7A–E, 8A–C, 9A–D (♂♀).

Stenaelurillus arambagensis – Caleb *et al.* 2017: 120, figs 1–17 (♀, Transfer from *Marpissa*, synonym of *Stenaelurillus digitus*). — Logunov & Azarkina 2018: 20, figs 57–62 (♂).



Fig. 15. Distant habitat views of the collection site of species of *Stenaelurillus* Simon, 1886. **A.** *Stenaelurillus feral* Tripathi, Kuni & Kadam sp. nov. **B.** *Stenaelurillus naldurg* Kuni, Kadam & Tripathi sp. nov. **C.** *Stenaelurillus judithbleisterae* Kadam, Tripathi & Kuni sp. nov. **D.** *Stenaelurillus solapur* Kuni, Tripathi & Kadam sp. nov. Photographs by Gautam Kadam (C), Nikhil Kuni (B, D) and Vasavi Prakash (A).

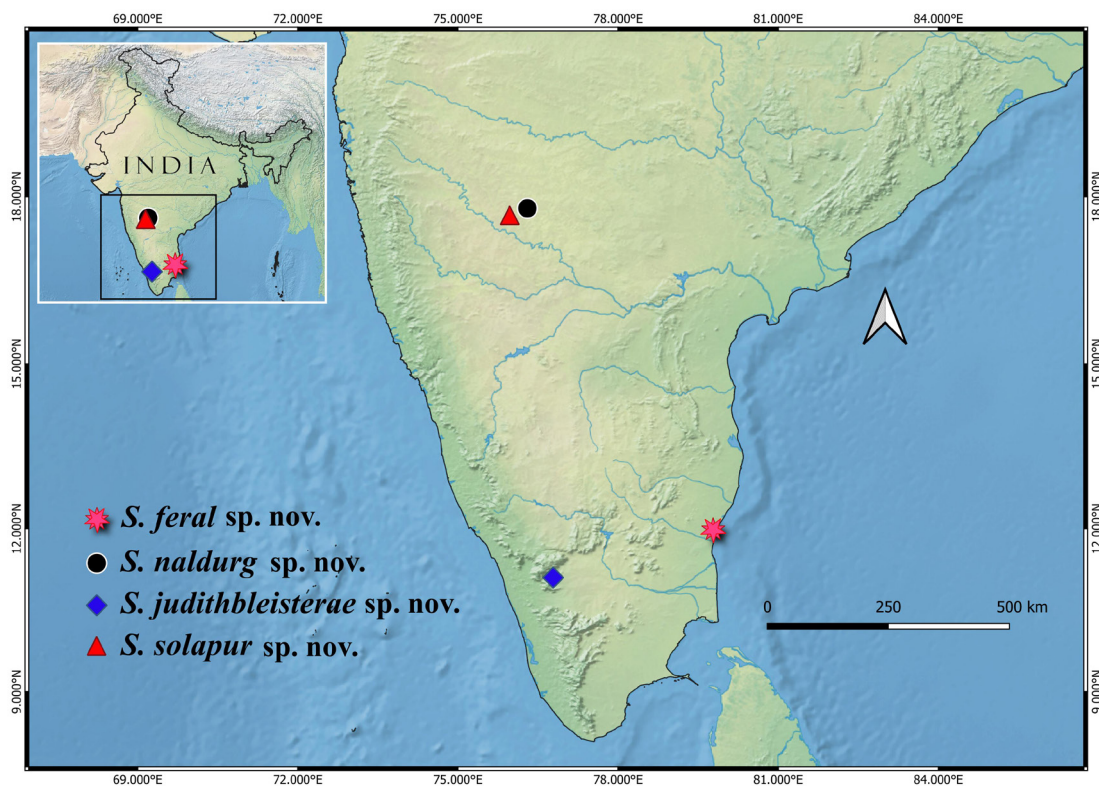


Fig. 16. Type localities of new species of *Stenaelurillus* Simon, 1886 studied in this work.



Fig. 17. *Stenaelurillus arambagensis* (B. Biswas & K. Biswas, 1992), habitus, live photographs from Kanukurthy, Telangana. **A–B, D.** Specimen, ♂ (NRC-AA-6960). **C, E–F.** Specimen, ♀ (NRC-AA-6962). Photographs by Rishikesh Tripathi.

Type locality

Marpissa arambagensis Biswas & Biswas, 1992: Arambagh, Hugli District, West Bengal, India.
Stenaelurillus digitus Prajapati *et al.*, 2016: Vijaynagar, Gujarat, India (Caleb *et al.* 2017).

Type repository

NZC-ZSI (Caleb *et al.* 2017); ADSH (WSC 2023).

Material examined

INDIA • 2 ♂♂; Telangana, Mahbubnagar, Kanukurthy area; 16°53'14.5" N, 77°28'32.1" E; 310 m alt.; 18 Apr. 2023; N. Kuni leg.; from ground, by hand; NRC-AA-6960, NRC-AA-6961 • 2 ♀♀; same collecting data as for preceding; NRC-AA-6962, NRC-AA-6963.

Records from India

Andhra Pradesh, Gujarat, Maharashtra, Telangana*, West Bengal (Caleb *et al.* 2017; Logunov & Azarkina 2018; *present data).

Distribution

India and Pakistan (Logunov & Azarkina 2018).

Stenaelurillus gabrieli Prajapati, Murthappa, Sankaran & Sebastian, 2016
Figs 18, 22

Stenaelurillus gabrieli Prajapati, Murthappa, Sankaran & Sebastian, 2016: 322, figs 1A–B, 2A–C, 3A–F, 4A–C, 5A–D (♂♀).

Type locality

Wilson Hills in Dharampur, Gujarat, India (Prajapati *et al.* 2016).

Type repository

ADSH (Prajapati *et al.* 2016).

Material examined

INDIA • 1 ♂; Maharashtra, Sindhudurg, Vetel Bambarde; 16°02'51" N, 73°42'42" E; 11 m alt.; 20 Apr. 2023; G. Kadam leg.; from ground, by hand; NRC-AA-6964 • 1 ♀; same collecting data as for preceding; NRC-AA-6965.

Records from India

Gujarat (Prajapati *et al.* 2016), Maharashtra (present data).

Distribution

Known only from India (WSC 2023).

Stenaelurillus lesserti Reimoser, 1934
Figs 19, 22

Stenaelurillus lesserti Reimoser, 1934: 504, figs 25–26 (♂♀).

Stenaelurillus lesserti – Prószyński 1984: 139 (♀). For a complete list of references, see WSC (2023).

Type locality

Pollachi, Coimbatore, Tamil Nadu, India (Logunov 2020).

Type repository

MHNG (Logunov 2020).

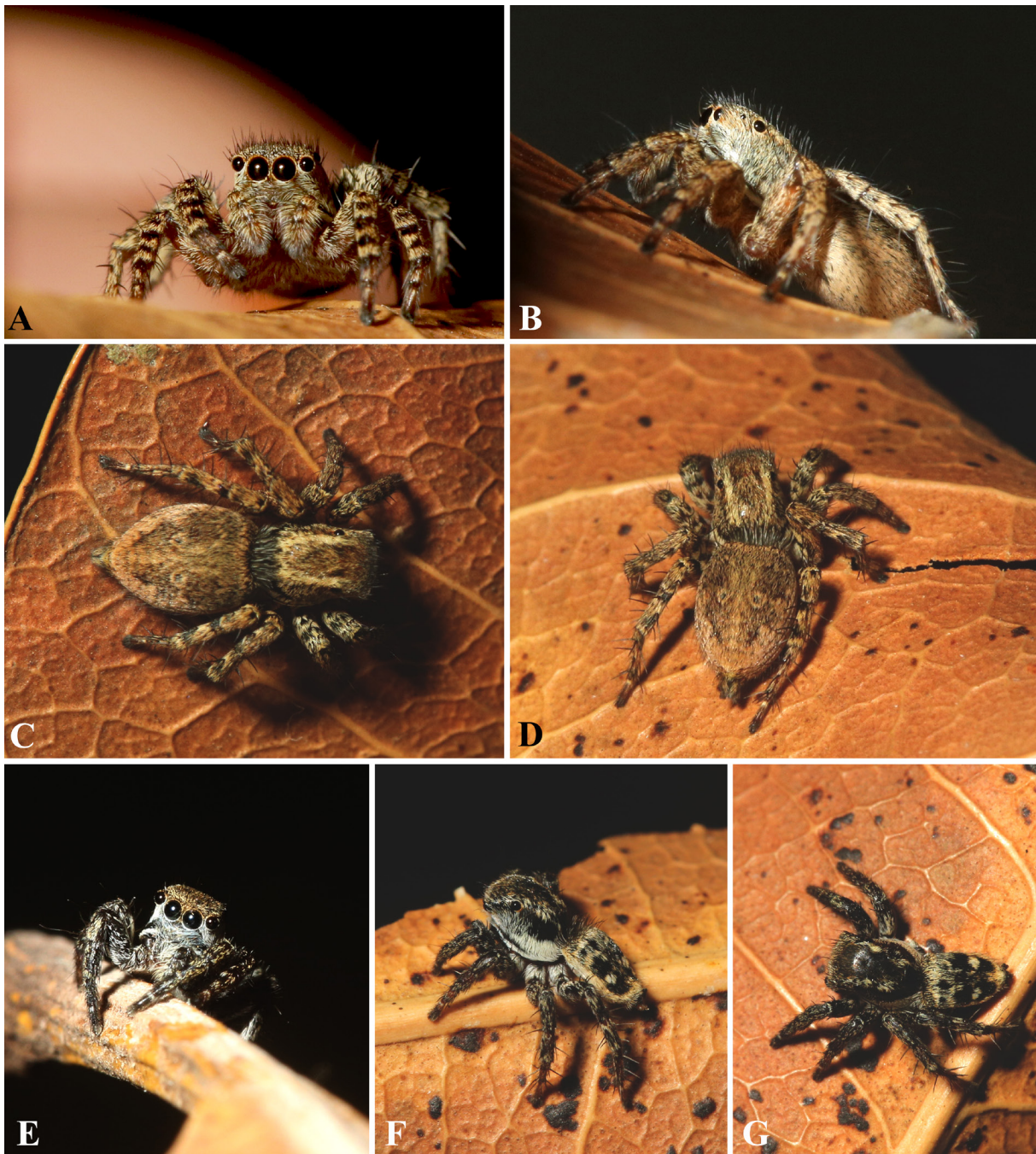


Fig. 18. *Stenaelurillus gabrieli* Prajapati, Murthappa, Sankaran & Sebastian, 2016, habitus, live photographs from Kudal, Sindhudurg, Maharashtra. **A–D.** Specimen, ♀ (NRC-AA-6965). **E–G.** Specimen, ♂ (NRC-AA-6964). Photographs by Rishikesh Tripathi.



Fig. 19. *Stenaelurillus lesserti* Reimoser, 1934., habitus, live photographs from Bengaluru (A–B, G) and Puducherry (C–F). A–B, D, F. Specimen, ♂ (NRC-AA-6966). C, E. Specimen, ♀ (NRC-AA-6967). G. Mating. Photographs by Amith Kiran Menezes (A–B, G) and Rishikesh Tripathi (C–F).

Material examined

INDIA • 1 ♂, Puducherry, Bharati Nagar; 11°57'24.2" N, 79°49'39.7" E; 40 m alt.; 30 Apr. 2023; G. Kadam leg.; from ground, by hand; NRC-AA-6966 • 1 ♀; same collecting data as for preceding; NRC-AA-6967.

Records from India

Andhra Pradesh, Karnataka, Kerala, Puducherry*, Tamil Nadu (Caleb & Sanap 2016; Logunov 2020; *present data).

Distribution

India and Sri Lanka (WSC 2023).

Stenaelurillus neyyar Sudhin, Sen & Caleb, 2023
Figs 20, 22

Stenaelurillus neyyar Sudhin, Sen & Caleb, 2023: 128, figs 4A–H, 5A–E, 6A–D, 7C (♂♀).



Fig. 20. *Stenaelurillus neyyar* Sudhin, Sen & Caleb, 2023, habitus, live photographs from Nagercoil, Tamil Nadu. A–C. Specimen, ♂ (NRC-AA-6968). D–F. Specimen, ♂ (NRC-AA-6969). G–I. Specimen, ♀ (NRC-AA-6970). Photographs by Rishikesh Tripathi.

Type locality

Neyyar Wildlife Sanctuary, Thiruvananthapuram district, Kerala, India (Sudhin *et al.* 2023).

Type repository

NZC-ZSI (Sudhin *et al.* 2023).

Material examined

INDIA • 2 ♂♂; Tamil Nadu, Nagercoil; 8°11'57" N, 77°25'11" E; 50 m alt.; 5 May 2023; G. Kadam leg.; from ground, by hand; NRC-AA-6968, NRC-AA-6969 • 1 ♀; same collecting data as preceding; NRC-AA-6970.

Records from India

Kerala (Sudhin *et al.* 2023), Tamil Nadu (present data).

Distribution

Known only from India (WSC 2023).

Stenaelurillus tamravarni Marathe & Maddison, 2022
Figs 21, 22

Stenaelurillus tamravarni Marathe & Maddison in Marathe *et al.* 2022: 11, figs 73–93 (♂♀).

Type locality

Agastya Foundation campus, NW of Kuppam, Andhra Pradesh, India (Marathe *et al.* 2022).

Type repository

NCBS (Marathe *et al.* 2022).



Fig. 21. *Stenaelurillus tamravarni* Marathe & Maddison, 2022, male habitus, live photographs from Chandrappa circle, Bangalore, Karnataka. Photographs by Amith Kiran Menezes.

Photographic record

One male, photographed by A.K. Menezes on 30 Jun. 2023: India, Karnataka, Bangalore, Chandruppa Circle, 12°54'31.5" N, 77°21'59.6" E, 720 m alt.

Records from India

Andhra Pradesh (Marathe *et al.* 2022), Karnataka (present data).

Distribution

Known only from India (WSC 2023).

Discussion

Prior to this study, two species of the genus *Stenaelurillus*, namely *S. pecten* Wesolowska, 2014 and *S. wandae* Logunov, 2020, were documented to have modified retrolateral tibial apophysis structures. *Stenaelurillus pecten* Wesolowska, 2014 exhibited a comb-shaped extension on the RTA, while *S. wandae* Logunov, 2020 had a RTA bifurcated apically. Interestingly, we observed modifications in the RTA in two newly described species, *S. feral* sp. nov. and *S. judithbleisterae* sp. nov., with distinct serrations on the inner margin of the RTA, which is unique within the genus *Stenaelurillus*. Additionally, the presence of an embolic apophysis was noted in *S. uniguttatus* Lessert, 1925 and *S. sarojinae* Caleb & Mathai, 2014; likewise, it is present in *S. solapur* sp. nov. Further research is necessary to fully comprehend the function of these observed modifications in the RTA and embolus. Sebastian *et al.* (2015) discovered the presence of a mating plug within the genus *Stenaelurillus*, specifically in *S. albus* Sebastian, Sankaran,

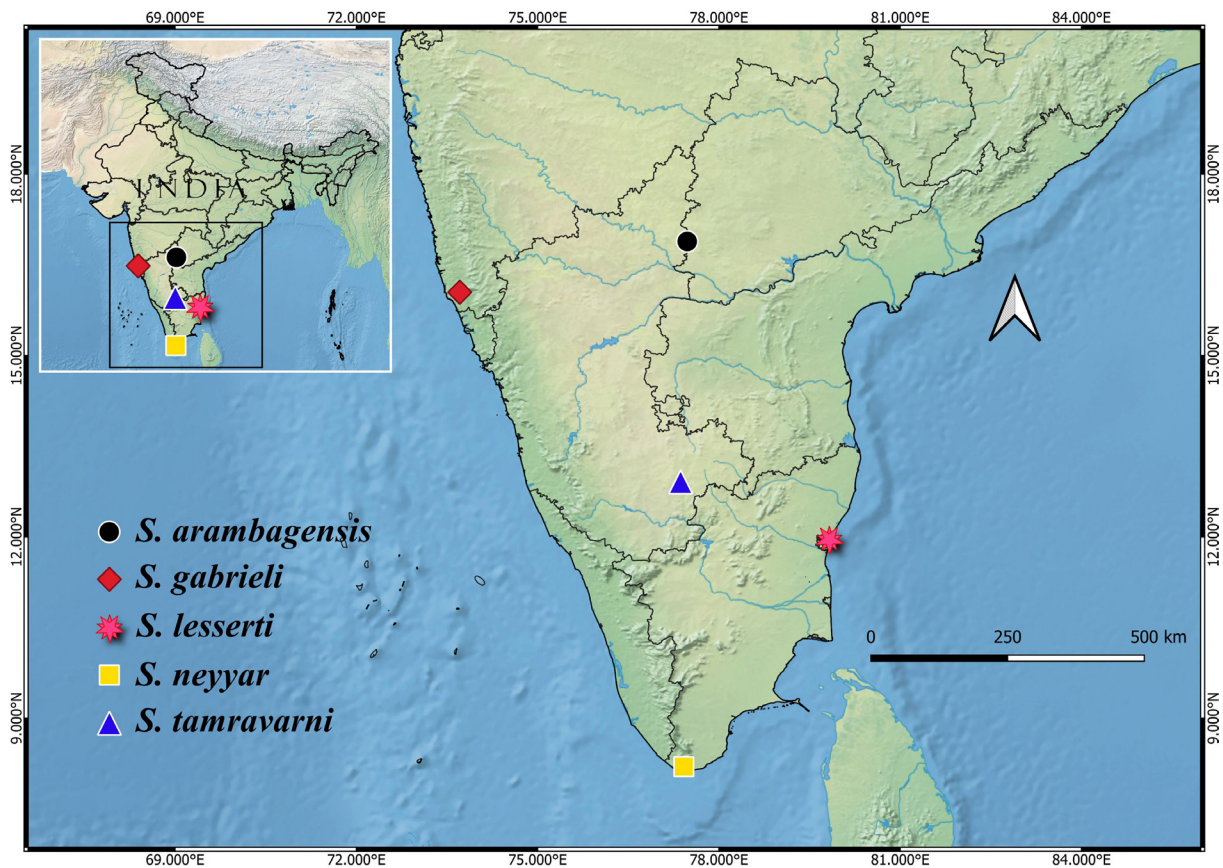


Fig. 22. New distributional records of species of *Stenaelurillus* Simon, 1886 studied in this work.

Malamel & Joseph, 2015, and in *S. lesserti* Reimoser, 1934. We have also observed this characteristic in the female epigyne of the newly described species *S. judithbleisterae* sp. nov. and *S. naldurg* sp. nov., which prompts us to understand that mating plug is a regular occurrence within the genus *Stenaelurillus*.

With the addition of four new species, the Indian region currently has twenty valid species of *Stenaelurillus*. Considering, the three primary centres of present-day species diversity for this genus are Western Africa, the South-eastern part of Central Africa, and South Asia (Logunov & Azarkina 2018). Recent studies indicate that the South Asian centre of diversity has experienced a significant enrichment, with at least twenty identified species in this region alone (Logunov & Azarkina 2018; Logunov 2020; Sudhin *et al.* 2023; Marathe *et al.* 2022; present study). This suggests that there is substantial potential for further species discovery. The presence of numerous unexplored ecosystems and regions awaiting investigation strongly indicates the likelihood of discovering more species in these areas. All Indian species of *Stenaelurillus*, with the exception of *S. marusiki* Logunov, 2001, are confined to the Indian Subcontinent. Among them, *S. arambagensis* (B. Biswas & K. Biswas, 1992) stands out as the only species with a wide geographic range that encompasses the Gangetic Plains, the Deccan plateau, parts of some semi-arid zones, and the Western Ghats.

Acknowledgments

The authors express their gratitude to Rev. Fr. Jolly Andrews CMI, Principal of Christ College, Irinjalakuda, Thrissur, Kerala, for providing all the necessary facilities to complete this work. We also acknowledge Mr. Tarun Karmakar Assistant Curator, National Centre for Biological Sciences, Bangalore, Karnataka, India, for facilitating the deposition of voucher specimens. We are also grateful to Mr. Amith Kiran Menezes, Mr. Chinmay C. Maliye from Karnataka, India, and Ms. Vasavi Prakash from Lucknow, India, for their valuable contributions of photographs. Additionally, NK would like to thank Mr. Yogesh Mahindrakar from Maharashtra, India, for his field assistance. Mrs. Judith Bleister's support through the BIOPAT programme for this taxonomic research and species conservation is highly valued and appreciated. We acknowledge Dr. John Caleb for improving an earlier version of the manuscript. We also give our heartfelt gratitude to the editors and reviewers for improving this paper so well.

References

- Biswas B. & Biswas K. 1992. Araneae: Spiders. In: *State Fauna Series 3: Fauna of West Bengal. Part 3: Arachnida & Acari*: 357–500. Zoological Survey of India, Kolkata.
- Caleb J.T.D. & Sanap R.V. 2016. Lessert's rainbow spider, *Stenaelurillus lesserti* Reimoser (Araneae: Salticidae: Aelurillina), from new localities in South India. *Acta Arachnologica* 62 (2): 83–87. <https://doi.org/10.2476/asjaa.65.83>
- Caleb J.T.D., Mungkung S. & Mathai M.T. 2015. Four new species of jumping spider (Araneae: Salticidae: Aelurillinae) with the description of a new genus from South India. *Peckhamia* 124 (1): 1–18.
- Caleb J.T.D., Prajapati D.A., Maheshwari N.R. & Sanap R.V. 2017. Redescription and synonymy of *Stenaelurillus arambagensis* (Biswas & Biswas, 1992) comb. n. (Araneae: Salticidae). *Arthropoda Selecta* 26 (2): 119–123. <https://doi.org/10.15298/arthsel.26.2.04>
- Logunov D.V. 2001. New and poorly known species of the jumping spiders (Aranei: Salticidae) from Afghanistan, Iran and Crete. *Arthropoda Selecta* 10 (1): 59–66.
- Logunov D.V. 2020. Further notes on the genus *Stenaelurillus* Simon, 1885 from India (Araneae: Salticidae). *Zootaxa* 4899 (1): 201–214. <https://doi.org/10.11646/zootaxa.4899.1.11>

- Logunov D.V. & Azarkina G.N. 2018. Redefinition and partial revision of the genus *Stenaelurillus* Simon, 1886 (Arachnida, Araneae, Salticidae). *European Journal of Taxonomy* 430: 1–126. <https://doi.org/10.5852/ejt.2018.430>
- Maddison W.P. 2015. A phylogenetic classification of jumping spiders (Araneae: Salticidae). *Journal of Arachnology* 43 (3): 231–292. <https://doi.org/10.1636/ arac-43-03-231-292>
- Marathe K., Sanap R., Joglekar A., Caleb J.T.D. & Maddison W.P. 2022. Three new and notes on two other jumping spider species of the genus *Stenaelurillus* Simon, 1886 (Salticidae: Aelurillina) from the Deccan Plateau, India. *Zootaxa* 5125 (1): 1–19. <https://doi.org/10.11646/zootaxa.5125.1.1>
- Prajapati D.A., Murthappa P.S., Sankaran P.M. & Sebastian P.A. 2016. Two new species of *Stenaelurillus* Simon, 1886 from India (Araneae: Salticidae: Aelurillina). *Zootaxa* 4171 (2): 321–334. <https://doi.org/10.11646/zootaxa.4171.2.5>
- Prószyński J. 1984. Atlas rysunków diagnostycznych mniej znanych Salticidae (Araneae). *Zeszyty Naukowe Wyższej Szkoły Rolniczo-Pedagogicznej w Siedlcach* 2: 1–177.
- QGIS Development Team 2021. QGIS Geographic Information System. Version 3.16. Open Source Geospatial Foundation. Available from <https://qgis.org> [accessed 30 Jun. 2023].
- Reimoser E. 1934. Araneae aus Süd-Indien. *Revue Suisse de Zoologie* 41: 465–511.
- Sebastian P.A., Sankaran P.M., Malamel J.J. & Joseph M.M. 2015. Description of new species of *Stenaelurillus* Simon, 1886 from the Western Ghats of India with the redescription of *Stenaelurillus lesserti* Reimoser, 1934 and notes on mating plug in the genus (Arachnida, Araneae, Salticidae). *ZooKeys* 491: 63–78. <https://doi.org/10.3897/zookeys.491.8218>
- Simon E. 1886. Etudes arachnologiques. 18^e Mémoire. XXVI. Matériaux pour servir à la faune des Arachnides du Sénégal. *Annales de la Société Entomologique de France* 6 (5): 345–396.
- Sudhin P.P., Sen S. & Caleb J.T.D. 2023. Two new *Stenaelurillus* species (Araneae, Salticidae, Aelurillina) from Western Ghats, India. *Zoosystematics and Evolution* 99 (1): 123–133. <https://doi.org/10.3897/zse.99.97985>
- Tripathi R., Joshi P., Kasambe R. & Sudhikumar A.V. 2023. A new species of *Hasarius* Simon, 1871 (Araneae: Salticidae) from Mumbai, India. *Arthropoda Selecta* 32 (2): 213–219.
- Wesołowska W. 2014a. A review of the Asian species of the spider genus *Stenaelurillus* (Araneae: Salticidae). *Oriental Insects* 47 (4): 246–254. <https://doi.org/10.1080/00305316.2013.871823>
- Wesołowska W. 2014b. Further notes on the genus *Stenaelurillus* Simon, 1885 (Araneae, Salticidae) in Africa with descriptions of eight new species. *Zoosystema* 36 (3): 595–622. <https://doi.org/10.5252/z2014n3a3>
- Wesołowska W. & Cumming M.S. 1999. The first termitivorous jumping spider (Araneae: Salticidae). *Bulletin of the British Arachnological Society* 11: 204–208.
- Wesołowska W. & Cumming M.S. 2002. *Mashonarus guttatus*, gen. and sp. n., the second termitivorous jumping spider from Africa (Araneae: Salticidae). *Bulletin of the British Arachnological Society* 12: 165–170.
- Wesołowska W. & Russell-Smith A. 2000. Jumping spiders from Mkomazi Game Reserve in Tanzania (Araneae Salticidae). *Tropical Zoology* 13: 11–127. <https://doi.org/10.1080/03946975.2000.10531126>
- WSC 2023. World Spider Catalog. Version 24. Natural History Museum Bern. <https://doi.org/10.24436/2>

Manuscript received: 3 July 2023

Manuscript accepted: 21 November 2023

Published on 29 March 2024

Topic editor: Magalie Castelin

Desk editor: Natacha Beau

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