

The first described female of the South American jumping spider genus *Sumakuru* Maddison, 2016 (Araneae: Salticidae: Lyssomaninae)

William Galvis¹

¹ Grupo de Investigación en Aracnología y Miriapodología (GAM-UN), Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Sede Bogotá, Colombia, e-mail wlgalvisj@unal.edu.co

Abstract. *Sumakuru* includes two valid Neotropical species, from Ecuador and Colombia, known only from males. Here the female *S. felca* Galvis, 2017 is described and illustrated for the first time, based on a single female collected at the type locality, in Colombia. In addition, new information about the microhabitat of the species is provided, along with an amended diagnosis of the genus.

Keywords. Colombia, lyssomanines, Neotropical region

Introduction

Jumping spiders (Salticidae) constitute the largest family of the order Araneae, with more than 6180 described species in 644 genera (World Spider Catalog, 2020), 30 tribes and 7 subfamilies, six of which are considered as deeply-diverging groups (Maddison, 2015). *Sumakuru* Maddison, 2016, together with three other genera, the Neotropical *Chinoscopus* Simon, 1900 and *Lyssomanes* Hentz, 2004, and the Old World *Hindumanes* Logunov, 2004, make up one of these six deeply-diverging taxa of jumping spiders, the subfamily Lyssomaninae (Maddison 2015; Sudhin et al. 2017).

Lyssomaninae currently includes 101 described species, of which 44 have been described from only one sex, 18 species known only by males (1 *Chinoscopus*, 15 *Lyssomanes*, and 2 *Sumakuru*), and 26 species known only by females (1 *Hindumanes* and 25 *Lyssomanes*). *Sumakuru* is the only genus of lyssomanines that is known only by one sex.

Sumakuru was described by Maddison (2016) to include only its type species, *S. bigal* Maddison, 2016, described from a single male collected in the Bigal River Biological Reserve, Orellana, Ecuador. Subsequently, Galvis (2017) described the second species of the genus, *S. felca*, from a male collected in the Río Nambí Natural Reserve, Nariño, Colombia. To find a female the author examined a collection made at the type locality of *S. felca*. Here I describe the female *S. felca*, and present new data on the microhabitat of this species. An amended diagnosis of the genus is also provided.

Materials and methods

The female specimen was deposited in the Arachnological Collection of Instituto de Ciencias Naturales of the Universidad Nacional de Colombia (ICN-Ar, Eduardo Flórez). The multifocal photographs and measurements were taken with an AmScope MU300 digital camera attached to Advanced Optics JSZ-6 stereomicroscope, and then prepared with the image stacking software Combine ZP. The female epigynal plates were dissected and digested using 10 % KOH. All measurements are given in millimeters.

Abbreviations used in the text and figures are: ALE = anteromedian eyes; AME = anteromedian eyes; cd = copulatory duct; co = copulatory opening; gd = glandular duct, m = meters above mean sea level; OC = ocular quadrangle; PLE = posteromedian eyes; PME = posteromedian eyes; sp = spermatheca.

Taxonomy

Salticidae Blackwall, 1841

Lyssomaninae Blackwall, 1841

Sumakuru Maddison, 2006

Type species: *S. bigal* Maddison, 2006

Amended diagnosis. Within the Lyssomaninae, female *Sumakuru* can be easily identified by their combination of long copulatory ducts and very long glandular ducts on a single pair of rounded spermathecae. In addition, *Sumakuru* females present a bulging epigynal plate, rounded posteriorly. Both males and females of the genus are very small in comparison with most of the remaining species in the subfamily.

Sumakuru felca Galvis, 2017

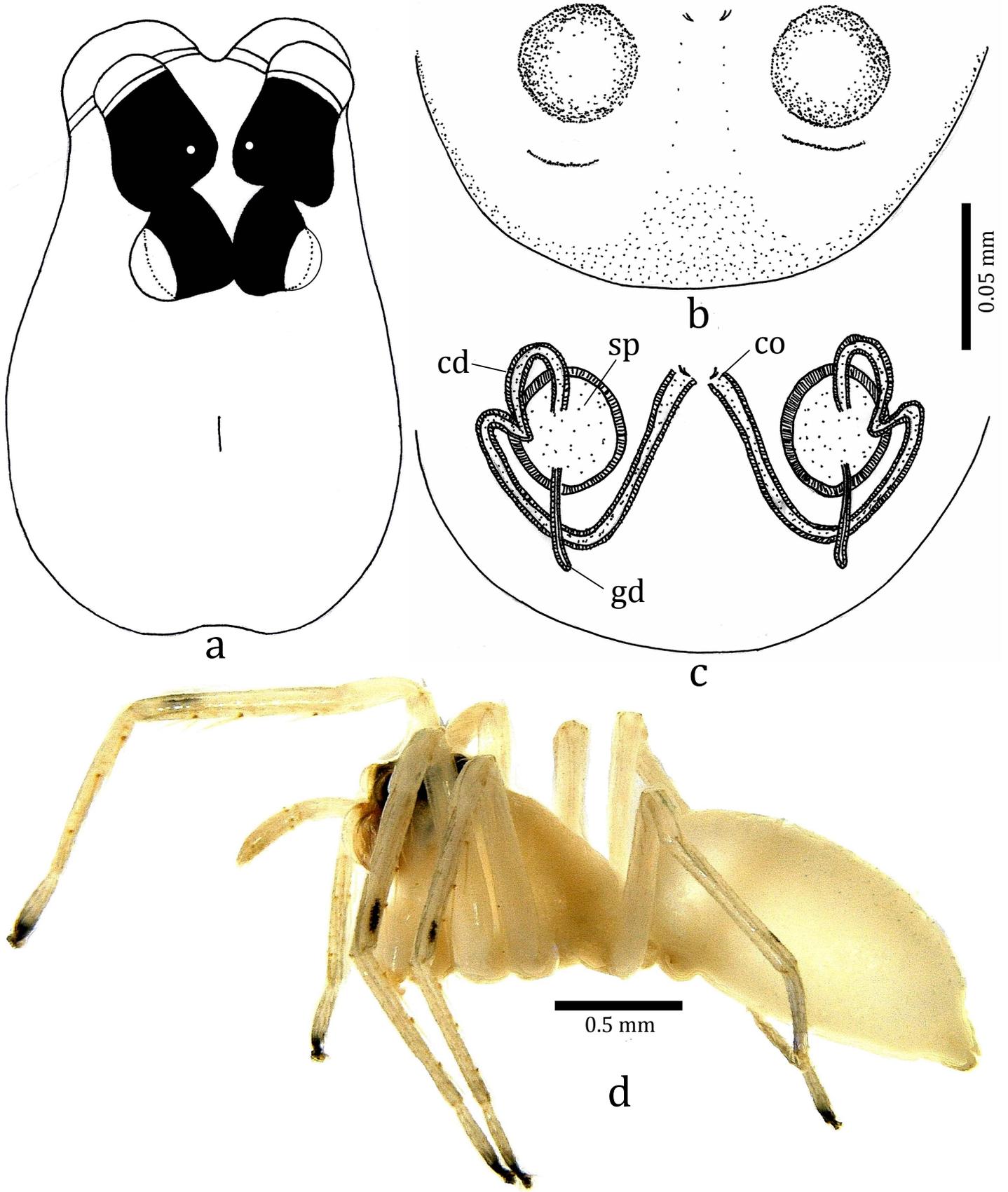
Figures 1a-d

Sumakuru felca Galvis, 2017: 137 (male holotype from Río Ñambí Natural Reserve, Altaquer, Barbacoas, Nariño, Colombia, deposited in ICN-Ar 7338, examined).

Material examined. 1 ♂ from Colombia, Nariño, Barbacoas, Altaquer, Río Ñambí Natural Reserve, 1.28455° N, 78.08840° W, 1262 m; 1 ♀, same locality, 6 Jun 2017, W. Galvis, ICN-Ar 9688.

Note. For diagnosis of the male of this species, see Galvis (2017). In general, *Sumukuru* species are smaller than those of any other lyssomanine genus. Females of the other species in this genus are not known.

Description. Female (ICN-Ar 9688, Figures 1a-d). Total length: 2.56. Carapace length: 1.00, width: 0.84. Carapace high, elongate and white (Figures 1a,d). OC: 0.64, with abundant yellow hairs. Width of eye rows, first: 0.61; second: 0.56; third: 0.22; fourth: 0.45. Diameter AME: 0.31; ALE: 0.18; PME: 0.04; PLE: 0.13. Clypeus low (0.14 height). Chelicera length: 0.46, white, vertical, with three retromarginal and three promarginal teeth. Sternum length: 0.66; width: 0.53, white. Labium length: 0.08; width: 0.12, whitish. Legs all white, with distal and retrolateral dark marks on femur I, and tibia I-IV, in addition with dark distal tips on metatarsus I-IV. Legs I II IV III. Leg macrosetae: Femur I d 1 di, p 1 di; III p1 di. Patella I-IV d 1 di. Tibia I-II v 2-0-2-2. Metatarsus I-II v 2-2-2. Abdomen cylindrical and white, without any pattern (Figure 1d), 1.56 long, 0.92 wide. Epigyne (Figures 1b-c): epigynal plate small, weakly sclerotized, with a posterior rounded border; two very small copulatory openings, without sclerotization, medially and anteriorly located; copulatory ducts long and weakly sclerotized, with membranous anterior part; spermathecae rounded, with a long, posterior glandular duct.



Figures 1a-d. Female *Sumakuru felca* Galvis (ICN-Ar 9688). **a**, Prosoma, dorsal view. **b**, Epigyne, ventral view. **c**, Epigyne, cleared, dorsal view. **d**, Lateral view, habitus.

Distribution. Known only from its type locality in Southwestern Colombia (Galvis, 2017). The Río Ñambí Natural Reserve is located in a secondary and highly-conserved Chocóan rainforest within the Chocó-Darién province, Pacific Dominion (Brazilian subregion) of the Neotropical region (Morrone, 2014).

Notes on Microhabitat. The male of *S. felca* was caught in a Malaise trap together with the holotype male of *Lyssomanes perafani* Galvis, 2017 (Galvis, 2017). The female *S. felca* was collected manually at night, in the middle of a light rain, being active, on the upper surface of a leaf of the false bird-of-paradise plant (Heliconiaceae). It can be extremely fast and very difficult to see because it has the same coloration as the surface of the leaf, and its small size. Given these characteristics at first sight this appeared to be a juvenile of the genus *Lyssomanes*.

The plant where the female was collected was located next to a horse path, little frequented, inside the forest, which is extremely humid and rainy. Despite the great effort of collection (about eight hours/day for five days), carried out together with other four people in the same location and surroundings, only this single female was collected. This suggests that the abundance of the species in this ecosystem is low, or the species possesses unknown ecological habits that do not allow a greater collection of specimens.

Acknowledgments

Thanks to the FELCA foundation (Fundación Ecológica Los Colibríes de Altaquer) and especially to Mauricio Flórez Paí for his disposition, help and management during the field trip conducted for the GAM-UN (Grupo de Investigación en Aracnología y Miriapodología of the Universidad Nacional de Colombia) in the Río Ñambi Natural Reserve, for the project “Riqueza y Abundancia de Arácnidos y Miriápodos de los Bosques Húmedos del Chocó Biogeográfico de Colombia,” that is funded for the project QUIPU 201010026635 code 35046 to Eduardo Florez D. of the Universidad Nacional de Colombia. To the people of the reserve for their assistance in the field trip, especially to Miguel García and Eyder García. To the Laboratorio de Equipos Ópticos Compartidos (LEOC), Departamento de Biología, Facultad de Ciencias, Universidad Nacional de Colombia, for their help in photographing the material examined.

References

- Galvis, W. 2017.** New species and records of lyssomanines (Araneae: Salticidae: Lyssomaninae) from the Caribbean and Pacific coasts of Colombia. *Zoology and Ecology* 27(2): 133-142. doi:10.1080/21658005.2017.1304188.
- Maddison, W.P. 2015.** A phylogenetic classification of jumping spiders (Araneae: Salticidae). *Journal of Arachnology* 43: 231-292. doi:10.1636/arac-43-03-231-292.
- Maddison, W. P. 2016.** *Sumakuru*, a deeply-diverging new genus of lyssomanine jumping spiders from Ecuador (Araneae: Salticidae). *ZooKeys* 614: 87-96. doi:10.3897/zookeys.614.9368e.
- Morrone, J. J. 2014.** Biogeographical regionalization of the Neotropical region. *Zootaxa* 3782(1): 1-110. doi:10.11646/zootaxa.3782.1.1
- Sudhin, P. P, K. S. Nafin and A. S. Sudhikumar. 2017.** Revision of *Hindumanes* Logunov, 2004 (Araneae: Salticidae: Lyssomaninae), with description of a new species from the Western Ghats of Kerala, India. *Zootaxa* 4350(2): 317-330. doi:10.11646/zootaxa.4350.2.7.
- World Spider Catalog. 2020.** World Spider Catalog, Natural History Museum Bern, *online at* <http://wsc.nmbe.ch>, version 21.0, accessed on 8 June 2020.