

First record of the jumping spider genus *Ceriomura* (Araneae: Salticidae: Salticinae: Amycoida: Gophoini) from Colombia, with description of a new species

William Galvis¹

¹Laboratorio de Aracnología & Miriapodología (LAM-UN), Instituto de Ciencias Naturales, Departamento de Biología, Universidad Nacional de Colombia, Sede Bogotá, Colombia, *email* wlgalvisj@unal.edu.co

Abstract. The male *Ceriomura casanare* sp. nov. is described. This is the first record of the genus *Ceriomura* from Colombia. A map is included to show the reported distribution of this South American genus.

Key words. Casanare, faunistics, Neotropics

Introduction

The Neotropical clade Amycoida currently includes 433 species in 63 genera and 9 tribes (Maddison & Hedin 2003; Maddison 2015; World Spider Catalog 2017). This clade includes a large percentage of the jumping spider diversity of South America (Maddison & Hedin 2003). The tribe Gophoini Simon, 1901 is the third most-diverse amycoid tribe, with 59 species in 8 genera (Ruiz & Maddison 2015). Gophoini was long known as the Thiodininae until a recent reinterpretation of the type species of the genus *Thiodina* Simon, 1900 (Bustamante et al. 2015). Apart from the relatively well-known genera *Colonus* F. O. Pickard-Cambridge, 1901 and *Cotinusa* Simon, 1900 the remaining genera in this tribe are poorly known, with species described long ago and boundaries between the genera not completely understood (Ruiz & Maddison 2015).

One of the genera included in this tribe is *Ceriomura* Simon, 1901 (known originally as *Omura* Peckham & Peckham, 1894). This genus was created to include the type species *C. cruenta* (Peckham & Peckham, 1894), based on one female from Santarém (Pará, Brazil) and *C. perita* (Peckham & Peckham, 1894), based on one female from Pumamarca (Ayacucho, Peru). Little further taxonomic work had been done since those descriptions in this rare genus until Rubio and Baigorria (2016) described a new species based for the first time on both sexes, *C. damborskyae*, from Puerto Iguazú (Misiones, Northeastern Argentina), the southernmost known location for this genus. Rubio and Baigorria presented a new putative synapomorphy for the genus: the emergence of the embolus from the dorsal side of the bulb (Figs. 1c-f in Rubio & Baigorria 2016), a feature that distinguishes *Ceriomura* from other gophoine genera, mainly from those with a low carapace.

In this paper *Ceriomura casanare* sp. nov. is described, representing the northernmost record of this genus. This description is based on two males that were caught in the eastern plains (or eastern llanos) of Colombia. A map with the known distribution of the four species presently assigned to *Ceriomura* is included. This work is part of a series of taxonomic papers about the diversity and distribution of spiders from Colombia, particularly about its very diverse jumping spider fauna.

Methods

Multifocal photographs of the copulatory structures of the new species were taken with a Leica MC-170 HD digital camera attached to a Leica M205A stereomicroscope, and then composited with image stacking software (Leica Application Suite version 4.6.0). Measurements were taken with an AmScope MU300 digital camera, attached to an Advanced Optics JSZ-6 stereomicroscope. Rubio & Baigorria (2016) is partially used as model for the description of the species. Abbreviations for collections are: *IBSI-Ara* = Colección Aracnológica del Instituto de Biología Subtropical, Misiones, Argentina; *MCZ* = Museum of Comparative Zoology, Harvard University, Cambridge, USA. Information in square brackets was added to complement label data for specimens. Records without coordinates in each label were approximated to locations with the gazetteers *GeoLocate* (<http://www.museum.tulane.edu/geolocate/web/WebGeoref.aspx>), *GeoLocator* (<http://tools.freeside.sk/geolocator/geolocator.html>), *GeoNames* (<http://www.geonames.org/>), and *Geonip* (<http://www.geonip.com/>). The map (Figure 2) was prepared in the Geographic Information System QGIS “Nødebo” (version 2.16.0, <http://www.qgis.org/es/site/>). All measurements of spiders are in millimeters.

Ceriomura Simon, 1901

Omura Peckham & Peckham, 1894: 102 (nom. praeocc.)

Type species. *Omura cruenta* Peckham & Peckham, 1894: 103, pl. 10, figs. 2a-2c), name changed to *Ceriomura cruenta* by Simon (1901: 458-459).

Ceriomura casanare sp. nov.

Figures 1-2

Type specimens. Holotype male from west side of the Metica river, [La Molinera sector], Villanueva, Casanare, Colombia, 220 m, 4.315584°N, 72.632862°W, 8.I.2016, D. Molina & S. Galvis (ICN-Ar 8305), deposited in the Arachnological Collection of the Instituto de Ciencias Naturales of the Universidad Nacional de Colombia (ICN-Ar, Eduardo Flórez), Bogotá. Paratype: one male from km 4.5 road to San Francisco, El Caduceo Natural Reserve, San Martín, Meta, Colombia, [368 m above sea level], 3,671389°N, 73,659444°W, 30.IX-4.X.2013, D. Forero (MPUJ_ENT 39550), deposited in the Entomological Collection of the Pontificia Universidad Javeriana (MPUJ_ENT, Dimitri Forero), Bogotá, Colombia.

Etymology. The species epithet (*casanare*, noun in apposition) is taken from the type locality, which in words of the indigenous groups of this region, the Sáliva or Sáliba people, of the Piaroa-Saliban family of languages, means *blackwater river*, in reference to the Metica (or Meta) river, one of the most important rivers in the country.

Diagnosis. The male *C. casanare* can be easily distinguished from *C. damborskyae* by their more slender and longer retroventral apophysis (RvTA), with the retrolateral tibial apophysis (RTA) longer, more slender and distally quadrangular (Figures 1a-d).

Description of male (holotype). Total length: 5.09 (paratype 5.29). Carapace reddish-brown with black borders and a dorsal and medial mark with the shape of an inverted “V” and dispersed orange-brown hairs, 1.95 long (paratype 1.98 long), 1.60 wide, 0.88 high. Dorsal eye field with same color as the carapace but with one anterior median and two lateral pairs of white wide marks, 1.44 long, with anterior and lateral orange-brownish hairs. Anterior eye row 1.44 wide, posterior 1.46 wide (Figures 1e-f). Sternum yellow, 0.86 long, 0.59 wide. Labium dark brown, 0.35 long, 0.29 wide. Chelicerae brown,

vertical, with three teeth (the median much larger) on promargin and one large tooth on retromargin. Legs IV.I.III.II. Leg segment lengths (from femur to tarsus): I, 1.14 + 0.72 + 0.76 + 0.50 + 0.37; II, 1.00 + 0.58 + 0.63 + 0.49 + 0.34; III, 1.00 + 0.55 + 0.61 + 0.60 + 0.32; IV, 1.31 + 0.58 + 0.88 + 0.89 + 0.42. Leg I reddish-brown with yellowish metatarsus-tarsus. Femur I-II dorsally blackish, femur-tibiae I-II prolaterally blackish, legs III-IV yellowish, coxa I-IV with proximal blackish marks. Leg macrosetae: femur, I d 0-0-1-1-1, p 1 di; II d 0-0-0-1-1, p 1 di; III d 1 di, p 0-0-0-1-1, r 1 di; IV d 1 di, p 0-0-0-1-1; tibia, I v 0-0-0-2-2; metatarsus, I-II v 2-2; III v 1 di, p 1 di, r 1 di. Tibia I with two pairs of ventral bulbous setae in 2-2-0-0-0 disposition. Abdomen ventrally brown, and dorsally brown with a dorsal whitish longitudinal stripe, and some dorsal and lateral white marks, likely guanine accumulations (Figures 1e-f). Spinnerets brownish and long.

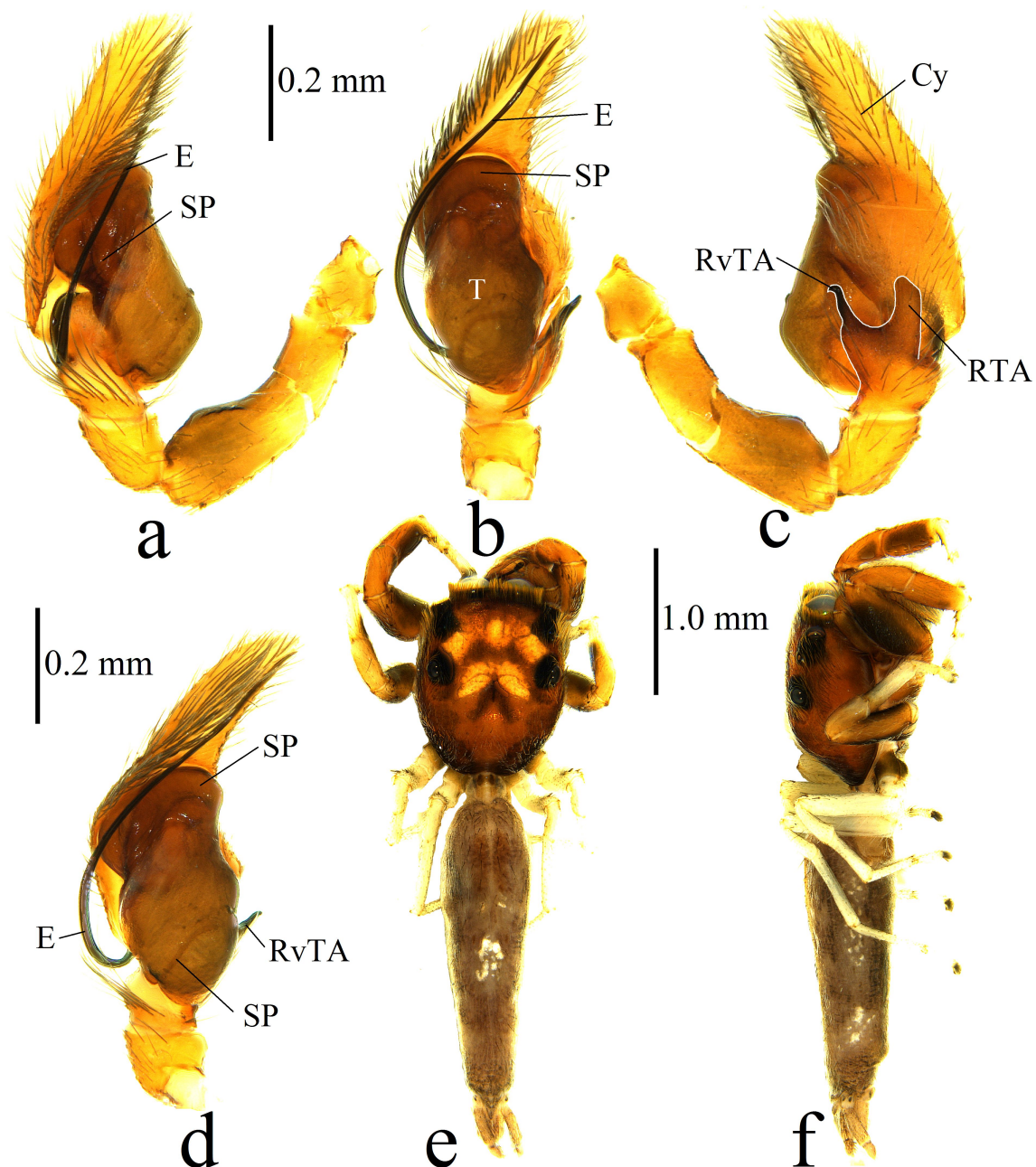


Figure 1. *Cerimura casanare* sp. nov., holotype male from Villanueva, Casanare, Colombia. **a**, left palp, proventral view. **b**, same, ventral view. **c**, same, retrolateral view. **d**, same, proventral view. **e**, habitus, dorsal view. **f**, same, lateral view. Abbreviations: Cy= cymbium; E= embolus; RTA= retrolateral tibial apophysis; RvTA= retroventral tibial apophysis; SP= spermophore; T= tegulum.

Female. Unknown.

Habitat and distribution. The holotype male was collected from foliage by beating low shrubs in a well-conserved secondary low forest characterized by a bimodal rainy-drought annual system, in the eastern plains (or Eastern Llanos) of Colombia. Known only from the eastern departments of Casanare (Villanueva) and Meta (San Martín), Colombia (Figure 2).



Figure 2. Known distribution of the four species presently placed in the genus *Ceriomura*.

List of species presently placed in the genus *Ceriomura*

Ceriomura casanare sp. nov.

Ceriomura cruenta (Peckham & Peckham, 1894)

Omura cruenta Peckham & Peckham, 1894: 103, pl. 10, figs. 2, 2a-d (holotype female from Santarém [Pará], Brazil, deposited in MCZ 20958, not examined).

Ceriomura cruenta Simon, 1901: 458-459 (nom. praeocc.). Petrunkevitch 1911: 609. Rubio & Baigorria 2016: 1-3. World Spider Catalog 2017.

Comments. Known only from its type locality, in Santarém, Pará, Northern Amazonian region of Brazil (Figure 2), a region that was once covered mainly by primary ecosystems, but currently covered by secondary forests. Known altitudinal range: about 40 m above sea level. Male unknown.

Ceriomura damborskyae Rubio & Baigorria, 2016

Ceriomura damborskyae Rubio & Baigorria, 2016: 266, figs. 1a-j, 2a-j (holotype male from lower Iguazú river ravine; female paratype from Karadya Bio-Reserve; and paratype male from Apepú station, all from Puerto Iguazú, Misiones province, Argentina, deposited in IBSI-Ara 550, 254 and 172 respectively, not examined). World Spider Catalog 2017.

Comments. Known from its type localities, in Puerto Iguazú, Misiones province, Northern Upper Parana Atlantic Forest region of Argentina (Figure 2), a region covered mainly by primary forests. Known altitudinal range: about 150-210 m above sea level.

Ceriomura perita (Peckham & Peckham, 1894)

Omura perita Peckham & Peckham, 1894: 104, pl. 10, figs. 3, 3a (holotype female from Pumamarca, [Ayacucho], Peru, deposited in MCZ 22614, not examined).

Ceriomura perita Simon, 1901: 458-459 (nom. praeocc.). Petrunkevitch 1911: 609. Rubio & Baigorria 2016: 1. World Spider Catalog 2017.

Comments. Known only from its type locality in Pumamarca, Ayacucho, in the south-central high Andes of Peru (Fig. 2). Known altitudinal range: about 3000 m above sea level. Male unknown. Unlike the other species placed in *Ceriomura*, all found in tropical, humid and low forests, *C. perita* is recorded from a much colder and dryer ecosystem more than 3000 m above sea level. Petrunkevitch (1911: 609) reported the name "Pumamarca" for the type locality of this species. In gazetteers I was able to find two Peruvian locations with this name. The first one is located in the Huancavelica Department (13.9441°S, 74.9836°W) at an altitude of about 3500 m above sea level. The second one is located in the Apurímac Department (14.0330°N, 72.2666°W) at an altitude more than 3900 m above sea level. Both locations are outside of the Ayacucho department.

Acknowledgments

I wish to express my warmest thanks to Eduardo Flórez D. (ICN-Ar, curator) and Dimitri Forero (MPUJ_ENT, curator) for their friendship and support, and for allowing me to examine the material described here. I also thank Diana Molina and Sebastián Galvis Jiménez (LAM-UN, Universidad Nacional de Colombia) for allowing me to examine material from their own arthropod projects, David Hill for improving the English text, and the Laboratorio de Equipos Ópticos Compartidos (LEOC), Departamento de Biología, Facultad de Ciencias, Universidad Nacional de Colombia, for assistance in photographing the material reported here.

References

- Bustamante, A. A., W. P. Maddison and G. R. S. Ruiz. 2015.** The jumping spider genus *Thiodina* Simon, 1900 reinterpreted, and revalidation of *Colonus* F. O. P-Cambridge, 1901 and *Nilakantha* Peckham & Peckham, 1901 (Araneae: Salticidae: Amycoidea). *Zootaxa* 4012 (1): 181-190.
- Maddison, W. P. 2015.** A phylogenetic classification of jumping spiders (Araneae: Salticidae). *Journal of Arachnology* 43 (3): 231-292.
- Maddison, W. P. and M. C. Hedin. 2003.** Jumping spider phylogeny (Araneae: Salticidae). *Invertebrate Systematics* 17 (3): 529-549.
- Peckham, G. W. and E. G. Peckham. 1894.** Spiders of the *Marptusa* group. *Occasional Papers of the Natural History Society of Wisconsin* 2: 85-156.
- Petrunkevitch, A. 1911.** A synonymic index-catalogue of spiders of North, Central and South America with all adjacent islands, Greenland, Bermuda, West Indies, Terra del Fuego, Galapagos, etc. *Bulletin of the American Museum of Natural History* 29: 1-791.
- Rubio, G. D. and J. E. Baigorria. 2016.** New species and the first known male of the jumping spider *Ceriomura* Simon (Araneae: Salticidae: Gophoini) with the faunistic revision of gophoines from Misiones, Argentina. *Zoology and Ecology* 26 (4): 265-274.
- Ruiz, G. R. S. and W. P. Maddison. 2015.** The new Andean jumping spider genus *Uruguayu* and its placement within a revised classification of the Amycoidea (Araneae: Salticidae). *Zootaxa* 4040 (3): 251-279.
- Simon, E. 1901.** *Histoire naturelle des araignées*. Paris 2: 381-668.
- World Spider Catalog. 2017.** Natural History Museum Bern, *online at* <http://wsc.nmbe.ch>, version 18.0, accessed on 8 February 2017.