

First record of the genus *Tanybelus* (Salticidae: Salticinae: Sarindini) from Colombia

Primer reporte del género *Tanybelus*
(Salticidae: Salticinae: Sarindini) de Colombia

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ABSTRACT

A first record of the jumping spider genus *Tanybelus* (Salticidae: Salticinae: Sarindini) from Colombia is presented, with a new record of *T. aeneiceps* Simon, 1902 from the Cundinamarca department, in the municipalities of Albán and San Antonio de Tequendama. This is the first record of the species after its original description, more than 100 years ago. Additionally, diagnostic illustrations of the body and copulatory organs, a map with its known distribution and notes of its natural history are also given.

Key words. Ant-mimic spider, andean region, Cundinamarca, jumping spider.

RESUMEN

Se presenta el primer registro del género de arañas saltarinas *Tanybelus* (Salticidae: Salticinae: Sarindini) para Colombia, con un nuevo reporte de *T. aeneiceps* Simon, 1902 para el departamento de Cundinamarca, en los municipios de Albán y San Antonio de Tequendama. Este es el primer reporte de la especie desde su descripción original, hace más 100 años. Adicionalmente, se brindan ilustraciones diagnósticas del cuerpo y órganos copulatorios, así como un mapa con su distribución conocida y notas sobre su historia natural.

Palabras clave. Araña mirmecomorfa, región andina, Cundinamarca, araña saltarina.

The genus *Tanybelus* Simon, 1902 and its only known species, *T. aeneiceps* Simon, 1902 (Salticidae: Amycoidea: Sarindini), were described by [Simon \(1902\)](#) from males and females collected in Colonia Tovar, Venezuela. This genus includes ant-mimicking spiders with semi-rounded carapace without thoracic groove, first pair of legs larger than the others ([Simon, 1902: 405](#)), and cylindrical abdomen (*pers. obs.*). Subsequently to the description, [Galiano \(1963\)](#) made the redescription of the species

and designated lectotypes. Currently, the genus *Tanybelus* is nested in the tribe Sarindini, in the Amycoidea clade ([Maddison 2015](#), [Ruiz and Maddison 2015](#)).

Here we report the genus *Tanybelus* and its species *T. aeneiceps* from Colombia, from the Parque Natural Chicaque (San Antonio de Tequendama municipality) and the Granjas del Padre Luna (Albán municipality), both located in the Cundinamarca department, at the Eastern Mountain Range of the

country. This is a new record of the genus since its original description, more than one hundred years later. Furthermore, we give additional illustrations of sexual characters of taxonomic importance for the species, report some comments on the behavior of the species and give new data on its natural history. Finally, a distributional map is included.

The specimens were deposited in the Arachnological Collection of Instituto de Ciencias Naturales of the Universidad Nacional de Colombia (ICN-Ar, curator: Eduardo Flórez) and the Entomological Collection of Pontificia Universidad Javeriana (MPUJ_ENT, curator: Dimitri Forero). The multifocal photographs were taken with a Leica MC-170 HD digital camera attached to a Leica M205A stereomicroscope, and then attached by the image stacking software Leica Application Suite version 4.6.0. The measurements were taken using an AmScope MU300 digital camera, attached to an Advanced Optics JSZ-6 stereomicroscope. The female epigynal plates were dissected and digested using 10% KOH (see [Álvarez-Padilla and Hormiga 2007](#)). The measurements are given in millimeters.

Abbreviations used in the text and figures are: cd = copulatory duct; co = copulatory opening; e = embolus; ew = epigynal window; m = meters above mean sea level; RTA = retrolateral tibial apophysis; Spe= spermophore; MNHN = Muséum National d'Histoire Naturelle, Paris, France. The information in square brackets was added to complement the label data, and was taken from the gazetteers described below. Records without coordinates in the label were approximated to locations via the gazetteers GeoLocator (<http://tools.freeside.sk/geolocator/geolocator.html>) and GeoNames (<http://www.geonames.org/>).

The distributional map was prepared in the QGIS “Lyon” (version 2.12.2, <http://www.qgis.org/es/site/>).

Salticidae Blackwall, 1841

Salticinae Blackwall, 1841

Sarindini Simon, 1901

***Tanybelus* Simon, 1902**

Type species: *T. aeneiceps* Simon, 1902

***Tanybelus aeneiceps* Simon, 1902**

Figs. 1-3

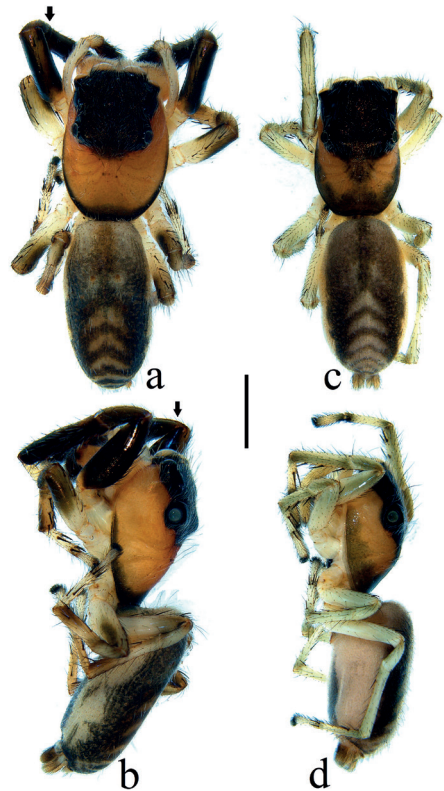


Figure 1. Habitus of *Tanybelus aeneiceps*; **a.** male, (ICN-Ar 8312), dorsal view, **b.** same, lateral view, **c.** female, (ICN-Ar 8313), dorsal view, **d.** same, lateral view. Arrows point at bluish-metalized marks on prolateral face of the femur-tibia of the first pair of legs of the male. Scale bar = 2.0 mm.

Tanybelus aeneiceps Simon, 1902: 405 by Galiano from Colonia Tovar, [Aragua], Venezuela, deposited in MNHN, not

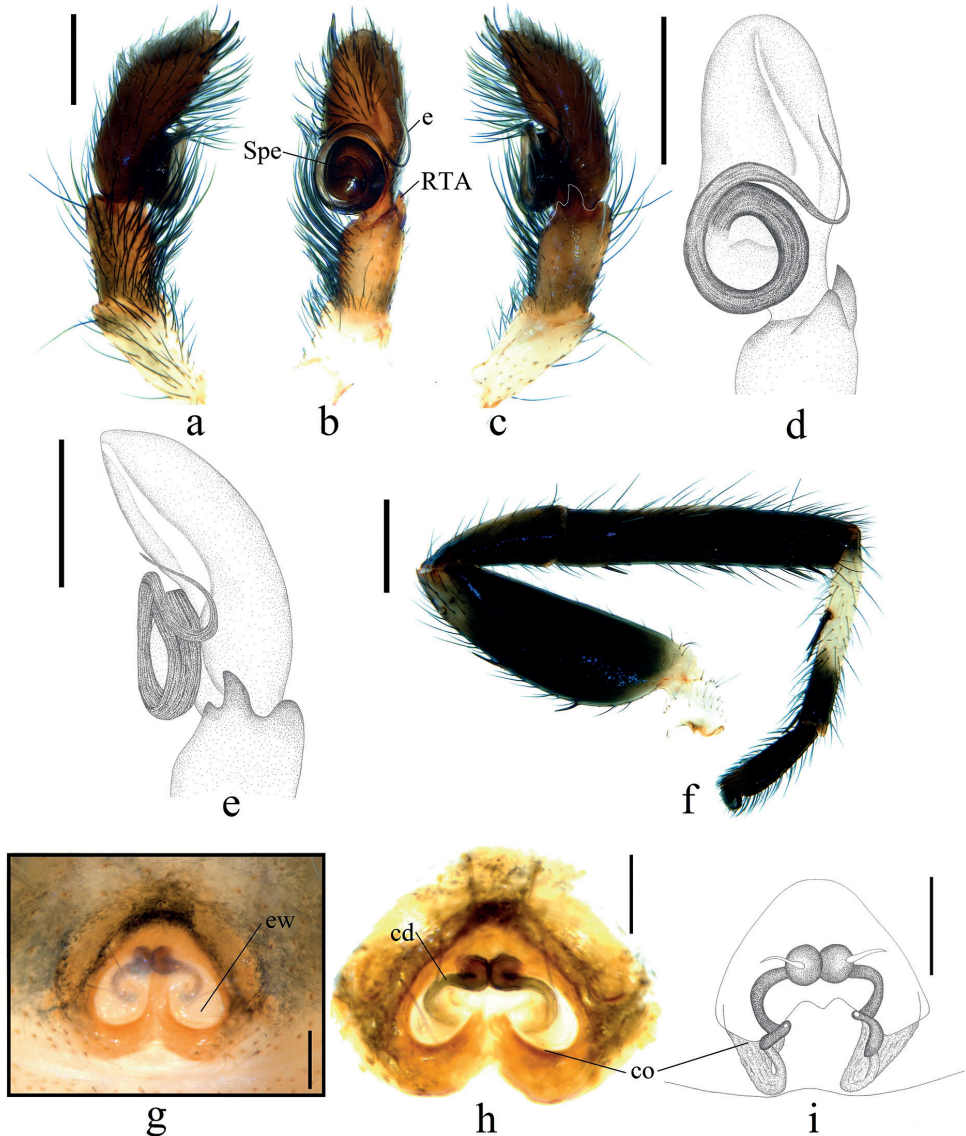


Figure 2. Structural details of *Tanybelus aeneiceps*; **a**, left male palp, (ICN-Ar 8312), prolateral view, **b**, **d**, same, ventral view, **c**, **e**, same, retrolateral view, **f**, left leg I, showing the metallic-blue marks on its prolateral side. **g-i**, Details of the epigyne of *Tanybelus aeneiceps*; **g**, uncleared (ICN-Ar 8313), ventral view, **h**, cleared, ventral view, **i**, dorsal view. Scale bar = 0.2 mm (a-c), cd Scale bar = 0.5 mm (a-e); 1.0 mm (f); 0.2 mm (g-i). e = embolus; Spe = spermophore; RTA = retrolateral tibial apophysis; cd = copulatory duct; co = copulatory opening; ew = epigynal window.

examined). Galiano, 1963: 451, pl. 37, figs. 12-14 ([World Spider Catalog c2017](#)).

Diagnosis. Males are diagnosed by their long embolus, that wraps around the periphery of the bulb, and a short, and pointed RTA with a small protuberance in its base (Figs. 2a-e); while females present small and semi-rounded epigynal windows, similar but possibly not homologous to that of some Euophryini taxa, through which it is possible to see the anterior, small and rounded spermathecae, thin copulatory ducts, and the posterior copulatory openings (Fig. 2g-i). For further taxonomic information see [Galiano \(1963: 451\)](#).

Material examined. COLOMBIA, **Cundinamarca:** Albán, Granjas del Padre Luna, [4.89°N, 74.42°W], 2200 m: 1 male, 19 Oct 2001, *A. Sandoval*, ICN-Ar 804; San Antonio de Tequendama, Parque Natural Chicaque, entrada, El Refugio, Alrededores La Cascada y Quebrada El Carmen, 4.61°N, W 74.29°W, 2200-2560 m: 11 males, 8 females and 14 juveniles, 15-17 Oct 2016, *W. Galvis, V. Muñoz-Charry, Estudiantes Curso Arañas Instituto de Ciencias Naturales Universidad Nacional de Colombia*, ICN-Ar 8312-8317, 8550; 1 male and 1 female with same data MPUJ_ENT 39552.

Morphological Variation. Males (n=10) total mean length, 4.97 (range 5.55-3.96). Female (n=8) total mean length, 4.63 (range 5.40-4.34).

Note. Males are larger than females; as far as we know this difference is uncommon in Salticidae. The chelicerae teeth is variable within the male and female of the same population, with the presence of 1 or 2 teeth in the retromargin as was noted in [Galiano \(1963\)](#). Some specimens of both sexes present pale coloration *in vivo*, but the color-patterns of the abdomen remain

the same. Most of the males presented a bluish-metalized marks on prolateral face of the femur-tibia of the first pair of legs (Figs. 1a-b, 2f).

Distribution. Colombia and Venezuela (Fig. 3). Known altitudinal distribution: 2050-2560 m. New record from Colombia. The species is distributed in the Venezuelan and Magdalena provinces of the pacific dominion (Brazilian subregion), in the Neotropical region ([Morrone 2014](#)).

Natural History. *Tanybelus aeneiceps* was collected at Parque Natural Chicaque by beating the shrub vegetation. The Parque Natural Chicaque is located in a secondary cloud forest in elevations between 600-2700 m. It has a bimodal precipitation with peaks in the months of April and November. Its flora is mainly composed by Rubiaceae, Melastomataceae and Ericaceae ([Ospina and Silva 2015](#)). *Tanybelus aeneiceps* was the most abundant species in the Park. An additional male was collected manually at night at the Granja del Padre Luna, 35 kilometers north of the Parque Natural Chicaque. Regarding *Tanybelus aeneiceps* behavior, the first pair of legs and palps are waved periodically as they walk. This behavior has been observed in other ant-like jumping spiders (see [Maddison 2015: 253](#)). When males get into contact, they raise their first pair of legs (see the video of this behavior at youtu.be/vxSFKF5yV1A).

AUTHORS PARTICIPATION

Both authors collected and revised the material, but WG was responsible for species diagnosis. WG and VMC revised literature, drafted the manuscript and contributed to the critical discussion. VMC realized the character illustration. WG prepared the images. Both authors read and approved the final manuscript.

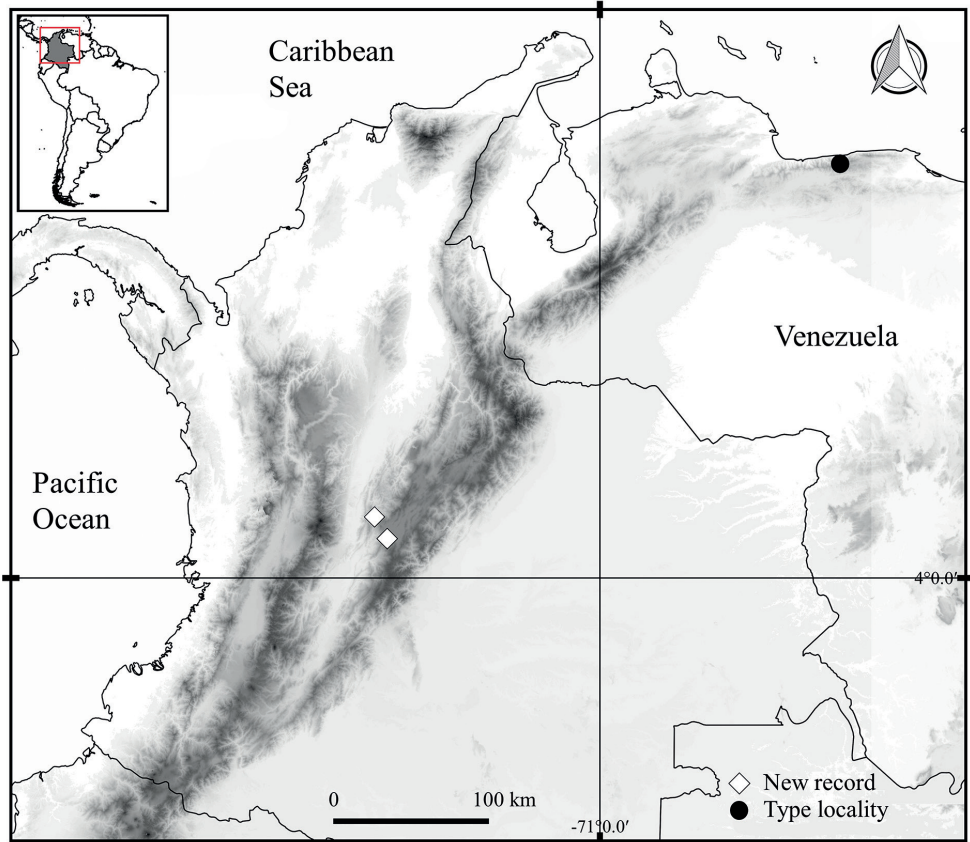


Figure 3. Known distribution of *Tanybelus aeneiceps* in South America

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