

SHORT COMMUNICATION

New synonymy in *Thalerommata* Ausserer, 1875 (Araneae: Mygalomorphae: Theraphosidae)

Hector Manuel Osorio Gonzalez-Filho¹, Pedro Henrique Dias da Silva Costa² and José Paulo Leite Guadanucci²: ¹Programa de pós-graduação em Ecologia, Evolução e Biodiversidade, Instituto de Biociências, Universidade Estadual Paulista, Rio Claro, SP13506-900, Brazil. E-mail: gonzalezfilho@yahoo.com.br; ²Departamento de Biodiversidade, Instituto de Biociências, Universidade Estadual Paulista, Rio Claro, SP13506-900, Brazil.

Abstract. A morphological study of the type material of two Colombian theraphosid species in the genus *Thalerommata* Ausserer, 1875, deposited in the European spider collections of the Natural History Museum, London, and Muséum national d'Histoire Naturelle, Paris, enables us to establish a new synonym: *T. macella* (Simon, 1903) is designated as a junior synonym of *T. gracilis* Ausserer, 1875.

Keywords: Barychelidae, Colombia, Neotropics, taxonomy, *Trichopelma*
<https://doi.org/10.1636/JoA-S-23-013>

Theraphosidae Thorell, 1869 is the most diverse family within Mygalomorphae, with 169 genera and 1122 species (World Spider Catalog 2024). The tiny theraphosid spiders of the genus *Thalerommata* Ausserer, 1875, include 13 species distributed in Argentina, the Bahamas, Colombia, Cuba, Jamaica, and Venezuela (Bertani & Raven 2023; World Spider Catalog 2024). The genus can be recognized by the presence of flattened, iridescent setae covering the abdomen and legs, the bi-serially dentate superior tarsal claws (STC) in males, non-incrassate posterior lateral spinnerets (PLS), and two rows of clavate trichobothria on the dorsal tarsi of all legs (Bertani & Raven 2023).

In the last two years, three works have had a significant impact on the genus taxonomy. Bertani & Raven (2023) revised the genus and described six new species: *T. gertschi* Bertani & Raven, 2023, *T. huila* Bertani & Raven, 2023, *T. maculata* Bertani & Raven, 2023, *T. pecki* Bertani & Raven, 2023, *T. splendens* Bertani & Raven, 2023, and *T. squamea* Bertani & Raven, 2023.

More recently, Ríos-Tamayo (2024) described a new species from Cuba, *T. anae* Ríos-Tamayo, 2024, and included it in a phylogenetic analysis, where *Thalerommata* appeared as sister group of the clade *Cyrtogramomma* + *Trichopelma*. The results of Ríos-Tamayo (2024) corroborated the transfer of the genus by Bertani & Raven (2023) to Theraphosidae and its close relationship to the genus *Trichopelma* Simon, 1888. Osorio et al. (2024) described three new species from Colombia, *T. yukpa* Osorio et al., 2024, *T. margarita* Osorio et al., 2024 and *T. kogui* Osorio et al., 2024, extending the distribution of the genus for northern Colombia.

Historically, the taxonomic classification of *Thalerommata* has undergone several changes, wherein authors had placed the genus in different families, including Dipluridae, Theraphosidae and Barychelidae. In 1985, Raven proposed that *Thalerommata* belonged to Barychelidae, but did not assign it to any specific barychelid subfamily and established it as *incertae sedis*. However, in the recent taxonomic review, Bertani & Raven (2023) redescribed the genus, proposed a new diagnosis and transferred it to Theraphosidae. In addition, despite the absence of a phylogenetic hypothesis, the authors considered the genus closely related to *Trichopelma* Simon, 1888, under the justification of the shared bi-serially dentate STC in males in combination with non-incrassate PLS.

Herein, based on the comparison of morphological characters of the holotypes of *Thalerommata gracilis* Ausserer, 1875 and

Thalerommata macella (Simon, 1903), deposited in the collections of the Natural History Museum, London (NHM) and Muséum national d'Histoire Naturelle, Paris (MNHN), we propose *T. macella* as junior synonym of *T. gracilis*.

METHODS

The holotypes are deposited at the following museum (curators in parentheses): NHM, Natural History Museum, London (J. Becaloni); MNHN, Muséum national d'Histoire Naturelle, Paris (C. Rolland). The specimens were studied under a Leica S8AP0 stereomicroscope. Digital multi-focal photos were taken with a Leica DFC500 digital camera attached to a Leica MZ16A stereoscopic microscope. Extended focal range images were composed with Leica Application Suite version 2.5.0. The spermathecae were dissected and the non-chitinous tissue was digested using Ultrazyme[®] Enzymatic Cleaner for 24 hours, whereby a tablet was diluted in 5 mL of distilled water. Abbreviations: *Cs* = Cymbium Spines; *Ps* = Prolateral spur.

TAXONOMY

Order Araneae Clerck, 1757

Infraorder Mygalomorphae Pocock, 1892

Family Theraphosidae Thorell, 1869

Genus *Thalerommata* Ausserer, 1875

Thalerommata Ausserer, 1875: 182, pl. 6, figs. 26–29.

Aphantopelma Simon, 1903: 43, 922, 926. First synonymized by Raven 1985: 149.

Type species.—*Thalerommata gracilis* Ausserer, 1875, by monotypy.

Diagnosis.—See Bertani & Raven (2023).

Distribution.—Argentina, Bahamas, Colombia, Cuba, Jamaica and Venezuela.

Species included.—*Thalerommata anae* Ríos-Tamayo, 2024, *T. caudicula* (Simon, 1886), *T. gertschi* Bertani & Raven, 2023, *T. gracilis* Ausserer, 1875, *T. huila* Bertani & Raven, 2023, *T. kogui*



Figure 1.—*Thalerommata gracilis*, lectotype male (BMNH 1890.7.1.358): **A**. Carapace, dorsal view **B**. Sternum, ventral. **C**. endites and labium, ventral view. **D**. eyes group, dorsal view. **E–G** male palp. **E**. Prolateral view. **F**. Ventral view. **G**. Retrolateral view. **H**. Tibia I, prolateral view. Scale bars: (A–B) 1mm; (C–H) 0.5mm. Abbreviations: *Cs* = Cymbium spines; *Ps* = Prolateral spur.

Osorio, Benavides, García-Atencia & Bertani, 2024, *T. maculata* Bertani & Raven, 2023, *T. margarita* Osorio, Benavides, García-Atencia & Bertani, 2024, *T. pecki* Bertani & Raven, 2023, *T. splendens* Bertani & Raven, 2023, *T. squamea* Bertani & Raven, 2023, and *T. yukpa* Osorio, Benavides, García-Atencia & Bertani, 2024.

Thalerommata gracilis Ausserer, 1875
(Figs. 1–3)

Thalerommata gracilis Ausserer, 1875: 182, pl. 6, figs. 26–29; Roewer, 1942: 223; Bertani & Raven, 2023: 204, figs. 1–4.

Thalerommata gracile Ausserer: Simon 1892: 181; Pocock, 1895: 224; Petrunkevitch, 1911: 91; Petrunkevitch, 1928: 76; Petrunkevitch, 1939: 302; Bonnet, 1959: 4393.

Aphantopelma macellum Simon, 1903a: 920, 926, fig. 1072; Simon, 1903b: 43; Petrunkevitch, 1911: 48; Petrunkevitch, 1928: 77; Petrunkevitch, 1939: 265; Bonnet, 1955: 356; Schmidt, 1986: 61, fig. 7.

Thalerommata macella (Simon): Raven, 1985: 149; Bertani & Raven, 2023: 205, figs. 5–10. **New synonymy.**

Type material (of *Thalerommata gracilis*).—*Lectotype male and paralectotype female (here designated)*. COLOMBIA: Santa fé de Bogotá (BMNH 1890.7.1.358).



Figure 2.—*Thalerommata gracilis*, paralectotype female (BMNH 1890.7.1.358): A–B Habitus A. habitus dorsal. B. habitus ventral C. eyes group, dorsal view. D. endites and labium, ventral view. E. Spermatheca, dorsal view. Scale bars: (A–B) 1mm; (C–D) 0.5mm; (E) 0.2mm.

Type material (of *Aphantopelma macellum*).—*Holotype male*. COLOMBIA: Mine Purnio, 5°24'N, 74°41'W (MNHN7193AR4612).

Diagnosis.—See Bertani & Raven (2023).

Description.—See Bertani & Raven (2023). Female spermathecae with short receptacles and slightly sinuous stalks (Fig. 2E).

Remarks.—The lectotype and paralectotype specimens of *T. gracilis* examined here are damaged, and it can be observed that the tip of the bulb of the male pedipalp is broken (Figs. 1E–G).

DISCUSSION

Males of *Thalerommata gracilis* and *T. macella* share the presence of a group of spines (Cs) on the retrolateral lobe of the cymbium (Figs. 1E–G, 3E–G; Bertani & Raven 2023, figs. 2, 9, 10), the tibial apophysis has a long curved spine and a short prolateral process with a spine (Figs. 1H, 3H; Bertani & Raven 2023, figs. 4, 8), and the general aspect of the copulatory bulb is similar (Figs. 1E, F, 3E, G; Bertani & Raven 2023, figs. 2, 9). Bertani & Raven (2023) distinguished both males by the length of the embolus, wherein *T. macella* possesses a short embolus, almost the same length as the tegulum (Fig. 3E, F; Bertani & Raven 2023, fig. 9), and *T. gracilis* having a long embolus, twice the length of the tegulum (Bertani & Raven 2023, fig. 2). However, this difference in the length of the embolus is not what is depicted in the figures presented, where both structures are shown to have similar lengths.

Bertani & Raven (2023, figs. 1–4) only provided the original plates from Ausserer (1875) of the male lectotype of *T. gracilis* and did not include any illustration of the female paralectotype's

spermathecae. Regarding *T. macella*, the illustrations do not show precise details of the palpal bulb or tibial apophysis (see Bertani & Raven 2023, figs. 8, 9), the latter of which is shown from its retrolateral side, making it impossible to observe the prolateral spur (Fig. 3H, PS). Our careful examination of the type material of both species revealed that the embolus of the *T. gracilis* lectotype is broken (Figs. 1E–G). It is possible to observe fracture marks on both the right and left palpal bulbs, and this does not agree with Ausserer's original drawings of a long embolus. The morphological general aspect of the male palpal bulbs of both species are, in fact, very similar. Based on the morphological similarity of the male palpal bulb and tibial apophysis, we propose that *T. macella* should be considered a junior synonym of *T. gracilis*, also corroborated by the type locality of both species in Central Colombia.

The difficulty of accessing type material is one of the major limiting factors for taxonomic research. In the case of very old original descriptions (more than 100 years old), morphological information is often scarce, and can only be accessed from material deposited in collections. Recent initiatives to publish redescrptions, label data, and high-quality pictures and drawings of older types are fundamental for accelerating taxonomic research, providing crucial information for species recognition (Dupérré & Harms 2018; Dupérré & Tapia 2021; Dupérré 2023). In this context, we stress herein the importance of providing high-resolution stereomicroscope photographs of name-bearing types, especially those representing genus-group types of poorly known and enigmatic genera.

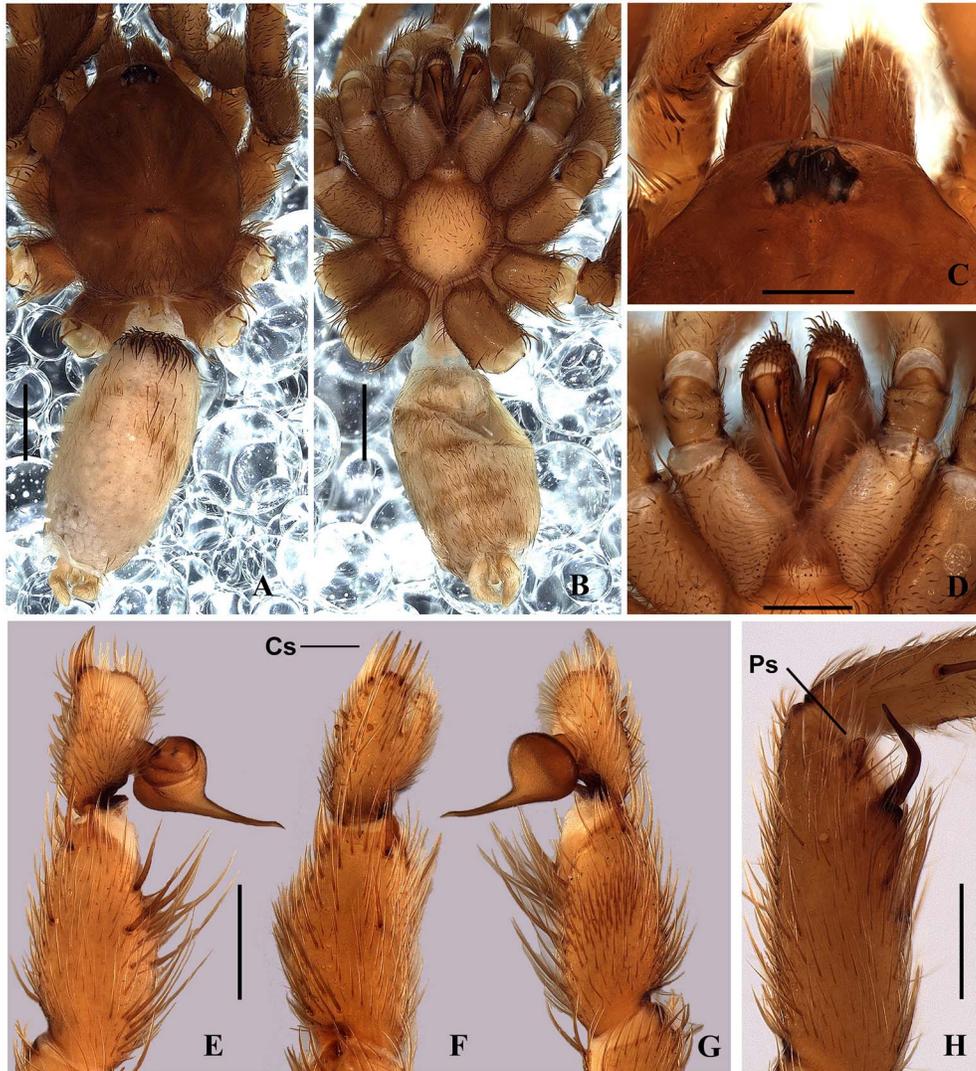


Figure 3.—*Thalerommata macella*, holotype male (MNHN7193AR4612): A–B Habitus A. habitus dorsal. B. habitus ventral. C. eyes group, dorsal view. D. endites and labium, ventral view. E–G male palp. E. Prolateral view. F. Dorsal view. G. Retrolateral view. H. Tibia I, prolateral view. Scale bars: (A–B) 1mm; (C–H) 0.5mm. Abbreviations: *Cs* = Cymbium Spines; *Ps* = Prolateral spur.

ACKNOWLEDGMENTS

The authors thank Janet Beccaloni (NHM) and Cristine Rolland (MNHN) for loaning the type material. HMOGF thanks Didier Van den Spiegel and Arnaud Henrard for access to the laboratory in the Royal Museum for Central Africa, Tervuren, Belgium. We also thank Carina Isabella Motta for feedback and comments on the manuscript. This study was funded by Fundação de Amparo à Pesquisa do Estado de São Paulo (HMOGF: 2016/03772-2, JPLG: 2017/11985-9), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES to HMOGF).

LITERATURE CITED

- Ausserer A. 1875. Zweiter Beitrag zur Kenntniss der Arachniden-Familie der Territelariae Thorell (Mygalidae Autor). *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien* 25: 125–206.
- Bertani R, Raven RJ. 2023. On the genus *Thalerommata* Ausserer, 1875 (Araneae, Theraphosidae), with the description of six new species. *Zootaxa* 5271:201–230.
- Bonnet P. 1955. Bibliographia araneorum. Analyse méthodique de toute la littérature aranéologique jusqu'en 1939. Tome II. *Systématique des araignées (Étude par ordre alphabétique) (1re partie: A–B)*. Doul-douire, Toulouse, pp. 1–918.
- Bonnet P. 1959. Bibliographia araneorum. Analyse méthodique de toute la littérature aranéologique jusqu'en 1939. Tome II. *Systématique des araignées (Étude par ordre alphabétique) (5me partie: T–Z)*. Doul-douire, Toulouse, pp. 4231–5058.
- Dupérré N. 2023. New light on some historical type specimens in relation to the South American spider (Araneae) fauna. *New Zealand Journal of Zoology* 50:118–277.
- Dupérré N, Harms D. 2018. Raising the dead: rediscovery and redescription of some lost spider types (Araneae) described by Eugène Simon. *Evolutionary Systematics* 2:1–20.
- Dupérré N, Tapia E. 2021. The endless search for type specimens; illustrations of eleven spider (Araneae, Mygalomorphae) species described by Eugène Simon. *Zootaxa* 4951:259–282.

- Osorio LM, Benavides L, García-Atencia S & Bertani, R. 2024. Three new species of tiny tarantulas of the genus *Thalerommata* Ausserer, 1875 (Araneae, Theraphosidae) from northern Colombia. *Zootaxa*, 5537(1), 95–114. <https://doi.org/10.11646/zootaxa.5537.1>.
- 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.
- Petrunkevitch A. 1928. Systema Araneorum. *Transactions of the Connecticut Academy of Arts and Sciences* 29:1–270.
- Petrunkevitch A. 1939. Catalogue of American spiders. Part one. *Transactions of the Connecticut Academy of Arts and Sciences* 33:133–338.
- Pocock RI. 1895. Notes on the identity of some of the types of Mygalomorphae in the collection of the British Museum. *Annals and Magazine of Natural History* 16:223–230.
- Raven RJ. 1985. The spider infraorder Mygalomorphae (Araneae): cladistics and systematics. *Bulletin American Museum of Natural History* 182:1–180.
- Ríos-Tamayo D. 2024. Taxonomy and phylogeny of the genus *Trichopelma* Simon, 1888 (Araneae: Theraphosidae: Trichopelmatinae) in Cuba, with the descriptions of seven new species and a new species of *Thalerommata* Ausserer, 1875. *Journal of Insect Biodiversity and Systematics*, 10(2), 347–399. <https://doi.org/10.61186/jibs.10.2.347>
- Roewer CF. 1942. Katalog der Araneae von 1758 bis 1940. 1. Band (Mesothelae, Orthognatha, Labidognatha: Dysderaeformia, Scytodiformia, Pholciformia, Zodariiformia, Hersiliaeformia, Argyopiformia). *Natura, Buchhandlung für Naturkunde und exakte Wissenschaften Paul Budy Bremen* 1040.
- Schmidt G. 1986. Vogelspinnen: Lebensweise, Bestimmungsschlüssel, Haltung und Zucht. *Blüchel & Philler Verlag–Minden* 126.
- Simon E. 1892. *Histoire naturelle des araignées*. Deuxième édition, tome premier, pp. 1–256.
- Simon E. 1903a. *Histoire naturelle des araignées*. Deuxième édition, tome second. Roret, Paris, pp. 669–1080.
- Simon E. 1903b. Descriptions de quelques genres nouveaux de la famille Aviculariides. *Bulletin de la Société Entomologique de France* 8:42–44.
- World Spider Catalog. 2024. *World Spider Catalog, Version 25.5*. Natural History Museum Bern. [initially cited May 2023, updated November 2024].

Manuscript received 24 May 2023, revised 31 August 2023, accepted 5 September 2023.