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A new species of *Acanthoscurria* Ausserer, 1871: proposal of the *theraphosoides* species-group and first published record of the genus from Colombia (Araneae: Theraphosidae)

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Abstract

A remarkable new species of *Acanthoscurria* Ausserer, 1871, is described from Colombia, *Acanthoscurria armasi* **sp. nov.**, representing the first published record of the genus from this country. New insights into palpal bulb morphology and biogeography of the newly-proposed *theraphosoides* species-group are provided.

Key words: biogeography, palpal bulb, spider, tarantula, taxonomy

Introduction

Koch (1841) described many theraphosid species, including *Mygale geniculata* C. L. Koch, 1841, from Pará State, Brazil. Ausserer (1871) later included this species in his subgenus *Acanthoscurria* Ausserer, 1871 (alongside *Acanthoscurria minor* Ausserer, 1871) placed within a genus of the same name. Ausserer (1871) contributed many other new descriptions of mygalomorph spiders, mostly authored by himself but also including content from Doleschall such as the subgenus *Acanthopalpus* Doleschall *in* Ausserer, 1871, with its type species *Acanthopalpus theraphosoides* Doleschall *in* Ausserer, 1871, as one example. *Acanthopalpus* was distinguished based primarily on the ocular arrangement, the single spinose prolateral tibial apophysis on leg I, and the palpal tibial apophysis of the male.

Simon (1892b) described *Acanthoscurria ferina* Simon, 1892, based on the male, from Brazil and *Acanthoscurria insubtilis* Simon, 1892, based on the male, from Bolivia. Simon (1892b) considered the morphology of the tibial apophysis on leg I and the palpal tibia, respectively, of these taxa as the primary characters to house them in *Acanthoscurria*. Simon (1892a: 15) had previously synonymised *Acanthopalpus* with the nominate genus *Acanthoscurria* and designated *A. geniculata* as the type species by subsequent designation. At this time, males of the genus *Acanthoscurria* were known primarily from the morphology of the leg I tibial apophysis as females were not yet recognised (Gabriel 2020).

Pocock (1901: 553–554) diagnosed *Acanthoscurria* with primary focus on the morphology of the stridulation organ: patches of plumose stridulatory setae situated on the "anterior" [= prolateral] face of trochanter I and the "posterior" [= retrolateral] face of the palpal trochanter. Two years later, Pocock (1903), working on material in

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the British Museum of Natural History (BMNH), described four more species of *Acanthoscurria*, all from female specimens, assigning them to this genus based on the stridulation organ. It is evident from both works that Pocock considered the stridulation organ as the primary character, as opposed to the tibial apophysis (a male-only character) used by Simon (1892a). From this point on, the stridulation organ and male tibial apophysis would be the primary characters to place species in the genus *Acanthoscurria*, regardless of genital organ morphology. Simon (1903) described *Trasyphoberus* Simon, 1903, to house *Trasyphoberus parvitarsis* Simon, 1903, based on a female from Brazilian Amazonia.

Trasyphoberus was considered as valid by two subsequent authors, the first of which illustrated *T. parvitarsis* (Bücherl, 1957; Lucas, 1983a). Lucas (1983a) also synonymised *T. parvitarsis* with the newly combined *Trasyphoberus ferina*. Raven (1985: 159) synonymised *Trasyphoberus* with *Acanthoscurria* without examining type material, stating: "*Trasyphoberus* Simon (1903a) (type not examined), in agreement with Lucas (1981a) [sic!], is placed in the synonymy of *Acanthoscurria* Ausserer (1871) (congeners in RMS and AMNH, examined) because they are separated only by an artificial difference in the relative extent of the scopulae on metatarsi of the fourth leg (see Schiapelli & Gerschman, 1979).". Schmidt (1986) illustrates *Trasyphoberus parvitarsis* but his use of the generic name may simply be due to the close dates of publication between that work and Raven (1985).

Paula *et al.* (2014) provided redescriptions of *Acanthoscurria theraphosoides* and *A. insubtilis*, another species with similar palpal bulb morphology. In doing so, they also discovered two other long-standing congeners, *Acanthoscurria brocklehursti* F. O. Pickard-Cambridge, 1896, and *A. ferina* were junior synonyms of *A. theraphosoides*, and described the female of *A. insubtilis* for the first time. Since *Acanthopalpus* remains a junior synonym of *Acanthoscurria*, we hereby newly refer to this grouping in this work as the '*theraphosoides* species-group' (inclusive of *A. armasi* **sp. nov.**, *A. insubtilis*, and *A. theraphosoides*). Most recently, *Acanthoscurria* was treated in part by Gabriel (2020) who synonymised numerous species from the Caribbean and South America, all outside of the *theraphosoides* species-group, but during research for this and other papers came to some interesting conclusions.

In this work, we describe a new species of *Acanthoscurria* from Colombia based on a specimen deposited in the American Museum of Natural History, New York. This new species also provides the first record of the genus from Colombia and belongs to the '*theraphosoides'* species-group, newly diagnosed and proposed here. We also present findings on palpal bulb morphology and biogeography within the genus in advance of a larger genus-level revision.

Materials and methods

Specimens were examined under binocular microscopes. Photographs of the palpal bulb and tibial apophyses herein of the *theraphosoides* species-group were made using a Leica M125C auto-montage. Those of the habitus were made with an Olympus TG-5. Retrospective photographs of the holotype of *Mygale geniculata* were made by Jason Dunlop and Anja Friedrich. For a list of type and non-type material of *Acanthoscurria* examined, see Appendices 1–2.

Abbreviations, repositories of material examined: AMNH = American Museum of Natural History, New York, United States of America; BMNH = Natural History Museum, London, United Kingdom; MNHN = Muséum national d'Histoire naturelle, Paris, France; NHMW = Naturhistorisches Museum Wien, Vienna, Austria; OUMNH = Oxford University Museum of Natural History, Oxford, United Kingdom; RMS = Naturhistoriska Riksmuseet, Stockholm, Sweden; ZMB = Museum für Naturkunde, Berlin, Germany. Structures: ALE = anterior lateral eyes, AME = anterior median eyes, PLE = posterior lateral eyes, PME = posterior median eyes; PB = prolateral branch (of tibial apophysis), RB = retrolateral branch (of tibial apophysis). Other: colln. = collection; det. = determined by; imm. = immature; leg. = legit. Description style follows Sherwood *et al*. (2020). Leg spine terminology follows Petrunkevitch (1925) with the modifications proposed by Bertani (2001): d = dorsal, v = ventral, r = retrolateral, p = prolateral. Palpal bulb terminology follows Bertani (2000) with modifications for the retrolateral keel and Ferretti *et al.* (2023) with modifications for the prolateral accessory inferior keel: A = apical keel PAIK = prolateral accessory inferior keel; PI = prolateral inferior keel, PS = prolateral superior keel, RS = retrolateral superior keel, SA = subapical keel, SGA = subapical granular area; TA = tegular apophysis; with the additions proposed by Gabriel and Sherwood (2020): ER = embolic ridge, PR = prolateral ridge, PAR = prolateral apical ridge, PC = prolateral

crease. Definitions of paraembolic apophysis (= PA) and keelar apophysis (= KA) follows Sherwood *et al.* (2024). Leg formulae start with the longest leg to the shortest in order of decreasing size, *e.g.* 4,1,2,3. Urticating setae terminology follows Cooke *et al*. (1972).

All measurements are in millimetres. Authors' emphases in [ ]. Biogeographic classification follows Morrone *et al.* (2022). Maps were made using ArcGIS and then edited into compound figures using Photoshop version 23.5. The type localities and additional distribution records of species were obtained from Ausserer (1871), Simon (1892b), Ibarra (1954), Paula *et al.* (2014), and Guerra-Serrudo *et al.* (2023).

Taxonomy

Family Theraphosidae Thorell, 1869

Subfamily Theraphosinae Thorell, 1869

Genus *Acanthoscurria* Ausserer, 1871

theraphosoides species-group

Composition. *Acanthoscurria armasi* **sp. nov.**, *Acanthoscurria insubtilis* Simon, 1892, and *Acanthoscurria theraphosoides* Doleschall *in* Ausserer, 1871.

Diagnosis. Males of the *theraphosoides* species-group (Figs 1–5) are readily distinguished from other *Acanthoscurria* including the type species (Fig. 6) by the presence of a forward-pointing, digitiform, retrolateral palpal tibial apophysis, strongly incrassate palpal tibia, palpal bulb with an incrassate paraembolic apophysis, presence of a subapical granular area, enlarged prolateral accessory inferior keel, and absence of a prolateral accessory central keel and retrolateral pad of plumose stridulatory setae on femur IV (developed or well-developed triangular retrolateral palpal tibial apophysis, slightly or not incrassate palpal tibia, presence of retrolateral pad of plumose stridulatory setae on femur IV, palpal bulb with prolateral accessory central keel, and absence of an incrassate paraembolic apophysis, and no subapical granular area or prolateral accessory inferior keel in the rest of *Acanthoscurria*) (Paula *et al.* 2014; Galleti-Lima & Guadanucci, 2019; Gabriel, 2020). Indeed, the following combination of characters separate males of the *theraphosoides* species-group from all other known theraphosine genera: (1) single, prolaterally-situated, tibial apophysis; (2) prolateral superior keel enlarged and dorso-retrolaterally positioned; (3) enlarged prolateral accessory inferior keel extending from distal section [not apical] to area of paraembolic apophysis; (4) forward-pointing digitiform tegular apophysis; (5) short apical keel with absence of a subapical keel; (6) presence of claviform stridulatory setae on trochanters, and (7) presence of regular Type I urticating setae. Females of the *theraphosoides* species-group differ from all other theraphosine genera by a combination of (1) a basally fused, short and wide, membranous bursa copulatrix with two receptacles dorsally positioned (apically positioned in the rest of *Acanthoscurria*); (2) presence of claviform stridulatory setae on trochanters, and (3) having regular Type I urticating setae (for illustrations of female morphology, see Paula *et al*., 2014).

Distribution. Bolivia, Brazil, Colombia, and French Guiana.

Remarks. Prior to the present contribution, RG, while examining specimens for other papers on *Acanthoscurria* (*i.e.,* Paula *et al*., 2014; Gabriel, 2020), concluded the genus *Acanthoscurria* contained five distinct groups of species, based on genital organ morphology, though grouped merely by the presence of a stridulation organ and a prolaterally-situated male tibial apophysis. He concluded that use of the stridulation organ as a generic-level character as proposed by Pocock (1901, 1903) and most other authors underestimate diversity as this character does not show the marked variation seen in the genitalia of *Acanthoscurria* species of which separate lineages can be recognised. RG shared this information with DS, who concurred. Furthermore, RG suspected they could represent a new subfamily within Theraphosidae, but that is outside the scope of this work. We have since worked for more than a decade on the genus with collaborators and continually re-examined type material as we discovered new characters. Naming the present species-group is the first step towards future work on these lineages.

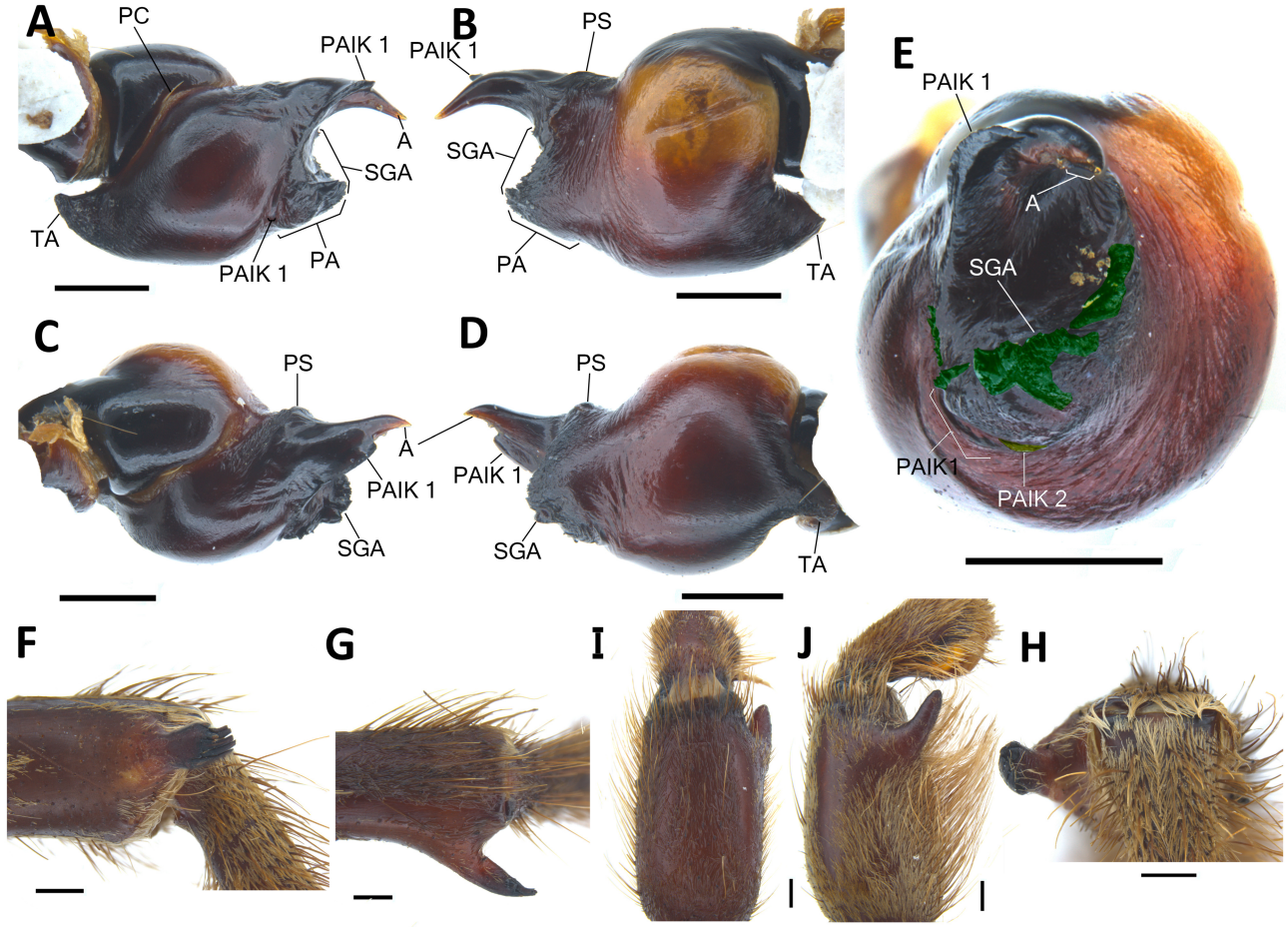

FIGURE 1. *Acanthoscurria armasi* **sp. nov.** holotype male (AMNH_IZC00357351). **A–E** palpal bulb (left-hand side), **F–H** tibial apophysis (left-hand side), **I–J** palpal tibia (left-hand side). **A.** Prolateral view. **B.** Retrolateral view. **C.** Dorsal view. **D.** Ventral view. **E.** Apical view (green highlight = SGA keels; yellow highlight = second PAIK). **F.** Prolateral view. **G.** Dorsal view. **H.** Apical view. **I.** Dorsal view. **J.** Retrolateral view. Scale bars = 1mm.

Acanthoscurria armasi sp. nov.

(Figs 1–2, 5A–B)

Type material. Holotype ♂ (AMNH_IZC00357351), Río Suarez, Colombia, 800–1000 m, 11–17 August 1946, en la selva.

Diagnosis. *Acanthoscurria armasi* **sp. nov.** (Figs 1–2, 5A–B) is closely related to other species of the *theraphosoides* species-group (*A. insubtilis*, Figs 3, 5C–D, and *A. theraphosoides*, Figs 4, 5E–F). Males of *A. armasi* **sp. nov.** differ from *A. theraphosoides* by having a developed PS (Fig. 1B, vs. Fig. 4B), developed basal (disjunct) section of the first PAIK with more curvature (Figs 1A–D vs. Figs 4A–D), second PAIK ventrally positioned (Figs 1A–D vs. Figs 4A–D), first PAIK without weakly developed KA (Fig. 1E vs. Fig. 4E), and well-developed, straight, PA (Figs 1A–B vs. Figs 4A–B) (weakly developed PS, weakly developed basal (disjunct) section of the first PAIK, first PAIK with weakly developed KA and less curved, second PAIK prolaterally positioned, and developed, slightly upwardly-curved, PA in *A. theraphosoides*). *Acanthopalpus armasi* **sp. nov.** can be distinguished from *A. insubtilis* by the absence of a PI (Figs 1A–C vs. Figs 3A–C), presence of a second PAIK (Figs 1A–D vs. Figs 3A–D), and SGA with oblique denticulate keels (Figs 1A–E, 4A–B vs. Figs 3A–E, 5C–D) (PI present, second PAIK absent, and SGA with longitudinal denticulate keels in *A. insubtilis*); *A. insubtilis* further differs from both *A. armasi* **sp. nov.** and *A. theraphosoides* by the weakly-developed PA (Figs 3A–B, D vs. Figs 1A–B, D and Figs 4A–B, D).

Etymology. The specific epithet is a patronym in honour of our esteemed friend and colleague Luis F. de Armas (Fundación Ariguanabo, and Instituto de Ecología y Sistemática, Cuba) in recognition of more than half a century of consistent research in arachnology, and to commemorate his 80th birthday.

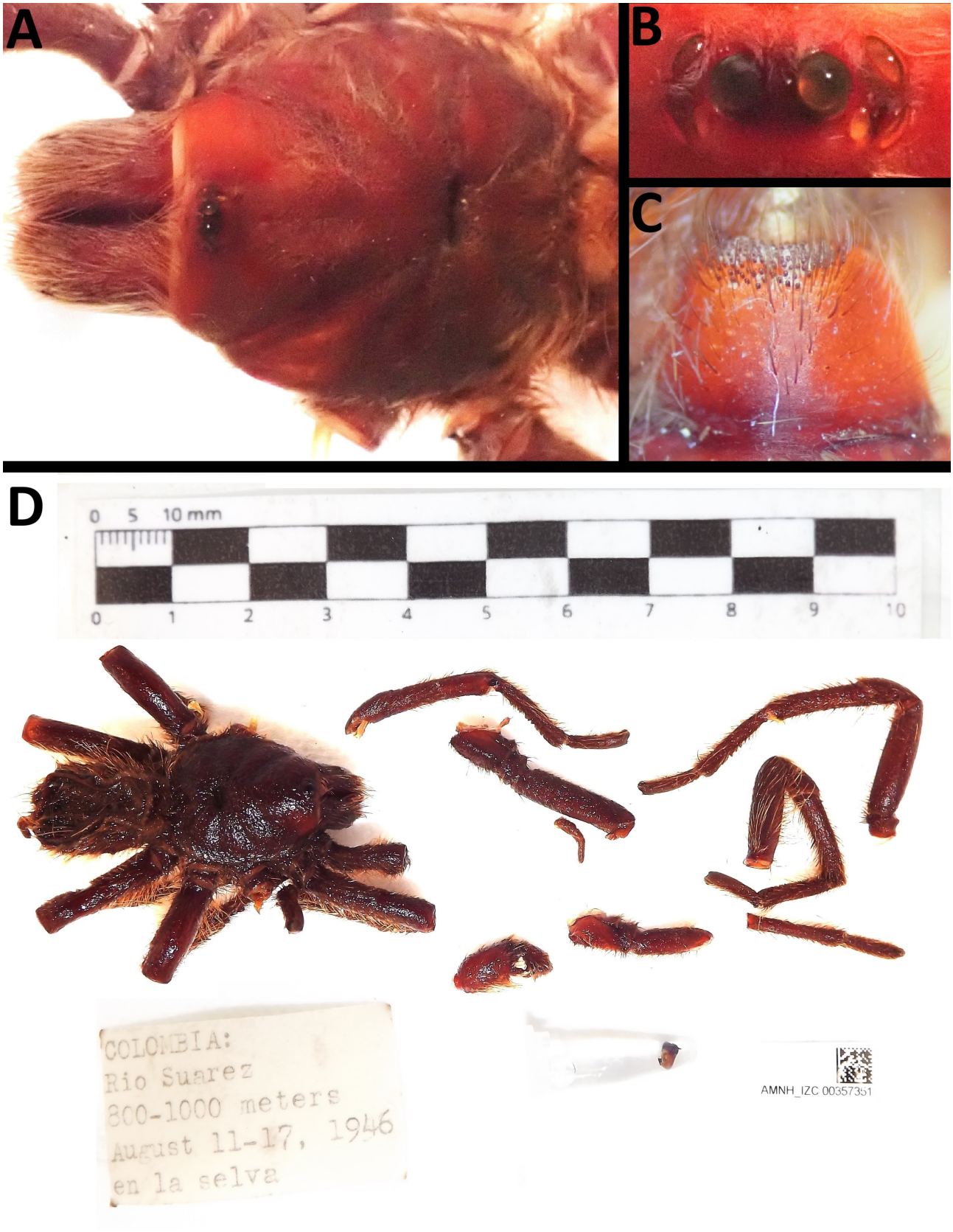

FIGURE 2. *Acanthoscurria armasi* **sp. nov.** holotype male (AMNH_IZC00357351). **A** cephalothorax, dorsal view, **B** ocular tubercle, dorsal view, **C** labium, ventral view, **D** habitus in dorsal view, with data labels and scale bar.

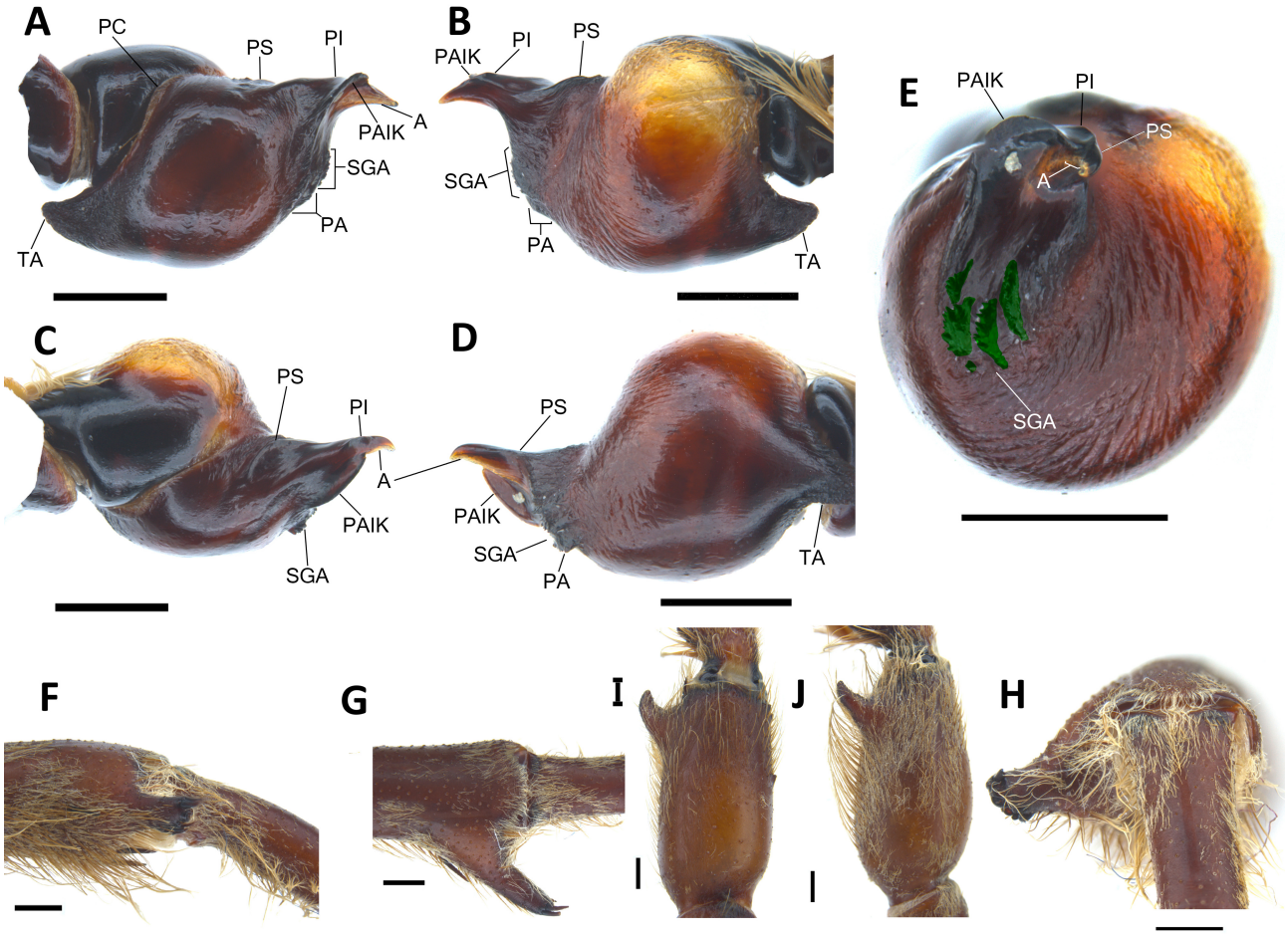

FIGURE 3. *Acanthoscurria insubtilis* Simon, 1892 holotype male (MNHN AR 4784). **A–E** palpal bulb (left-hand side), **F–H** tibial apophysis (left-hand side), **I–J** palpal tibia (left-hand side). **A.** Prolateral view. **B.** Retrolateral view. **C.** Dorsal view. **D.** Ventral view. **E.** Apical view (green highlight = SGA keels). **F.** Prolateral view. **G.** Dorsal view. **H.** Apical view. **I.** Dorsal view. **J.** Retrolateral view. Scale bars = 1mm.

Description of holotype male. Total length including chelicerae: 38.3. Carapace: length 17.3, width 15.6 (Fig. 2A). Caput: slightly raised. Ocular tubercle: raised, length 1.7, width 2.7. Eyes: AME > ALE, ALE > PLE, PLE > PME, anterior eye row procurved, posterior row slightly recurved (Fig. 2B). Clypeus: narrow; clypeal fringe: long. Fovea: deep, transverse. Chelicera: length 5.9, width 3.3. Abdomen: length 15.1, width 9.6. Maxilla with 80–90 cuspules covering approximately 49% of the proximal edge; prolateral heel accentuated. Labium: length 1.6, width 2.0, with 70–80 cuspules most separated by 0.5–1.0 times the width of a single cuspule (Fig. 2C). Labiosternal mounds: separate. Sternum: length 7.2, width 4.6, with three pairs of sigilla. Tarsi I–IV fully scopulate. Metatarsal scopulae: I 78%; II 78%; III 45%; IV 27%. Lengths of legs and palpal segments: see table 1, legs 4,1,2,3. Spination: femur II d 0–0–1, III d 0–1–0, IV d 0–0–1, tibia II v 1–0–2, III v 0–0–2, IV d 2–0–2, v 2–2–4, metatarsus I v 0–0–1 (apical), II v 0–0–3 (apical), III d 2–2–2, v 1–0–3 (apical), IV d 2–0–2–, v 3–4–6 (3 apical). Tibia I with single branched apophysis (Figs 1F–H). Femur III: slightly incrassate. Palpal tibia: strongly incrassate, with elongate and forward-pointing digitiform retrolateral apophysis present (Figs 1I–J). Metatarsus I: slightly curved [inwards]. Posterior lateral spinnerets with three segments, basal 2.2, median 1.4, digitiform apical 2.4. Posterior median spinnerets with one segment. Palpal bulb with digitiform and well-developed TA; medially enlarged embolus, apically tapering; PS developed and restricted to basal section of embolus; first PAIK keel developed and disjunct with developed basal section; second PAIK keel weakly developed and ventrally positioned; A keel weakly developed; PA well-developed; SGA composed by five oblique denticulate keels; PI, RS, and RI keels absent (Figs 1A–E). Urticating setae: Type I present dorsally. Stridulation organ with stridulatory setae present on retrolateral and prolateral faces of the trochanter and coxae of the palp and leg I. Colour: alcohol preserved brown (Fig. 2D).

TABLE 1. *Acanthoscurria armasi* **sp. nov.** holotype male (AMNH_IZC00357351), podomere lengths.

	I	II	III	IV	Palp
Femur	15.7	13.8	12.8	14.6	9.8
Patella	7.2	6.5	6.3	6.6	5.2
Tibia	12.3	11.0	9.4	12.3	8.6
Metatarsus	11.6	11.4	12.2	16.3	–
Tarsus	7.4	7.0	6.5	6.9	4.4
Total	54.2	49.7	47.2	56.7	28.0

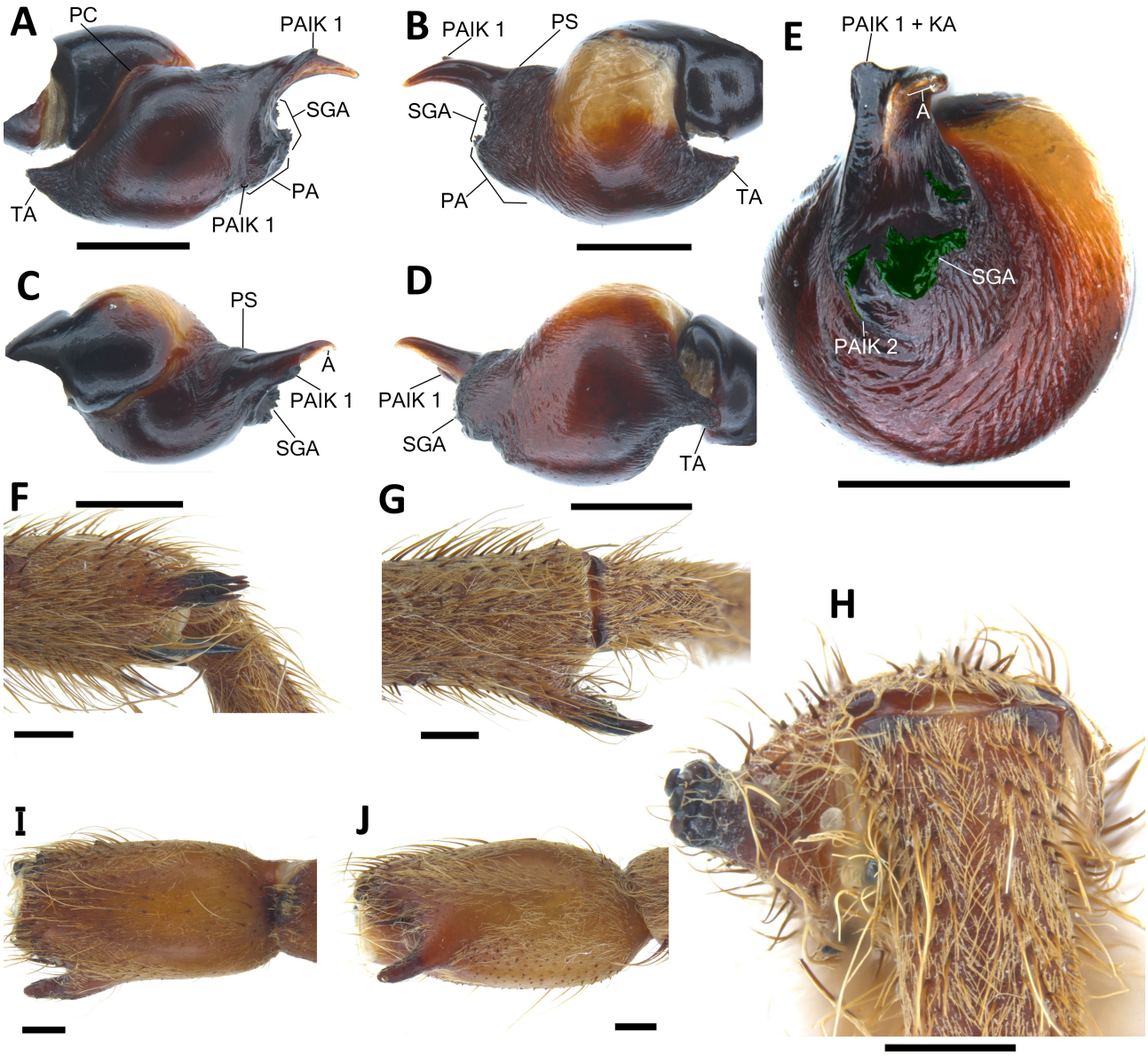

FIGURE 4. *Acanthoscurria theraphosoides* (Doleschall *in* Ausserer, 1871) holotype male of *Acanthoscurria ferina* Simon, 1892 (MNHN AR 1056). **A–E** palpal bulb (left-hand side), **F–H** tibial apophysis (left-hand side), **I–J** palpal tibia (left-hand side). **A.** Prolateral view. **B.** Retrolateral view. **C.** Dorsal view. **D.** Ventral view. **E.** Apical view (green highlight = SGA keels; yellow highlight = second PAIK). **F.** Prolateral view. **G.** Dorsal view. **H.** Apical view. **I.** Dorsal view. **J.** Retrolateral view. Scale bars = 1mm.

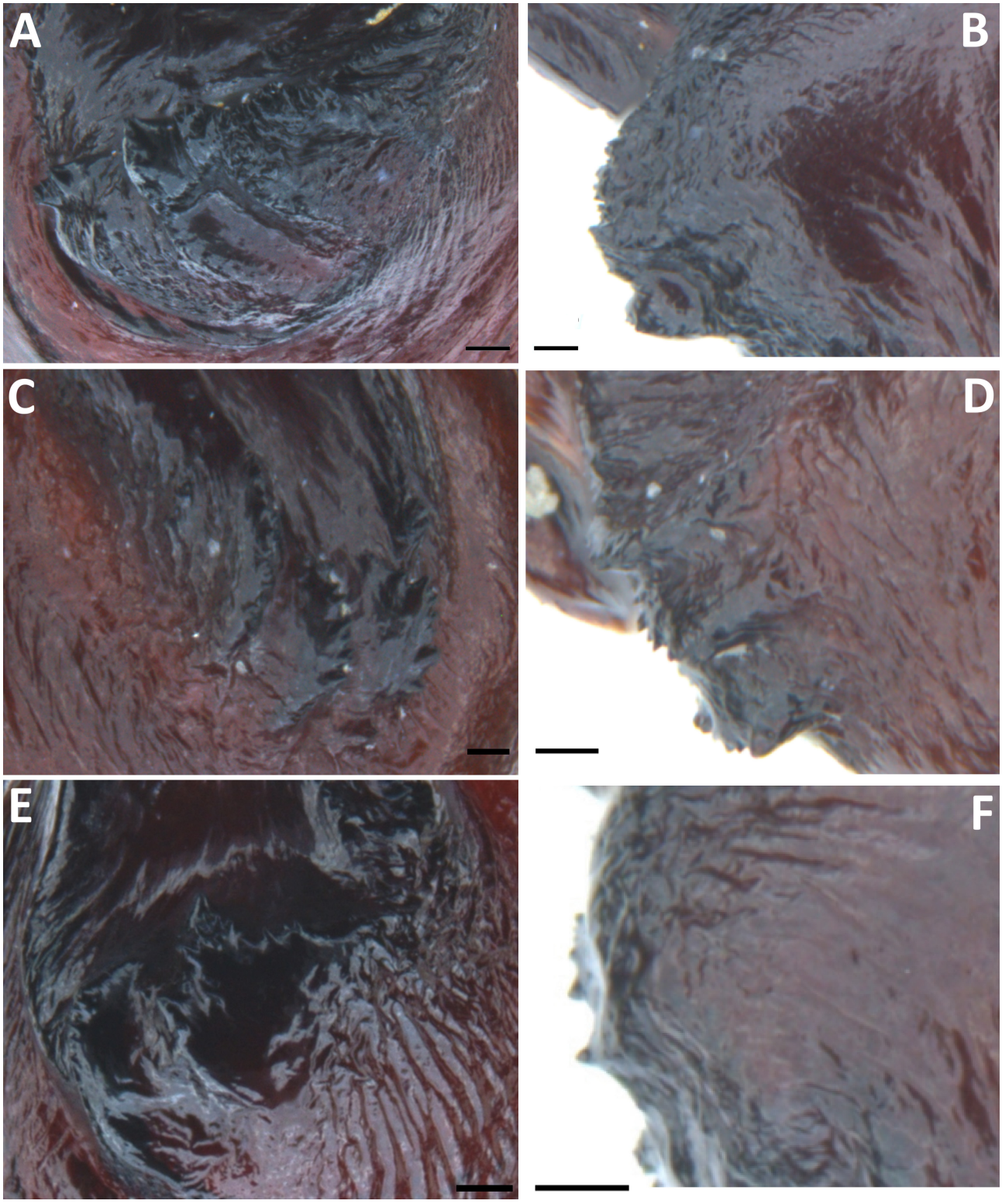

FIGURE 5. Close-up views of the SGA in known taxa of the *theraphosoides* species-group. A–B *Acanthoscurria armasi* **sp. nov.** holotype male (AMNH_IZC00357351), C–D *Acanthoscurria insubtilis* Simon, 1892 holotype male (MNHN AR 4784), E–F *Acanthoscurria farina* Simon, 1892 [= *Acanthoscurria theraphosoides* Doleschall *in* Ausserer, 1871] holotype male (MNHN AR 1056). **A, C, E** apical view; **B, D, F** ventral view. Scale bars = 0.1mm.

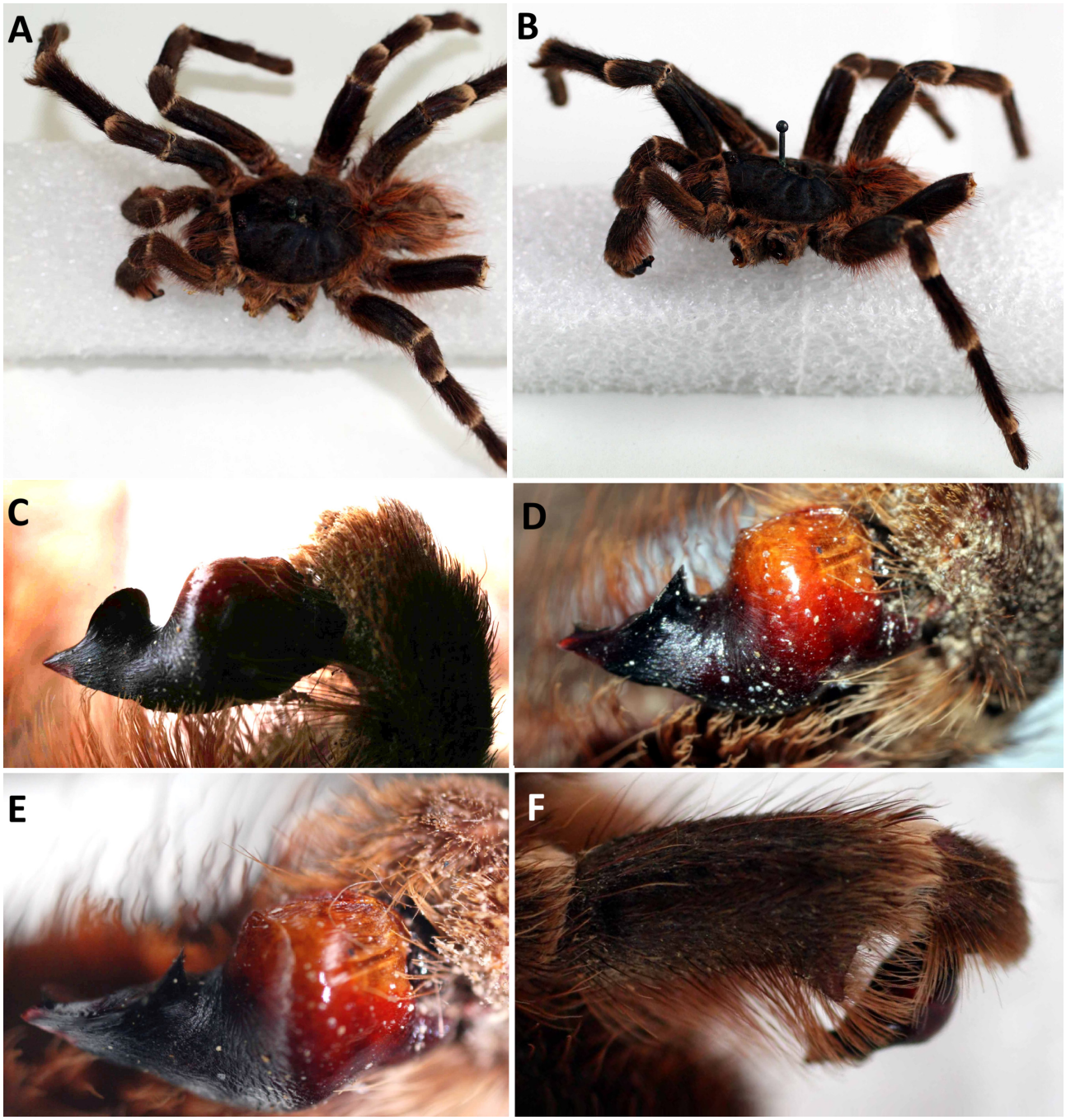

FIGURE 6. *Acanthoscurria geniculata* (C. L. Koch, 1842) holotype male (ZMB 2055), exemplifying *Acanthoscurria* Ausserer, 1871 *sensu stricto*. **A.** Habitus, dorsal view. **B.** Habitus, lateral view. **C.** Palpal bulb (right-hand side, still attached to cymbium), prolateral view. **D.** Idem, dorso-retrolateral view. **E.** Idem, dorsal view. **F.** Detail of palpal tibial apophysis (right-hand side), dorsal view. Photographs by, and courtesy of, Jason Dunlop and Anja Friedrichs.

Distribution (Figs 9–10). *Acanthoscurria armasi* **sp. nov.** is only know from its type locality (see Remarks), lower basin area of the Hoya del Río Suarez, northwestern region of the Cordillera Oriental of Colombia, in the Magdalena biogeographical province of Colombia (Santander department).

Remarks. According to the specimen label, the only geographical information on this specimen is that it was collected, in 1946, somewhere along a forest near the Río Suarez at an altitude of approximately 800–1000 m. This would at first glance represent somewhat a wide locality as this river extends throughout the Santander and Boyacá departments. However, the altitudinal range indicate with certainty that it was collected in the Santander department

as this contains the only section of the Suarez River basin within this altitudinal range. In this respect we consider the following coordinates, 6.3623844 -73.3434797, as a midpoint where this species could be found within a radius of approximately 3 km from the river and an extension of 4 km to the north and south following the river, covering the provided altitudinal range.

TABLE 2. Palpal bulb morphology of species of the *theraphosoides* species-group of *Acanthoscurria* Ausserer, 1871. Homologous keels present: weakly developed (+), developed (++), well-developed (+++), or absent (–) based on Bertani (2000).

Taxon	PS	PI	A	SA	RS	RI	Additional Comments
Acanthoscurria armasi **sp. nov.**	++	–	+	–	–	–	PS basally restricted; first PAIK developed and disjunct (basal section developed); second PAIK weakly developed and ventrally positioned; well-developed PA; SGA composed by oblique denticulate keels.
Acanthoscurria insubtilis Simon, 1892	++	+	+	–	–	–	PS extending from basal to apical section; first PAIK developed and continuous; second PAIK absent; weakly developed PA; SGA composed by longitudinal denticulate keels.
Acanthoscurria theraphosoides (Doleschall *in* Ausserer, 1871)	+	–	+	–	–	–	PS basally restricted; first PAIK developed and disjunct (basal section weakly developed); weakly developed KA present on first PAIK; second PAIK weakly developed and prolaterally positioned; developed PA; SGA composed by oblique denticulate keels.

Discussion

Bertani (2000) reported the presence of the subapical granular area (SGA) in the holotypes of *Acanthoscurria ferina* (= *A. theraphosoides*) and *A. insubtilis* as a potential synapomorphy for both species herein clearly shown to be a putative synapomorphy of the *theraphosoides* species-group**.** Although Bertani (2000) had mentioned and illustrated this character, there was no clear description or definition. For this reason, we initially thought that this structure was composed by spicules (median dorsal granular area *sensu* Peñaherrera-R. *et al.* 2023) as found in *Neischnocolus* Petrunkevitch, 1925, and *Cymbiapophysa* Gabriel & Sherwood, 2020 (Peñaherrera-R. *et al.* 2024; pers. obs.). Nonetheless, after the examination of several male specimens of the *theraphosoides* species-group this structure was in fact multiple denticulate keels extended along the prolatero-ventral, retrolatero-ventral, and ventral surfaces of a incrassate and short paraembolic apophysis. In view of these new observations, herein we propose the following definition of the subapical granular area: presence of multiple denticulate keels extending from prolatero-ventral to retrolatero-ventral surface of a paraembolic apophysis or only restricted to ventral surface of a paraembolic apophysis. The extension of these multiple denticulate keels depends on the direction where they develop. If these keels follow an oblique direction, the extension should be on the prolatero-ventral to retrolatero-ventral surface (*i.e., A. armasi* **sp. nov.** and *A. theraphosoides*). Moreover, if these keels follow a transversal direction, the extension should be restricted only to the ventral surface (*i.e., A. insubtilis*). We hope that with this improved definition and recognition of character states will be useful as a baseline for understanding the variability of these new keels and the taxonomic and phylogenetic weight that they may have for future taxa.

Across some of the previous literature on theraphosine palpal bulb morphology, there seems to be a slight confusion with the identity of the principal and accessory prolateral keels due to the high modification they present (see discussion by Peñaherrera-R. *et al*. 2024). First, during the examination and classification of homologous structures on the male palpal bulb, Bertani (2000) identified that *A. insubtilis* and *A. ferina* (=*A. theraphosoides*) possess both a PS and PI as well as a well-developed and elongate apical keel situated below both principal keels but, not positioned below the apex (= ventral/prolatero-ventral area) of the embolus as is homologously present in the rest of other theraphosine genera where it is expressed (Figs 7A–B, 8A; Bertani, 2000: tab. 1, figs 27–28). Paula

et al. (2014) subsequently completely ignored the presence and description of the prolateral inferior keel described in both species and illustrated in the case of *A. insubtilis* by Bertani (2000) and proceeded to identify the apical keel as the prolateral inferior keel (Figs 7C–D, 8B). Obviously, it is not possible to dispute this from the illustrations provided in that work since fine details were omitted (Paula *et al*. 2014: figs 34–35, 45–46). Nonetheless, after direct examination of the type material and additional material of each species (including synonymised species), we can confirm the presence of the prolateral inferior keel identified by Bertani (2002) is only present in *A. insubtilis*. Additionally, a weakly developed keel, almost transparent, was found on the prolatero-ventral section of the embolus apex which is congruent with the description of the true apical keel of Bertani (2000) (Figs 7E–F, 8C) and further supports the homology of this keel by comparing this exact structure and position on other genera on which Bertani (2000) based his homologous palpal bulb structures hypothesis (*e.g.*, *Aphonopelma* Pocock, 1901, *Eupalaestrus* Pocock, 1901, *Nhandu* Lucas, 1983b, *Vitalius* Lucas *et al*., 1993).

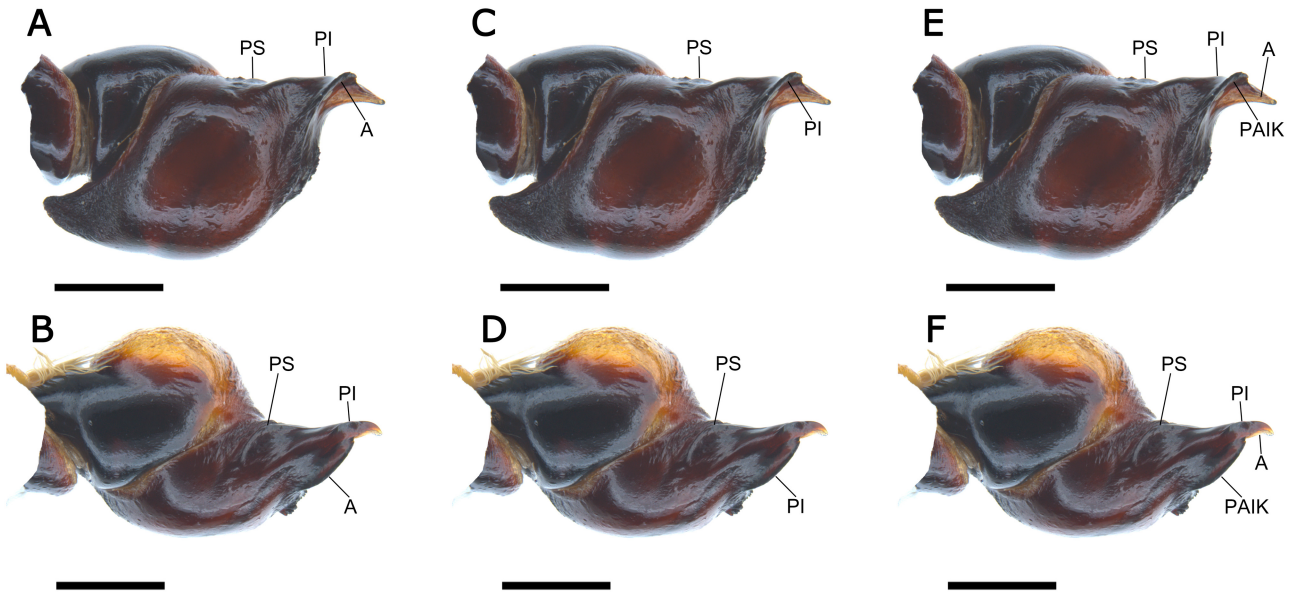

FIGURE 7. *Acanthoscurria theraphosoides* species-group palpal bulb prolateral and apical keel classification, *A. insubtilis* holotype male (MNHN AR 4784) as schematic model. **A–B** *sensu* Bertani (2000), **C–D** *sensu* Paula *et al.* (2014), **E–F** this work. **A, C, E** prolateral view; **B, D, E** dorsal view. Scale bars = 1 mm.

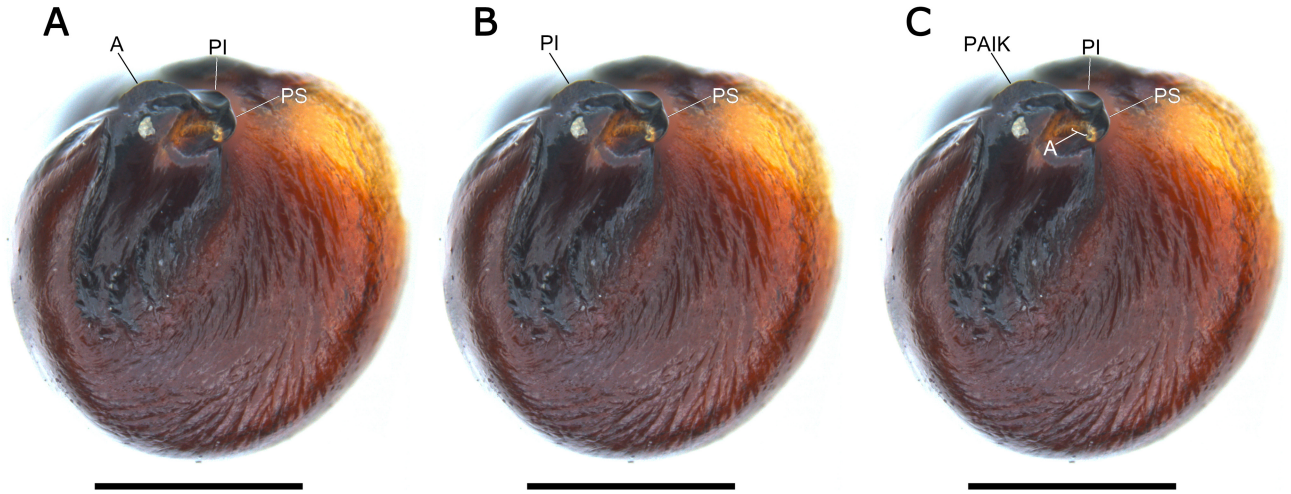

FIGURE 8. *Acanthoscurria theraphosoides* species-group palpal bulb prolateral and apical keel classification, *A. insubtilis* holotype male (MNHN AR 4784) as schematic model, apical view. **A** *sensu* Bertani (2000), **B** *sensu* Paula *et al.* (2014), **C** this work. Scale bars = 1 mm.

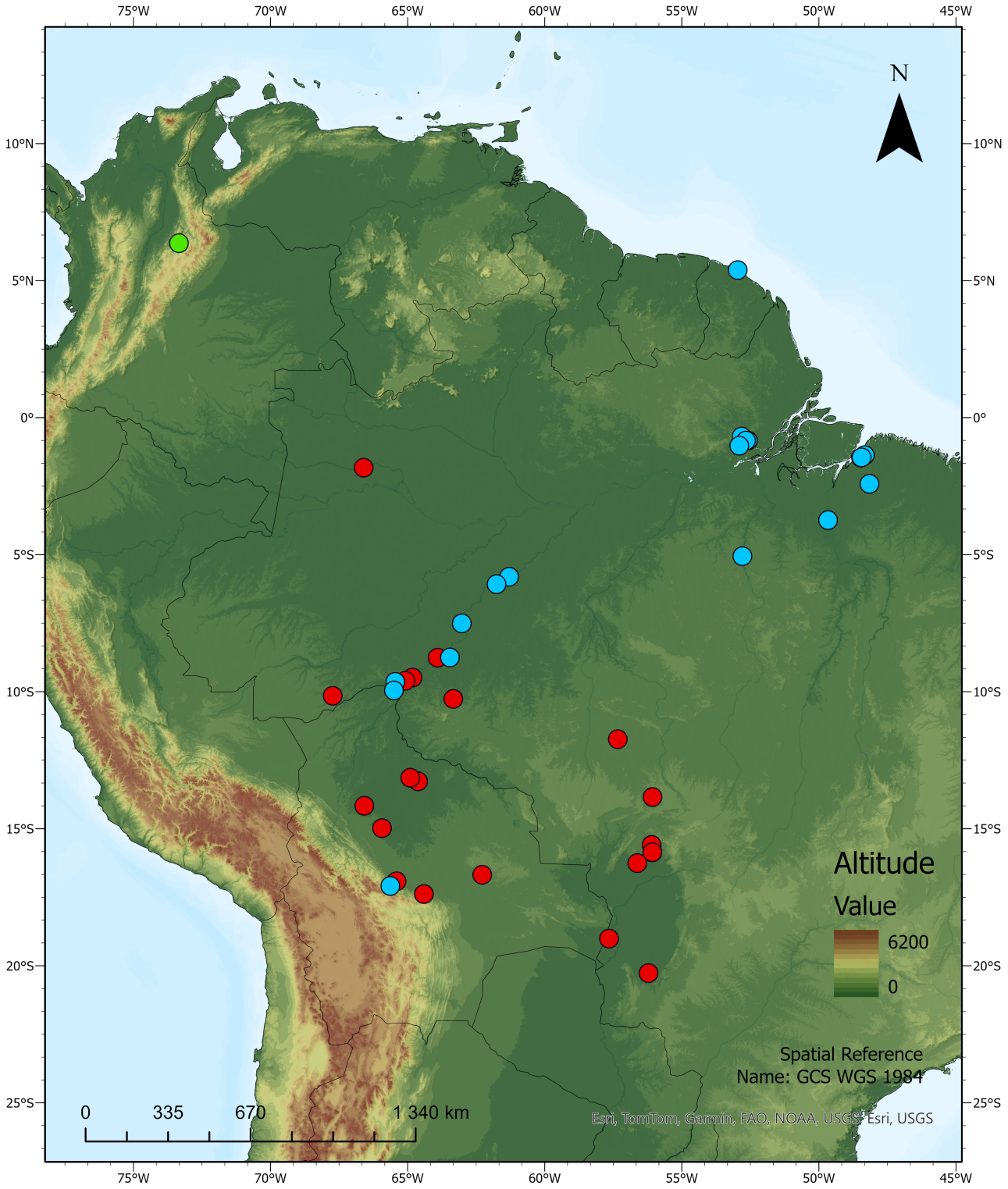

FIGURE 9. Distribution of the *theraphosoides* species-group. Legend: green = *A. armasi* **sp. nov.**, red = *A. insubtilis*, blue = *A. theraphosoides*.

Having correctly identified the main prolateral and apical keels, one keel remained without a proper identity—previously misidentified in the *theraphosoides* species-group (*sensu* this work) as the apical keel by Bertani (2000). Fortunately, due to its inferior position with respect to the PS and PI, this structure can be identified with the classification of multiple prolateral accessory keels proposed by Ferretti *et al.* (2023) for *Chinchaysuyo* Ferretti, Chaparro, Ochoa & West, 2023. Following Ferretti *et al.* (2023) this keel situated below the PS and PI should be

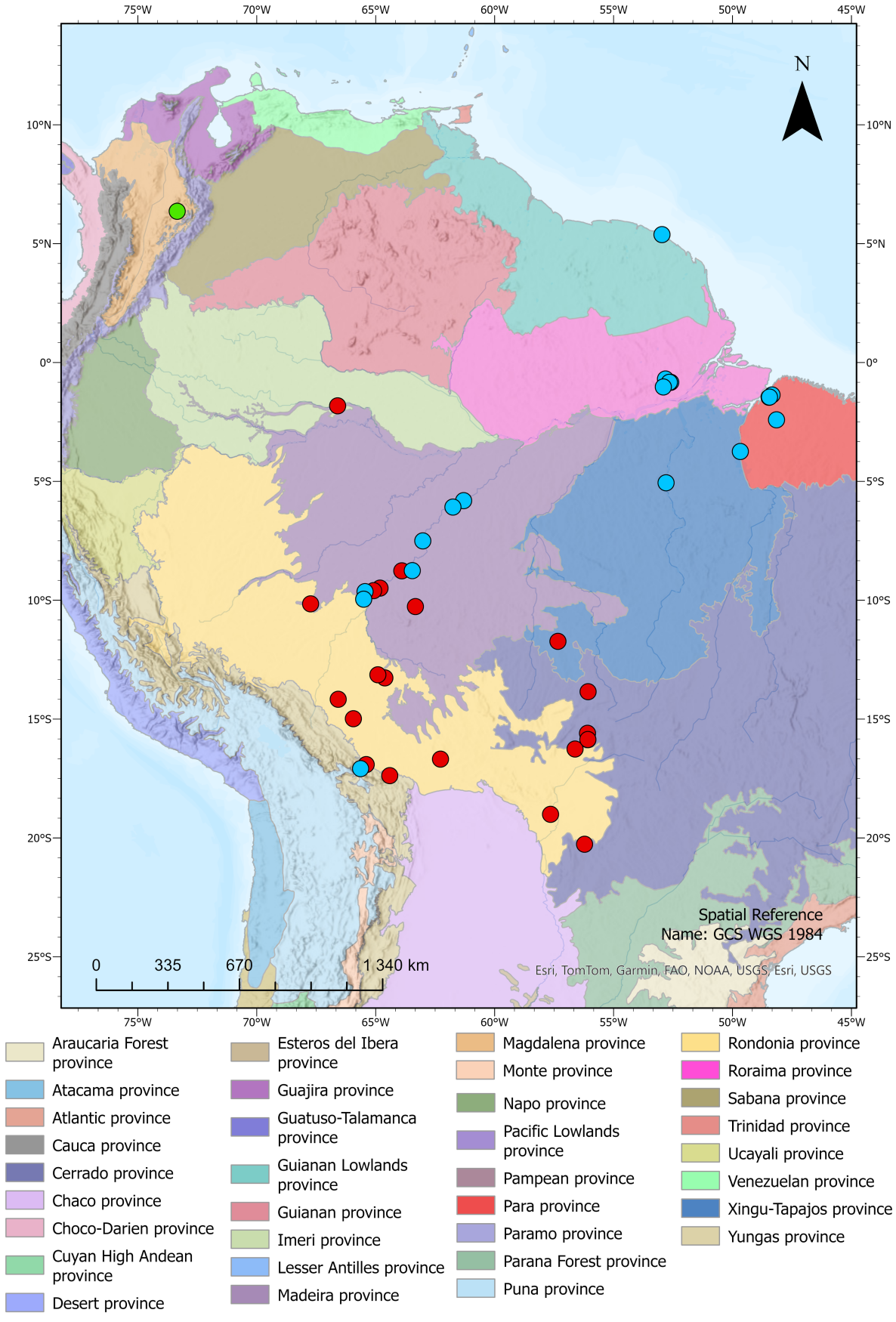

FIGURE 10. Distribution of the *theraphosoides* species-group overlain with biogeographical rationalisation of Morrone *et al.* (2022). Legend: green = *Acanthoscurria armasi* **sp. nov.**, red = *A. insubtilis*, blue = *A. theraphosoides*.

named as the PAIK (Figs 7E–F, 8C). For this reason herein we identify this keel under that name, however, we consider that this identification or the keel name for this group of species should be taken as provisional because, as Peñherrera-R. *et al.* (2024) explained, due to the presence, absence, and variation in their arrangement (*e.g.*, tegular *versus* embolar keel extension and origin) across many taxa in Theraphosinae, it is possible that several of these accessory keels may not be entirely considered homologous. For example, a PI is absent in *Cymbiapophysa velox* (Pocock, 1903) and *C. yimana* Gabriel & Sherwood, 2020 but found in other congeners (Peñaherrera-R. *et al.* 2024). *Acanthoscurria armasi* **sp. nov**. and *A. theraphosoides* also lack a PI while in *A. insubtilis* a PI is present (Figs 1, 3–4), which further supports why we follow the present classification and identification of keels and why we do not name the PAIK as a PI. Interestingly, Bertani (2000) indicates the supposed presence of a PI in *A. ferina* (*A. theraphosoides*), several possibilities for its real identity exist, however we think it is likely that this specimen described by Bertani (2000) may represent a misidentification and that it is another described (considering the large number of synonymous names this species currently holds) or undescribed species of this group.

The disjunct distribution of the *theraphosoides* species-group (Figs. 9–10) is somewhat similar to what was found in *Notahapalopus* Sherwood *et al*., 2024, although in this case the northernmost distribution is recorded from the northwestern Andean region of the Cordillera Oriental of Colombia (*A. armasi* **sp. nov.**) but also present on the Guyana shield (*A. theraphosoides*). We hypothesise that this remarkable geographic separation could be influenced by paleo-hydrologic events in the pre-Guyana and Central Brazil shields. Thus, a plausible geographical isolation and displacement of *theraphosoides* species-group lineages occurred from north to south or vice versa using multiple hydrological networks as dispersal opportunities. This would also account for the distribution of *A. theraphosoides* in the Guyana shield (Fig. 9), as found in diving beetles by Toussaint and Short (2016). Otherwise, we could infer that this distribution extension reported by Paula *et al.* (2014) is a modern displacement or an artefact of under recording. Another possibility is the morphological features to separate this distribution into two species (*i.e.,* revalidation of the current junior synonyms *of A. theraphosoides*) have not yet been realised. Additionally, as expected according to this hypothesis, the *theraphosoides* species-group could be also present in the northeastern region of the Cordillera Oriental and Amazonia of Colombia, or Ecuador, because these regions would have greater connectivity or reciprocity with the flow of species due to these changes in the Miocene. Further indicating that *A. armasi* **sp. nov.** may have crossed the Cordillera Oriental of Colombia through a geographical incursion as is also thought to have occurred in some species of *Hapalopus* Ausserer, 1875, occurring close to the distribution of *A. armasi* **sp. nov.** (Sherwood *et al.* 2024). Nevertheless, this hypothesis on the distribution of the *theraphosoides* species-group should be tested through molecular studies, including new distribution sampling and reconstruction of its ancestral distribution.

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References

Ausserer, A. (1871) Beiträge zur Kenntniss der Arachniden-Familie der Territelariae Thorell (Mygalidae Autor). *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, 21, 117–224, pl. 1.

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, pl. 5–7.

Bertani, R. (2000) Male palpal bulbs and homologous features in Theraphosinae (Araneae, Theraphosidae). *Journal of*

Arachnology, 28, 29–42.
https://doi.org/10.1636/0161-8202(2000)028[0029:MPBAHF]2.0.CO;2
Bertani, R. (2001) Revision, cladistic analysis, and zoogeography of *Vitalius*, *Nhandu*, and *Proshapalopus*; with notes on other theraphosine genera (Araneae, Theraphosidae). *Arquivos de Zoologia*, 36, 265–356.
Bücherl, W. (1957) Sôbre a importância dos bulbos copuladores e das apófises tibiais dos machos na sistemática das aranhas caranguejeiras (Orthognatha). *Anais da Academia Brasileira de Ciências*, 29, 377–416.
Cooke, J.A.L., Roth, V.D. & Miller, F.H. (1972) The urticating hairs of theraphosid spiders. *American Museum Novitates*, 2498, 1–43.
Ferretti, N., Chaparro, J.C., Ochoa, J.A. & West, R. (2023) A new tarantula (Mygalomorphae: Theraphosidae) genus endemic from Peru with a novel genitalic morphology among theraphosinae and its phylogenetic placement. *Zoologischer Anzeiger,* 302, 102–112.
https://doi.org/10.1016/j.jcz.2022.11.011
Gabriel, R. (2020) Revised taxonomic placement of some species in *Acanthoscurria* Ausserer, 1871 and *Eupalaestrus* Pocock, 1901 (Araneae: Theraphosidae). *Arachnology*, 18 (5), 409–429.
https://doi.org/10.13156/arac.2020.18.5.409
Gabriel, R. & Sherwood, D. (2020) Revised taxonomic placement of *Pseudhapalopus* Strand, 1907, with notes on some related taxa (Araneae: Theraphosidae). *Arachnology*, 18 (4), 301–316.
https://doi.org/10.13156/arac.2020.18.4.301
Galleti-Lima, A. & Guadanucci, J.P.L. (2019) Comparative morphology of stridulating setae of Theraphosinae (Araneae: Theraphosidae). *Zoologischer Anzeiger*, 283, 58–68.
https://doi.org/10.1016/j.jcz.2019.08.010
Guerra-Serrudo, F., Aliaga-Rossel, E. & Herrera-Salazar, N. (2023) Tarantulas (Araneae: Theraphosidae) from Bolivia and their conservation. *Ecología en Bolivia*, 58 (1), 37–60.
Ibarra G., A. (1954) Una nueva *Acanthoscurria* de Bolivia (Araneae, Theraphosidae). *Neotropica*, 1, 19–22.
Koch, C.L. (1841) *Die Arachniden. Achter Band & Neunter Band.* C. H. Zeh'sche Buchhandlung, Nürnberg, 91 pp. (pp. 41–131), pls. 265–288 (figs. 621–694) & 56 pp. (pp. 1–56), pls. 289–306 (figs. 695–726).
Lucas, S. (1983a) Sobre a posição sistemática de *Trasyphoberus parvitarsis* Simon, 1903 (Araneae, Theraphosidae). *Memórias do Instituto Butantan*, 44/45, 153–156.
Lucas, S. (1983b) Descrição de gênero e espécie novos da subfamília Theraphosinae (Araneae, Ortoghatha [sic], Theraphosidae. Memórias do Instituto Butantan, 44/45, 157–160.
Lucas, S., Silva Jr., P.I. da & Bertani, R. (1993) Vitalius a new genus of the subfamily Theraphosinae Thorell, 1870 from Brazil (Araneae, Theraphosidae). *Spixiana*, 16, 241–245.
Morrone, J.J. (2022) Biogeographic regionalization of the Neotropical region: New map and shapefile. Anais da Academia Brasileira de Ciências 94 (1), e20211167.
https://doi.org/10.1590/0001-3765202220211167
Paula, F. dos S., Gabriel, R., Indicatti, R.P., Brescovit, A.D. & Lucas, S.M. (2014) On the Brazilian Amazonian species of *Acanthoscurria* (Araneae: Theraphosidae). *Zoologia (Curitiba)*, 31 (1), 63–80.
https://doi.org/10.1590/S1984-46702014000100008
Peñaherrera-R., P., Guerrero-Campoverde, A., León-E., R.J., Pinos-Sanchez, A. & Falcón-Reibán, J.M. (2023) Two new species of *Neischnocolus* Petrunkevitch, 1925 (Araneae: Theraphosidae) from eastern and western Ecuador. *Zootaxa*, 5351 (4), 483–493.
https://doi.org/10.11646/zootaxa.5351.4.6
Peñaherrera-R., P. Ghia, T., Sherwood, D. & Gabriel, R. (2024) New insights on male palpal bulb morphology in *Cymbiapophysa* Gabriel & Sherwood, 2020, with four new species from Ecuador (Araneae: Theraphosidae). *Arachnology*, 19 (7), 1003–1017.
https://doi.org/10.13156/arac.2024.19.7.1003
Petrunkevitch, A. (1925) Arachnida from Panama. *Transactions of the Connecticut Academy of Arts and Sciences*, 27, 51–248.
Pocock, R.I. (1901). Some new and old genera of S.-American Avicularidae. *Annals and Magazine of Natural History*, Series 7, 8 (48), 540–555.
https://doi.org/10.1080/03745480109443359
Pocock, R.I. (1903) On some genera and species of South-American Aviculariidae. *Annals and Magazine of Natural History*, Series 7, 11 (61), 81–115.
https://doi.org/10.1080/00222930308678729
Pickard-Cambridge, F.O. (1896) On the Theraphosidae of the lower Amazons: being an account of the new genera and species of this group of spiders discovered during the expedition of the steamship "Faraday" up the river Amazons. *Proceedings of the Zoological Society of London*, 64 (3), 716–766, pls. 33–35.
https://doi.org/10.1111/j.1096-3642.1896.tb03076.x
Raven, R.J. (1985) The spider infraorder Mygalomorphae (Araneae): cladistics and systematics. *Bulletin of the American Museum of Natural History*, 182, 1–180.
Schmidt, G. (1986) *Vogelspinnen: Lebensweise, Bestimmungsschlüssel, Haltung und Zucht*. Albrecht Philler, Minden, 126 pp.
Schiapelli, R.D. & Gerschman de P., B.S. (1964) El género *Acanthoscurria* Ausserer, 1871 (Araneae, Theraphosidae) en la

Argentina. *Physis, Revista de la Sociedad Argentina de Ciencias Naturales (C)*, 24, 391–417.
Sherwood, D., Fabiano-Da-Silva, W., Gabriel, R. & Lucas, S.M. (2020) Redescription of *Nesipelma insulare* Schmidt & Kovařík, 1996 with a revised generic diagnosis for *Nesipelma* Schmidt & Kovařík, 1996 and a transfer from *Cyrtopholis* Simon, 1892 (Araneae: Theraphosidae). *Arachnology*, 18 (5), 462–467.
https://doi.org/10.13156/arac.2020.18.5.462
Sherwood, D., Gabriel, R., Osorio, L. M., Benavides, L., Peñaherrera-R., P., Hörweg, C., Brescovit, D. & Lucas, S.M. (2024) Spot the difference: on the genus *Hapalopus* Ausserer, 1875 in Colombia and a new related genus from Brazil and Bolivia (Araneae: Theraphosidae). *ZooNova,* 32, 1–44.
https://doi.org/10.5281/zenodo.11458604
Simon, E. (1892a) *Histoire naturelle des araignées. Deuxième édition, tome premier.* Roret, Paris, 256 pp.
https://doi.org/10.5962/bhl.title.51973
Simon, E. (1892b) Etudes arachnologiques. 24e Mémoire. XXXIX. Descriptions d'espèces et de genres nouveaux de la famille des Aviculariidae (suite). *Annales de la Société Entomologique de France*, 61, 271–284.
https://doi.org/10.1080/21686351.1892.12278480
Simon, E. (1903) *Histoire naturelle des araignées. Deuxième édition, tome second*. Roret, Paris, 1080 pp.
https://doi.org/10.5962/bhl.title.51973
Toussaint, E.F. & Short, A.E. (2016) Molecular phylogenetics of Atlantic Shield *Platynectes* diving beetles (Coleoptera: Dytiscidae): a first glance at the evolution of the genus in the Amazon Basin. *Annales de la Societe entomologique de France (N.S.)*, 52 (4), 185–191.
https://doi.org/10.1080/00379271.2016.1248862

Appendix 1—other type material examined (accession numbers given when known)

***Acanthoscurria chacoana* Brèthes, 1909:** holotype ♀ *Acanthoscurria altmanni* (NHMW 21178), Cuiabá, Mato Grosso, Brazil, 1995, coll. Reichsteiner, *A. choacana* det. R. Gabriel/A. Culmer, 05/08/2022; paratype ♀ *Acanthoscurria altmanni* (NHMW 21184), same data as preceding; paratype ♂ *Acanthoscurria altmanni* (NHMW 21032), same data as preceding.

***Acanthoscurria cordubensis* Thorell, 1894:** holotype ♂ *Acanthoscurria cordubensis* (NHRS 000006196), Cordova (Cordoba), Argentina, No. 34; holotype ♀ *Acanthoscurria suina* (BMNH 1878.23), Uruguay, 1878, no other data; holotype ♂ *Acanthoscurria borealis* (SMF 40595-84), Guatemala, leg. April 2005, G. Schmidt & H.-J. Peters det.; paratype ♀ (SMF 40596-84), same data.

***Acanthoscurria geniculata* (C. L. Koch, 1841):** holotype ♂ *Mygale geniculata* (ZMB 2055), Branco River, State of Roraima, Brazil, leg. J. Natterer.

***Acanthoscurria insubtilis* Simon, 1892:** holotype ♂ *Acanthoscurria insubtilis* (MNHN AR 4784), San Mateo, Bolivia, leg. Garlepp, E. Simon colln. 15132; lectotype ♀, paralectotype ♀ *Crypsidromus bolivanus* (MNHN AR 4653), Espiritu Santo, Bolivia, leg. Garlepp, E. Simon colln. 15135.

***Acanthoscurria maga* Simon, 1892:** holotype ♂ *Acanthoscurria maga* (MNHN AR 4792) South America, E. Simon colln. 7026; holotype ♀ *Acanthoscurria antillensis* (BMNH), Saint Lucia, leg. Miss Alexander.

***Acanthoscurria musculosa* Simon, 1892:** holotype ♂ *Acanthoscurria musculosa*, (MNHN AR 4791), San Mateo, Bolivia, leg. Garlepp, E. Simon colln. 15131; holotype ♀ *Acanthoscurria hirsutissimasterni* (SMF 4059-84), Pampa Cabrera, Chaco, Argentina, no other data; 1 microscope slide containing spermathecae of holotype ♀ (SMF 4059-84), same data; holotype ♀ *Acanthoscurria sternalis* (BMNH 1905.2.3.1), Tucumán. Argentina;

***Acanthoscurria natalensis* Chamberlin, 1917:** holotype ♀ *Acanthoscurria natalensis* (MCZ–IZ15957), Rio Grande do Norte, Natal, Brazil, Stanford 1911 expedition, leg. W. J. Mann, Ralph Vary Chamberlin collection No. 88; holotype ♂ *Acanthoscurria cursor* (MCZ IZ–15960), Maranguape Mts., Ceará, Brazil, Stanford 1911 expedition, leg. W. J. Mann, Ralph Vary Chamberlin collection No. 92; paratype ♀ (MCZ IZ–15958), same data; holotype ♂ *Acanthoscurria fracta* (MCZ IZ–29824), Pará, Brazil, leg. Nathaniel Thayer expedition, Ralph Vary Chamberlin collection No. 87.

***Acanthoscurria simoensi* Vol, 2000:** holotype ♂ (MNHN), Guyana Française, Ramené par Herve.

***Acanthoscurria tarda* Pocock, 1903:** holotype ♀ (BMNH 1898.2.12.5), Rio Teffe , Amazon, Brazil, 1898, leg, Dr Bach.

***Acanthoscurria theraphosoides* Doleschall *in* Ausserer, 1871:** holotype ♂ *Acanthopalpus theraphosoides* (NHMW 146), Brazil, leg. J. Natterer; holotype ♀ *Acanthoscurria brocklehursti* (BMNH 1896.12.13.2), Pará, Brazil, 1896, leg. Brocklehurst; holotype ♂, paratype ♀ *Acanthoscurria ferina* (MNHN AR 1056), Tefé, Brazil; holotype ♀ *Trasyphoberus parvitarsis* (MNHN AR 4799), "Pas d' etiquette" (original label lost), 237, E. Simon colln.

Appendix 2—non-type material examined (accession numbers given when known)

***Acanthoscurria chacoana* Brèthes, 1909:** 1♂ (BMNH), Chiapada–Mato Grosso, leg. Percy Sladen Expedition; 3♂ (BMNH 1905.2.3.2–4), Tucumán, Argentina, '*A. burchelli*'; 1♂ (BMNH), Alto, Paraguay, 03 September1954, leg. E. J. Phillips; 1♂ (OUMNH 2004-005), Bolivia, 05/07/2003, leg. D. Mann and A. C. Hamel; 1 imm. ♂, 2♀ (NHMW 135), Paraguay: Puerto Fonciere, A.D. 15.X.1938, Reimoser, 1908, det. R. Gabriel 05/08/2022; 1♂ (NHMW 136), same data as preceding; 1♀ (MNHN AR 4788), Pilcomayo (Chaco), 15972, det. R. Gabriel 27/10/2023.

***Acanthoscurria cordubensis* Thorell, 1894:** 1♂ 1♀ (OUMNH), Rio Negro, Uruguay, Tres Arboles, (32 26"S, 56 42"W), 04/2009, Trampa EG–B, Stora Enso, ex. FCE–MY 1098, donated by F. Pérez-Miles; 1♂ (MNHN AR 4790), San Pedro, Paraguay, Borelli, 18386, det. R. Gabriel 27/10/2023; 1♀ (MNHN AR 4825), R. Arg (44), Hounay 19191, Schiapelli and Gerschman det., det. R. Gabriel 05/07/2024; 1♂ (MNHN AR 4826), Pr. Jujuy, Laema, Hounay 1919, Schiapelli and Gerschman det., det. R. Gabriel 05/07/2024; 1♂ (MNHN AR 4828), Argentina, Prov. J.J.: Ledermi, Hounay 1919, Schiapelli and Gerschman det., det. R. Gabriel 05/07/2024; 1♂ (MNHN AR 4830), Argentina, Prov. Jujuy, Hounay 1919, Schiapelli and Gerschman det., det. R. Gabriel 05/07/2024; 3♂ (SMF 40324-84), Cordillera, San Bernardino, Paraguay, A. Fischer leg. 1912/14, Harms det. 07/04/2005; 2♂, 1♀ (ZMB 47261), Paraguay San Bernardino, leg. A. Fisher, 21 Aug 1913, *A. bollei* det. D. Harrow, *A. cordubensis* det. R. Gabriel 30/04/2013; 2♂ (ZMB 32213), no data, *A. cordubensis* det. R. Gabriel 05/09/2013.

***Acanthoscurria geniculata* (C. L. Koch, 1841**): 1♀ (BMNH 1896.12.13.1), Santarem (in forest), leg. A. M. Moss; 1♂ (BMNH), Pará, Amazon, Brazil, leg. A. M. Moss; 1♂ (OUMNH), Pará, misc. Arachnida colln.; 1♂ (MNHN), Brazil N. 55, det. R. Gabriel 27.10.2023.; 5♂ (NHMW 145), Riobranco, Brazil, coll. Matteu, det. Ausserer.

***Acanthoscurria insubtilis* Simon, 1892:** 1♂ (OUMNH 2004 005), San Ramon, Bolivia, 05/07/ 2003, leg. D. Mann.

***Acanthoscurria juruenicola* Mello-Leitão, 1923:** 1♀ (BMNH) Matto Grosso, Brazil, Caceres, 01 May 1964, leg. Dr W. Burchell.

***Acanthoscurria maga* Simon, 1891:** 1♀ (BMNH 1931.5.4.36), St Lucia, West Indies; 5♂ (BMNH), St Lucia, no other data; 1♂ 1♀ (BMNH), no data; 1♂ (BMNH), Africa, leg. Sir A. Smith; 1♂ (BMNH), St Lucia, Windward Islands, West Indies, 1968, leg. Miss Mary Jordan; 1♀ (BMNH), nr Soufrière, St Lucia, 04/05/1931; 1♀ (MCZ IZ–74653), Cul–de–Sac, St Lucia, 24 August 1973, leg. E. G. Long, Brown Tarantula, *A. antillensis* det. R. Gabriel 30/06/2011; 1♂ (MCZ IZ–74653) Praslin, St Lucia, 18 August 1973, leg. E. G. Long, Grey Tarantula, *A. antillensis* det. R. Gabriel 30/06/2011; 1♀ (MNHN), Martinique, H. Steble, 1945, det. R. Gabriel 23/10/2007.

***Acanthoscurria paulensis* Mello-Leitão, 1923:** 1♂ (BMNH 1965.2.26.3), Campo Grande, Brazil, Feb. 1965, leg. Dr. W. Burchell; 1♂ (BMNH 1904.9.13.1,) Pará, Brazil, 1904.

***Acanthoscurria musculosa* Simon, 1892:** 1♀ (BMNH 1937.11.4.13), Gran Chaco, Paraguay; 1♀ (BMNH 1903.7.1.121), Tucumán, Argentina, 1903; 2♂, 1♀ (BMNH), Tucumán, Argentina, Rosenberg, 1904; 2♂ (OUMNH

2004 005), Bolivia, 08/12/2004, leg. D. Mann; 1♂ (OUMNH 2005 065), Bolivia, 05/01/2005, leg. D. Mann, A. C. Hamel and S. Herzog; 1♂ (MNHN AR 4827), Salta Oran 1948, r. J.J.: Ledermi, Hounay 1919, Schiapelli and Gerschman det., *A. sternalis* det. R. Gabriel 05/07/2024; 1♀ (MNHN AR 4829), Sgo. del Estero, Colonia Dora, 1939, Schiapelli and Gerschman det., *A. sternalis* det. R. Gabriel 05/07/2024; 1♂ (MNHN AR 16949), Chaco de Santialgo del Estero, Bonds de Rio Salado, Icano, E. R. Wagner, 1904, *A. sternalis* det. R. Gabriel 05/07/2024; 1♂ (MNHN AR 4791), San Mateo, Bolivia, Garlepp, 15131.

***Acanthoscurria simoensi* Vol, 2000:** 2♀, 2 imm. ♂ (BMNH 1890.10.6), Guyana, Demerara, 1890, leg. W. L. Sclater, det. R. Gabriel 30/09/2013.

***Acanthoscurria* sp.:** 1 imm. (BMNH 1905.3.31.100), Bolivia, no other data ; 1♀ (BMNH) Paraguay, no other data; 1♀ (BMNH), no data; 3♂, 1 imm. ♂, 1♀ (BMNH 1906.3.24–28), Paraguay, 1906, leg. Dr Bohls; 1♂, 1♀ (BMNH 7.10.19.49), no locality data, leg. Dr W. Bücherl; 1♂ (BMNH 1940.12.30.26), Cochabamba, Bolivia, 1937; 1♂ (BMNH 1904.7.11.15), West Indies, 1904, Earl of Brouford; 5♂ (BMNH), Pará, Brazil, leg. A. M. Moss; 1 imm. ♂ (BMNH 1890.7.1.356), South America, 1890, Keyserling, '*A. convexus*'; 1♂ 1♀ (OUMNH), Corrientes La Plata, Argentina, Jar 93, leg. Pevens, O. Pickard-Cambridge colln.; 2♂ (OUMNH), South America, 01/06/1902, presented by Prof. Vines 1902, historic colln.; 1♀ (OUMNH), no data, O. P.-Cambridge coll: 1 imm. (OUMNH), no data, misc. Arachnida colln.; 1♀ (OUMNH), no locality data, 1905, Jar 61, O. Pickard-Cambridge colln.; 1♂ (OUMNH), no data, O. Pickard-Cambridge colln.; 1♂ (OUMNH), Meia Ponte, Minas Gerais, Brazil, 13 October 1827, 1216, Burchell colln.; 1♂ (MNHN AR 4789), San Pedro, Paraguay, Borelli, 15369, det. R. Gabriel 27/10/2023; 1♂ (MNHN), "found in jar 268 with two male *E. serrata*, AR 4847), R. Gabriel 26/10/2023"; 1♀ (NHMW 144), Sudamerika, A. D. 1896, A. N. VIII.569, '*Acanthoscurria convexa'*.

***Acanthoscurria theraphosoides* Doleschall *in* Ausserer, 1871:** 14♀, 2 imm. ♂ (BMNH), Pará, Brazil, leg. A. M. Moss; 1♂ (OUMNH), no data, Burchell colln.