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Article in *Zootaxa* · April 2022

DOI: 10.11646/ZOOTAXA.5124.4.2

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A new huriine genus and notes on morphological characters (Araneae: Salticidae: Salticinae)

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Abstract

Huriini Simon, 1901 currently consists of six genera and 17 species, distributed exclusively in South America. In this work, the huriine genus *Guriurius* Marta, Bustamante, Ruiz & Rodrigues, **gen. nov.** is proposed with two new species herein described: *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues, **sp. nov.** (type species) and *Guriurius nancyae* Marta, Bustamante, Ruiz & Rodrigues, **sp. nov.** The female of *Atelurius segmentatus* Simon, 1901 is described and illustrated for the first time. *Scoturius dipterioides* Perger & Rubio, 2018 is transferred to *Atelurius* Simon, 1901 due to the morphological similarity of copulatory ducts of epigyne, and *Hurius pisac* Galiano, 1985 is transferred to *Simonurius* Galiano, 1988 due to the similarities in body shape and female genitalia. *Simonurius campestratus* (Simon, 1901) is synonymized with *Simonurius quadratarius* (Simon, 1901). The interpretation of genitalic characters in Huriini is discussed. In addition, we provide new distributional records for *Admesturius bitaeniatus* (Simon, 1901), *Ad. mariaeugeniae* Bustamante & Scioscia, 2014, *Ad. schajovskoyi* Galiano, 1988, *At. segmentatus* Simon, 1901, *Scoturius tigris* Simon, 1901, *Hurius aeneus* (Mello-Leitão, 1941), and *Simonurius gladifer* (Simon, 1901). Except for *Uruguayu* Ruiz & Maddison, 2015, all huriine genera are rediagnosed in the new context of tribe and genus composition.

Key words: Amycoidea, huriine, South America, morphology, new synonymy, retrolateral tibial apophysis

Introduction

Jumping spiders (Salticidae) are currently subdivided into seven subfamilies. Salticinae is the largest, with about 558 genera and more than 6,340 species (Maddison 2015; World Spider Catalog 2021). This subfamily has two major clades: Salticoidea and Amycoidea (Maddison 2015; Ruiz & Maddison 2015). Amycoidea was proposed as a clade by Maddison & Hedin (2003) based on molecular data, and presently the presence of a proximal loop of

the sperm duct in the tegulum near the subtegulum is considered a putative synapomorphy for the clade (Ruiz & Maddison 2015). This clade represents a large radiation of jumping spiders in the Neotropical region and their early divergence occurred about 32–39 million years ago (Bodner & Maddison 2012). Currently, Amycoidea consists of nine tribes (Ruiz & Maddison 2015; Maddison 2015), including Huriini Simon, 1901.

Huriini was originally proposed by Simon (1901a) as the Hurieae group and included *Hurius* Simon, 1901, *Atelurius* Simon, 1901 and *Scoturius* Simon, 1901. Later, Galiano (1988) revised the group and added *Admesturius* Galiano, 1988 and *Simonurius* Galiano, 1988. More recently, Ruiz & Maddison (2015) added *Uruguayu* Ruiz & Maddison, 2015, based on phylogenetic analyses using molecular data and morphological characters, such as the cheliceral dentition and the shape of retroventral tibial apophysis.

Currently composed of 17 species in six genera, Huriini is one of the less diverse amycoid tribes, entirely distributed in South America (World Spider Catalog 2021). Among amycoids, huriines share a combination of diagnostic characteristics: chelicerae are small, vertical and parallel (not divergent), with three to five teeth on promargin and one tooth on retromargin; male palp has two or three retrolateral tibial apophysis and a well-developed retroventral tibial apophysis pointing distally (Simon 1901; Galiano 1988; Ruiz & Maddison 2015). The group has been supported by a molecular phylogeny and appears, with low support, as the sister group of Simonellini Peckham, Peckham & Wheeler, 1989, a tribe that includes ant-like and beetle-like spiders (Ruiz & Maddison 2015).

In this work, the huriine genus *Guriurius* Marta, Bustamante, Ruiz & Rodrigues, **gen. nov.** is proposed and two new species are described: *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues, **sp. nov.** (type species), and *Guriurius nancyae* Marta, Bustamante, Ruiz & Rodrigues, **sp. nov.** In addition, the female of *Atelurius segmentatus* Simon, 1901 is described and illustrated for the first time. Given the morphological similarity in the epigyne, we transfer *Scoturius dipteroides* Perger & Rubio, 2018 to *Atelurius* Simon, 1901, and *Hurius pisac* Galiano, 1985 to *Simonurius* Galiano, 1988. We also concluded that *Simonurius quadratarius* (Simon, 1901) is a senior synonym of *Si. campestratus* (Simon, 1901). Considering these findings, we also take the chance to propose a reinterpretation of some relevant structures in the male palp, which may be useful for future studies on huriine systematics, namely the retrolateral tibial apophysis and the retroventral tibial apophysis. Female genitalia (primary spermatheca, secondary spermatheca and copulatory ducts) and spinnerets are also discussed. Finally, we give new records for *Admesturius bitaeniatus* (Simon, 1901), *Ad. mariaeugeniae* Bustamante & Scioscia, 2014, *Ad. schajovskoyi* Galiano, 1988, *Atelurius segmentatus* Simon, 1901, *Scoturius tigris* Simon, 1901, *Hurius aeneus* (Mello-Leitão, 1941), and *Simonurius gladifer* (Simon, 1901). Updated diagnoses are provided for all huriine genera except *Uruguayu* Ruiz & Maddison, 2015 in the new context of tribe and genus composition.

Material and methods

Specimens are deposited in the following arachnological collections (abbreviations and curators in parentheses): California Academy of Sciences, San Francisco, California, U.S.A. (CAS, L. Esposito); Centro de Coleções Taxonômicas, Universidade Federal de Minas Gerais (UFMG, A.J. Santos), Minas Gerais, Brazil; Colección de Aracnología de la Facultad de Ciencias, Universidad de la República, Montevideo, Uruguay (FCE, M. Simó); Instituto de Biología Subtropical, Misiones, Argentina (IBSI-Ara, G. Rubio); Laboratorio de Entomología Ecológica, Universidad de La Serena, Coquimbo, La Serena, Chile (LEULS, J. Cepeda-Pizarro, J. Pizarro-Araya); Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires, Argentina (MACN-Ar, M.J. Ramírez, C.L. Scioscia); Museo de Zoología de la Universidad de Concepción, Concepción, Chile (UCCC, J.N. Artigas); Museu de Ciências Naturais, SEMA, Porto Alegre, Rio Grande do Sul, Brazil (MCN, R. Ott); Museu de Ciências e Tecnologia da PUCRS, Porto Alegre, Rio Grande do Sul, Brazil (MCTP, R.A. Teixeira); Museo de La Plata, La Plata, Argentina (MLP, L.A. Pereira); Museo Nacional de Historia Natural, Santiago, Chile (MNNC, M. Elgueta); Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil (MNRJ, A.B. Kury); Museum of Comparative Zoology, Cambridge, USA (MCZ, G. Giribet); Muséum Nationale d’Histoire Naturelle, Paris, France (MNHN, C. Rollard); Spencer Entomological Collection, Beaty Biodiversity Museum, Vancouver, Canada (UBC-SEM, W.P. Maddison); Universidade Federal de Santa Maria (ZUFMS, L.F. Indrusiak), Santa Maria, Brazil (temporally at Museu Paraense Emílio Goeldi (MPEG, A.B. Bonaldo), Brazil because the exclusion of the collection at ZUFMS).

The geographic coordinates are given for all Huriini species. When available, these coordinates were taken

directly from literature or labels (coordinates in parentheses); some others are approximations (given in square brackets; taken from Google Earth, 2021; <https://earth.google.com/web/>) based on collecting localities available in the literature (Simon 1901; Mello-Leitão 1941; Galiano 1963; 1985; 1988; Richardson 2010; Galvis & Martínez 2016; Bustamante *et al.* 2014; Ruiz & Maddison 2015; Perger & Rubio (2018) and on label data of new material. For records in distribution map, we used Quantum GIS Software (QGIS Development Team, 2020) <https://qgis.org/en/site/> and edited with Photoshop CS6 software. Geographic distribution of all known huriine species was plotted to observe any geographical pattern and compare it with the biogeographical regionalization given by Morrone (2014) for South America.

Since this is a collaborative work, specimens were examined in different stereomicroscopes (a Motic Moticam Pro 2500 (LaDiSA), a Leica M205A (UFPA), or a Carl Zeiss Stemi DV4 (UCCC)). The study of genitalia was facilitated by immersing epigyne in pancreatine and/or clove oil for approximately 40 minutes until internal structures could be clearly visualized. For illustrations, structures were examined under a Leica MZ9.5 equipped with camera lucida (LaDiSA). The digital photos of genitalia and habitus were taken with a Leica M205A Multipurpose Zoom Microscope at the Museu de Ciências e Tecnologia of Pontifícia Universidade Católica do Rio Grande do Sul (MCTP).

Some structures of interest, such as male palps, detail of embolus tip, retrolateral tibial apophysis (RTA) and retroventral tibial apophysis (RvTA), and the epigyne of *At. segmentatus* were also studied under Scanning Electron Microscopy (SEM). These structures were detached and submerged in proteolytic enzyme (trypsin) for 48 hours in order to eliminate soft tissues. SEM photographs were taken in a Philips XL 30 Field Emission ESEM at Centro de Microscopia e Microanálises (CEMM) of the Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS) and in a Zeiss Leo 1450 VP (Laboratório Institucional de Microscopia Eletrônica de Varredura of the Museu Paraense Emílio Goeldi, Belém, Brazil).

All measurements are given in millimeters and body measurements follow Galiano (1963). Legs macrosetae are described as in Petrunkevitch (1925) with minor changes. Specimens are preserved in 70–80% ethanol. Coloration is described from ethanol-preserved specimens, except when noted. The length of the embolus is measured according to Bustamante & Ruiz (2017), using the position of the small hand on the clock to describe the position of the embolus base (Bustamante & Ruiz 2020).

The general terminology of female genitalia follows Ramírez (2014), with some modifications. Morphological abbreviations used in the text and figures: A—atrium; ALE—anterior lateral eyes; ALS—anterior lateral spinneret; ac—aciniform spigot; AME—anterior median eyes; CD—copulatory ducts (*asterisks to globose membranous extension of proximal copulatory duct); CO—copulatory opening; Cy—cymbium; E—embolus; EB—embolus base; FD—fertilization ducts; Fe—femur; LPO—lateral pocket openings; MAP—major ampullate spigot; mAP—minor ampullate spigot; n—nubbin; pi—piriform spigot; PLE—posterior lateral eyes; PLS—posterior lateral spinneret; PME—posterior median eyes; PMS—posterior median spinneret; PP—*pars pendula*; RTA—retrolateral tibial apophysis; RvTA—retroventral tibial apophysis; SD—sperm duct; S1—primary spermathecae (see Ramírez 2014); S2—secondary spermathecae (*asterisks to broken, but illustrated S2); T—tegulum; Ti—tibia.

Results

Taxonomy

Salticidae Blackwall, 1841

Salticinae Blackwall, 1841

Huriini Simon, 1901

Type genus. *Hurius* Simon, 1901, by original designation.

Revised diagnosis. Due to the “standard” salticid body form and leg proportions of huriines (Ruiz & Maddison 2015), i.e., short to compact body with moderately high carapaces, recognition of its members is possible by comparison

with other amycooid tribes. Huriines differ from gophoines and bredines by not having flattened and elongate bodies (as in most gophoines and bredines), and from amycines by having leg IV longer than III. From sitticines, by having one retrolateral tooth on the chelicera (absent in sitticines). Females of huriines and simonellines differ from those of scopocirines, thiodinines and sarindines by not having the spermathecae anteriorly-placed in the epigyne, and copulatory ducts not concentrically coiled; on the other hand, males of huriines and simonellines differ from those of scopocirines, thiodinines and sarindines by having the male palp bulb usually more spherical. Huriines differ from simonellines by having only one retromarginal tooth in the chelicera of both sexes, and by not having females with dorsal and/or ventral abdominal scuta. In addition, huriines have orange, yellow, brownish-red and dark coloration, with dorsal abdominal pattern composed of dark chevrons (see arrows in Figs 1, 9, 27, 35, 43, 49, 53).

Notes. Here we reinterpreted *Scoturius* as having two RTA lobes (see discussion below), as described for *Uruguayu* (see Ruiz & Maddison 2015: 253). This new comprehension of a complex, bilobed RTA in *Scoturius* accompanied by a well-developed RvTA seems more plausible than the traditional idea of three independent tibial apophyses in that genus (see Simon 1901a; Galiano 1988). Some bredines, such as *Breda* Peckham & Peckham, 1894, also have well-developed RvTA (Ruiz & Brescovit 2013). Huriines differ from the flattened-bodied species of *Breda* by the curved RvTA positioned obliquely on the tibia (straight and parallel to tibia in *Breda*) and the developed RTA (lost in *Breda*).

***Guriurius* Marta, Bustamante, Ruiz & Rodrigues, gen. nov.**

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Figs 1–34, 59–60, 69–78

Type species. *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues, **sp. nov.**

Etymology. The name is a combination of “Guri”, which means “boy” in the gaúcho (southern Brazil) culture, and *Hurius*, type genus of the tribe. Masculine in gender.

Diagnosis. *Guriurius* is the only huriine genus in the tribe that has the RvTA with a fold ventrally and serrulate distal edge (like denticles; Figs 5–8, 21–22, 25–26, 31–34, 59–60), and females with a sclerotized dorsal plate that covers part of the copulatory ducts (Figs 13–14, 23–24).

Males of *Guriurius* resemble those of *Atelurius*, *Scoturius* and *Uruguayu* by the general shape of the cymbium, the circular tegulum, and the dorso-prolateral embolar path around the tegulum (Figs 5, 21, 25, 31). In addition, males resemble those of *Simonurius* by having a long and sinuous RTA and by the RvTA not exceeding the ventral region of the tegulum (Figs 59–60). Males of *Guriurius* differ from these genera by the shape of RvTA (see above). Females of *Guriurius* resemble those of *Atelurius* and *Scoturius* in the large copulatory openings forming an atrium (Figs 13, 23, 47, 68), but differ from those by the spermathecae arranged in the anterior region of the atrium (Figs 13–14). Finally, females of *Guriurius* differ from those of *Hurius*, *Scoturius* and *Uruguayu* by the presence of large and tubular LPO (Figs 14, 24).

Description. Length 3.0–4.0, yellow-brown salticids (Figs 1–4, 9–12, 15–20, 27–30). Carapace reddish-brown, granulated cephalic region (Fig. 69) lighter with white setae on sides, dark thoracic region and reddish posterior slope (Figs 1, 9, 19–20, 27). Anterior half of thoracic region at the same level of cephalic region; posterior thoracic slope abrupt. Eyes surrounded by black spots and white scales. Chelicera small and vertical in both sexes (not dimorphic), promargin with four fused teeth (distal one reduced), and retromargin with one tooth. Legs yellow to dark yellow with brown spots on distal portion. Leg formula: 1423. Tarsal claws small, not surpassing subungueal sulci. Inferior teeth of tarsal claws of equal size in males, and the distal one larger in females. Claw tufts poorly developed. Male palp: femur macrosetae 1d. RTA without lobes, sclerotized and sinuous (Figs 5, 8, 22, 26, 31, 34). RvTA projected ventrally below the tegulum, with denticles (See arrow in Fig. 60) and a fold (angular or circular shape (See arrow in the Figs 5, 21, 25, 31). Cymbium suboval (Figs 6, 32), with a tuft of setae at the apex (Fig. 32). Circular tegulum, oblique in relation to the cymbium middle line (axis). Embolus fixed to the tegulum, ribbon-like; embolar base dorso-prolateral, embolar path around the tegulum (Figs 5, 7, 21, 25, 31). Male with epiandrous fusules (examined only in *G. minuano*; Fig. 70). Epigyne: the epigynal plate is bilobed on posterior border, wider than long, with LPO (Figs 14, 24). Copulatory openings C-shaped, forming an atrium in the medial region of the epigyne (Figs 13, 23). In dorsal view, a chitinized plate covers half of the copulatory ducts (See arrow in the Figs 14, 24). Copulatory ducts arranged in parallel and close to each other in the medial region, can be visualized in

ventral view, through the atrium, and above the atrium (Figs 13, 23). The CD overlapping the spermathecae (Fig. 24). Spermathecae kidney-shaped with the base of fertilization duct placed above spermathecae at anterior region of epigynum (Fig. 24). Abdomen: dorsum yellow with brown chevrons (see arrow in the Figs 1, 9, 27); venter with a median longitudinal brown stripe of irregular contours; sides with brown longitudinal band (Figs 3, 11, 29). Spinnerets (Figs 71–76; examined only in *G. minuano*, male): PLS with about 11–12 aciniform spigots and some tartipores (Figs 71–72); PMS with a single minor ampullate spigot (mAP) and three or four aciniform (ac) spigots (Figs 73–74); ALS with one major ampullate spigot (MAP) and one reduced nubbin (n), surrounded by about 10–12 piriform (pi) spigots and some tartipores (ta) (Figs 75–76). Coloration of spinnerets as in legs.

Distribution. Brazil [São Paulo, Paraná and Rio Grande do Sul], Uruguay [Montevideo and Rivera] and Argentina [Buenos Aires] (Figs 77–78).

Natural history. Species were collected in arboreal and shrub microhabitats.

Composition. Two species: *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.** (type species) and *Guriurius nancyae* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.**

Guriurius minuano Marta, Bustamante, Ruiz & Rodrigues, **sp. nov.**

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Figs 1–24, 59–60, 65–67, 69–78

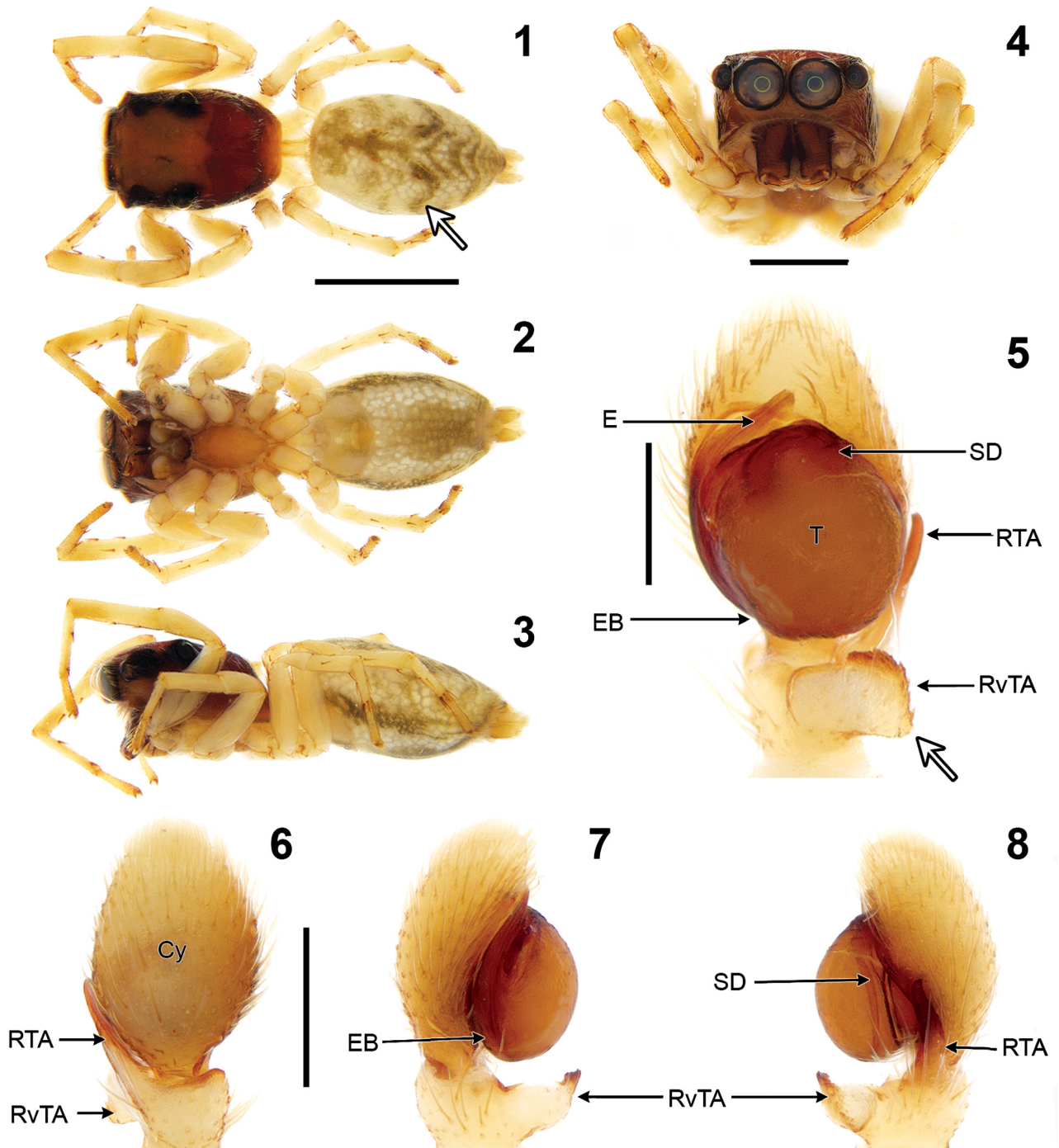
Type material. Holotype. ♂ (MCN 32225), BRAZIL: Fazenda Chapada [30°25'23.5"S 52°18'41.4"W], Dom Feliciano, Rio Grande do Sul, 18–19.III.2000, A.B. Bonaldo leg. **Paratypes.** 1 ♂ (UFMG 6459), BRAZIL: São Paulo: Jundiaí, Parque Estadual da Serra do Japi (23°17'00.0"S 46°59'00.0"W), XII.2007, Jack leg.; 1 ♂ (MCTP 38963), BRAZIL: Paraná: São José dos Pinhais, Miringuava [25°36'18.0"S 49°11'37.0"W], 02.I.2014, A.C. Domahovski leg.; 1 ♂ (94/010 ZUFMS: Temporarily at MPEG), BRAZIL: Rio Grande do Sul: Santa Maria, Taquarixim [29°44'17.6"S 53°50'38.3"W], 07.X.2003, A.B.B. Morais leg.; 1 ♀ (MCTP 40587), BRAZIL: Santa Maria [29°39'00.1"S 53°47'00.6"W], 24.XII.1995, C.B. Kotzian & L. Indrusiak leg.; 1 ♀ (MCTP 21675), BRAZIL: Rio Grande do Sul: Itaara [29°36'57.2"S 53°45'30.9"W], 27.X.2005, L. Indrusiak leg.; 1 ♂, (MCTP 20285), BRAZIL: Rio Grande do Sul: Novo Cabrais, Parque Witeck [29°46'59.0"S 52°58'18.9"W], 03.I.2008, R.G. Buss leg.; 1 ♂ (MACN-Ar 39436), ARGENTINA: Buenos Aires: Punta Indio [35°16'12.0"S 57°15'36.0"W], C.L. Scioscia leg., 16–19.XI.1991.

Etymology. The specific epithet honors the Minuano ethnic group. The indigenous name is a reference to a wind of polar origin (Atlantic polar air mass) with a southwest orientation that blows in the state of Rio Grande do Sul, where this species is widespread. Noun in apposition.

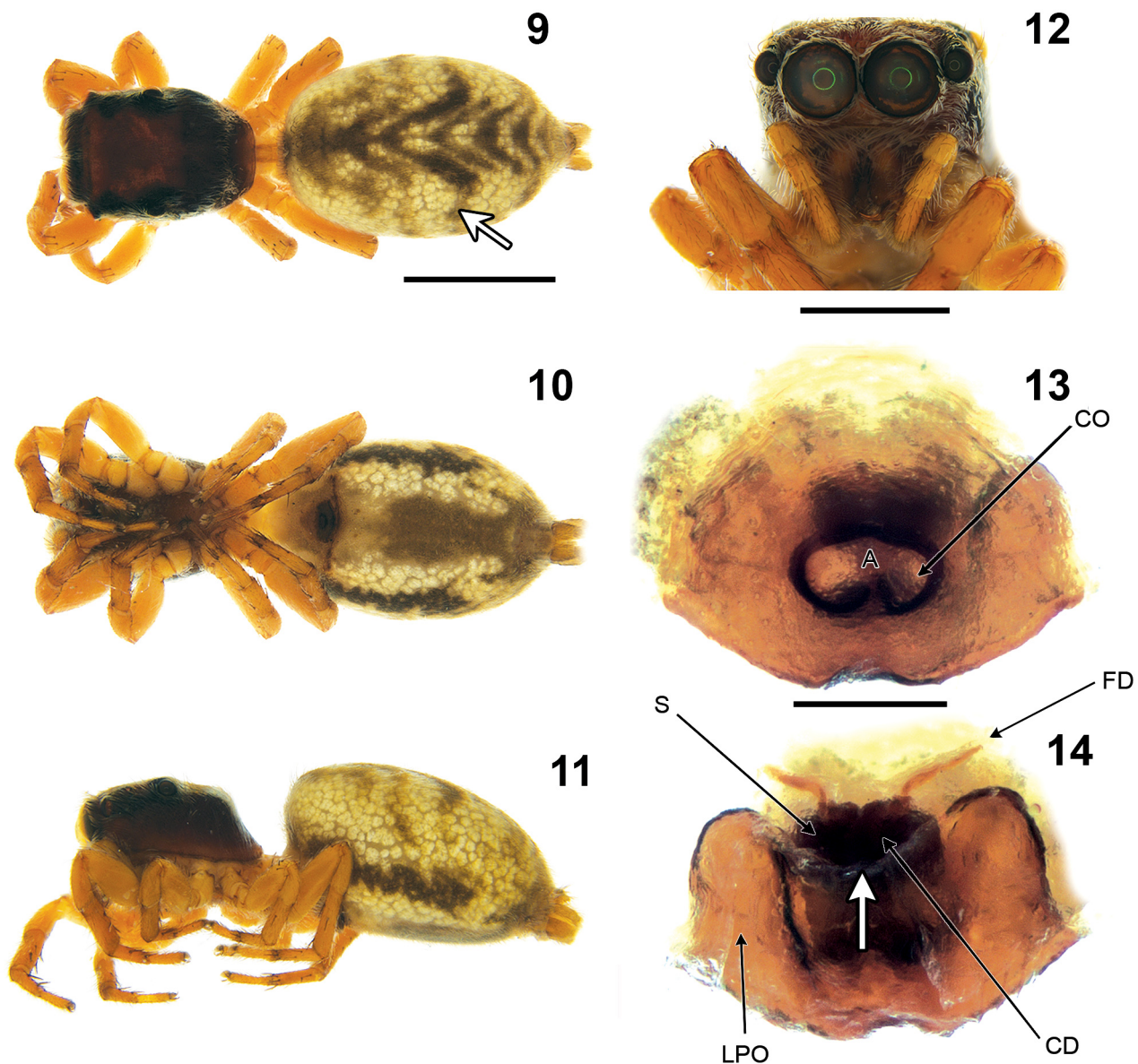
Diagnosis. Males of *G. minuano* can be recognized by the squared lower edge of RvTA (See arrow in the Figs 5, 21). Females of *G. minuano* can be recognized by the presence of a chitinized plate dorsally on the epigyne, covering half of the copulatory ducts (= genus diagnosis; see arrow in the Figs 14, 24), spermathecae positioned anterior to the atrium region (Figs 13, 23, 24) and the pair of large LPO, arranged in parallel on the posterior border of epigyne (Figs 14, 24).

Description. *Male* (Holotype MCN 32225). Total length: 4.42. Carapace length: 1.92; width: 1.3; height: 0.84. Cephalic region length: 1.56; thoracic region length: 0.46. Ocular area length: 0.35; Anterior eyes row: 1.3 wide; Posterior eyes row: 1.3 wide; Distance ALE–PME: 0.10; PME–PLE: 0.25; Ocular diameter AME: 0.42; ALE: 0.21; PME: 0.06; PLE: 0.14. Clypeus height: 0.12. Chelicerae, paturon length: 0.46; 0.31 wide; Fang: 0.31 length. Endites length: 0.35; 0.31 wide. Labium length: 0.21; 0.29 wide. Sternum length: 0.84; 0.52 wide. Abdomen length: 2.31; 1.36 wide; height: 1.26. Legs: length of femur I: 1.26; II: 1.05; III: 0.94; IV: 1.05; patella I: 0.84; II: 0.63; III: 0.42; IV: 0.52; tibia I: 1.05; II: 0.63; III: 0.63; IV: 0.77; metatarsus I: 0.84; II: 0.63; III: 0.63; IV: 0.63; tarsus I: 0.46; II: 0.37; III: 0.42; IV: 0.42. Leg formula: 1423. Palp, length of femur: 0.52, patella: 0.25, tibia: 0.21, cymbium: 0.50. Palp macrosetae, femur: d0-1-0. Legs macrosetae, femur I–II: d1-1-1, p1di, r0; III: d0-1-1, p2di, r1; IV: d1-1-1, p1, r1, patella I: 0; II: p1, r0; III–IV: 0, tibia I–II: p1di, r0-1-1, v0; III: p1di, r0-1-1, v1pdi; IV: p1di, r1-1-1, v2pdi and metatarsus I: v0-2-2; II: v0-2-2; III: v0-0-2, p2di, r2di; IV: v0-0-2, p0-2-2, r0-2-2. Carapace: reddish-brown. Eyes with white scales between AME (Fig. 4). Clypeus brown, with a line of brown scales and few sparse white scales. Chelicera without ornamentations, not divergent, with four promarginal teeth, with the distal tooth reduced and a single retromarginal tooth. Endites without projections, few yellow setae, lighter apex, and rounded edges (Fig. 2).

Labium with posterior region darkened and lighter apex, as wide as long (Fig 2). Sternum orange, truncated, and shaped as inverted pentagon (Fig. 2). Legs: yellow. Palp: femur yellow, laterally with median dark spots on both sides. RTA without lobes, thick and sinuous (in lateral view) at the tip, sclerotized, conspicuous, half the size of the tegulum (Figs 8, 22). RvTA inserted ventrally, below the tegulum, with retrolateral inclination, few white scales on the dorsum and with ventral part, hooked-shaped with square base, tip curved towards tegulum (distal portion) (see arrows in the Figs 5, 21). Dorsal cymbium suboval. Tegulum circular, inclined obliquely in relation to the apex of the cymbium (5, 21). Embolar base dorso-prolateral (7:00 o'clock), embolar path around the tegulum 180° (Figs 5, 7, 21). Abdomen: dorsally with brown chevrons, as described for the genus. Spinnerets: yellow as legs.



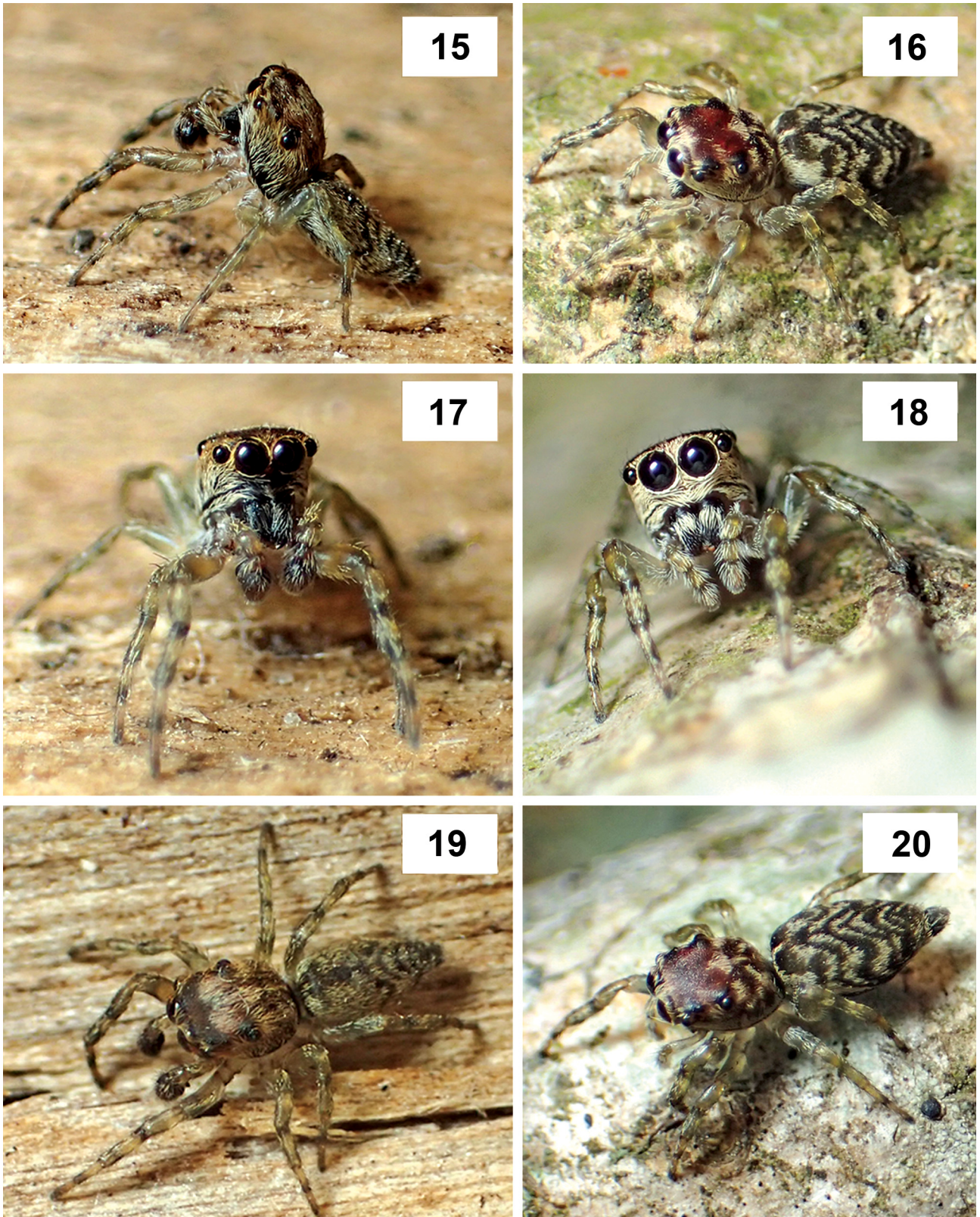
FIGURES 1–8. Male of *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.** Habitus (MCTP 21675): 1 dorsal view, white arrow: chevrons coloration pattern, 2 ventral view; 3 lateral view; 4 face, frontal view; scale bars: 1.00 mm. Left male palp (MCN 32225): 5 ventral view, white arrow: RvTA angular axis; 6 dorsal view; 7 prolateral view; 8 retrolateral view, scale bars: 0.25 mm.



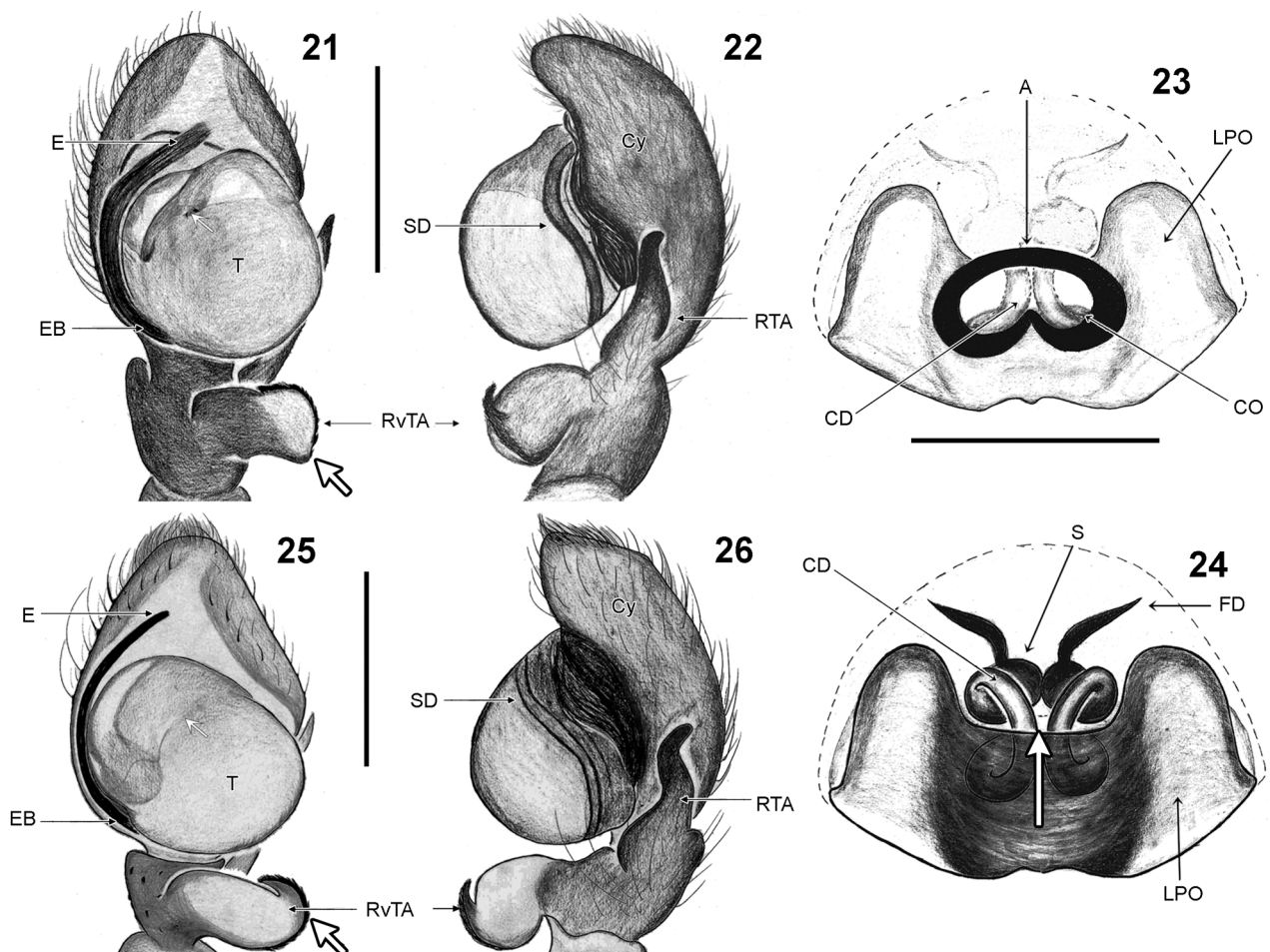
FIGURES 9–14. Female of *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.** Habitus (MCTP 40587): 9 dorsal view, white arrow: chevrons coloration pattern, 10 ventral view; 11 lateral view; 12 face, frontal view; scale bars: 1 mm. Epigyne female (MCTP 40587): 13 ventral view; 14 dorsal view, white arrow: dorsally chitinized plate, scale bars: 0.10 mm.

Female (Paratype MCTP 40587). Length: 5.2 Carapace length: 1.76; width: 1.35; height: 0.78. Cephalic region length: 1.19; Thoracic region length: 0.62. Ocular area length: 0.57; Anterior eyes row: 1.32 wide; Posterior eyes row: 1.40 wide; Distance ALE–PME: 0.12; PME–PLE: 0.31; Ocular diameter AME: 0.46; ALE: 0.21; PME: 0.06; PLE: 0.21. Clypeus height: 0.10. Chelicerae, paturon length: 0.50; 0.31 wide; Fang: 0.21 length. Endites length: 0.25; 0.25 wide. Labium length: 0.14; 0.23 wide. Sternum length: 0.78; 0.46 wide. Abdomen length: 3.12; 1.74 wide, height: 1.69. Legs, femur length I: 0.73; II: 0.63; III: 1.05; IV: 1.05; patella I: 0.63; II: 0.52; III: 0.52; IV: 0.42; tibia I: 0.48; II: 0.73; III: 0.67; IV: 0.73; metatarsus I: 0.31; II: 0.42; III: 0.73; IV: 0.63; tarsus I: 0.33; II: 0.31; III: 0.42; IV: 0.42. Formula legs: 4321. Palp, femur length: 0.42, patella: 0.23, tibia: 0.25, tarsus: 0.33. Legs macrosetae, femur I–II: d1-1-1, p1di; III: d0-1-1, p1di, r1di; IV: d0-1-1, p1di, r1di, patella I–IV: 0, tibia I–II: v0-0-2; III: v0-1p-2di; IV: p1di, r1-1-1, v0-1p-2 and metatarsus I–III: v0-2-2; IV: v0-0-2, p0-1-2, r1-1-1. Carapace dark reddish-brown, with yellow setae on laterals and on the thoracic region, as in male (Figs 9, 11). Clypeus dark-reddish brown, with white scales around AME (Fig. 12). Chelicerae, promargin with four fused teeth, distal tooth reduced, and retromargin with one tooth. Endites as in male. Labium wide, brown and with lighter apex. Sternum shaped as in male, but brown. Legs: dark yellow. Abdomen: dorsum grey, with brown chevrons, ventrally and sides as in male,

but darker. Epigyne: copulatory openings C-shaped, forming an atrium in the medial region of the epigyne (Figs 13, 23). Copulatory ducts arranged in parallel and close to each other in the medial region and can be visualized in ventral view, through the atrium, and anterior to the atrium (Figs 13–14, 23–24). Spermathecae kidney-shaped with the base of fertilization duct placed on anterior/dorsal surface of spermathecae, close together, and fertilization ducts extend anteriorly to the sides (Figs 14, 24). Spinnerets: coloration as legs.



FIGURES 15–20. Photographs *in vivo* habitus *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.** (FCE-Ar 11639, 11740). 15, 17, 19 Male; 16, 18, 20 Female.



FIGURES 21–26. Genitalic illustration of *Guriurius* Marta, Bustamante, Ruiz & Rodrigues **gen. nov.** Left male palp *Guriurius minuano* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.** (MCN 32225): 21 ventral view, white arrow: RvTA angular axis; 22 retrolateral view, scale bars: 0.25 mm. Epigyne of *G. minuano* (MCTP 40587): 23 ventral view; 24 dorsal view, white arrow: dorsally chitinized plate, scale bars: 0.10 mm. Left male palp of *Guriurius nancyae* Marta, Bustamante, Ruiz & Rodrigues **sp. nov.** (MCN 30545): 25 ventral view, white arrow: RvTA rounded axis; 26 retrolateral view, scale bars: 0.25 mm.

Other material examined. BRAZIL: Rio Grande do Sul: Cachoeira do Sul, Cordilheira [30°13'09.8"S 52°50'57.4"W], 1 ♂ (ex-ZUFMS 91/010; used in SEM images), VII.1992, R.G. Buss leg.; URUGUAY: Rivera, Represa de OSE A [30°51'42.1"S 55°37'06.1"W], 2 ♀ (FCE-Ar 2982, FCE-Ar 4084), 29–30.X.2010, M. Simó *et al.* leg.; Montevideo, Parque Lecocq [34°47'31.3"S 56°19'56.9"W], 1 ♂ (FCE-Ar 9470), 12.V.2018, L. Morena leg., manually collected in monoculture of *Eucalyptus* sp.; Florida, Rincón de Vignoli, Estancia “La Rinconada” [34°19'42.4"S 56°19'40.6"W], 1 ♂ (FCE-Ar 11639), 31.X.2020, A. Mailhos leg.; Río Negro, Estancia “Las Cadenas” [32°30'59.5"S 58°03'00.5"W], 2 ♀ and 1 ♂ (FCE-Ar 11739), 01.V.2020, A. Mailhos leg.; 1 ♀ (FCE-Ar 11740), collected in Riparian forest, 29.VI.2020, A. Mailhos leg.; El Matorral, Montes Del Plata [34°13'29.6"S 58°02'59.5"W], 1 ♂ (FCE-Ar 11713), collected by G-Vac, 27.V.2020, M. Simó leg.; Lavalleya, Cerro Arequita [34°17'16.41"S 55°16'7.31"W], 1 ♀ (FCE-Ar 11662), 12.XI.2005, M. Simó leg.; Cerro Largo, Arévalo, UPM Forestal Oriental [32°29'09.5"S 55°02'49.8"W], 1 ♂ (FCA-Ar 19043), manually collected in Riparian Forest, 24.V.2020, M. Simó leg.

Distribution. Southern Brazil [São Paulo, Paraná, Rio Grande do Sul], Uruguay [Montevideo, Florida, Río Negro, Lavalleya, Cerro Largo], and Argentina [Buenos Aires] (Figs 77–78).

Natural history. Some specimens were collected with a beating tray and/or G-Vac and can be considered of arboreal and shrub niche. Some were collected manually, found in *Eucalyptus* sp. plantations and edges of Riparian Forests. Some juveniles were found foraging, hanging by a thread of silk at night in branches of trees and shrubs in riparian forests. In addition, the altitudinal occurrence of this species is 4–1000 m. a. s. l. (Figs 77–78).

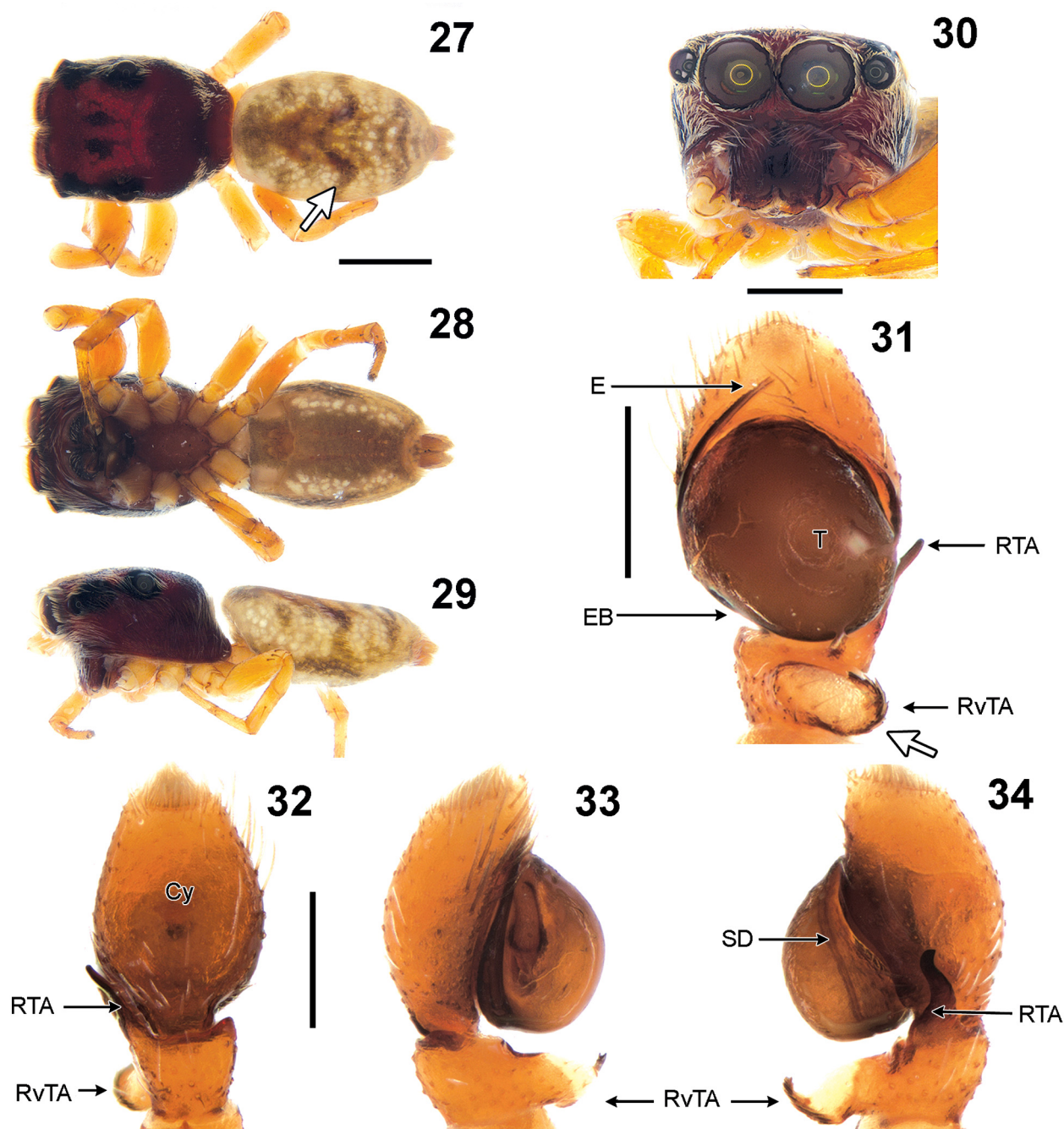
Guriurius nancyae Marta, Bustamante, Ruiz & Rodrigues, sp. nov.

urn:lsid:zoobank.org:act:19B450A1-2031-4D86-A91A-35C5A4CAB5A9

Figs 25–34, 77–78

Type material. Holotype. 1 ♂ (MCTP 30545), BRAZIL: *Rio Grande do Sul*, Augusto Pestana [28°31'25.9"S 53°59'25.2"W], 07.VI.2009, L.V. Silveira leg. **Paratype.** 1 ♂ (MCTP 35879), BRAZIL: *Rio Grande do Sul*, São Francisco de Paula [28°57'00.5"S 50°39'14.1"W], 24–26.IV.2006, A.A. Lise leg.

Etymology. The name honors the Brazilian arachnologist Nancy Lo-Man-Hung, who encouraged the first author to study spiders and contributed in academics by her persistence at fighting for woman rights in the Support Woman in Arachnology (SWA) group.



FIGURES 27–34. Male of *Guriurius nancyae* Marta, Bustamante, Ruiz & Rodrigues sp. nov. Habitus (MCTP 30545): 27 dorsal view, white arrow: chevrons coloration pattern; 28 ventral view; 29 lateral view; 30 face, frontal view, scale bars: 0.50 mm. Left male palp: 31 ventral, white arrow: RvTA rounded axis; 32 dorsal; 33 prolateral 34 retrolateral view, arrow: RvTA rounded axis, scale bars: 0.25 mm.

Diagnosis. Males of *Guriurius nancyae* can be recognized by the rounded lower edge of the RvTA (Figs 25–26, 31) and the hooked-shaped RvTA, curved upwards (anterior portion of tegulum), with a rounded distal axis (Figs 25–26, 31, 34). Males of *G. nancyae* resemble those of *G. minuano* by the circular-shape of the tegulum, but differ by the angulation axis more oblique (Figs 5, 31).

Description. *Male* (Holotype MCTP 30545). Length: 3.30. Carapace length: 1.74 width, 1.53 height: 0.81. Cephalic region length: 1.56. Thoracic region length: 0.26. Ocular area length: 1.02; Anterior eyes row: 1.09 wide; Posterior eyes row: 1.17 wide; Distances ALE–PME: 0.13; PME–PLE: 0.26; Ocular diameter AME: 0.42; ALE: 0.18; PME: 0.06; PLE: 0.12. Clypeus height: 0.08. Chelicerae, paturon length: 0.46; 0.23 wide; Fang: 0.23 length. Endites length: 0.35; 0.31 wide. Labium length: 0.10; 0.21 wide. Sternum length: 0.65; 0.46 wide. Abdomen length: 1.58; 1.06 wide; height: 0.74. Legs: femur length I: 0.85; II: 0.68; III: 0.68; IV: 1.02; patella I: 0.68; II: 0.51; III: 0.40; IV: 0.51; tibia I: 1.02; II: 0.68; III: 0.51; IV: 0.68; metatarsus I: 0.68; II: 0.44; III: 0.51; IV: 0.68; tarsus I: 0.34; II: 0.34; III: 0.34; IV: 0.51. Formula legs: 1423. Palp, femur length: 0.46, patella: 0.21, tibia: 0.10, cymbium: 0.46. Palp macrosetae, femur d1. Legs macrosetae, femur I: d1-1-1, p1di; II: d1-1-1, p1di, r1di; III: d0-1-1, p0-0-2, r1di; IV: d1-1-1, p0-0-2, r1di, patella I–II: p0-1-0; III–IV: 0, tibia I: p1di, r0-1-1, v0; II: p1di, r0-1-1, v0; III: p0-1-1, r1di, v1di; IV: p1-1-1, r0-1-1, v2di, metatarsus I: d2di, p2di, r2di, v2di; II: v0-2-2; III: v2di, r2di, p2di; IV: v2di, r0-1-2, p0-1-2. Carapace as described for the genus (Figs 27, 29, 30). Eyes as described for genus. Clypeus dark (Fig. 30), with white scales. Chelicerae as in genus. Endites brown with apex lighter, anterior margin slightly more robust, without protruding external angles (Fig. 28). Labium dark, wider than long and lighter at apex (Fig. 28). Sternum brown, apex slightly narrower than the base of the labium, brown, longer than wide and inverted pentagonal shape (Fig. 28). Legs coloration as described for the genus. Male palp: femur yellow. Tibia with RTA without lobes, large base and sinuous tip (in lateral view), sclerotized, conspicuous, half the size of the tegulum (Figs 26, 34). RvTA inserted ventrally, below the tegulum, with retrolateral inclination, with a few scales on the dorsum, hooked-shaped, rounded axis, curved distal part of the tegulum (Figs 25–26, 31, 33–34). Cymbium suboval, with a rounded apex with a tuft of yellow setae, a lighter distal region, and brown proximal region (Fig. 32). Tegulum circular, inclined obliquely in relation to the apex of the cymbium (Fig. 31). Embolus slender, ribbon-like, embolar base dorso-prolateral (07:00 o'clock), embolar path around the tegulum (150°) (Figs 31, 33). Abdomen and spinnerets: as described for the genus.

Female. Unknown.

Distribution. Brazil [Rio Grande do Sul] (Figs 77–78).

Natural history. Occurrence around 390–876 m a. s. l. and the type locality is placed in Atlantic Forest biome.

Admesturius Galiano, 1988

urn:lsid:zoobank.org:act:4D3D1E15-D460-4A13-AEA5-219E625CB570

Fig. 77

Type species. *Admesturius schajovskoyi* Galiano, 1988, by original designation.

Revised diagnosis. Males of *Admesturius* differ from those of *Scoturius* and *Uruguayu* by having a single-lobed RTA, and from those of *Hurius*, *Atelurius*, *Simonurius*, and *Guriurius* by having a curved RvTA, not projecting retrolaterally and longer than the RTA. Females of *Admesturius* differ from those of *Scoturius*, *Atelurius*, *Uruguayu*, *Simonurius* and *Guriurius* by not having the copulatory openings forming an atrium, and from those of *Hurius* by not having separate coupling pockets. Males and females differ from other huriines by having a low carapace.

Distribution. Chile and Argentina (World Spider Catalog 2021; Fig. 77).

Natural history. Species occur between 16 and 1515 m a. s. l.

Admesturius bitaeniatus (Simon, 1901)

urn:lsid:zoobank.org:act:03EDF7DB-9DDB-4C80-9184-ABDBBC8CA7B7

Fig. 77

Admestina bitaeniata Simon, 1901a: 615, 624; Simon 1902: 28 (holotype, ♂, Chile, Sierra de Chillán [Ñuble], deposited in MNHN, not examined); Galiano 1963: 283, pl. III, figs 1–3, 9 (redescription).

Admesturius bitaeniatus: Galiano 1988: 295, figs 5, 9-10, 19 (transf. from *Admestina*, redescription); Richardson 2010: 8, figs 4-9.

Diagnosis and description. Galiano (1963: 283; 1988: 295) and Richardson (2010: 9).

Material examined (new records): CHILE: *Región de Coquimbo*: Provincia de Elqui, Elqui valley, Vegas Pastos Largos [30°00'11.2"S 71°00'22.4"W], 1 ♂ and 1 ♀ (LEULS), pitfall trap, I/1990; *Región del Maule*: Provincia de Talca, San Clemente, Alto Vilches [35°34'12.0"S 71°11'24.0"W], 1 ♀ (UCCC), 1.XI.1971, R. Calderón leg.; *Región del Biobío*: Provincia de Concepción, Hualpén [36°47'50.0"S 73°09'51.0"W], 1 ♀ (UCCC), collected in *Peumus boldus* (beating), 30.IV.2002, M.A. Aguilera leg.; *Región de la Araucanía*: Provincia de Cautín, Parque Nacional Villarrica, sector Quetrupillén, *Araucaria*, *Nothofagus*, *Chusquea* forest, 1280m [39°27'42.1"S 71°50'44.2"W], 1 ♂ (MACN-Ar 42096), 8.II.2005, M. Ramírez & F. Labarque leg.; Provincia de Malleco, Parque Nacional Nahuelbuta, *Nothofagus*, *Araucaria* forest, 1100m [37°49'39.0"S 73°00'32.2"W], 1 ♀ (MACN-Ar 42103), 12.II.2005, M. Ramírez & F. Labarque leg.

Distribution. Only known from Chile (Fig. 77).

Natural history. Collected in sclerophyllous-hygrophilous forests (see Aguilera *et al.* 2006; Aguilera & Casanueva 2011) and Valdivian rainforest in southern Chile, between 0 and 1280 m a. s. l. (Fig. 77).

Admesturius mariaeugeniae Bustamante & Scioscia, 2014

urn:lsid:zoobank.org:act:366AD5FE-23A7-48B7-A8DC-9677A00455ED

Fig. 77

Admesturius mariaeugeniae Bustamante & Scioscia in Bustamante *et al.* 2014: 197, figs 1-8 (holotype, ♂, Chile, Antofagasta, 8.1 km NNW Paposo, 60 km N Taltal, 24°56'22.09"S 70°29'33.54"W, 114 m. a. s. l., deposited in MNNC 7001, not examined).

Diagnosis and description. See Bustamante *et al.* (2014).

Material examined (new records). CHILE: *Región de Valparaíso*, Provincia de Petorca, Zapallar [32°33'20.9"S 71°27'28.4"W], 1 ♂ without palps (CAS), 27.X.1950, Ross & Michelbacher leg.

Distribution. Only known from Chile.

Natural history. Collected in southern Atacama Desert, around 114 m a. s. l. (Bustamante *et al.* 2014) (Fig. 77).

Admesturius schajovskoyi Galiano, 1988

urn:lsid:zoobank.org:act:92403A91-2E3D-45AA-85D7-28EA0161D7AE

Fig. 77

Admesturius schajovskoyi Galiano, 1988: 292, figs 6, 11-12, 20-26 (holotype, ♀, Argentina, Neuquén, Parque Nacional Lanín, Pucará [40°09'37"S 71°21'27"W], deposited in MACN-Ar 8271, not examined); Richardson 2010: 11, figs 11-16 (redescription).

Diagnosis and description. See Galiano (1988: 292) and Richardson (2010: 11).

Material examined (new records). CHILE: *Región del Maule*, Provincia de Talca, San Clemente, Alto Vilches [35°34'12.0"S 71°11'24.0"W], 2 ♀ (UCCC), 1.XI.1971, R. Calderón leg.; *Región de Ñuble*: Provincia de Punilla, San Fabián, Las Guardias [36°34'46.3"S 71°31'52.5"W], 2 ♂ (UCCC), 28.III.2009, A.A. Bustamante, M.A. Aguilera & D. Valdivia leg.; *Región del Biobío*: Provincia de Concepción, Hualpén, in *Peumus boldus* Molina (36°46'59.9"S 73°05'17.7"W), 1 ♂ (UCCC), 16.II.2002, M.A. Aguilera leg.; *Región de los Ríos*: Provincia de Valdivia, road to Niebla, Estancilla, in *Nothofagus dombeyi* (Mirb.) Oerst, *Myrceugenia* sp., fogging (39°51'00.0"S 73°21'00.0"W), 1 ♀ (UCCC), 15.I.2007, J.E. Barriga-Tuñón leg.

Distribution. Known from Chile and Argentina (Fig. 77).

Natural history. Collected in Valdivian rainforest in southern Chile (in *Araucaria* and *Nothofagus* forest) and Andean foothills (Richardson 2010), around 53-1474 m a. s. l. (Fig. 77).

Atelurius Simon, 1901

urn:lsid:zoobank.org:act:3A87D49A-8896-4B46-937D-ABAD2B825E16

Fig. 77

Type species. *Atelurius segmentatus* Simon, 1901, by original designation.

Revised diagnosis. Males of *Atelurius* can be identified by the short RvTA, totally covered by denticles (Figs 61–62). Males of *Atelurius* differ from those of *Scoturius* and *Urupuyu* by not having a bilobed RTA; differ from those of *Hurius* and *Simonurius* by having a sub-triangular RTA. Males of *Atelurius* differ from those of *Admesturius* by having a longer embolus and shorter RvTA. Females of *Atelurius* differ from those of other huriines by having longer copulatory ducts with the proximal section membranous (Fig. 48) and poorly differentiated spermathecae.

Atelurius segmentatus Simon, 1901

urn:lsid:zoobank.org:act:0C2FDE55-EA77-44F1-A33E-C3EC41C3D50A

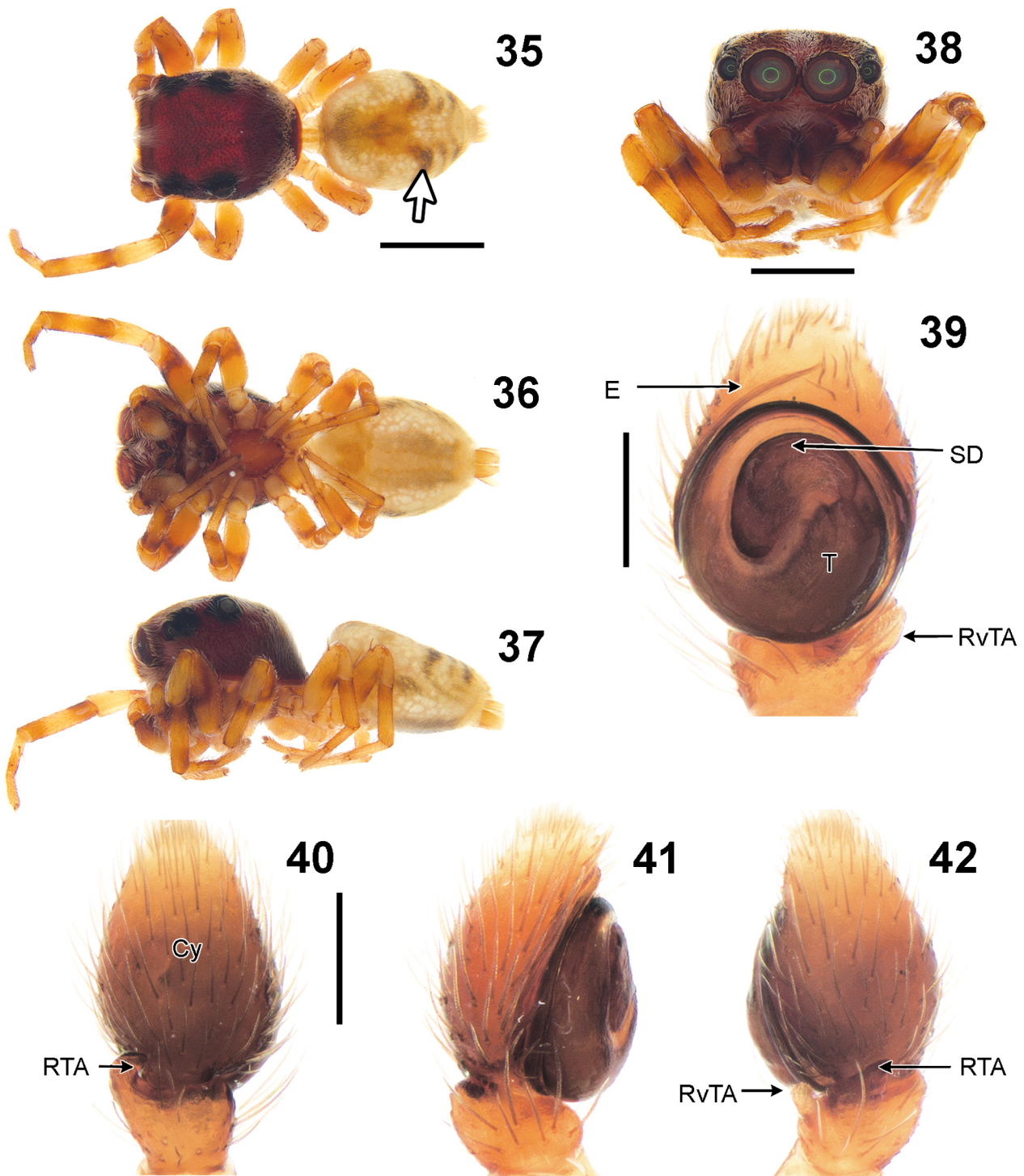
Figs 35–48, 61–62, 67–68, 77

Atelurius segmentatus Simon, 1901a: 154, fig. 709 (holotype, ♂, Venezuela, Caracas, deposited in MNHN, not examined); Simon 1901b: 154; Galiano 1963: 303, figs 9–10 (redescription); Galiano 1988: 290, figs 1, 16–17 (distribution).

Revised diagnosis. Males of *Atelurius segmentatus* can be identified by the finger-like RvTA totally covered with denticles (Fig. 62), hook-shaped, single-lobed RTA and by the lack of any apophysis of the tegulum. Females differ from those of *At. dipteroides* by the larger atrium (Fig. 47).

Description. *Male.* See description in Galiano (1963) and illustration in Galiano (1988: 291, figs 16–17). Herein we present new illustrations of the male of *Atelurius segmentatus* habitus (Figs 35–38) and palp (Figs 39–42, 61–62) and the description of the unknown female.

Female (MCN 36915). Total length 3.63. Carapace length: 1.42; width: 1.08; height: 0.71. Cephalic region length: 1.02; Thoracic region length: 0.37. Ocular area length: 0.78; Anterior eyes row: 1.05 wide; Posterior eyes row: 1.12 wide; Distance ALE–PME: 0.10; PME–PLE: 0.20. Ocular diameter AME: 0.30; ALE: 0.13; PME: 0.10; PLE: 0.14. Clypeus height: 0.06. Chelicerae, paturon length: 0.23; 0.20 wide; Fang: 0.14 length. Endites length: 0.12; 0.21 wide. Labium length: 0.12; 0.18 wide. Sternum length: 0.54; 0.37 wide. Abdomen length: 2.00; 1.36 wide, height: 1.02. Legs, femur length I: 0.65; II: 0.63; III: 0.63; IV: 0.71; patella I: 0.37; II: 0.23; III: 0.21; IV: 0.39; tibia I: 0.44; II: 0.31; III: 0.39; IV: 0.50; metatarsus I: 0.31; II: 0.31; III: 0.39; IV: 0.46; tarsus I: 0.31; II: 0.31; III: 0.31; IV: 0.33. Formula legs: 4132. Palp, length of femur: 0.31, patella: 0.12, tibia: 0.10, tarsus: 0.50. Legs macrosetae, femur I: d1-1-1, p1di; II: d0-1-1, p1di, r1di; III: d0-1-0, p1di, r1di; IV: d1-1-1, p1di, r1di. Patella I–IV: 0. Tibia I: v2di; II: v0-2-2; III–IV: 0, metatarsus I–II: v2-2; III–IV: v2di, p2di, r2di. Carapace: reddish brown, surface covered with small depressions (Fig. 43), with sparse white and yellow scales (Figs 43–45), reddish cephalic region and dark thoracic region. Anterior half of thoracic region at the same level of cephalic (Fig. 45), followed by abrupt slope (Fig. 45). Eyes surrounded by black spots and white scales. White scales between the AME (Fig. 46). Clypeus reddish, with long white setae (Fig. 46). Chelicerae brown with white scales, parallel, vertical, apex thicker than the base, promargin with four teeth on the same base, with the distal one reduced, and retromargin with one tooth. Endites brown as chelicerae, with no protruding external angles (Fig. 44). Labium brown, longer than wide. Sternum slightly narrower than the base of labium, oval, brown (Fig. 44). Legs yellow, femora with transversal light brown marks extending prolaterally onto distal part, and tibiae with two marks, on proximal and distal parts (Fig. 43). Tarsal claws small, with twelve inferior teeth of equal sizes in females and with reduced claw tufts. Abdomen dorsally yellow, with brown chevrons. With a median longitudinal brown stripe of irregular form, and with a brown arrow-shaped spot on anterior region (Fig. 43). Epigyne: large atrium (Figs 47, 68), sclerotized ventral plate partially covering a portion of the copulatory ducts (Fig. 47, see arrow). Copulatory ducts with two portions, the initial portion membranous (Fig. 48) and a sclerotized part at medial region with a fold that covers the spermathecae (Fig. 48). The base portion of FD anteriorly placed on the spermathecae (Fig. 48). Sides with longitudinal brown stripe (Fig. 45). Spinnerets: yellow as legs.

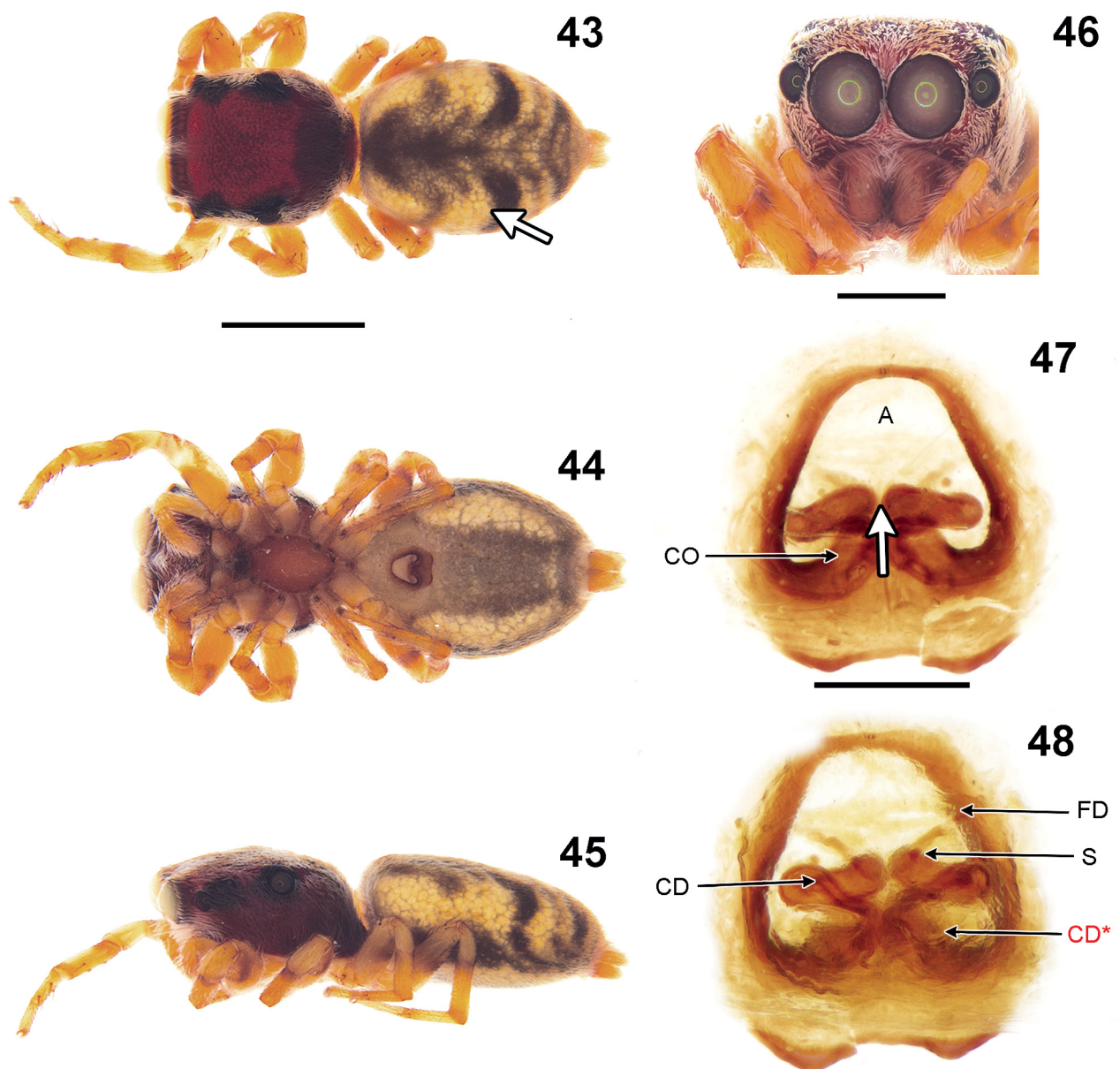


FIGURES 35–42. Male of *Atelurius segmentatus*. Habitus (MCN 49030): 35 dorsal view, white arrow: chevrons coloration pattern; 36 ventral view; 37 lateral view; 38 face, frontal view, scale bars: 0.50 mm. Left male palp: 39 ventral view; 40 dorsal view; 41 prolateral view 42 retrolateral view, scale bars: 0.25 mm.

Material examined. BRAZIL: *Minas Gerais*, Leme do Prado, Estação Ecológica de Acauã, Poção (17°7'56.22"S 42°46'7.98"W), 1 ♀ (UFMG 20001), 18–28.II.2003, P.H. Martins leg.; *Rio de Janeiro*, Macaé, Ilha de Santana (22°24'56.9"S 41°42'12.1"W), 1 ♂ (MNRJ 06742), night collection, 18.X.1986, R.C.L. Baptista leg.; 1 ♀ (MCN 36915), *Rio Grande do Sul*, Palmares do Sul, Fazenda das Almas [30°25'22.0"S 50°40'39.2"W], 1 ♀ (MCN 36915), collected by beating tray, 13.XI.2003, Equipe Probio leg.; Palmares do Sul, Buraco Quente [30°15'44.9"S 50°30'37.3"W], 1 ♂ and 2 ♀ (MCN 36805), 11.XI.2003, Equipe Probio leg.; Viamão, Parque Estadual de Itapuã

[30°20'46.7"S 51°01'33.1"W], 1 ♀ (MCTP 13701), IV.2002, L.E.C. Schimit leg.; Triunfo, Parque Copesul de Proteção Ambiental [currently Braskem] [29°51'57.6"S 51°21'54.9"W], 1 ♀ (MCN 38184), 06.I.2005, R. Ott *et al.* leg.; 1 ♀ (MCN 39954), 25.VIII.2008, R. Ott leg.; 2 ♀ (MCN 40118), 07.XII.2005, beating tray, R. Ott & A. Barcellos leg.; 1 ♀ (MCN 44178), 09.VII.2008, A. Barcellos leg.; Barra do Ribeiro, Fazenda Boa Vista [30°25'14.0"S 51°20'57.3"W], 1 ♀ (MCN 36979), 16.XII.2003, beating tray, Equipe PROBio leg.; Tapes, Fazenda São Miguel [30°31'38.0"S 51°21'42.4"W], collection on *Butia* spp., 1 ♀ (MCN 35525), 14.V.2003, Equipe PROBio leg.; 1 ♂ and 1 ♀ (MCN 37037), 17.XII.2003, beating tray on *Butia* spp.; 19.XII.2003, 1 ♂ (MCN 36974), beating tray; Fazenda Guará [30°40'28.0"S 51°24'20.8"W], 2 ♂ (MCN 35651, 35673), 15.V.2003; 1 ♂ (MCN 36965), 19.XII.2003, collection on *Butia* spp. by beating tray, Equipe PROBio leg.; Cristal, Rio Camaquã (31°00'17.1"S 52°03'56.8"W), 1 ♂ (MCN 49030), 21.VI.2008, beating tray Riparian Forest, E.N.L. Rodrigues leg.; Cachoeira do Sul, Cordilheira [30°13'09.8"S 52°50'57.4"W], 1 ♀ (ZUFMS 91/010; temporally at MPEG), VII.1992, R.G. Buss leg.

Distribution. Venezuela [Caracas (Galiano 1963)], Brazil [Minas Gerais, Rio de Janeiro, São Paulo, Rio Grande do Sul] (Fig. 77).



FIGURES 43–48. Female of *Atelurius segmentatus*. Habitus (MCN 36915): 43 dorsal view, white arrow: chevrons coloration pattern; 44 ventral view, white arrow: ventrally chitinized plate; 45 lateral view; 46 face, frontal view. Scale bars: 1 mm. Epigyne female 47 ventral; 48 dorsal. Scale bars: 0.10 mm.

Natural history. Most individuals were collected with a beating tray and, hence, the species can be considered arboreal. Some individuals were collected in a natural formation of “butiazal” (*Butia* spp.) and in Riparian Forest (see Rodrigues *et al.* 2014, 2016). Species occurs between 10 and 900 m a. s. l.

***Atelurius dipterooides* (Perger & Rubio, 2018) comb. nov.**

urn:lsid:zoobank.org:act:0F2706BF-1EA3-425C-A6C9-78E380C6E9EF

Fig. 77

Scoturius dipterooides Perger & Rubio, 2018: 4, figs 2, 3A, 3C, 4B, 5A (holotype, ♀, Bolivia, Santa Cruz (17°52'59.0"S 63°19'04.0"W), deposited in IBSI Ara0713, not examined).

Remarks. Upon knowledge on the epigyne of *Atelurius segmentatus* (Figs 47–48, 68), type species of the genus, it is possible to propose the transfer of *Scoturius dipterooides* Perger & Rubio, 2018 to *Atelurius* Simon, 1901, based on the morphology of the copulatory ducts. We suggest that the membranous portion (CD*) of copulatory ducts were not illustrated by the authors (compare with Fig. 48: * asterisks to the membranous copulatory ducts).

Distribution. Only known from type locality in Bolivia [Santa Cruz]; see Perger & Rubio (2018) (Fig. 77).

Natural history. According to Perger & Rubio (2018), this species was collected by beating tray and was suggested as a mimic of flies. Altitudinal distribution: 480 m a. s. l.

***Hurius* Simon, 1901**

urn:lsid:zoobank.org:act:E0EDE601-1B8F-44DB-896F-133CB6B4E206

Fig. 77

Type species. *Hurius vulpinus* Simon, 1901, by original designation.

Revised diagnosis. Males of *Hurius* differ from those of *Scoturius* and *Urupuyu* by having a single-lobed RTA; in addition, males of *Hurius* differ from those of *Admesturius*, *Atelurius*, *Simonurius*, and *Guriurius* by having a RvTA densely covered by strong and long spicules. Females of *Hurius* differ from those of *Scoturius*, *Atelurius*, *Urupuyu*, and *Simonurius* by not having the copulatory openings forming an atrium, and from those of *Guriurius* by not having the ducts covered by a sclerotized plate; also, females of *Hurius* differ from those of *Admesturius* by having separate coupling pockets on the sides of the epigynal plate.

Distribution. Ecuador [Quito, Tungurahua (Simon 1901b; Galiano 1963). Colombia [Bogotá, Meta (Galvis & Martínez 2016)]. Argentina [Tucumán, Córdoba (Mello-Leitão 1941; Galiano 1985)], Uruguay [Rio Negro, Canelones], Chile [Llanquihue, Osorno volcano, Lonquimay (Galiano 1985; Richardson 2010)]; (Fig. 77).

Natural history. Galiano (1985) indicated that these species possibly lives under rocks. Altitudinal distribution: around 21–3200 m a. s. l.

***Hurius aeneus* (Mello-Leitão, 1941)**

urn:lsid:zoobank.org:act:FE41AEA9-B2F4-4764-B07B-6CEA8B509243

Fig. 77

Spinurius aeneus Mello-Leitão, 1941: 187, fig. 80, pl. XI, fig. 53 (holotype, ♂, Argentina, Tucumán, Bañado, [26°27'10.6"S 65°59'5.1"W] deposited in MLP 14989, not examined).

Hurius aeneus: Galiano 1985: 14, figs 15–21 (redescription).

Material examined (new records). URUGUAY: *Río Negro*, Estancia “Las Cadenas” (32°31'55.9"S 58°03'04.2"W), 3 ♀ and 1 ♂ (FCE-Ar 11689), 01.V.2020, A. Mailhos leg.; *Canelones*, Toledo, José Antonio Verdún (34°44'28.6"S 56°05'25.0"W), 1 ♀ (FCE-Ar 10673), 12.XII.2019, R. Lauría leg.

Distribution. Argentina [Córdoba and San Miguel de Tucumán (Galiano 1985)] and Uruguay [Río Negro and Canelones] (Fig. 77).

Natural history. Altitudinal distribution: 21–1719 m a. s. l.

Hurius petrohue Galiano, 1985

urn:lsid:zoobank.org:act:BC3CA17F-54FB-42EF-93DF-A6D06698D012

Fig. 77

Hurius petrohue Galiano, 1985: 12, figs 8–14 (holotype, ♀, Chile, Los Lagos, Llanquihue, Petrohué [41°08'16.1"S 72°24'02.2"W] deposited in MCZ 22640, not examined); Richardson 2010: 40, figs 110–115 (redescription).

Material examined (new records): CHILE: *Región de Ñuble*: Provincia de Punilla, 50 Km East from San Carlos [36°31'12.0"S 71°23'24.0"W], 1 ♂ (CAS), 26.XII.1950, Ross & Michelbacher leg.; San Carlos [36°25'12.0"S 71°57'36.0"W], 1 ♂ (CAS), 24.XII.1950, Ross & Michelbacher leg.

Distribution. Chile [Llanquihue, Petrohue (Galiano, 1985); Lonquimay (Richardson 2010); and Ñuble] (Fig. 77).

Natural history. Altitudinal distribution: around 53–2.865 m a. s. l.

Hurius vulpinus Simon, 1901

urn:lsid:zoobank.org:act:5A3EAF18-4439-4378-8B3A-D1A94CD572C8

Fig. 77

Hurius vulpinus Simon, 1901a: 585, fig. 708 (lectotype, ♀, Ecuador, Quito, deposited in MNHN, not examined); Simon 1901b: 154; Galiano 1963: 363, pl. XIX, fig. 16 (lectotype designation, redescription); Galiano 1985: 10, figs 1–7 (redescription); Galvis & Martínez 2016: 2, figs 1–8 (distribution).

Material examined (new records): ECUADOR: *Pichincha*: Alangasi [0°18'13.3"S 78°24'41.8"W], 1 ♂ and 1 ♀ (UBC-SEM), 25–31.VII.1992, W. Maddison leg.

Distribution. Ecuador [Quito (Galiano 1963); Tungurahua (Galiano 1985) and Pinchincha], Colombia [Bogotá, Meta (Galvis & Martínez 2016)]; (Fig. 77).

Natural history. Some individuals were collected in arboreal substrate (Galvis & Martínez 2016). Altitudinal distribution: around 1800–2.850 m a. s. l.

Scoturius Simon, 1901

urn:lsid:zoobank.org:act:E7179101-75A7-4FD7-B106-58CCE4EA27D4

Fig. 77

Type species. *Scoturius tigris* Simon, 1901, by original designation.

Revised diagnosis. Galiano (1988) proposed that *Scoturius* differs from other huriine genera in having three retrolateral tibial apophysis. However, after comparisons of male palp across the tribe, we proposed a new interpretation, meaning that the two more dorsal branches may be developments of two RTA lobes (see discussion below). Males of *Scoturius* resemble those of *Uruguayu* Ruiz & Maddison, 2015 by having the RTA with two lobes. However, males of *Scoturius* differ from those of *Uruguayu* by the two lobes of RTA finger-shaped and independent (lobes much shorter in *Uruguayu*).

Scoturius tigris Simon, 1901

urn:lsid:zoobank.org:act:DE9918F2-D33A-4685-ABA3-058E06AD09D6

Fig. 77

Scoturius tigris Simon, 1901a: 585, figs 705–707 (lectotype, ♀, Paraguay, not specific locality, deposited in MNHN, not examined); Simon 1901b: 154; Galiano 1963: 441, pl. XXXIV, fig. 5, pl. XXXVIII, fig. 8 (lectotype designation, redescription); Galiano 1988: 287, figs 4, 7–8, 13–15 (redescription).

Material examined (new records). BRAZIL, *Minas Gerais*, Belo Horizonte, Parque Municipal das Mangabeiras (19°57'14.86"S 43°54'19.15"W), 1 ♂ (UFMG 7957), 05–12.XII.2008, H.H. Santos *et al.* leg.

Distribution. Paraguay [Asunción (Galiano 1988)], Argentina [Misiones (Galiano 1988)] and Brazil (Minas Gerais) (Fig. 77).

Natural history. Altitudinal distribution: 93–1195 m a. s. l.

Simonurius Galiano, 1988

urn:lsid:zoobank.org:act:A9AED7BB-F021-4837-87FC-E9A72550D559

Fig. 77

Type species. *Akela gladifera* Simon, 1901 = *Simonurius gladifer* (Simon, 1901), by original designation.

Revised diagnosis. Among huriines, males of *Simonurius* have the shortest embolus; in addition, *Simonurius* males differ from all other huriines by having a prolateral tegular apophysis (see Galiano 1988: figs 28, 34). Females differ from those of the remaining huriine genera by having large primary spermathecae, long and thin secondary spermathecae and short copulatory ducts (Figs 57–58).

Note. In the original description, Galiano (1988: 296) compared *Simonurius* with *Akela* Peckham & Peckham, 1896 (Aellurillini: Freyina) and referred to *Simonurius* as the only genus of huriines with a median apophysis. Since the jumping-spiders of the subfamily Salticinae do not have true median apophyses (Ramírez 2014; Maddison 2015), the novel tegular apophysis of *Simonurius* needs further study in future works, in order to determine its origin and function.

Distribution. Peru [Cusco (Galiano 1985)], Venezuela [Araguá, Distrito Federal (Galiano 1988; Ruiz & Brescovit 2005; Galvis & Martínez 2016)] and Brazil (Rio Grande do Sul) (Fig. 77).

Natural history. Species occur between 24 and 3000 m a. s. l.

Simonurius gladifer (Simon, 1901)

urn:lsid:zoobank.org:act:AC9B06E5-D5A0-4EE5-9B1C-536961643C5B

Figs 49–58, 63–66, 77

Akela gladifera Simon, 1901b: 141, 146 (holotype, ♂, Argentina, Buenos Aires deposited in MNHN, not examined); Galiano 1963, 283–287, pl. IV, figs 1–7 (redescription).

Akela trilineata Mello-Leitão, 1941: 182 (♀, holotype, Argentina, Chilecito, La Rioja [29°09'40.1"S 67°29'46.3"W], deposited in MLP 14972, not examined); Galiano 1980.

Simonurius gladiferus: Galiano 1988: 296, figs 2–3, 27–32 (transfer from *Akela*, redescription and distribution).

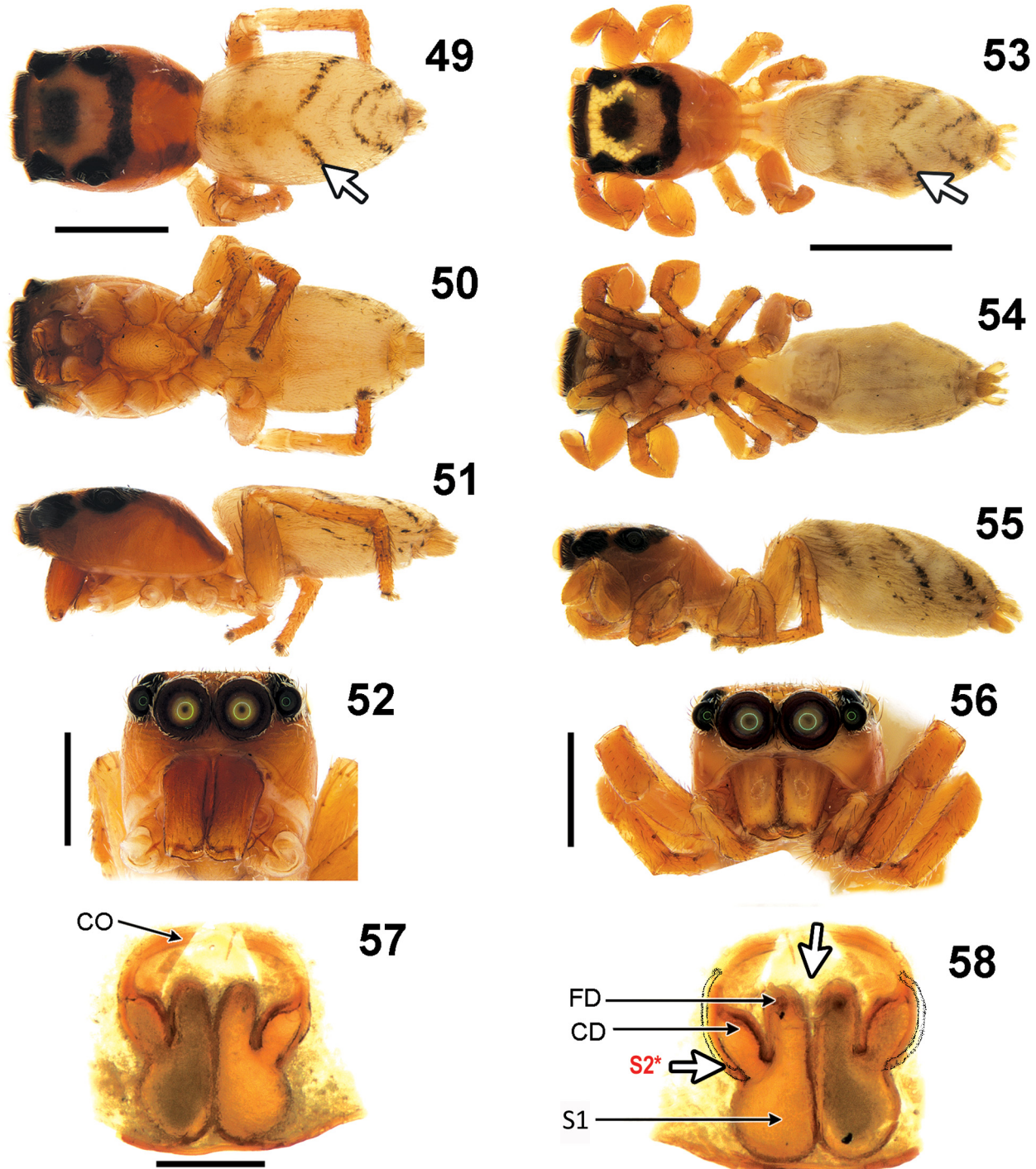
Revised diagnosis. Males of *Simonurius gladifer* resemble those of *Si. quadratarius* (Simon, 1901) (see Galiano 1963, figs 3–5) in the finger-like RTA with one long lobe, and the handle-shaped RvTA projecting retrolaterally (Figs 63–64). Males of *Si. gladifer* differ from those of *Si. quadratarius* by the straight RTA. Females of *Si. gladifer* resemble those of *Si. pisac* (Galiano, 1985) **comb. nov.** (see Galiano 1985, figs 22–24) in the inverted U-shaped atrium and the long posteriorly placed S2, but differs by having larger and horizontal S1 surpassing the border of the atrium (Figs 57–58).

Epigyne variation. There is a variation in size, shape, and angle between the S1 among the specimens studied, i.e., anterior apex of S1 closer or separated by a brief v-shaped gap between them (Fig. 58, see arrow). It was observed that the fertilization ducts may be closer to each other in anterior region dorsally to spermathecae or more distant from each other.

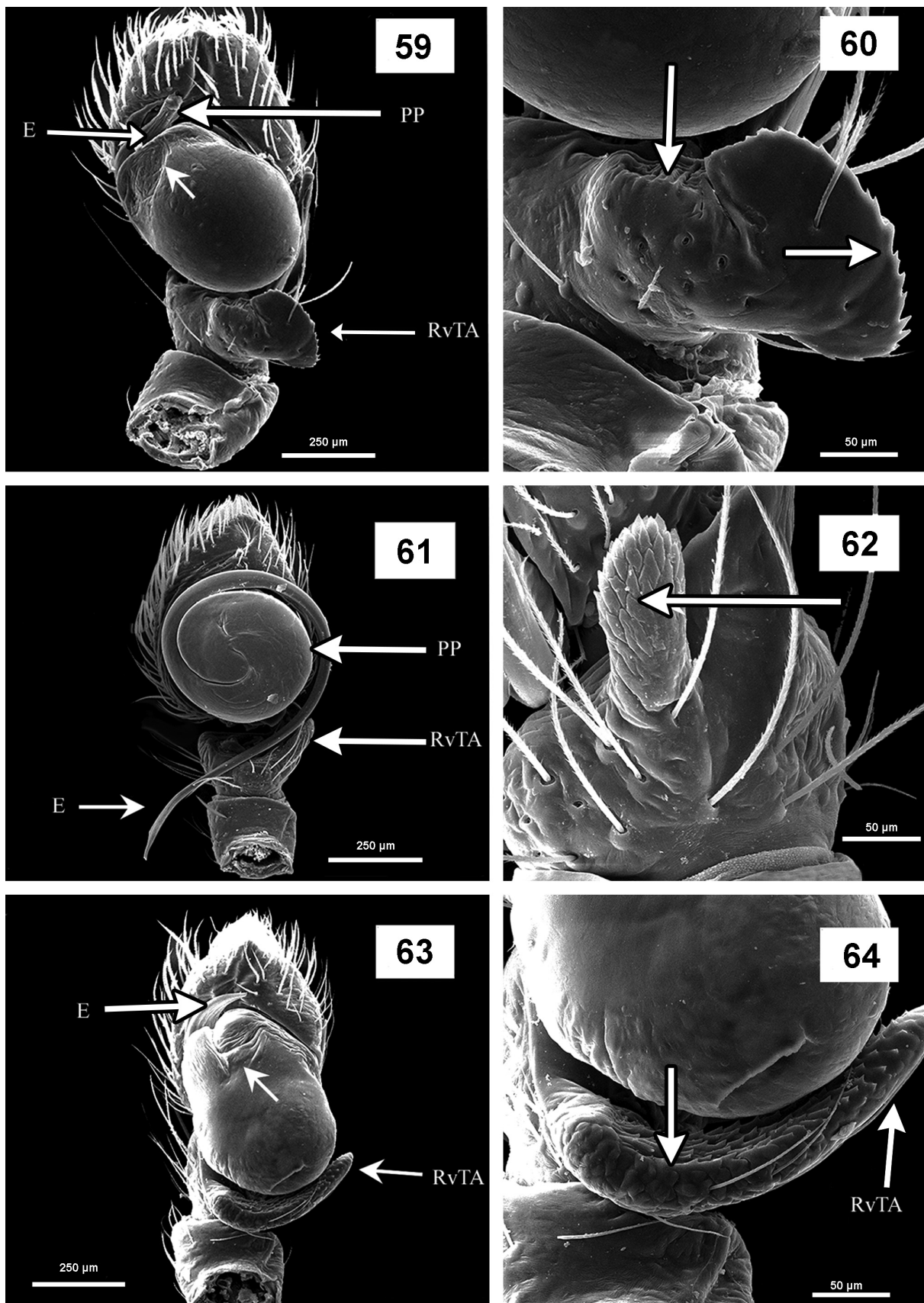
Material examined (new records). BRAZIL: *Rio Grande do Sul*, Cambará do Sul [29°04'09.6"S 50°08'45.9"W], 1 ♀ (MCTP 31069), I.2006, M.V. Petry leg.; 1 ♂ (MCTP 31078), X.2006, M.V. Petry leg.; 1 ♀ (MCTP 31082), XII.2006, M.V. Petry leg.; São Francisco de Paula, Estação Ecológica Estadual de Aratinga [29°20'03.5"S 50°14'30.5"W], 1 ♀ (MCN 51022), XII.2013, Equipe L.E.I. UFRGS leg.

Distribution. Argentina [Buenos Aires, La Rioja and Córdoba (Galiano 1988)] and Brazil (Rio Grande do Sul) (Fig. 77).

Natural history. The specimens studied were collected from mountain areas in Argentina, specifically in relatively humid areas along water (Riparian Forest), living on foliage, never under stones (Galiano 1988). In Brazil (Rio Grande do Sul), specimens herein studied were collected with a beating tray, which makes us realize about the preference of the species for arboreal microhabitats, as other huriines. Both locations, Cambará do Sul and São Francisco de Paula, are portions of the Great Plateau and the hillside of the Serra Geral formation in southern Brazil, with formation of Rain Forest (*Araucaria* Forest), in a mosaic with shrubs and grasslands. Altitudinal distribution: 24–1002 m a. s. l.



FIGURES 49–58. *Simonurius gladifer*. Habitus male (MCTP 31078): 49 dorsal view, white arrow: chevrons coloration pattern; 50 ventral view; 51 lateral view; 52 face, frontal view; Habitus female (MCTP 31069): 53 dorsal view, white arrow: chevrons coloration pattern; 54 ventral view; 55 lateral view; 56 face, frontal view, scale bars: 1 mm. Epigyne female (MCTP 31082): 57 ventral view; 58 dorsal view, white arrow: S2* is broken but illustrated and S1 angular axis in anterior region, scale bars: 0.10 mm.



FIGURES 59–64. Scanning electronic microscopy (SEM). Male palp of *Guriurius minuano* sp. nov. (MCTP 38993): 59 ventral view, arrow: tegulum depression; 60 ventral view, arrow: ventral surface RvTA. Male palp of *At. segmentatus* (MCN 36806): 61 ventral view; 62 detail of RvTA dorsal surface. Male palp of *Si. gladifer* (MCTP 31078): 63 ventral view, arrow: tegulum depression; 64 details of RvTA arrow: RvTA ventral surface.

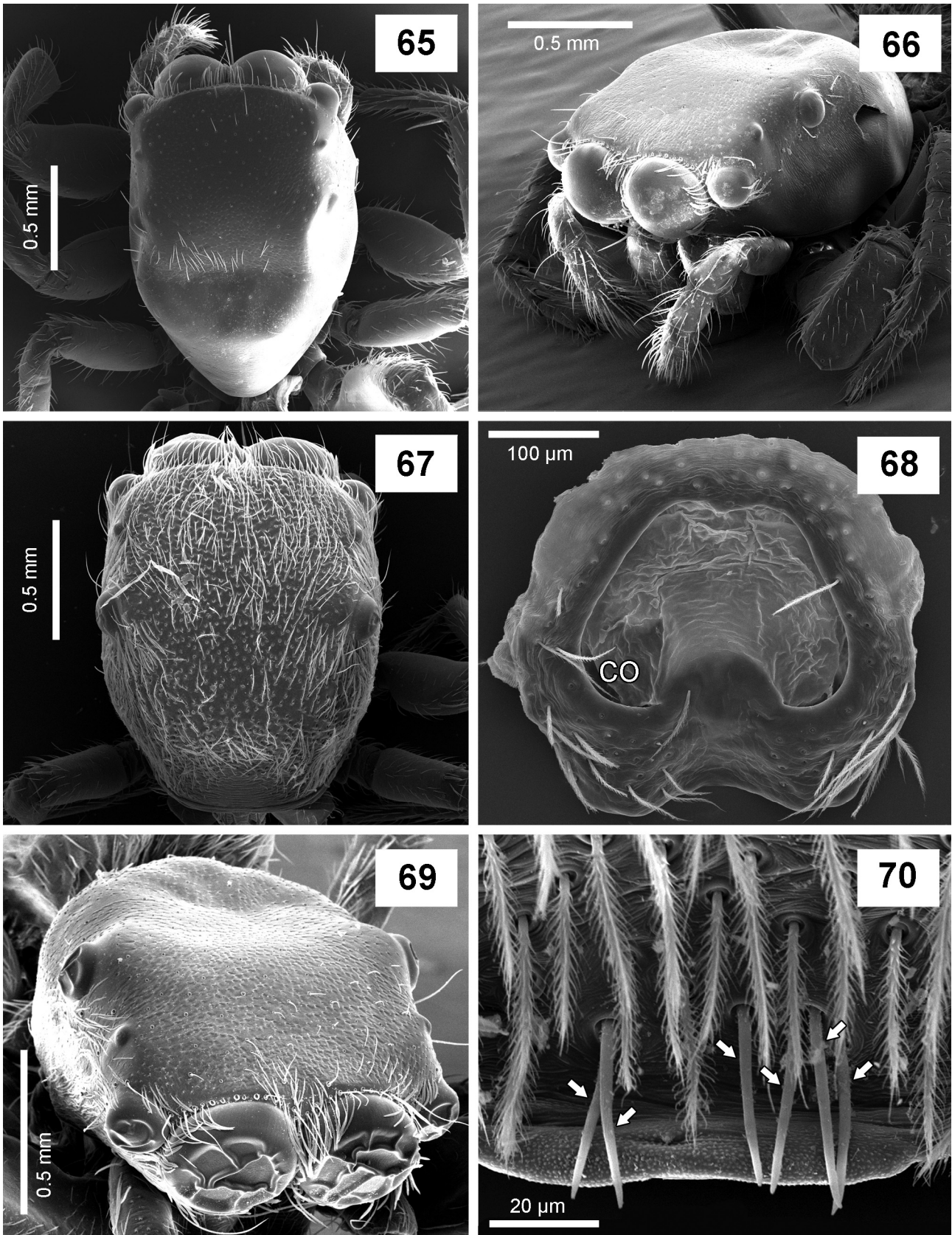
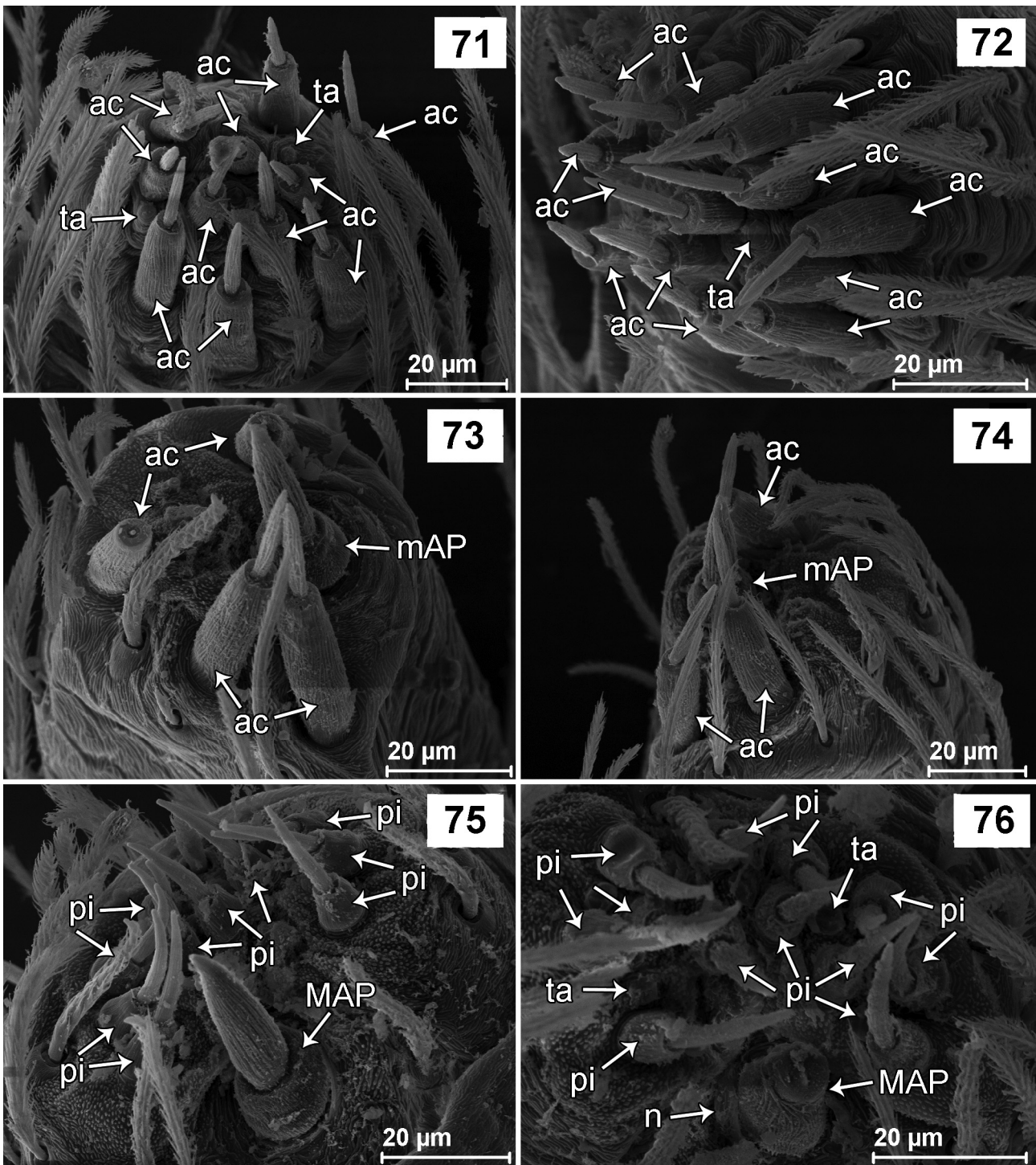


FIGURE 65–70. Scanning electronic microscopy (SEM). Male of *Si. gladifer* (MCTP 31078): 65 carapace surface, 66 claw surface. Female of *A. segmentatus* (MCN 401182): 67 carapace surface, 68 epigyne ventral view. Subadult *Guriurius minuano* sp. nov. (MCN 32225): 69 carapace surface, 70 male epiandric spigots.



FIGURES 71–76. Male spinnerets of *Guriurius minuano* sp. nov. 71 posterior lateral spinnerets, left side; 72 right side; 73 posterior median spinnerets, left side; 74 right side; 75 anterior lateral spinnerets, left side; 76 right side.

***Simonurius pisac* (Galiano, 1985) comb. nov.**

urn:lsid:zoobank.org:act:867C5434-4799-471F-B3C2-7BF4C45FAE19

Fig. 77

Hurius pisac Galiano, 1985: 17, figs 22–24 (♀, holotype, Peru, Departamento Cusco, Pisac [13°25′10.9″S 71°50′37.6″W], deposited in MACN-Ar 7927, not examined).

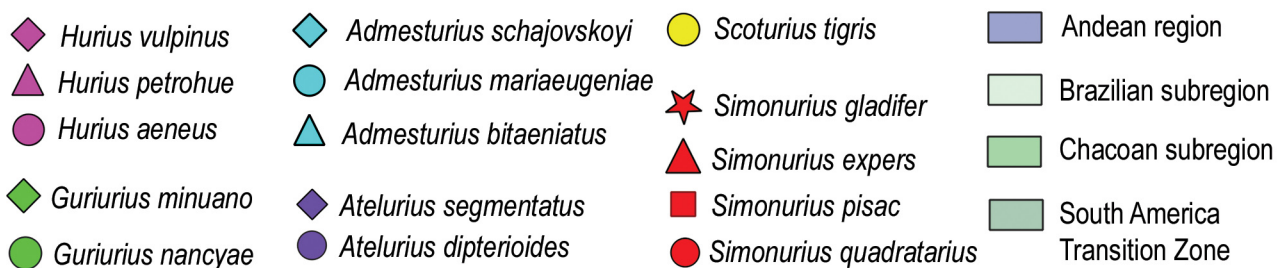
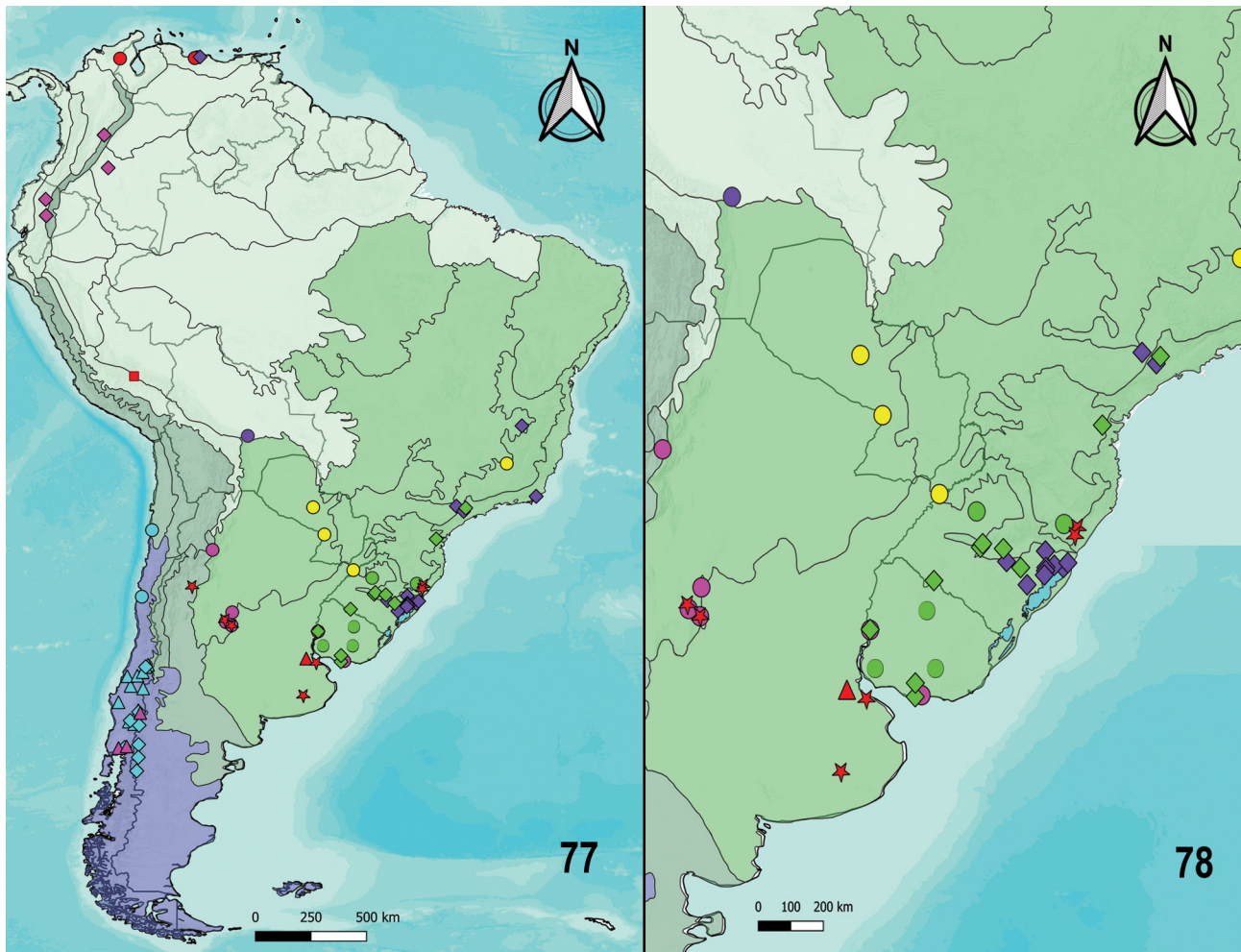
Remarks. Herein we propose the transfer of *Hurius pisac* to *Simonurius*, based on the morphology of the spermathecae and atrium.

Diagnosis. The S1 in *Simonurius pisac* **comb. nov.** is wider than S1 in *Si. gladifer*, with inclination close to each other (see epigyne variation of *Si. gladifer*), and have anterior S2, above S1, long and slender. Finally, *Si. pisac* can be considered *Simonurius* by U-shape antero-medial atrium, like in other females of this genus.

Description. Female: see Galiano (1985 p. 17, figs 22–24). Male: unknown.

Distribution. Peru [Cusco (Galiano, 1985)] (Fig. 77).

Natural history. Altitudinal distribution: around 3000 m a. s. l.



FIGURES 77–78. Regionalization in Neotropical view (Morrone 2014) and distributional records for huriine jumping spiders (records of *Uruguayu* not included). 77 Neotropical, South America, Brazilian subregion Chacoan subregion, South America Transition Zone, Andean Region. 78 Southern of South America, Brazil, Uruguay, Argentina focusing on the distribution of *Guriurius*.

Simonurius quadratarius (Simon, 1901)

urn:lsid:zoobank.org:act:746F6D6A-B8AF-44BA-9E14-E70CD527E094

Fig. 77

Akela quadrataria Simon, 1901b: 145 (holotype, ♂, Venezuela, Aragua, Colonia Tovar [10°24'15.5"N 67°17'30.7"W], E. Simon leg., in MNHN, not examined); Galiano 1963; Simon 1901a: 569, 571; Galiano 1963: 287, pl. IV, figs 3–5 (redescription).

Sidusa variegata Caporiacco, 1955: 430, figs 71a–c, (♂ holotype, Venezuela, Distrito Federal, El Junquito [10°28'42.5"N 67°04'58.2"W], 16.X.1949, Marcuzzi leg., MUCV 737, examined by Ruiz & Brescovit 2005).

Simonurius quadratarius: Galiano 1988: 300 (transf. from *Akela*); Ruiz & Brescovit 2005: 759 (syn.); Galvis & Martínez 2016: 4, figs 9–12 (distribution); World Spider Catalog 2021.

Akela campestrata Simon, 1901b: 145 (holotype, ♂, Venezuela, Aragua, Colonia Tovar [10°24'15.5"N 67°17'30.7"W], deposited in MNHN, not examined); Simon 1901a: 571; Mello-Leitão 1949: 19; Galiano 1963: 285.

Simonurius campestratus: Galiano, 1988: 300; World Spider Catalog 2021. **New Synonymy**

Remarks. Galiano (1988) pointed out the similarity between *Si. quadratarius* and *Si. campestratus*. Galiano (1963, 1988) highlighted that the only difference between the two species was that the cephalothorax of *Si. quadratarius* was higher, and the posterior eye row was wider than in *Si. campestratus*. These differences are not enough to maintain these names as separate species. In addition, regarding distribution, it is observed that the two species have the same geographic and altitudinal distribution in Aragua, Venezuela. Therefore, we consider *Si. quadratarius* as a senior synonym of *Si. campestratus*.

Distribution. Venezuela [Aragua and Distrito Federal (Galiano 1988; Ruiz & Brescovit 2005)], Colombia [Cesar: Sierra de Perijá (Galvis & Martínez, 2016)] (Fig. 77).

Altitudinal distribution: 1866–3200 m a. s. l.

Discussion

According to Galiano (1988), the “Hurieae group” (i.e. Huriini) is distinguished by the presence of a “two or three tibial apophyses on male palp” (Galiano 1988: 285). Our interpretation is that, in fact, the RTA is branched into two lobes (or branches) in some lineages (i.e. the “first and second” apophyses referred by Galiano (1988) are just one apophysis), and that the third apophysis is the same structure we have been calling RvTA. In *Scoturius* there is a bifurcated RTA, with two long, conspicuous, finger-shaped branches, and a finger-shaped RvTA as well; *Uruguayu* has a curved RvTA, and the RTA is broad, briefly forming two lobes. This type of broad RTA is also present in *Atelurius* (Figs 40, 42), but in *Atelurius* it is not bilobed.

The RvTA has some morphological modifications among the Huriini genera. They differ in inclination axis, morphological accessories on surface (bristles/scales and denticles), size, folds, lobes, among others. Regarding the RvTA angle, *Admesturius*, *Atelurius*, *Simonurius* and *Uruguayu* have the RvTA medially inserted at the tibia, with a retrolateral fold not overlapping the tegulum (see Galiano 1985, fig. 20; Ruiz & Maddison 2015, figs 22–24). In *Guriurius*, in addition to the long and sinuous RTA branch, there is an RvTA also inserted medially in relation to the tegulum (Figs 5, 7–8, 21–22, 25–26, 31, 33–34, 59–60), disposed retrolaterally, and another modification at the distal part, which has an upward fold (at finally posterior portion of tegulum), forming a small angular handle-shaped axis (Figs 5, 31, see arrow). In *Scoturius* and *Hurius*, the RvTA is medially inserted, but overlapping the posterior region of the tegulum (see Galiano 1985, figs 1–2; Galiano 1988, figs 13–14).

A careful attention to female genitalia is important in the determination and position of species, as demonstrated by the transfer of *Hurius pisac* to *Simonurius*. Precisely, diagnostic characters of the females of *Simonurius* concern the U-shape antero-medial atrium and the two spermathecae (S1 and S2). As demonstrated in Galiano (1988), *Si. gladifer* has a small and thin lateral secondary spermatheca (Fig. 58, S2* is broken but illustrated in the epigynum) and a large S1 with posterior region rounded and anterior region thinner and far from each other, separated by a brief v-shaped gap (See arrow in the Fig. 58). The species *Si. pisac* **comb. nov.** also has two pairs of spermathecae. The S1 has the anterior region apex close together, and the S2 is anterior and above S1, long and slender (see Galiano, figs 23–24). When examining the female epigynum of *Scoturius dipterioides*, we noticed that Perger & Rubio (2018) did not notice that there was a membranous ducts (as CD* in Fig. 48), and illustrated only the chitinous portion. With the discovery of the female of *At. segmentatus*, it was possible to transfer *Sc. dipterioides* to the genus *Atelurius*,

according to the comparison and intraspecific variation of the following morphological characteristics: membranous CD, and chitinous CD portion covering dorsally the kidney-shaped spermathecae (Fig. 58).

These following characters show variation among genera, which could be used to infer phylogenetic relationships: *Guriurius* and *Hurius* share two lateral pocket openings (LPO); both *Hurius* and *Simonurius* have two pairs of spermathecae (S1 and S2); *Admesturius*, *Atelurius* and *Scoturius* share a single coupling pocket at posterior edge of the epigyne. Whether these represent synapomorphic features supporting monophyletic groups is to be evaluated in future works.

Spinneret morphology has helped researchers to explore the evolution of spiders (e.g. Ramírez 2014), but its use and documentation have been primarily focused on web-builders. Since most jumping spiders use silk for just a few strategies, such as dragline and eggsac construction (Chen *et al.* 2013; Richman & Jackson 1992), it was previously assumed that spinneret spigots would be of less importance in this group. However, increasing documentation of detailed morphology in jumping spiders has suggested that uniformity is wrong, suggesting that these structures possibly contain a valuable and important source of characters for jumping spider systematics. This is what Salgado & Ruiz (2018) found in more distant groups of Salticidae, with species with smaller bodies having fewer spigots, instead of the same number of other larger species.

Previously, spinnerets of huriines were documented only once in the genus *Uruguayu* (Ruiz & Maddison 2015, figs 18–21). Our results show a great similarity of spinneret morphology between *Guriurius* and *Uruguayu*. The spigots of the ALS and PMS are similar in number in *Uruguayu* and *Guriurius* (Figs 71–76). These spinnerets are mainly related to the production of the dragline (MAP, ALS; mAP in the PMS) and adhesive disc (piriform silk gland spigots in ALS). However, there seems to be a large difference in the posterior lateral spinnerets between the two genera. *Guriurius* has twice as many spigots of aciniform silk glands on each side, when compared to *Uruguayu* (compare our Figs 71–76 with Ruiz & Maddison 2015: fig. 21). This difference is probably related to size difference because studies have shown that species with smaller bodies may have fewer spigots (Salgado & Ruiz 2018): species of *Uruguayu* (2.5–3.0 mm; Ruiz & Maddison 2015) are usually smaller than *Guriurius* (3.0–4.0 mm). Moreover, the morphology of aciniform spigots is slightly different between the two genera, with *Uruguayu* having longer distal articles than *Guriurius* (compare Figs 71–76 and Ruiz & Maddison 2015: figs 20–21).

The geographic distribution of the genera *Simonurius*, *Scoturius*, *Atelurius* and *Guriurius* shows certain congruence with the regionalization proposal for the Chaco subregion by Morrone (2014). Another observation is the group of genera occurring in the Andean region, such as *Hurius* and *Admesturius*. *Hurius* has an interesting distribution in the transition zone, occurring even further north in South America in transitional zone, like *Uruguayu*. Altitudinal variation seems to be a determining factor influencing the diversification of huriines. Some barriers (as The Andes or the arid areas) could be crucial in the diversification of this group in South America as already shown for the South American scorpion genus *Brachistoternus* Pocock, 1893 (Bothriuridae) (see Ceccarelli *et al.* 2016), which will need to be addressed in future biogeographic studies.

Acknowledgments

We thank the support of CNPq grant PQ# 312538/2019-7 to GRSR; ENLR was supported by CNPq (process 422079/2018-9); KSM was supported by Coordenação de Aperfeiçoamento Pessoal de Nivel Superior (CAPES) (process 88887.341572/2019-00); AAB supported part of his work with personal funds. An academic version of this paper was presented to the Programa de Pós-Graduação em Biologia of UNISINOS as part of the qualification exam of KSM and was kindly reviewed by a committee composed by Cristina L. Scioscia (MACN), Cristina A. Rheims (Instituto Butantan), and Regiane Saturnino (Universidade Estadual da Região Tocantina do Maranhão). KSM, AAB, ENLR, and GRSR discovered the new genus. KSM conducted the research; AAB collaborated with descriptions, writing, discussion, material examined from Argentina, Chile, and Ecuador, and revised the manuscript. ENLR discovered the female of *At. segmentatus* and revised the manuscript. GRSR collaborated with SEM images of spinnerets and revised the manuscript. ADB, and VHV revised the manuscript. RAT instructed SEM and made images. DH examined Uruguayan specimens, photographed in vivo *Guriurius minuano* and revised first versions of the manuscript. All authors agree with the submitted version of the manuscript. We thank to R. Ott for the loan the materials and R. Viecelli for his patience in assisting the use of the Leica M205A Multipurpose Zoom Microscope at MCTP/PUCRS. And finally, we thank to Junxia Zhang and Tamás Szűts for their valuable comments on the manuscript.

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