

Redescription of the male of *Pikelinia tambilloi* (Mello-Leitão, 1941) and its synonymy with *Pikelinia toba* Ramírez & Grismado, 1997 (Araneae: Filistatidae: Prithinae)

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Abstract

The male and female of *Pikelinia tambilloi* (Mello-Leitão, 1941) is redescribed from specimens recently collected in Santiago del Estero and Córdoba, Argentina. We report on variability in the internal female genitalia, and newly synonymize *Pikelinia toba* Ramírez & Grismado with *P. tambilloi*. The known range of *P. tambilloi* is thus widely extended. New records of *P. kolla* Ramírez & Grismado from Argentina are also reported.

Key words: Spiders, taxonomy, new synonymy, Neotropics, Argentina

Introduction

The genus *Pikelinia* was erected by Mello-Leitão (1946) for *Filistata tambilloi* Mello-Leitão, 1941 from La Rioja Province, Argentina. The males of *Pikelinia* are recognised by having a dorsoretrolateral projection of the palpal tibia, and the second metatarsus and tarsus with clasping structures, which are presumably used during mating; the females by having two consecutive receptacles in their spermathecae. These small-sized spiders make cribellate webs under stones or in soil crevices, walls of caves, or in leaf-litter and they are known from western South America, from Colombia to Patagonia, including the Galapagos Islands (Ramírez & Grismado 1997: 331, Grismado 2003: 100). They live mainly in arid regions, but because of their cryptic habits and small size, they are relatively uncommon in collections.

While preparing the revision of the Argentinean filistatid fauna (Ramírez & Grismado 1997), we only had access to fragmentary data for the proper identification of *P. tambilloi*. The only male examined was the holotype, poorly preserved and lacking the opisthosoma and most of the legs, plus two females collected near the type locality, in La Rioja province. Those two females had uniform grey opisthosomae, as was mentioned in the

description of the male of *P. tambilloi* given by Mello-Leitão (1946), and hence we tentatively matched those males and females together as *P. tambilloi*. In the same paper we described a new species, *P. toba*, based on few females from Santiago del Estero province, about 500 km NE of La Rioja, with a faint dorsal opisthosomal pattern. We distinguished this species from *P. tambilloi* by having a longer pore-bearing area of the proximal seminal receptacles.

In retrospect, it seems that we have underestimated the variability of some morphological characters in filistatids. After the original description, we reported variability in the female genitalia of *Misionella mendensis* (Mello-Leitão 1920) and in the clasping structures of male metatarsi II of *Pikelinia ticucho* Ramírez & Grismado 1997 (Grismado & Ramírez 2000, Grismado 2003).

In a recent field trip in Santiago del Estero, we collected several immature specimens of *Pikelinia* and reared them to maturity in search of the unknown male of *P. toba*. We obtained one mature male, identified unequivocally as *P. tambilloi*. We also examined the newly collected females, and their internal genitalia showed some degree of variability in the size of the pore-bearing region of the proximal receptacles. All these observations suggest that *P. toba* is a junior synonym of *P. tambilloi*.

In the present contribution we provide the redescription of the male of *P. tambilloi* from a complete specimen, illustrate the variability of the internal female genitalia, and propose its synonymy with *P. toba*. We also report new records of *Pikelinia kolla* Ramírez & Grismado 1997, from Salta province, Argentina.

Material and methods

Specimens are deposited in the Arachnological Collection of the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (MACN-Ar, Cristina L. Scioscia), and Museo de La Plata (MLP, Cristian Ituarte and Luis Pereira). Living specimens were maintained in cylindrical glass containers (8.5 cm height, 4.2 cm diameter), water was provided in a piece of cotton, and *Drosophila* flies were added as food. The format of the description follows Ramírez & Grismado (1997); female genitalia were observed in clove oil after dissection. The drawings were made with camera lucida mounted on a stereoscopic compound microscope Olympus BH-2; the photographs of the specimens (alive and preserved) were taken with a digital camera Nikon DXM 1200 mounted on a stereomicroscope Nikon SMZ1500; all measurements are expressed in millimeters.

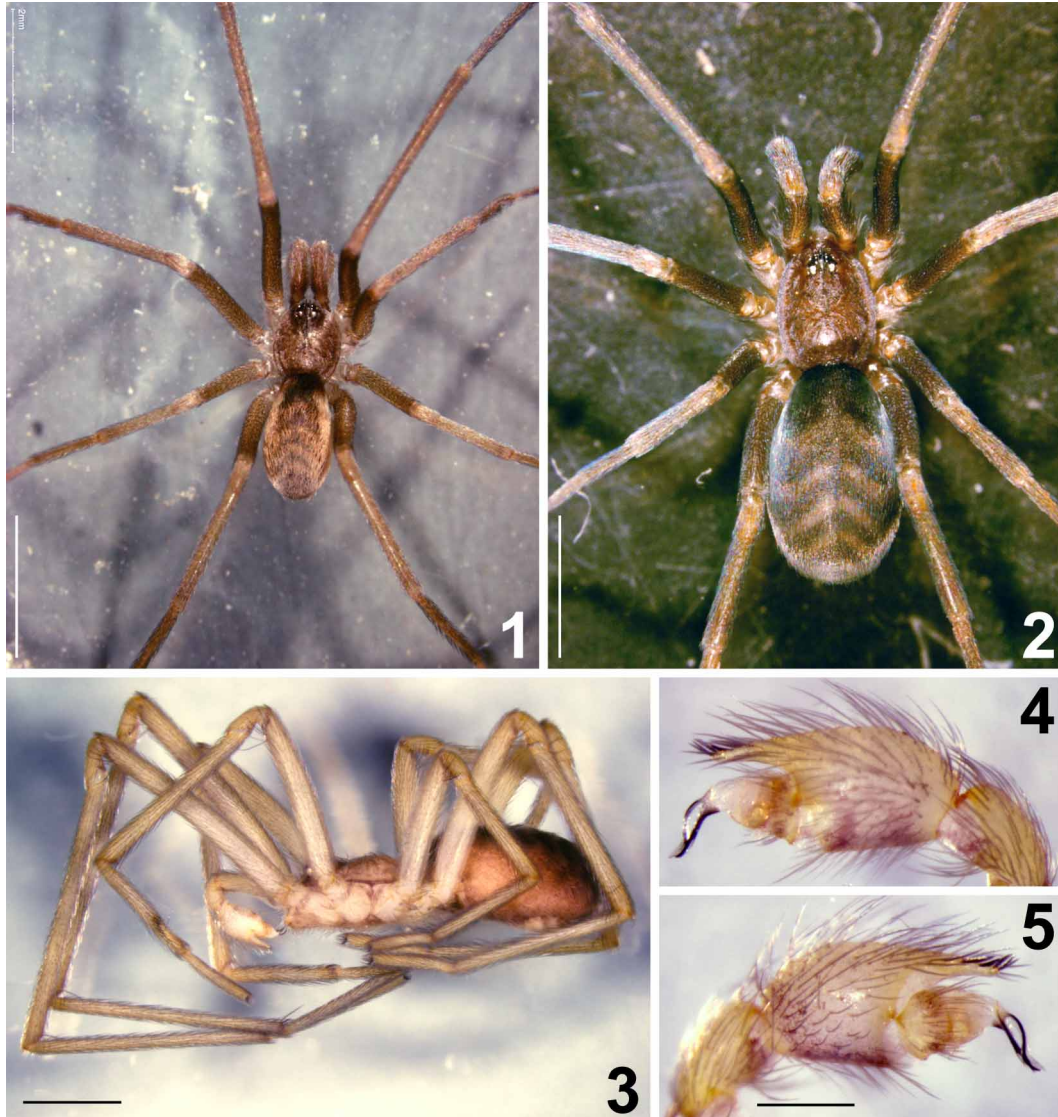
Pikelinia tambilloi (Mello-Leitão 1941)

(Figs. 1–11)

Filistata tambilloi Mello-Leitão, 1941: 106 (male holotype from Argentina, La Rioja Province, Tambillos, 50 km SW of Chilecito, Birabén (MLP 14615, re-examined).

Pikelinia tambilloi; Mello-Leitão, 1946: 47; Roewer 1954: 1282 (*Pikeliana*, lapsus); Ramírez & Grismado, 1997: 331 (description of female).

Pikelinia toba Ramírez & Grismado, 1997: 339 (female holotype and five female paratypes from Argentina, Santiago del Estero Province, Moreno Department, Mercedes, 10 km E of Amamá, VIII.1995, D. Vezzani (MACN-Ar 9515 and 9516, re-examined). **NEW SYNONYMY.**



FIGURES 1–5. *Pikelinia tambilloi* (Mello Leitão). 1, living male from Alta Gracia (MACN-Ar 10720), habitus; 2, living female from Parque Nacional Copo, habitus; 3–5, male from Parque Nacional Copo, preserved (MACN-Ar 10459); 3, lateral view; 4, left palp, retrolateral; 5, left palp, prolateral. Scale bars: 1–2=2 mm; 3=1 mm; 4–5=0.25 mm.

Additional material examined: Argentina: Santiago del Estero Province: Parque Nacional Copo, settlers area, 22–24.II.2004, C. Grismado, A. Ojanguren, F. Labarque, L. Compagnucci col. 1 male (maturity molt 5.IV.2004 in lab, MACN-Ar 10459, preparation

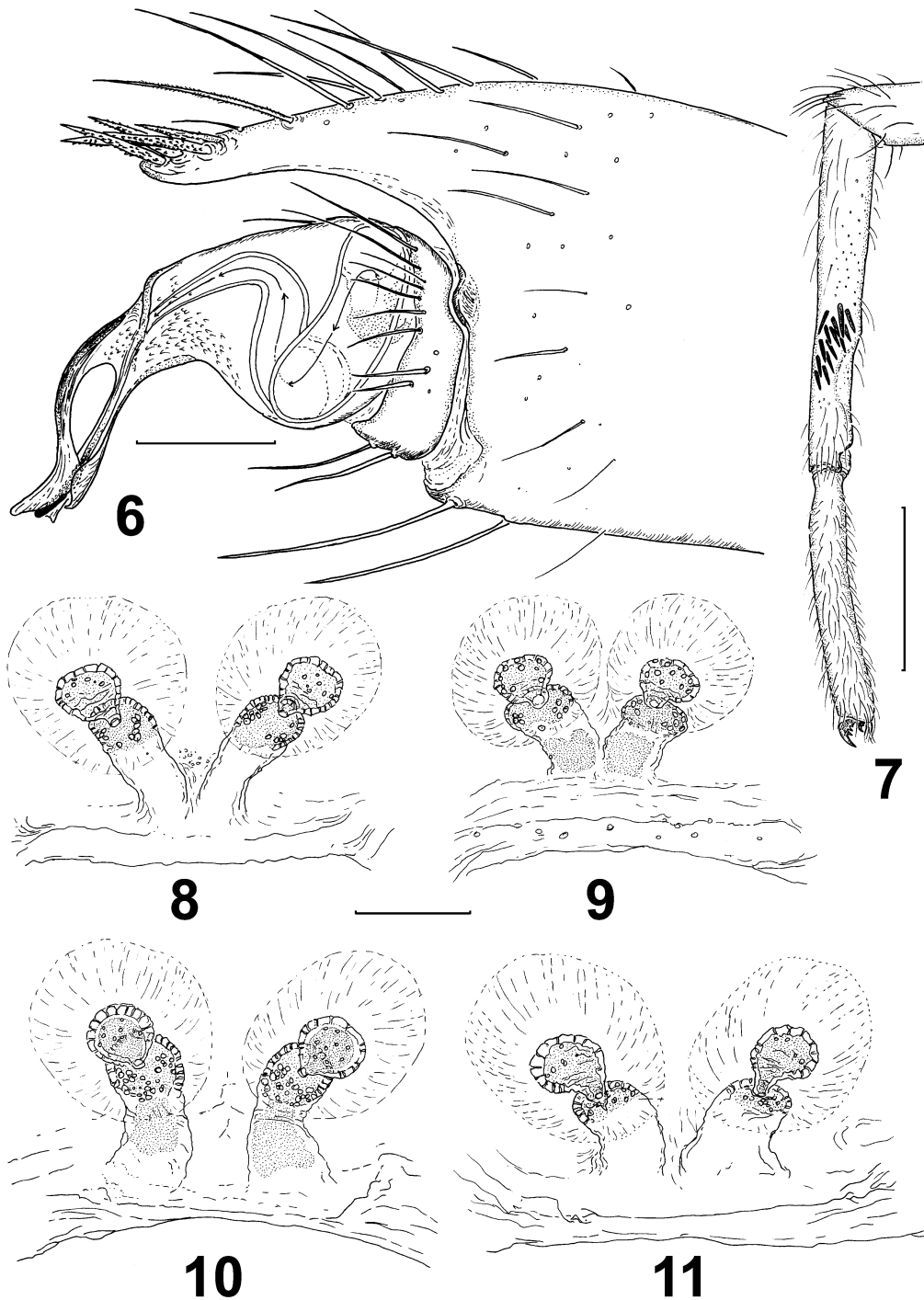
CJG00202-3, ARAMR000149), 1 female (MACN-Ar 10526, preparation CJG00214), 1 female (MACN-Ar 10530), 1 female (MACN-Ar 10457, ARAMR000027), 1 female (MACN-Ar 10723, maintained alive until 14.VI.2005), 1 immature (MACN-Ar 10528); Parque Nac. Copo, NE limit, 24–25.II.2004, same collectors, 1 female (MACN-Ar 10527, web sample CJG00030, preparation CJG00243); Departamento Moreno, Ruta Prov. 6, 10 km NE Quimilí, 22.II.2004, sifting under *Opuntia quimilo* (“quimil”) litter, same collectors, 1 immature (MACN-Ar 10529); Córdoba Province: Alta Gracia, 31°40'00" S 64°26'00" W, 2.IV.2005, M. Ramírez col., on walls of houses, 10 females (MACN-Ar 10716), same data, 3 males, 1 female (MACN-Ar 10717), 1 female (MACN-Ar 10718), same data, 1 male (molted to maturity 6.V.2005, MACN-Ar 10720, ARAMR000208). All the specimens of *P. tambilloi* and *P. toba* cited in Ramírez & Grismado (1997) were re-examined.

Redescription of male (Parque Nacional Copo, MACN-Ar 10459): Total length 3.00. Carapace length 1.26, width 0.96. Posterior median eyes separated by about 1.75 diameters. Palp, femur length 0.92. Legs, tibiae length/width I 2.44/0.18, II 1.90/0.18, III 1.22/0.16, IV 1.94/0.20, metatarsi length I 2.40, II 1.26, III 1.30, IV 1.82, tarsi length I 1.42, II 0.76, III 0.64, IV 0.76. Abdomen length 1.62. Carapace light brown with darker, thin radial design. Clypeus and postocular area marbled between the eyes and the fovea; carapace margins with a thin dark band. Sternum pale with very small dots aligned as a median thin stripe; margins darkened. All legs pale yellowish (Fig. 3). Opisthosoma brown almost uniform with tenuous darker chevrons (as in Fig. 1), not so contrasting as in other species of the genus, partially hidden by long brown hairs; venter brown, except the epigastric area and the area anterior to the spinnerets, pale yellowish. Spination: All legs devoid of spines except an apical-ventral pair on distal tibiae (thinner on tibia II). The excavated area of metatarsi II lacks the strong proximal spines; instead, it has short spinules that gradually decrease their length distally (Fig. 7), as in *Misionella* (Ramírez & Grismado 1997: figs. 97–98, Grismado & Ramírez 2000: figs. 1–2), and the males of *Pikelinia ticucho* from Córdoba province, Argentina (Grismado 2003: figs. 3–4).

Palp (Figs. 4–6): described in Ramírez & Grismado (1997: 330). The embolus of the type specimen is broken.

Female: We dissected additional females and illustrated the intraspecific variability in the internal genitalia, including the dimensions of the pore-bearing area of the proximal receptacle (Figs. 8–11). The chevroned dorsal pattern of the opisthosoma is more evident in lighter specimens (Fig. 2).

Distribution: La Rioja, Santiago del Estero and Córdoba Provinces, Argentina. The new records here presented extend the known range of this species about 700 km to the northeast (Copo) and about 400 km to the SE (Alta Gracia) from the type locality.



FIGURES 6–11. *Pikelinia tambilloi* (Mello-Leitão). 6–7, male from Parque Nacional Copo. 6, left palp, retrolateral, cleared; 7, left metatarsus-tarsus II, retrolateral; 8–11, female vulvae, cleared. 8, Mercedes, Santiago del Estero (holotype of *P. toba* Ramírez & Grismado, MACN-Ar 9515), 9 Copo, Santiago del Estero (MACN-Ar 10527), 10, Tobas, Santiago del Estero, (MACN-Ar 9520); 11, La Rioja (MACN-Ar 4238). Scale bars: 6, 8–11=100 μ m; 7=0.5 mm.

Natural history: Most of the specimens from Parque Nacional Copo were collected in typical filistatid cribellate funnel webs constructed in holes and crevices in a palisade around a small pond for cattle. Other specimens were found in fallen logs and sifting litter under “quimil” cactuses (*Opuntia quimilo*). The Parque Nacional Copo is situated in the bioma known as “dry Chaco” as characterized in Cabrera & Willink (1973) and Morrone (1999, 2000). The specimens collected in the city of Alta Gracia made dense webs in corners of external walls of buildings.

***Pikelinia kolla* Ramírez & Grismado, 1997.**

Type locality: Argentina: Jujuy Province: Tilcara (Ramírez & Grismado 1997: 336).

New Records: ARGENTINA: Salta Province: "El Anfiteatro" and "Garganta del Diablo", Ruta provincial 68, 46 km NE Cafayate, 8.X.2004, M. Ramírez (in webs on the walls of sedimentary rocks), one male, one female and one immature (MACN-Ar 10593), same data, (MACN-Ar 10589, one female –ARAMR000157– and two immatures).

Distribution: Highlands of Jujuy Province (in “Quebrada de Humahuaca”) and central Salta Province, Argentina. The new records extend the known range of this species more than 200 km to the south.

Natural History: The specimens from Salta were collected on very dense webs on dust accumulations in holes and crevices of rocky walls. The webs were mostly embedded in the dust, probably as a result of accumulation of layers of dust and silk.

Acknowledgments

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