



On the spider genus *Neonella* (Araneae: Salticidae): new records and taxonomic notes for species from southern South America

RICARDO OTT¹, GUILHERME O. SILVA¹, KIMBERLY S. MARTA^{1,3} & EVERTON N. L. RODRIGUES²

¹Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul. Rua Dr Salvador França, 1427, 90690-000, Porto Alegre, RS, Brazil. E-mail: rott@fzb.rs.gov.br

²Programa de Pós-Graduação em Biologia, Universidade do Vale do Rio dos Sinos (UNISINOS). Av. Unisinos, 950, Cristo Rei, 93022-000, São Leopoldo, RS, Brazil

³Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre, RS

The genus *Neonella* Gertsch, 1936 contains 12 species with an exclusive New World distribution (World Spider Catalog 2015). The genus was proposed by Gertsch (1936) to include *N. vinnula* Gertsch, 1936 from Florida and Texas, USA. Remaining species were added by Galiano (1965, 1988, 1998) and, more recently, Edwards (2003), Ruiz & Brescovit (2004), and Ruiz *et al.* (2007).

Species of *Neonella* can be recognized mainly by "two putative synapomorphies, the presence of a basal conical tegular projection on the male palp and the peculiar flattened carapace, with a posterior uniform narrowing beginning behind the posterior lateral eyes" (Ruiz & Brescovit 2004). The males of the species herein described also have a well-developed dorsal abdominal scutum and, sometimes, a ventral abdominal scutum. The genus seems to be represented by three different groups, including species with long and curled embolus (e.g. *N. noronha* Ruiz, Brescovit & Freitas, 2007), species with single stout embolus (e.g. *N. minuta* Galiano, 1965) and species with a basal branched structure (pectinate process) at the embolus (e. g. *N. colalao* Galiano, 1998). According to Galiano (1998), species of the genus can be found in leaf litter, and under rocks and trunks. They are considered some of the smallest known salticids in the world.

The specimens examined are deposited in the arachnological collection of the Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul (MCN; R. Ott), and Museu de Ciência e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul (MCTP; A.A. Lise), both in Porto Alegre, Rio Grande do Sul, Brazil.

Epigynes were dissected and immersed in clove oil for clearing and observed under transmitted light microscope. Incident light images were taken through a stereomicroscope with attached digital camera and processed with the Helicon Focus multi-range program. Transmitted light images of epigynes were taken with a compound microscope using a digital camera and also processed with the Helicon Focus multi-range program. All measurements are in millimeters.

Neonella lubrica Galiano, 1988

Figs 1–4, 13–16

Neonella lubrica Galiano, 1988: 441–443, figs 2–7, 15, 20. Holotype ♀, San Benito (Pastoreo), Departamento Itapúa, Paraguay, not examined. World Spider Catalog 2015.

Description. Male and female (See Galiano 1988: 441–443, figs 2–7, 15, 20).

Note. Based on comparisons between drawings of the male palp given by Galiano (1988: 442, figs 5–7) and our images (Figs 13–14), it is possible to say that the tip of the embolus of the paratype specimen illustrated in the original description is broken off.

Variation. Total length: males, 1.67–2.18 (n=25); females, 1.68–2.41 (n=37). Carapace length: males, 0.84–1.00; females, 0.88–1.00.

Material examined. BRAZIL. **Rio Grande do Sul:** Cambará do Sul, 1♂, 11–13.IV.1994, A.B. Bonaldo leg. (MCN 25509); Capão do Leão, 11♂, 26♀, 13.VII.1999–27.III.2001 (MCTP 13070, 13162, 11416, 13230, 13163, 13076, 13225, 13080, 13129, 11415 11418, 11653), all E.N.L. Rodrigues leg.; Triunfo, 1♂, 1♀, 28.V.2001, M.A.L. Marques leg. (MCN

Material Examined. BRAZIL: **Rio Grande do Sul:** Cachoeirinha, 1♂, I.2001, E. Costa leg. (MCTP 18052); 3♀, Estação Experimental do Arroz, Instituto Riograndense do Arroz, 27.V.2005, E.N.L. Rodrigues leg. (MCN 40534); Cerrito, 2♀, 24.I.2008, J.L.O. Rosado leg. (MCN 46728).

Distribution. Argentina (Buenos Aires) and Brazil (Rio Grande do Sul); probably also Uruguay.

***Neonella montana* Galiano, 1988**

Figs 9–12, 20–25

Neonella montana Galiano, 1988: 447, figs 14, 21. Holotype ♀, Cuesta Cura Brochero, Provincia de Córdoba, Argentina, not examined. World Spider Catalog 2015.

Neonella cabana Galiano, 1998: 15, figs 4–6, 11–12. Holotype ♂, Cabana, Provincia de Córdoba, Argentina, not examined. World Spider Catalog 2015. **NEW SYNONYMY.**

Note. Galiano (1998: 16) noticed the possibility that the male described as *N. cabana* could belong with the female described as *N. montana*. The large amount of males and females collected together in the same location, added to Galiano's notes, provide evidence of the synonymy.

Description. Male: See Galiano (1998: 15, as *N. cabana*). Female: See Galiano (1988: 447).

Variation. Total length: males, 1.05–1.72 (n=22); females, 1.11–2.06 (n=34). Carapace length: males, 0.52–0.78; females, 0.58–0.86. Coloration: highly variable patterns in male, from very dark to light-colored specimens (Figs 9, 20). Embolus: pectinate process variably branched (Figs 23–25).

Material examined. BRAZIL. **Rio Grande do Sul:** Cachoeirinha, 2♂, 2♀, Estação Experimental do Arroz, Instituto Riograndense do Arroz, 27.V.2005, E.N.L. Rodrigues leg. (MCN 49770); Porto Alegre: 1♂, Jardim Botânico, 19.XI.2012, G.O. Silva *et al.* leg. (MCN 49771); Viamão, 29♂, 23♀, 12.VI.2003–30.IV.2004 (MCTP 17307, 17340, 17343, 17319, 17309, 17310, 17311, 17325, 17326, 17327, 17328, 17319, 17320, 17321, 17322, 17312, 17313, 17314, 17315, 17316, 17317, 17318, 17329, 17330, 17331, 17332, 17333, 17334, 17324, 17337, 17338, 17339, 17336, 17335), all Parque Estadual de Itapuã, A.C.K. Ferreira leg. (pitfall traps).

Distribution. Argentina (Córdoba; probably other provinces) and Brazil (Rio Grande do Sul); probably also Uruguay.

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