



## On two species of the spider genus *Sphecozone* O.P.-Cambridge and a case of hermaphroditism in *Sphecozone personata* (Simon, 1864) (Araneae: Linyphiidae)

EVERTON NEI LOPES RODRIGUES<sup>1,2,4</sup>, RICARDO OTT<sup>2</sup> & MILTON DE S. MENDONÇA, JR<sup>3</sup>

<sup>1</sup>Laboratório de Artrópodes, Instituto Butantan. Av. Vital Brazil, 1500, 05503-900. São Paulo, SP, Brazil

<sup>2</sup>Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul. Porto Alegre, RS, Brazil

<sup>3</sup>Pós-Graduação em Biologia Animal, Universidade Federal do Rio Grande do Sul. Porto Alegre, RS, Brazil

<sup>4</sup>Corresponding author: E-mail: enlrodrigues@yahoo.com.br

*Sphecozone* O.P.-Cambridge, 1870 includes small to median spiders with 1.4–4.2 mm body size. Known exclusively from the Americas, 34 species are recognized, 14 of them are present in Brazil (Platnick 2011). The female of *S. rostrata* Millidge, 1991 is described and illustrated for the first time. The male of *S. rostrata* and both sexes of *S. personata* (Simon, 1864) are redescribed. New illustrations are presented together with seasonality abundance data for both species. We also provided illustrations of a bilateral hermaphrodite specimen of *S. personata*.

Specimens are deposited in the collection of the Museu de Ciências Naturais (MCN, Erica H. Buckup), Porto Alegre, Rio Grande do Sul, Brazil. Trichobothrium position on metatarsus I (TmI), tibial spine and descriptions and terminology follow Millidge (1980), Roberts (1987) and Miller (2007), respectively. The epigynum and the embolic division were both immersed in lactic acid for approximately 30 minutes for examination. All measurements are in millimeters. Images were taken on a Leica® M205A stereomicroscope with Leica Application Suite for multifocus imaging.

Samples were taken from riparian forests of three rivers in the state of Rio Grande do Sul, Brazil: Camaquã river, in the municipality of Cristal (31°01'01.7"S, 51°56'42.0"W); Sinos river, in Parobé (29°41'06.94"S, 50°51'05.98"W) and Maquiné river, in Maquiné (29°40'47.99"S, 50°11'20.03"W). Sampling was carried out on 16 sampling dates, two per season, during two years (01 August 2007–06 June 2009). Spiders were collected from the shrub-tree strata with a beating tray (70cm x 70cm) for 45min each from six transects located in different forest habitats: two in the forest-river edge, two inside the forest and two in the forest-grassland edge.

### *Sphecozone rostrata* Millidge, 1991

(Figs. 1–5, 20)

*Sphecozone rostrata* Millidge, 1991:175, figs. 743–746 (Holotype ♂, Encruzilhada, Bahia, Brazil, XI.1973, M. Alvarenga col., in AMNH, not examined); Rodrigues, 2005: 105; Platnick, 2011.

**Diagnosis.** The male of *Sphecozone rostrata* resembles that of *S. personata* by the dorsally projected cymbium, the long prolateral tibial apophysis (Figs. 1, 2) and the cephalic projection (Fig. 5). The males of *Sphecozone rostrata* differ from those of *S. personata* by having the palp tibiae with a more developed tubercle near the retrolateral margin (Fig. 1), by the embolus without a conspicuous loop at the retrolateral portion of tegulum and subtegulum (Fig. 1) and by the more slender and pronounced cephalic projection (Fig. 5). The female of *S. rostrata* is close to *S. personata* by the presence of a larger anterior process on the ventral epigynal plate (Fig. 3); differs from it by a wider anterior lobe of the dorsal epigynal plate (Fig. 3), larger spermathecae and fertilization ducts closer to the edge of the dorsal plate (Fig. 4).

**Description.** Female (MCN 47515): Total length 1.55. Carapace length 0.62, width 0.55, height 0.35. Clypeus height 0.10. Sternum length 0.37, width 0.37. Abdomen length 1.05, width 0.85, height 0.87. Leg formula IV/I/II/III; lengths (I/II/III/IV): femora 0.50/0.52/0.42/0.57; patellae 0.17/0.17/0.15/0.15; tibiae 0.42/0.37/0.30/0.47; metatarsi 0.35/0.35/0.32/0.47; tarsi 0.25/0.25/0.25/0.25; total 1.69/1.66/1.44/1.91. Coxae III slightly smaller, coxae IV separated by more than their width. TmI 0.40. Metatarsal trichobothria I–III present, IV absent. Tibial spine formula: 1-1-1-1. Eye diameters: AME 0.05, ALE, PME and PLE 0.06. Eyes with dark borders. Ocular area dark-brown. Clypeus glabrous.