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The orb-weaving spider genus *Eustala* Simon, 1895 (Araneae, Araneidae): eight new species, redescriptions, and new records

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Abstract

Eight new species of *Eustala* Simon, 1895 are described from southern Brazil. *Eustala guarani* n. sp., from Paraná and *E. catarina* n. sp., from Santa Catarina, are based on males and females. Six species are described from Rio Grande do Sul: *E. ericae* n. sp., *E. cidadae* n. sp., *E. lisei* n. sp., *E. cuia* n. sp., *E. farroupilha* n. sp., based on males and females, and *E. eldorado* n. sp., based only on males. *Eustala mourei* Mello-Leitão, 1947, from Paraná and *E. ulecebrosa* (Keyserling, 1892), described from Rio Grande do Sul are redescribed and illustrated. New records are given for *Eustala albiventer* (Keyserling, 1884), *E. taquara* (Keyserling, 1892), *E. minuscula* (Keyserling, 1892), *E. itapocuensis* Strand, 1916, *E. photographica* Mello-Leitão, 1944, *E. levii* Poeta, Marques & Buckup, 2010, and *E. palmares*, Poeta, Marques & Buckup, 2010. *Eustala perfida* Mello-Leitão, 1947, described from Paraná, and *E. bellissima* Poeta, Marques & Buckup, 2010, from Rio Grande do Sul, are newly recorded from Uruguay. Distribution maps are provided.

Key words: taxonomy, geographical distribution, southern Brazil, Neotropical region

Introduction

The orb-weaving genus *Eustala* was proposed by Simon (1895) with *Epeira anastera* Walckenaer, 1841, as the type species. The author diagnosed the genus based on female character, namely, their unique epigynum with a scape projecting anteriorly. The male was proposed by Walckenaer (1841) as *Epeira illustrata*, nowadays synonymized with *Eustala anastera*.

Eustala are nocturnal araneids; usually their webs are built in the arboreal strata in the evening and are removed in the morning. These spiders are also found during the day, in webs or resting on tree trunks (Levi 1977).

Eleven species were described from Central America by O.P.-Cambridge (1889) and F.O.P.-Cambridge (1904) and one species by Chamberlin (1925). Chickering (1955) added 28 new species from Central America. Because of the difficulty in matching males and females, only four new species of these were described with both sexes (12 were based on males and 12 on females).

Levi (1977) revised 13 species from North and Central America adding two new species, two new combinations, two synonymies, and redescribed and illustrated the remainings species. This author also emphasized the difficulty of matching males and females of the same species by color pattern (Levi 1977). Throughout the years, Levi examined and illustrated the genitalia of 63 type specimens of *Eustala*, including those described from South America, which are available online (Levi 2007; Levi *et al.* 2010). Levi & Santos (2013) synonymized 11 species of *Eustala* from Central America resulting in nine valid species. Also, *Eustala isosceles* Mello-Leitão, 1939 was transferred to *Kapogea* Levi, 1997 and *E. decemtuberculata* Caporiccaco, 1955 was considered as junior synonym of *Parawixia rimoso* (Keyserling, 1892) (Levi & Santos 2013).

The southern Brazilian fauna of *Eustala* had been studied by Keyserling (1884, 1892, 1893) who described five new species from the state of Rio Grande do Sul: *E. albiventer* (Keyserling, 1884), *E. minuscula* (Keyserling, 1884), *E. ulecebrosa* (Keyserling, 1892), *E. taquara* (Keyserling, 1892), and *E. saga* (Keyserling, 1893). Strand (1916), described *Eustala itapocuensis* from state of Santa Catarina. Mello-Leitão (1947) described *Eustala mourei* Mello-Leitão, 1947 and *E. perfida* Mello-Leitão, 1947 from Paraná. Framenau *et al.* (2009) proposed a new

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