Zootaxa 3931 (3): 387–400
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3931.3.3
http://zoobank.org/urn:lsid:zoobank.org:pub:13BA1A35-C31A-4910-8EAC-1D840C5CAD18

Revision of *Emmenomma* Simon (Amaurobiidae, Macrobuninae)

ALMEIDA-SILVA LINA M.[1,2,3], GRISWOLD CHARLES E.[1] & BRESCOVIT ANTONIO D.[2]

[1]*California Academy of Sciences, Department of Entomology, 55 Music Concourse Drive, Golden Gate Park, 94118, San Francisco, USA. E-mail: lalmeida@calacademy.org, cgriswold@calacademy.org*
[2]*Laboratório Especial de Coleções Zoológicas - LECZ, Instituto Butantan, Avenida Vital Brazil, 1500, 05503-900, São Paulo, Brazil. E-mail: linamas@gmail.com, adbresc@terra.com.br*
[3]*Corresponding author*

Abstract

The genus *Emmenomma* is revised and now includes three species from Southern Chile, Argentina and Falkland Islands (Islas Malvinas). The type species *Emmenomma oculatum* is redescribed and considered a senior synonym of *E. beauchenicum*. *Emmenomma oculatum obscurum* is removed from synonymy with *E. oculatum*, raised to the species level and redescribed; the male of this species remains unknown. A new species, *Emmenomma joshuabelli* **sp. nov.** is described. The presence of a grate shaped tapetum outside the Lycosoidea clade is described. Detailed images are provided for all known species.

Key words: Chile, Spiders, *Naevius, Anisacate,* Tibial gland

Introduction

The spider genus *Emmenomma* was proposed by Simon (1884) based on several male and female specimens from Tierra del Fuego, Chile. Due to its atypical eye pattern, with greatly enlarged lateral eyes, and peculiar male palp, with an elbowed and flexibly attached dorsal tibial apophysis (DTA) that rests on the retrolateral side of the palp and can be easily mistaken for a RTA, *Emmenomma* is not easily confused with other spiders and there are no synonyms of the generic name. Although macrobuninae status has been recognized since Lehtinen (1967), *Emmenomma* has not been included in any phylogenetic study. Macrobuninae, as defined by Lehtinen (1967: 333), includes 19 genera from America and South Africa, characterized by the presence of denticles on the cheliceral retromargin (Fig. 2E), oblique cheliceral groove (*e.g.* Griswold *et al.* 2005: 231 fig. 130G, I), and reduced anterior median eyes (Fig. 1A; 2A–B). Compagnucci & Ramirez (2000) placed *Emmenomma* close to *Anisacate* Mello-Leitão and *Naevius* Roth because of the shared presence of a gland in the male palpal tibia. The presence of a subtriangular internal branch on the retrolateral tibial apophysis (here called iRTA), associated to a stridulatory area on the retrobasal area of the cymbium (Griswold *et al*., 2005: fig. 183D; Fig. 3C–D) corroborates the placement of *Emmenomma* in Macrobuninae (Almeida-Silva unpublished data). *Emmenomma* and other macrobunines are currently placed in the Amaurobiidae (World Spider Catalog, 2014) but, based on a molecular analysis, Miller *et al.* (2010) questioned the placement of Macrobuninae in Amaurobiidae without taking further action to change the placement of the subfamily. Pending completion of an analysis comprising a more comprehensive suite of taxa (Almeida-Silva unpublished data) we are not yet ready to a change in family placement for Macrobuninae.

In this study, we revise *Emmenomma* and provide detailed morphological information for all its known species.

Material and methods

Specimens used in this study are deposited in the following collections (institution abbreviation, curator's name in parentheses): California Academy of Sciences, San Francisco (CAS, C. E. Griswold); American Museum of

Accepted by J. Miller: 30 Jan. 2015; published: 13 Mar. 2015

Tecnológico—CNPq (301776/2004-0, ADB) and The U. S. National Science Foundation "Assembling the Tree of Life—Spiders" (NSF-EAR-0228699, CEG). We would like to thank Vic Smith (CAS) and João Lucas Chavari (IBSP) for the extended focal range images. We also thank Angelo Bolzern, Jeremy Miller, Martín Ramirez and Robert Bennett for the helpful suggestions.

References

Griswold, C.E., Ramírez, M.J., Coddington, J.A. & Platnick, N.I. (2005) Atlas of phylogenetic data for entelegyne spiders (Araneae: Araneomorphae: Entelegynae) with comments on their phylogeny. *Proceedings of the California Academy of Sciences,* 56 (Supplement II), 1–324.

Hogg, H.R. (1913) Some Falkland Island spiders. *Proceedings of the Zoological Society of London,* 1913, 37–50.

Lehtinen, P.T. (1967) Classification of the cribellate spiders and some allied families, with notes on the evolution of the suborder Araneomorpha. *Annales Zoologici Fennici,* 4, 199–468.

Miller, J., Carmichael, A., Ramírez, A., Haddad, A., Řezáč, M., Johannesen, J., Král, J., Wang, X.P., Spagna, J. & Griswold, C. (2010) Phylogeny of Entelegyne Spiders: Affinities of the Family Penestomidae (NEW RANK), Generic Phylogeny of Eresidae, and Asymmetric Rates of Change in Spinning Organ Evolution (Araneae, Araneoidea, Entelegynae). *Molecular Phylogenetics and Evolution,* 55, 786–804.
http://dx.doi.org/10.1016/j.ympev.2010.02.021

Ramirez, M.J. (2014) The morphology and phylogeny of dionychan spiders (Araneae, Araneomorphae). *Bulletin of the American Museum of Natural History*, 390, 1–374.
http://dx.doi.org/10.1206/821.1

Roth, V.D. (1967) A review of the South American spiders of the family Agelenidae (Arachnida, Araneae). *Bulletin of the American Museum of Natural History,* 134, 297–346.

Schiapelli, R.D. & Gerschman de Pikelin, B.S. (1974) Arañas de las Islas Malvinas. *Revista del Museo Argentino de Ciencias Naturais Bernardino Rivadavia*, 4, 79–93.

Simon, E. (1884) Arachnides recueillis par la Mission du Cap Horn en 1882–1883. *Bulletin de la Société Zoologique de France,* 9, 117–144.

Simon, E. (1887) Arachnides. *Mission scientifique du Cap Horn, 1882–1883*, 6, E1–E42.

Simon, E. (1898) *Histoire naturelle des araignées. Vol. 2.* Paris, 188 pp. [pp. 193–380]

Simon, E. (1905) Etude sur les arachnides recueillis en Patagonie par le Dr. Fillipo Silvestri. *Bollettino dei Musei di Zoologia e di Anatomia Comparata della Reale Universitá di Torino,* 20 (511), 1–17.

Tullgren, A. (1901) Contribution to the knowledge of the spider fauna of the Magellan Territories. In *Svenska Expeditionen till Magellansländerna*, 2 (10), 181–263.

Usher, M.B. (1983) Spiders from Beauchêne Island, Falkland Islands, South Atlantic. *Journal of Zoology,* 200, 571–582.
http://dx.doi.org/10.1111/j.1469-7998.1983.tb02817.x

World Spider Catalog (2014) World Spider Catalog. Natural History Museum Bern. Version 15.5. Available from: http://wsc.nmbe.ch (accessed 12 November 2014)