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New species of *Tauala* Wanless, 1988 from Australia (Araneae: Salticidae: Astioidea: Astiae), with a redefinition of the genus

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Abstract

Five species of the genus *Tauala* Wanless, 1988, namely *T. zborowskii* sp. nov. (f), *T. ottoi* sp. nov. (f), *T. palumaensis* sp. nov. (m), *T. bilobatus* sp. nov. (m) and *T. setosus* sp. nov. (m), are diagnosed, described and illustrated. Additional colour plates with the females of *T. lepidus* Wanless, 1988 and *T. athertonensis* Gardzińska, 1996 and the male of *T. splendidus* Wanless, 1988 are provided, as well as distributional maps for these three species. *Tauala elongata* Peng & Li, 2002 is considered a non-congener. A revised definition of the genus is proposed and its distribution and relationships are discussed.

Key words: jumping spiders, taxonomy, biogeography

Introduction

According to molecular data (Maddison *et al.* 2008), the Astioidea clade is a significant component of the Australasian salticid fauna, comprising about 30 genera and several hundred species. Within the Astioidea, the Astiae are relatively well established, with nine mainly Australian genera (including *Tauala*) and about 70 species (Wanless 1988, Žabka 1995, 2001, 2002, unpubl., Gardzińska 1996, Gardzińska & Žabka 2010, Žabka & Patoleta 2014, in press.). Phylogenetic analyses using molecules of representatives of five genera support Wanless's (1988) definition of Astiae (Maddison *et al.* 2008).

The genus *Tauala* Wanless, 1988 was described to include six species from NE Queensland, including *T. lepidus* Wanless, 1988, the type species of the genus. More recently, another species was found in the same area (Gardzińska 1996) and yet another in Taiwan (Peng & Li 2002); the latter species, however, is here considered a non-congener, pending revision.

Here we describe five new species and provide additional distributional records and details of intraspecific variation for three already described species. We also discuss the relationships and distribution of the genus as a whole.

Material and methods

The specimens for the study came from the collection of the Queensland Museum, Brisbane (QMB) and additional distributional data were provided by the curators of the Australian Museum, Sydney and the Australian National Insect Collection, Canberra. The examination methods are as described earlier (Žabka 1991). Photographs were taken with a Nikon D5200 camera and a Nikon SMZ1000 stereomicroscope, and digitally processed with ZoomBrowser and HeliconFocus software. Maps with distributional records were generated on the basis of species' bioclimatic envelope, using the boxcar version of BioClim (Richardson *et al.* 2006), available in BioLink version 2.0 (Shattuck & Fitzsimmons 2002).

Abbreviations used are: AEW: anterior eye row width, AL: abdomen length, ALE: anterior lateral eyes, as: abdominal setae, AW: abdomen width, CH: cephalothorax height, CL: cephalothorax length, CW: cephalothorax