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## Review of the Australian wolf spider genus *Venator* (Araneae, Lycosidae)

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### Abstract

Species of the Australian wolf spider genus *Venator* are reviewed including the type species, *V. spenceri* Hogg, 1900, from south-eastern Australia and *V. immansuetus* (Simon, 1909) **comb. nov.**, a common species in south-west Western Australia. *Venator marginatus* Hogg, 1900 is only known from two female specimens and the genital morphology of this species does not conform to the diagnosis of genus as presented here. Therefore *V. marginatus* is considered *incerta sedis*. *Venator* includes medium-sized (9.0–22 mm body length) wolf spiders of overall brownish colouration, and with a black patch covering the anterior three quarters of the venter. They differ from all other wolf spiders in particular by genitalic characters, namely an elevated atrium of the female epigyne that forms a raised edge against the inverted T-shaped median septum. This edge often corresponds to a retrolateral incision on the tegular apophysis of the male pedipalp. The genus is mainly a representative of the Bassian fauna of the Australian continent where it occurs predominantly in dry sclerophyll forests.

**Key words:** taxonomy, Lycosinae, *incerta sedis*, Bassian fauna

### Introduction

The Australian wolf spider genus *Venator* Hogg, 1900 was initially established based on somatic characters, i.e. relative lengths of leg segments and the three similar-sized retromarginal cheliceral teeth (Hogg 1900). One of the three species originally included in the genus, *Venator fuscus* Hogg, 1900, was later recognised as junior synonym of the type species of *Venatrix* Roewer, 1960, *V. funesta* (C.L. Koch, 1847) (Framenau & Vink 2001). Hence, two species are currently listed for *Venator*, the type species *V. spenceri* Hogg, 1900 and *V. marginatus* Hogg, 1900 (World Spider Catalog 2015). Five years after the description of the genus, Hogg (1905) realised that the characters he used to define *Venator* did not appropriately reflect relationships within the Lycosidae Sundevall, 1833 when he elaborated (p. 570): “However, the more specimens I examine the more the only tangible characteristics show themselves to be interchanged, and I look at these two genera [*Venator*, *Pardosa* C.L. Koch, 1847] no more distinctly definable than M. Simon’s above mentioned other varieties of *Lycosa*”.

As Hogg (1905) already realised, somatic characters, such as eye pattern, relative length of leg segments and cheliceral dentition have long been shown of limited value in lycosid systematic research, with genital morphology shown to much better reflect systematic relationships. Since Dondale’s (1986) seminal study on wolf spider subfamilies based on male genital morphology, some progress has been made to resolve the higher level relationships of wolf spiders, mainly based on molecular datasets (Vink & Paterson 2003; Murphy *et al.* 2006; Park *et al.* 2007). It still remains difficult, however, to place a number of genera in the currently established subfamily framework based on morphological data (e.g. Piacentini, 2011, 2014).

The taxonomy of the Australian wolf spider fauna has made some major progress over the last decade. Representatives of four subfamilies are currently recognised, the Zoicinae Lehtinen & Hippa, 1979, Artoriinae Framenau, 2007, Venoniinae Lehtinen & Hippa, 1979 and Lycosinae Sundevall, 1833 (Framenau 2007). *Venator* is a member of the Lycosinae as diagnosed by Dondale (1986) due to the retrolaterally directed tegular apophysis that