

An Unusual New *Leioproctus* Species (Hymenoptera: Colletidae)

MICHAEL BATLEY^{1*} AND TONY J. POPIC²

¹ Australian Museum Research Institute,
Australian Museum, 1 William Street, Sydney NSW 2010, Australia

² Department of Agriculture and Water Resources,
1 Pederson Road, Eaton NT 0812, Australia

michael.batley@gmail.com · tony.popic@gmail.com

ABSTRACT. *Leioproctus glendae* Batley, n. sp., is described on the basis of two males and one female from western Queensland. The female has an unusually narrow fore basitarsus and mandibular structure not seen in other members of the genus, while the male terminalia do not closely resemble those of any other species group. The new species provides further demonstration of the variety of forms contained in the genus *Leioproctus*, and is described in order to assist future revision of this group.

KEYWORDS. Bee; Colletidae; *Leioproctus*; new species

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When rationalising the generic level taxonomy of Australian bees, Michener defined the genus *Leioproctus* Smith to mean a major group of bees that included both Australian and South American species (Michener, 1965). Even at that time, he acknowledged that South American mellitologists preferred to divide the genus more finely and that the genus he had defined was probably not a natural group (Moure *et al.*, 1999, 2012; Almeida, 2008; Almeida & Danforth, 2009). Over 40 years later he maintained this conservative approach (Michener, 2007, chapter 31; see also Maynard, 2013) because of difficulties in finding definitive characters that did not leave some species intermediate between groups, although an identification key was provided for all subgenera of *Leioproctus*.

Species with unusual characteristics (e.g., Packer, 2006; Houston & Maynard, 2012) will, therefore, be important in any future revision of the genus *Leioproctus* and this communication describes another such species.

* author for correspondence

Terminology, methods and measurements

The morphological terminology follows that used by Michener (Michener & Fraser, 1978; Michener, 2007) including use of the word hair and the description of legs in their normal positions. Relative dimensions quoted in the descriptions were measured using an eye-piece graticule on a stereomicroscope with the zoom objective set to give a reading of 50 divisions for the head width. Abbreviations used for the measurements are *CL*, median vertical length of clypeus; *CW*, maximum width of clypeus; *FL*, length of flagellum; *HL*, head length; *HW*, head width; *LID*, lower interorbital distance; *SL*, length of scape; *UID*, upper interorbital distance. Metasomal terga are numbered *T1*, *T2* etc., sterna as *S1*, *S2* etc. The male terminalia were extracted for examination. Geospatial coordinates are GPS readings (map datum WGS84). The abbreviation *AM* is used for the collection in the Australian Museum, Sydney.