



New species and a new genus of Cirolanidae (Isopoda: Cymothoidea: Crustacea) from groundwater in calcretes in the Pilbarra, northern Western Australia

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Abstract

Kagalana tonde **gen. nov., sp. nov.** and *Haptolana yarraloola* **sp. nov.** are described from subterranean water in calcretes in the Pilbarra region, Western Australia. *Kagalana* is characterised by haptorial dactylus on pereopod 1, short antennule and antenna peduncles, and pleonites 4 and 5 narrow, laterally overlapped by margins of pleonite 3 and pleonite 5 narrower than the pleotelson anterior margin. *Haptolana yarraloola* is the second record of the genus from Australia, both species of which are from Western Australia.

Key words: Cirolanidae, Isopoda, *Haptolana*, *Kagalana*, Australia; cave fauna; phreatic fauna; Western Australia; Pilbarra

Introduction

The indigenous subterranean aquatic fauna of Western Australia is rich and diverse (Humphreys 1999, 2001) and continues to receive considerable scientific attention (see Pain, 2005 for an overview). The crustacean fauna from this region is correspondingly diverse (e.g. Bruce & Humphreys 1993; Cho *et al.* 2005; Finston & Johnston 2004; Keable & Wilson 2006; Karanovic 2006; Knott & Halse 1999; Poore & Humphreys 1992, 1998, 2003; Wilson & Ponder 1992; Wilson 2003; Wilson & Keable; 1999, 2002; Yager & Humphreys 1996). Globally, cirolanid isopods are a significant component of aquatic cave waters, now represented by 21 genera and some 86 species (Kensley *et al.* 2007 and author updates), with the regions of greatest representation being the amphi-Caribbean region and the regions surrounding the Mediterranean Sea. Australia, in contrast, had only one recorded stygian or groundwater cirolanid isopod, *Haptolana pholeta* Bruce & Humphreys, 1993, known from Barrow Island, off the central coast of Western Australia. This contribution describes two more cirolanid species from Western Australia, one necessitating a new genus.

Species descriptions were prepared in DELTA (Descriptive Language for Taxonomy, see Dallwitz *et al.* 1997) using a general Cirolanidae character set. Some *integer numeric* character states in the description may include a zero (0) rather than the more usual ‘without’ or ‘none’; minor details qualifying a coded character state are given within parentheses.

Abbreviations: CPS—circumplumose; RS—robust setae; PMS—plumose marginal setae; WAM—Western Australian Museum, Perth; MTQ—Museum of Tropical Queensland, Townsville.