



***Pentaceration*, an unusual new genus of Paramunnidae from Australia (Isopoda, Asellota)**

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Abstract

A new genus, *Pentaceration*, in the janiroid asellote family Paramunnidae from the Bass Strait area in south-eastern Australia is diagnosed. The distinguishing characters of species in the new genus are 1 central and 2 lateral spines on the frontal margin of the head, elongate eyestalks, lateral spines of varying length on pereonites 2–7, and reduced width of pereonite 4 compared with 3 and 5. Descriptions are presented of the type species, *Pentaceration bassiana*, and a second new species, *P. spinosissima*. The new genus appears to be wide-spread around Australia and New Zealand, where several as yet undescribed species have been noted, ranging from the upper sublittoral to abyssal depth. The relationship of *Pentaceration* to other paramunnid genera with covered coxae on all legs is discussed.

Key words: *Pentaceration*, Paramunnidae, new genus, new species, Australia

Introduction

Collecting activities over the past several decades in south-eastern, eastern and northern Australia (Bass Strait to the Arafura Sea) from shallow water to upper abyssal depths have revealed an extraordinarily high diversity of asellote isopods (Poore *et al.* 1994). Of the approximately 300 species recognised, but as yet mostly unpublished, nearly all represent new species as well as a high level of morphological novelty. Based on these collections, some families or subgroups of families have been treated in recent years, (Brandt 1994; Cohen, 1998; Just 1990, 2001a, 2001b, 2003, 2005; Just & Wilson 2004, 2006, 2007; Merrin 2004; Merrin & Poore 2003; Poore & Just 1990; Serov & Wilson 1994, 1999).

The purpose of the present paper is to diagnose a new genus of Paramunnidae of interesting novelty and high diversity in Australasian waters. So far, 17 putative species have been recognised from around Australia and New Zealand as belonging to this genus, from a few meters depth to 5340 meters in the Kermadec Trench. Just (1990, fig. 1B, as Paramunnidae nov. gen. et sp.) presented an illustration (dorsal view) of a species belonging in this new genus, and a species depicted by Gamô (1987, fig. 3G, as *Janirella?* sp.) clearly belongs here too. The new group is now turning up in collections from South America. Hence, to facilitate the placement of new species by colleagues, this paper presents a diagnosis of the genus, *Pentaceration* **gen. nov.**, a description of the type species, *P. bassiana* **sp. nov.**, and a description of *P. spinosissima* **sp. nov.** illustrating some of the considerable morphological variations within the group.

Methods

With the following exceptions, terminology and measurements follow Just & Wilson (2004, 2006, 2007). Length of a specimen is measured from the tip of the mid-cephalic spine to the posterior tip of pleotelson. Head length, on the other hand, is measured from the base of the mid-cephalic spine, i.e. from the line