

A New Genus Belonging to the Family Porcellidiidae (Crustacea: Copepoda: Harpacticoida) With Three New Species from Australia

VERNON A. HARRIS

3 Windsor Way, Hervey Bay Queensland 4655, Australia
vaharris@australis.aunz.com

ABSTRACT. A new genus, *Dilatatiocauda*, is defined to accommodate three new species belonging to the family Porcellidiidae. It is characterised by maxillipeds that do not meet in the mid-line or have a fimbriate process on the basis. *Porcellidium dilatatum* Hicks, 1971 possesses these features and is moved to the new genus as the type species. Three new species, *Dilatatiocauda multidenticulata*, *D. medialis* and *D. retroseta* from northern New South Wales, Australia are described and placed in the new genus. Three previously described species, *Porcellidium tristanense* Wiborg, 1964, *P. planum* Tiemann, 1977 and *P. bipartitum* Kim & Kim, 1997, although differing in some features, are considered to fall within the parameters of the new genus.

HARRIS, VERNON A., 2002. A new genus belonging to the family Porcellidiidae (Crustacea: Copepoda: Harpacticoida) with three new species from Australia. *Records of the Australian Museum* 54(1): 1–24.

The family Porcellidiidae Sars, 1904, has a rich assemblage of species in the Indo-Pacific region, Harris & Robertson (1994), Harris (1994), Harris & Iwasaki (1996a,b; 1997). A member of the Porcellidiidae with several unusual characters was described by Hicks (1971) from Wellington, Aotearoa (New Zealand) as *Porcellidium dilatatum*. This species is remarkable in having the maxillipeds widely separated (in all other members of the Porcellidiidae the coxal lobes meet in the mid-line). Three closely related species from New South Wales, Australia show the same widely spaced maxillipeds. These four species share several unique features that are not possessed by other members of the Porcellidiidae. A new genus, *Dilatatiocauda*, is proposed to accommodate them.

Porcellidium bipartitum Kim & Kim, 1997 from Korea, *P. tristanense* Wiborg, 1964 from Tristan da Cunha and *P. planum* Tiemann, 1977 from South Africa, share the same

unique set of characters, although they differ in certain other respects. Their taxonomic position and possible inclusion in the new genus will be considered in the discussion.

Methods and materials

The method of study, measurement, terminology used to describe setae and selection of type population or material, follows the procedures described by Harris & Robertson (1994) and Harris & Iwasaki (1996a). Measurements were made on formalin preserved specimens. Body length was measured from anterior edge of rostrum to posterior tip of urosome. Not all features can be seen or measured on holotype or allotype specimens and so illustrations and descriptions are based on dissected paratype material. Several dissections were made for each species in order to find at least one example of each limb orientated at a