



Kergueleniidae fam. nov. (Crustacea: Amphipoda: Lysianassoidea) in Australian waters

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Abstract

The new lysianassoid amphipod family Kergueleniidae is established and the genera *Clepidocrella* and *Kerguelenia* are reported from Australian waters for the first time. Nine new species are described: *Clepidocrella abeona* sp. nov., *C. catarauqui* sp. nov., *C. colliboi* sp. nov., *C. ira* sp. nov., *Kerguelenia euroka* sp. nov., *K. kanowna* sp. nov., *K. kawatiri* sp. nov., *K. leura* sp. nov. and *K. matilda* sp. nov. Keys are given to all species of each genus.

Key words: Crustacea, Amphipoda, Lysianassoidea, Kergueleniidae, *Clepidocrella*, *Kerguelenia*, Australia, taxonomy, new family, new species

Introduction

The new family Kergueleniidae contains two genera and 26 species distributed mainly in antitropical seas worldwide from depths of 10 m to 5041 m. They have not previously been reported from Australian waters, although three species (*Clepidocrella tropicalis* Lowry & Stoddart, 1994, *Kerguelenia koutoumo* Lowry & Stoddart, 1994 and *K. lifou* Lowry & Stoddart, 1994) are known from New Caledonia.

Kergueleniids are a group of lysianassoids where the mouthparts have become so reduced that their relationship with other lysianassoid family-level groups cannot be determined. The setal-tooth arrangement of maxilla 1 is reminiscent of lysianassid amphipods, but the mandible is highly distinctive with a very large palp and a vestigial to absent molar and incisor. The inner and outer plates of the maxilliped are always reduced. Although kergueleniids have reduced mouthparts they have never been reported in association with other animals, unlike for example, *Euonyx* (see Stoddart & Lowry 1989) and the opisids (see Lowry & Stoddart 2010), and nothing is known of their life-style.

De Broyer (1985: 306) recognised the "kergueleniidiens" as a possible monophyletic group and later referred to them as the "Kergueleniid Group" (De Broyer *et al.* 2007). In this paper we establish the Kergueleniidae and describe four new species of *Clepidocrella* and five new species of *Kerguelenia*, all from south-eastern Australia.

Material and methods

The descriptions were generated from a DELTA database (Dallwitz 2005) to the kergueleniid species of the world. The **bold** parts of the descriptions are diagnostic characters which distinguish each taxon in at least two respects from every other taxon. Material is lodged in the Australian Museum, Sydney (AM) and Museum Victoria, Melbourne (MV). Standard abbreviations on the plates are: A, antenna; G, gnathopod; MD, mandible; MP, maxilliped; MX, maxilla; P, pereopod; T, telson; U, uropod.