



## The new deep-sea families Cebocaridae fam. nov., Cyclocaridae fam. nov. and Thoriellidae fam. nov. (Crustacea: Amphipoda: Lysianassoidea)

J.K. LOWRY<sup>1</sup> & H.E. STODDART<sup>2</sup>

Crustacea Section, Australian Museum, 6 College Street, Sydney, New South Wales, 2010, Australia.

E-mail: <sup>1</sup>jim.lowry@austmus.gov.au, <sup>2</sup>helen.stoddart@austmus.gov.au

### Abstract

Within the Lysianassoidea three new families are established: Cebocaridae **fam. nov.** is established for the deep-sea bathypelagic genera *Cebocaris* J.L. Barnard, 1964; *Crybelocephalus* Tattersall, 1906; *Crybelocyphocaris* Shoemaker, 1945; *Cyphocarioides* Birstein & Vinogradov, 1970; *Mesocyclocaris* Birstein & Vinogradov, 1964; *Mesocyphocaris* Birstein & Vinogradov, 1960; *Metacyclocaris* Birstein & Vinogradov, 1955; *Metacyphocaris* Tattersall, 1906 and *Paracyphocaris* Chevreux, 1905; Cyclocaridae **fam. nov.** is established for the deep-sea demersal scavenging genus *Cyclocaris* Stebbing, 1888; and Thoriellidae **fam. nov.** is established for the abyssopelagic genera *Chevreuxiella* Stephensen, 1915, *Danaella* Stephensen, 1925, *Parachevreuxiella* Andres, 1987 and *Thoriella* Stephensen, 1915. The families Cebocaridae and Thoriellidae are reported from Australian waters for the first time, in the form of *Metacyphocaris helgae* Tattersall, 1906 and *Parachevreuxiella justi* **sp. nov.**

**Key words:** Crustacea, Amphipoda, Lysianassoidea, Cebocaridae, Cyclocaridae, Thoriellidae, Australia, deep-sea, taxonomy, new families, new species

### Introduction

Based on the very reduced coxa 1 and small coxa 2 Barnard & Karaman (1991: 428) included 21 genera in their 'Cyphocarin Lysianassidae' group. Since then, one of these genera (*Pseudocyphocaris* Ledoyer, 1986) has been placed in the Wandinidae Lowry & Stoddart, 1990; two genera (*Cyphocaris* Boeck, 1871 and *Procyphocaris* J.L. Barnard, 1961) have been placed in the family Cyphocarididae Lowry & Stoddart, 1997; four genera (*Amaryllis* Haswell, 1879, *Bathymaryllis* Pirlet, 1933, *Pseudamaryllis* Andres, 1981 and *Vijaya* Walker, 1904) have been placed in the family Amaryllididae Lowry & Stoddart, 2002 and *Lepidepecreella* Schellenberg, 1926a has been placed in the family Lepidepecreellidae Stoddart & Lowry, 2010. In this paper nine genera (*Cebocaris* J.L. Barnard, 1964; *Crybelocephalus* Tattersall, 1906; *Crybelocyphocaris* Shoemaker, 1945; *Cyphocarioides* Birstein & Vinogradov, 1970; *Mesocyclocaris* Birstein & Vinogradov, 1964; *Mesocyphocaris* Birstein & Vinogradov, 1960; *Metacyclocaris* Birstein & Vinogradov, 1955; *Metacyphocaris* Tattersall, 1906 and *Paracyphocaris* Chevreux, 1905) are placed in the new family Cebocaridae; the genus *Cyclocaris* Stebbing, 1888 is placed in the new monotypic family Cyclocaridae; and four genera (*Chevreuxiella* Stephensen, 1915, *Danaella* Stephensen, 1925, *Thoriella* Stephensen, 1915 and the subsequently included *Parachevreuxiella* Andres, 1987) are placed in the new family Thoriellidae, all within the Lysianassoidea.

The families Cebocaridae and Thoriellidae are reported from Australian waters for the first time, in the form of *Metacyphocaris helgae* Tattersall, 1906 and *Parachevreuxiella justi* **sp. nov.**

### Materials and methods

The family-level diagnoses and descriptions were generated from a DELTA database (Dallwitz 2005) to the families and subfamilies of the lysianassoid amphipods. The family-level names are formed in accordance with