



First records of Epimeriidae and Iphimediidae (Crustacea, Amphipoda) from Macquarie Ridge, with description of a new species and its juveniles

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Abstract

Amphipod species of the families Epimeriidae and Iphimediidae are recorded for the first time from Macquarie Ridge, a sparsely sampled mid-ocean ridge between New Zealand and Antarctica. *Epimeria ashleyi* **sp. nov.** collected from two seamounts on the Macquarie Ridge between 676–1025 m water depth is described in detail.

Epimeria ashleyi **sp. nov.** can be distinguished from similar species by the unique combination of following characters: pointed coxa 1–3, dorsal double-carinae as well as three lateral projections on epimeral plates 1–3. The juveniles of the new species are described and are considerably different from the adults. Additionally, *Labriphimedia pulchridentata* (Stebbing, 1888), previously known only from Heard Island, is recorded from Macquarie Ridge seamounts with first images of its colour in life.

Key words: Macquarie Ridge, New Zealand, Antarctica, seamounts, deep sea, taxonomy, *Epimeria ashleyi* **sp. nov.**, Epimeriidae, *Labriphimedia*, Iphimediidae, Amphipoda, Crustacea

Introduction

A recent New Zealand-Australian research voyage to the Macquarie Ridge south west of New Zealand collected epimeriid and iphimediid Amphipoda. Examination of material collected on two seamounts of the Macquarie Ridge, Hjort seamount and a yet unnamed seamount to the north, revealed a new species of *Epimeria*, which is here described from adults and juveniles. The distinctions between juveniles and adults are discussed.

The Epimeriidae Boeck, 1871 and Iphimediidae Boeck, 1871 are amphipod families with a worldwide distribution, members of both families are especially common in Antarctic and sub Antarctic waters. They are frequently sampled in depth below 1000 m. By far the largest genus of Epimeriidae is *Epimeria*, with 48 species known, including the new species described below. Twenty-five *Epimeria* species are known from the Antarctic, 11 from the Atlantic, one from the Indian Ocean, 10 from the Pacific. This is the first record of an epimeriid species from the Australian Exclusive Economic Zone.

Over 100 species of Iphimediidae are known and 51 species belong to the genus *Iphimedia*. The iphimediid genus *Labriphimedia* comprises three species, previously known only from their respective type localities. *Labriphimedia vespucci* Barnard, 1931 is known from the Falkland Islands at 105–115 m depth, *L. hinemoa* (Hurley, 1954) from shallow waters of the Hauraki Gulf (northern New Zealand, exact depth unknown) and *L. pulchridentata* (Stebbing, 1888) from Heard Island at 136 m. Stebbing (1888: pl. LXXII) illustrated *Labriphimedia pulchridentata* in great detail, but the species has not been recorded since then. The first images of freshly caught specimen of the genus *Labriphimedia* show the colour in life.

Material and methods

Amphipods were collected during a RV *Tangaroa* voyage to the Macquarie Ridge in March–April 2008. Specimens were immediately sorted on deck, often photographed alive on board, initially preserved in 98% ethanol and