



## Melitidae, the *Melita* group\*

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### Abstract

In the *Melita* group, new records of *Dulichiesta pacifica* Lowry & Springthorpe are reported from the Great Barrier Reef. The record of *Dulichiesta australis* (Haswell) from the GBR is rejected. The genus *Melita* (*M. myersi* G. Karaman and *M. sampsonae* **sp. nov.**) is reported from the GBR for the first time. The genus *Tegano* Barnard & Karaman is amended and reported from Australian (*T. atkinsae* **sp. nov.**), New Caledonian (*T. levis* (Stock & Iliffe)) and Japanese (*T. shiodamari* (Yamato)) waters for the first time.

**Key words:** Crustacea, Amphipoda, Melitidae, *Melita* group, Great Barrier Reef, Australia, taxonomy, new species, *Dulichiesta pacifica*, *Melita sampsonae*, *Melita myersi*, *Tegano atkinsae*

### Introduction

The recent description of the Maeridae Krapp-Schickel, 2008 excluded 40 genera from the Melitidae (Krapp-Schickel 2008; Lowry & Hughes 2009). This still leaves about 45 genera in four or five groups within the Melitidae (*sensu lato*). The *Melita* group of 22 genera is mainly characterised by: a laterally compressed body; small, dorsal robust setae on urosomite 2; a basofacial seta on the peduncle of uropod 1; a scale-like inner ramus; and elongate outer ramus on uropod 3 which is 1- or 2-articulate, with article 2, when present, short or long, never greatly elongate.

Morphological evidence indicates that the *Melita* group is, at least superficially, most similar to the European groundwater family Niphargidae, although recent molecular studies (Englisch *et al.* (2003) indicate that niphargids might be a sister group to the Crangonyctidae. Englisch *et al.* (2003) did not find a close relationship between niphargids and melitids, however the taxa they analysed within the Melitidae (*sensu lato*) belong to the recently established Maeridae Krapp-Schickel, 2008. The main differences between niphargids and the *Melita* group include: side of the head is strongly excavate and first article of the antenna 2 peduncle enlarged and bulbous in niphargids (not strongly excavate and not enlarged in the *Melita* group); second gnathopods sexually dimorphic in the *Melita* group (not sexually dimorphic in niphargids); and presence of a large distoventral robust seta on urosomite 1 in niphargids (not present in the *Melita* group); coupled with the presence of a basofacial seta on the peduncle of uropod 1 in the *Melita* group (not present in the niphargids) (fig. 1).

In this paper four species in the *Melita* group are reported from the Great Barrier Reef. We redescribe *Dulichiesta pacifica* Lowry & Springthorpe, 2005 and report new records from the Great Barrier Reef. *Dulichiesta australis* (Haswell, 1879) was reported from Lizard Island by Lowry & Springthorpe (2005). We are now convinced that, although the specimen was *D. australis*, the locality on the label was incorrect. It only