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Maeridae from the Indo-Pacific: *Elasmopus*, *Leeuwinella* gen. nov., *Maeropsis*, *Pseudelasmopus* and *Quadrimaera* (Amphipoda: Crustacea)

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Abstract

Twenty-two species of Maeridae including the new genus, *Leeuwinella*, and eight new species are described from Indo-Pacific waters. *Leeuwinella mistakensis* gen. et sp. nov. from southern Western Australia has dorsal carinae and serrate epimeral margins on pleonites 1–3 and mandibular palp article 3 concave; this significant combination of characters justifies erection of a new genus. *Elasmopus coxacallus* sp. nov., with a castelloserrate posterior margin of pereopod 7 presents a novel character for the genus, which contains over 100 described species. *Elasmopus incomptus* sp. nov. and *E. norfolkensis* sp. nov. are also described from Norfolk Island, South Pacific, while new distribution records are provided for *E. gracilis* Schellenberg, 1938, *E. integer* Myers, 1989, and *E. molokai* J.L. Barnard, 1970 from northwestern Australia, and *E. souillacensis* Appadoo & Myers, 2003, from the Kermadec Islands. New distribution records for *Maeropsis*

griffini (Berents, 1983) from Bedout Island in Western Australia are the first of the species outside the Queensland type locality and new records of *M. thetis* (Lowry & Springthorpe, 2005) from mainland Australia to Tasmania and across the Tasman Sea extending its range. *Pseudelasmopus walkerae* **sp. nov.** is described from Norfolk Island, and is the second species recorded in the genus, previously known only from Mauritius. Lastly, three new *Quadrимаera* species, *Q. gregoryi*, *Q. brownorum* and *Q. vallis*, along with eight known *Quadrимаera* species, are reported from various locations extending their distributions in the Indo-Pacific.

Key words: *Leeuwinella*, new genus, *Elasmopus*, *Maeropsis*, *Pseudelasmopus*, *Quadrимаera*

Introduction

Maerid amphipods are an omnivorous group found in most benthic marine habitats (Krapp-Schickel 2008). The Maeridae Krapp-Schickel, 2008 formalized a long known concept partitioning 26 genera from the Melitidae Bousfield, 1973 within the larger Hazioidea S. Karaman, 1943 (Bousfield 1983). Lowry & Hughes (2009) further expanded Maeridae from 26 to 42 genera and rediagnosed the family. The family continues to expand with four new genera described in the last six years (Krapp-Schickel & Vader 2009; Corbari & Sorbe 2015; Hughes in press).

Leeuwinella mistakensis **gen. et sp. nov.** is the first reported maerid to have dorsal carinae on pereonite 7 to pleonite 3 and has serrate epimera, in combination with a falcate mandibular palp. The single female specimen was collected in shallow-subtidal waters of Western Australia.

Elasmopus Costa, 1853 is one of the largest genera within the Maeridae consisting of over 100 species. Three new species are described here, *Elasmopus coxacallus*, *E. incomptus* and *E. norfolkensis*. The new species *E. coxacallus* also presents a novel character for the genus, the castelloserrate posterior margin of the pereopod 7 coxa.

New distribution records are included for *Maeropsis griffini* (Berents, 1983) and *M. thetis* (Lowry & Springthorpe, 2005) extending their respective distributions in Australian waters.

Pseudelasmopus walkerae **sp. nov.** is the second species attributed to *Pseudelasmopus*, supporting material described by Ledoyer (1978). The type species, *P. cheliferus* Ledoyer, 1978, has a chelate gnathopod 2, a rare character within the Maeridae. *Pseudelasmopus walkerae* has a subchelate propodus, but the reduced eyes, reduced coxae, setose margin of the maxilla 1 inner plate, uropod 3 with slender setae only and telson without apical robust setae and only slender setae, clearly aligns these two species.

Three new species of *Quadrимаera*, *Q. gregoryi*, *Q. brownorum* and *Q. vallis* are described from Western Australia, the latter from Norfolk Island. These new species and additional records of eight described species increase the known *Quadrимаera* to 11 in Australia and 34 worldwide.

Material and methods

Material examined for this study include amphipod holdings from shallow-water (0–50 m) samples in collections of the Australian Museum (AM), Museums Victoria (NMV), South Australian Museum (SAMA), Western Australian (WAM) and Museum and Art Gallery of the Northern Territory (NTM). Collections were fixed in 5–10% formalin and later transferred to 80% ethanol. Specimens were dissected in 80% ethanol. Permanent slides were made using Aquatex™ mounting agent. The bold parts of the descriptions are diagnostic characters for the species. Abbreviations for parts are as follows: A—antenna; Ep—epimeron; F—accessory flagellum; G—gnathopod; LL—lower lip; Md—mandible; Mx1—maxilla 1; Mx2—maxilla 2; P—pereopod; p—palp; T—telson and U—uropod.

Elasmopus Costa, 1853

Elasmopus coxacallus **sp. nov.**

(Figs 1–3)

Type material. Holotype male, 4.9 mm, dissected, 4 slides, AM P.81856, dive site ‘Winter Wall’, near Horsburgh