



## The genus *Mallacoota* (Crustacea, Amphipoda, Maeridae) in New Zealand

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### Abstract

The New Zealand species of the amphipod crustacean genus *Mallacoota* are revised. Previous records of *Mallacoota subcarinata* (Haswell, 1879) from New Zealand are based on a new species, *Mallacoota chiltoni* **sp. nov.** and *M. petriei* (Thomson, 1882), which is re-established as valid based on a neotype. *Mallacoota chiltoni* apparently has a southern distribution in New Zealand, occurring only south of the Subtropical Convergence, whereas *M. petriei* ranges widely in both the north and south islands. A history of the genus *Mallacoota* in New Zealand is given.

**Key words:** New Zealand, Amphipoda, Maeridae, *Mallacoota*, new species, neotype, Subtropical Convergence

### Introduction

*Mallacoota* Barnard, 1972 is one of 42 genera in the Maeridae, containing at least 30 species worldwide (Hughes 2011). The taxonomy of Australian *Mallacoota* has been recently reviewed, and more than half of known species occur in the Australian region (Lowry & Springthorpe 2005; Lowry & Hughes 2009; Hughes 2011). In contrast, the taxonomy of New Zealand *Mallacoota* has escaped attention for almost four decades. Despite few species being recorded from the area, the New Zealand species of *Mallacoota* have had a confusing taxonomic history.

The first species of *Mallacoota* to be recorded from New Zealand was described from Port Pegasus, Stewart Island, under the name *Moera petriei* Thomson, 1882. The following year Chilton (1883) reported *Moera petriei* from Lyttelton Harbour, based on misidentified specimens of a different species, leading to incorrect conclusions about morphological variation. Subsequently, Chilton (1884) re-assigned all the known New Zealand specimens to a species described from Port Jackson, Australia, *Mallacoota subcarinata* (Haswell, 1879), known at that time as *Megamoera subcarinata*. Stebbing (1888) identified specimens collected from off New Zealand and Australia by the Challenger Expedition as *Elasmopus subcarinata*. Chilton (1884, 1885a, b, 1915) recognised two morphotypes of what he believed to be *M. subcarinata* in New Zealand, which he called ‘form 1’ and ‘form 2’, the former corresponding to *M. petriei*. The main difference between these two morphotypes was ‘the shape and hairiness of the second gnathopoda’ of males (Chilton 1915: 321). Chilton believed these differences in setation of gnathopod 2 to represent phases in male sexual staging and thus regarded both morphotypes to be conspecific. He prophetically conceded, however, that “the fact that the non-setose form has not yet been recorded from Australia would be more easily accounted for on the supposition that we have two distinct species to deal with” (Chilton 1915: 323). Aside from minor generic rearrangements, the taxonomy of the New Zealand *Mallacoota* species has changed little for almost a century, in part because of the ambiguity over the identity of *M. subcarinata*. Recently, however, *M. subcarinata* was redescribed and accorded a limited range in southern Australia (Lowry & Springthorpe 2005). Our survey of New Zealand *Mallacoota* has revealed that Chilton’s ‘form 1’ and ‘form 2’ of *M. subcarinata* represent two distinct species, neither being referable to Haswell’s species. Here, we re-establish *Mallacoota petriei* (Thomson, 1882) as a valid species based on a neotype corresponding to Chilton’s ‘form 1’. The species recorded by Chilton (1883) from Lyttelton Harbour as ‘form 2’ is described as new and named in his honour, *Mallacoota chiltoni* **sp. nov.**