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A revision of the callipallenid genus *Pseudopallene* Wilson, 1878 (Pycnogonida, Callipallenidae)

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Abstract

Analysis of three northern hemisphere Boreal-Arctic species of *Pseudopallene* has shown that those species are morphologically distinguishable from their congeners in Australian waters. The holotypes of Australian species *Pseudopallene laevis*, *Pseudopallene ambigua* and *Pseudopallene harrisi* are compared with each other and with additional material from southern Australia. Sixteen species of *Pseudopallene* are assigned to a new genus *Meridionale. Meridionale dubia* is assigned to s*pecies inquirenda.* The genus *Cordylochele* Sars, 1888 is resurrected. A diagnosis of each genus is provided along with additional figures. A brief summary of the systematic position of *Pseudopallene* up to the present time is provided. Three species are temporarily assigned to species *incertae sedis* pending further review.

Key words: *Meridionale*, *Cordylochele*, *Parapallene,* Arctic, Sub-Antarctic, southern Australia

Introduction

This paper forms part of a reassessment of the family Callipallenidae Hilton, 1942 beginning with the genus *Pseudopallene* Wilson, 1878. The remaining genera will be dealt with in separate papers and a revised diagnosis of the family will evolve from these analyses. Above all it is hoped to restore the integrity of existing genera. New genera will be introduced, previously synonymized genera will be reinstated and some species will be reassigned. It is not the intention of these analyses to review the validity of all species but, where the opportunity exists to examine additional material, further comments will be added to species descriptions. Greater recognition is given to the overall habitus of species than has hitherto been the case. Material included in this study has been sourced from collections in the Smithsonian Institution, Museum Victoria, Tasmanian Museum and Art Galleries and the Queensland Museum.

The family Callipallenidae is represented by 145 species in 14 genera worldwide (Bamber & El Nagar, 2013). Callipallenid genera have traditionally been separated by the presence or absence of palps in the male and, when present, the number of palp segments, the structure of the chelifores, the presence or absence of a terminal oviger claw and the presence or absence of cement glands.

The need for a review of the Callipallenidae is long overdue, a view not lost on pycnogonid taxonomists. Hedgpeth (1948) described the callipallenid genera as troublesome and ambiguous; Stock (1954) recognized the urgent need for a careful revision of the characters of generic importance and Child (1998) observed that the Callipallenidae has become top-heavy with a complexity of genera. Other calls for a review of the family were from Stock (1954), Clark (1972a) and again, Child (1980). In more recent times this situation has partly been resolved by synonymizing *Metapallene* Schimkewitsch, 1909 with *Propallene* Schimkewitsch, 1909 (Staples, 1982) and *Pallenella* Schimkewitsch, 1909 and *Spasmopallene* Stock, 1968b with *Pseudopallene* Wilson, 1878a (Staples, 2005) but it is clear that the family is still not a morphologically homogeneous group; a view also supported by molecular analyses (Arango and Wheeler, 2007). Understandably the significance of some critical characters only becomes evident when additional material comes to hand and with the advantage of hindsight. Taxonomists have also had to contend with early descriptions many of which lacked details of characters now considered important for species determination. The lack of systematic alternatives has also been a deciding factor in the placement of species and this has contributed to the assignment of species to genera on a 'tentative', 'provisional' or 'best-fit' basis. While these assignments may have resolved immediate problems they also had the

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