Zootaxa 3192: 24–38 (2012)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Postispinatus youngi n. gen., n. sp. (Apseudomorpha; Tanaidacea; Crustacea): phylogenetic analysis and taxonomic remarks about kalliapseudids

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Abstract

The presence of setae or a sensorial structure on the dactylus of pereopod 1 as one of the defining features of the family Kalliapseudidae is re-evaluated. A new genus, *Postispinatus*, including the new species *P. youngi* **n. gen.**, **n. sp.**, is described and thought to belong to the Kalliapseudidae based on phylogenetic analysis. The diagnostic features of new genus—and species by monotypy —are: basal article of uropod with two curved spiniform processes; exopods on the fourth and fifth pereopods of the manca stage; absence of a maxillule palp.

Key words: *Postispinatus youngi*, Kalliapseudidae, Brazil, phylogeny

Resumo

A presença de cerda ou estrutura sensorial no dátilo do pereópodo 1 como um dos caracteres diagnósticos da família Kalliapseudidae é reavaliado. O novo gênero, *Postispinatus*, e a nova espécie *P. youngi* **n. gen.**, **n. sp.**, são descritos e considerados como pertencentes a Kalliapseudidae com base em análises filogenéticas. As feições diagnósticas do novo gênero—e espécie por monotipia—são a presença de dois processos espiniformes curvos no artículo basal do urópodo, a presença de exópodos nos pereópodos quatro e cinco durante o estágio manca e a ausência de palpo na maxilula.

Introduction

While examining the tanaidacean collections from Museu de Zoologia da Universidade de São Paulo (MZUSP) and Museu Nacional do Rio de Janeiro (MNRJ) we found a very interesting apseudomorph. The specimens showed characteristics shared with some apseudomorph families, but could not be classified into a family or genus.

Several characters including the absence of a maxillule palp and a manca with exopods on the fourth and fifth pereopods allowed us to consider the species as a new genus in the family Kalliapseudidae Lang, 1970. The importance of pereopod microstructures for identification was evaluated by Guţu (1996), especially for pereopod 1 of kalliapseudid genera. However, the presence of specialized sensory setae on the first pereopod is a variable character and should not be used as a diagnostic for the family, but possibly for subfamily or genus level. According to Drumm & Heard (2010), kalliapseudids are defined by the combination of the absence of a palp on the maxillule, and the presence of exopods on the fourth and fifth pereopods of the manca stage, both characters present in the new genus.

There are six families of the Apseudomorpha known from Brazilian waters, including a total of twenty–seven species (Larsen, Araújo–Silva & Coelho 2009, Araújo–Silva & Larsen 2010). The families with the most species are Parapseudidae Guţu, 1981 and Kalliapseudidae (with seven each), followed by the Apseudidae Leach, 1814 and Sphyrapodidae Guţu, 1980 (four each), Metapseudidae Lang, 1970 (three) and Pagurapseudidae Lang, 1970 (two). The Kalliapseudidae is represented by five genera in Brazil: *Acutihumerus* Guţu, 2006, *Mesokalliapseudes*

 Accepted by R. Bamber: 21 Dec. 2011; published: 14 Feb. 2012