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Acutihumerus patagoniensis (Sieg, 1986) (Tanaidacea: Kalliapseudidae): supplementary description and remarks on its taxonomic status

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Abstract

Acutihumerus patagoniensis (Sieg, 1986) was originally described based on a single specimen from Golfo Nuevo, northern Patagonia, Argentina. Over 3000 specimens referable to this species from just a few miles of its type locality are now available. Based on these specimens, the description of *A. patagoniensis* is completed and the ontogenetic changes of the male cheliped are described and illustrated. *Acutihumerus patagoniensis* has recently been considered a junior synonym of *A. cavooreni* (Băcescu & Absalao, 1985) from southern Brazil. However, these species can be distinguished mainly by the male chela: *A. patagoniensis* has a much wider notch palm than *A. cavooreni*. Furthermore, most of the males herein reported from off the Río de la Plata have a chela with a narrow notch, a fact that suggests that this area might be a zone of hybridization or contact between *A. patagoniensis* and *A. cavooreni*. Hence, we claim that the recently proposed synonymy has not been proven, and the resolution of this taxonomic problem must await additional specimens of *A. cavooreni* from its type locality (Rio Grande do Sul, Brazil).

Key words: Kalliapseudidae, *Acutihumerus patagoniensis*, male cheliped, new records, *Acutihumerus cavooreni*

Introduction

Băcescu & Absalao (1985) described *Hemikalliapseudes cavooreni* from a few specimens dredged at 25 m depth south of the mouth of Lagoa dos Patos, Rio Grande do Sul, Brazil; soon after, Sieg (1986) described *Bacescapseudes patagoniensis* on the basis of a single male collected in Golfo Nuevo, northern Patagonia, Argentina, at 20–50 m depth. Guțu (1998) suggested that *B. patagoniensis* was a junior synonym of *H. cavooreni* and, more recently (Guțu 2006), erected the genus *Acutihumerus* to accommodate *H. cavooreni*. In contrast, Araújo-Silva & Larsen (2010) stated that *Acutihumerus patagoniensis* is a valid species based on a cladistic analysis. However, Drumm & Heard (2011) and Guțu (2011) reported many inconsistencies in the data matrix prepared by Araújo-Silva & Larsen (*op. cit.*). Finally, Drumm & Heard (2011) formally synonymised *A. patagoniensis* with *A. cavooreni* (to become a subjective junior synonym of the latter).

In the present contribution, *A. patagoniensis* is treated as a full species as over 3000 specimens identified here as this taxon are now available from Playa Colombo, a beach near the mouth of Golfo Nuevo, northern Patagonia; this is just a few nautical miles from the type locality of this species (Fig. 1). Based on this large sample, a supplemental description of *A. patagoniensis* is presented below.

Material and methods

Specimens were stained with Chlorazol Black E[®], and the appendages dissected and temporarily mounted in glycerine. Drawings were prepared using a Carl Zeiss Axioskop compound microscope equipped with a camera lucida. Line drawings were captured in digital format and inked with a Wacom tablet after Coleman (2003).

The specimens were collected on board the research vessels *Aldebarán* (INAPE, Uruguay) and *Eduardo*

mandible palp, maxilliped palp and cheliped. These appendages have simple setae in the specimens from Patagonia whereas in the specimens from off the Río de la Plata they may have plumose setae. A third variation was observed in the denticulation of the epimera of the pleonites. Teeth are usually present in the specimens from off the Río de la Plata but are rare among the specimens from northern Patagonia.

Guțu (1998) suggested that *A. patagoniensis* is a synonym of *A. cavooreni*, and Drumm & Heard (2011) formally proposed this synonymy. However, the resolution of the status of these two species is not fully resolved, and requires not only the detailed description of *A. cavooreni* but also the use of molecular techniques. In this regard, additional specimens from Rio Grande do Sul (type locality of *A. cavooreni*) and other localities from southern Brazil and Uruguay are needed.

All the records to date of *A. cavooreni*, *A. patagoniensis*, and *A. petronius* are shown in Fig.1. Regarding *A. cavooreni*, Drumm & Heard (2011) listed the catalogue numbers of three samples deposited in the Museu de Zoologia da Universidade de São Paulo without mentioning their collecting data. Two of these samples (MZUSP 19687 and MZUSP 19688) come from Enseada da Fortaleza, Ubatuba, São Paulo State, for the third sample listed (MZUSP 19689) data is not available (Dr. Marcos Tavares, pers. comm.). The discovery of *A. cavooreni* in Caraguatatuba, São Paulo State reported by Miranda (2010) was added to the map as well. These specimens are deposited at the MZUSP under numbers 23856 to 23863. None of the specimens recorded from São Paulo State were examined by us.

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