



Article

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Revision of the genus *Siolicaris* Jakobi, 1972, with redescriptions of *S. sioli* (Noodt, 1963) and *S. jakobi* (Noodt, 1963) from South America, and *S. sandhya* (Ranga Reddy, 2001) comb. nov. from India (Copepoda, Harpacticoida, Parastenocarididae)

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Abstract

Recent revision of the family Parastenocarididae has revealed the existence of different monophyletic groups within the repository genus *Parastenocaris* Kessler, 1913 *sensu lato*. Here, we redefine the genus *Siolicaris* Jakobi, 1972, arguing for its monophyly. All the hitherto known Neotropical species of *Siolicaris* and also the Indian *Siolicaris sandhya* (Ranga Reddy, 2001) **comb. nov.**, which are redescribed herein, share what we consider to be a unique constellation of synapomorphies: in the female, thoracopod 3 enp is absent; in the male, thoracopod 4 enp is reduced; thoracopod 3 exp is robust, strongly incurved and with a very strong thumb, longer than apophysis; and in both sexes, thoracopod 5 is trapezoidal, with all the setigerous elements inserted on the very distal margin. In addition, the proximal position of furcal setae I–III together with the extreme reduction of seta II and the reduction or complete absence of the proximal-most seta on thoracopod 5 exp are other good indications, justifying the inclusion of *Siolicaris* within a broader group of Neotropical Parastenocarididae. The genus is probably of Gondwanan origin, with its known members distributed in the northern South America (Amazonian region) and southeastern India. *Parastenocaris digitata* Noodt, 1963a is treated here as a synonym of *Siolicaris jakobi* (Noodt, 1963a). *Parastenocaris chelifera* Delachaux, 1924 and *Parastenocaris xyrophora* Noodt & Galhano, 1969 are considered *species inquirendae* of the genus *Siolicaris*, pending their detailed redescription.

Key words: *Parastenocaris sioli*-group, *P. chelifera*, *P. xyrophora*, monophyletism, taxonomic revision, biogeography, Gondwana

Introduction

Taxonomic and phylogenetic quandary abounds the literature on Parastenocarididae Chappuis, 1940, owing, *inter alia*, to incomplete treatment of species, antiquated phylogenetic considerations (*cf.* Lang 1948), non-availability of type material, and minute size of the animals and their sparseness in regular samples. The family has thus long remained a complex taxon or a phylogenetic nightmare. Consequently, most works during the recent decades focused on alpha taxonomy, but only a few (e.g. Galassi & De Laurentiis 2004; Karanovic et al. 2012; Martínez Arbizu 1997; Reid 1994; Reid 1995) attempted to shed some light on the phylogeny and generic composition within the family.

Up till now, the family encompasses 290 described species and subspecies in 35 nominal genera, of which 28 genera are nomenclaturally available and valid (Walter & Boxshall 2012). For the Neotropical region, some hitherto unconsidered genera, such as *Remaneicaris* Jakobi, 1972 and *Brasilibathynellocaris* Jakobi, 1972 have been redefined by Corgosinho & Martínez Arbizu (2005) and Corgosinho *et al.* (2010), respectively, whereas the so-far accepted genera such as *Paraforficatocaris* Jakobi, 1972 and *Pararemaneicaris* Jakobi, 1972 were synonymized with *Brasilibathynellocaris* by Corgosinho *et al.* (2010). For the Paleotropical region (Afrotropical,