



Two new Parastenocarididae (Copepoda, Harpacticoida) from India: *Parastenocaris muvattupuzha* n. sp. from a river and *P. kotumsarensis* n. sp. from a cave

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Abstract

To date, 11 harpacticoid species from the family Parastenocarididae are known to occur on the Indian subcontinent. Of these, ten species belong to the genus *Parastenocaris* Kessler, 1913, and one to the genus *Kinnecaris* Jakobi, 1972. Two new species of the genus *Parastenocaris*, viz. *P. muvattupuzha* n. sp. and *P. kotumsarensis* n. sp., are described and illustrated herein from India and their taxonomic position within the genus *Parastenocaris* discussed. *Parastenocaris muvattupuzha* n. sp. was found in the hyporheic zone of the River Muvattupuzha in the State of Kerala, southwestern India. Having a unique set of morphological characters, this new species does not perfectly fit into any of the known *Parastenocaris* species-groups; it is treated as *Parastenocaris* s. l. It stands out in the genus, *inter alia*, by the presence of a distinct unguiform process at the inner distal corner of each caudal ramus in both sexes and a club-shaped, distally spinulose leg 4 endopod in the male.

Parastenocaris kotumsarensis n. sp. is described based on specimens collected from Kotumsar Cave in the State of Chhattisgarh, central India. This species shares features with the *brevipes*-group of *Parastenocaris* (i.e. similar endopodal complex of the male leg 4) and the recently redefined genus *Kinnecaris* (i.e. presence of the triangular plate-like fifth legs, which are similar in both sexes, and paired ventrolateral integumental windows on the antepenultimate and penultimate urosomites). Hence, for the time being, this species, like the preceding one, is also treated as *Parastenocaris* s. l. *Parastenocaris kotumsarensis* n. sp. is the first cavernicolous parastenocaridid from India and, on a broader geographical scale, from southern Asia.

Key words: hyporheos, cavernicole, taxonomy, Crustacea, *Parastenocaris* s. l.

Introduction

Presently, members of the copepod family Parastenocarididae on the Indian subcontinent are represented by 11 species, of which ten belong to the genus *Parastenocaris* Kessler 1913. Of these ten *Parastenocaris* species, six (*P. brincki* Enckell, 1970, *P. curvispinus* Enckell, 1970, *P. irenae* Enckell, 1970, *P. lanceolata* Enckell, 1970, *P. noodti* Enckell, 1970 and *P. singhalensis* Enckell, 1970) are from Sri Lanka (Enckell 1970), and the remainder (*P. gayatri* Ranga Reddy, 2001, *P. sandhya* Ranga Reddy, 2001, *P. savita* Ranga Reddy, 2001 and *P. mahanadi* Ranga Reddy & Defaye, 2007) from India. While *P. curvispinus* is the most common and widespread *Parastenocaris* species in the hyporheic habitats of peninsular India (Ranga Reddy 2001; Ranga Reddy & Defaye 2007), the other Sri Lankan congeners appear to be endemics. A new member of the genus *Kinnecaris* Jakobi, 1972, as redefined by Schminke (2008), was described recently from a hyporheic locality in peninsular India by Ranga Reddy & Schminke (2009), which represents the eleventh parastenocaridid species from the Indian subcontinent.