



A new species of the genus *Atopobathynella* Schminke, 1973 (Crustacea, Syncarida, Bathynellacea) from the hyporheic zone of the River Godavari, South India

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Abstract

Atopobathynella Schminke, 1973 is the third genus of Parabathynellidae to be discovered in India. *A. operculata* **sp. n.** shows three characters, which are unique within Parabathynellidae: fusion of the inner flagellum of the antennule with the first segment of the outer flagellum, presence of a single seta on the lateral surface of the uropodal sympod, and conspicuous tubes on the labrum. *A. operculata* **sp. n.** is also the first species of the genus with an inhomonomous spine row on the uropodal sympod and with an anal operculum almost reaching the end of the furca. *Atopobathynella* has a Gondwanan distribution, and is being reported for the first time from Asia.

Key words: Parabathynellidae, *Atopobathynella*, *Kimberleybathynella*, India, Gondwanan distribution

Introduction

Up till now, the Indian groundwater fauna is but poorly known (Ranga Reddy 2004a). Recently, one species of Bathynellidae (Ranga Reddy & Schminke 2005a) and five species of Parabathynellidae, the latter belonging to the genera *Habrobathynella* Schminke, 1973 (Ranga Reddy 2002, 2004b; Ranga Reddy & Schminke, 2005b) and *Chilibathynella* Noodt, 1963 (Ranga Reddy 2006), have been described. A new species of Parabathynellidae belonging to the genus *Atopobathynella* Schminke, 1973 is described herein.

The genus *Atopobathynella*, which is characterized by several unique features, was known for a long time only by four species (Schminke 1973). Recently, Cho et al. (2006) have reported six additional species from Western Australia. Also from Western Australia, six species of the genus *Kimberleybathynella* Cho et al. 2005, have been described (Cho et al. 2005), which share several of what had hitherto been regarded as diagnostic characters of *Atopobathynella*, indicating a close relationship between these two genera. Shared characters include tube-shaped thoracopod VIII male, labrum with unequal teeth, and one-segmented exopods of thoracopods I–VII. One-segmented antenna is another “autapomorphic” character of *Atopobathynella*. The new species described herein shows all these unique features of *Atopobathynella* together with a few special characters, which are not only unknown in the genus, but also even in the family Parabathynellidae as a whole.

The ten known species of *Atopobathynella* have a Gondwanan distribution (Schminke 1973) to which the new Indian species adds an interesting new facet.