



A new species and a new genus of Parabathynellidae (Crustacea, Syncarida) from South Korea*

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Abstract

Arisubathynella **gen. nov.** is established for a new species, *A. cheongmiensis* **sp. nov.** from South Korea. An illustrated description is given. The new genus stands out in the family Parabathynellidae by six-segmented antennules, three-segmented antenna without medial seta on inner margin of third segment, absence of mandibulartooth of the ventral edge, bare proximal segment of maxilla, two-segmented exopods of thoracopods II–VII, and male thoracopod VIII with elongated external lobe. *Arisubathynella* **gen. nov.** is the fourth genus known from South Korea and foreshadows the great diversity of bathynellaceans in the Far East.

KEY WORDS: Parabathynellidae, *Arisubathynella* **gen. nov.** et **sp. nov.** South Korea

Introduction

Parabathynellidae is a cosmopolitan family of bathynellacean Syncarida confined to life in continental groundwater. Up to now, 177 species in 45 genera are known worldwide (cf. Camacho et al. 2011). Among them, 34 species in 12 genera have been reported from Asia including India and Central Asia, while 16 species in three genera are known from the Far East. Seven of 12 genera are erected for a single species from Southeast and Central Asia, whereas the three genera of the Far East are speciose: *Allobathynella* Morimoto and Miura, 1957 with eight species; *Eobathynella* Birstein and Ljovuschkin, 1964 with five species; *Nipponbathynella* Schminke, 1973 with three species. Since recent studies on the bathynellacean fauna of the Far East has resulted in the discovery of three new species belonging to the three genera just mentioned (Cho et al. 2008; Park and Cho 2008; Schminke 2011), the parabathynellids of the Far East do not appear to be as diverse at the supraspecific level as those in Southeast Asia.

The new species to be reported here indicates that the current picture is incomplete. The peculiarities of the new species are not covered by any current generic diagnosis within the family. It is thus very likely that the diversity of parabathynellids in the Far East will unfold as a result of future research. This is the fourth genus to be reported from the Korean Peninsula.

Material and methods

Specimens were collected from a well-developed sandbank on the riverside of a tributary of the Han-River (Cheongmi-Stream). For collection, a pit was dug to the groundwater level (depth: 1 m; distance from surface water: 50 m). Water from the bottom of the pit was filtered through a bolting-silk plankton net (mesh size 50µm), and the filtrate was kept at -20 °C before sorting. Sorted specimens were placed into 70% alcohol and later transferred to glycerol.