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A New Species of the Genus *Cteniobathynella* (Crustacea, Syncarida, Parabathynellidae) from South America

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Abstracts - In this paper we represent a new species, *Cteniobathynella ahnerti* sp. nov., from South America. The new species is characterized by the heterodont teeth on free margin of labrum, the spine row of the mandible consisting of four thick spines, the presence of two setae on outer distal margin of distal segment of maxillule, the prehensile nature of maxilla and the oblique arrangement of two spines on sympod and the presence of a median spine on the endopod of the uropod.

Key words : new species, *Cteniobathynella*, Parabathynellidae, South America

INTRODUCTION

The South American continent is known as to be abundant in enigmatic fauna (and flora) and this is also true for the groundwater fauna, peculiarly for the bathynellacean Syncarida (cf. Noodt 1969). Since the first discovery (Siewing 1956) 21 species are hitherto reported in science (Schminke 1986; Lopretto and Morrone 1998; Cho and Schminke 2001). Here we describe a new, the 22nd species from this continent.

MATERIALS AND METHODS

The samples were prepared and mounted in a mixture of glycerin-formalin. For the drawing and investigation, a Nikon Eclipse E600-Microscope with differential interference contrast equipment was used with oil immersion. The type materials of the new species herein described are as permanent preparation and will be deposited in the Museum of the Universidade de Sao Paulo (MZUSP), Brazil,

Abbreviations used in the description are: A. I: antennule; A. II: antenna; Labr.: labrum; Md.: mandible; Mx. I: maxillule; Mx. II: maxilla; Th. I, II, etc.: thoracopod I, II, etc.; Urp: uropod.

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TAXONOMY

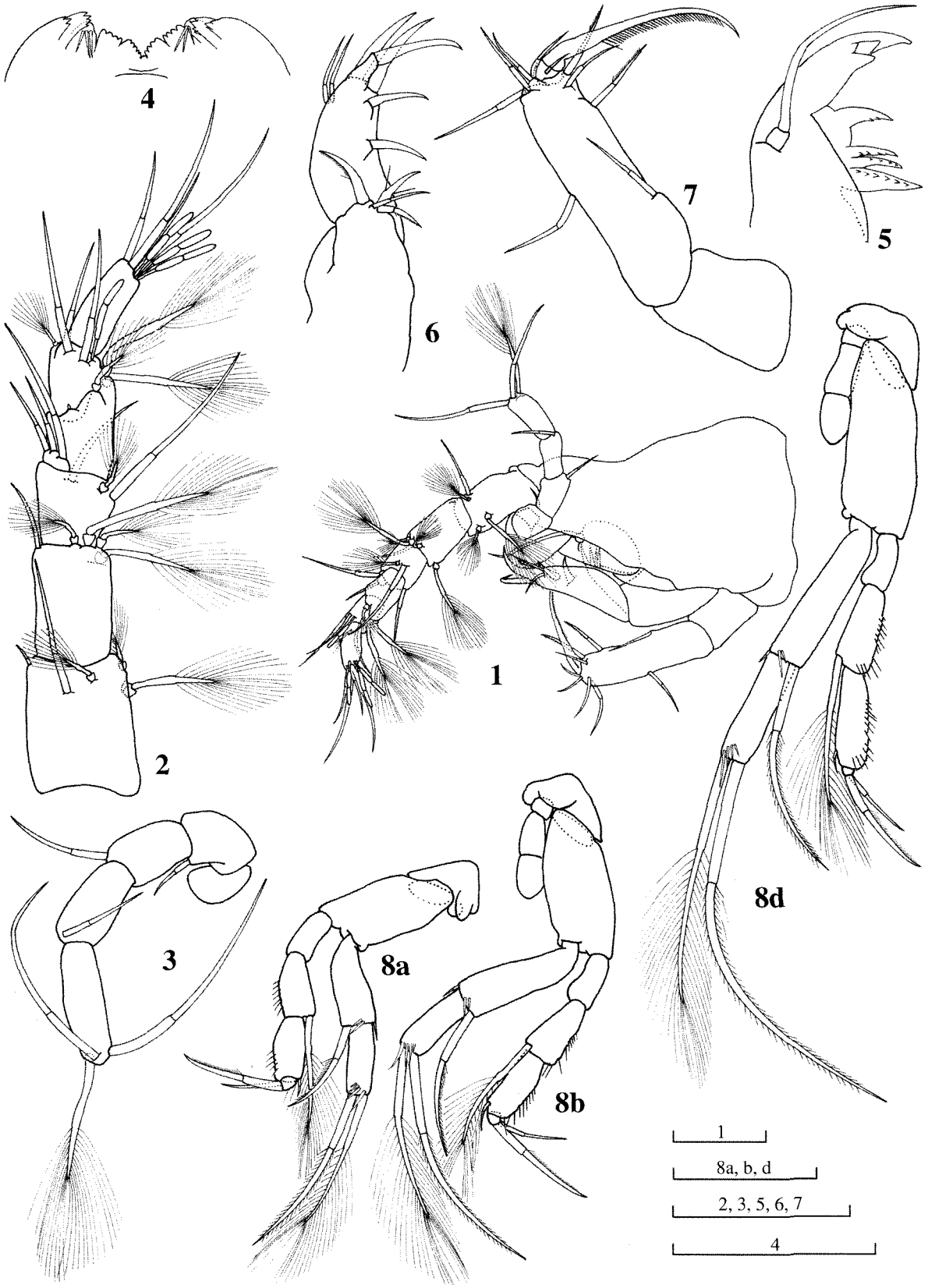
Family Parabathynellidae Noodt, 1965
Genus *Cteniobathynella* Schminke, 1973
***Cteniobathynella ahnerti* sp. nov. (Figs. 1-9)**

Holotype: 1♀, Brazil, tributary of Rio Pará, 85 km after Belό Horizonte, 12 km before Rio Pará, Corrego, Itaguara. Pit 65 cm deep in coarse sandbank, 3 m from shoreline. Temperature 18°C. 24th. September 1968. coll. Noodt.

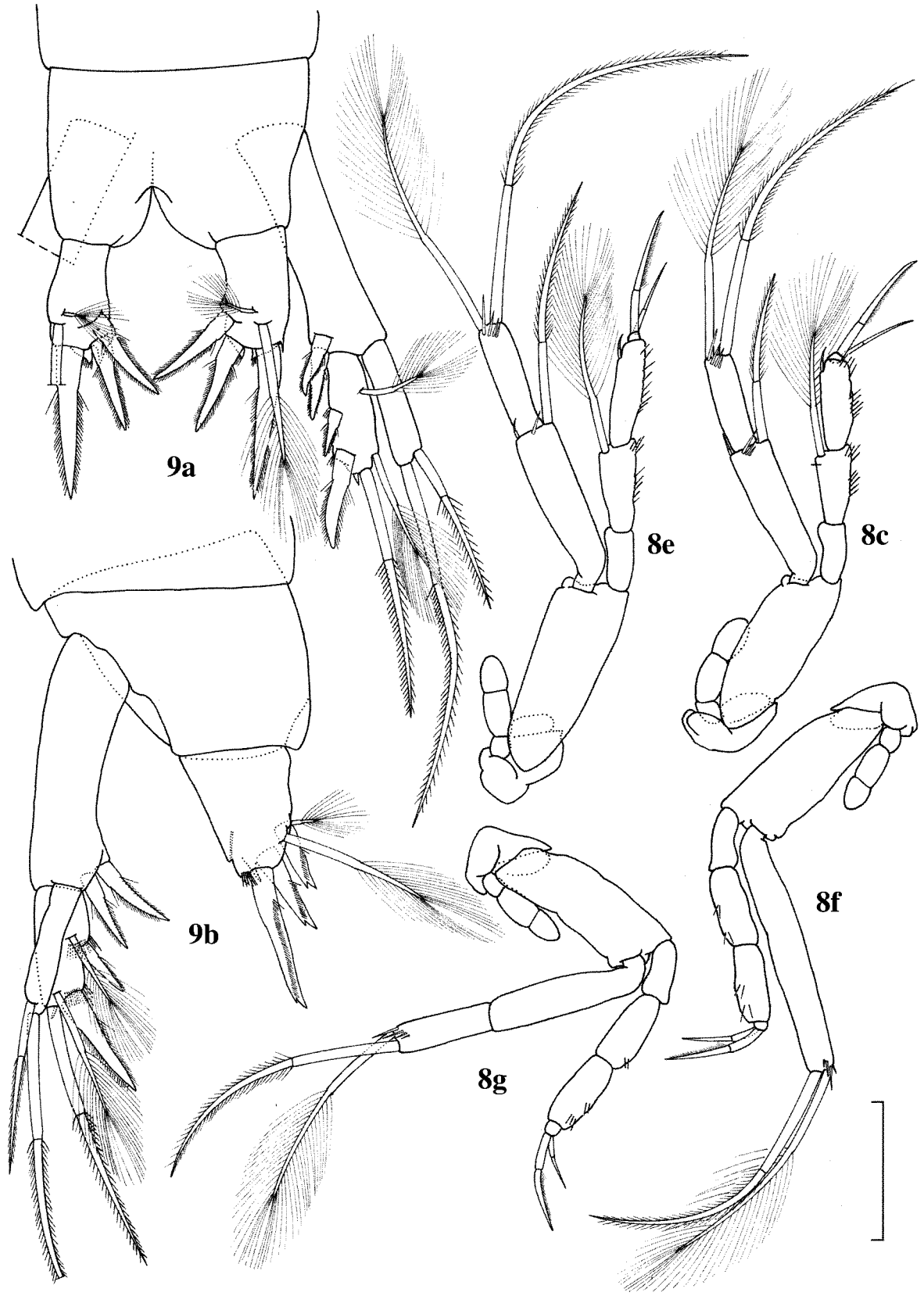
Etymology: Named after Dr. Ahnert Ahmed (Kiel, Germany).

Description of holotype: Body length 1.42 mm, 14 times as long as wide. Head (Fig. 1) 40% longer than wide, as long as length of 1st~3rd segments.

Antennule (Fig. 2). 6-segmented. First segment with one



Figs. 1–8. *Cteniobathynella ahnerti* sp. nov. (♀: holotype): 1. Head (lateral); 2. A. I (dorsal); 3. A. II (dorsal); 4. Labr. (ventral); 5. Md (dorsal); 6. Mx. I (dorsal); 7. Mx. II (dorsal); 8a. Th. I (frontal); 8b. Th. II (frontal); 8d. Th. IV. Scale bars = 0.05 mm.



Figs. 8–9. *Cteniobathynella ahnerti* sp. nov. (♀: holotype): 8c. Th. III (frontal); 8e. Th. V; 8f. Th. VI; 8g. Th. VII; 9a. Pleotelson, furcal rami and Urp. (dorsal); 9b. Pleotelson and furcal rami (lateral). Scale bar = 0.05 mm.

seta on inner distal margin, one long and one plumose setae on dorsal surface, and with one lateral and one ventrolateral plumose seta. Second segment with one seta on inner margin and one group of four plumose setae. Third segment with one plumose and one simple seta on outer margin, and with one ventral simple seta. Inner flagellum on third segment with three simple setae. Fourth segment with one stub seta on dorsal margin, and one short and two long plumose setae on lateral apophysis. Fifth segment with one simple and one plumose seta on inner margin, with one dorsal seta, and with a dorsolateral group of one aesthetasc and one seta. Sixth segment with four terminal setae and three subterminal aesthetascs.

Antenna (Fig. 3). 5-segmented, 70% of length of antennule, setal formula: 0/0+1/1+0/1+0/3 (1).

Labrum (Fig. 4). Flat, symmetric free margin grooved medially, with two tiny median teeth followed by two terminally denticulated wide teeth, and one tooth with three terminal spicules on both lateral sides. Lateral teeth denticulated terminally.

Mandible (Fig. 5). With incisor process of four teeth. Tooth of ventral edge absent. Spine row with four thick spines. The most distal spine in form of hook, distanced from three other spine. Palp 1-segmented with one seta being 1.5 times as long as incisor process.

Maxillule (Fig. 6). Two-segmented, proximal segment with one simple and three claw-like setae, distal segment with three terminal claws, two claws on inner edge and two bare setae on outer distal margin.

Maxilla (Fig. 7). Three-segmented. First segment 1.5 times as long as wide, without ornamentation. Second segment 2 times as long as the first segment, with nine setae including one medial seta on inner margin. Third segment tiny, with one prehensile claw and one simple seta.

Thoracopods I-VII (Figs. 8a-8g). Successively increasing in length. Thoracopods II-VII with one epipodite, respectively. Basipod of thoracopods I-VII without seta. Exopod of thoracopods I-VI 2-segmented. Proximal segment with two setae in thoracopods I-V, whereas no seta in thoracopod VI. Distal segment with two terminal setae, the dorsal one plumose. Exopod of thoracopod VII 1-segmented, with with two terminal setae, the dorsal one plumose. Endopod 4-segmented. Second and third segment with rows of ctenidia on inner margin. Setal formulae:

Thoracopod I-V 0+0/0+1/0+1/2 (1)

Thoracopods VI-VII 0+0/0+0/0+0/2 (1)

Thoracopod VIII. Represented by a tiny spine.

Pleopod. Absent.

Pleotelson (Figs. 9a, b). Without seta. Anal operculum concave. Furcal rami 1.5 times as long as wide, with two plimose setae on dorsal surface, with a terminal spine, and with two spines along inner margin. Terminal spine 1.2 times as long as two inner spines of equal in length.

Uropod (Figs. 9a, b). Sympod with two spines of oblique row on inner distal margin. Endopod 50% as long as sympod, with one tiny spine and one seta terminally, one subterminal and one medial spines on inner margin, one subterminal seta and one medial seta on outer margin. Exopod as long as endopod, with each one terminal and subterminal setae.

Male unknown.

Remarks: *Cteniobathynella ahnerti* sp. nov. is characterized by the heterodont teeth on free margin of labrum, the spine row of the mandible consisting of four thick spines, the presence of two setae on the outer margin of the distal segment of maxillule, the prehensile nature of maxille, and the oblique arrangement of two spines on sympod and the presence of a median spine on the endopod of the uropod. According to Schminke (1973), *Cteniobathynella* has a homodont free margin of labrum, a spine row of the mandible consisting of five spines, three setae on the outer margin of the distal segment of maxillule, two prehensile claws of maxille, the lengthwise arrangement of spines on uropodal sympod. Thereafter, the new species differs significantly from the other species of *Cteniobathynella*. The heterodonty of the labrum and the peculiarity in the uropod even suggest an erection of a new genus. Recognizing that the description herein represented is based on one female exemplar, however, the new species is provisionally classified into the genus *Cteniobathynella*.

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