DISCOVERY OF THE GENUS KINNECARIS JAKOBI, 1972 (COPEPODA, HARPACTICOIDA, PARASTENOCARIDIDAE) IN SOUTHEASTERN INDIA, WITH DESCRIPTION OF A NEW SPECIES

BY

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ABSTRACT

A new species of Parastenocarididae is described from southeastern India. It shows all the characters of the recently redefined genus Kinnearis Jakobi, 1972. K. godavari sp. n. can be distinguished from its 17 congeners by characters of male legs 3 and 4, as well as by the setae of leg 5 in both sexes. This is the first report of the genus from India. Surprisingly, K. godavari sp. n. has very little in common with its known Madagascan congeners, except for the obvious generic characters.

ZUSAMMENFASSUNG


INTRODUCTION

The study of the fauna of subterranean waters in India has only recently begun (Ranga Reddy, 2004a; Holsinger et al., 2006; Messouli et al., 2007; Karanovic & Ranga Reddy, 2008). As was to be expected, the full stygofaunal spectrum as known from elsewhere in the world (e.g., Scarsbrook et al., 2003; Schminke &

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Gad, 2007) is now coming to light. As anywhere else, the Crustacea constitute one of the chief components of this fauna and among them the Copepoda are the most species-rich group. Copepods are represented in subterranean waters mainly by Cyclopoidea and Harpacticoida, both of which are still rather poorly known from India (Karanovic & Pesce, 2001; Karanovic & Ranga Reddy, 2004a, b, 2005).

Among subterranean harpacticoids, Parastenocarididae are the most characteristic. They are true stygobites, meaning that they are obligatorily confined to groundwaters. They have been found all over the world with the exception of Antarctica, New Zealand, and the Caribbean Islands. To date, some 260 species are known, of which about 200 belong to the genus Parastenocaris Kessler, 1913. So far, only five species, all belonging to this genus, are known from India (Ranga Reddy, 2001; Ranga Reddy & Defaye, 2007), viz., P. curvispinus Enckell, 1970, P. gayatri Ranga Reddy, 2001, P. savita Ranga Reddy, 2001, P. sandhya Ranga Reddy, 2001, and P. mahanadi Ranga Reddy & Defaye, 2007.

The new species described herein belongs to the genus Kinnecaris Jakobi, 1972, which has only recently been redefined by Schminke (2008), and has not previously been reported from India.

**MATERIAL AND METHODS**

Samples were collected from moist, exposed and shallow, submerged parts in the middle of the river Godavari. A sediment column of a depth of 5 to 10 cm was sampled by employing a short (c. 20 cm) improvised corer, i.e., a plastic 2-liter water bottle, cut off at both ends; also, a plankton net (mesh size 70 μm) was used to collect surface sediment. Samples were fixed in 5% formaldehyde. Specimens were isolated in 70% alcohol, and subsequently transferred to glycerin. Drawings were made with the aid of a drawing tube mounted on a Leica Diaplan microscope equipped with UCA condenser, IC prism, and doubler ×1.5.

**SYSTEMATIC ACCOUNT**

Family PARASTENOCARIDIDAE Chappuis, 1940
Genus Kinnecaris Jakobi, 1972

**Kinnecaris godavari** sp. n. (figs. 1-5, pls. I-III)

Type locality and material examined. — Kinnecaris godavari sp. n. is described from the hyporheic zone of the river Godavari at Rajahmundry town (16°9′N 81°47′E), South India. The sampling site is located almost in the middle of the river basin from where sand is regularly being mined, and transported ashore. Here, the riverbed has a deposit of fine sand and detritus particles, but with little or no clay, and is devoid of any macrophytic vegetation. Any tidal influence from the