



Two new clam shrimp species (Crustacea: Branchiopoda: Spinicaudata) from Kerala, India

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Abstract

Two new clam shrimp species belonging to the genera *Eulimnadia* Packard, 1874 and *Leptestheria* Sars 1898 from Kerala, India are described. Spinicaudatan clam shrimp are among the least studied groups in India, with only 30 species reported. *Eulimnadia azisi* **sp. nov.** was collected from rain fed, temporary, rocky depressions at Vettilapara, in Western Ghats, Kerala. No males were observed and the population may be hermaphroditic. *Leptestheria dumonti* **sp. nov.** was collected from the paddy fields at Parapukara, Kerala. Altogether two species of *Leptestheria* and nine species of *Eulimnadia* have been reported from India, and this is the first report of the genus *Leptestheria* from Kerala.

Key words: Branchiopoda, *Eulimnadia*, *Leptestheria*, Kerala, Western Ghats

Introduction

Kerala is the one of the smallest states in peninsular India. Spinicaudatan clam shrimps are primitive freshwater branchiopod crustaceans that inhabit temporary freshwater pools. They have been reported from all continents except Antarctica (Belk, 1982). So far, thirty five clam shrimp species have been reported from India, thirty belonging to the Spinicaudata (Durga Prasad & Simhachalam, 2009). Baird (1859) first recorded the genus *Eulimnadia* Packard from India, and described *Eulimnadia compressa* from Nagpur in central India. Later, Sars (1900) reported *E. similis* and *E. gibba* from India. Tiwari (1962) reported *Leptestheria jaisalmarensis* from Rajasthan. In 1965, Nayar described *Eulimnadia ovata* and *Leptestheria longispinosa* also from Rajasthan. Nayar and Nair (1968) reported several females of *Eulimnadia michaeli* from Madurai, South India. So far, seven *Eulimnadia* species and two *Leptestheria* species have been reported from different parts of India (Durga Prasad & Simhachalam, 2009; Durga Prasad, 1991; Nayar & Nair, 1968; Tiwari, 1962). Although we have some fragmentary information (Nayar & Nair, 1968; Paul & Nayar, 1976; Subhash Babu & Nayar, 1994) on the taxonomy and distribution of spinicaudata from Kerala, comprehensive studies on these large branchiopods are still lacking.

The new species presented here come from the Western Ghats and the adjoining region in Kerala. According to Myers *et al.* (2000), the Western Ghats is considered one of the world's "biological hot spots".

Material and methods

Collections were made using a net with 100 µm mesh and an aperture diameter of 20 cm. Samples were fixed with 4% formalin solution. Specific observations were made with a low power binocular dissection microscope and dissections were made with fine tungsten needles. Taxonomically important parts were dissected out and mounted on glass slides and observed under higher magnifications. Diagrams were drawn using a camera lucida and measurements were taken with a calibrated ocular micrometer. For Scanning