



One new and four newly recorded species of the genus *Macrobrachium* (Decapoda: Caridea: Palaemonidae) from Guangdong Province, southern China

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Abstract

The present study, based on a faunistic and ecological survey of the genus *Macrobrachium* from Guangdong Province, expands the knowledge of morphology, coloration, and distribution of an undescribed species and four new records for *M. formosense* Bate, 1868, *M. inflatum* Liang & Yan, 1985, *M. maculatum* Liang & Yan, 1980 and *M. meridionalis* Liang & Yan, 1983. A more complete diagnosis of these five species is presented. *Macrobrachium heterorhynchos*, new species, can be distinguished from its congeners by a combination of characters which includes rostral sexual dimorphism, the two teeth at the proximal part of the cutting edge of the fixed finger of the second pereopod, the non-inflated palm, and the distinctly longer merus compared which is distinctly longer than the palm or the ischium.

Key words: Decapoda, Palaemonidae, *Macrobrachium*, China

Introduction

The genus *Macrobrachium* is a relatively species-rich group, which contains nearly 220 species and subspecies (Liu *et al.* 1990; Chace & Bruce 1993; Wowor & Choy 2001; Cai & Ng 2002; Cai *et al.* 2004; Short 2004; Jayachandran & Raji 2005; Komai & Fujita, 2005; Li *et al.* 2007) from fresh to brackish environments. The *Macrobrachium* fauna of China is notable for its high species richness, Li *et al.* (2007) revised the local fauna and noted 33 species based on specimens they examined. So far, six species of *Macrobrachium* have been reported from Guangdong Province, occurring both in fresh and brackish waters. They are: *Macrobrachium asperulum* (Von Martens, 1868), *M. equidens* (Dana, 1852), *M. fukienense* Liang & Yan, 1980, *M. hainanense* (Parisi, 1919), *M. nipponense* (De Haan, 1849), and *M. superbum* (Heller, 1862) (see Holthuis 1950; Liu 1957; Liu *et al.* 1990; Zhang & Sun 1981; Li *et al.* 2007). Intensive field surveys have been carried out in the region in recent years by the authors, with the addition of the new species and the new records described in this study, this brings the total number of the genus *Macrobrachium* known from Guangdong Province to 11.

Material and methods

The specimens examined in the present study were collected by hutch net with mesh size 0.8 mm and then preserved in 75% alcohol before dissection. The drawings were made with the aid of drawing tube mounted on an Olympus BX-41 compound microscope.

The following abbreviations are used throughout the text: tl, total length of body (measured from the ros-