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A new record of the giant freshwater prawn, *Macrobrachium spinipes* (Schenkel, 1902) (Crustacea: Decapoda: Palaemonidae) from Taiwan, with notes on its taxonomy

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Abstract

The giant freshwater prawn *Macrobrachium spinipes* (Schenkel, 1902) is recorded from Taiwan for the first time and extends the distribution of the species to north of the Tropic of Cancer. The Taiwanese specimens differ slightly from material from Indonesian Papua in the density of the spination of the adult second pereopods, the relative length of the ridge of the posterior submedian plate of thoracite sternite 4, and the color of the carapace, abdomen and pleural condyles.

Key words: Crustacea, Caridea, *Macrobrachium spinipes*, new record, Taiwan

Introduction

The freshwater prawn fauna of Taiwan (Palaemonidae and Atyidae) is relatively well studied and 20 species of *Macrobrachium* are now known (Shy & Yu 1998; Cai & Jeng 2001; Lin 2007; Chen *et al.* 2010). Of these, one species, the Giant Freshwater Prawn, *Macrobrachium rosenbergii* (De Man, 1879), was introduced to Taiwan from Thailand as part of an extensive aquaculture program 40 years ago by Dr. S. W. Lin, a pioneer in modern freshwater prawn culture (see Shy & Yu 1998). The culture of giant freshwater prawns was subsequently privatized and spread widely across Taiwan. However, most of the culture activities were conducted in southern Taiwan, with only a few farms established in the northeast of the island. Inevitably, some specimens escaped, and the species can occasionally be found at lowland streams near the farms (Shy & Yu 1998).

Holthuis (1995, 2000) suggested that two subspecies, i.e. *M. rosenbergii rosenbergii* (De Man, 1879) and *M. rosenbergii dacqueti* (Sunier, 1925), which have different geographical ranges, could be distinguished by a number of morphological characters. Wowor & Ng (2001, 2007) subsequently showed that there was a suite of diagnostic adult characters in the form of the rostrum, second to fifth pereopods, thoracic sternite 4, as well as live coloration, and argued that the two subspecies should be regarded as two distinct species, i.e. *M. rosenbergii* (De Man, 1879) s. str. and *M. dacqueti* (Sunier, 1925). This has since been supported by Mather & De Bruyn (2003), De Bruyn *et al.* (2004a, b), Chand *et al.* (2005) and De Bruyn & Mather (2007). Unfortunately, the type of *Macrobrachium rosenbergii* was from New Guinea (presently known as Indonesian Papua) (De Man 1879) while the type of *M. dacqueti* was from Java (Sunier 1925). This would have meant that the name of the more widely cultured, fished and researched species from Southeast Asia, South Asia and Indochina will need to be changed from *M. rosenbergii* to *M. dacqueti*. To maintain nomenclatural stability and keep the name *Macrobrachium rosenbergii* for the more widely cultured, fished and studied species, Wowor & Ng (2008) applied to the International Commission of Zoological Nomenclature (ICZN) to have the type of *Palaemon rosenbergii* De Man, 1879, changed. They proposed making the type of *Palaemon dacqueti* Sunier, 1925, the neotype of *P. rosenbergii* De Man, 1879, to

extends the natural distribution of this species northwards, and across the Tropic of Cancer. It can be distinguished from the similar *M. rosenbergii* by several morphological characters as well as antennal and antennular flagella coloration. Young specimens of *M. spinipes* are collected for the aquarium trade because of their attractive coloration, while the adults are important in aquaculture and fisheries.

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