



## A new species of *Mictyris* Latreille, 1806 (Crustacea: Decapoda: Brachyura: Mictyridae) from the Andaman coast of Thailand, with notes on its ecology and behaviour

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### Abstract

A new species of soldier crab (genus *Mictyris* Latreille, 1806) is described from the Andaman Sea coast of Thailand. *Mictyris thailandensis* sp. nov. differs morphologically from its described congeners by its pale plain colouring, the differently shaped apex of the male first gonopod, and by chela features. It also has significant genetic divergence (cytochrome oxidase I  $\geq 11.95\%$ ) from other described species.

**Key words:** Mictyridae, *Mictyris*, Thailand, Andaman Sea, Indian Ocean, new species, taxonomy, intertidal, ecology, behaviour, COI

### Introduction

Soldier crabs (species of *Mictyris* Latreille, 1806) are conspicuous on many shores throughout tropical and temperate Australia, Southeast Asia and East Asia. They play an important ecological role in the maintenance of healthy intertidal flats where they occur (Quinn 1986; Dittman 1994; Webb & Eyre 2004) and experimental removal of one species *M. longicarpus* has resulted in the overgrowth of dense microbial mats (Webb & Eyre 2004). *Mictyris* armies are also an important food source for shore birds (Rohweder & Lewis 2004; Webb & Eyre 2004; Zharikov & Skilleter 2002, 2003, 2004).

Mictyridae Dana, 1851, contains a single genus *Mictyris*, with seven recognised species: *M. longicarpus* Latreille, 1806; *M. platycheles* H. Milne Edwards, 1852; *M. brevidactylus* Stimpson, 1858; *M. livingstonei* McNeill, 1926; *M. occidentalis* Unno, 2008; *M. guinotae* Davie, Shih & Chan, 2010; and *M. darwinensis* Unno & Semeniuk, 2011.

*Mictyris* species are remarkably homogeneous in their appearance, and this has caused confusion in the past about their specific status. Despite the generic revision of McNeill (1926), there has been some long standing confusion about the status of *Mictyris longicarpus*. Although Takeda (1978) established the separate species status of *M. brevidactylus* from Japan (Ryukyu Islands) in a broader genetic and morphological study of this species from across its range, Davie *et al.* (2010) showed that it actually consisted of two closely related sister species, with the Ryukyu Islands populations representing a new species, which they described as *M. guinotae*.

The first author is undertaking a revision of the genus, and after examining samples of *Mictyris* from throughout its known range, has concluded that *M. longicarpus* sensu stricto is confined to the eastern coast of Australia. He has discovered numerous new species that have been previously referred to in the literature as *M. longicarpus*, and most of these sibling species have restricted, relatively narrow, distributional ranges. Davie (2002) also pointed out that there were two undescribed species in western and northern Australia, and although these were to be included in his major revision, Unno (2008) and Unno & Semeniuk (2011) preempted his work and described these as *M. occidentalis* and *M. darwinensis* respectively.