



## *Uca cryptica* Naderloo, Türkay & Chen, 2010 (Crustacea: Brachyura: Ocypodidae) is no longer cryptic

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### Abstract

*Uca cryptica* Naderloo, Türkay & Chen, 2010, was originally described from four male specimens found in museum collections without any information regarding the site of collection. We present the first recorded field observations of this species and new morphological features. Specimens were observed and collected in the Wakatobi National Park, on the island of Kaledupa, Sulawesi Tenggara, Indonesia. Colouration of both males and females is described and ecology and distribution are noted. *Uca cryptica* has been seen coexisting with nine other species; one of the highest recorded numbers of *Uca* species living in sympatry.

**Key words:** Fiddler crabs, ecology, habitat, colouration, Sulawesi, Indonesia

### Introduction

Fiddler crabs (*Uca* Leach, 1814) are one of the most characteristic animals associated with warm-temperate to tropical intertidal shores, particularly mudflats within and adjacent to mangrove forests or temperate salt marshes (Crane 1975). To date, 102 species of *Uca* have been described worldwide (Rosenberg 2014), 38 of which have been reported in the Indo-West Pacific, with 19 from the Wallacea region (Barnes 2010).

The initial description of *Uca cryptica* Naderloo, Türkay & Chen, 2010, was obtained from museum specimens that had lost their pigmentation, with only males being available (Naderloo *et al.* 2010). These specimens were obtained from West Flores, Sulawesi and Naawan. It was noted that ‘nothing is known about the biology and ecology of the new species, and very few specimens are known’, with no additional information published in the interim. It was named *Uca cryptica* to highlight the fact that it was hidden amongst many other museum specimens and remained undiscovered. A living population of this species has been found at Ambeua on the Island of Kaledupa, Sulawesi Tenggara (05° 30’ 14” S; 123° 45’ 36” E). This site is not only notable for the presence of *Uca cryptica* but also for the occurrence of a remarkably high level of fiddler crab alpha diversity. This contribution describes the ecology of *Uca cryptica* and adds to its morphological description; giving details of colouration for the first time.

The Wakatobi National Park is located in South East Sulawesi, with the Banda Sea to the north-east and the Flores Sea to the south-west. It consists of four larger islands: Wangi-Wangi, Kaledupa, Tomia, and Binongko and many smaller ones.

### Material and methods

Specimens were collected from the intertidal at Ambeua mudflat, Kaledupa Island (see Fig. 1), during July and August 2012. The specimens were collected by hand during low tide, preserved in 70–80% ethanol, and deposited in the collections of the Natural History Museum (NHM), London. Quadrats of 1 x 1m<sup>2</sup> were used to calculate the density of crabs.