



## A new genus of the family Portunidae (Crustacea: Decapoda: Brachyura) and the identity of *Portunus (Cycloachelous) yoronensis* Sakai, 1974

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### Abstract

A new genus is established for *Neptunus (Achelous) dubia* Laurie, 1906, a species that ranges from the eastern Indian Ocean to the Philippines and French Polynesia. This species is probably closest to *Cycloachelous* Ward, 1942, with regard to the carapace shape and form of the chelipeds, but has a very unique adult male sternal medial groove with two prominent deep depressions on sternite 8 in the sterno-abdominal cavity to accommodate distinctive male first gonopods, that differs from all known portunid genera. *Portunus (Cycloachelous) yoronensis* Sakai, 1974, described from Japan, is confirmed to be a junior synonym of *N. (A.) dubia* Laurie, 1906.

**Key words:** Crustacea, Decapoda, Brachyura, Portunidae, new genus, taxonomy

### Introduction

The portunid crab *Neptunus (Achelous) dubia* Laurie, 1906, was briefly described from specimens collected from the Gulf of Manaar in Ceylon, present day Sri Lanka. Laurie (1906) compared this taxon with *Neptunus (Achelous) granulatus* (H. Milne Edwards, 1834) and also noted that it was also similar to *Neptunus (Achelous) orbicularis* (Richters, 1880) in the structure of the outer fissure of the supra-orbital margin being obsolete, the presence of nine anterolateral teeth and relative length of the chelipeds. The species has since been reported from the Philippines (Stephenson & Rees 1967), Seychelles (Crosnier 1984), and French Polynesia (Poupin 1996). Stephenson & Rees (1967) described this species in greater detail, commenting that its male first gonopod is unique, differing from all known congeners (see also Crosnier 1984). Sakai (1974) described a new species, *Portunus (Cycloachelous) yoronensis*, from Yoron Island, Japan, but Crosnier (1984) suggested that *Portunus yoronensis* is a junior synonym of *Portunus dubius*. However, the name *Portunus yoronensis* has remained valid (Ng *et al.* 2008).

Recent examination of the type material of *Portunus dubius* and specimens of *Portunus yoronensis* from Japan have confirmed Crosnier's (1984) belief that the latter is indeed a junior synonym of the former. In addition, *Portunus dubius* is found to be sufficiently distinct from other members of the subgenus *Achelous* De Haan, 1833, or *Cycloachelous* Ward, 1942, as well as other *Portunus* species. As such, a new genus is herein established for *Portunus dubius*.

Measurements provided (in millimeters) are of the carapace width and length, respectively. The abbreviations G1 and G2 are used for the male first and second gonopod respectively. The abbreviations coll., ovig., and juv. are used for collected, ovigerous, and juvenile, respectively. Specimens used for this study are deposited in the Natural History Museum (NHM), London, UK; Los Angeles County Natural History Museum (NHMLAC), U.S.A.; Wakayama Prefectural Museum (WMNH), Wakayama, Japan; Raffles Museum of Biodiversity Research (ZRC), National University of Singapore; National Museum of Nature and Science (NSMT), Tokyo, Japan.