



## A new and distinctive species of the hermit crab genus *Catapaguropsis* (Crustacea: Decapoda: Anomura: Paguridae) from the South China Sea

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### Abstract

The diagnosis of the recently described hermit crab genus *Catapaguropsis* Lemaitre & McLaughlin, 2006 is emended to accommodate a second distinctive new species, *Catapaguropsis brucei* n. sp., which does not exhibit the sexual dimorphism described for the type species, *C. queenslandica* Lemaitre & McLaughlin, 2006. *Catapaguropsis brucei* n. sp. is characterized by the marked reduction, in both sexes, of the posterior portions of the pleons, uropods, and telsons that are encased by cnidarians. In addition to the description and illustrations, this new species is compared and contrasted with species of other pagurid genera that occupy atypical carinoecia.

**Key words:** Crustacea, Decapoda, Paguridae, emended *Catapaguropsis*, new species, unique carinoecia, South China Sea

### Introduction

*Catapaguropsis* Lemaitre & McLaughlin, 2006 was proposed for two specimens that shared characters with *Catapagurus* A. Milne-Edwards, 1880 and *Pteropagurus* McLaughlin & Rahayu, 2006, but were clearly distinct from both. However, the male and female exhibited marked sexual dimorphism, with the female resembling species of *Catapagurus* and the male more similar to species of *Pteropagurus*. Additionally, they appeared to possibly occupy different habitats. No carinoecia accompanied the specimens, so Lemaitre & McLaughlin (2006) could not be certain whether the marked reduction in the posterior portion of the male pleon, uropods and telson was habitat related or simply reflected abnormal development.

A pair of specimens recently found in the collections of the Muséum national d'Histoire naturelle, Paris, which are also assignable to *Catapaguropsis*, have provided the answer to the question of habitat influence, and at the same time shown that the dimorphism attributed to the genus is instead restricted, at least as far presently known, to the type species, *C. queenslandica* Lemaitre & McLaughlin, 2006. Consequently, the genus is emended to accommodate the new species, for which a detailed specific description and illustrations are provided, together with information on possible correlations between morphological adaptations and atypical carinoecia.

The specimens used in this study are deposited the Muséum national d'Histoire naturelle, Paris (MNHN) with the catalog reference code Pg, and the Queensland Museum, Brisbane (QM) with the catalog reference code W. Terminology for the generic diagnosis and species' description follows that of Lemaitre & McLaughlin (2006) and McLaughlin & Rahayu (2006). It appears that shield width, rather than length, increases with growth in this genus; however, because of the contour of the shield, width cannot be as accurately measured.