



## A new species of *Polyonyx* Stimpson, 1858 (Crustacea: Decapoda: Anomura: Porcellanidae) from the Philippines and Loyalty Islands

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### Abstract

A new porcellanid crab, *Polyonyx spina*, is described from the Philippines and Loyalty Islands. Among the Indo-West Pacific species of the genus, the spines on the flexor margins of the meri of the ambulatory legs are found only in the new species and *P. pedalis* Nobili, 1905. *Polyonyx spina* is distinguished from *P. pedalis* by the shape of the carapace and third thoracic sternite, and the strength of spines on the meri of the ambulatory legs.

**Key words:** Crustacea, Anomura, Porcellanidae, new species, Philippines, Loyalty Islands

### Introduction

The genus *Polyonyx* Stimpson, 1858 is now recognized to comprises 17 species from the Indo-West Pacific: *P. biunguiculatus* (Dana, 1852), *P. cometes* Walker, 1887, *P. haigae* McNeil, 1968, *P. hendersoni* Southwell, 1909, *P. loimicola* Sankolli, 1965, *P. maccullochi* Haig, 1965, *P. obesulus* Miers, 1884, *P. parabiunguiculatus* Yang, 1996, *P. pedalis* Nobili, 1905, *P. sinensis* Stimpson, 1858, *P. splendidus* Sankolli, 1963, *P. transversus* (Haswell, 1882), *P. thai* Werding, 2001, *P. triunguiculatus* Zehntner, 1894, *P. tulearis* Werding, 2001, *P. utinomii* Miyake, 1943, and *P. vermicola* Ng & Sasekumar, 1993 (Haig 1979; Yang 1996; Werding 2001). Most species are associated with corals, sponges, and tube-dwelling polychaetes such as *Chaetopterus* and *Mesoch-aetopterus* (Werding 2001; Osawa 2001).

Werding (2001: 109, 115) commented on the taxonomy of several species of the genus. He suggested that *P. hendersoni* and *P. splendidus* should be assigned to a separate genus. Although *Euleniaios* Ng & Nakasone, 1993, was established for *Polyonyx cometes*, Werding (2001) considered the new genus to be synonymous with the original. Werding (2001) also judged that *P. bella* Hsueh & Huang, 1998, and *P. plumatus* Yang & Xu, 1994, are identical with *P. sinensis* Stimpson, 1858, and *P. haigae* McNeil, 1968, respectively. However, further detailed study is required before the taxonomic status and synonymies of these species can be established. Ng & Nakasone (1993) remarked that the carapace of *P. cometes* had distinct cervical and gastric grooves which seemed to be formed by a thinning and gradual decalcification of the cuticle, and the deepest parts were almost membranous in appearance. This character is unusual in the Porcellanidae and may support the establishment of the genus *Euleniaios* for *P. cometes*. Moreover, the original descriptions and illustrations of *P. bella*, *P. haigae*, *P. plumatus*, and *P. sinensis*, show some morphological differences and the true identity of *P. sinensis* is rather obscure.

Amongst the abundant porcellanid material collected from Balicasag Island, Panglao in the Philippines and Lifou Island in the Loyalty Islands, an unusual species of *Polyonyx* was identified. This species resembles *P. pedalis* Nobili, 1905, but differs in the morphology of the carapace, thoracic sternum, and ambulatory legs.