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Cebudonus poppeorum, a new genus and new species of eumedonine crab (Crustacea: Decapoda: Brachyura: Pilumnidae) from the Philippines

PETER K. L. NG
Tropical Marine Science Institute and Lee Kong Chian Natural History Museum, National University of Singapore, Kent Ridge, Singapore 119260, Republic of Singapore. E-mail: peterng@nus.edu.sg

Abstract

A new genus and new species of eumedonine crab, *Cebudonus poppeorum*, is described from the central Philippines. Superficially similar to *Eumedonus* H. Milne Edwards, 1834, *Gonatonotus* White, 1847, *Zebrida* White, 1847, *Zebridonus* Chia, Ng & Castro, 1995, and *Tiaramedon* Chia & Ng, 1998, *Cebudonus* **n. gen.** is easily characterised by possessing two long pseudorostral spines, a gently convex and unarmed dorsal carapace surface, elongated chelipeds that have the chela and merus unarmed and not cristate, elongated and slender ambulatory legs in which the merus is not cristate, a relatively narrow anterior male thoracic sternum, and a proportionately broader male abdomen. The general structure and colour pattern (with longitudinal stripes) suggests *Cebudonus* **n. gen.** is an obligate symbiont with echinoids.

Key words: Crustacea, Brachyura, Pilumnidae, Eumedoninae, taxonomy, new genus, new species, Philippines

Introduction

The subfamily Eumedoninae Dana, 1852 (family Pilumnidae Samouelle, 1819) is a small group of Indo-West Pacific crabs that are obligate symbionts of echinoderms. With 12 genera and 32 species (Ng *et al.* 2008), the subfamily is well studied and all the genera have been revised (see Ng & Chia 1999; Castro *et al.* 1995; Chia & Ng 1995, 1998, 1999, 2000; Chia *et al.* 1995, 1999).

Guido and Philippe Poppe (Conchology Inc.) recently passed me specimens of an unusual eumedonine collected from relatively deep waters in central Philippines by fishermen who were collecting shells, sea stars and sea urchins for sale. While these specimens clearly belonged to a new species, the assignment of a genus proved difficult. The carapace and colour pattern (with longitudinal stripes) superficially resembled members of *Zebrida* White, 1847 (see Ng & Chia 1999) that live only on echinoids, but the frontal margin, chelipeds and ambulatory legs were totally different in structure. They also differ from known echinoid-dwelling eumedonines like *Eumedonus* H. Milne Edwards, 1834, *Echinoecus* Rathbun, 1894, *Gonatonotus* White, 1847, *Tauropus* Chia & Ng, 1998, and *Zebridonus* Chia, Ng & Castro, 1995, in various features of the carapace and ambulatory legs (cf. Chia & Ng 1998, 2000; Chia *et al.* 1995, 1999; Ng & Chia 1999). It has none of the features of eumedonine genera that live on crinoids (e.g., covered with transverse stripes in life) (cf. Castro *et al.* 1995; Chia & Ng 1995, 1998), or in holothurians (with orange spots in life) (cf. Chia & Ng 1999, see also Low *et al.* 2013). It is therefore necessary that a new monotypic genus is established for the new species from the central Philippines.

The following abbreviations are used: G1 = male first gonopod; G2 = male second gonopod. Measurements (in millimetres) provided are of the maximum width and length (including spines). Specimens are deposited in the Crustacean Collection of the Philippine National Museum (NMCR), Manila; collection of Guido T. Poppe (GTP), Cebu; and Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum (formerly Raffles Museum of Biodiversity Research), National University of Singapore.

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References

Castro, P., Chia, D.G.B. & Ng, P.K.L. (1995) On the taxonomic status of *Ceratocarcinus longimanus* White, 1847 (Crustacea: Decapoda: Brachyura: Eumedonidae), a crab symbiotic with comatulid crinoids. *Raffles Bulletin of Zoology*, 43 (1), 239–250.

Chia, D.G.B., Castro, P. & Ng, P.K.L. (1999) Revision of the genus *Echinoecus* (Decapoda: Brachyura: Eumedonidae), crabs symbiotic with sea urchins. *Journal of Crustacean Biology*, 19 (4), 809–824. http://dx.doi.org/10.2307/1549303

Chia, D.G.B. & Ng, P.K.L. (1995) A revision of the genus *Rhabdonotus* A. Milne Edwards, 1879, with descriptions of two new species and the first zoeal stage of *R. pictus* A. Milne Edwards, 1879, (Brachyura: Eumedonidae). *Crustacean Research*, 24, 104–127.

Chia, D.G.B. & Ng, P.K.L. (1998) A revision of *Ceratocarcinus* White, 1847, and *Harrovia* Adams & White, 1849 (Crustacea: Decapoda: Brachyura: Eumedonidae), two genera of crabs symbiotic with crinoids. *Raffles Bulletin of Zoology*, 46 (2), 493–563.

Chia, D.G.B. & Ng, P.K.L. (1999) A note on the sea cucumber crab, *Hapalonotus reticulatus* (Crustacea: Brachyura: Eumedonidae). *Journal of South Asian Natural History*, 4 (1), 65–70.

Chia, D.G.B. & Ng, P.K.L. (2000) A revision of *Eumedonus* H. Milne Edwards, 1834 and *Gonatonotus* White, 1847 (Crustacea: Decapoda: Brachyura: Eumedonidae), two genera of crabs symbiotic with sea urchins. *Journal of Natural History*, 34, 15–56. http://dx.doi.org/10.1080/002229300299679

Chia, D.G.B., Ng, P.K.L. & Castro, P. (1995a) On a new genus and species of eumedonid crab from the Gulf of Carpentaria, northern Australia (Crustacea: Decapoda: Brachyura: Eumedonidae). *Journal of Natural History*, 29, 1189–1195. http://dx.doi.org/10.1080/00222939500770511

Low, M.E.Y., Ng, P.K.L. & Evenhuis, N.L. (2013) Names and publication dates of the Brachyura in F.É. Guérin (Guérin-Méneville) (Crustacea: Decapoda). *Zootaxa*, 3736 (2), 101–127. http://dx.doi.org/10.11646/zootaxa.3736.2.1

Ng, P.K.L. & Chia, D.G.B. (1999) Revision of the genus *Zebrida* White, 1847 (Crustacea: Decapoda: Brachyura: Eumedonidae). *Bulletin of Marine Science*, 65 (2), 481–495.

Ng, P.K.L., Guinot, D. & Davie, P.J.F. (2008) Systema Brachyurorum: Part I. An annotated checklist of extant brachyuran crabs of the world. *Raffles Bulletin of Zoology*, 17 (Supplement), 1–286.