



## Two new genera and two new species of troglobitic false spider crabs (Crustacea: Decapoda: Brachyura: Hymenosomatidae) from Indonesia, with notes on *Cancrocaeca* Ng, 1991

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### Abstract

*Sulaplax* **gen. nov.** and *Guaplax* **gen. nov.** are established for two new species of cave-dwelling false spider crabs (Hymenosomatidae) from Muna Island, Sulawesi Tenggara, and Kalimantan Timur, Indonesia, respectively. *Sulaplax ensifer* **spec. nov.** and *Guaplax denticulata* **spec. nov.** are distinguished from each other by carapace, rostral, pereopodal, abdominal and male gonopodal characters. *Sulaplax* and *Guaplax* share with *Cancrocaeca* Ng, 1991, another troglobitic hymenosomatid, cave-adapted characters like reduced eyes, pale coloration and slender ambulatory legs. However, the gonopods, abdomens and egg-brooding features of *Sulaplax* and *Guaplax* are closer to those of the epigeal *Neorhynchoplax* Sakai, 1938, whereas those of *Cancrocaeca* are closer to those of the epigeal *Limnopilos* Chuang & Ng, 1991, and *Hymenicoides* Kemp, 1917. It appears that the hypogeal lifestyles of *Sulaplax*-*Guaplax* and *Cancrocaeca* species have resulted in many convergent characters.

**Key words:** *Sulaplax ensifer*, *Guaplax denticulata*, new genus, new species, *Cancrocaeca*, troglobitic freshwater crabs, Hymenosomatidae

### Introduction

The Hymenosomatidae is a relatively small family in the Brachyura with only 109 species in 17 genera (Ng *et al.* 2008), but its species are adapted to a wide variety of epibenthic habitats from coral reefs to mud, from marine, brackish waters, and freshwaters, and even to cave environments (Lucas 1980; Chuang & Ng 1994; Ng 1991). Guinot (1988: 5, footnote) actually commented that hymenosomatids were natural candidates for subterranean colonization; this was even before the first troglobitic species, *Cancrocaeca xenomorpha* Ng, 1991, was described. *Cancrocaeca xenomorpha* exhibits the typical pale coloration and very slender pereopods of cave-dwellers, and was described as completely lacking a cornea and ocular peduncle (see also Deharveng *et al.* 2002).

Recent surveys by French and Indonesian explorers discovered two additional new species of troglobitic hymenosomatids from Muna Island, Sulawesi Tenggara, and Kalimantan Timur. These species exhibit similar cave-adapted characters to *Cancrocaeca* Ng, 1991, e.g. pale body colour, slender pereopods, and reduced eyes. However, the shape of their male first gonopods and abdomens are closer to *Neorhynchoplax* Sakai, 1938, and differ markedly from those of *Cancrocaeca*, and other genera such as *Hymenicoides* Kemp, 1917, *Limnopilos* Chuang & Ng, 1991, and *Amarinus* Lucas, 1980. Despite their affinities to *Neorhynchoplax*, we consider that these two new species are morphologically different enough to justify generic separation both