

# Establishment of A New Bornean Genus of Gecarcinucidae (Crustacea: Brachyura), with Descriptions of Five New Species

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The freshwater gecarcinucid species from Borneo previously referred to *Sundathelphusa* Bott, 1969, are transferred to a new genus. *Borneosa* gen. nov. can be diagnosed by the presence of a distinct frontal median triangle that is shorter than the frontal margin, a relatively longer male thoracic sternum in which the sternopleonal cavity reaches more anteriorly, and a male first gonopod that has the terminal segment prominently covered with long setae. The eight species recognised—*B. tenebrosa* (Holthuis, 1979), *B. aspera* (Ng & Stuebing, 1989), *B. brachyphallus* (Ng, 2015), and five new species, *B. niah*, *B. bario*, *B. kapit*, *B. sarawakensis* and *B. serrata*—can be distinguished by characters of the frontal median triangle, epibranchial tooth, anterolateral margin, third maxillipeds, ambulatory legs, male sternum, male pleon and male first gonopod.

**Key words:** Freshwater crab, Gecarcinucoidea, New species, New genus, Malaysia, Brunei, Indonesia, Taxonomy, Distribution, Key.

## BACKGROUND

The freshwater gecarcinucid genus *Sundathelphusa* Bott, 1969 (type species *Potamon (Geothelphusa) cassiope* De Man, 1902), occurs in the Philippines, Sulawesi, Moluccas and Borneo, and 44 species are now known (Ng et al. 2008; Husana et al. 2009; Ng 2010; Mendoza and Naruse 2010; Husana et al. 2014 2015; Ng 2015; Ng and Anker 2016; Mendoza and Sy 2017; Husana and Ng 2019; Husana 2020; Ng and Mendoza 2020). Of these, only three species, *S. tenebrosa* Holthuis, 1979, *S. aspera* Ng & Stuebing, 1989, and *S. brachyphallus* Ng, 2015, are known from Borneo, all reported from the eastern half of the island. Ng and Stuebing (1989) commented that *S. tenebrosa* and *S. aspera* were distinct from congeners in their carapace and adult cheliped morphology. In a genetic

study done on various gecarcinucids, Klaus et al. (2009) showed that the Bornean species emerged in a separate clade from all the other species of *Sundathelphusa*, suggesting they belong to a separate taxon. Ng (2015) elaborated on the affinities of three Bornean species, observing that in addition to carapace and cheliped differences, their G1 structures were also distinct, with the terminal segment more cylindrical in shape with the surface covered with numerous setae on the dorsal and ventral parts, and the tip is wide and rounded. Over the last decade, the authors have obtained and studied a large series of specimens of “*Sundathelphusa*” from various parts of Borneo, confirming the suggestions of Ng and Stuebing (1989), Klaus et al. (2009) and Ng (2015) that the Bornean species should be referred to as a new genus. In addition to the characters noted by Ng and Stuebing (1989) and Ng (2015), there are others