

Semiterrestrial crabs of the genus *Geosesarma* De Man, 1892 (Crustacea, Brachyura, Sesarmidae) from western Borneo, Indonesia, with descriptions of three new species

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Abstract

The poorly known semiterrestrial sesarmid crab, *Geosesarma amphinome* (De Man, 1899), from Kalimantan Barat in western Borneo, is redescribed and figured. Three other species from areas surrounding the town of Pontianak, are here described as new. *Geosesarma ambawang* sp. nov., *G. pontianak* sp. nov., and *G. pylaemenes* sp. nov. can be distinguished from congeners on Borneo and adjacent areas by their colours in life, form of the carapaces and ambulatory legs, and the structures of the male abdomens and first gonopods.

Key words: *Geosesarma amphinome*, new species, taxonomy, Borneo, western Kalimantan, Southeast Asia

Introduction

The genus *Geosesarma* De Man, 1892, is now represented by 53 species from Southeast Asia and adjacent areas (Ng *et al.* 2008; Schubart & Ng 2014; Ng *et al.* 2015). Of these, eight species are known from Borneo: *G. amphinome* (De Man, 1899), *G. aurantium* Ng, 1995, *G. bau* Ng & Grinang, 2004, *G. danumense* Ng, 2002, *G. gracillimum* (De Man, 1902), *G. katibas* Ng, 1995, *G. sabanum* Ng, 1992, and *G. sarawakense* (Serène, 1968). All are semiterrestrial species, spending their entire life in freshwater habitats.

Only one species, *G. amphinome* (De Man, 1899), is known from Indonesian Kalimantan Barat (western Borneo) thus far. This species, however, is poorly known; and while De Man (1899) gave a good description and figures of the taxon, he did not figure the diagnostic gonopods. The species is redescribed and figured herein. In addition, two new species are described from the hills north and south of Pontianak, the largest city in Kalimantan Barat. One new species allied to *G. amphinome* is described from lowlands northeast of Pontianak. The new species are most similar to taxa from Sabah, Sarawak and the Riau Archipelago, but differ in the structures of the carapaces, ambulatory legs, male abdomens and gonopods.

Material and methods

The abbreviations G1 and G2 are used for the male first and second gonopods, respectively. Measurements provided in millimetres are of the carapace width and length, respectively. The terminology used follows that in Ng (1988). The G1 structure is characterised by a hard distal part that is always pectinated. The structure narrows as it reaches the pectinated part, and while the inner (mesial) margin (viewed *in situ* from the ventral surface) of the subdistal part is normally straight or gently convex; the outer margin curves towards the pectinated part. This subdistal margin may curve gently like in *G. amphinome* (Fig. 2G, I), or more abruptly like in *G. ambawang* sp. nov. (Fig. 8D, F). In *G. pontianak* sp. nov., the subdistal part usually bends sharply, forming an almost right-angled structure (Fig. 13D, J, K, M). This sudden curvature of the G1 subdistal outer margin is here referred to as a “hump”.