Terrathelphusa secula, a new species of semiterrestrial freshwater crab (Crustacea: Brachyura: Gecarcinucidae) from Sabah, East Malaysia, Borneo

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Abstract. A new species of semiterrestrial gecarcinucid freshwater crab, Terrathelphusa secula, is described from Danum Valley in Sabah, East Malaysia, eastern Borneo. In the form of its carapace, third maxilliped, and male second gonopod, it most closely resembles T. ovis Ng, 1997, and T. telur Ng, 1997, from eastern Sarawak and Brunei, respectively. It differs markedly from these and other congeners in its proportionately much wider carapace, and a male first gonopod that is strongly curved and sickle-shaped.

Key words: Semiterrestrial crab, Terrathelphusa, Gecarcinucidae, Sabah, new species, taxonomy

Introduction

The taxonomy of the semiterrestrial freshwater crab genus Terrathelphusa Ng, 1989 (Gecarcinucidae), members of which are known from Java and Borneo, has been treated at length by Ng (1989, 1997), with Grinang & Ng (2015) revising the fauna from western Sarawak. Currently, eight species are known from Borneo: T. aglaia Grinang & Ng, 2015 (western Sarawak), T. cerina Grinang & Ng, 2015 (western Sarawak), T. kuchingensis (Nobili, 1901) (western Sarawak), T. kundong Grinang & Ng, 2015 (western Sarawak), T. loxophthalma (De Man, 1892) (southeastern Kalimantan), T. mas Grinang & Ng, 2015 (western Sarawak), T. ovis Ng, 1997 (eastern Sarawak), and T. telur Ng, 1997 (Brunei). No species of Terrathelphusa has been recorded from eastern Borneo or Sabah.

We herein describe a new species from Danum Valley in central Sabah, named Terrathelphusa secula n. sp. It is diagnosed and compared with congeners. The specimen is deposited in the Zoological Reference Collection (ZRC) of the Lee Kong Chian Natural History Museum (formerly Raffles Museum of Biodiversity Research), National University of Singapore. Measurements (in millimetres) are of the carapace width and length, respectively. The terminology used follows that in Ng (1988); and the abbreviations G1 and G2 are for the male first and second gonopods, respectively.

Taxonomy

Family Gecarcinucidae Rathbun, 1904

Terrathelphusa Ng, 1989

Type species. Geothelphusa kuhli De Man, 1883; by original designation; gender feminine.

Remarks. All Terrathelphusa species have distinctly swollen and ovate carapaces with the dorsal median surfaces relatively smooth, their anterolateral margins essentially entire, lack a distinct frontal median triangle, and possess a G1 that has the terminal and subterminal segments clearly demarcated (see Ng 1989, 1997; Grinang & Ng 2015).

The various species all look superficially similar but adults can be distinguished by their live coloration, carapace proportions, degree of swelling of the branchial regions, proportions of the ambulatory legs, and structures of the carapace armature, epistome, third maxilliped, male chela, male abdomen, G1 and G2. As such, only a diagnosis of the key features of the new species is presented.