On a new species of *Geosesarma* de Man, 1892 (Crustacea: Decapoda: Brachyura: Grapsidae) from Chanthaburi Province, eastern Thailand

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A new species of terrestrial freshwater sesarmine crab (Decapoda: Brachyura), *Geosesarma krathing* spec. nov., is described from near a waterfall in Chanthaburi Province, eastern Thailand. This is the first record of the genus from that part of Thailand. The species is allied to *G. peraccae* (Nobili, 1903) from Singapore and southern Peninsular Malaysia, but differs in the form of the carapace and male first pleopod structure.

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Introduction

A new species of terrestrial freshwater sesarmine crab, *Geosesarma krathing* spec. nov., is described from eastern Thailand. The freshwater sesarmines of Thailand are less well known than the potamid and gecarcinucid fauna, and only a single species of *Geosesarma* has been recorded previously from southern Thailand (Ng & Lim, 1987; Ng, 1988). The present record is the first of the genus to be recorded from eastern Thailand.

The terminology follows that used by Ng (1988). All measurements, in millimetres, are of the carapace width and length respectively. The abbreviations G1 and G2 are used for the male first and second pleopods, respectively. The type specimens are deposited in the Nationaal Natuurhistorisch Museum [previously Rijksmuseum van Natuurlijke Historie (RMNH)], Leiden, The Netherlands; and the Zoological Reference Collection (ZRC), Department of Zoology, National University of Singapore.

Descriptive part

Family Grapsidae MacLeay, 1838
Genus **Geosesarma** de Man, 1892

Geosesarma krathing spec. nov.
(fig. 1)

Material.— Holotype, ♂, (RMNH D 42024), Krathing waterfall, Chanthaburi Province, Amphoe Makham, eastern Thailand, leg. Isara, 5.xii.1985 (13.0 by 12.0 mm). Paratypes – 1 ♀ (RMNH D 42025), 1 ♂, 1 ♀ (12.6 by 11.8 mm) (ZRC); all same data as holotype.

Diagnosis.— Carapace squarish, slightly broader than long; dorsal surface smooth, with shallow grooves and indistinct regions. Frontal margin strongly deflexed, sinuous; postfrontal cristae distinct, each crista bilobed, each lobe separated by shallow groove; surface of frontal region concave. Anterolateral margin almost straight, external orbital angle triangular, directed obliquely outwards, separated from first epibranchial tooth by shallow V-shaped cleft; first epibranchial tooth low, broad; second epibranchial tooth indistinct, separated from first epibranchial tooth by broad, shallow concavity. Posterolateral margin slightly diverging. Merus of third maxilliped oval, widest part distinctly less than length of proximal margin; exopod slender, with short flagellum approximately as long as width of merus. Male chelipeds subequal; outer surfaces of palm slightly rugose or covered with small granules; proximal part of upper margin of dactylus with small sharp granules; lower margin of palm with small rounded granules; fingers subequal to palm length; tips of fingers slightly "spooned", their inner edges pectinated. Second ambulatory leg longest. Meri of all legs slender, each with a sharp subdistal dorsal spine; coxae distinctly setose, with numerous short stiff hairs. Male abdominal segment 7 longer than segment 6; lateral margins of segments 6 and 7 almost confluent; posterior margin of segment 6 gently sinuous; segment 7 does not appear partly "sunken" into segment 6. G1 terminal segment straight, flattened laterally, curves gently outwards (in situ); subterminal segment with with deep distal cleft on outer margin. G2 short, without distal segment.

Remarks.— The present species of *Geosesarma* is perhaps closest to *G. peraccae* (Nobili, 1903) from Singapore and southern Peninsular Malaysia, especially with regards to the G1. The G1 of *G. krathing*, however, has a deeper and narrower distal cleft on the outer margin of the subterminal segment. The G1 terminal segment of *G. peraccae* is longer and straighter, while that of *G. krathing* curves gently outwards. The merus of the third maxilliped of *G. krathing* is relatively narrow (1.7-1.8 times the length of the proximal margin) compared to that of *G. peraccae* (twice the length of the proximal margin). The flagellum on the third maxilliped exopod of *G. krathing* is also distinctly shorter. The carapace of *G. peraccae* is more trapezoidal in shape (squarish in *G. krathing*). The ambulatory meri of *G. krathing* ("type A" of Ng, 1988: 120) are more slender than those of *G. peraccae* ("type B" of Ng, 1988: 120). The coxae of the ambulatory legs of *G. krathing* are distinctly setose, with numerous short stiff hairs (hairless in *G. peraccae*). Unlike in *G. peraccae*, the seventh male abdominal segment of *G. krathing* is distinctly "sunken into" the sixth segment.

Geosesarma krathing, although found near a waterfall, did not occur in the water proper, and was terrestrial in habits. Some of the type specimens were collected on the branches of a small shrub. The species apparently burrows near the edge of the water. Their habits parallel those of many Peninsular Malaysian sesarmines such as *G. peraccae*, *G. nemesis* Ng, 1986, *G. cataracta* Ng, 1986, *G. malayanum* Ng & Lim, 1986 (Ng, 1988; Ng & Lim, 1987).

Etymology.— The species is named after the area where it was collected, Krathing. The name is to be used as a noun in apposition.

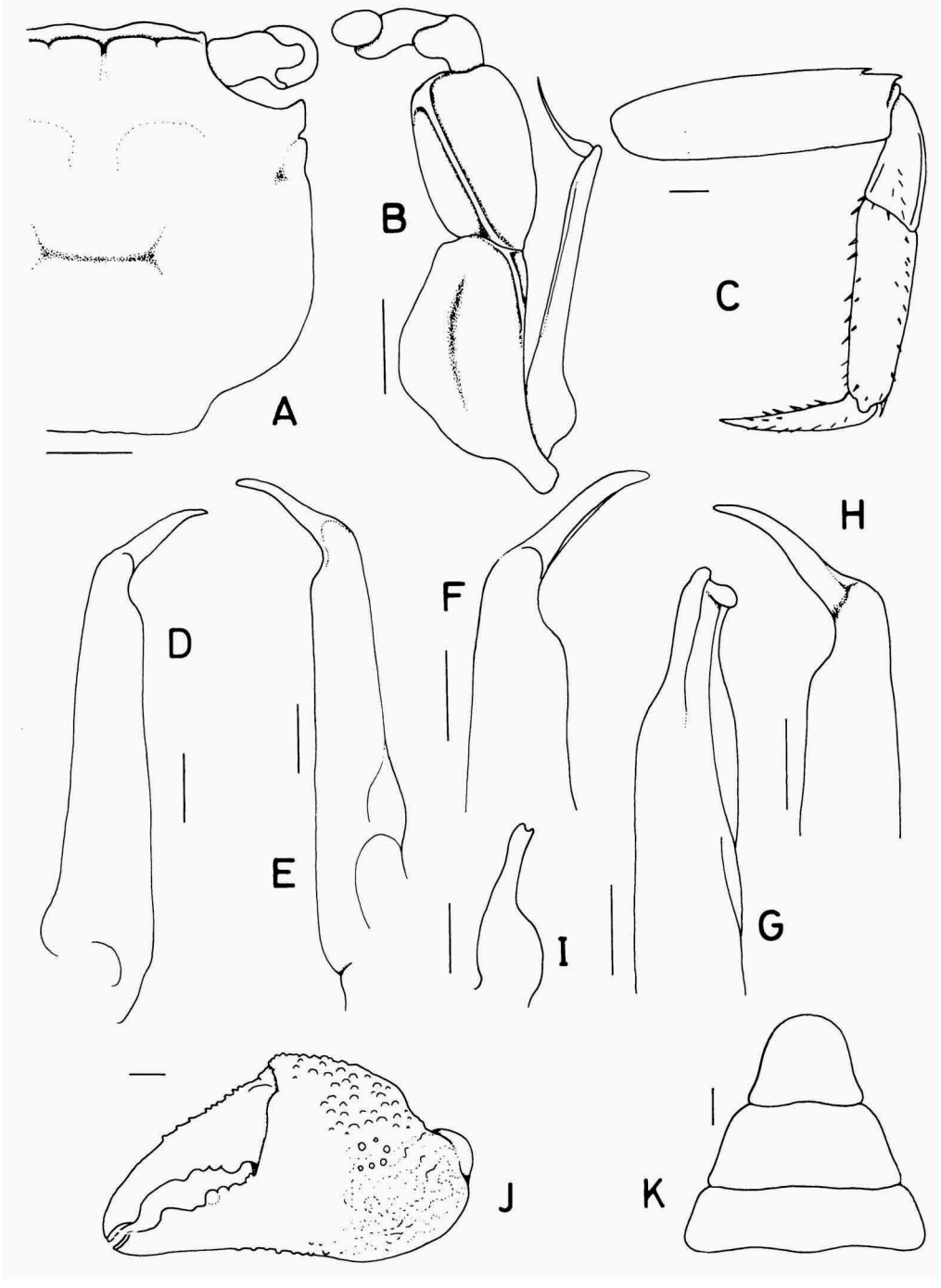

Fig. 1. *Geosesarma krathing* spec. nov. Holotype male, 13.0 by 12.0 mm. A, right side of carapace; B, left third maxilliped; C, right second ambulatory leg; D-H, left G1; I, left G2; J, left chela; K, last three male abdominal segments. D, G, ventral view; E, lateral view; F, H, dorsal view; G, H, E, distal part of G1. Scales: A-C, J, K, 1.0 mm; D-I, 0.5 mm.

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