

NEW RECORD OF THE MANGROVE CRAB, *HETEROPILUMNUS SASEKUMARI* (SERÈNE, 1971) (CRUSTACEA: BRACHYURA: PILUMNIDAE) FROM SINGAPORE.

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INTRODUCTION

The mangrove brachyuran fauna of Singapore consists of approximately 76 species (Tan & Ng, 1994; this study). Of these, only two species are from the family Pilumnidae Samouelle, 1819: *Aniptumnus quadridentatus* (de Man, 1895) and *Heteropanope glabra* Stimpson, 1858 (see Tan & Ng, 1994).

Serène (1971: 915, 916, pl. 5A) described *Rhizopa sasekumari* from a female specimen that was collected from Port Swettenham (now Port Klang), Peninsular Malaysia. Serène (1971) also identified three female specimens from the west coast of Peninsular Malaysia and Labuan, Borneo as this species. As noted by both Serène (1971) and Ng (1985, 1987), the assignment of this species to the genus *Rhizopa* was doubtful. Ng (1987: 83) later transferred this species to the genus *Heteropilumnus* de Man, 1895. Ng (1985: 631, Fig. 2) re-examined the type female of *Heteropilumnus sasekumari* described by Serène (1971), while Ng & Davie (1991: 158, Fig. 1) re-described this species and provided the first description of the male of this species based on material collected from Australia.

Three pilumnid specimens recently obtained from Singapore mangrove forests were identified as *Heteropilumnus sasekumari*. They are deposited in the Zoological Reference Collection (ZRC) of the Raffles Museum of Biodiversity Research (RMBR), National University of Singapore. They are herein reported as the first records of this species from Singapore.

MATERIAL EXAMINED

- 1) 1 female: carapace width 21.8 mm × carapace length 14.0 mm (ZRC 2000.1135); Changi Creek; coll.: C. D. Schubart, 7 Oct.1999.
- 2) 1 female: carapace width 10.9 mm × carapace length 7.2 mm (ZRC 2008.0709); Lim Chu Kang mangroves; coll.: T. Naruse, 14 Sep.2001.
- 3) 1 female: carapace width 28.0 mm × carapace length 18.7 mm (ZRC 2011.1021); unspecified mangrove locality in Singapore; coll.: B. Jayne, Apr.2001 (Fig. 1).

DISCUSSION

The three specimens of *Heteropilumnus sasekumari* from Singapore agree very well with the descriptions provided by Serène (1971), Ng (1985, 1987), and Ng & Davie (1991), namely in having dense pubescence on the dorsal surface of the carapace and legs, as well as two anterolateral teeth (excluding external orbital tooth) on the carapace, a character that easily distinguishes this species from congeners.

Heteropilumnus sasekumari was previously known only from the west coast of Peninsular Malaysia (Port Klang and Seberang Perai), and eastern Australia (Queensland) (Ng & Davie, 1991). Davie (1985) had recorded *Heteropilumnus sasekumari* from Singapore. However, as clarified by Ng & Davie (1991), his record was based on a misidentification of the type locality. Therefore, the present specimens would represent a new record for Singapore.

In 1819, mangrove forests in Singapore occupied an estimated area of 75 km² or about 12.9% of the Republic's total land area (Corlett, 1992; Ng & Low, 1994; Yee et al., 2010). This coverage has been reduced to the current 6.59 km² (approximately 0.95% of the total land area) mostly due to clearing for land development and reclamation (Turner et al., 1994; Ng & Sivasothi, 1999; Ng et al., 2008; Yee et al., 2010; Chou, 2011).

The checklist of Tan & Ng (1994) was based on museum collections accumulated over six decades, newly collected material, as well as published literature. Since the publication of the checklist of Tan & Ng (1994), at least one new

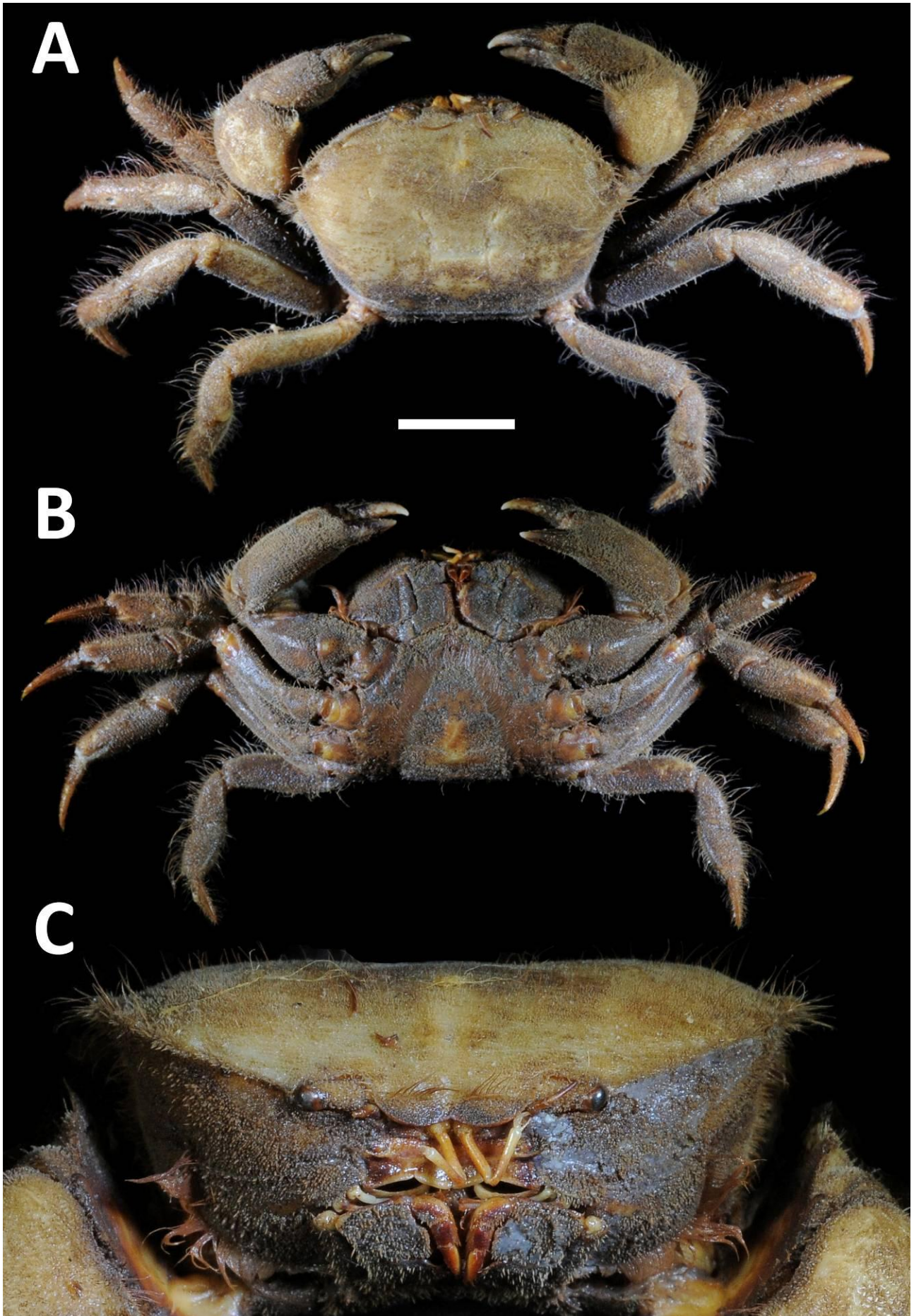


Fig. 1. *Heteropilumnus sasekumari* (Serène), ZRC 2011.1021, 28.0 × 18.7 mm: A, dorsal view; B, ventral view; C, frontal view. Scale bar for A and B = 10 mm.

genus and new species of mangrove crab has been described from Singapore: *Haberma nanum* Ng & Schubart, 2002 (Sesarmidae). Despite their limited size and fragmented nature, the mangrove forest patches in Singapore are inhabited by a large number of brachyuran species. Ongoing surveys of this habitat and systematic studies of its species are likely to yield further new records and/or undescribed species, as this note demonstrates.

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