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Biodiversity Record: Uncommon sesarmid crabs at Admiralty Park

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Subjects: Mound crab, *Sarmatium germaini* (Crustacea: Malacostraca: Brachyura: Sesarmidae);
Red-clawed crab, *Manarma* cf. *moeschii* (Crustacea: Malacostraca: Brachyura: Sesarmidae);
Nipah palm crab, *Labuanium politum* (Crustacea: Malacostraca: Brachyura: Sesarmidae);
Contusarma sp. (Crustacea: Malacostraca: Brachyura: Sesarmidae);
Neosarmatium smithi (Crustacea: Malacostraca: Brachyura: Sesarmidae).

Subjects identified by: Oh Rui Quan and Ong Jun Xiang Lumin.

Location, date and time: Singapore Island, Admiralty Park; 24 December 2025, 2045–2255 hrs and 26 December 2025, 2033–2212 hrs.

Habitat: Mangrove forest adjacent to a boardwalk. In a stretch of around 10 by 7 metres of vegetation which included a patch of around 7 mature stands of nipah palm (*Nypa fruticans*).

Observers: Oh Rui Quan and Ong Jun Xiang Lumin on 24 December 2025; Oh Rui Quan and Joshua Wong on 26 December 2025.

Observations: Over the two evenings, the following sesarmid crabs were documented:

Sarmatium germaini — On 24 December, one example was spotted half out of its burrow at 2048 hrs (Fig. 1). It quickly retreated after several photographs were obtained by the observers. The burrow was surrounded by low mounds around the uneven roots of a mangrove tree. Another individual was found later in the night in an open muddy patch adjacent to some nipah palms (Fig. 2). A third individual was seen on 26 December. The largest crab was about 5 cm in carapace width.

Manarma cf. *moeschii* — At least 4 individuals were observed on 26 December foraging across the mud near nipah palms (Fig. 3) or in burrows in the same area. The largest crab seen was about 1.5 cm in carapace width.

Labuanium politum — Around 5 individuals were observed in the gaps or on the stalks at the base of the nipah palms across both nights (Fig. 4). They appeared skittish and reluctant to re-emerge after being left alone. They were observed only on nipah palms further out across the mud rather than those higher up in the back mangroves. The largest crab was about 2.5 cm in carapace width.

Contusarma sp. — One example, estimated to be about 3 cm in carapace width, with both chelae and three legs missing, was noted in a pool of water on 24 December (Fig. 5).

Neosarmatium smithi — On 24 December, a singleton of about 3.5 cm in carapace width, emerged cautiously out of its burrow at 2224 hrs (Fig. 6) to retrieve a leaf and quickly retreating after that. It was approximately 60 cm away from the *Sarmatium germaini* (shown on Fig. 1) with which it seemed to share the mound structure around the roots of the same mangrove tree.

Remarks: The biodiversity of Admiralty Park's mangroves appears to be poorly documented and these observations provide a glimpse of sesarmid crabs that seem to be relatively rare in Singapore. *Sarmatium germaini* is listed as Near Threatened in Singapore (Mendoza et al., 2024), and is rarely seen most likely due to its burrowing habits (Tan, 2019). *Labuanium politum* has been observed in Admiralty Park in November 2023 and recorded on iNaturalist (https://www.inaturalist.org/observations/190884155). The current record lends support to the assumption of there being a population at least around the mangrove boardwalk. Considering its habit of hiding between the stems of nipah palms (Ng et al., 2015), it is not surprising that *Labuanium politum* is rarely seen. *Neosarmatium smithi* is herein recorded

apparently for the first time at Admiralty Park. It was previously known from Lim Chu Kang and Pasir Ris (Lee et al., 2025).

Fig. 1. A *Sarmatium germaini* emerging from its burrow. (Photograph by: Lumin Ong Jun Xiang)
Fig. 2. Front view of a second *Sarmatium germaini*. (Photograph by: Oh Rui Quan)
Fig. 3. Dorso-frontal view of a *Manarma* cf. *moeschii*. (Photograph by: Oh Rui Quan)
Fig. 4. Dorsal view of a *Labuanium politum* emerging from a nipah palm. (Photograph by: Oh Rui Quan)
Fig. 5. Frontal view of a *Contusarma* sp. with both chela and three legs missing. (Photograph by: Oh Rui Quan)
Fig. 6. A *Neosarmatium smithi* retrieving a leaf at the entrance of its burrow. (Photograph by: Lumin Ong Jun Xiang)

Without chela, the identification of the *Contusarma* sp. herein featured is reliant only on the carapace form, which seems most similar to *Contusarma bocourti* illustrated in Fig. 23F of Schubart & Ng (2020). An attempt was made to photograph the G1 structure of the crab as it was a male, but due to the chitinous tip having only subtle differences and being covered in hair, it is difficult to make a conclusive identification. If the featured example is *Contusarma bocourti*, it would be a significant extension of its range from Western Thailand. The congeneric *Contusarma cheirogonum* has been recorded

during the Comprehensive Marine Biodiversity Survey in Singapore (see https://www.singapore.biodiversity.online/species/A-Arth-Crus-Decapoda-000521), but not in Admiralty Park.

While no specimens of *Manarma moeschii* from Singapore were examined in Schubart & Ng (2020), the distribution of this species includes Peninsular Malaysia. According to Schubart & Ng (2020), *Manarma moeschii* can be distinguished from *Manarma johorense* by the dorsal surface of its carapace being more swollen (compared to being flatter and the regions relatively less prominent in *Manarma johorense* due to shallow grooves). The specimen herein featured appears to have a swollen carapace (see Fig. 3). On the note of colouration, *Manarma moeschii* has red chelae while *Manarma johorense* has pale yellow chelae. The chela of the featured crab is a red that fades to yellow as it reaches the dactylus and fixed finger, which corresponds with the colouration of the *Manarma moeschii* illustrated in Fig. 58 of Schubart & Ng (2020). However, there does not seem to be any colour photographs of *Manarma johorense* that can be used for reference. *Manarma moeschii* is stated to have a dark grey to almost black carapace with gentle mottling, described as dirty brown with scattered blotches and spots of light brown and grey. *Manarma johorense* is described as uniform dark brown, but also a dark greenish brown according to Tweedie (1940 as *Sesarma johorensis*). The specimen featured here is mottled and fits *Manarma moeschii* better, even if it is greenish-grey than strictly light grey.

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