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A new species of *Sesarma* from Singapore

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INTRODUCTION

Whilst revising the named collection of *Sesarma* (Crustacea, Decapoda) maintained in the National Museum, Singapore, many additional specimens have been collected in Singapore. A new species is now described from specimens which cannot be identified with any other described species.

Sesarma (Sesarma) chentongensis sp. nov.

Holotype.—National Museum, Singapore, No. 1967.1.6.1, Johore Straits, 5–10 feet above sea level, collected by C. L. Soh, 13 February, 1966, a male of 35 × 37 mm.

Paratypes.—NMS. 1967.1.6.2, Sungei Malayu, Singapore, male (abdomen abnormal), 50 × 51 mm.; NMS. 1967.1.6.6, Sungei Berih, Singapore, male, 36 × 38 mm.; NMS. 1967.1.6.3–5, Sungei Melayu, Singapore, 2 females, 34 × 37 mm. & 33 × 35 mm., male, 36 × 38 mm.; NMS. 1967.1.6.7, Simpang Mak Wai, Singapore, male, 41 × 43 mm.

Description.—The species belongs to the *mederi* group, which includes 5 species: *mederi*, *versicolor*, *singaporensis*, *palawanensis* and *lafondi*. It differs from all of them by the following characters:—

(i) The number of tubercles of the cheliped dactylus range from 64–76, the tubercles being all relatively the same size. On all the other species the number of tubercles is always less than 60. The sole exception is *lafondi*, which has 89–90 on the male. However on the female of *chentongensis* the tubercles are as on the male; on *lafondi* the female has no tubercles but a continuous rim like a longitudinal keel with some scarce, light, transverse striae.

(ii) The different shape of the first male pleopod; the laminar chitinuous process situated on the apex is thin and with one lateral border broadened antero-laterally to produce a very sharp pointed corner.

The new species is closer to *singaporensis* and *mederi* than to *versicolor* and *palawanensis*. Like the first two species, it has the orbits relatively narrower than in the two other species, the breadth of the orbits on *chentongensis* being less than half the breadth of front. The shapes of the male chelipeds and abdomen of *chentongensis* are also more similar to those of *singaporensis* and *mederi*. The transverse crest on the inner face of the palm is so similar in the three species but the crest is a little more high on *mederi* and on *chentongensis*. There are on

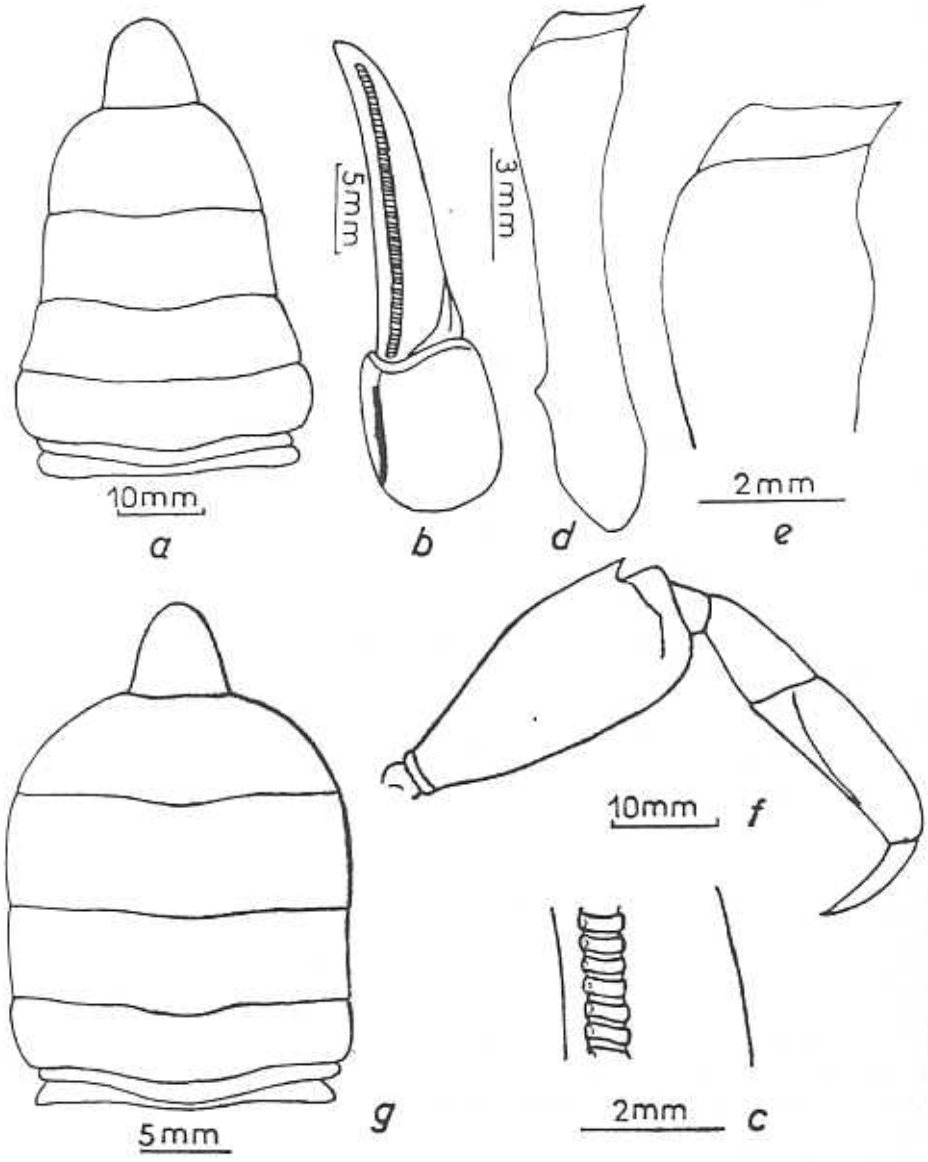

Figure 1. *Sesarma* (*Sesarma*) *chentongensis*. Holotype, *a* abdomen; *b* cheliped, dorsal view of palm and dactylus; *c*, shape of the tubercles of the dactylus; *d*, *e*, pleopod 1; *f*, right pereopod 4; *g* abnormal abdomen of a Paratype, NMS. 1967.1.6.2.

chentongensis below the lower end of the crest, some (5–6) accessory isolated granules which do not exist on the other species.

The new species is more clearly separated by the structure of its male pleopod, which differs in its apex from those of *mederi* and *singaporensis*. The lamellar chitinuous process occupies all the breadth of the tip and its lateral border ends distally in an acute angle. The general colour is like that of *mederi*, but on the cheliped, the outer face of the palm and dactylus are entirely deep red; on *mederi* the dactylus is always whitish.

The new species is very common in Singapore. Being very close to *mederi* and living in the same biotope, we think that specimens of *chentongensis* are probably included with those previously identified by authors as *mederi* or *taeniolata*.

Tweedie (1936) counts 44–45 tubercles on the male specimens of *mederi*, from Batavia, studied by Tesch (1917), but "rather over 60 . . ., 63 and 65 in the largest male" of his own collection from Singapore. We believe that the specimens of Tesch (1917) belong to *mederi*, but those mentioned with over 60 tubercles by Tweedie (1936) belong to *chentongensis*. Referring to Tweedie (1936), the tympana on the 4th sternite are "quite distinct" on the males from Batavia (= *mederi*) and "distinctly visible" only in the largest male from Singapore (= *chentongensis*).

TABLE 1

Measurements of male abdominal segment 6 in *S. chentongensis and S. mederi*

	Catalogue Number	Carapace Size	Abdominal Segment 6		
			Length	Breadth	Ratio
chentongensis	1967.1.6.7	41 × 43	8	15	1.92
	1967.1.6.2	50 × 51	8	20	2.50
	1967.1.6.1	35 × 37	7	13	1.85
mederi	1967.2.1.1	34 × 37	7	13	1.85
	1967.2.1.2	36 × 38	7	13	1.85
	1967.2.1.3	37 × 39	7	14	1.86

Tweedie (1940) counts 50–55 tubercles on a series of males with a breadth of 35–40; but he indicates 62–64 on the type specimen of *taeniolata*, which has a breadth of 45. In all other specimens examined by him, Tweedie (1940) notes that the number never exceeds 55. It is possible that *chentongensis* could be further established as identical with the type of *taeniolata*, which should be a distinct species and not a synonym of *mederi*; the male pleopod of the type specimen of *taeniolata* which is in the British Museum has to be checked. In any way, if these further observations demonstrate *chentongensis* as identical with the type specimen of *taeniolata*, and the two species as synonyms, that would not bring any change in nomenclature, since *taeniolata* White 1847 is a nomen nudum. As we stated before, *chentongensis* is clearly distinct from all other species by its male pleopod and the number of the tubercles on the cheliped dactylus. Other differing characters could also be given as the shape of the dactylar tubercles and the coloration of the palm. The comparison of the meri of pereopod 4 on *chentongensis* and *mederi* shows that it is a little less wider on *chentongensis* than on *mederi*. But we are inclined to use that character to separate species of the *mederi* group with reservations since, having examined large series of specimens, we found in each species some variation in that character. The ratio of the length to breadth of the male abdominal segment 6 of *chentongensis* is similar to that of *mederi*. One specimen (NMS) of

50 × 51 has an abnormal abdomen more wide than any other. As it is the largest specimen of our series, in which the size rarely exceeds 40, the abnormality is perhaps related to the large size, but probably not, because it shows a tendency towards the shape of the female. In any case the specific value of the ratio of length to breadth on abdominal segment 6 has to be considered always in close connection with the size of the specimens. We give measurements (Table 1) of the male abdominal segment 6 in some specimens.

REFERENCES

TWEEDIE, M. W. F., 1936. Crabs of the family Grapsidae in the Collection of the Raffles Museum. *Bull. Raffles Mus.*, **12:** 44–70, fig. 1–3, pl. 14. & 15.

————, 1940. New and interesting species of *Sesarma* and *Utica*. (Crustacea Brach.). *Bull. Raffles Mus.*, **17:** 88–113, fig. 1–13, pl. 14.

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