

BRACHYRHYNCHA**CATOMETOPIA****FAMILY GECARCINIDAE DANA.**Genus **CARDISOMA** LATREILLE.***Cardisoma hirtipes* DANA.**

ALCOCK, 1900, p. 447.

TESCH, 1918a, p. 137.

LOCALITY. — Manokwari, 15-III-29, 1 ♂.

REMARKS. — This specimen agrees with *C. hirtipes* as described by Alcock except in one respect. The front is much more depressed than usual, being in contact with (1) the basal segments of the antennae which it slightly overlaps

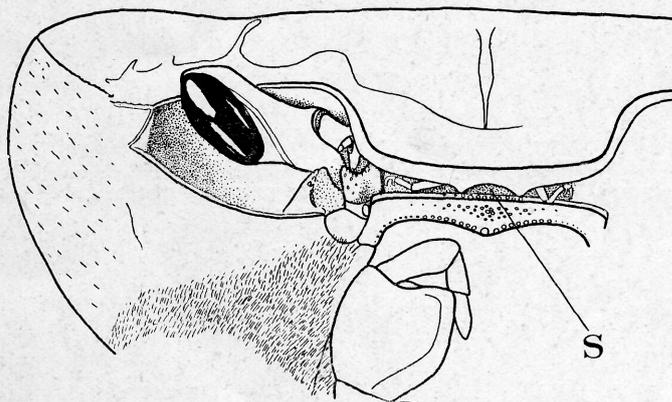


FIG. 1. — *Cardisoma hirtipes* DANA. — Part of carapace in frontal aspect to show epistome and front : s. interantennular septum : $\times 2.4$.

and (2) the epistome on either side of the small sunken interantennular septum (fig. 1, cf. De Man, 1888, pl. XIV, fig. 3a).

According to Alcock (1900, p. 446) the basal antennal segment touches the front in *C. carnifex* (Herbst) but not in *C. hirtipes*; Tesch (1918, p. 136) on the other hand, in his diagnosis of the genus, states that « the peduncle of the antenna does not touch the front ». Most of the specimens in the B. M. collection referred to *C. carnifex* have the basal antennal joint nearly or quite in contact with the front, as also has one specimen that is probably referable to *C. hirtipes*. It is more than likely that both species show variation in this respect but I have not seen any other specimen with the front actually touching the epistome on either side of the sunken interantennular septum (fig. 1, s.).

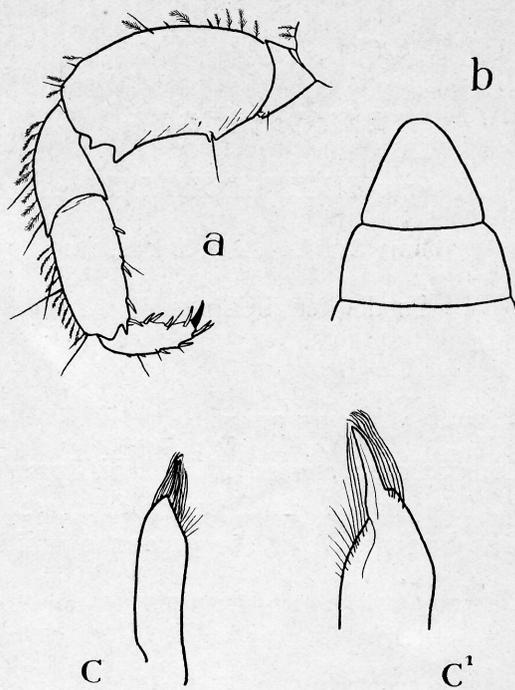


FIG. 2. — *Pachygrapsus minutus* A. M.-Edw. — *a.* Fourth walking leg of left side. *b.* Two terminal segments of male abdomen. *c.* First pleopod of male. *c'*. Apex of same farther enlarged, and drawn from the reverse side; many setae omitted. (*a.* × 15; *c.* × 23; *c'* × 45.)

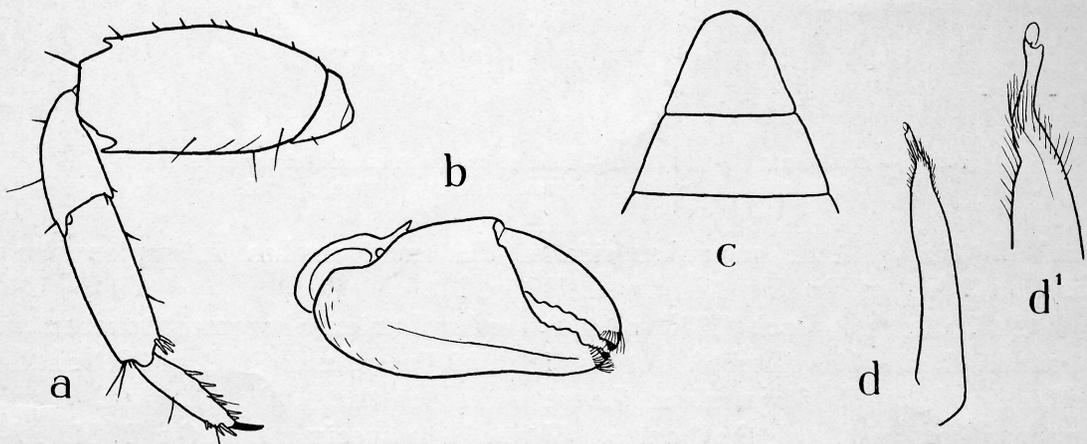


FIG. 3. — *Pachygrapsus planifrons* DE MAN. — *a.* Fourth walking leg of left side. *b.* Right chela. *c.* Two terminal segments of male abdomen. *d.* First pleopod of male from convex side. *d'*. Apex of same from concave side and farther enlarged. (*a.* and *b.* × 15; *d.* × 23; *c.* × 45.)

FAMILY GRAPSIDAE DANA.

1. Genus PACHYGRAPSUS RANDALL.

Pachygrapsus minutus A. MILNE-EDWARDS.

Pachygrapsus minutus TESCH, 1918, p. 77 (list of earlier references).

Sesarma murrayi CALMAN, 1909, p. 708, pl. LXXII, fig. 4 and 5.

MATERIAL. — Eiland Weim, 26-II-29, 1 ♂ (*b* of carapace 5.5 mm.; walking-legs 2 and 3 on left side undergoing regeneration); also 7 ex., Balss det. 25-II-29.

REMARKS. — The single male specimen in this collection is smaller than that described by Alcock (1900, p. 399) and differs in having the front rather narrower and the orbits correspondingly broader (carapace breadth : front : major diameter of orbit : 1.91 : 1 : 0.52). In this respect it agrees with the specimens from Christmas Island described by Calman (¹).

Tesch (1918, p. 77) mentions the presence of « a small obtuse prominence at the end of the proximal third part » of the posterior margin of the merus of the last walking-leg. There is, in fact, a pair of small conical spines, one on either side of the long hair or bristle (Calman, 1909, pl. LXXII, fig. 4 and fig. 2*a* of the present paper).

The most marked differences between this species and *Pachygrapsus planifrons* De Man are tabulated below (p. 8).

Pachygrapsus planifrons DE MAN.

Pachygrapsus planifrons TESCH, 1918, p. 77.

MATERIAL. — Eiland Weim, 26-II-29, 2 ♂, 2 ♀ (one ovigerous).

NOMVOOR, 7-III-29, 1 ovig. ♀.

REMARKS. — This small species (the ovigerous female has a carapace width of only 4 mm.) is very distinct from *P. minutus* A. M.-Edw. as the following table shows. The merus of the external maxilliped is, as Tesch has noted, far less circular than in De Man's figure (1888, pl. XVI, fig. 2*a*).

(¹) Dr. H. Balss, in a letter dated 12.X.1933, first pointed out that *Sesarma murrayi* Calman was possibly identical with *Pachygrapsus minutus*, and on examination of cotypes I was able to confirm this.

Dr. Calman has given me the following note « After re-examining the types of *Sesarma murrayi* I can only ruefully agree with Balss's identification of them with *Pachygrapsus minutus*. At this distance of time it is impossible to conjecture what temporary aberration of eyesight or of judgment led me to overlook the total absence of all Sesarmine characters! ». W. T. C.

PACHYGRAPSUS MINUTUS.

1. Sides of carapace strongly convergent posteriorly; entire dorsal surface finely striate.
2. Chelipeds much larger and more massive; chela very nearly as long as carapace (0.94 : 1)—males of same size compared.
3. Tips of fingers of chela without setae in both sexes.
4. Fourth walking-leg as represented in fig. 2*a*, bearing fine feathered setae on anterior margin in addition to the stout bristles; two conical spines on proximal half of posterior border of merus. Propodus and dactylus relatively short and broad.
5. Terminal abdominal segments of male as represented in fig. 2*b*.
6. First pleopods of male as represented in fig. 2*c*, *c'*, the narrow apex concealed by the numerous long setae (many setae omitted in fig. 2*c'*).

PACHYGRAPSUS PLANIFRONS.

1. Sides of carapace feebly convergent posteriorly; striae confined to branchial region.
2. Chelipeds smaller and less massive; chela approximately two-thirds of carapace length.
3. Tips of fingers of chela with a fringe of setae in both sexes (fig. 3*b*).
4. Fourth walking leg as represented in fig 3*a*, without feathered setae on anterior border and without any spines on proximal half of posterior border of merus; dactylus and propodus more elongated and narrow than in *P. minutus*.
5. Terminal abdominal segments of male as represented in fig. 3*c*.
6. First pleopod of male as represented in fig. 3*d*, *d'*, the apex not entirely hidden by setae.

2. Genus PERCNON GISTEL.

Percon abbreviatum (DANA).

TESCH, 1918, p. 130.

MATERIAL. — Eiland Weim, 28-II-29, 1 ♂, 2 ♀ (the larger bearing two flattened egg masses).

3. Genus METASESARMA H. MILNE-EDWARDS.

Metasesarma rousseauxi H. MILNE-EDWARDS.

TESCH, 1917, p. 212.

MATERIAL. — Pisang Eiland, 17-III-29, 1 ovig. ♀ Dr. Balss det.

FAMILY OCYPODIDAE ORTMANN.

1. Genus OCYPODA FABRICIUS.

Ocypoda cordimana DESM.

ORTMANN, 1897, pp. 259, 262.

TESCH, 1918, p. 35.

MATERIAL. — Poelo Pete (Java), 19-I-29, 1 ♂.

Moemi (New Guinea), 13-III-29, 1 ex., Balss det.