

Ocypoda ceratophthalma (PALLAS) ORTMANN.

ORTMANN, 1897, pp. 261, 264.

TESCH, 1918, p. 36.

MATERIAL. — Kampong Todowangi, Mangrove, Djailolo; 16-II-29, 4 ♂.

Jefbi (Misool), 26-II-29, 1 ♂.

Manoembaai (Aroe), Mangrove, 2 specimens, much damaged.

Poelo Babi (Aroe), 22-III-29, 1 ♂.

Manokwari (New Guinea), 13-III-29, 1 ♂, several immature specimens.

Sabang (Sumatra), 12-XII-28, 2 immature specimens (probably of this species).

Benoea (Bali), 24-I-29, 1 immature specimen.

REMARKS. — The four adult males from Kampong all possess the long horn or style projecting beyond the cornea of the eye, which is characteristic of this species. The female from Jefbi, which is nearly 37 mm. in carapace width, and all the smaller specimens show little, if any, trace of the style. The variability of the style has been commented on by Ortmann (1894, p. 768).

Ocypoda kuhli DE HAAN.

ORTMANN, 1897, p. 359 (in key) and p. 364.

TESCH, 1918, p. 36.

MATERIAL. — Poelo Pete (Java), 19-I-29, 2 ♂ and several immature specimens.

REMARKS. — These specimens are nearest to *O. kuhli*, the chela and the dorsal border of the orbit agreeing very well with the figures given by Miers (1882, pl. XXII, fig. 8 and 8a). The two fissures in the lower orbital border are much less conspicuous than those figured by Ortmann (1894, pl. XXIII, fig. 19a), and are scarcely visible in the smallest specimens. It is probable that the largest specimen (*b* of carapace 30 mm.) has not attained to the full size for the species.

Ocypoda sp.?

MATERIAL. — Eiland Weim (Misool), 28-II-29, 1 immature specimen.

Eiland Mansinam, Manokwari (New Guinea), 8-III-29, 3 immature specimens (Balss det.).

Harang Hawoe (Java), 25-XII-28, 3 immature specimens (Balls det.).

Poelo Karang (Aroe), 23-III-29, 1 immature specimen.

2. Genus GELASIMUS LATREILLE ⁽¹⁾.

a) FRONT WIDE.

Gelasimus annulipes LATREILLE.

H. MILNE-EDWARDS, 1837, p. 55; pl. XVIII, fig. 10-13.

H. MILNE-EDWARDS, 1852, p. 149; pl. IV, fig. 15.

DE MAN, 1891, pp. 23 and 39.

ALCOCK, 1900, pp. 352 and 353.

BOUVIER, 1915, p. 124, text-fig. 36.

MATERIAL. — Poelo Babi (Bali), Mangrove, 24-I-29, 1 ♂.

? ♀. Manoembaai (Aroe), 4 ♂ (rather damaged).

REMARKS. — The specimens from ? Manoembaai differ from the wide-fronted female — referred to *G. latreillei* — from the same locality in having a wide U-shaped gap between upper and lower orbital borders (*vide infra*). In three of the specimens, including the complete one from Poelo Babi, the dactylus of the chela is broad thin and blade-like and the tooth near the extremity of the fixed finger is a broadly triangular lobe. Otherwise the specimens agree with Alcock's description of this species.

? **Gelasimus latreillei** H. MILNE-EDWARDS.

H. MILNE-EDWARDS, 1852, p. 150.

BOUVIER, 1915, p. 125, text-fig. 37.

? MATERIAL. — ♀. Manoembaai (Aroe), 1 ♀ (carapace damaged posteriorly, chelipeds and walking-legs missing).

REMARKS. — This specimen undoubtedly belongs to the *gaimardi* group (Ortmann, 1897, p. 353) but differs from the wide-fronted males from the same bottle in having a narrow V-shaped notch at the outer extremity of the orbit. The orbit appears to be very similar to that figured by Bouvier (1915, p. 125, text-fig. 37) for *G. latreillei*.

⁽¹⁾ = *Uca* Leach 1814. As the genus *Uca* has been used for two different types of crabs I think that the generic name *Gelasimus* (Latreille, 1817), which has for so many years been used to denote only the Fiddler-crabs, ought to be retained. In this instance, as in others, the fact that the generic name had been well established and in general use is a strong argument against too strict an application of the International Rules of Nomenclature.

Gelasimus triangularis A. MILNE-EDWARDS.

DE MAN, 1887, p. 119.

ALCOCK, 1900, pp. 354 and 356.

MATERIAL. — Poelo Babi (Bali) dans mangrove, 24-I-29, 1 ♂.

Gelasimus sp. ?

MATERIAL. — Ambon, 21-II-29, 1 ♂ without the larger chela.

b) **FRONT NARROW.****Gelasimus coarctatus** H. MILNE-EDWARDS.

DE MAN, 1891, pp. 21 and 31.

? MATERIAL. — ~~S.~~ Manoembaai (Aroe), 26-III-29, many specimens of both sexes (including ovigerous ♀) with *G. dussumieri* and *G. signatus* var. *angustifrons*.

REMARKS. — It was at first difficult to determine how many species were represented in the large collection from S. Manoembaai since the carapace is at first sight similar in all specimens, and the larger cheliped had become detached from many of the males. Also, the presence or absence of an accessory row of granules on the lower wall of the orbit hardly seemed to merit the importance attached to it by De Man since the granules, when present, were frequently as few as 1-3 on each orbit.

The great variation in the form of the larger chela, however, supported the view that more than one species was represented, and, when the male pleopods were examined, this proved to be the case. All males without any trace of the accessory row of granules on the orbital wall had the first pleopod of the type represented in fig. 5, while those with 1-3 or more granules had the type shown either in fig. 4 or fig. 6b. Fortunately, in the latter two species, several males of each still had the larger cheliped attached to the carapace, and the chelae proved to be different. According to De Man's key (1891, p. 21) those specimens with a tooth near the distal extremity of the dactylus belong to *G. coarctatus*; those without this tooth on the dactylus, but with a broadly triangular tooth or lobe a little beyond the middle of the immobile finger, to *G. signatus*.

The specimens referred to *G. coarctatus* agree well with the descriptions of that species except that, in many of the chelae, there is a prominent conical tooth a little before the middle of the immobile finger; in senile males this

tooth and the proximal teeth on the dactylus are worn away. They differ from the specimens referred to *G. signatus* var. *angustifrons* in several respects. (1) The antero-lateral borders of the carapace are less sinuous since they begin to converge immediately. (2) There are as a rule fewer granules in the accessory row (1-7). (3) The chela not only differs in shape but also in colour, the lower half of the palm being bright red. (4) The first pleopod of the male has a smaller setose lobe (*l*) near the base of, and no trace of the triangular chitinous lobe (*p*) above the terminal tube (cf. fig. 4 and 6*b*). (5) It is probably also a larger form with a distinguishing colour pattern in life.

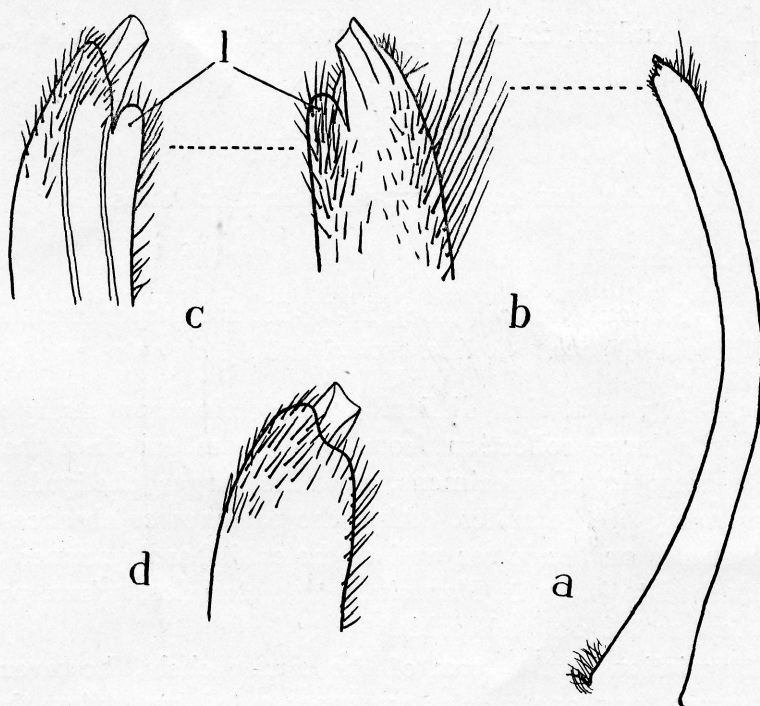


FIG. 4. — *Gelasimus coarctatus* H. M.-EDW. — First pleopod of male.
a. Pleopod from concave side. Apex of same from *b*. concave, *c*. convex side respectively.
d. Apex of first pleopod of a smaller male. *l*. Setose lobe at base of terminal tube.
(*a*. $\times 10.5$; *b*. and *c*. $\times 36$.)

***Gelasimus dussumieri* H. MILNE-EDWARDS.**

DE MAN, 1887, p. 108, pl. VII, fig. 2-7; 1891, p. 20.

ALCOCK, 1900, p. 361.

TESCH, 1918, p. 39.

? MATERIAL. — *S.* Manoembaai (Aroe), 26-III-29, many specimens of both sexes, including ovigerous ♀, with *G. coarctatus* and *G. signatus* var. *angustifrons*.

REMARKS. — These specimens (without any accessory granules on lower orbital wall) run down to *G. dussumieri* in De Man's key to the Indopacific species and agree with the specimens from Mergui identified by the same author (1891, pp. 20 and 26; 1887, p. 108). In males of all sizes the first pleopod is of the type represented in fig. 5 with a rather broad bluntly rounded apex on the concave side of which is a very short tube (*t*) and a triangular projection (*p*). These highly chitinised structures are scarcely visible from the convex side of the appendage (fig. 5*b*).

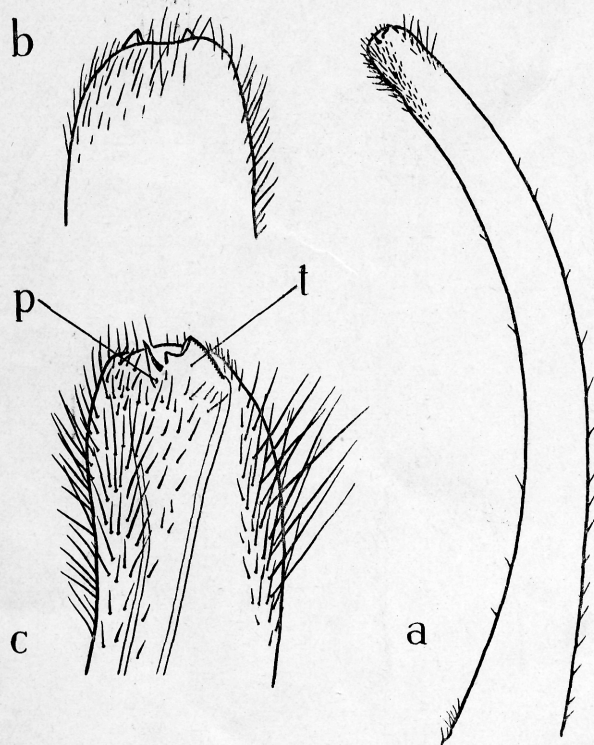


FIG. 5. — *Gelasimus dussumieri* H. M.-Edw. — *a*. First pleopod of male from concave side. Apex of same from *b*. concave, *c*. convex side. *t*. Terminal tube. *p*. Chitinous projection at side of tube. (*a*. \times 10.5; *b*. and *c*. \times 36.)

***Gelasimus signatus* var. *angustifrons* DE MAN.**

DE MAN, 1891, p. 38.

? MATERIAL. — ♂. Manoembaai (Aroe), 26-III-29, 20 specimens, including 3 ovigerous ♀, with *G. coarctatus* and *G. dussumieri*.

REMARKS. — This appears to be a small form as none of the specimens exceed 20 mm. in width of carapace. The larger chela of the male agrees closely with that figured by De Man for *G. signatus* (1891, pl. IV, fig. 11*b*) but the tooth on the dactylus immediately above the proximal end of the triangular lobe of the index finger is larger. The whole of the outer surface