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RESULTS
OF
DR. E. MJÖBERG'S
SWEDISH SCIENTIFIC EXPEDITIONS

TO
AUSTRALIA 1910—1913

37.
BRACHYURA, ALBUNEIDAE AND
PORCELLANIDAE

BY
MARY J. RATHBUN
UNITED STATES NATIONAL MUSEUM

WITH 1 PLATE AND 7 FIGURES IN THE TEXT

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Brachyura, Albuneidae and Porcellanidae

by

MARY J. RATHBUN,
United States National Museum.

With 1 Plate and 7 Figures in the text.

Communicated December 5th 1923 by HJ. THÉEL and E. LÖNNBERG.

The fauna of northwest Australia is chiefly Indo-Pacific. Fifty-seven of the seventy-three species enumerated below have been found outside Australia, some of them ranging from the western Indian Ocean or the Red Sea to the Malay Archipelago and Japan or even to the Hawaiian and the mid-Pacific islands. Four new species,

Hyastenus minimus,
Uca mjöbergi,

Charybdis jaubertensis,
Philyra angularis,

are represented in the present collection, and a new genus, *Paranaxia*, is proposed for *Naxia serpulifera* (GUÉRIN). The following are restricted to Australia:

Paranaxia serpulifera (GUÉRIN),
Parthenope (*Parthenope*) *nodosa* (JACQUINOT),

Parthenope (*Pseudolambrus*) *sandrockii* (HASWELL),
Scopimera inflata A. MILNE EDWARDS,

Pilumnus semilanatus MIERS,
 " *rufopunctatus* STIMPSON,
 " *fissifrons* STIMPSON,
 " *pulcher* MIERS,

Matuta inermis MIERS,
Dorippe australiensis MIERS,
Petrolisthes corallicola (HASWELL),
Porcellana dispar STIMPSON.

Besides the new species many others are here recorded for the first time from Australia. They are

Hyastenus auctus RATHBUN,
 " *borradailei* (RATHBUN),
 " *espinosus* (BORRADAILE),
 " *irami* (LAURIE),

Maja miersii (WALKER),
Macrophthalmus sandakani RATHBUN,
 " *latreillii* (DESMAREST),
 " *pacificus* DANA,

Pinnotheres cardii BÜRGER,
 " *similis* BÜRGER,

Actaea acies RATHBUN,
Actumnus laevigatus RATHBUN,
Heteropanope sezangula RATHBUN,
Leucosides craniolaris (LINNÆUS),
Calappa philargius (LINNÆUS),
Paradromia japonica (HENDERSON),
Albunea symnista (LINNÆUS),
Porcellana suluensis DANA,
 " *latifrons* STIMPSON,
Polyonyx tuberculosus DE MAN.

The report includes specimens of Albuneidae and Porcellanidae inadvertently shipped with the Brachyura and overlooked until too late for inclusion in Dr. BALSS's report on the Anomura.

Family *Majidae* (= *Inachidae*).

Achaeus lacertosus STIMPSON. Alcock, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 172, and synonymy. STIMPSON, Smithson. Misc. Coll., XLIX, 1907, p. 20, pl. III, fig. 7.

Cape Jaubert 45 m. W.S.W.; 140 feet; 12. VII. 11; 1 young ♂, 3.2 mm. long.

Distribution. — Bay of Bengal and eastern Indian Ocean; Gulf of Siam. N. and E. Australia: Dundas Straits (MIERS), Mast Head Island (GRANT and McCULLOCH), Port Jackson (STIMPSON), Port Stephens (HASWELL).

Achaeus affinis MIERS. Zool. Alert, 1884, p. 188. Alcock, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 172, and synonymy. RATHBUN, K. Danske Vid. Selsk. Skrifter, 7 Række, naturv. og math., Afd. V, 4, 1910, p. 316; not Bull. U. S. Fish. Comm. for 1903, part III, 1906, p. 877, which is *A. brevifalcatulus* RATHBUN.

Cape Jaubert 45 miles W.S.W.; 66 feet; 15. VII. 11; 1 ♂, carapace 6 mm. long. The digits of the chelipeds have a small gape at base, as described by MIERS.

Distribution. — Gulf of Martaban, Burma (HENDERSON); Gulf of Siam (RATHBUN); Singapore (U. S. Nat. Mus.); Noordwacht Island, Java (DE MAN).

West, North and East Australia (MIERS): Shark Bay; Thursday Island (ORTMANN); Prince of Wales Channel; Port Denison; Moreton Bay; Port Jackson.

Huenia proteus DE HAAN. Alcock, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 195, and synonymy.

Cape Jaubert 42 miles W.S.W.; 70 feet; 29. V. 11; 1 ♂; »beautifully grass-green with white edgings».

Cape Jaubert 45 miles W.S.W.; 84 feet; 12. VII. 11; 1 ♀.

Distribution. — Red Sea to Malay Archipelago, to Japan, N. and N.E. Australia (Torres Straits, Fitzroy Island and Port Denison) and Norfolk Island; Hawaiian Islands.

Hyastenus diacanthus (DE HAAN). Alcock, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 210, and synonymy.

Cape Jaubert 45 miles W.S.W.; 54 feet; 7. VII. 11; 1 ♂; 16. VII. 11; 1 ♀ juv.; 1 ♂ juv.

Distribution. — Indian Ocean to Japan and Australia (not New Zealand). In Australia it is known from Port Darwin on the north coast to Sydney on the east coast, and at Shark Bay and Swan River on the west coast.

Hyastenus auctus RATHBUN. Proc. U. S. Nat. Mus., L, 1916, p. 543.

Cape Jaubert 45 miles W.S.W.; 72 or 80 feet; 1 small ♂. Length of carapace on median line 8.7 mm. This specimen shows the gape between the basal $\frac{2}{3}$ of the fingers, with the tooth on the dactylus at middle of gape.

Distribution. — Near Siasi, Sulu Archipelago (RATHBUN).

Hyastenus convexus MIERS. *Hyastenus (Chorilia) convexus* MIERS, Zool. Alert, 1884, p. 196, pl. XVIII, fig. B.

Hyastenus tuberculosus RATHBUN, Proc. U. S. Nat. Mus., L, 1916, p. 543.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♀ juv.

This specimen 5.7 mm. long on the median line and without chelipeds appears to be *convexus*. In this species there is on the anterior margin of the postocular cup near its inner end a small tooth or lobe which is very distinctly a part of the cup and is not seemingly on the margin between the cup and the supraocular eave; the lobe is present but minute in the young specimen in hand.

Distribution. — Gulf of Martaban, Burma (HENDERSON); Penang (HENDERSON); Philippines (RATHBUN); Australia: Port

Molle, Queensland (MIERS), Mast Head Island and Port Curtis (GRANT and McCULLOCH).

Hyastenus borradailei (RATHBUN). *Halimus borradailei* RATHBUN, Mem. Mus. Comp. Zool., XXXV, 1907, p. 64, and synonymy; Trans. Linn. Soc. London, ser. 2, XIV, 1911, p. 251, pl. XX, fig. 5.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♂. 48 feet; 16. VII. 11; 1 ♂. 66 feet; 16. VII. 11; 1 ♂ 1 ♀. 66 feet; 18. VII. 11; 1 ♀ ovig. 72—80 feet; 1 ♂ 1 ♀ juv.

These specimens still retain traces of their color pattern; two irregular brown lines separate roughly the median regions from the branchial and hepatic regions and supraocular cave.

Distribution. — Western Indian Ocean (RATHBUN). Shanghai (U. S. Nat. Mus.). Ellice Islands: Rotuma (BORRADAILE), Funafuti (RATHBUN).

Hyastenus espinosus (BORRADAILE). *Halimus espinosus* BORRADAILE, Fauna Maldives, 1903, p. 688, pl. XLVII, figs. 4 a—c.

Cape Jaubert 45 miles W.S.W.; 54 feet; 16. VII. 11; 1 ♂ juv.

Length of carapace, median, 9; width 5.6, length of horn 2.4 mm. The specimen agrees with BORRADAILE's description and figures except that the rostrum is shorter and there is no trace of a knob on the gastric elevation.

Distribution. — Haddumati Atoll, Maldives (BORRADAILE).

Hyastenus sebae WHITE. Alcock, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 213, and synonymy.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♀ juv. 66 feet; 18. VII. 11; 1 ♂ juv.

Carapace of female 7.5 mm. long in median line, tips of horns broken off. Surface rougher than in older specimens, the tubercles sharper pointed. Male smaller.

Distribution. — Indian Ocean to Malay Archipelago, the Philippines, and Torres Straits: Thursday Island (ORTMANN).

Hyastenus minimus, sp. nov. *Type-locality*. — Cape Jaubert 45 miles W.S.W.; 72 or 80 feet; ovigerous female, type.

Length of carapace, median, 5.8; width 4.2, horn 1.4 mm.

The tubercles but not the areolations of the carapace are concealed by a short, even pubescence in which are clusters of longer hairs; regions deeply separated; posterior half nodulous. An acute tubercle at widest part of branchial region;

further forward a slightly curved, sublongitudinal row of 3 similar tubercles. A large tubercle near anterior angles of the gastric region; a depressed tubercle nearer the median line; a slight tubercle near the summit of region.

Horns short, divergent. Supra-ocular eave with oblique, concave, outer margin, and a recurved, spini-form tip. Postocular cup with a small lobe on its anterior or inner margin and a strongly rounded, almost angled, outer margin.

Basal antennal article rather broad, a lobe on outer margin, a spine at outer angle more advanced than the preocular spine.

Cape Jaubert 45 miles W.S.W.:

72 or 80 feet; 2 ♀ (1 ovig., type). 72 feet; 7. VII. 11; 1 ♂ 2 ♀. 72 feet; 15. VII. 11; 1 ♂ juv. 66 feet; 16. VII. 11; 1 ♂, soft shell.

Cape Jaubert 42 miles W.S.W.; 70 feet; 26. V. 11; 1 ♂ juv.

In the shape of the carapace and the shortness of the rostrum this approaches *H. orbis* RATHBUN, but is distinguished by the fewer tubercles of the carapace and their different disposition.

***Hyastenus irami* (LAURIE).** *Halimus irami* LAURIE, Rept. Pearl Oyster Fisheries, V, 1906, Brach., p. 379, pl. I, figs. 4, 4 a.

Cape Jaubert 45 miles W.S.W.; 66 feet: 15. VII. 11; 1 ♀ ovig. 16. VII. 11; 1 ♂ 1 ♀.

The upper and lower surface of the crab and also the chelipeds and legs are ornamented with stout setae; on the carapace and antennae they are mixed with slender setae, which on the antennae are long and curved. The small tooth on the upper margin of the orbit is larger than figured by LAURIE (fig. 4, *op. cit.*); but is distinctly attached to the post-ocular cup. The spine of the basal antennal article is narrower and sharper than represented by LAURIE (fig. 4 a, cited).

Distribution. — Muttuvaratu Paar, Ceylon (LAURIE).

***Chlorinoides aculeatus* (MILNE EDWARDS).** *Paramithrax* (*Chlorinoides*) *aculeatus* ALCOCK, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 241, and synonymy.

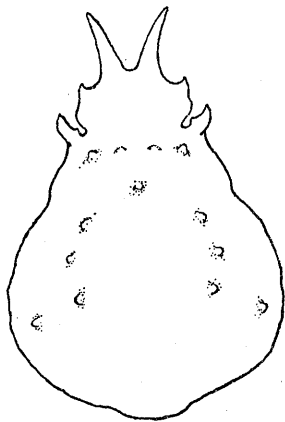


Fig. 1. *Hyastenus minimus*, ovig. ♀, width 4.2 mm. off Cape Jaubert.

Cape Jaubert 45 miles W.S.W.; 60 feet; 13. VII. 11; 1 ♂.

There are two slender spines on the distal extremity of the merus of each ambulatory leg. All the spines of carapace and legs are capitate.

Distribution. — Indian Ocean to Japan and Australia: Thursday Island and Port Curtis (MIERS).

Schizophrys aspera (MILNE EDWARDS). ALCOCK, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 243, and synonymy.

Cape Jaubert 45 miles W.S.W.: 66 feet; 15. VII. 11; 1 ♂ juv. 72 feet; 7. VII. 11; 2 juv.

Distribution. — Red Sea to Japan and Australia; New Caledonia; Fiji (MIERS); Ellice Islands (RATHBUN); Samoa (U. S. Nat. Mus.). Australia: Torres Strait (HASWELL); Thursday Island (MIERS).

Schizophrys dama (HERBST). ALCOCK, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 245, and synonymy. RATHBUN, Proc. Zool. Soc. London, 1914, p. 662, and synonymy.

Cape Jaubert 42 miles W.S.W.: 60 feet; 8. VII. 11; 1 ♂. 70 feet; 29. V. 11; 1 ♂.

Cape Jaubert 45 miles W.S.W.: 60 feet; 12. VII. 11; 1 ♀ juv. 66 feet; 18. VII. 11; 1 ♂ 3 ♀ juv. 72 feet; 7. VII. 11; 2 juv. 72 feet; 9. VII. 11; 1 ♂.

The largest specimen is a male, which measures 31 mm. in total length of carapace, 25 in median length, 22 in total width and 18.6 without spines. All the other specimens are considerably smaller.

Distribution. — Straits of Malacca (ALCOCK); West Australia (MIERS); Monte Bello Islands (RATHBUN); Shark Bay and King George's Sound (MIERS).

Maja miersii (WALKER). *Maia miersii* WALKER, Jour. Linn. Soc. London, XX, 1887, p. 113, pl. VI, figs. 1—3.

Cape Jaubert 48 miles W.S.W.; 78 feet; 15. VII. 11; 1 ♂.

Median length of carapace 16.3, width without spines 12.1, length of rostral spines 5.3 mm. The hepatic spine is transverse in direction; the hepatic region is laterally swollen but shows no small, secondary spine. The fingers when shut gape for over half their length, then overlap, and cross each other behind the tips.

Distribution. — Singapore (WALKER).

Paranaxia, nom. nov. Type, *P. serpulifera* (GUÉRIN). *Naxia* MILNE EDWARDS, Hist. Nat. Crust., I, 1834, p. 313;

type and only species, *Pisa serpulifera* GUÉRIN. Not *Naxia* LEACH, Encyc. Méth., Entom., X, 1825, pp. 140 and 698.

Not *Naxioides* A. MILNE EDWARDS, Ann. Soc. Entom. France (4) V, 1865, p. 142.

In 1914 (Proc. Zool. Soc. London, 1914, p. 662) I expressed my belief that *Naxia serpulifera* should be placed in a separate genus from other species referred to *Naxioides*. It is distinguished from them by the character of the orbits and antennae, as stated by MILNE EDWARDS (*loc. cit.*); orbits very small, almost circular, deep, and marked by a closed fissure above and below; basal article of antenna broad, but narrow in front, much advanced and completely concealed by the rostrum and by the anterior angle of the upper orbital border; the flagellum is inserted under the rostrum very near the antennular cavity.

Paranaxia serpulifera (GUÉRIN). *Pisa serpulifera* GUÉRIN, Icon. Règne Anim., Crust., pl. VIII, figs. 2—2 d.

Naxia serpulifera MILNE EDWARDS, Hist. Nat. Crust., I, 1834, p. 313.

Naxioides serpulifera RATHBUN, Proc. Zool. Soc. London, 1914, p. 661, pl. II, figs. 9 and 10.

Cape Jaubert 42 miles W.S.W.; 42 feet; 5. VII. 11; 1 ♂.

Cape Jaubert 45 miles W.S.W.; 78 feet; 16. VII. 11; 1 ♂. 4 ♂ (1 juv.) 1 ♀, identified by Dr. ODHNER.

»The greatest ♂ has a cephalothorax-length of 165 mm., measured to the line connecting the ends of rostral horns, but about 130 mm. in the middle line.» (ODHNER).

Distribution. — West and north Australia: Shark Bay (MIERS); Monte Bello Islands (RATHBUN); Port Essington (HASWELL); Raffles Bay (MIERS); Thursday Island, Torres Strait (HASWELL, MIERS).

Family *Parthenopidae*.

Parthenope (Parthenope) nodosa (JACQUINOT). *Lambre nouex* JACQUINOT, in JACQUINOT and LUCAS, Voy. au Pole Sud, Atlas of Zool., Crust., 1842 (?), pl. I, figs. 2—2 c.

Lambrus nodosus JACQUINOT, *op. cit.*, III (text), 1853, Crust., p. 13.

Lambrus nodosus FILHOL, Mission de l'Ile Campbell, III, part 2, Zool., Paris, 1885, p. 370; atlas, pl. XLI, figs. 1—3.

Cape Jaubert 42 miles W.S.W.; 42 feet; 5. VII. 11; 1 ♀ ovig.

The tubercles of the carapace are very obscure, more evident to the touch than to the eye.

Distribution. — W., N. and N.E. Australia (MIERS). Not New Zealand (*vide* FILHOL).

Parthenope (Rhinolambrus) longispinus (MIERS). *Lambrus longispinus* MIERS, Ann. Mag. Nat. Hist., ser. 5, IV, 1879, p. 18.

Lambrus latirostris MIERS, *op. cit.*, p. 19.

Lambrus spinifer HASWELL, Proc. Linn. Soc. N. S. Wales, IV, 1880, p. 451, pl. XXVII, fig. 1.

Lambrus spinifer var. *integrifrons* HASWELL, *op. cit.*, p. 452.

Lambrus (Rhinolambrus) longispinis ALCOCK, Jour. Asiat. Soc. Bengal, LXIV, 1895, p. 266, and synonymy.

Cape Jaubert 45 miles W.S.W.; 60 feet; 8. VII. 11; 1 ♂.

This represents the variety with spines of carapace and chelipeds longer than usual; front elongate-triangular with tip rounded.

Distribution. — Western Indian Ocean to Malay Archipelago, China and north and northeast Australia, from Torres Strait to Port Curtis.

Parthenope (Pseudolambrus) sandrockii (HASWELL). *Lambrus (Parthenope) sandrockii* HASWELL, Proc. Linn. Soc. N. S. Wales, IV, 1879, p. 452, pl. XXVII, fig. 2.

Cape Jaubert 42 miles W.S.W.; 70 feet; 29. V. 11; 1 ♂.

This species may be a variant of *P. harpax* as suggested by some authors, but this specimen is considerably removed from typical *harpax*. The carapace is constricted behind the orbits as in the subgenus *Rhinolambrus*, while in *harpax* it distinctly widens from the orbits backward; there is a blunt spine on the hepatic margin; no spines on the dorsal surface of the carapace, which is almost everywhere rough either with granules or erosions, while in *harpax* the carapace is chiefly smooth.

Distribution. — Port Denison, Queensland (HASWELL).

Family Ocypodidae.

Uca dussumieri (MILNE EDWARDS). *Gelasimus dussumieri* ALCOCK, Jour. Asiat. Soc. Bengal, LXIX, 1900, p. 361, and synonymy, except *Gelasimus longidigitum* KINGSLEY.

Broome; digging hollows in the mud of beach; 15. VI. 11; 17 ♂ (9 form 1¹, 6 form 2, 2 without large cheliped)

7 ♀. Mostly large specimens; a male, form 1, has a carapace 39 mm. wide and propodus of large cheliped 73 mm. long; a male, form 2, has corresponding measurements of 38 and 74 mm.

Broome; on the beach at low tide; 8 ♂ (4 form 1, 4 form 2) 6 ♀.

Distribution. — From Zanzibar through the Indian Ocean and Malay Archipelago to Gulf of Siam, Loo Choo Islands, New Guinea, and New Caledonia. Australia: Port Curtis (GRANT and McCULLOCH).

Uca mjöbergi, sp. nov. (Plate 1, Fig. 1—4).

Type-locality. — Australia: Broome; under log in hollows on the beach; 26. VII. 11; 11 males, 1 female; 1 male is type.

Diagnosis. — Size small. Front broad, front and side margins oblique. An auxiliary ridge below upper margin of orbit, but none above lower margin. Palm of large cheliped of male with a definite lower edge, an indefinite upper margin, a depression on outer surface near gape between fingers. Movable wider than immovable finger, strongly curved and gradually tapering to an acute tip; immovable finger nearly straight, gradually tapering until near tip where it abruptly narrows to a point.

Description. — Lower margin of front truncate, corners rounded. Upper margin of orbit oblique and sinuous; sub-marginal ridge well defined and finely milled; the intervening space deepest not far from the insertion of the eyes; lower margin coarsely turreted in outer half, finely so in inner half. Near the antero-lateral angle the anterior and the lateral margins change their directions slightly to form an equilateral, triangular tooth. The large palm has a finely granulate outer surface, the granules getting coarser on the upper surface whence they are continued a little on the inner surface without forming a definite upper margin; lower margin a row of large, oblique granules; a depression near the gape is marked with several punctae; a row of 3 or 4 tubercles close to the middle of the distal margin. On the inner surface of the palm, an oblique row of tubercles, running up from the lower margin and turning at an obtuse angle to meet the wrist; two sub-vertical rows of tubercles at inner end, the distalmost row short, the other row continued on the prehensile edge of immovable finger. This finger has a tooth proximal to the

¹ Form 1 has a longer palm and shorter fingers which are armed with more teeth than in form 2.

middle of the edge, while the dactylus has one distal to its middle. There are 9 specimens so armed and 1 without teeth on the fingers; while one male lacks the large claw. Eight males have the large claw on the right side, and 3 on the left (including the unarmed one). The merus joints of the ambulatory legs, save the last pair, are much expanded at the middle; all are roughened on the posterior surface by short, granulate rugae.

Measurements. — Male holotype, length of carapace 8.1, width 13.3 mm.; length of large claw 22 mm.

Affinities. — Near *U. perplexa* (MILNE EDWARDS)¹, which has a sharper and more elongate tooth at the antero-lateral angle of the carapace, a smoother palm, with its lower edge finely granulate, and in part marked off by a linear groove, an immovable finger with a prominent tooth near the tip, and a movable finger with more uniform width through the greater part of its length.

Scopimera inflata A. MILNE EDWARDS. (Plate 1, Fig. 5—6). A. MILNE EDWARDS, Jour. Mus. Godeffroy, 1873, Heft IV, p. 83; *la mer des Indes*. KEMP, Rec. Indian Mus., XVI, 1919, p. 321, text-fig. 8.

Cape Jaubert 45 miles W.S.W.; 54 feet deep; 6. VII. 11; 2 ♂.

These specimens agree in most respects with the description given by KEMP of a female which he believes to be a cotype. Besides the Mjöberg specimens I have for examination a male and two females from Port Stephens, New South Wales, collected by A. R. McCulloch, Sept. 13, 1918.

Measurements. — Cape Jaubert, ♂, length of carapace, 6.4, width 8.3 mm., length of chela 6.7 mm. Port Stephens, ♂, length of carapace, 7.5, width 11.1 mm. Port Stephens, ♀, length of carapace 6.4, width 9.7 mm.

The gastric and cardiac regions are sparingly granulate, granules finer than on the lateral regions. In the center of the carapace there is a long impressed line which forms a loop on each branchial region. The side walls are deeply sculptured only on the anterior half. The line subdividing the tympanum on the inner surface of the merus of the cheliped is fringed with long hair. The carpus of the male has a spine at the inner angle, that of the larger female (right carpus only is present) has a small tooth, while those of the smaller female are unarmed.

In the full-grown male the fixed finger has no enlarged

¹ Ann. Sci. Nat. (3), XVIII, Paris, 1852, p. 150 [114], pl. IV, figs. 18, 18 a.

tooth but its prehensile edge is slightly hollowed out at base; into this sinus projects a broad tooth on the dactylus; upper edge of dactylus slightly concave. In the female the prehensile edge of the fixed finger is not hollowed out at base, the tooth at the base of the dactylus is so low as to be only a swelling and the gape is narrower than in the male. The fingers of the smaller males (both of those from Cape Jaubert) resemble those of the female.

The tympanum on the posterior (upper) side of the second ambulatory leg is the largest, that of the first and third legs subequal, fourth smallest. The dilation of the merus is progressively greater from the first to fourth pairs. The tympana of the anterior (lower) side is less extensive than those of the posterior side in the first and second legs. Each tympanum, above or below, has in a longitudinal row through its middle a few short hairs, about 8 or 10, arranged singly.

S. inflata is nearly related to *S. sigillorum*, which I described as a *Dotilla*.¹ It also has a brush of hair between the bases of the first two walking legs.

Distribution. — East and West Australia.

Macrophthalmus crassipes MILNE EDWARDS. *Macrophthalmus crassipes* TESCH, Zool. Meded. Mus. Leiden, I, 1915, p. 174, pl. VII, fig. 7, and synonymy.

Broome; on the beach at low tide; 26. VII. 11; 1 ♂ hard shell, 1 ♂ soft shell and very incomplete, eyes broken off at middle.

Length of carapace of ♂ 10, width 19 mm.

The author of this species places it in the group having eyestalks shorter than orbits. The specimen in hand accords with this, the eyes stopping short of the orbital angle by a distance less than the length of the cornea. DE MAN (1890) describes the eyestalks of a type specimen in the Paris Museum as reaching to the orbital angle; the eyestalks are then of variable length. DE MAN also says that the »immobile finger is armed with a prominent tooth in the middle of its

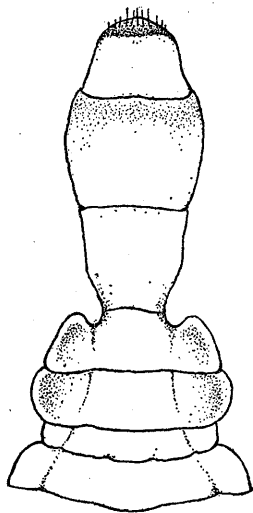


Fig. 2. *Scopimera inflata*, ♂ abd. Port Stephen, 54771, U. S. N. M. — Carapace 11.1 mm. wide.

¹ Proc. U. S. Nat. Mus., XLVII, 1914, p. 83.

inner margin, the tip of which tooth descends obliquely to the proximal end of the finger and perpendicularly to the distal end». This describes precisely the finger of the Broome specimen in which the tooth is triangular, but does not agree so well with DE MAN's figures (7 and 7 a, pl. 4), in which the tooth is smaller, and the difference in its two slopes not so striking. The tooth on the dactylus is not so small as, and the fingers are more deflexed than, in the figures cited.

On these minor characters I hesitate to found a new species.

Distribution. — China, Gulf of Siam, Carolines, »Australia» (not »East» Australia) (MILNE EDWARDS, HESS).

Macrophthalmus sandakani RATHBUN. (Plate 1, Fig. 7).
Proc. U. S. Nat. Mus., vol. 47, 1914, p. 82.

Cape Jaubert 45 miles W.S.W.; 72 feet deep; 9. VII. 11;
1 ♂.

Length of carapace 6.4, width 13.7 mm.

The specimen differs from the type female as follows:
The eyestalks overreach the antero-lateral angle of the cara-

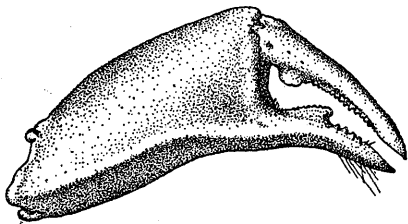


Fig. 3. *Macrophthalmus sandakani*, ♂,
Cape Jaubert, Right chela $\times 10$.

pace a little, by about one-third of length of cornea on the right side and about one-fourth on the left side. The antero-lateral teeth are relatively longer, reaching almost as far sideways as the next lateral tooth, the tip of the antero-lateral being almost directly in front of the tip of the next tooth; this is caused partly

by the second tooth being less developed than in the larger female and having a shorter, less acuminate tip.

In the female the upper half of the palm is coarsely granulate, upper and lower margins well marked, acute, fingers without large tooth; in the male the upper half of the palm is finely granulate, the margins are bluntly rounded, above the lower margin is a prominent, acute ridge continued on the finger; the immovable finger has a broad, low, triangular tooth just proximal to the middle; while the basal tooth of the dactylus is broad and oblong.

Distribution. — Borneo.

Macrophthalmus latreillii (DESMAREST). *Gonoplax latreillii*
DESMAREST, Hist. Crust. Foss., 1822, p. 99, pl. 9, figs. 1—4.

Macrophthalmus latreillei TESCH, Zool. Meded. Mus. Leiden, I, 1915, p. 181, and synonymy.

Broome; on the beach at low tide; 4 ♂ 2 ♀.

All are of medium size and rather narrow. Length of a male 26, width 36.2 mm. They are very hairy, the legs more so than the carapace. Fourth tooth of side margins obsolete; teeth not at all spiniform. Ambulatory legs very wide.

Distribution. — From Madagascar to Japan and New Caledonia.

Macrophthalmus pacificus DANA. TESCH, Zool. Meded. Mus. Leiden, I, 1915, p. 190, pl. VIII, fig. 11. (See remarks on synonymy).

Broome; 15. VI; 1 ♂.

Distribution. — Nicobars; Penang; Borneo; Philippines; Loo Choo Islands; Upolu, Samoa (type-locality).

Family *Grapsidae*.

Metopograpsus messor (FORSKÅL). *Cancer messor* FORSKÅL, Descr. Anim. itin. orient., 1775, p. 88.

Metopograpsus messor MILNE EDWARDS, Ann. Sci. Nat., ser. 3, Zool., XX, 1853, p. 165 [131]. DE MAN, Arch. f. Naturg., LIII, 1887 (1888), p. 361, pl. XV, fig. 6.

Broome, on the beach at low tide: 5 ♂ 1 ♀; 1 small ♂.

Distribution. — Indian Ocean to Malayan Archipelago, Australia and Pacific Islands.

Family *Pinnotheridae*.

Pinnotheres villosulus GUÉRIN. (Plate 1, Fig. 8). *Pinnotheres villosulus* GUÉRIN, Voy. autour du Monde, sur *La Coquille*, 1822—1825, Zool., II, part 2, 1831, p. 13; Icon. Règne Anim., Crust., p. 7, pl. IV, fig. 6. MIERS, Zool. Alert, Crust., 1884, p. 247; *Challenger* Rept., Zool., XVII, 1886, p. 277, pl. XXII, figs. 2—2 c. TESCH, Dec. Brach. *Siboga*-Exped., Monog. XXXIX c¹, 1918, pp. 251 and 255.

Pinnotheres villosus MILNE EDWARDS, Ann. Sci. Nat., Crust., ser. 3, Zool., XX, 1853, p. 218 [184], pl. XI, fig. 8. BÜRGER, Zool. Jahrb., Syst., VIII, 1895, p. 366, pl. X, fig. 5.

Cape Jaubert 42 miles W.S.W.; 70 feet; in pearl oyster; 25. V. 11; 2 ♂ 48 ♀ (35 ovig.).

Cape Jaubert 45 miles W.S.W.; 42 feet; in pearl oyster; 17. VII. 11; 2 ♀. 48 feet; 5. VII. 11; 4 ♀ (2 ovig.). 80 feet;

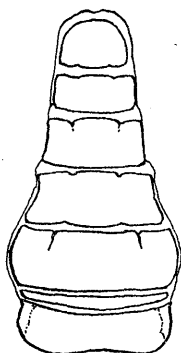


Fig. 4. *Pinnotheres villosulus*, ♂, Carapace 6.1 mm. wide, Off Cape Jaubert.

in pearl oyster; 29. VI. 11; 1 ♂ 24 ♀ (4 ovig.). 80 feet; 29. VI. 11; 1 ♀ ovig.

The females agree with MIERS's description in the *Challenger* Rept. (*loc. cit.*). Length of largest ♀ 15.5, width 16.1 mm.

The largest ♂ is 6.6 mm. long and 6.1 wide. Carapace bare, coarsely punctate, smooth and shining, median region less elevated than in female, a furrow runs from the mesogastric region to edge of front. Front more advanced than in female and eyes larger. Chelipeds and legs hairy below. Palms shorter and widening distally more than in female, fingers similar to those of female.

Distribution. — Philippines: Zamboanga and Ubay (BÜRGER). Timor (GUÉRIN). Elat, Great Kei Island (TESCH). Torres Strait (MIERS).

***Pinnotheres cardii* BÜRGER.** (Plate 1, Fig. 9). Zool. Jahrb., Syst., VIII, 1895, p. 367, pl. IX, figs. 4 and 5, pl. 10, fig. 4. TESCH, Dec. Brach. *Siboga*-Exped., XXXIX c¹, 1918, p. 252.

Broome; in shells of *Pinna bicolor* GMELIN; 26. VII. 11; 7 ♂ 10 ♀ (4 ovig.).

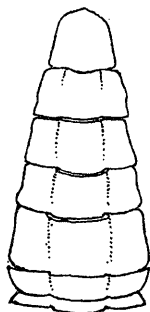


Fig. 5. *Pinnotheres cardii*, ♂, Carapace 7.5 mm. wide, Broome.

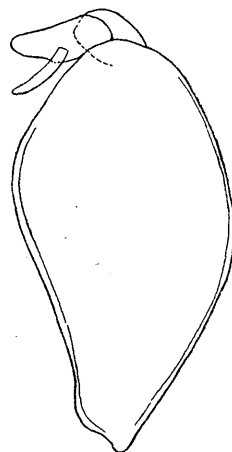


Fig. 6. *Pinnotheres cardii* BÜRGER, Outer maxilliped, Broome, × 32.

Length of carapace of large ♀ 10.7, width 11.8 mm.; length of largest ♂ 7.7, width 8 mm.

These specimens agree in most respects with BÜRGER's description. The dactylus of the second ambulatory leg has a tendency to vary in shape from those of the other legs, but this variation is not constant; instead of being regularly tapering and curved, it may be curved on the upper margin and straight on the lower margin as far as the nail, thus forming a stouter dactylus. The palm of the well developed female is not quite twice as long as high nor quite twice as long as the movable finger. Both propodus and dactylus of cheliped and ambulatory legs are more or less hairy below and the merus of the legs hairy above.

Distribution. — Burias, Philippines (BÜRGER); Gulf of Siam (RATHBUN).

Pinnotheres similis BÜRGER. Zool. Jahrb., Syst., VIII, 1895, p. 373, pl. IX, fig. 14. TESCH, Dec. Brach. *Siboga-Exped.*, XXXIX c¹, 1918, p. 254.

Cape Jaubert 45 miles W.S.W.; 66 feet; in shell of *Ostrea*, sp.; 15. VII. 11; 1 ♀.

Length of carapace 5.8, width 6.4 mm. The arrangement of dactyls corresponds to BÜRGER's figure. The carapace is narrower, perhaps because higher. The proportions given by BÜRGER, 6 by 9 mm., are erroneous as they do not correspond with his illustration, enlarged three times, or with the statement on p. 373, *op. cit.*, »¹/₅ breiter als lang», which would make the width 7.2 instead of 9.

Distribution. — Ubay, Philippines (BÜRGER).

Family *Xanthidae*.

Carpilodes ruber A. MILNE EDWARDS. Nouv. Arch. Mus. Hist. Nat., I, 1866, p. 228, pl. XI, figs. 4—4 b.

Cape Jaubert 45 miles W.S.W.: 72 feet; 2. VII. 11; 3 ♂ juv. 72 or 80 feet; 2 ♀ juv.

Distribution. — Red Sea (NOBILI); Maldives (BORRA-DAILE); Java (U. S. Nat. Mus.); Samoa (ORTMANN); Hawaiian Islands (A. MILNE EDWARDS). W. Australia: Monte Bello Islands (RATHBUN).

Lophozozymus pictor (FABRICIUS). *Cancer pictor* FABRICIUS, Entom. Syst., Suppl., 1898, p. 335.

Lophozozymus octodentatus ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 106, and synonymy.

Cape Jaubert 42 miles W.S.W.; 36 feet; 11. VII. 11; 1 ♂ juv. Length 9, width 14.5 mm.

While in large specimens the surface of the palms is smooth and punctate, in this small Australian specimen the palms are very finely granulate, save at the distal end, the granules in large part forming in transverse rugae.

Distribution. — Singapore and Malay Archipelago to Japan and N.W., N.E. and E. Australia; Fijis; Samoa.

Actaea areolata DANA? DANA, Proc. Acad. Nat. Sci. Philadelphia, 1852, p. 73; Crust. U. S. Expl. Exped., part I, 1852, p. 162; atlas, 1855, pl. VIII, figs. 1 *a—b*. MIERS, Zool. Alert, 1884, pp. 183 and 209. DE MAN, Jour. Linn. Soc., Zool., XXII, 1887, p. 25. ZEHNTNER, Rev. Suisse Zool., II, 1894, p. 147. ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 141.

Cape Jaubert 45 miles W.S.W.; 80 feet; 29. VI. 11; 1 ♀ with a Bopyrid parasite in its right branchial chamber which is thereby much swollen and the normal lobulation disarranged.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 adult ♀ with a Rhizocephalid parasite under the abdomen, 1 young ♀.

The whole surface of the carapace is broken up into many small areoles; the inner protogastric areole is scarcely wider than the adjacent mesogastric one; the outer protogastric areole is longitudinally divided through its anterior half into two branches each of which is subequal in width to the mesogastric areole; outside of this there is still another narrow, elongate areole. This ornamentation together with the great width of the carapace serves to distinguish this species. Length of carapace of ♀ 8.5 mm., width 13.7 mm.

Distribution. — Mergui Archipelago (DE MAN, ALCOCK); either Sulu Sea or Balabac Straits (DANA); Amboina (ZEHNTNER); Port Molle, E. Australia (MIERS).

There is doubt as to whether these and some other specimens described under this name are the true *areolata* of DANA. This doubt has been expressed by MIERS, DE MAN and ZEHNTNER, whose specimens are conspecific with those from Cape Jaubert. The chief difference between them and DANA's figure (the type is not extant) is that the lobule alongside the narrow part of the mesogastric region is scarcely wider than that region while in DANA's figure it is nearly twice as wide. In addition, the lobulation is finer and more deeply cut and the felt is thinner than in the type figure.

Actaea savignyi (MILNE EDWARDS). *Cancer savignyi* MILNE EDWARDS, Hist. Nat. Crust., I, 1834, p. 378.

Actaea granulata ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 151, and synonymy, except *A. carcharias*.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♀.

Distribution. — Red Sea, E. and S.E. Africa to Japan; Torres Strait and E. Australia; New Caledonia.

Actaea calculosa (MILNE EDWARDS). *Cancer calculosus* MILNE EDWARDS, Hist. Nat. Crust., I, 1834, p. 378. *Euxanthus tuberculosus* MIERS, Zool. Alert, 1884, p. 205, pl. 19, fig. A, a, a'. *Actaea calculosa* NOBILI, Ann. Sci. Nat. (9), IV, 1906, p. 261, and synonymy.

Cape Jaubert 42 miles W.S.W.; 70 feet; 30. V. 11; 1 ♂; »beautiful dark red».

Cape Jaubert 45 miles W.S.W.; 48 feet; 16. VII. 11; 1 ♂. 72 feet; 7. VII. 11; 7 ♀. 72 or 80 feet; 2 ♂.

These specimens agree with MIERS's description cited above. The lateral lobes of the carapace are tipped with a subacute tubercle, the ambulatory legs are bordered above by prominent flattened teeth, mostly triangular.

Distribution. — Red Sea, Persian Gulf, Indian Ocean, Gulf of Siam, Torres Strait and East and South Australia.

Actaea ruppellii (KRAUSS). ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 144.

Cape Jaubert 45 miles W.S.W.; 140 feet; 12. VII. 11; 1 ♂ juv. 72 feet; 7. VII. 11; 1 ♀ juv.

Distribution. — Natal to Red Sea and Persian Gulf, eastward to Malay Archipelago, to Philippines, Japan, Hawaiian Islands, Australia (Torres Strait to Port Curtis), Lord Howe Island, Norfolk Island (?) and Funafuti.

Actaea acies RATHBUN, var. Trans. Linn. Soc. London, ser. 2, XIV, 1911, p. 219, pl. 16, figs. 8, 9.

Cape Jaubert 45 miles W.S.W.; 42 feet; in pearl oyster, with *Pinnotheres villosulus*; 1 immature ♀.

Length of carapace 9.4, width 12.2 mm.

The typical material of this species is very near *A. (Banareia) kraussi* HELLER, NOBILI¹, but differs as follows: The interlobular furrows are not shallow but deep. The superior border of the orbit is swollen and is set off by a postorbital furrow. The third antero-lateral lobe is longer than the sum

¹ Ann. Sci. Nat., Zool., ser. 9, IV, 1906, p. 248.

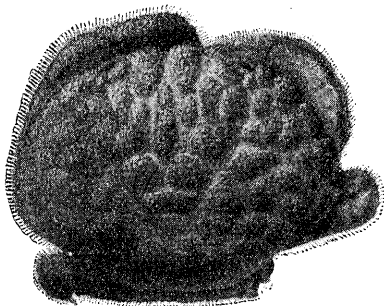


Fig. 7. *Actaea acies*, ♀, Cape Jaubert, dorsal, 12.2 mm. wide.

of the first and second. The inner of the protogastric areoles is linear; the outer areole is broad but not V-shaped because it is unequally bisected by its longitudinal furrow which cuts through the outer margin. The broad part of the mesogastric region is divided into 4 separate lobules. The urogastric region is divided into 3 tubercles side by side.

The immature ♀ from Cape Jaubert has a narrower carapace (1:1.3) than the typical mature ♀ (1:1.4) from the Western Indian Ocean. The third antero-lateral lobe is shorter than the sum of the first and second. The inner areole of the protogastric region is a little wider and is broken in two transversely; the largest, adjoining areole is divided at its posterior end into several small islets. The broad part of the mesogastric region is divided into 3 separate lobules, 2 anterior, one transverse, posterior. The region 4 M is undivided. The immovable finger is shorter and less deflexed.

This may be a variety of *acies*, or both forms may be varieties of *kraussi* or represent distinct species.

Distribution. — Western Indian Ocean (RATHBUN).

***Myomenippe fornasinii* (BIANCONI).** *Galene fornasinii* BIANCONI, Specimina Zoologica Mosambicana, Fasc. V, 1851, p. 84 (Mem. Accad. Sci. Bologna, III, 1851, p. 108, pl. XI, figs. 1—1 c).

Menippe (Myomenippe) fornasinii HILGENDORF, Monatsb. k. Akad. Wiss. Berlin, Nov. 1878, p. 795.

Myomenippe fornasinii DE MAN, Notes Leyden Mus., XXI 1899, p. 57, pl. 7, fig. 1, and synonymy.

Broome; crept up into a big gastropod shell on the beach; 4. VII. 11; 1 adult ♀, with the lateral teeth blunt.

Total length of carapace 50.7, width 70.5 mm.

Distribution. — East Africa: Mozambique (BIANCONI); Ibo, Mozambique (HILGENDORF). West Australia: Swan River (MIERS, as *Menippe leguilloui*). North Australia: Port Essington (HASWELL, as *Pararuppellia saxicola*). East Australia (ORTMANN as *M. leguilloui*): Port Molle and Port Curtis (HASWELL). »Mer des Indes» (A. MILNE EDWARDS, as *Menippe leguilloui*).

Epixanthus dentatus (WHITE). *Panopeus dentatus* WHITE, Proc. Zool. Soc. London, 1847, p. 26.

Epixanthus dentatus ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 185, and synonymy.

Broome, on the beach at low tide; 1 ♀, 28.3 mm. long, 47 mm. wide.

Distribution. — East Africa to the Philippines, North Australia (Port Darwin) and Fijis.

Pilumnus semilanatus MIERS. Zool. Alert, 1884, p. 222, pl. XXII, figs. B and b. McCULLOCH, Rec. Austral. Mus., IX, 1913, p. 325, text-fig. 43, and synonymy.

Cape Jaubert 45 miles W.S.W.: 72 feet; 7. VII. 11; 1 ♂ 2 juv. 72 feet; 15. VII. 11; 2 ♀. 140 feet; 12. VII. 11; 1 ♀ ovig.

Distribution. — N.W., N. and E. Australia, from Port Hedland to Moreton Bay.

Pilumnus rufopunctatus STIMPSON. Proc. Acad. Nat. Sci. Philadelphia, X, 1858, p. 36 [33]; Smithson. Misc. Coll., XLIX, 1907, p. 66, pl. VIII, fig. 3. HASWELL, Cat. Austral. Crust., 1882, p. 66.

Cape Jaubert 45 miles W.S.W.; 72 or 80 feet; 1 juv.

Distribution. — S.E. and S. Australia: Port Stephens (HASWELL); Port Jackson (STIMPSON, HASWELL, MIERS); Sydney (HELLER); Griffiths Point, Western Port (HASWELL).

Pilumnus fissifrons STIMPSON. Proc. Acad. Nat. Sci. Philadelphia, X, 1858, p. 36 [33]; Smithson. Misc. Coll., XLIX, 1907, p. 67, pl. VIII, fig. 4. HASWELL, Cat. Austral. Crust., 1882, p. 68, pl. I, fig. 6.

Cape Jaubert 45 miles W.S.W.: 72 feet; 7. VII. 11; 1 ♂ juv. 72 or 80 feet; 1 ♀. 54 feet; 16. VII. 11; 1 ♂.

Distribution. — Port Jackson (STIMPSON).

Pilumnus pulcher MIERS. Zool. Alert, 1884, p. 219, pl. XXII, figs. A and a.

Cape Jaubert 45 miles W.S.W.: 72 feet; 5. VII. 11; 2 ♀. 66 feet; 16. VII. 11; 1 ♂ 1 ♀.

Largest ♀ (5. VII. 11), length of carapace 13.6, width 15.8 mm.

The strong subdistal spine or tooth on the merus of the cheliped is similar to the terminal tooth adjacent.

Distribution. — Torres Strait: Thursday Island, Albany Island and Warrior Reef (MIERS).

Actumnus tomentosus DANA. ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 202, and synonymy.

Aside from the great variability in specimens of the *setifer-tomentosus* group, there appear to be two species distinguishable, *A. tomentosus* having a less convex carapace and areoles, covered with thinner tomentum, and the wrist and palm furnished with considerably larger and sharper granules, than *A. setifer*.

Cape Jaubert 45 miles W.S.W.; 72 or 80 feet; 2 ♂ juv. Measurements 5.5 by 7.5 and 4.2 by 5.7 mm. respectively.

Cape Jaubert 45 miles W.S.W.; 140 feet; 1 ovigerous ♀, 4.7 by 6.8 mm. »Eggs red».

Distribution. — Western Indian Ocean to Malay Archipelago, Philippines, New Hebrides, New Caledonia and Tahiti. N. Australia (Albany Passage); E. Australia (Mast Head Island); Lord Howe Island, E. of New South Wales.

Actumnus setifer (DE HAAN). ALCOCK, Jour. Asiat. Soc. Bengal, LXVII, 1898, p. 202, and partial synonymy.

Cape Jaubert 45 miles W.S.W.: 72 feet; 7. VII. 11; 1 ♀ adult. 72 or 80 feet; 2 ♀ juv.

The carapace of the adult ♀ is 10 mm. long, 13.1 wide, and very convex in both directions. It is covered with a thick, uniform, velvety tomentum, concealing granules of carapace and making the antero-lateral margin appear lobed. Areoles deeply separated. A roundish dimple in middle of each protogastric lobe; when tomentum is removed granules are to be seen all about the dimple and 1 or 2 within it. When the teeth are cleaned they are slightly dentiform, little projecting, acute tip either wanting or minute. Outer projection of front a distinct lobule. Fissure in lower orbital margin a narrow V. Granules of wrist confined to a few distant ones near the inner angle, a row on the inner margin and a row of smaller granules on the distal margin.

The young measure respectively 5.5 by 7.1 and 4.6 by 6.4 mm. They agree with the adult ♀ excepting that the lateral teeth are more dentiform and the tips sharper, the tomentum not having been removed; and that the lower orbital fissure is a shorter and wider V.

Distribution. — Indian Ocean to Japan, W., N. and E. Australia, Solomon Islands and Fiji.

Actumnus laevigatus RATHBUN. Trans. Linn. Soc. London, ser. 2, Zool., XIV, 1911, p. 233, pl. 19, figs. 3 and 4.

Cape Jaubert 45 miles W.S.W.; 70 feet; 3. VI. 11; 1 ♀ ovig.

Length of carapace of ♀ 10.2, width 14.5 mm.

On the suborbital region close to the antero-lateral angle of the carapace there is a cluster of granules; one of these shows in dorsal view on the lateral margin between the orbital spine and the next lateral spine. None of the lateral spines has a secondary spine. Frontal lobes less oblique and more evenly rounded than in the small type-specimen; outer teeth of front present though small, acute, separated by a very obtuse angled sinus from the insignificant angle of the orbit.

Two spines on upper margin of arms; granulation of palms a little less extensive than in the type, that of the minor palm not reaching as far as the fingers; finger tips blunt, a little hollowed out within.

Distribution. — Amirante, 25 to 30 fathoms.

Heteropanope sexangula RATHBUN. Proc. Biol. Soc. Wash., XXII, 1909, p. 114; K. Danske Vidensk. Selsk. Skrifter, 7 Række, naturv. og math., V, 1910, p. 358, pl. 2, fig. 6, text-fig. 43.

Broome; on the beach below low water; 26. VII. 11; 2 ♂, the smaller one shedding its shell.

♂, total length of carapace 15, width 19.3 mm. ♂, total length of carapace 9.2, width 11.6 mm.

The species was described from a very small ♀, 5.2 by 7 mm. In the Australian specimens the characters are more pronounced. In the larger male the elevations of the carapace are as follows: One running transversely across each protogastric region; one transverse, arching forward, at the anterior end of the branchial region; one hepatic, obliquely curved; a flat oblong area on the posterior half of the branchial region. Smaller swellings are: one transverse, linear, on each of the two frontal lobes; a pair of round humps further back, almost wholly behind the posterior line of the orbits; one near the inner branchial angle; a pair very low, at anterior angles of wide part of mesogastric region; a similar pair at anterior angles of cardiac region.

The four small lobules of the frontal margin are visible in dorsal view, the middle pair larger and more advanced than the outer pair. Inner lower angle of orbit a large triangular tooth.

The third of the four antero-lateral marginal teeth (the first being fused with the orbital angle) is smaller than the others, but not minute. Below the sinus between first and second tooth there is a subhepatic tubercle.

Wrist roughly granulate, partially nodular; inner tooth conical, blunt at tip. Palms granulate only along the top and proximal end; elsewhere smooth.

In the smaller male the wrist is rougher, and the granulation of the palm more extensive than in the larger male; in the minor cheliped the granules extend also part way along the lower margin, but are finer and less conspicuous than in that of the tiny female (fig. 43, cited).

Related to *H. eucratooides* STIMPSON¹, of which he says that the external hiatus of the orbit is nearly obsolete; the subhepatic and subbranchial regions smooth, instead of granulate and armed with subhepatic tubercle as in *secangula*; the carpus and manus of the cheliped smooth. Lateral lobule of front not mentioned.

Distribution. — Gulf of Siam; West Australia.

Family *Potamonidae*.

Parathelphusa (Liotelphusa) transversa (VON MARTENS). *Thelphusa transversa* VON MARTENS, Monats. K.—P. Akad. Wiss. Berlin, 1868, p. 609.

Potamon (Geothelphusa) transversus RATHBUN, Nouv. Arch. Mus. Hist. Nat. Paris, ser. 4, VI, 1904, pl. XVIII, fig. 5; VII, 1905, p. 215, and synonymy.

Noonkanbah, Fitzroy River (in the interior); from a »Billa-bong»; 14. XII. 10; 1 ♂ 4 ♀.

Noonkanbah; 17. XII, 1910; 1 young, very small. This specimen probably represents the stage in which the crab leaves the mother. It measures 3.7 mm. long and 4.4 wide, and is much squarer than the adult, the sides of the carapace being slightly curved.

Distribution. — Katau, New Guinea (NOBILI). Australia: Thursday Island (HASWELL, MIERS); Cape York (A. MILNE EDWARDS, VON MARTENS, BÜRGER); Port Mackay, Queensland (DE MAN); N.E. Australia (ORTMANN); Central Australia (RATHBUN).

Family *Portunidae*.

Portunus (Portunus) pelagicus (LINNÆUS). *Neptunus pelagicus* ALCOCK, Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 34, and synonymy, except *N. trituberculatus*.

Broome; on the beach below low water; 26. VII. 11; 1 ♂ 4 ♀ (all young).

Distribution. — Indo-Pacific Region from Red Sea to Japan, Australia and S. Pacific Ocean. W., N. and E. Australia (MIERS).

¹ Smithsonian. Misc. Coll., XLIX, 1907, p. 64, pl. VIII, figs. 2, 2 a.

Portunus (Portunus) sanguinolentus (HERBST). *Neptunus sanguinolentus* ALCOCK, Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 32, and synonymy.

Cape Jaubert 45 miles W.S.W.: 54 feet; 7. VII. 11; 2 juv. 66 feet; 18. VII. 11; 1 ♀ juv.

Distribution. — Indo-Pacific Region from Red Sea to Japan and Hawaiian Islands. E. Australia (HASWELL, GRANT and McCULLOCH).

Portunus (Achelous) granulatus (MILNE EDWARDS). *Neptunus (Achelous) granulatus* ALCOCK, Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 45, and synonymy, except *Amphitrite gladiator*.

Cape Jaubert 42 miles W.S.W.; 70 feet; 26. V. 11; 1 juv.

Distribution. — Indo-Pacific Region, from Red Sea to Japan; Hawaiian and other Pacific Islands. N. and N.E. Australia (MIERS).

Charybdis (Charybdis) jaubertensis, sp. nov. (Plate 1, Fig. 10—11).

Type-locality. — Cape Jaubert 45 miles W.S.W.; 72 feet; 17. VII. 11; 1 ♂.

Total length of carapace 11.6, extreme width 14.6, width between outer angles of orbits 12.5, between inner angles of orbits 6.5 mm.

Surface hairy and in the main granulate; a granulate ridge between teeth of last pair; in front of it a gastric ridge; about half as far from this a third ridge broadly interrupted in the middle; and a very short ridge on the front, behind each submedian sinus; posterior half of carapace without granulate lines but surface very uneven and rough. Lateral teeth 6, the first or orbital the largest, the second smallest, third to sixth inclusive subequal, narrow, acuminate, pointing well forward. Frontal teeth 6 besides orbital angles; median and submedian teeth subtruncate or broadly rounded, the submedian the larger; two outer teeth subtriangular with rounded tips, the orbital tooth with a broader base; of the sinuses, the median is narrow but open, the submedian appears shallow because the submedian tooth overlaps the median; the third sinus is similar to, but wider than, the median. Two narrow open fissures in upper margin of orbit, an equilaterally triangular sinus below outer angle, and a broadly rounded lower inner angle, less advanced than the upper inner angle. Antenna excluded from orbit. Posterior angles of carapace rounded.

Merus of chelipeds with three large spines on inner margin besides a small but enlarged spinule near the distal end; the

carpus has a long and strong spine at inner angle, and three smaller ones, two of which are on the distal margin and the other not far behind; five spines on the hand, four of which are arranged in two rows above, the distal spine of the outer row being smaller than the others. The chelipeds are hairy and granulate, the granules arranged largely in rows; on the outer surface of the palm there are two granulate ridges between the spines and the level of the immovable finger; the fingers are deeply grooved and the propodal one has externally two ridges, the lower of which is continued the length of the palm, and the upper is prolonged only a short distance on the palm.

The natatory foot has a large spine at the postero-distal angle of the merus, and a minute spine above it at the articulation; no spine on carpus; a row of spinules on posterior edge of propodus.

The male abdomen is constricted slightly at the union of the fifth and sixth segments, the sides of the sixth segment are convex, its distal shorter than its proximal end.

Relationship. — This is a very *Thalamita*-like *Charybdis*, in its narrowness resembling *C. (Gonioneptunus) investigatoris* ALCOCK¹, but the latter is a smooth species, with second lateral tooth not reduced, a narrower interorbital space, and a basal antennal segment which does not meet the front.

***Thalamita crenata* LATREILLE.** ALCOCK, Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 76, and synonymy.

Broome; 15. VI. 11; 3 ♂.

Distribution. — From Red Sea to Loo Choo Islands, and South Pacific Islands. N. and N.E. Australia.

***Thalamita sima* MILNE EDWARDS.** ALCOCK, Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 81, and synonymy.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 2 ♀, small but mature. Length of one 7 mm., width 11.

Distribution. — Red Sea to Japan, Hawaiian Islands and New Zealand. W., N. and E. Australia.

***Thalamita intermedia* MIERS.** *Challenger* Rept., Zool., XVII, 1886, p. 196, pl. XVI, figs. 1—1 d. ORTMANN, in SEMON's *Forschungsr.*, V (Jena. Denk., VIII), Crust., p. 46. ALCOCK, Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 89.

Cape Jaubert 45 miles W.S.W.; 80 feet; 14. VII. 11; 1 ♂.

Length of carapace of ♂ 13.2, width 20 mm. A little

¹ Jour. Asiat. Soc. Bengal, LXVIII, 1899, p. 70; Illus. Zool. *Investigator*, CRUST., pl. XLVI, fig. 4.

smaller than the type male and agreeing with MIERS's description and figures excepting that the lobes of the median pair of the front are slightly more advanced than those of the submedian pair. The major diameter of the orbit is less than the extreme extent of the basal segment of the antenna, as 3.5 to 4.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♂, smaller than the above, but similar.

Cape Jaubert 45 miles W.S.W.; 72 or 80 feet; 1 ♂ juv. Identification uncertain.

This little specimen, only 4.4 mm. long and 6.4 wide, appears to be a young *intermedia*; it differs from the larger ones in having the inner supra-orbital angles a little narrower proportionally and the basal antennal segment also narrower, in fact, narrower than the greatest diameter of the orbit.

Distribution. — Torres Strait: Thursday Island (ORTMANN); lat. $10^{\circ} 30' 00''$ S., long. $142^{\circ} 18' 00''$ E., 8 fathoms (MIERS). ? Ceylon, 34 fathoms (ALCOCK).

Family *Leucosiidae*.

Actaeomorpha sculpta (HASWELL), variety?. (Plate 1, Fig. 12).

? *Lithadia sculpta* HASWELL, Proc. Linn. Soc. N.S. Wales, IV, 1879, (1880), p. 57, pl. 6, fig. 5. MIERS, Zool. Alert, 1884, p. 254.

Cape Jaubert 45 miles W.S.W.; 72 or 80 feet; 1 ♀ immature.

Length of carapace 4, width 4.8 mm.

This form is very near to HASWELL's species, and may be placed there until the possible variations in the species of *Actaeomorpha* are ascertained. The principal differences from the type description and figure are: The two sulci which bound the median area and converge anteriorly unite and are continued to the margin of the front, instead of the mesogastric and the frontal elevations being connected by a low ridge. The anterior of the lateral lobes is the largest; it is followed by a lobe half as large, not divided; the lobe at the lateral angle of the carapace is ill-defined; it as well as the postero-lateral margin is bordered by a few spinules. HASWELL says of *sculpta* that the lateral borders have four rounded teeth, the second bifurcate.

Distribution of typical *sculpta*. — Arafura Sea (MIERS). Fitzroy Island, Queensland (HASWELL).

Myra fugax (FABRICIUS). *Myra fugax* IHLE, Dec. Brach. *Siboga*-Exped., XXXIX *b*², 1918, p. 256, and synonymy.

Cape Jaubert 45 miles W.S.W.; 54 feet; 6. VII. 11;
1 ♀ juv.

Distribution. — From Red Sea and E. Africa to Japan, New Caledonia and Queensland.

Myra affinis BELL. *Myra affinis* IHLE, Dec. Brach. *Siboga*-Exped., XXXIX *b*², 1918, p. 257, and synonymy.

Cape Jaubert 45 miles W.S.W.; 70 feet; 16. VII. 11;
3 juv.

Distribution. — From Red Sea to Japan and the Australian region.

Leucosides craniolaris (LINNÆUS). *Leucosia craniolaris* ALCOCK, Jour. Asiat. Soc. Bengal, LXV, 1896, p. 231, and synonymy.

Cape Jaubert 42 miles W.S.W.; 60 feet; 10. VII. 11;
1 ♂ 1 ♀.

Cape Jaubert 45 miles W.S.W.; 84 feet; 15. VII. 11;
3 ♀.

Distribution. — Indian Seas to Japan and Arafura Sea.

Philyra angularis, sp. nov. (Plate 1, Fig. 13—14).

Type-locality. — Cape Jaubert 45 miles W.S.W.; 70 feet; 16. VII. 11; 1 adult ♀.

Length of carapace 4.8, width 4.7 mm.

Carapace subhexagonal, posterior margin and lateral angles rounded; marginal line granulate; a partial median carina, with an acute, conical elevation on gastric and on cardiac regions; a large hepatic elevation and a smaller branchial one; elevations granulate. Front bidentate, the epistome more advanced between them. Merus of endognath exceeding the epistome a little, acuminate, its inner margin as long as that of ischium; exognath not noticeably wide.

Chelipeds one and a half times as long as carapace, narrow; merus quadrate in cross-section, its granulate inner-upper edge being continued on the carpus and on the upper surface of the palm toward the point where the fingers meet. Palms about two and a half times as long as wide, fingers a little shorter than palm.

First two segments of abdomen granulate, large segment coarsely punctate.

The carapace is irregularly spotted on the sides with grayish-black (in the preserved specimen); in the median region there is a small spot either side of the middle on the anterior

slope of the cardiac region. Fingers orange except at the extreme bases which are bluish-black and at the tips which are white. A narrow yellowish band on the merus and the propodus of each ambulatory leg.

Family *Calappidae*.

Calappa philargius (LINNÆUS). *Cancer philargius* LINNÆUS, Mus. Lud. Ulr., 1764, p. 432.

Calappa cristata FABRICIUS, Ent. Syst., Suppl., 1798, p. 346.

Calappa philargius IHLE, Dec. Brach. *Siboga*-Expedition, XXXIX *b*³, 1918, p. 183, and synonymy.

Northwest Australia, without special locality; one specimen, identified by Dr. ODHNER.

Distribution. — Red Sea to Japan, Malay Archipelago and Samoa.

Matuta inermis MIERS. Zool. Alert, 1884, p. 256, pl. XXVI, figs. C and c; *Challenger* Rept., Zool., XVII, 1886, p. 296.

Cape Jaubert 42 miles W.S.W.; 70 feet; 26. V. 11; 1 juv.

Distribution. — Torres Strait; Thursday Island; Prince of Wales Channel; Albany Island (MIERS).

Family *Dorippidae*.

Dorippe australiensis MIERS?. Zool. Alert, 1884, p. 258, pl. XXVI, figs. D and d.

Cape Jaubert 45 miles W.S.W.; 70 feet; 16. VII. 11; 1 ♀ juv. 72 feet; 2. VII. 11; 1 small ♂, carrying on its back a valve of *Antigona* (*Venus*) *laqueata* SOWERBY [length 16 mm.]; shell identified by N. ODHNER.

Extreme length of carapace of ♀ 11.8 mm., width 12.

These specimens agree with MIERS's description and figures except that the granulation of the carapace extends on to the frontal and antero-lateral [hepatic and protogastric] regions and very sparingly on the mesogastric region; and the roof of the endostomial canal projects between the bases of the frontal teeth in dorsal view. MIERS does not mention the canal; of the granulation, he says, »granulated only toward the sides, the gastric and cardiac regions being smooth». There is no canal in fig. D cited and the branchial regions only are represented with granules.

Distribution. — Australia: Port Denison and Moreton Bay, Queensland (MIERS).

Family *Dromiidae*.

Dromidiopsis edwardsi RATHBUN. *Dromia caput-mortuum* MILNE EDWARDS, Hist. Nat. Crust., II, 1837, 178. Not *Cancer caput mortuum* LINNÆUS, 1766.

Dromidia caput-mortuum DE MAN, Arch. f. Naturg., LIII, 1887 (1888), p. 393, pl. XVII, figs. 5, 5 a.

Dromidiopsis caput-mortuum BORRADAILE, Ann. Mag. Nat. Hist., ser. 7, XI, 1903, p. 299; IHLE, Dec. Brach. *Siboga-Exped.*, XXXIX b, 1913, p. 28 and synonymy, except LINNÆUS.

Dromidiopsis edwardsi RATHBUN, Proc. Biol. Soc. Washington, XXXII, 1919, p. 197.

Cape Jaubert 42 miles W.S.W.; 70 feet; 30. V. 11; 1 large ♀.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 small ♂; 1 ♀, identified by Dr. ODHNER.

Median length of carapace of larger ♂, 82, width between tips of last antero-lateral teeth 83, between tips of postero-lateral teeth 84 mm. Length of smaller ♂ 23, width between last antero-lateral teeth 22, between postero-lateral teeth 21 mm.

The hairy coat of the larger male is shaggier than that of the smaller one, forming bunches of somewhat longer hairs on the gastric region. Both show an irregular line of small punctae, in the pile only, extending from behind the middle of the eyestalk obliquely transversely to a point opposite the tip of the second antero-lateral tooth.

Distribution. — Trincomali, Ceylon (MÜLLER). Amboina (DE MAN, IHLE). Jedan, Aru Islands (IHLE). Queensland (RATHBUN).

Paradromia japonica (HENDERSON). *Cryptodromia japonica* HENDERSON, Challenger Rept., Zool., XXVII, 1888, p. 6, pl. I, figs. 2, 2 a. WHITELEGGE, Mem. Austral. Mus., III, 1897, p. 140.

Paradromia japonica BALSS, Zool. Anz., LII, 1921, p. 178.

Cape Jaubert 45 miles W.S.W.: 48 feet; 16. VII. 11; 1 juv. under a sponge. 72 or 80 feet; 1 juv.

The larger of these specimens is 4.5 mm. long and 5.2 wide. They agree with adult specimens from Japan excepting that the front is more deflexed and therefore less advanced, and its outer angles more pronounced; the outer and upper border of the orbit is armed with slender spinules instead of the sharp granules of the adult. The arrangement of teeth

or tubercles on the lateral margin (3 in number) and on the ventral surface (4 in a transverse row) is characteristic of this species.

Distribution. — Japan: Hakodate (M. SASAKI collector); Yokoska (HENDERSON). Funafuti, Ellice Islands (WHITELEGGE).

Family *Albuneidae*.

Albunea symnista (LINNÆUS). *Cancer symnista* LINNÆUS, Syst. Nat., ed. 12, 1766, p. 1053.

Albunea symnista MIERS, Jour. Linn. Soc. London, XIV, 1878, p. 326, and synonymy.

Albunea symmysta NOBILI, Ann. Sci. Nat., Zool., ser. 9, IV, 1906, p. 142, and synonymy.

Cape Jaubert 45 miles W.S.W.; 54 feet; 6. VII. 11; 2 ♀.

Distribution. — Red Sea, Indian Ocean, Malay Archipelago, New Guinea.

Family *Porcellanidae*.

Petrolisthes militaris (HELLER). *Porcellana militaris* HELLER, Verh. zool.-bot. Ges. Wien, 1862, p. 523.

Petrolisthes annulipes MIERS, Zool. Alert, 1884, pp. 270 and 558, pl. 29, figs. B and b.

Petrolisthes militaris ORTMANN, Zool. Jahrb., VI, Syst., 1892, p. 265; X, 1897, p. 289.

Cape Jaubert 45 miles W.S.W.: 66 feet; 15. VII. 11; 1 ♂ 4 ♀ (2 ovig.), 1 ♂. 66 feet; 16. VII. 11; 1 ♂. 72 feet; 7. VII. 11; 10 ♂ 9 ♀ (3 ovig.). 72 or 80 feet; 1 ♀ juv. 140 feet; 12. VII. 11; 1 ♂.

The specimens agree with those described by MIERS (*loc. cit.*) from Australia as *P. annulipes*.

Distribution. — Seychelles (MIERS); India (HENDERSON); Nicobar (HELLER); Java (DE MAN); Philippines (WHITE); Loo Choo Islands (ORTMANN); N.E. Australia from Torres Strait to Cape Capricorn (MIERS).

Petrolisthes corallicola (HASWELL). *Porcellana corallicola* HASWELL, Proc. Linn. Soc. N.S. Wales, VI, 1881, p. 759; Cat. Austral. Crust., 1882, p. 150.

Petrolisthes? corallicola? MIERS, Zool. Alert, 1884, p. 271, pl. XXIX, figs. C and c.

Petrolisthes dorsalis MIERS, *op. cit.*, p. 272.

Cape Jaubert 45 miles W.S.W.: 72 feet; 7. VII. 11; 2 ♂. 72 or 80 feet; 3 juv.

Distribution. — Port Molle (HASWELL, MIERS).

Pachycheles pisum (MILNE EDWARDS). *Porcellana pisum* MILNE EDWARDS, Hist. Nat. Crust., II, 1837, p. 254.

Porcellana pulchella HASWELL, Proc. Linn. Soc. N. S. Wales, VI, 1881, p. 758.

Pachycheles pulchellus MIERS, Zool. Alert, 1884, p. 273, pl. XXX, figs. A, a, a', a''.

Pachycheles pisum ORTMANN, Zool. Jahrb., X, Syst., 1897, p. 295, and synonymy.

Cape Jaubert 42 miles W.S.W.; 70 feet; 25. V. 11; 2 ♀ (1 ovig.). 26. V. 11; 1 ♂ 1 ♀ ovig., Bopyrid in ♀ on right side, 1 ♀ ovig. 30. V. 11; 2 ♂ 1 ♀ ovig., 1 ♂.

Cape Jaubert 45 miles W.S.W.: 48 feet; 16. VII. 11; 1 ♀ ovig., with Bopyrid. 66 feet; 15. VII. 11; 1 ♀ ovig., with Bopyrid on left side. 72 feet; 7. VII. 11; 2 ♂ 1 ♀ ovig., 1 ♀ ovig., 2 ♂, 1 with Bopyrid in right branchial cavity. 72 or 80 feet; 1 ♂ 1 juv. 140 feet; 12. VII. 11; 1 ♂, with Bopyrid on right side.

Distribution. — Mergui Archipelago (DE MAN); Atjeh, Sumatra (DE MAN); China (MILNE EDWARDS); Arafura Sea (HENDERSON). Queensland, Australia, from Torres Strait to Holborn Island (HASWELL, MIERS, HENDERSON, ORTMANN).

Porcellana suluensis DANA. (Plate 1, Fig. 15—16). Crust. U. S. Expl. Exped., part I, 1852, p. 414; atlas, 1855, pl. XXVI, fig. 4.

Cape Jaubert 45 miles W.S.W.; 72 to 80 feet; 1 ♂, 2 ovigerous ♀.

Length of carapace of largest specimen, an ovigerous ♀, 3.6 mm., width 3.8 mm. This is somewhat larger than DANA's single specimen. The carapace, chelipeds and legs are thinly covered with long hair. Carapace rather evenly convex; some short lateral striae and an epigastric ridge. Front deflexed so that the median point appears very slight in dorsal view; the small, deflexed lateral teeth form the inner angles of the orbits. On the lateral margin of the carapace there is a spine just above antenna, 3 or 4 spines at widest portion of carapace and one just above the margin at the sinus. The merus of the cheliped has an inner distal limb, whose arcuate free margin is armed with 5 or 6 spinules. The carpus is very little longer than wide and has on inner margin 3, sometimes 2, spines, while the lobe at distal angle may bear 2 or 3 spinules; upper or outer surface roughened by the swollen sockets at base of hairs, which simulate spinules on outer margin. Propodus bent at middle so that outer half appears nearly vertical; lower margin very minutely and closely denticulate to end of finger; just above margin a row of separated

spinules. Merus of legs striated on upper half of outer surface; dactyli cut half way to form two subequal hooks.

Distribution. — Sooloo Sea, 6 $\frac{1}{2}$ fathoms (DANA).

Porcellana dispar STIMPSON. Proc. Acad. Nat. Sci. Phila., X, 1858, p. 242 [80]; Smithson. Misc. Coll., XLIX, 1907, p. 190, pl. XXIII, fig. 3.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 small ♀.

Length of carapace 2.8, width 2.9 mm. Compared with larger specimens in the U. S. National Museum, from Neutral Bay, Port Jackson. The small specimen lacks the minor cheliped and the three pairs of ambulatory legs. The lateral margins of the branchial regions have 4 spinules on the left side and 3 on the right. The transverse striae of carpus and propodus of cheliped are very strongly marked, and those articles are a little broader in proportion to their length than in old specimens; the upper surface of the carpus has two ridges besides the outer marginal one, the inner ridge is near the inner margin which in this case has two teeth close together midway of its length.

Distribution. — E. Australia: Port Curtis to Port Stephens.

Porcellana latifrons STIMPSON. Proc. Acad. Nat. Sci. Phila., X, 1858, p. 243 [81]; Smithson. Misc. Coll., XLIX, 1907, p. 190, pl. XXIII, fig. 4.

Porcellana (Porcellana) latifrons DE MAN, Arch. f. Naturg., LIII, 1887 (1888), p. 415.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♂ 1 ♀; 72 to 80 feet; 3 ♂.

Distribution. — Japan: Between Katonaisima and Ousima Islands (STIMPSON). China: East side of Hongkong (STIMPSON). Java: Edam Island (DE MAN).

Polyonyx tuberculosus DE MAN, var. (Plate 1, Fig. 17).

Porcellana (Polyonyx) sp., DE MAN, Arch. f. Naturg., LIII, 1887, p. 424, pl. XIII, fig. 1.

Porcellana (Polyonyx) tuberculosa DE MAN, loc. cit.

Polyonyx tuberculosus ZEHNTNER, Rev. Suisse Zool., II, 1894, p. 184; not *P. tuberculosus* HENDERSON, 1893.

Cape Jaubert 45 miles W.S.W.; 72 feet; 7. VII. 11; 1 ♂ 2 ♀ (1 ovig.). 66 feet; 9. VII. 11; 1 ♀ ovig. without chelipeds or ambulatory legs.

Length of carapace of ovigerous ♀ 4.5, width 6.6 mm.

In the only specimens possessing chelipeds (2 ♀) the palms

are everywhere rough either with large and irregular punctae or mostly with low warty tubercles, which extend also on to the immovable finger, becoming smaller and rounder. In the major cheliped which in both cases is the left one, the lower margin of the propodus is margined by a furrow, this margin being minutely and obscurely denticulate in its distal two-fifths; upper margin thick and smooth, as is also that of the immovable finger. Prehensile edges crenulate, that of the fixed finger with a large triangular lobe at its middle which fits into a corresponding sinus in the dactylus, the tips of fingers crossing, the dactylus overlying the other which projects distally beyond. In the minor chela the roughness of surface is similar, the fine denticulation of the lower margin of the propodus is more evident and more extensive, extending fully half the length from the tip, a similar denticulation on the upper margin of the dactylus extends from the tip about two-fifths the length of the article; prehensile edges slightly sinuous, meeting when closed.

Carpus coarsely punctate except along margins where there are short parallel oblique furrows; no teeth on inner edge.

In DE MAN's type, a ♀ from Amboina, the anterior or inner margin of the carpus has two shallow teeth, the tubercles of the propodus are few, the tooth of the major immovable finger is much less prominent.

ZEHNTNER's specimens, all males, also from Amboina, approach the Australian ones in the roughness of the surface of the palms, but the major palm has the form of that of *P. biunguiculatus* as figured by DANA, with fingers widely gaping.

Distribution. — Amboina (DE MAN, ZEHNTNER).

Explanation of the plate.

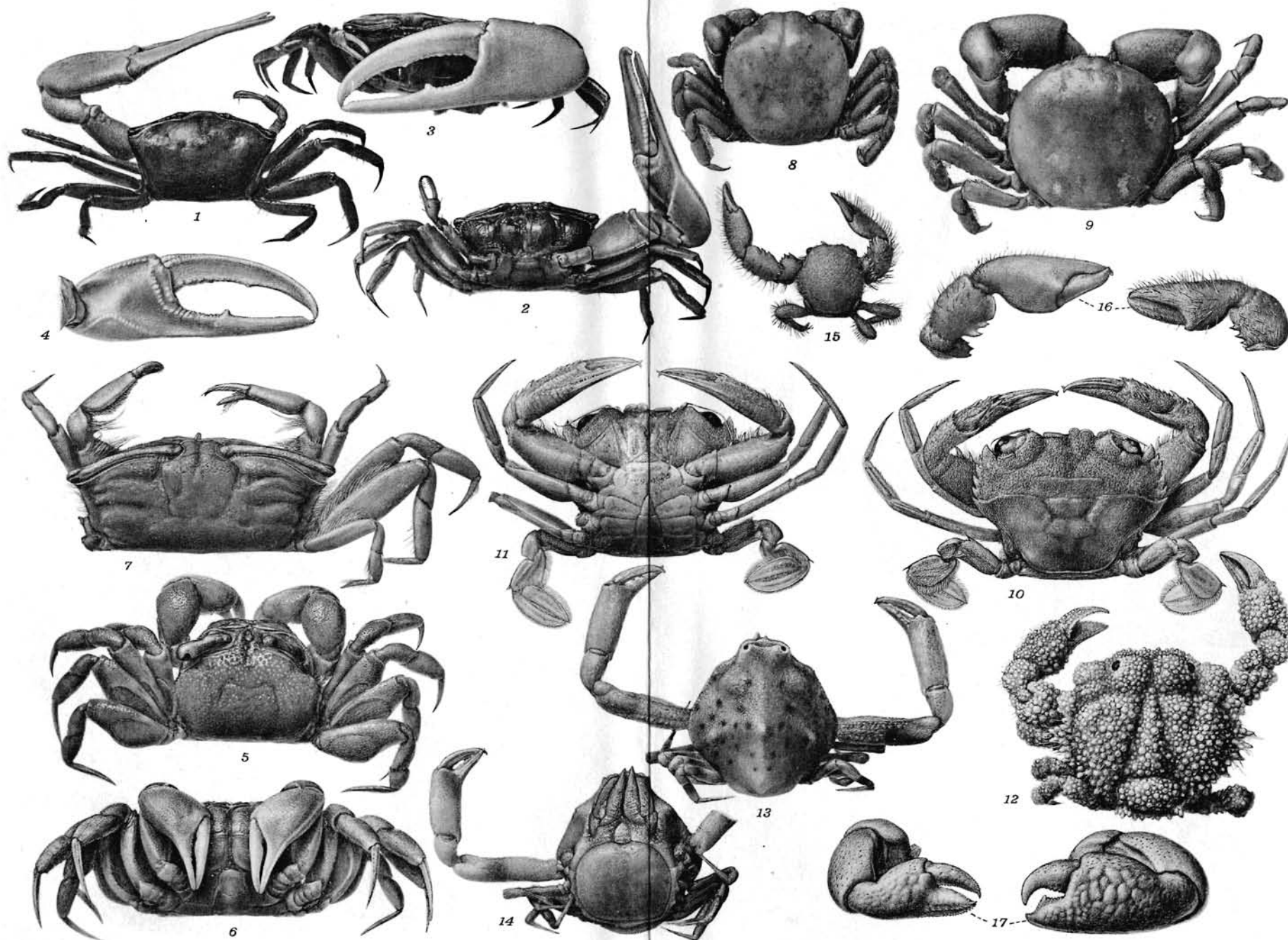
- Fig 1—4. *Uca mjöbergi* n. sp., ♂ type, × 2.
 » 5—6. *Scopimera inflata* A. M.-EDW., ♂, × 3.3.
 » 7. *Macrophthalmus sandakani* RATHB., ♂, × 3.4.
 » 8. *Pinnotheres villosulus* GUÉRIN, largest ♂, × 4.
 » 9. " *cardii* BÜRGER, ♂, × 4.1.
 » 10—11. *Charybdis jaubertensis* n. sp., type ♂, × 2.5.
 » 12. *Actaeomorpha sculpta* (HASW.), var.(?), × 8.
 » 13—14. *Philyra angularis* n. sp., × 6.
 » 15. *Porcellana suluensis* DANA, largest ♀, × 3.
 » 16. " " " chelae, × 6.5.
 » 17. *Polyonyx tuberculosus* DE MAN, chelipeds of ♀, × 5.2.

Text figures.

- Fig. 1. *Hyastenus minimus*, n. sp. Carapace of ovigerous ♀, Cape Jaubert, width 4.2 mm.
- » 2. *Scopimera inflata* A. M. E. Abdomen of ♂, Port Stephen, Cat. No. 54771, U. S. Nat. Mus. Carapace 11.1 mm. wide.
- » 3. *Macrophthalmus sandakani* RATHBUN. Right chela of ♂, Cape Jaubert, × 10.
- » 4. *Pinnotheres villosulus* GUÉRIN. Abdomen of ♂, Cape Jaubert. Carapace 6.1 mm. wide.
- » 5. *Pinnotheres cardii* BÜRGER. Abdomen of ♂, Broome. Carapace 7.5 mm. wide.
- » 6. *Pinnotheres cardii* BÜRGER. Outer maxilliped of ♀, Broome, × 32.
- » 7. *Actaea acies* RATHB., var., ♀, Cape Jaubert, × 3.6



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