With very many thanks for much assistance.
A. R. McCulloch.

Mary J. Rathbun.

McCulloch

RECORDS

OF THE

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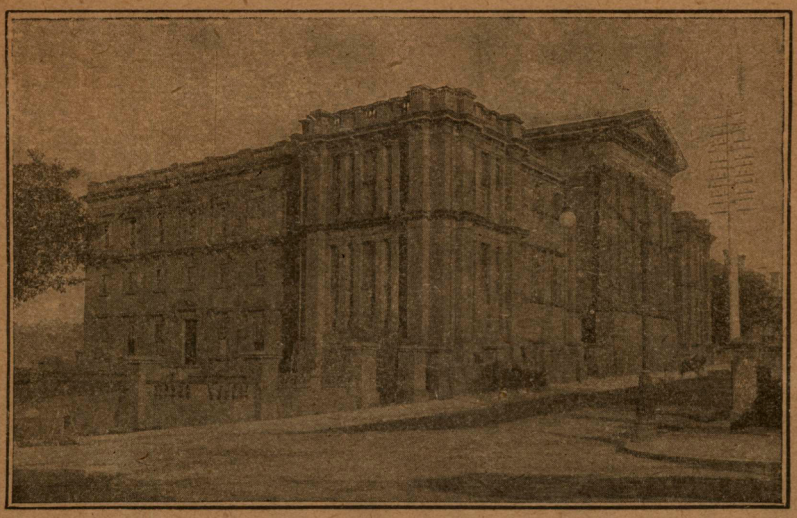

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CONTENTS.

STUDIES IN AUSTRALIAN CRUSTACEA.

No. 3.*

By ALLAN R. MCCULLOCH, Zoologist, Australian Museum.

(Plates x.-xi., and Figs. 42-53).

Family OCYPODIDÆ.

EUPLAX TRIDENTATA, *A. Milne Edwards.*

Cleistostoma tridentatum, A. Milne Edwards, Journ. Mus. Godeff., i., iv., 1873, p. 82.

Chænostoma tridentatum, de Man, Jahrb. Hamburgischen Wiss. Anstalten, xiii., 1896, pp. 93-95, pl. iii., fig. 5, 5*a*, 5*b* (not fig. 4).

Metaplax hirsutimana, Grant and McCulloch, Proc. Linn. Soc. N. S. Wales, xxxi., 1906, p. 21, pl. i., fig. 3, 3*a*, 3*b*.

Miss M. J. Rathbun has kindly examined specimens of our *M. hirsutimana* and writes as follows:—"It is quite a puzzling case and belongs to the Family Ocypodidæ, Subfamily Macrophthalminæ.

"In 1873 A. Milne Edwards described *Cleistostoma tridentatum* from Upolu and gave as its collection number 3666*a*. In 1896, de Man described and figured, as he supposed, the remnants of the type specimen (♂) of *C. tridentatum*, A. M. Edw.; he figured the front, maxillipeds and claw, and described the abdomen also. He says that on the bottle there is a label No. 2429, Australia, and inside is the number 3666*a*, and therefore it is doubtful whether it came from Australia or Upolu. The specimen described and figured by de Man is, I think, the same species as your *hirsutimana*, and probably came from Australia. If de Man really handled the type specimen, then A. Milne Edwards' description is quite inadequate.

"De Man further says that the species manifestly does not belong to the genus *Cleistostoma*, in which the maxillipeds fit close together, but perhaps to the genus *Chænostoma*, Stimpson. I agree with him that it is not a *Cleistostoma*, but would call it

* For No. 2 see Vol. vii., p. 305.

Euplax, H. M. Edw. (=*Chænostoma*, Stimpson). I have compared it with *E. boscii*, Audouin. If, then, we accept de Man's identification, your species would be known as *Euplax tridentata*, A. Milne Edwards, with the type locality probably Australia."

The types of *M. hirsutimana* were taken on the mud-flats at the mouth of Auckland Creek, Port Curtis, Queensland, where it was common. I have since collected it at Ryde and Parramatta, Parramatta River, New South Wales, where it burrows in the mud among the mangroves just below the high water mark. Its colour when alive is brownish grey, with darker marblings on the carapace and legs; the external maxillipeds and pterygostomian regions are white with a broad brown longitudinal bar on either side of the buccal cavern. The abdomen and hands of the males are violet, and the fingers orange. Length of carapace, 10·5 mm.

Family GRAPSIDÆ.

SESARMA SMITHII, *Milne Edwards.*

Sesarma smithii, Milne Edwards, Arch. Mus. Paris, vii., 1855, p. 149, pl. ix., fig. 2. *Id.*, Ortmann, Zool. Jahrb., vii., 1894, p. 722—references.

The Australian Museum collection includes two Queensland examples of this species; one from Yeppoon, near Rockhampton, and another from the Annan River, Cooktown (Coll. Hedley and McCulloch, Aug., 1906). It has not been previously recognised from Australia.

SESARMA MEINERTI, *de Man.*

Sesarma meinerti (de Man), Alcock, Journ. Asiat. Soc. Bengal, lxix., 1900, p. 417.

Three fine specimens are in the collection from Cooktown, which were received from Mr. E. A. C. Olive. They are apparently the first of this species recorded from Australia.

Of the nine species of *Sesarma* recorded from Australia, only five are in the Australian Museum; they may be distinguished as follows:—

a. Upper surface of the hand of the male with oblique comb-like ridges.

b. Sides of the carapace without teeth...*erythrodactyla.*

bb. Sides of the carapace with one tooth behind the orbital angle .....*bidens.*

aa. No oblique comb-like ridges on the hand.

c. Breadth between the outer orbital angles greater than the length ....*meinerti*.

cc. Breadth less than the length.

d. Two teeth behind the orbital angle; greatest breadth between the posterior teeth. ...*smithii*.

dd. One tooth behind the orbital angle; carapace expanded behind ....*atrorubens*.

The type specimen of *S. atrorubens*, Hess,[1] was said to come from Sydney, together with many other tropical species which do not occur here. The species probably extends to Northern Australia, however, since it has been recorded from several localities in the East Indian Archipelago, New Guinea, and Fiji. Specimens are in the Australian Museum from the two latter localities and the Solomon Islands.

Hess also gave Sydney as the locality for his *S. rotundata*, *S. similis* (=*S. impressa*, M. Edw.),[2] and *S. schutteii* (=*S. gracilipes*, M. Edw.),[2] but they have not since been taken here, though they are recorded from various tropical localities.

Family GONOPLACIDÆ.

LITOCHEIRA BISPINOSA, *Kinahan*.

(Fig. 42).

Litocheira bispinosa, Kinahan, Journ. Roy. Dublin Soc., i., 1858, p. 121, pl. iii., fig. 1. *Id*, Miers, Zool. "Alert," 1884, p. 243; *Id.*, Miers, "Challenger" Rept., Zool., xvii., 1886, p. 232. *Id.*, Grant in Sayce, Vict. Nat., xviii., 1902, p. 154. *Id.*, Fulton and Grant, Proc. Roy. Soc. Viet., xix. (n.s.), 1906, pp. 9, 18.

Melia ? brevipes, Haswell, Proc. Linn. Soc. N.S. Wales, vi., 1881, p. 545, and Cat. Austr. Crust., 1882, p. 72, pl. i., fig. 7.

? *Brachygrapsus lævis*, Kingsley, Proc. Acad. Nat. Sci. Philad., 1880, p. 203.

A fine series of specimens has been presented to the Australian Museum by Mr. C. T. Harrison, who collected them at Hobart,

[1] Hess—Arch. Nat., xxxi., 1865, p. 23, pl. vi., fig. 12.
[2] *Fide* de Man—Zool. Jahrb., 1887, ii., pp. 645 and 653.

Tasmania. Others are in the collection from Griffith Point (type of *M. brevipes*) and Port Phillip, Victoria; St. Vincent Gulf, South Australia; and near Albany, West Australia. Miers ("Alert") has noted that there are specimens in the British Museum from Port Curtis, Queensland, while in the "Challenger" Report he has added Bass Strait and King George Sound

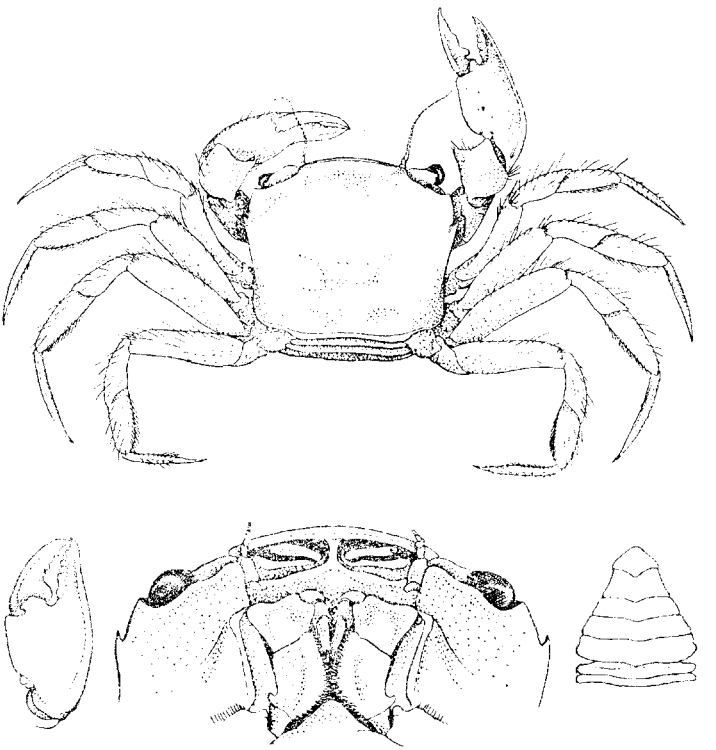

Fig. 42.

to the list of localities. Kinahan's type was dredged in 15 fathoms, Port Phillip, while he also referred to others in the British Museum which were said to be collected by Macgillivray in Torres Strait. These last are not noticed by Miers unless they be the Bass Strait specimens he mentions. At any rate, I think the Port Curtis and Torres Strait localities need verification.

If *Brachygrapsus lævis*, Kingsley, is identical with this species, as seems probable, then its range must be extended to New Zealand.

Family XANTHIDÆ.

PILUMNUS SEMILANATUS, *Miers.*

(Fig. 43).

Pilumnus semilanatus, Miers, Zool. "Alert," 1884, p. 222, pl. xxii., fig. 13, and "Challenger" Rept., Zool., xvii., 1886, p. 149. *Id.*, Grant and McCulloch, Proc. Linn. Soc. N. S. Wales, xxxi., 1906, p. 17.

Miers' figure apparently represents the young of this species. In large specimens the hairs on the carapace and legs are much

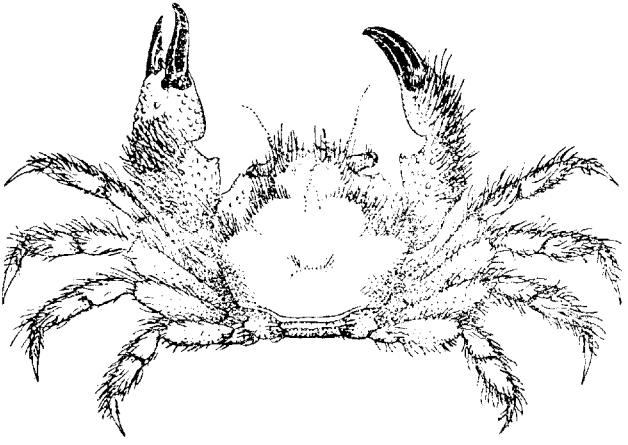

Fig. 43.

longer and more shaggy than he shows them, though their distribution appears to be the same. I therefore give a figure of a full-grown specimen measuring 18 mm. across the carapace.

Examples are in the Australian Museum from Port Curtis and Port Denison, Queensland, while I have also examined one from Port Hedland, North-Western Australia.

Genus MEGAMETOPE, *Filhol.*

Megametope, Filhol, Miss. l'ile Campbell, Crust., 1886, p. 373 (*Xantho rotundifrons*, Milne Edwards).

Gabrielia, McCulloch, Rec. Austr. Mus., vii., 1908, p. 54 (*Cyclo-xanthus haswelli*, Fulton and Grant).

Megametope was published by Filhol only as a MS. name which was attached to the type of *Xantho rotundifrons*[3] in the Paris Museum, but the fact that it was definitely associated with a species entitles it to stand as a generic name. *Gabrielia*, mihi, is synonymous with it, while judging from Filhol's figure (pl. xliv., fig. 3), *G. haswelli*,[4] Fulton and Grant, is very probably identical with *M. rotundifrons*.

Family MAIIDÆ.

Subfamily INACHINÆ.

Genus NAXIA, *Latreille.*

Naxia, Leach in Latreille, Encycl. Meth., Entom., x., 1825, p. 140—type *Pisa aurita*, Latreille (not *Naxia*, M. Edwards =*Naxioides*).

Naxia, Rathbun, Proc. Biol. Soc. Wash., xi., 1897, pp. 157-8.

Halimus, Latreille, Encycl. Meth., Entom., x., 1825, p. 700 (no type mentioned).

Halimus, Latreille, Fam. nat., p. 272 (*fide* Milne Edwards).

Halimus, Latreille, Cuv. Règne Anim., 2 ed., iv., 1829, p. 60 (type *H. aries*, Latreille).

Halimus, Milne Edwards, Hist. Nat. Crust., i., 1834, p. 340.

Kalimus, Griffiths, Cuv. Anim. Kingdom, xiii., 1833, p. 168, (misprint).

From the fact that Latreille definitely fixed *Pisa aurita* as the type of *Naxia*, and as that species is congeneric with *Halimus aries*, there seems to be no doubt that *Naxia* must be used instead of the generally accepted *Halimus*.

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[3] Milne Edwards—Hist. Nat. Crust., i., 1834, p. 397.

[4] Fulton and Grant—Proc. Roy. Soc. Vict., xix. (n.s.), 1906, p. 6, pl. iii.; McCulloch—Rec. Austr. Mus., vii., 1908, p. 54, pl. xii., fig. 5, 5*a*.